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December 15, 2022 01:00 AM GMT

The Future of Saudi Arabia

Emerging at 'Giga'speed

Saudi Arabia is undergoing an unprecedented transformation with sweeping social and economic reforms, c. $1 trn in gigaproject commitments, and rapid demographic shifts. We project the future of Saudi into 2030, identifying underappreciated global implications across oil, contractors, luxury, renewables and more.

alphawise α Sustainability

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Contents

Emerging at 'Giga'speed

Saudi Arabia's 'giga'-scale reforms are gaining momentum and this is only the beginning: Saudi's extensive Vision 2030 economic and social reform program was launched in 2016 but has gained significant momentum this year. Political will behind reforms is high and the runway for continued momentum should extend into the next decade. We estimate giga, mega, and related project spending commitments to 2030 of c. $900bn (versus an estimated $50bn spent thus far). Meanwhile, ongoing social reforms are rapidly changing the domestic landscape and fueling all-time high consumer confidence. These include increasing women's rights and labour-force participation, easing social restrictions, and legal reforms aimed at improving ease of doing business.

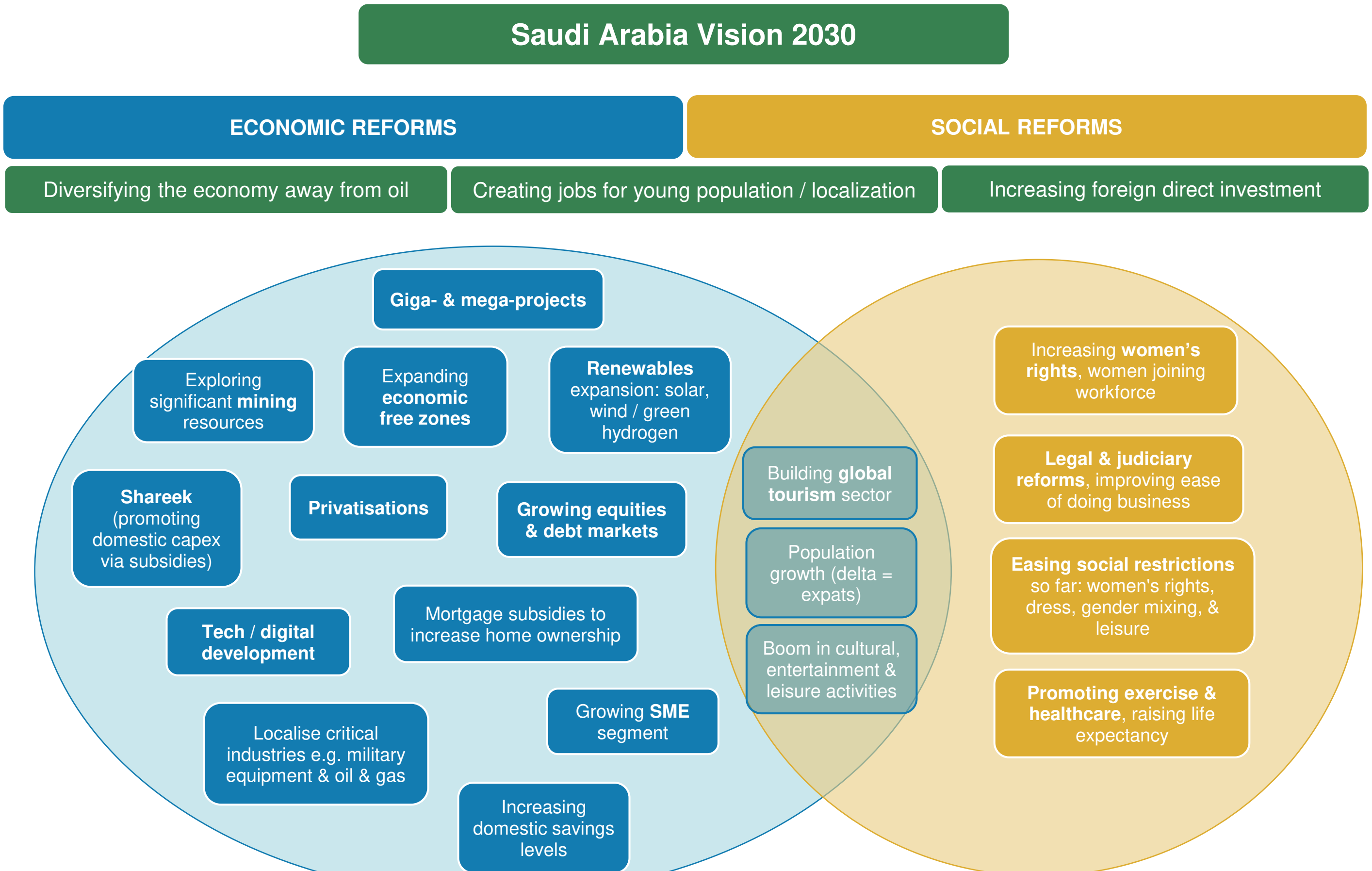
Our proprietary AlphaWise survey of Saudi Nationals and expats gives us unique insight into the rapidly changing future of the country. Demographic shifts are fast-paced - while 60% of employed Saudi National females in our survey began working in the last 2 years, nearly 60% of unemployed females plan to join the workforce in the next two years. Amid rising domestic incomes, major new job creation, and reforms, a rapidly growing female workforce implies a significant shift in wallet, financial product use, and family size. Simultaneously, government population growth targets imply a 4% CAGR to 2030 with the delta driven by already visible expat population growth.

Globally, we believe implications are underappreciated for oil, contracting, luxury, renewables, technology, and more: We back out necessary Brent oil fiscal break-even levels to sustain reform momentum and meet 2030 targets - we forecast break-evens may rise through the decade into the $80s vs current $73/bbl, pointing to possible supply support levels via OPEC+. Amid global sectors, contractors stand out as set to benefit from the start of a 'development super-cycle' in the Kingdom; Korean and Indian contractors in particular have meaningful exposures and are already seeing healthy margins. In global luxury, we note comments from the CEO of Italian luxury group Zegna: '*The new Hong Kong is Dubai. And next it will be Saudi Arabia*.' Our survey supports this outlook.

We have worked with20+ global sector teams, collecting c. 20 global stocks with exposure to Saudi Arabia's Vision 2030. Domestically, we highlight stocks directly aligned with reforms, population growth, and shifting wallets. In Saudi banks (50% of index), we dive into what is needed to unlock longer-term transmission mechanisms amid the current funding conundrum.

Saudi Arabia's Vision 2030 at a Glance

Exhibit 1: The major pillars and components of Saudi Arabia's Vision 2030 reforms



Source: Morgan Stanley research

Exhibit 2: Snapshot of Saudi Arabia's key giga- and mega-projects

	NEOM	ROSHN Project	Diriyah Gate	Riyadh's 4 Mega-Projects	Jeddah Central Project	Red Sea Project	AlUla	Qiddiya
Vision	**A major, futuristic city being built in northwestern Saudi Arabia.** It will incorporate smart city technologies, be powered by renewables and serve as a tourist destination	**Residential community development** in 9 cities across 4 regions as part of the Vision 2030 target of 70% Saudi home ownership	**Mixed use urban community and tourism destination**	**King Salman Park** (KSP): large-scale public park and urban district. **Sports Boulevard**: recreational and commercial complex. **Green Riyadh** and **Riyadh Art**	Includes four landmarks: **opera house, museum, sports stadium** and **oceanarium**	**A luxury and eco resort destination** spread across islands, beaches, desert, mountains, and volcanic areas	**Living museum and destination for heritage, nature, arts and culture**	**Entertainment destination** that is being built around 5 cornerstones: Parks & Attractions, Sports & Wellness, Motion & Mobility, Arts & Culture and Nature & Environment
Size (km^2)	26,500	>200	7	>20	6	28,000	22,500	334
Estimated cost	$500bn (Phase 1 - $320bn by 2030, 50% to be financed by PIF)	$90bn	$40bn	$23bn	$20bn	$16bn	$15bn	$9bn
Targeted completion	Phase 1 by 2030; Sindalah in early 2024; Trojena by 2026; Oxagon by 2030; THE LINE's 1st phase by 2030 with 1st residents by 2024	Overall project by 2030; SEDRA by 2027; *SEDRA Phase 1 was completed in Nov'22*	Completion by 2026; new assets to be opened every year from 2022; *Dec '22 opening of At-Turaif district (UNESCO World Heritage Site)*	Riyadh Art by 2023; KSP by 2024; Sports Boulevard by 2027; Green Riyadh by 2030	Implementation in 3 phases: Phase 1 by YE27; Phase 2 by 2030; Phase 3 after 2030	2 phases: Phase 1 by YE23; Phase 2 by 2030; 16 resorts to be opened in 2023 and 50 more by 2030	Completion by 2035 in 3 phases; Phase 1 by 2023; Phase 2 by 2030; Phase 3 by 2035	3 phases: Phase 1 by 2022 & opening scheduled in 2023; Phase 2 by 2025; Phase 3 by 2030
Location	Tabuk Province	Multiple (9 cities)	Riyadh	Riyadh	Jeddah	Tabuk Province	Medina Province	Riyadh

Source: projects webpages, reports from MEED, Knight Frank and other news providers and Morgan Stanley Research

Exhibit 3: Key giga- and mega-project locations

Source: Map data ©2022 Google and Morgan Stanley Research

How to Read this Report and Key Conclusions

Saudi Arabia's Vision 2030 reforms are transformational, large-scale, rapid, and complex. While we cannot cover the entirety of the country's multi-dimensional reform program, we analyze what we see as key elements from a market perspective at this stage. We leverage our global platform, proprietary AlphaWise survey work, discussions with local reform experts, channel checks, and cross-asset, cross-sector team to project the 'Future of Saudi Arabia', identifying underappreciated exposures around the world.

To the Global Investor - An Opportunity of Global Scale

Our conversations with global investors suggest there is a lack of understanding of or attention on Saudi's unprecedented reform program. We believe this should and will change. Our message in this report is that **Saudi Arabia's Vision 2030 reforms are substantial, the high political will behind ambitious targets is real, and momentum is clearly visible**. That said, this is still only the beginning and **global markets under-appreciate the implications** for oil prices as well as various avenues of exposure: local technology, Korean and Indian contracting, Chinese solar module manufacturing, and global luxury goods. Our global and local economists and strategists also analyze the foundations of reforms comparing to other countries and assessing crucial drivers such as technology and longer-term implications for demographics. Through the decade, Saudi's high growth is likely to be more structural than cyclical.

To the Local Investor - Projecting the 'Future of Saudi Arabia'

With local investors in touch with the daily realities of fast-paced and large-scale reforms, **we take a step back to project what these changes mean for the 'Future of Saudi Arabia' through the end of the decade**. Our **AlphaWise survey of 2,189 Saudi Nationals and 1,017 expats** gives us a unique insight on how demographics, attitudes, wallets, and financial product use are shifting and likely to continue to shift longer-term. In particular, we analyze how habits and preferences are changing for women entering the workforce, Gen Z (60% of Saudi Nationals are under 30), and expats which make up the biggest delta in the country's accelerating population growth. We identify key stock and sector winners from reforms and **analyze how banks can return to a stronger transmission mechanism of growth to earnings**, amid their current funding conundrum.

To the EM Investor - Saudi's Rise within Emerging Markets

GEM investors tend to be a cross of the two groups above. With positioning in Saudi and the Middle East still well below benchmark for GEM funds, **we analyze Saudi's privatization program and ambitious targets to be a top global financial market**. With Saudi having only joined MSCI EM in 2019 and rapidly rising in weight since, we emphasize both our fundamental and privatization work indicate this rise is largely structural. Indeed, Saudi is a 'truly emerging' emerging market, in some ways as India and China were in the 1990s. Government market cap to GDP targets imply that **by 2030 the equities market cap of Saudi (ex Aramco) may double from $730bn today to $1.5trn. This would put Saudi's equities market on par with today's Korea or Australia**.

Exhibit 4: Ways to play key Vision 2030 Themes - at home and around the world

Market-moving V2030 Themes	Our Approach & Key Conclusions	Ways to Play It…
Giga & Mega-Projects	Bottom-up project-by-project analysis, discussions with local reform experts, channel checks with local & global companies ⇩ ▪ Estimated **$900bn in incremental committed spending** to 2030 ▪ **Ramp-up evident,** $50bn (e) spent so far, extensive hiring and contract awards. ▪ **Implied oil price fiscal break-evens c. $76-86/bbl** through the cycle to support reforms	Korean, Indian & EU Contracting: LARSEN & TOUBRO; SAMSUNG C&T Oil, Steel, Mining & Cement: TOTAL Saudi & Global Banks
Social Reforms Rise of Saudi Women & Expats	Demographics deep dive, AlphaWise survey ⇩ ▪ **Growth of Workforce –** Estimated growth in employed Saudi females of 60% to 2030, driving c. 17% increase in Saudi workforce. ▪ **Highly Educated -** 70% of unemployed SN females have bachelor degree or higher (vs 34% for unempl. SN males) = possible longer-term boost to productivity ▪ **Population Growth -** 4.4% population growth CAGR to 2030 driven by expats & reforms	Food Delivery: Delivery Hero; Jahez Saudi Telcos: موبايلي mobily Luxury & Autos: RICHEMONT; Ferrari Saudi & Global Banks Saudi Staples, Hospitals, Health Insurance, Midcaps
Renewables Transition	Discussions with renewables experts, local & global companies ⇩ ▪ **59 GW installed capacity of renewables targeted in KSA by 2030.** 7 GW tendered so far – Solar 40 GW, Wind 16 GW. Our analysis points to strong economic rationale and favourable local conditions.	China Solar Module Manufacturing: JA SOLAR Industrial Gases / Hydrogen: AIR PRODUCTS
Technology, Digital Development & Privatisation	Global Thematics strategy analysis of digital/venture opportunity, Privatization deep-dive ⇩ ▪ **Total Saudi equities market cap (ex Aramco) may double** from $730bn today to $1.5trn by 2030, we estimate. This would put Saudi's equities market on par with today's Korea or Australia. ▪ **Next 5 years should see $1 trn of capital deployed** across the Middle East in venture funding – by 2030 this could rise to >$3 trn.	IT Services: solutions by stc Fintech/Payments: network Global Banks: HSBC Saudi Banks & Exchanges

Source: Morgan Stanley Research

Exhibit 5: We highlight 20 global stocks with exposure to Saudi Arabia's Vision 2030

Name	Ticker	Country	Sector	Industry	Analyst	Mkt Cap (USDm)	3M ADTV (USDm)	Last price (local ccy)
LVMH	MC FP	France	C. Discretionary	Apparel & Luxury Goods	Aubin, Edouard	379,680	268	727
Toyota Motor	7203 JT	Japan	C. Discretionary	Automobiles	Kakiuchi, Shinji	232,817	355	1,969
Hermes	RMS FP	France	C. Discretionary	Apparel & Luxury Goods	Aubin, Edouard	170,814	105	1,562
Total	TTE FP	France	Energy	Oil, Gas & Consumable Fuels	Rats, Martijn	156,214	319	57.9
HSBC	5 HK	Hong Kong	Financials	Banks	Lord, Nick	122,244	120	47.7
Richemont	CFR SE	Switzerland	C. Discretionary	Apparel & Luxury Gooods	Aubin, Edouard	75,341	114	122.8
Air Products	APD UN	US	Materials	Chemicals	Andrews, Vincent	70,927	92	319.5
Ferrari	RACE UN	Italy	C. Discretionary	Automobiles	Jonas, Adam	40,593	73	222.5
Larsen & Toubro (L&T)	LT IS	India	Industrials	Construction & Engineering	Achhipalia, Girish	36,775	46	2,173
Hyundai Motor	005380 KP	S. Korea	C. Discretionary	Automobiles	Shin, Young Suk	26,707	94	159,500
Standard Chartered Bank	2888 HK	Hong Kong	Financials	Banks	Lord, Nick	21,165	43	57.5
JA Solar	002459 CS	China	Info Technology	Semiconductors	Lee, Simon	19,046	163	55.0
Samsung C&T	028260 KP	S. Korea	Industrials	Industrial Conglomerates	Seok, Joon	16,787	23	118,500
Kerry Group	KYGA ID	Ireland	C. Staples	Food Products	De Neve, Lisa	16,004	29	85.8
Moncler	MONC IM	Italy	C. Discretionary	Apparel & Luxury Goods	Aubin, Edouard	14,438	37	51.7
Lucid Group	LCID US	US	C. Discretionary	Automobiles	Jonas, Adam	13,914	270	8.3
Delivery Hero	DHER GY	Germany	C. Discretionary	Internet	Josiah, Miriam	11,169	28	43.7
Samsung Engineering	028050 KP	S. Korea	Industrials	Construction & Engineering	Seok, Joon	3,454	21	22,800
Hyundai E&C	000720 KP	S. Korea	Industrials	Construction & Engineering	Non-covered	3,133	21	36,550
GS E&C	006360 KP	S. Korea	Industrials	Construction & Engineering	Non-covered	1,482	20	22,650

Source: Bloomberg and Morgan Stanley Research

Risks

The key risk to our constructive views on Saudi Arabia's Vision 2030 reform program is our assumption of higher for longer oil prices. Currently, Saudi Arabia's fiscal breakeven oil price is c. $73/bbl on IMF estimates. The IMF projects this to fall to $67/bbl in 2023 while we estimate that significant economic reform commitments may mean the country's fiscal breakevens rise into the $80s. While this could influence OPEC+ decision making, at the same time a sustained fall in oil prices below current or future fiscal breakevens may also dent reform momentum. Indeed, historically, Saudi government spending has tended to slow down in periods of declining oil prices. That said, our oil strategist, Martijn Rats, holds a constructive long-term view on oil prices on the back of continued supply underinvestment which is no longer reacting to price signals on a number of structural drivers (decarbonization first and foremost, capital discipline, supply chain bottlenecks, geopolitics) and likely insufficient to meet long-term demand.

Other risks include execution of gigaprojects (pace, delivery, cost overrun potential), possible payment delays as have occurred in the Middle East region historically, geopolitics, ESG (disclosure, scores, top-down regulation, though we note Saudi Arabia's rapid 'rate of change' which is a more meaningful driver of performance), and domestic sector risks (wallet shift is not positive for all, funding challenges in banks). We also assess risks beyond 2030 such as how current rapid demographic shifts may require important policy adjustments down the line.

Economic Reform Commitments and Momentum

At least $900bn in giga-, mega-, and related project spending commitments to 2030: In order to assess Saudi Arabia's giga-, mega-, and related project spending commitments we have built a key project-by-project database using data from Knight Frank, MEED, and cross-checking with official government guidance (Exhibit 6). Overall we estimate $951bn in spending commitments to 2030 of which c. $54bn has already been spent. Spending and project development is set to continue beyond 2030. For example, the government's largest project, NEOM, is expected to complete Phase 1 in 2030 (estimated $320bn cost), though the total cost is estimated to be at least $500bn.

Exhibit 6: Saudi's giga, mega, and related project spending commitments into 2030

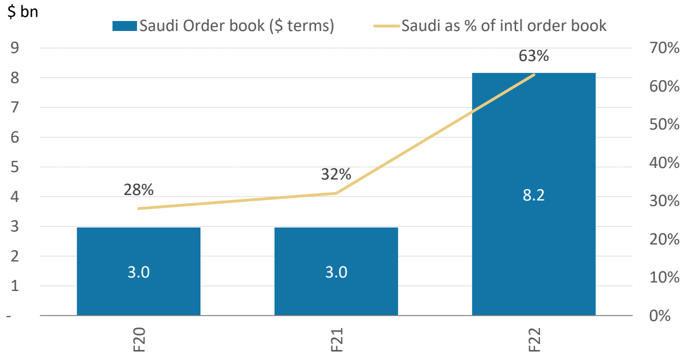
	Expected completion	Project value (USDbn)	Value of commissioned projects to-date (USDbn)	Commissioned contracts: construction progress
Giga-Projects				
NEOM Phase 1	2030	320.0	7.5	29%
Jeddah Economic City	-	30.0	1.7	74%
Diriyah Gate	2026	40.0	5.0	46%
Jeddah Central Project	2030	20.0		
Red Sea Project	2030	16.0	3.2	57%
AlUla	2035	15.0	0.7	49%
King Abdullah Financial District	2030	10.5	10.0	98%
Qiddiya	2030	8.8	2.5	61%
Thakher	2030	8.0	1.0	100%
King Abdullah Economic City	-	8.0	4.5	95%
Riyadh's Mega-Projects				
Dahiyat Al Fursan	2027	20.0		
King Salman Park	2024	17.0	1.2	30%
SEDRA community	2027	13.0	6.3	31%
AL WIDYAN	2025	5.0	0.3	98%
Other projects				
Infrastructure		200.0		
Education		82.0		
Other projects		77.0		
Wellbeing, sports, entertainment & recreation		24.0		
Healthcare		13.8		
Other		23.3	10.0	
Total		**951**	**54**	

*Total spending estimated at $500bn including $320bn by 2030; Note: data as of September/October 2022; Source: Knight Frank, MEED Projects and Morgan Stanley Research

Momentum in project execution: Saudi Arabia's giga- and mega-project execution momentum has quickly shifted from a 'gradual' pick-up of select projects in 2021 to broad-based acceleration this year. We include highlights for four of Saudi Arabia's largest gigaprojects from our extensive project progress tracker below. For key details on these and other projects including size, estimated cost, and estimated completion, see Exhibit 3 .

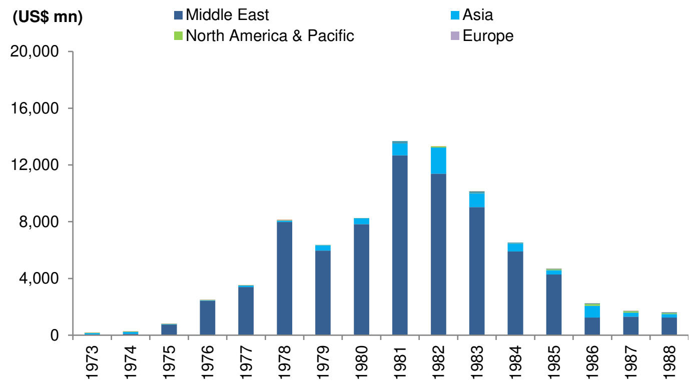
- **Flagship NEOM project**: June saw the launch of regular international flights from the NEOM Bay Airport and the signing of an MoU to build NEOM's first 100% renewable energy-powered desalination plant. In October, **Saudi Arabia won the bid for the 2029 Asian Winter Games which it plans to host in Trojena, NEOM**. In the same month, construction of 'The Line' began with related contract awards in the months prior (including to Samsung C&T). In November, an MoU was signed with Hyundai Rotem to develop railway infrastructure.
- **Red Sea Project**: In May, the Ritz Carlton, Miravel, and Rosewood signed deals to operate resorts on the Red Sea, bringing the number of confirmed hospitality brands on the project to 12. August saw the completion of structural work on the 1.2km Shura Bridge which connects mainland KSA to the Red Sea's central hub island. In the same month, Red Sea Global, awarded over $8bn in contracts related to the project.
- **Diriyah Gate**: On December 4, Diriyah opened its UNESCO World Heritage Site, the At-Turaif district, as well as culinary district Bujairi Terrace, to the public in Riyadh. The opening event included delegates from the World Travel and Tourism Council and CEOs of global hotel and airline companies. In November Diriyah Gate signed 16 new global hotel brands to its hospitality portfolio bringing the total to 32.
- **ROSHN:** After launching its flagship Riyadh community 'SEDRA' in mid-2020 (consisting of 30k homes), in November ROSHN began the handover process of keys and title deeds for villas and townhouses ahead of schedule for Phase 1.

Exhibit 7: Our global contracting analysts' channel checks also indicate Saudi contract awards are rising e.g. Saudi's contribution to India's L&T's order book has risen steeply from 32% in F21 to 63% in F22 (see section) ...



Source: Company data, Morgan Stanley Research

Exhibit 8: ... and our Korean contracting analyst believes we may be at the start of another decade long Saudi/M. East 'development super-cycle' as per the '70-80s & mid-2000s (see section)



Source: International Construction Association of Korea (ICAK), Morgan Stanley research

Further signs of rising economic reform momentum also visible: **Our global contracting analyst's channel checks** confirm rising momentum for Saudi Arabia's giga- and mega-project contract awards. This is especially the case for Korean, Indian, and select European contractors (see later sections here and here). Further, we highlight noteworthy progress on many of the Saudi Arabian government's original Vision 2030 targets when set out in 2016, with more to go (Exhibit 3). Our conversations with reform experts clearly and consistently indicate a high level of political will to continue the current pace of momentum.

Other notable economic reforms:

- **Rapid tourism and leisure sector development post social reforms**: In addition to large-scale projects, Saudi Arabia has greatly expanded its offering of leisure, cultural, and entertainment events which we discuss in detail in a later section .
- **Significant mining resource potential; seeking international partnerships:** Saudi Arabia's mining minister recently stated that the government plans to award 15 mining exploration licences to international investors as part of its plans to diversify away from oil, unlocking vast resource exploration potential across aluminium, phosphate, gold, copper, and uranium. Recent press reports indicated that Saudi may be seeking investment from Australian miners to support its $170bn plan to expand its mining industry (see here). Our Australian mining team discuss this opportunity in a later section .
- **Special economic zones to attract foreign manufacturing investment**: In October this year, Saudi Arabia opened its first integrated special-economic zone in Riyadh and announced Apple as one of its first tenants with advanced stage negotiations in place with 20 other multinational corporates according to KSA's Transport and Logistic's minister. This zone is built on 3 mn square meters and is seeking to attract foreign investment via a 50 year tax holiday, subsidized energy prices and/or renewables capabilities, and other attractive regulations.

Exhibit 9: Noteworthy progress on original Vision 2030 goals but more to go

	At announcement	Latest*	2030 Target
Economic Goals			
General Diversification			
Non-oil government revenue	$43bn	$107bn	$265bn
Share of non-oil exports in non-oil GDP	16%	23%	50%
Population size**	35mn	-	50mn
Private sector's contribution to GDP	40%	43%	65%
SME contribution to GDP	20%	-	35%
Household savings as a % of total household income	6%	-	10%
Investment			
PIF (Sovereign Wealth Fund) assets	$160bn	$620bn	$1.86trn
Tourism			
Tourism sector contribution to GDP	3.6%	-	10%
Number of tourist visits	41mn	-	100mn
Number of direct sector employees	579k	-	1.6mn
Become top-5 tourism destination globally	26	-	Top 5 globally
Social Goals			
General			
Household spending on cultural and entertainment activities	3%	-	6%
Ratio of individuals exercising at least once a week	13%	31%	40%
Average life expectancy (years)	74	75.5	80
Employment			
Unemployment rate	11.6%	9.7%	7.0%
Women % of Saudi National workforce	22%	30%	30%
Global Rankings			
Size of Economy (GDP)	19	18	Top 15
Global Competitiveness Index (World Bank)	25	24	Top 10
Government Effectiveness Index (World Bank)	80	69	Top 20
Stock Exchange**	-	9	Top 3

Source: Vision 2030; Morgan Stanley Research; Note: Latest* represents the latest metric data available from 2019 to 2022; **Targets announced in 2022, as opposed to 2016/2019 when the official targets were formed; Targets in SAR currency are converted to USD

Exhibit 10: Saudi Arabia's flagship giga-project NEOM includes a number of mega-projects which we summarize here; for broader giga-project summary see Exhibit 3

	THE LINE	SINDALAH	TROJENA	OXAGON
Vision	Large-scale residential unit with an aim to house 9mn residents, run on 100% renewable energy, and designed to have no cars.	NEOM's first luxury island and yacht club destination in the Red Sea.	A mountain tourism destination offering year-round outdoor skiing and adventure sports.	World's largest floating industrial complex planned to be built on 100% clean energy, shaped like an octagon and aimed to serve as port for Red Sea shipping routes.
Size	Length: 170km; width: 200m; area: 34km^2	0.84km^2	60km^2	48km^2
Estimated cost	Total $500bn (Phase 1 - $320bn by 2030, 50% to be financed by PIF)			
Targeted completion	1st residents by 2014; 1mn residents by 2030; ~9mn residents by 2045	Aiming to start operations in 2024	Completion by 2026	1st residents in 2024; Completion of all onshore developments + 90k residents by 2030; Logistics solutions by 2025
Project Contribution	To create 380k jobs; >5mn tourists by 2030	To create 3.5k jobs for the tourism sector and hospitality and leisure services; 2.4k visitors per day by 2028	700k tourists pa by 2030; 7k residents; 10k jobs; 3.6k+ hotel rooms; 2.2k homes	To create 70k jobs
Contribution to GDP	$48bn	NA	$0.8bn	NA

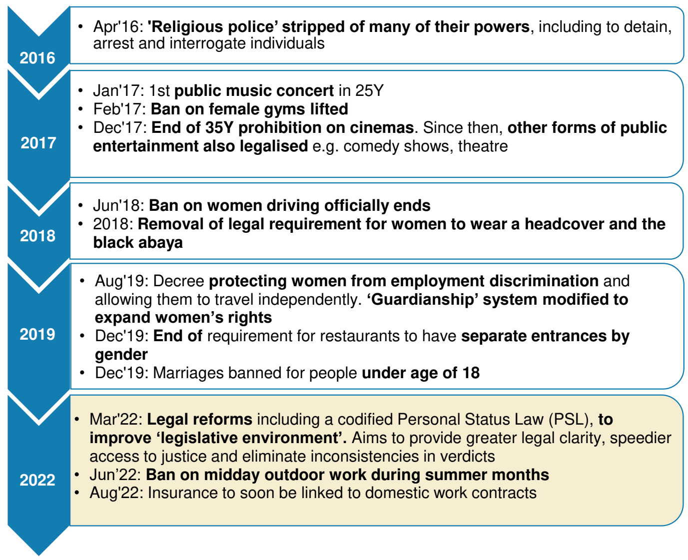
Source: NEOM, reports from MEED, other news providers and Morgan Stanley Research

Transformational Social Reforms

In recent years, Saudi Arabia has gone through a transformational and rapid easing of social restrictions, which continues to this day. We emphasize the immense scale of these changes and their unprecedented pace. In our own quarterly visits to Riyadh, the rapid shift of a country undergoing a phenomenal transformation is clearly evident with apparent changes on each and every trip. We summarize key social reforms in Exhibit 11 as well as below.

- 2016: The recent easing in Saudi Arabia's social restrictions largely began in 2016 with the introduction of Crown Prince Mohammed bin Salman's Vision 2030 reform plan. In 2016, the country's **Committee of Promotion of Virtue and Prevention of Vice (also known as the 'religious police') was stripped of many of its powers** including the ability to detain, arrest, and interrogate individuals.
- **2017:** Saudi Arabia held its **first public music concerts *in 25 years***, lifted a ban on female gyms, **ended a *35 year prohibition* on cinemas**, and legalized other forms of entertainment. Plans were announced to open more than 300 movie theatres by 2030.
- **2018:** Saudi Arabia lifted its decades-long, official ban on **women driving** and **removes the compulsory legal requirement for women to wear a headcover and the black abaya** as long as their attire is 'decent and respectful.' Implementation of this change came later. Saudi's cabinet also approved a bankruptcy law.
- **2019**: Women's rights were further expanded with protections against employment discrimination and **modifications to Saudi Arabia's long-standing 'guardianship' system**, now allowing women to travel abroad, obtain passports, work, and start a business without requiring permission from their male guardian. In the same year, women were allowed to serve as legal guardians to their children, marriages for those aged under 18 were banned, and restaurants were no longer required to have separate entrances for men and women, **easing the ban on gender-mixing.** A royal decree also allowed music to be played in restaurants. Foreign women's dress requirements were eased and foreign men and women were permitted to rent hotel rooms together without proving they are related. E-visas were launched for citizens of 49 countries.
- **2021**: New laws / **judicial reforms** introduced suggesting a move towards the **codification of laws** to increase consistency, clarity of rules, reliability of procedures and oversight measures, and certainty of outcome in Saudi Arabia's historically primarily Sharia law system. The announcement made specific mention of **women** as most affected from historical discrepancies in court rulings.
- **2022**: This year has seen **legal reforms** aimed at improving the country's legislative process (further increased clarity, elimination of inconsistencies, etc). The government has also introduced a ban on midday outdoor work during summer months, improving worker's rights and working conditions.

Exhibit 11: A snapshot of Saudi Arabia's transformational social reforms

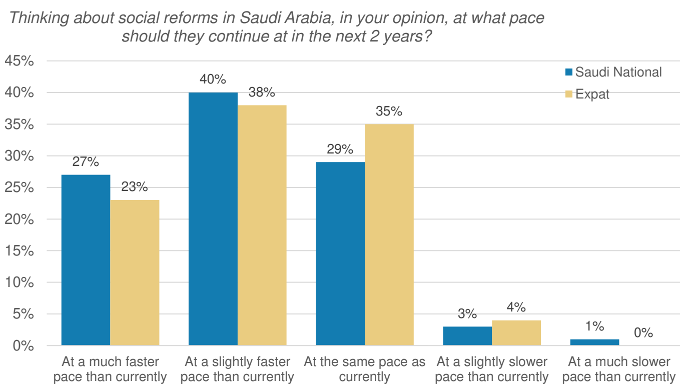


Source: Morgan Stanley Research

In the context of recent years' easing in social restrictions, **we also note the significant growth in large-scale leisure, entertainment, and tourism events in the Kingdom** which we cover in a later section .

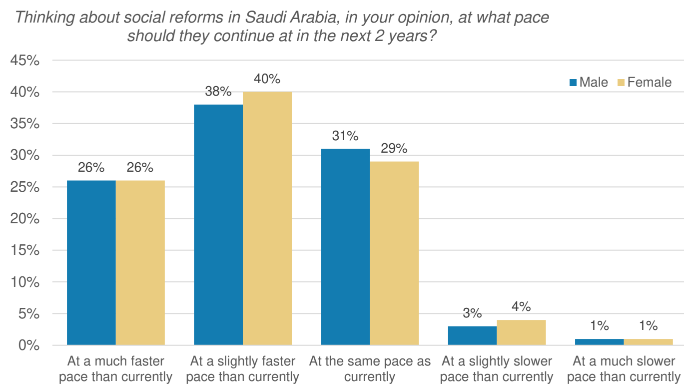
Our AlphaWise survey suggests that a majority of locals are embracing social reforms and welcome further change: As per the following exhibits, 67% of Saudi National respondents in our AlphaWise survey prefer that the country's ongoing social reforms continue at a faster pace. This is even higher than the 61% of our Saudi expat survey respondents. A slightly higher proportion of females in Saudi Arabia prefer that reforms continue at a faster pace as compared to males. In fact, across most major demographic subgroups (gender, age, education, income), the majority of our survey respondents prefer that social reforms continue at a faster pace. The groups where this is particularly the case are those that are more educated, higher income, and younger.

Exhibit 12: 67% of Saudi Nationals in our survey believe social reforms should continue at a faster pace, even higher than expats at 61%



Source: AlphaWise, Morgan Stanley Research

Exhibit 13: A slightly higher proportion of females in Saudi believe that social reforms should continue at a faster pace than males



Source: AlphaWise, Morgan Stanley Research

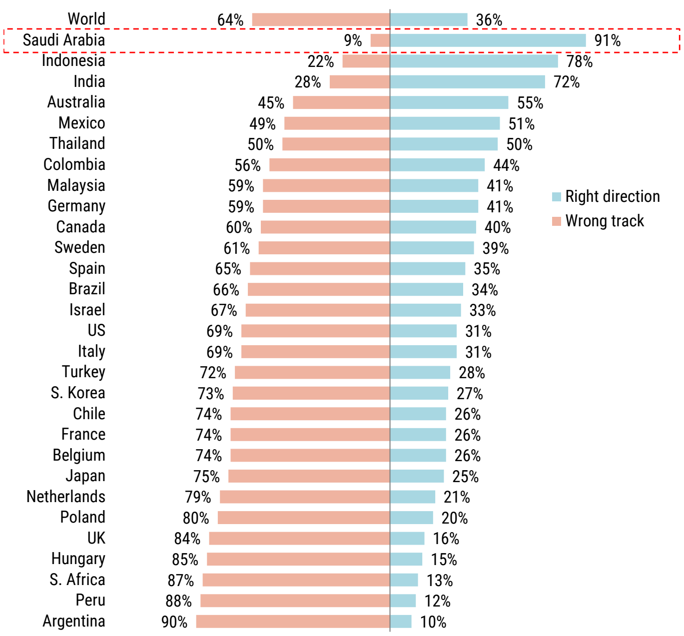
Exhibit 14: The majority of all key demographic subgroups in Saudi (by age, gender, income, education, place and city of residence) would prefer social reforms to continue at a faster pace - but especially those that are higher income, younger, more educated, and living in urban areas

		Men					Women				
		At a much faster pace than currently	**At a little faster** pace than currently	**At the same** pace as currently	**At a little slower** pace than currently	**At a much slower** pace than currently	**At a much faster** pace than currently	**At a little faster** pace than currently	**At the same** pace as currently	**At a little slower** pace than currently	**At a much slower** pace than currently
	Saudi National	29%	40%	26%	3%	1%	25%	38%	32%	4%	1%
	Expat	20%	39%	37%	3%	1%	24%	46%	26%	4%	0%
Saudi Nationals by different groups											
Generation	Gen Z	33%	43%	21%	3%	0%	27%	42%	27%	2%	2%
	Millennials	30%	36%	30%	3%	1%	28%	34%	32%	4%	2%
	Gen X	25%	45%	25%	2%	3%	17%	40%	37%	5%	1%
Education	Below degree level	31%	34%	29%	4%	2%	21%	32%	38%	7%	2%
	Degree level or above	29%	42%	26%	3%	1%	27%	42%	28%	2%	1%
Household income	< USD2.7k	31%	30%	37%	1%	0%	37%	23%	37%	3%	1%
	USD2.7k to USD5.3k	34%	28%	30%	4%	4%	21%	36%	36%	3%	3%
	USD5.3k to USD8k	26%	38%	28%	5%	3%	26%	35%	36%	1%	1%
	USD8k to USD13.3k	27%	45%	24%	3%	0%	21%	46%	26%	6%	1%
	> USD13.3k	28%	52%	17%	2%	0%	23%	48%	25%	3%	1%
Place of residence	Metropolitan / Urban	31%	40%	25%	2%	2%	26%	38%	31%	3%	1%
	Outskirts of a city & Rural	19%	37%	37%	7%	0%	17%	40%	35%	7%	1%
City of residence	Riyadh City	41%	32%	23%	3%	1%	31%	34%	30%	3%	2%
	Jeddah	26%	43%	26%	2%	3%	25%	41%	29%	3%	2%
	Dammam	32%	37%	27%	3%	1%	32%	31%	34%	3%	0%

Source: AlphaWise, Morgan Stanley Research

Exhibit 15: 91% of Saudi's believe their country is 'moving in the right direction' in contrast to much of the rest of the world ...

Ipsos Survey: Would you say things in this country are heading in the right direction, or are they off on the wrong track?



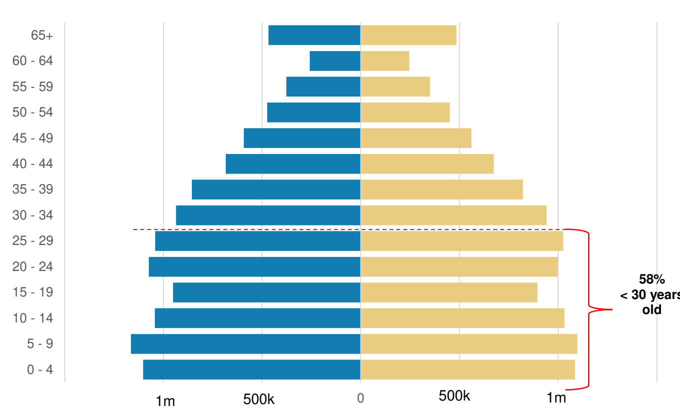
Note: Global score is a Global Country Average; Representative sample of 20,466 adults aged 16-74 in 29 participating countries, Oct 21st 2022 – Nov 4th 2022; Source: Ipsos Global Advisor and Morgan Stanley Research

We believe that social reforms are one of the primary reasons behind Saudi Arabia's exceptionally strong consumer confidence: Of course there are also other reasons such as economic reforms backed by higher-for-longer oil prices which are driving wage and employment growth as we describe in other sections of this report. But as suggested by our AlphaWise survey, social reforms should not be underestimated as a key driver behind the fact 91% of Saudi's believe their country is 'moving in the right direction' according to a recent IPSOS survey. This proportion is in direct contrast to many other countries around the world as per Exhibit 15 . Likewise, Saudi Arabia's consumer confidence index sits near all-time highs, in the 99th percentile versus history and has been on the rise YTD - in direct contrast to much of the rest of the world. While our AlphaWise survey indicates that support for social reforms is fairly broad-base, we also note that fact that nearly 60% of Saudi Arabia Nationals are under the age of 30, likely fuelling this support.

Which social reforms could be next? We would expect the continued development of Saudi Arabia's **legal system** to align with Vision 2030's aim to improve the country's ease of doing business in order to attract increased foreign investment. Likewise, we expect a continued improvement in **women's rights**. In light of Saudi Arabia's aim to be a top-5 global tourism destination , **alcohol is an area of debate**. The country's minister of tourism stated in May 2022 that with regards to

Exhibit 16: ... likely supported by social reforms and the fact that almost 60% of Saudi Arabia's population is under the age of 30

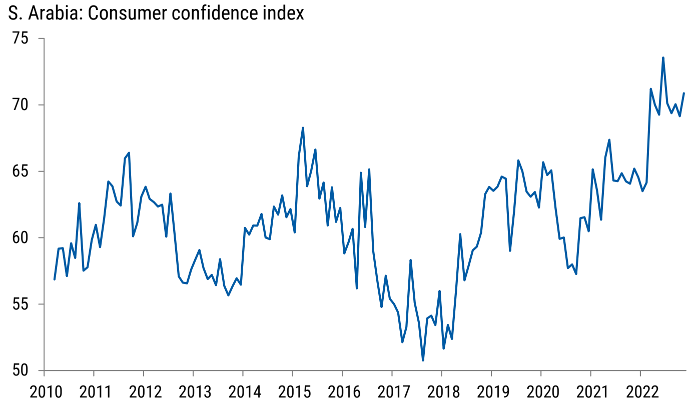
Saudi Nationals: population by age and gender



*data as of mid-2021; Source: General Authority for Statistics

Exhibit 17: Saudi consumer confidence is near record highs ...

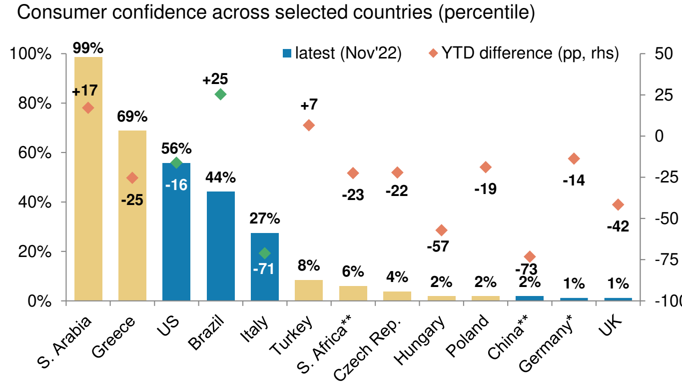
S. Arabia: Consumer confidence index



Source: Ipsos/Refinitiv, Datastream, and Morgan Stanley Research

Exhibit 18: ... and is also up YTD, whilst the rest of the world is seeing the opposite trend

Consumer confidence across selected countries (percentile)



*As of December 2022; **as of September 2022; Note: we used data starting from 2010; Source: Haver Analytics, Datastream and Morgan Stanley Research

alcohol Saudi Arabia plans to 'continue with our current laws' e.g. a continued general ban on alcohol possession, consumption and manufacture. Meanwhile, in September the Wall Street Journal reported that Saudi Arabia may be planning to allow alcohol sales at an island beach resort in its NEOM gigaproject, according to unnamed sources (see here). Further, Arabian Business reported in October that Saudi Arabia may be considering introducing alcohol sales in duty free areas of selected airports, initially for international transit passengers (see here). We also anticipate there may be changes in **expat rights** including possible relaxation of **residency visa rules**, potentially similar to the reforms seen in the UAE earlier this year expanding long-term 'golden' visas on the back of property purchases above a certain limit. We would also watch for an eventual change in the **work week** to align with international norms (current Sunday-Thursday), again as the UAE has implemented this year.

We expand on Saudi Arabia's social reforms and entertainment industry development in further sections of this report: ' The Rise of Saudi Women ', ' Expats: The Delta in Saudi's Accelerating Population Growth ', and Tourism: Landing Onto the Global Stage .

The Rise of Saudi Women

A key element and underlying driver of Saudi Arabia's ambitious reform program is the rapid easing of social restrictions on women in recent years (see earlier ' Social Reform ' section for timeline summary) leading to both social and economic benefits within the country. As stated on the Embassy of the Kingdom of Saudi Arabia (in DC) website: '*The knowledge, skills and capabilities of Saudi Arabia's women are among the greatest assets of the country, and the government is committed to putting women at the center of the social and economic transformation taking place under Vision* 2030' (see here). In terms of economic implications within Saudi Arabia, we are witnessing a marked rise in female labour-force participation, falling female unemployment rates, rising female incomes, signs of a declining gender pay gap, and high growth in dual-income households as well as increased female financial independence (e.g. taking out mortgages).

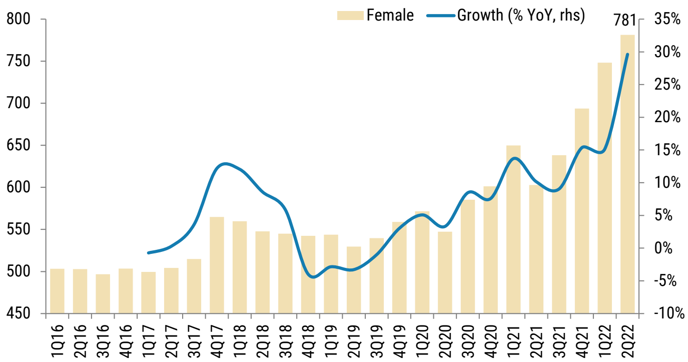
We go beyond recent trends to analyze what easing social restrictions and increased economic opportunities for women are likely to mean for the 'Future of Saudi Arabia,' longer-term. This includes reviewing and projecting major shifts such as declining family sizes, a changing consumer wallet, and the impact of the rising proportion of dual-income households. To do this we utilize our proprietary AlphaWise survey of Saudi nationals and expats as well as detailed demographic and economic data for women within Saudi Arabia, comparing where relevant to global benchmarks.

A High Proportion of Saudi Women Plan to Join the Workforce

Our AlphaWise survey indicates that of those Saudi Nationals that are *not* yet employed, almost 60% plan to join the workforce in the next two years. Of those that are already employed, c.60% took up employment just in the last 2 years. The most common reasons cited for the desire to join the workforce are to be financially independent (66% of Saudi National women not yet employed but planning to join the workforce) and to contribute to household combined income and purchases (45%). Interestingly, the lowest proportion of these women cited employment benefits or a desire to earn money for the pursuit of further education as a reason (Exhibit 23). As far as Saudi National women who are choosing not to join the workforce, the top reasons are broadly similar to other major countries around the world - a focus on family/children (28%), lack of childcare support (24%), as well as a preference for but lack of available work from home roles (24%). What did not feature highly as a reason not to join the workforce - limited opportunities for career progression (Exhibit 24).

Exhibit 19: The number of employed Saudi females in the private sector has grown rapidly over the past couple of years ...

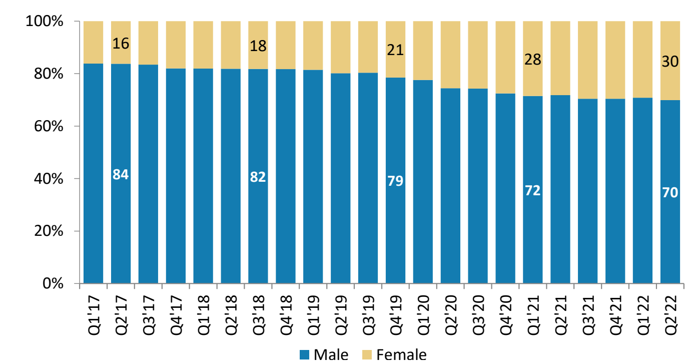
S. Arabia: Registered Saudi female employees in private sector (000's)



Source: General Authority for Statistics, GOSI and Morgan Stanley Research

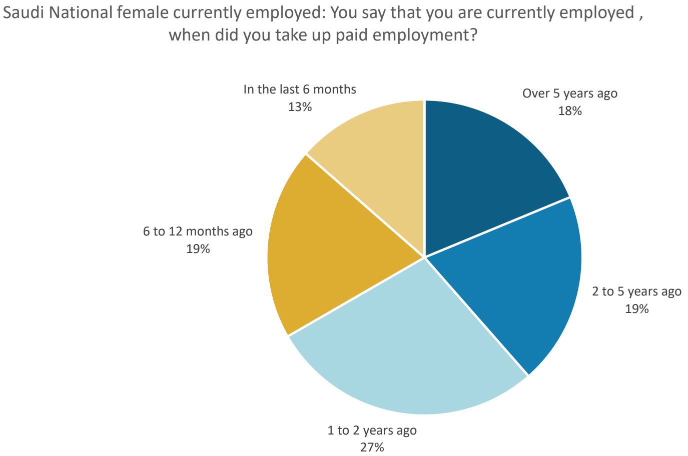
Exhibit 20: ... though there is further room for this growth to continue structurally with only c. 30% of the Saudi National workforce female

Labour force participation rate (Saudi nationals, %)



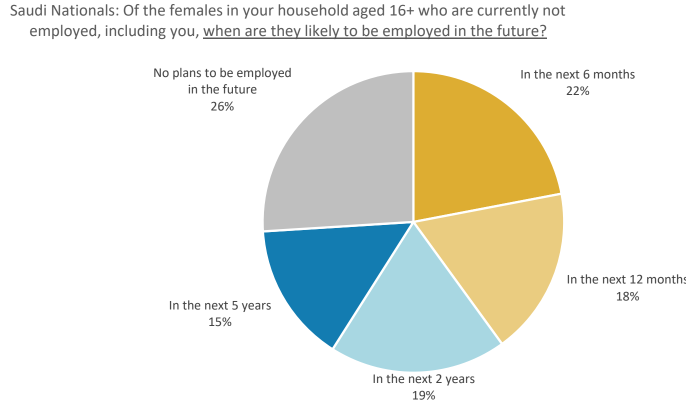
Source: General Authority for Statistics

Exhibit 21: AlphaWise survey: c.60% of Saudi female respondents who are employed, started working in the last two years ...



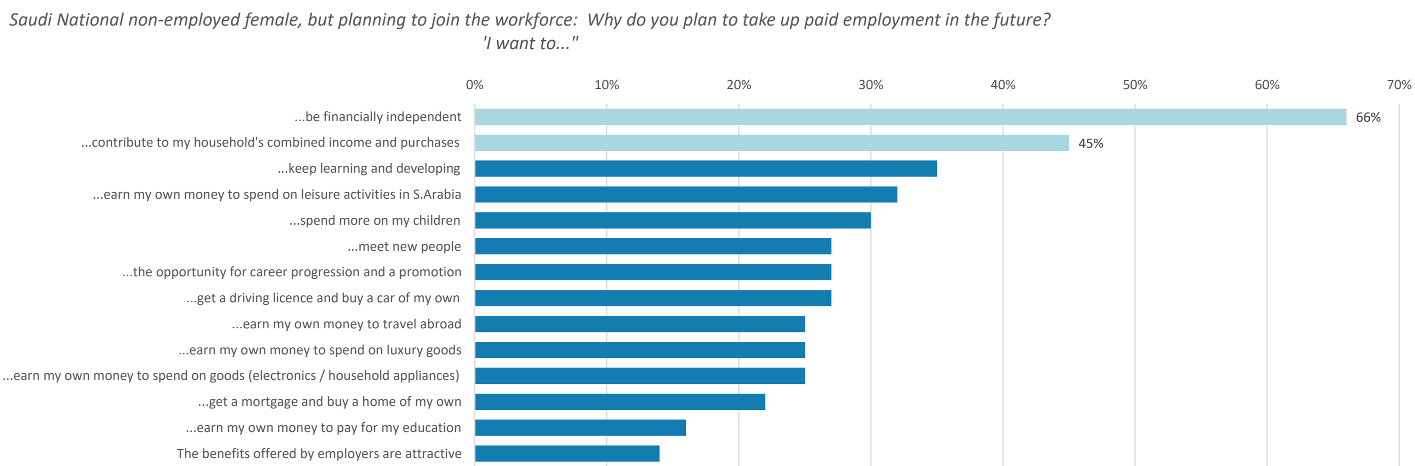
Source: AlphaWise and Morgan Stanley Research

Exhibit 22: ... and, interestingly, our survey indicates nearly 60% of Saudi National females who are currently not working, plan to join the workforce in the next two years



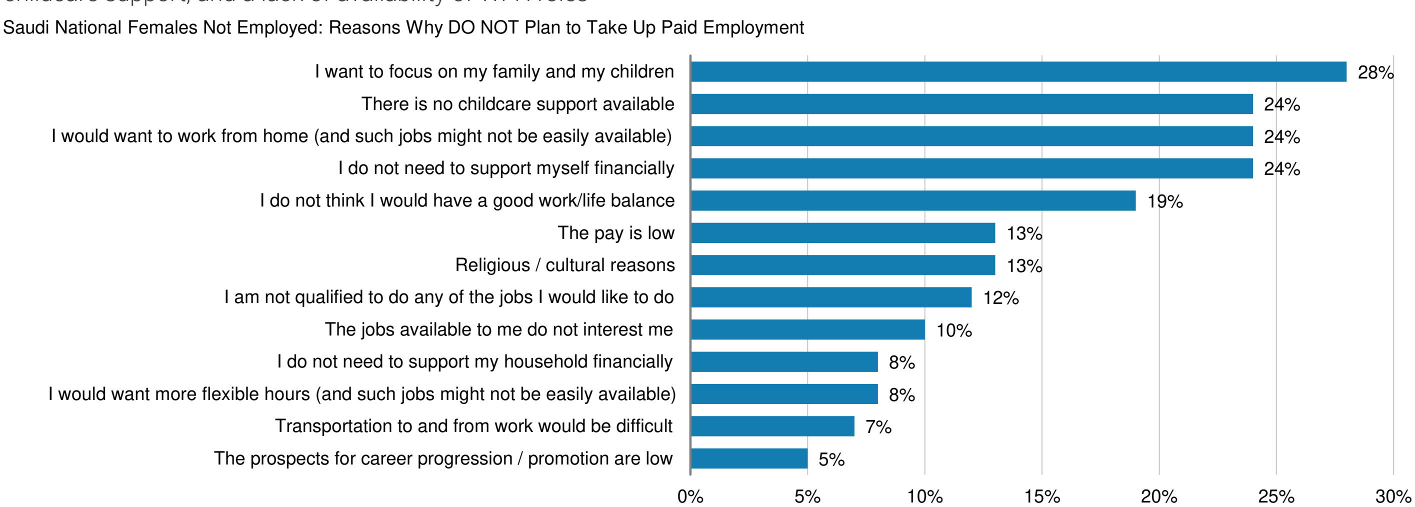
Source: AlphaWise and Morgan Stanley Research

Exhibit 23: 'Being financially independent' and 'contributing to my household' are the most common reasons women plan to join the workforce according to our AlphaWise survey



Source: AlphaWise and Morgan Stanley Research

Exhibit 24: For Saudi National females that do not plan to take up paid employment, key reasons are a focus on family/children, lack of childcare support, and a lack of availability of WFH roles



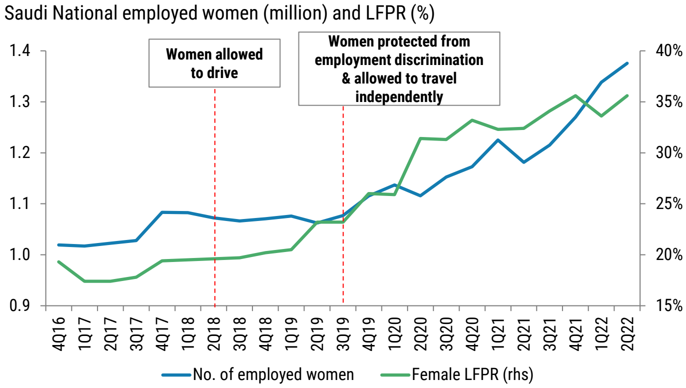
Source: AlphaWise and Morgan Stanley Research

How High Can Saudi Women's Labour Force Participation Go?

We expect to see a further c. 60% rise in the number of Saudi National women employed by 2030, driven both by a continued rise in labour force participation and falling unemployment levels: Saudi National women's labour force participation rate has more than doubled from 17% in 2017 to 36% as of 2Q22. At the same time, SN women's unemployment rate has declined from 33% in 2017 to 10% more recently. We estimate that should Saudi women's LFPR continue to rise steadily towards 50% - levels surpassed by the likes of Indonesia, Malaysia, Korea and China (Exhibit 27) - this would imply a further 40% increase in the Saudi National female labour force. We note that the 50% rate is still well below a labour force participation rate for men in Saudi Arabia at 68%. If we then layer on top of this the Saudi government's target to decrease the unemployment rate in the country from current 10% to 7% by 2030, and we assume that most of this decrease is driven by women, **this would imply a decline to a 10% unemployment rate for Saudi National females - still well above that of countries with somewhat comparable demographics such as Malaysia and Indonesia** (4-5%). The resulting overall increase in Saudi National females employed would reach close to 60%. **This would raise the number of employed overall among Saudi Nationals (men and women) by 17%.** We think these numbers are likely conservative as we do not incorporate the growing working age population.

Exhibit 25: The number of employed Saudi women and their labour force participation is on the rise structurally ...

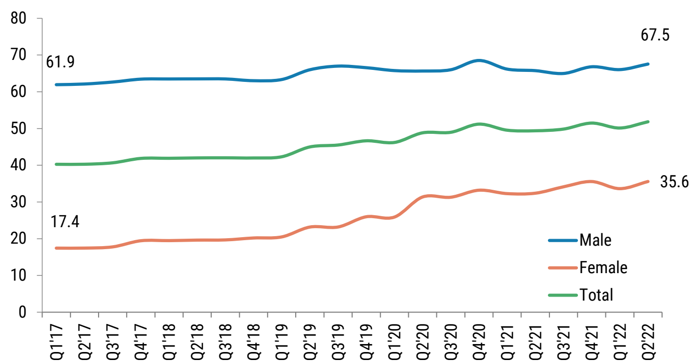
Saudi National employed women (million) and LFPR (%)



Note: LFPR - Labour Force Participation Rate; employed women only includes those officially registered, actual employment levels likely to be closer to c. 2mn; Source: Tadawul, General Authority for Statistics, Morgan Stanley Research

Exhibit 26: ... with the labour force participation rate of Saudi National women still roughly half the levels of Saudi men

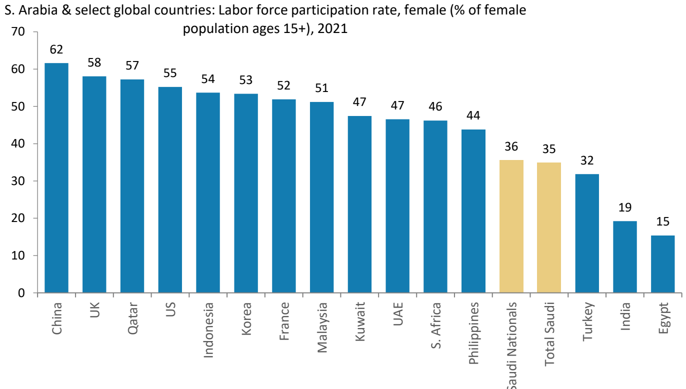
Labour force participation rate (Saudi nationals, %)



Source: GASTAT

Exhibit 27: Likewise, Saudi women's labour force participation rate is among the lowest globally; move towards 50% would imply c. 40% rise in women employed

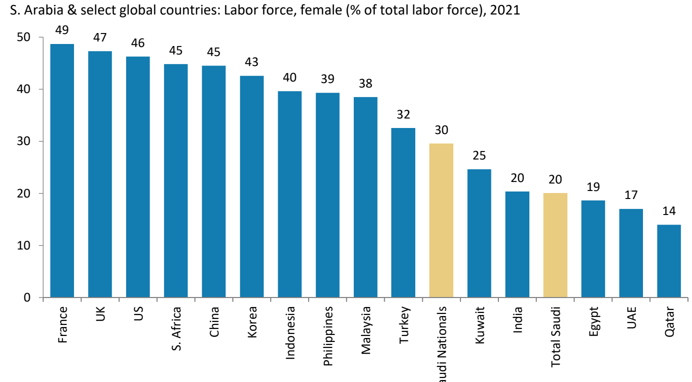
S. Arabia & select global countries: Labor force participation rate, female (% of female population ages 15+), 2021



Source: International Labour Organization & GASTAT

Exhibit 28: The % women in the Saudi National & total Saudi workforce is among the lowest globally; a rise towards China = 50% growth

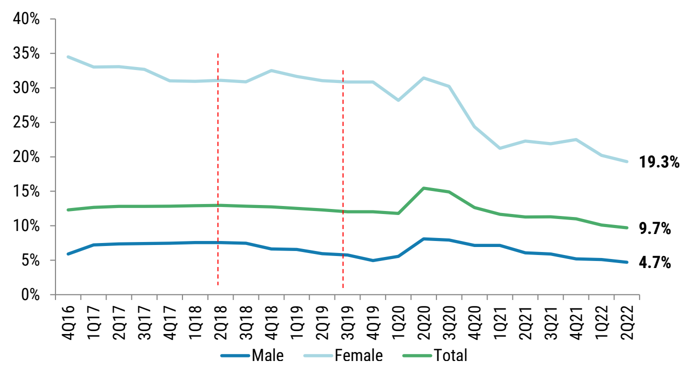
S. Arabia & select global countries: Labor force, female (% of total labor force), 2021



Source: International Labour Organization & GASTAT

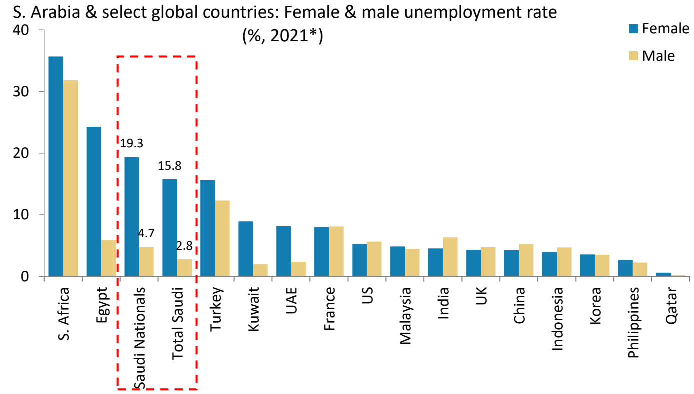
Exhibit 29: If the SN unemployment rate reaches government targets of 7% by 2030 and this move is driven by women, this would imply the female SN unemployment rate halves to 10% ...

Saudi nationals: Unemployment rate



Source: General Authority for Statistics and Morgan Stanley Research

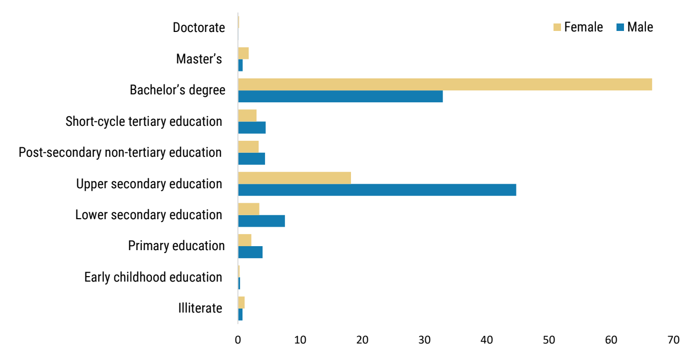
Exhibit 30: ... which would put Saudi Arabia more in-line with the average of peer countries



*2Q22 figures for Saudi Arabia; Source: International Labour, GASTAT and Morgan Stanley Research

Exhibit 31: Unemployed Saudi National females tend to be more educated (c. 70% have a bachelor's degree or higher) versus unemployed SN men ...

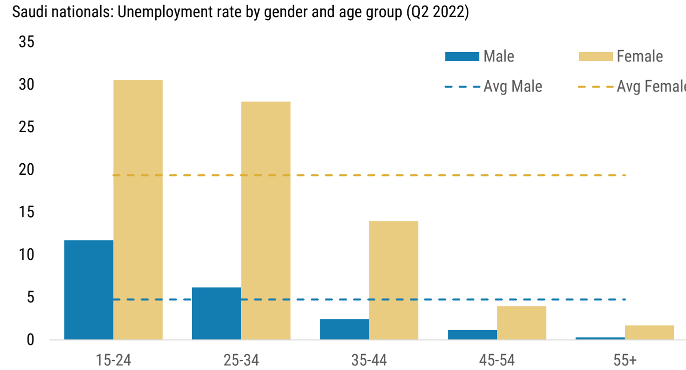
Saudi nationals, unemployment rate: by gender and education level, Q2 2022



Source: GASTAT, Morgan Stanley research

Exhibit 32: ... as well as younger with the unemployment rate substantially higher for those between 15 and 34 years of age

Saudi nationals: Unemployment rate by gender and age group (Q2 2022)



Source: GASTAT, Morgan Stanley research

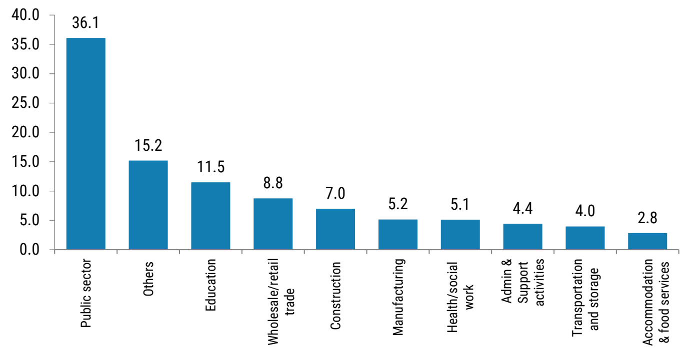
Women's Rising Employment Could Increase Productivity

We note that unemployed Saudi National females tend to be more educated as compared to unemployed Saudi National males. According to Saudi Arabia's General Authority for Statistics (GASTAT), about **70% of unemployed Saudi National females have a bachelor's degree or higher** as compared to c. 34% for Saudi National males. Saudi National women's increased participation in the workforce could thus ultimately lead to increased productivity, though this will also depend on other factors such as the availability of relevant training. Further, **unemployment levels are substantially higher among younger Saudi National females**, well-above rates for both Saudi National men and for women in countries with comparable demographics, suggesting significant scope for younger women to join the workforce.

Saudi National women tend to work in education (26%) or wholesale/retail trade (16%). Other key areas of employment include construction, health/social work, and the public sector (8%). In contrast, a much higher proportion of Saudi National men work in the public sector (36%) followed by education, wholesale/retail trade, and construction.

Exhibit 33: While 36% of Saudi National males work in the Public Sector ...

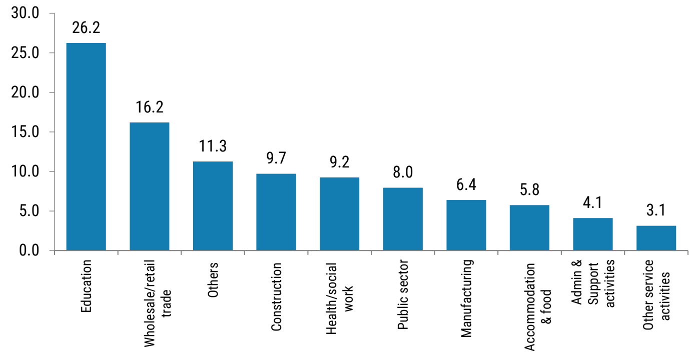
Saudi males: % by main economic activity Q2 2022



Source: GASTAT, Morgan Stanley research

Exhibit 34: ... employed Saudi National females are more likely to work in Education or Wholesale/Retail Trade

Saudi females: % by main economic activity Q2 2022



Source: GASTAT, Morgan Stanley research

How Will the Saudi Wallet Shift as More Women Join the Workforce?

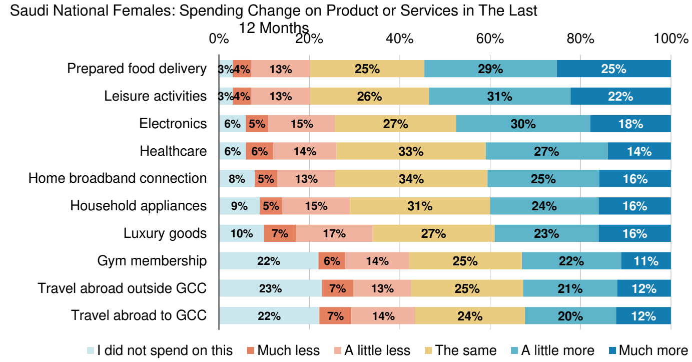
With financial independence cited as a key reason that unemployed Saudi National women intend to join the workforce, **our proprietary AlphaWise survey sheds light on how the structurally rising participation of women in Saudi's labour force is likely to change spending patterns in the country** over the long-term.

- **Over the last 12 months, the top three areas where Saudi National women have increased spending most are prepared food delivery, leisure activities, and electronics**. Gyms and travel meanwhile have been lower down the priority list (Exhibit 35). Less surprisingly, across key categories, employed Saudi National women have increased spending substantially faster than unemployed over the last 12 months. The two categories where these women also increased spending at a faster pace than Saudi National men were prepared food delivery and leisure activities (Exhibit 36).

- **Over the next two years,** Saudi National females expect to continue to spend more on prepared food delivery, leisure activities, and electronics, above planned increases in other items. The areas they expect to increase spending least on are gym memberships and travel. **Employed Saudi females continue to show a higher propensity to increase spending across almost every category relative to unemployed Saudi females, though the gap in this growth narrows substantially**, likely due to the fact that our survey also shows that 60% of unemployed Saudi National females intend to find work in the next two years.

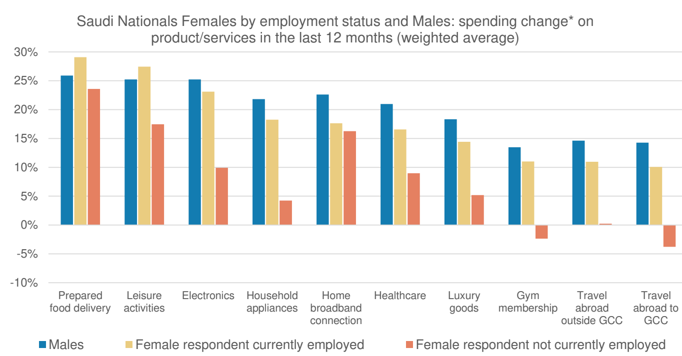
Exhibit 35: A high proportion of Saudi National females in our survey indicated that in the last 12M they spent more on food delivery apps, leisure, & electronics

Saudi National Females: Spending Change on Product or Services in The Last 12 Months



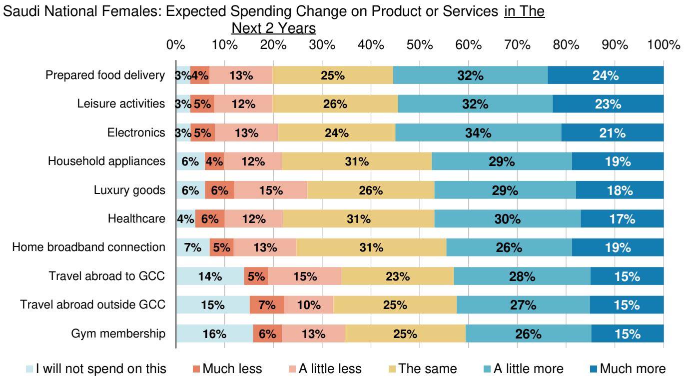
Source: AlphaWise and Morgan Stanley Research

Exhibit 36: Saudi National employed women tended to increase spending more on food delivery & leisure than SN unemployed women or SN men



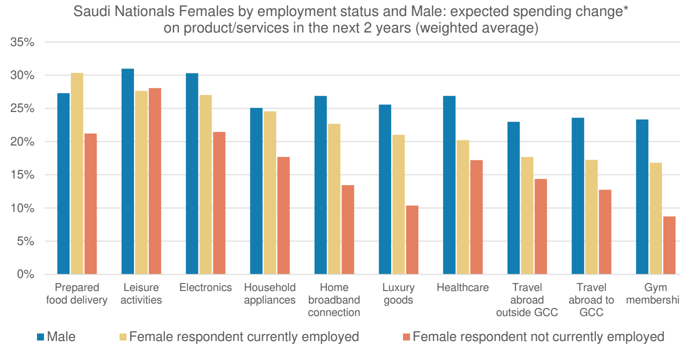
*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 37: In the next 2Y, Saudi National women expect to increase spending most on food delivery, leisure, & electronics



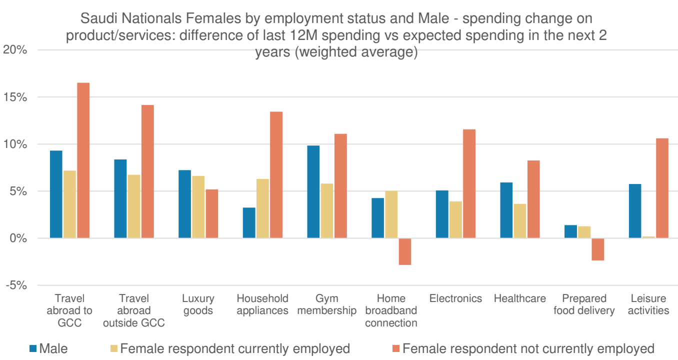
Source: AlphaWise and Morgan Stanley Research

Exhibit 38: Food delivery likely to remain the top category that SN women intend to spend on more than men in next 2Y



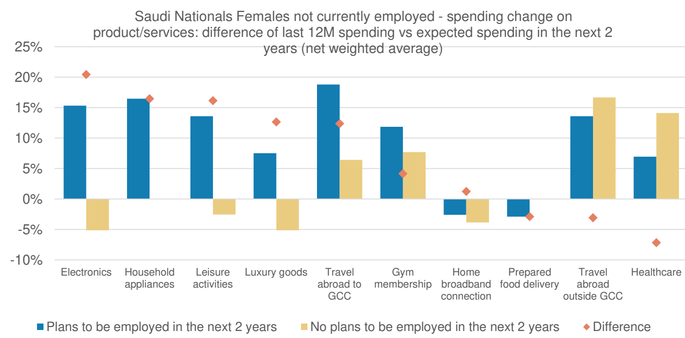
*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 39: If we compare the last 12M to spending intentions in the next 2Y, unemployed Saudi National females expect to see the biggest uplift in spending ...



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 40: ... this growth is driven by those women that plan to join the workforce in the next 2 years



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

- **When comparing change in spending plans in the next two years versus the last 12 months, we find that it is *unemployed* Saudi National females that plan to increase the pace of spending most**, with the delta substantially higher across most categories relative to currently employed Saudi females and well as Saudi men. We think **this is driven by the fact that 60% of our unemployed Saudi female survey respondents intend to join the workforce in the next two years**. The largest pick-up in growth in spending for unemployed Saudi Nationals is likely to come in travel, household appliances, and electronics. Somewhat surprisingly the rate of growth in food delivery is likely to decline, given already very high levels of growth over the last 12 months.

- **We also dive into Saudi women's spending patterns and intentions by demographic subgroups - expats vs Saudi Nationals, age, education level, and income.** We find that in the last 12 months almost every demographic subgroup spent more on leisure activities - not altogether surprising given easing COVID restrictions coupled with an extensive easing in social restrictions in recent years. Interestingly, those educated below degree level saw minimal increases in spending outside of leisure in the last year. Higher income Saudi national women meanwhile spent more across the board as did younger Saudi national women.

Exhibit 41: Women across most demographic categories have spent more on leisure activities in the last year, but higher income, more educated, and younger women have spent more across most categories

In the last 12 months have you personally spent much more, a little more, the same, a little less or much less than before on the following products or services? (weighted average)

	Women	Travel abroad to GCC	Travel abroad outside GCC	Leisure activities	Gym membership	Luxury goods	Electronics	Prepared food delivery	Healthcare	Household appliances	Home broadband
	Saudi National	7%	9%	25%	8%	12%	20%	28%	15%	15%	17%
	Expat	0%	3%	19%	4%	6%	19%	24%	13%	13%	16%
	only Saudi Nationals										
Generation	Gen Z	13%	16%	33%	17%	21%	30%	36%	20%	24%	24%
	Millennials	5%	5%	26%	3%	7%	17%	26%	17%	11%	16%
	Gen X	5%	7%	16%	8%	12%	16%	23%	7%	13%	12%
Education	Below degree level	-8%	-3%	11%	-7%	1%	3%	13%	0%	1%	3%
	Degree level or above	16%	15%	33%	17%	19%	30%	36%	23%	23%	25%
Household income	< USD2.7k	-10%	-7%	18%	-8%	0%	7%	16%	9%	2%	9%
	USD2.7k to USD5.3k	1%	1%	18%	1%	3%	13%	24%	14%	8%	11%
	USD5.3k to USD8k	15%	11%	23%	11%	13%	21%	22%	16%	14%	18%
	USD8k to USD13.3k	21%	22%	36%	19%	22%	33%	41%	22%	31%	23%
	> USD13.3k	7%	13%	31%	16%	25%	26%	32%	12%	18%	26%

*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 42: Comparing Saudi women's spending intentions in the next 2Y vs last 12M by demographic groups, younger Saudi women intend to increase spending most on gyms, luxury goods, electronics, & household appliances, lower income on travel, gyms, luxury, & hh appliances

Spending change on product or services: difference of last 12M spending vs expected spending in the next 2 years (weighted average)

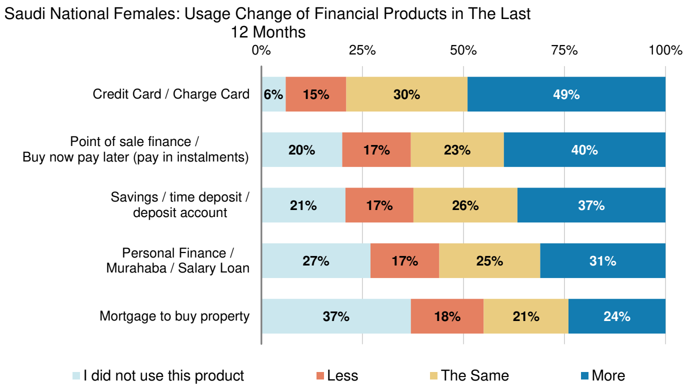
	Women	Travel abroad to GCC	Travel abroad outside GCC	Leisure activities	Gym membership	Luxury goods	Electronics	Prepared food delivery	Healthcare	Household appliances	Home broadband
	Saudi National	9%	8%	2%	7%	6%	6%	0%	5%	8%	3%
	Expat	11%	8%	8%	8%	10%	0%	-1%	0%	3%	2%
	only Saudi Nationals										
Generation	Gen Z	9%	8%	4%	7%	7%	5%	1%	1%	8%	2%
	Millennials	11%	10%	1%	9%	9%	6%	-1%	5%	10%	5%
	Gen X	7%	6%	4%	4%	1%	5%	3%	8%	5%	2%
Education	Below degree level	12%	6%	4%	10%	4%	11%	1%	10%	8%	5%
	Degree level or above	7%	10%	1%	5%	8%	2%	0%	2%	8%	3%
Household income	< USD2.7k	18%	17%	1%	11%	10%	7%	-4%	4%	9%	2%
	USD2.7k to USD5.3k	8%	8%	5%	8%	5%	7%	-4%	2%	9%	2%
	USD5.3k to USD8k	7%	18%	6%	9%	10%	14%	12%	10%	18%	4%
	USD8k to USD13.3k	1%	4%	3%	7%	6%	2%	-3%	2%	-1%	7%
	> USD13.3k	14%	-1%	-3%	-1%	1%	1%	7%	8%	10%	2%

*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

- **Comparing Saudi women's spending intentions in the next two years versus the last 12 months, we find that travel, gyms, luxury goods and household appliance are key areas where the pace of spending increases are likely to rise** across most demographic subgroups. Interestingly lower and middle income growth are likely to increase their spending at a faster pace than the highest income group in our survey.

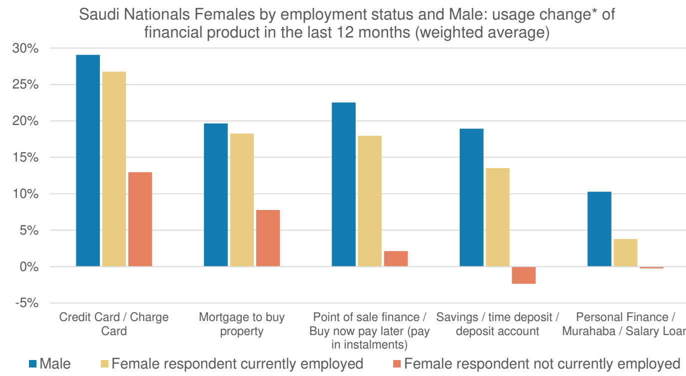
- **In terms of financial products, Saudi National females have increased their use of credit cards and point of sale finance most in the last 12 months.** Employed Saudi National female respondents increased this usage most, almost to the growth levels of Saudi National men. In the next two years, Saudi National females plan to growth their use of credit cards and savings products most and mortgages least. If we compare the next two years financial product use growth to growth from the last 12 months, personal finance and savings products are likely to see the largest growth, especially from unemployed Saudi females (likely who aim to join the workforce). Mortgage product growth is likely to be in-line with Saudi National males, though from a lower base.

Exhibit 43: Saudi National females increased their use of most major financial products in the last year - especially credit cards and point of sale finance ...



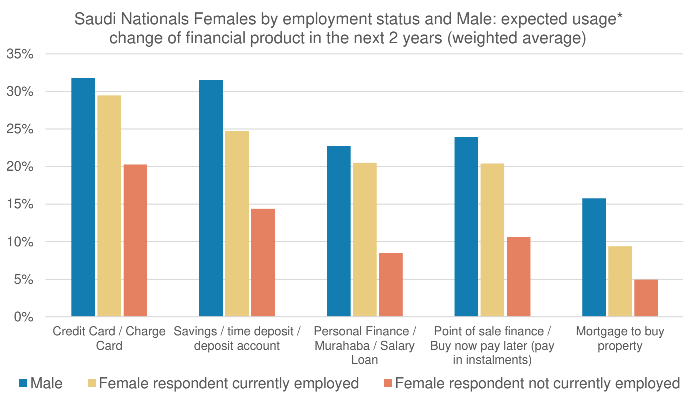
Source: AlphaWise and Morgan Stanley Research

Exhibit 44: ... almost at the pace at which Saudi men increased the use of these products, though not quite as fast



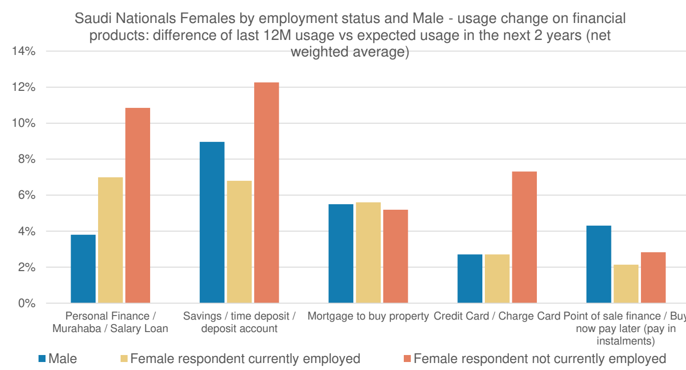
*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 45: Again, SN employed females are not expecting to increase their usage of financial products in the next 2Y quite as quickly as SN men



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 46: Comparing spending intentions in next 2Y vs changes in the last 12M points to unemployed females as most likely to show high growth



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

- **Higher income Saudi National women and Gen Z have increased their use across financial products by more in the last 12 months, and anticipate more growth in their use in the coming 2 years**. Credit cards have seen the highest growth across Saudi women's demographic groups over the last 12 months and should continue to see similar growth in the next two years. Comparing last 12 months and next two years survey results indicates that the products likely to see the most growth from these groups are personal finance and savings.

Exhibit 47: Credit cards have seen the highest growth across Saudi women's demographic groups over the last 12M; Higher income and Gen Z have also seen more growth across financial products

In the last 12 months have you personally used any of the following financial products? (weighted average)

	Women	Credit Card / Charge Card	Mortgage to buy property	Point of sale finance / Buy now pay later	Savings / time deposit / deposit account	Personal Finance / Murahaba / Salary Loan
	Saudi National	24%	3%	16%	15%	10%
	Expat	14%	2%	13%	16%	16%
	only Saudi Nationals					
Generation	Gen Z	23%	13%	23%	19%	16%
	Millennials	24%	-1%	9%	7%	5%
	Gen X	24%	-1%	19%	22%	13%
Education	Below degree level	9%	-11%	6%	5%	-2%
	Degree level or above	32%	11%	22%	20%	17%
Household income	< USD2.7k	12%	-8%	1%	-3%	-7%
	USD2.7k to USD5.3k	22%	1%	9%	4%	6%
	USD5.3k to USD8k	25%	4%	17%	14%	11%
	USD8k to USD13.3k	30%	9%	26%	29%	24%
	> USD13.3k	28%	7%	26%	27%	13%

*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 48: Over the next 2 years, Gen Z and higher income Saudi National women anticipate the highest net increase in usage across financial products, though mortgages least of all

Compared to now, in the next 2Y do you think you will personally use these financial products much / little less, the same or a little / much more? (weighted average)

	Women	Credit Card / Charge Card	Mortgage to buy property	Point of sale finance / Buy now pay later	Savings / time deposit / deposit account	Personal Finance / Murahaba / Salary Loan
	Saudi National	28%	8%	18%	23%	18%
	Expat	21%	6%	17%	28%	24%
	only Saudi Nationals					
Generation	Gen Z	33%	19%	24%	34%	26%
	Millennials	28%	6%	16%	15%	14%
	Gen X	22%	2%	17%	22%	17%
Education	Below degree level	15%	-3%	9%	10%	8%
	Degree level or above	35%	15%	23%	30%	24%
Household income	< USD2.7k	15%	-1%	1%	7%	7%
	USD2.7k to USD5.3k	24%	1%	11%	18%	10%
	USD5.3k to USD8k	36%	13%	23%	24%	15%
	USD8k to USD13.3k	33%	14%	30%	32%	29%
	> USD13.3k	30%	18%	27%	31%	27%

*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 49: Comparing next 2Y vs last 12M, savings and personal finance products are likely to see the highest growth across women's demographic groups, point of sales least

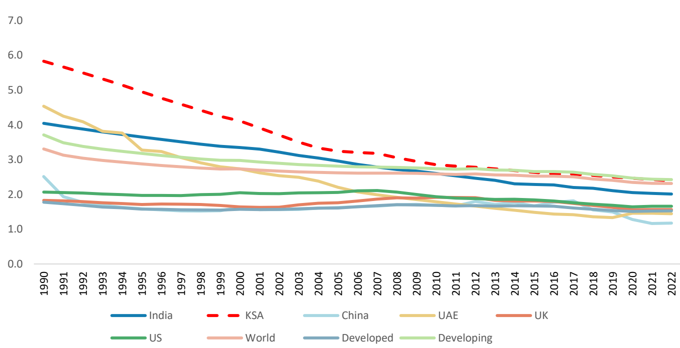
Usage change on financial products: difference of last 12M spending vs expected spending in the next 2 years (weighted average)

	Women	Credit Card / Charge Card	Mortgage to buy property	Point of sale finance / Buy now pay later	Savings / time deposit / deposit account	Personal Finance / Murahaba / Salary Loan
	Saudi National	4%	6%	2%	8%	8%
	Expat	8%	5%	4%	11%	8%
	only Saudi Nationals					
Generation	Gen Z	9%	6%	0%	15%	10%
	Millennials	3%	7%	6%	8%	9%
	Gen X	-1%	3%	-2%	0%	4%
Education	Below degree level	6%	9%	3%	5%	10%
	Degree level or above	3%	4%	2%	10%	7%
Household income	< USD2.7k	3%	7%	0%	10%	14%
	USD2.7k to USD5.3k	2%	0%	2%	14%	5%
	USD5.3k to USD8k	10%	9%	6%	10%	3%
	USD8k to USD13.3k	3%	5%	4%	2%	5%
	> USD13.3k	2%	10%	1%	4%	14%

*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise and Morgan Stanley Research

Exhibit 50: While Saudi Arabia's total fertility rate (children per woman) has been declining in recent decades ...

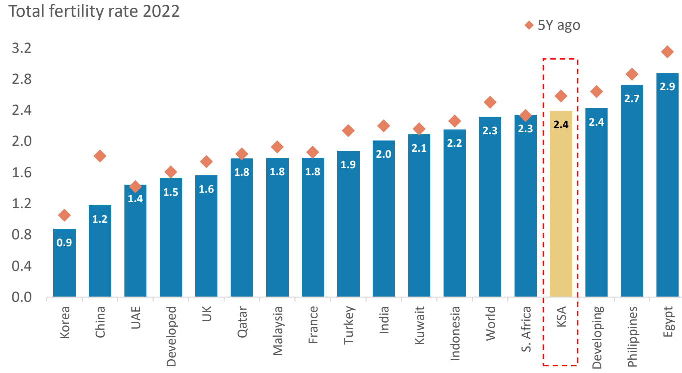
Total fertility rate: Historical Trend 1990-2022



Children per woman; Source: United Nations, Morgan Stanley Research

Exhibit 51: ... the country still has one of the highest fertility rates among countries globally at 2.4 (and higher if we exclude expats from the base)

Total fertility rate 2022



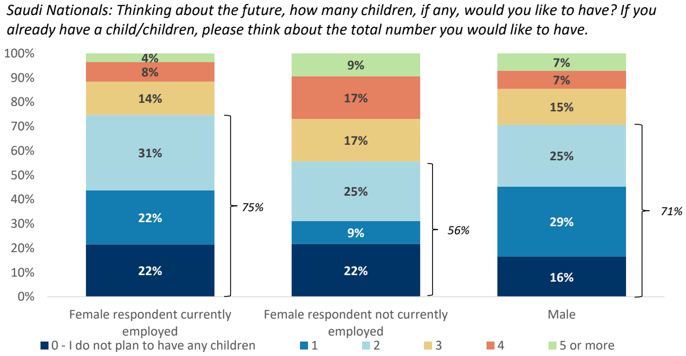
Children per woman; Source: United Nations, Morgan Stanley Research

What do Workplace Shifts Mean for Saudi's Long-term Demographics?

Saudi women entering the workforce at a rapid pace can have many implications for long-term demographic shifts. One important area we consider in this report is a potential change in family size on the back of women's rising workforce participation as well as other accompanying social reforms. According to UN population statistics, Saudi Arabian women's fertility rates (number of children per woman) have been declining for decades, from 6 children per woman in 1990 to 2.4 estimated today. Still, this 2.4 is above most major economies around the world and in-line with the average in developing countries.

Our AlphaWise survey results indicate that employed Saudi National women intend to have on average 1.9 children, below current levels of over 2.4: We note that this 2.4 is likely understated as the UN population base includes both Saudi Nationals and expatriates, with the latter less likely to have children in the country. In any case, 75% of the Saudi National employed women in our survey plan to have 2 children or fewer, and 44% plan to have one child or fewer. In contrast, our survey indicates that **unemployed Saudi women intend to have an average of 2.3 children, much more in-line with current levels**.

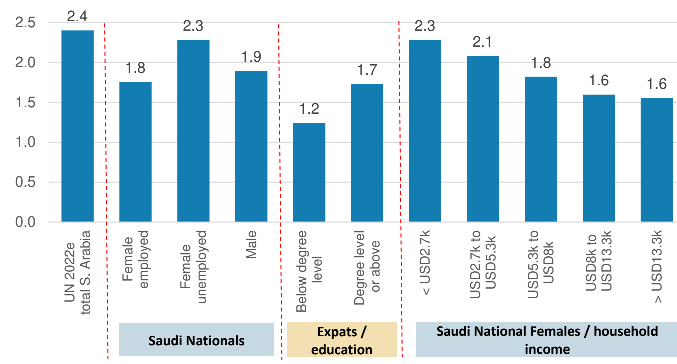
Exhibit 52: Our survey indicates that 75% of employed Saudi National women intend to have 2 children or less, below the current birth rate



Source: AlphaWise, Morgan Stanley Research

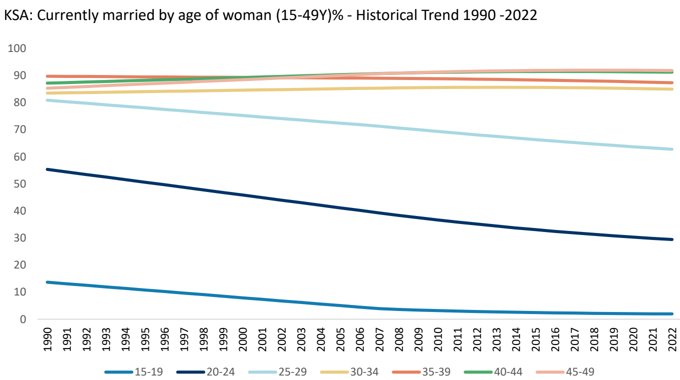
Exhibit 53: Intentions around children vary by demographic - Lower income SN females intend to have more children

Average number of children respondents plan to have



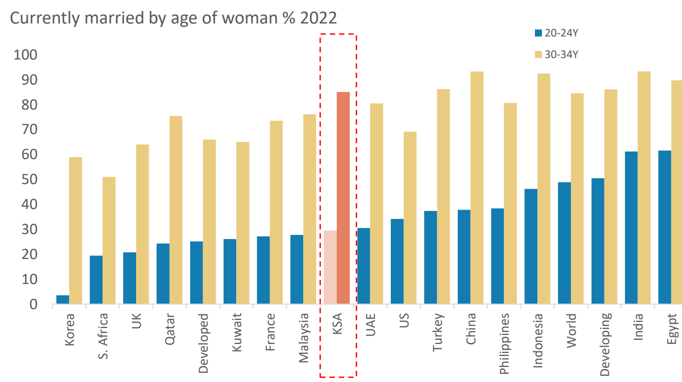
Source: AlphaWise, Morgan Stanley Research

Exhibit 54: Recent decades have already seen a decline in the number of married women below the age of 30 in Saudi Arabia...



Percentage of married or in-union among women of reproductive age (15-49years) by 5-year age groups
Source: United Nations, Morgan Stanley Research

Exhibit 55: ...And currently, 85% of women in Saudi Arabia are married by the age of 30-34, in-line with many other major countries



Source: United Nations, Morgan Stanley Research

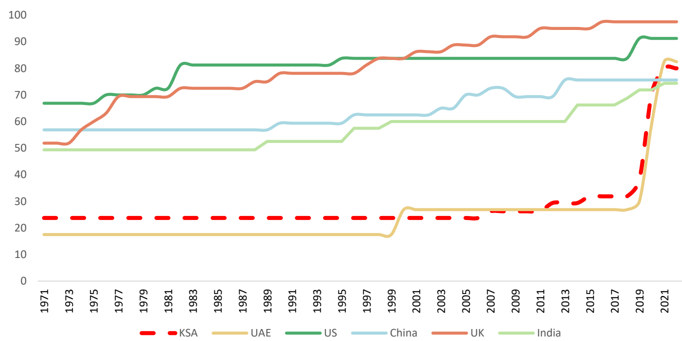
Likewise, Saudi women are getting married later on average and this trend could continue. Recent decades have already seen a decline in the proportion of women in Saudi Arabia getting married under the age of 30 years old (Exhibit 54). At this stage 85% of women in Saudi Arabia are married by the time they are 30-34, in-line with many major countries around the world. We note that UN statistics include expatriates whose size in the population has been rising and continues to rapidly rise. Thus removing expatriates from the base could mean that there is still more of a shift to go in terms of the average age that women are getting married.

Rising Equality in the Workplace

As we highlighted in the section on social reforms , **a key element of Saudi Arabia's recent reforms has been increasing women's rights**, including discrimination protection in the workplace and enhanced legal rights**. According to the World Bank's 'Women, Business, and the Law' index, Saudi Arabia has been one of the top countries globally in terms of implementing reforms relating to women in recent years**. This index measures factors such as mobility, ability to work including measures to combat discrimination in the workplace, equal pay, any legal constraints on work relating to marriage, paid maternity leave, access to financial and legal products to allow entrepreneurship, property and inheritance rights, and workplace benefits such as pensions. **Saudi Arabia has seen a rapid increase in its overall WBL score between 2017 and 2020, now reaching levels slightly above India and China** and well above Middle East peer countries. Key areas of improvement have been in the categories of mobility, workplace rights, pay, entrepreneurship, and pensions.

Exhibit 56: Saudi has seen a rapid increase in the World Bank's 'Women, Business, and the Law' index between 2017 and 2020 ...

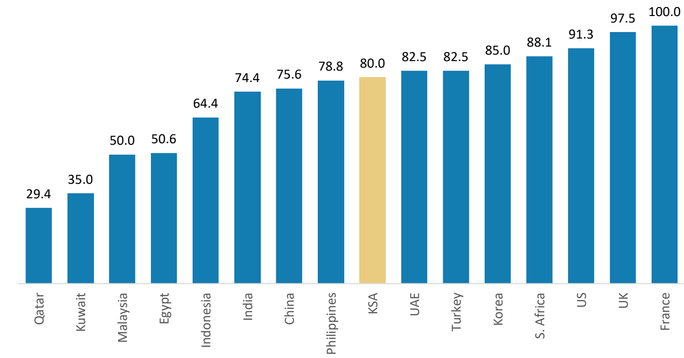
Women, Business and the Law Data Index: Historical Trend 1971-2022



Source: World Bank, Morgan Stanley Research

Exhibit 57: ... with the overall score slightly above that of China and India

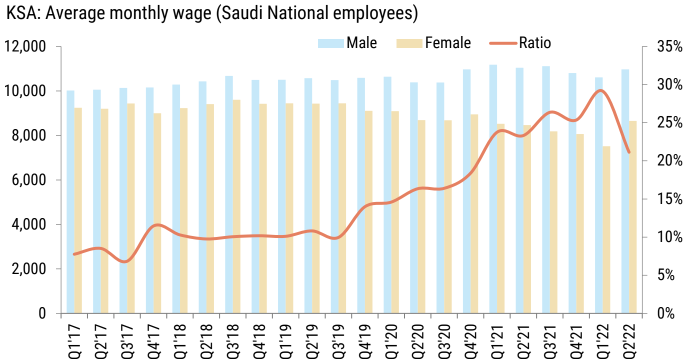
Women, Business and the Law Data Index Score: Y22



Source: World Bank, Morgan Stanley Research

Exhibit 58: According to Saudi National statistics, Saudi National males earn c. 21% more than females as of 2Q22, down from a peak of 29%

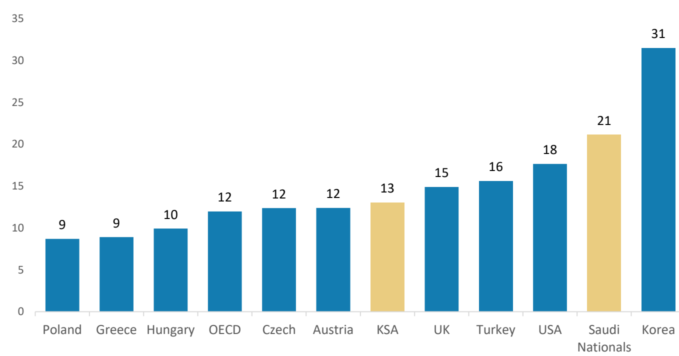
KSA: Average monthly wage (Saudi National employees)



Source: GASTAT, Morgan Stanley Research

Exhibit 59: Saudi Arabia's wage gap is among the highest among key peer countries

Wage Gap across countries (%), Latest



The gender wage gap is defined as the difference between median earnings of men and women relative to median earnings of men. Data refer to full-time employees; Data as of latest available for all countries from 2018-2021; for Saudi it is as of Q2 2022; Source: OECD, GASTAT, Morgan Stanley Research

At the same time, we still note room for improvement in Saudi Arabia, including in its gender pay gap: According to GASTAT, the gender pay gap between Saudi National females and men has been on the rise in recent years, but began to decline in 2022. As of 2Q22 official statistics indicate that Saudi National women are paid on average 21% less than men, down from a peak of 29%. Research from 2021 by Alnahda Society, a Saudi nonprofit organization focused on the empowerment of women, pointed to a larger pay gap of 43% after adjusting for differences in education levels and experience. As with other countries, the gap is highest at the top and driven to a large extent by market and social biases, according to the study. Further, despite a high score in the above World Bank index, the World Economic Forum's Global Gender Gap Report 2022 ranked Saudi Arabia in 127th place out of 146 countries, up somewhat versus the 2021 report. Among the score's components, Saudi Arabia scored higher in women's relative Educational Attainment (97th), but lower in labour-force participation rate and estimated earned income (both 135th).

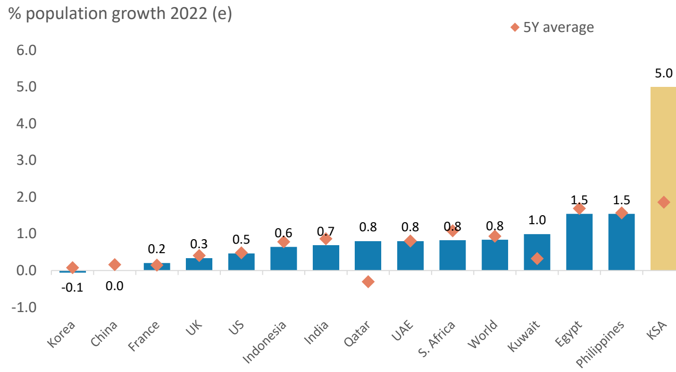
Expats: The Delta in Saudi's Accelerating Population Growth

Saudi Arabia has one of the fastest rates of population growth in the world, and the delta amid accelerating growth is expats: Saudi Arabia's total population growth has averaged 1.9% in the last 5 years, but this year has increased to an estimated rate of c. 5%, based on data from the General Authority for Statistics in Saudi Arabia (GASTAT). While we estimate the population of Saudi Nationals has seen more steady average growth of c. 2% in recent years, the delta to accelerating growth this year is expatriates. For example, the number of registered non-Saudi employees in the private sector grew 13% YoY over 2Q22, a historical high. Our conversations with reform experts, companies, and locals, clearly indicates that **this boom in expat population growth is driven by / evidence of accelerating momentum in gigaprojects**, and helped by rapid social reforms.

Government targets imply that population growth in Saudi may see a CAGR of 4.4% to 2030, fueled by expat population growth. Saudi Arabia's total current population size is c. 36 million people, with c. 14 million or 39% of this total accounted for by expatriates. Government targets imply that Saudi Arabia's population will rise to 50-60 million people by 2030, with expats reaching 50% of the population by this time. A 50% proportion would put Saudi Arabia more in-line with the likes of Bahrain or Oman in terms of expat population proportion, though Saudi's population size is much higher than Middle East comparables or even the likes of Singapore or Hong Kong.

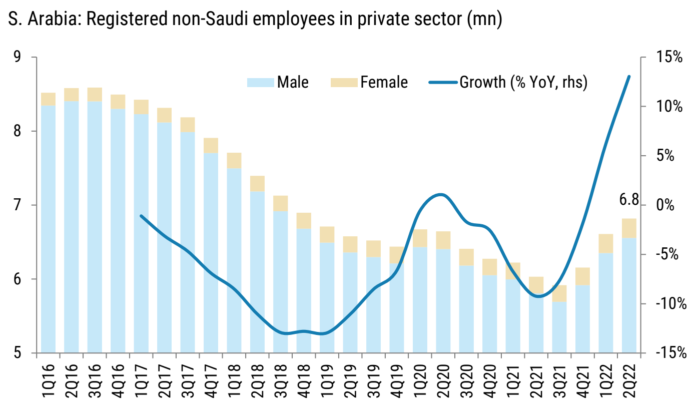
An increase in the proportion of expats from 39% of Saudi's population today to 50% by 2030 appears achievable in our view considering: 1) there has already been an 8pp increase in the proportion of expats within the population over the last decade; 2) the significant job creation in the Kingdom on the back of gigaprojects and other economic reforms; and 3) social reforms are significantly shifting expats' opinions on the length of time they intent to stay in the Kingdom, as evidenced by our AlphaWise survey.

Exhibit 60: Saudi Arabia's total population growth is likely to reach at least 5% in 2022, above most other major countries and regions



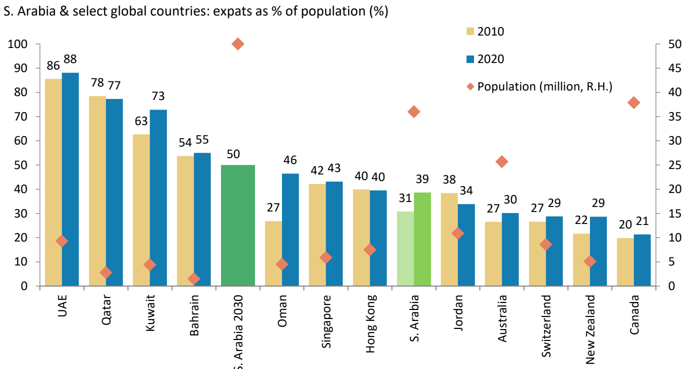
Source: United Nations for all countries except Saudi Arabia where we use General Authority for Statistics in Saudi Arabia (GASTAT) figures for 1H22

Exhibit 61: The key delta in this growth more recently is expats where more recent trends point to 13% YoY growth as gigaproject momentum ramps up



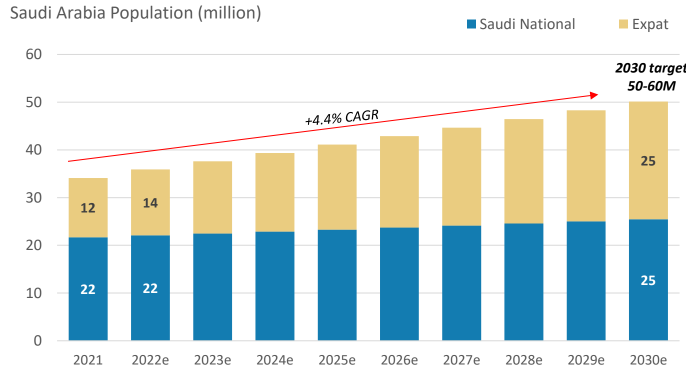
Source: GOSI and Morgan Stanley Research

Exhibit 62: Expats currently make up 39% of Saudi Arabia's population with the government aiming to raise the proportion to 50% by 2030



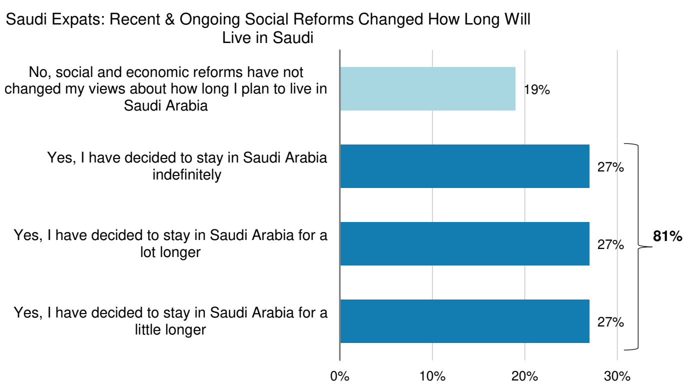
Source: United Nations Department of Economic and Social Affairs (UN DESA) and Morgan Stanley Research

Exhibit 63: The lower end of the Saudi government's 2030 population target implies a 4.4% overall population CAGR, and 1.8% for Saudi Nationals



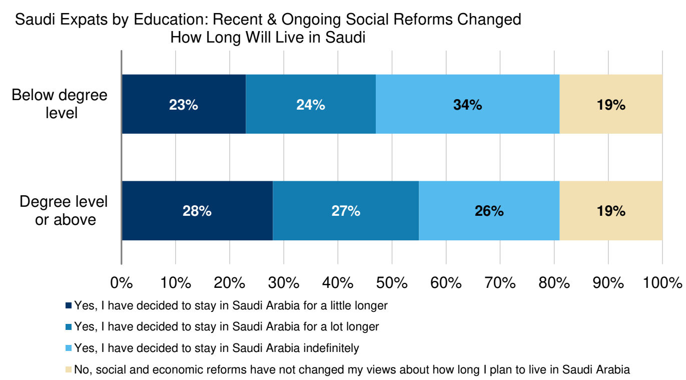
Source: GASTAT, UN, Gulf News, and Morgan Stanley Research

Exhibit 64: 81% of expat survey respondents indicate recent & ongoing social reforms have increased the amount of time they intend to stay in Saudi



Source: AlphaWise, Morgan Stanley Research

Exhibit 65: This is true for both highly educated and below degree level expats, though highly educated are less likely to stay 'indefinitely'

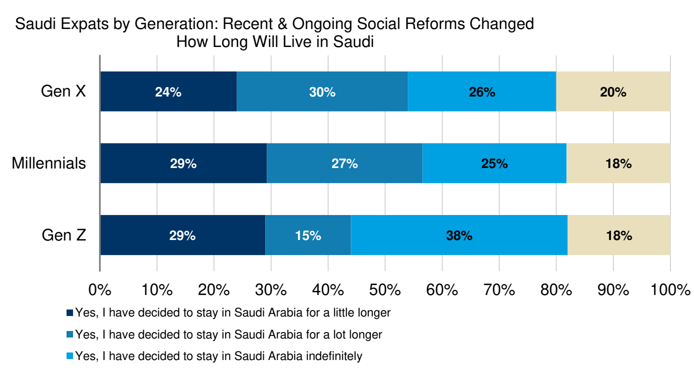


Source: AlphaWise, Morgan Stanley Research

We leverage our AlphaWise survey results to analyze what a rapidly rising expat population means for the future of Saudi Arabia. In past AlphaWise surveys we have focused on the Saudi National population. Given dramatic changes among and growth in Saudi Arabia's expat population our latest, larger AlphaWise includes a survey of 1,017 expatriates living in Saudi Arabia.

- **81% of expat survey respondents indicate that social reforms have increased the amount of time they intend to stay in Saudi Arabia**: The proportion have decided to stay in the country indefinitely (27% of total expat sample) is particularly high for the Gen Z demographic (38%) and those with below degree education levels (28%). A higher proportion of expat men (83%) have seen an increase in the amount of time they plan to stay in the Kingdom on the back of social reforms, versus women at a lower though still majority 76%. We do note that as with Saudi National women, expat women are rapidly joining the workforce, though from a much lower base. About 2/3rds of the Saudi expat community is men.

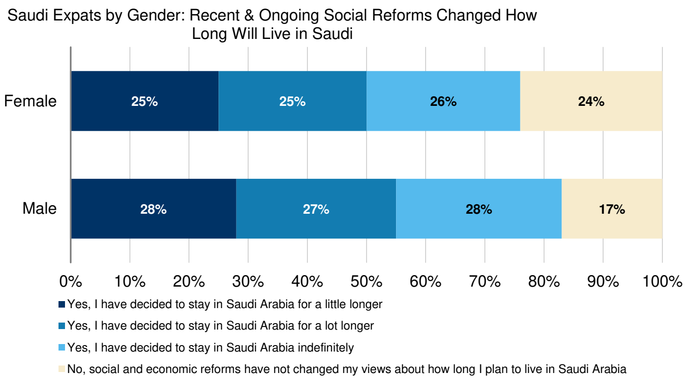
Exhibit 66: A higher proportion of Saudi's Gen Z expats in particular have increased intentions to stay in the Kingdom 'indefinitely' on social reforms



Source: AlphaWise, Morgan Stanley Research

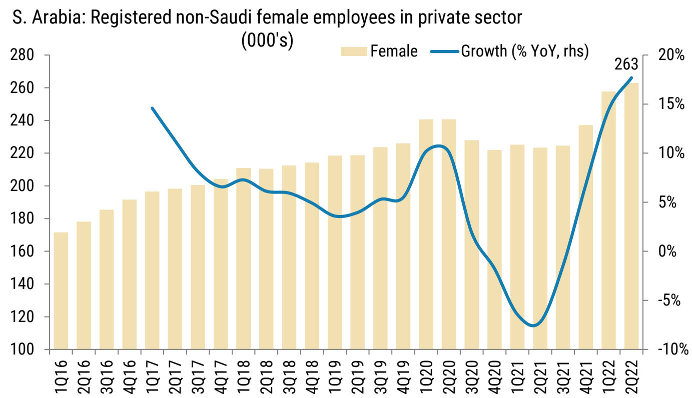
- **Overall, 45% of expat survey respondents intend to stay in Saudi Arabia indefinitely**: 23% intend to stay for 6-10 more years. By age demographics, the proportion of expats intending to stay indefinitely again is highest for Gen Z expats (56%) and lowest for Gen X (40%).

Exhibit 67: Expat men are more likely to want to remain in Saudi than women - though a majority of both have increased intentions to stay on social reforms



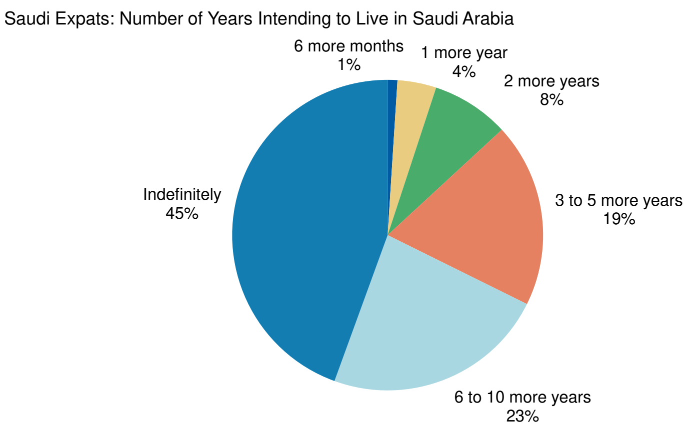
Source: AlphaWise, Morgan Stanley Research

Exhibit 68: As with Saudi National females, expat women are seeing a rapid pick-up in job growth in Saudi; currently 2/3rds of Saudi's expat population is men



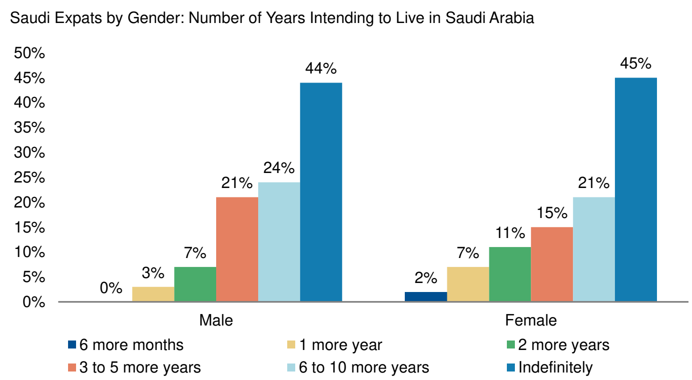
Source: General Authority for Statistics, GOSI and Morgan Stanley Research

Exhibit 69: 45% of expat survey respondents intend to stay in Saudi Arabia indefinitely



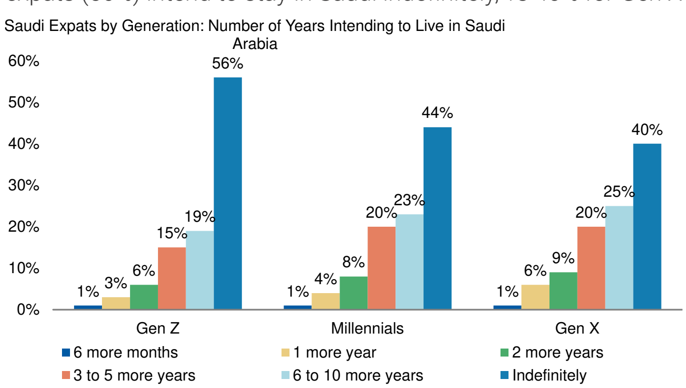
Source: AlphaWise, Morgan Stanley Research

Exhibit 70: Expat men intend to remain in Saudi Arabia slightly longer than women



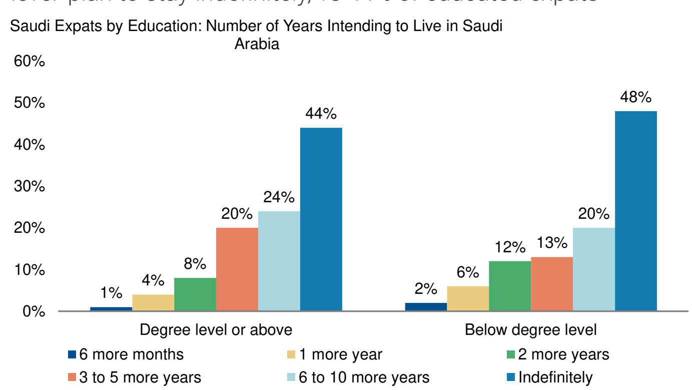
Source: AlphaWise, Morgan Stanley Research

Exhibit 71: By age demographics, the highest proportion of Gen Z expats (56%) intend to stay in Saudi indefinitely, vs 40% for Gen X



Source: AlphaWise, Morgan Stanley Research

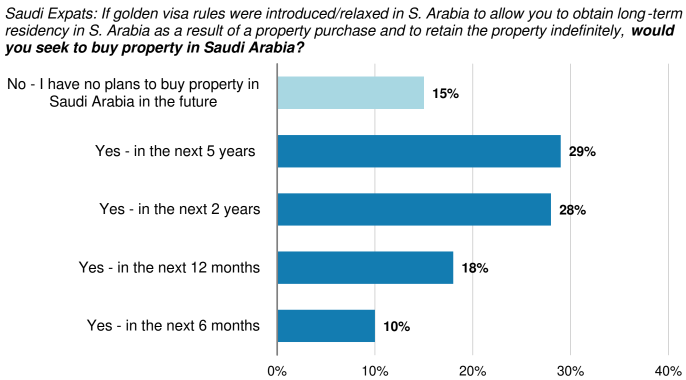
Exhibit 72: By education level, 48% of expats with 'below degree level' plan to stay indefinitely, vs 44% of educated expats



Source: AlphaWise, Morgan Stanley Research

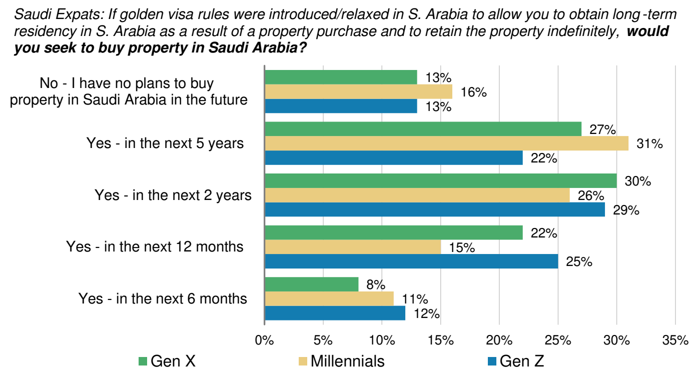
- **If Saudi reformed golden visas as per the UAE, allowing expats and their families long-term residency visas on property purchases, 85% of expats would purchase property**, according to our survey sample results. In April this year, the UAE government approved substantial amendments to its Golden Residence Scheme allowing 10 year residence visas to those purchasing a property of c. $750k or more, certain professions, and allowing the Golden Residence holder to sponsor his/her spouse, children as well as any domestic support staff. As we have written about, this has been a key driver behind structurally rising Dubai property markets. In Saudi Arabia, our survey indicates younger expats in the Gen Z demographic would be quickest to purchase properties if such visas were introduced in Saudi Arabia with 66% indicating they would do so in the next 2 years versus 56% for the total sample.

Exhibit 73: If Saudi introduced golden visas as per the UAE, allowing expats and their families long-term residency visas on property purchases, 85% of expats would purchase property, according to our survey sample results



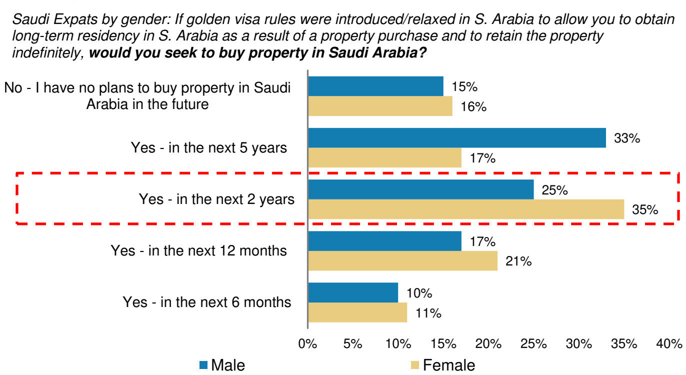
Source: AlphaWise, Morgan Stanley Research

Exhibit 74: Gen Z expats would purchase properties sooner if golden visas were introduced - 66% in the next 2Y (vs 56% of the total expat sample)



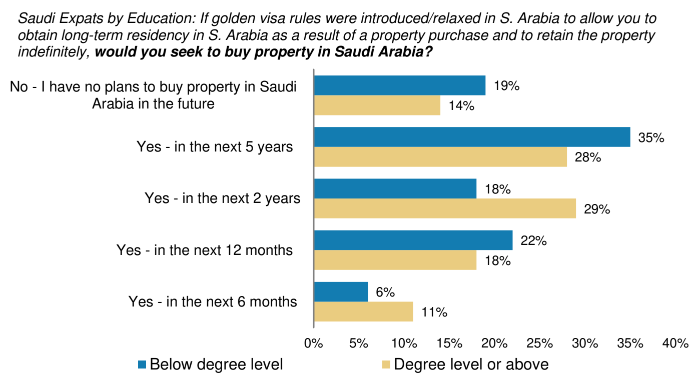
Source: AlphaWise, Morgan Stanley Research

Exhibit 75: Women would purchase properties sooner than men if golden visas were introduced - 67% in the next 2Y (vs 52% of Male expats)



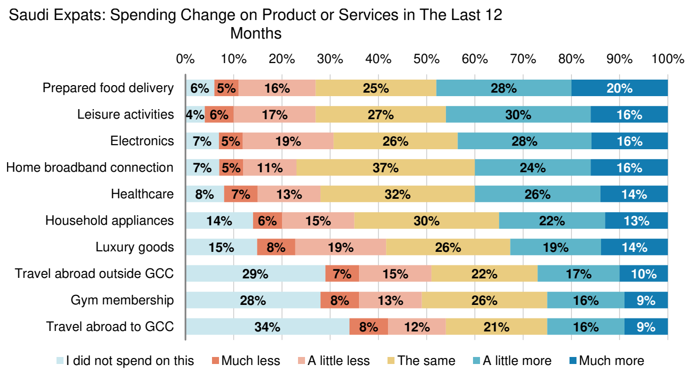
Source: AlphaWise, Morgan Stanley Research

Exhibit 76: 58% of educated expats would buy property in Saudi Arabia if golden visa were introduced in the next 2 years



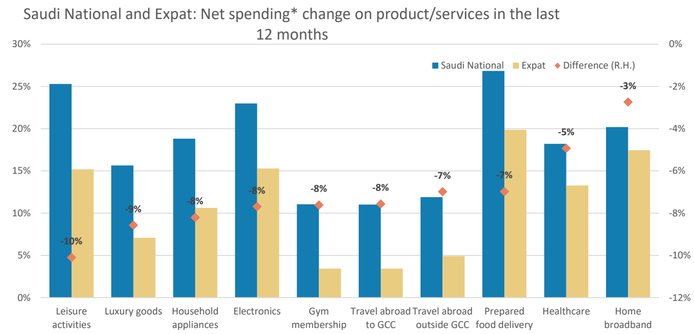
Source: AlphaWise, Morgan Stanley Research

Exhibit 77: Over the last 12 months, Saudi expats have increased spending most on prepared food delivery, leisure, electronics, & home broadband ...



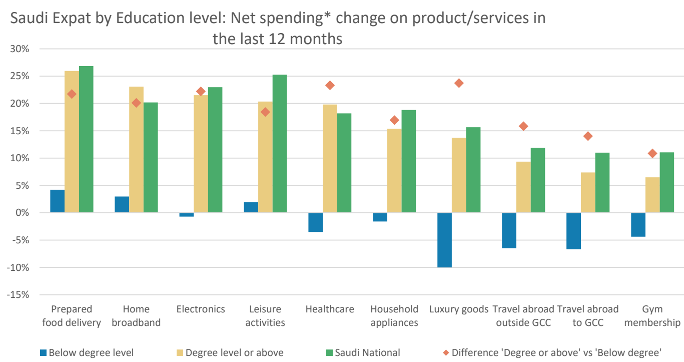
Source: AlphaWise, Morgan Stanley Research

Exhibit 78: ... though the net increase in expat spending has come at a slower pace vs Saudi Nationals (expats are more likely to save &/or send money home)



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise, Morgan Stanley Research

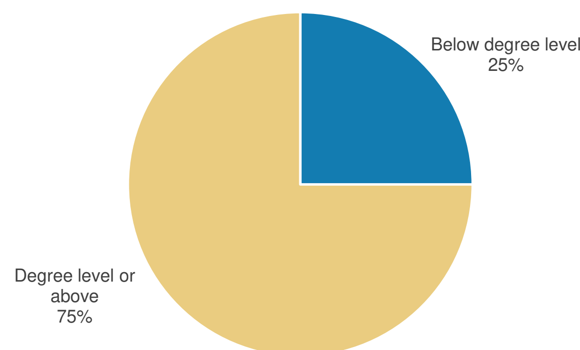
Exhibit 79: More educated expats accounted for the overall expat spending increases in the last 12M; whilst below degree expats reduced spending



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise, Morgan Stanley Research

Exhibit 80: Our survey sample had a higher share of degree or above educated expats

Saudi Expat: survey respondents by education



Source: AlphaWise, Morgan Stanley Research

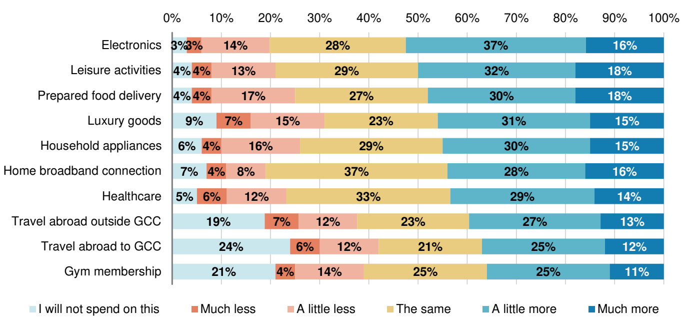
- **Over the last 12 months, Saudi's expats have increased spending most on food delivery, leisure activities, electronics, and home broadband**. Interestingly, they have increased spending least on travel, gym memberships, and luxury goods. The pace of net spending growth for expats has been meaningfully lower than that for Saudi Nationals. That said, if we split expats by education level, we find those at or above degree level have increased spending substantially more, almost in-line with Saudi Nationals for most categories, while those below degree level have seen net decreases in spending. **Expats at or above degree level increased spending most on food delivery, home broadband**, and electronics in the last 12 months.

- **Over the next two years, expats expect to increase net spending most in electronics, leisure, food delivery, and luxury goods**, though more educated expats driving this growth also intend to increase spending in electronics. Expats' spending is still expected to grow below that of Saudi Nationals, though, interestingly, the difference narrows substantially versus the last 12 months and if we consider only those expats with a degree level education or above, then spending growth intentions over the next two years actually line up fairly similarly to Saudi Nationals in our survey. **Comparing the next two years net spending growth intentions versus the last 12 months growth, we see the biggest acceleration in growth among well-educated expats**, even above Saudi Nationals, and the spending growth looks to be **highest for gym memberships, travel and luxury goods.**

- **Within key financial products more well-educated expats are accelerating usage, but least of all in mortgages:** This is understandable given current residency rules as discussed earlier. Expats increased their usage of credit cards and deposit/savings accounts most in the last 12 months and expect to do the same in the next two years.

Exhibit 81: In the next two years, Saudi expats expect to increase spending most on electronics, leisure, food delivery & luxury goods

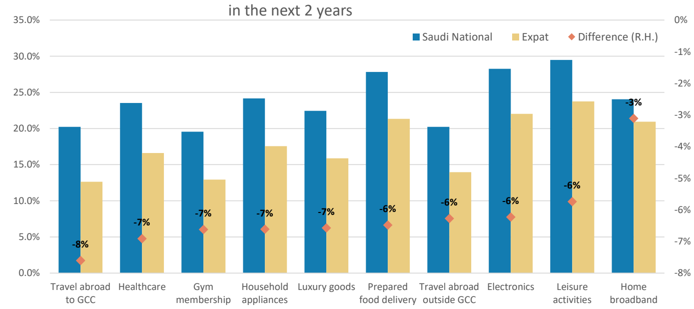
Saudi Expats: Expected spending change on product/services in the next 2 years



Source: AlphaWise, Morgan Stanley Research

Exhibit 82: While expats' spending growth is still likely to grow below Saudi Nationals, the difference between the two is narrower vs the last 12 months

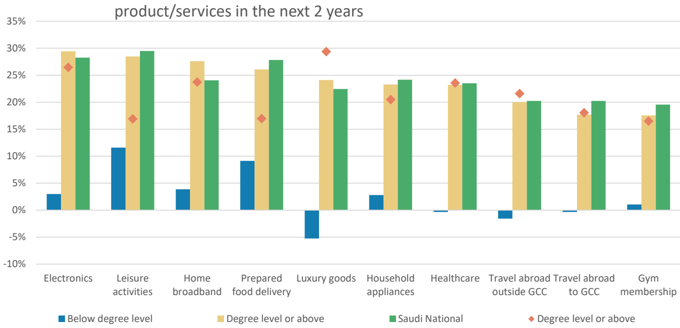
Saudi National and Expat: Net expected spending* change on product/services in the next 2 years



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise, Morgan Stanley Research

Exhibit 83: In fact, among more educated expats, spending intentions growth is roughly expected to be in-line with the Saudi National average ...

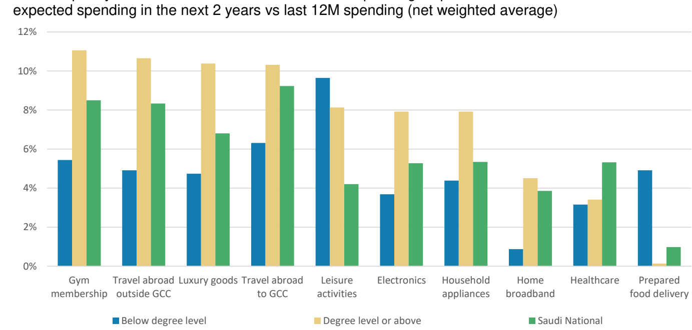
Saudi Expat by Education level: Net expected spending* change on product/services in the next 2 years



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise, Morgan Stanley Research

Exhibit 84: ... and vs the last 12M, in the next 2Y, more educated expats are likely to increase spending at a faster pace than SNs - especially for gyms, travel, & luxury

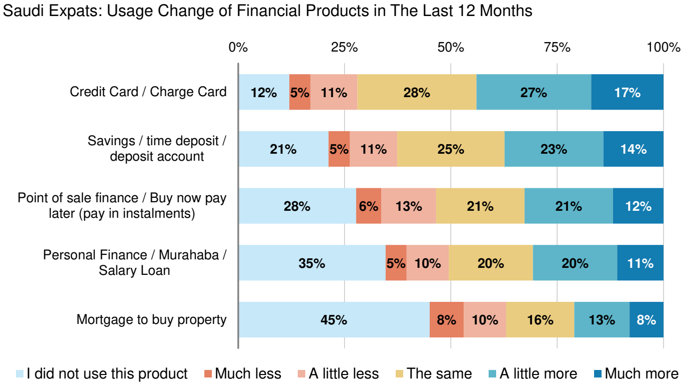
Saudi Expat by Education level and Saudi Nationals spending on products/services: difference of expected spending in the next 2 years vs last 12M spending (net weighted average)



*net spending calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise, Morgan Stanley Research

Exhibit 85: Within key financial products, Saudi expats increased usage of credit cards and deposit/savings account most in the last 12M

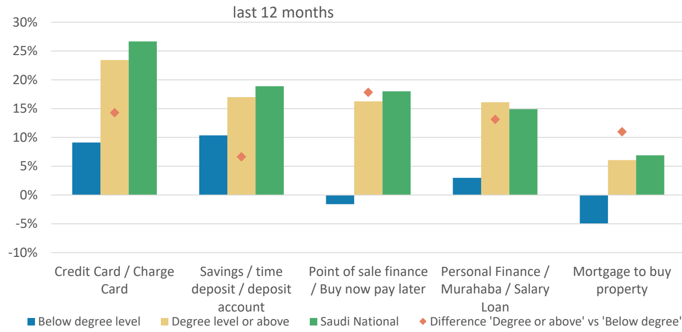
Saudi Expats: Usage Change of Financial Products in The Last 12 Months



Source: AlphaWise, Morgan Stanley Research

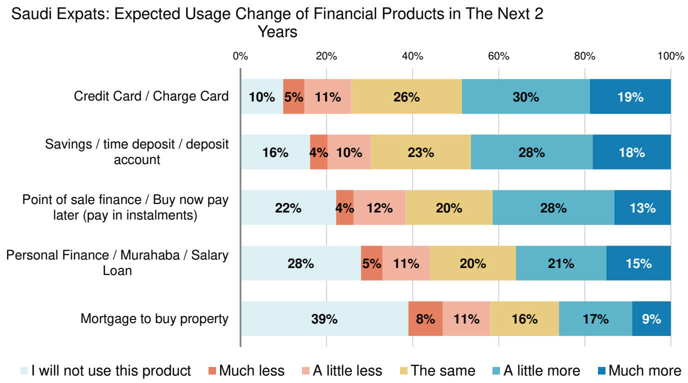
Exhibit 86: Again, more educated expats accounted for most of the overall usage increase of financial products in the last 12 months

Saudi Expat by Education level: Net usage change* of financial product in the last 12 months



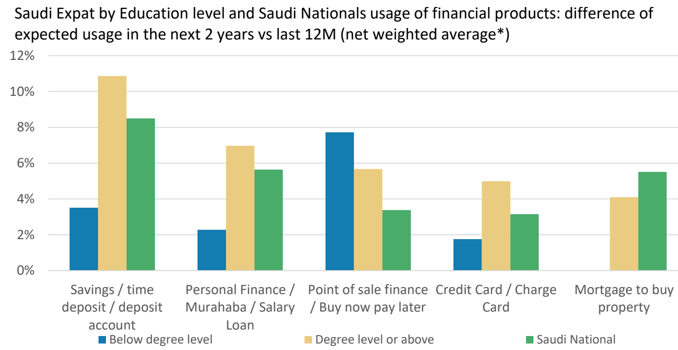
*net usage calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more; Source: AlphaWise, Morgan Stanley Research

Exhibit 87: In the next 2Y, Saudi expats plan to accelerate their usage of financial products such as credit cards and savings/ deposit accounts ...



Source: AlphaWise, Morgan Stanley Research

Exhibit 88: ... and over the next 2Y vs the last 12M, more educated expats are likely to increase the usage of financial products at a faster pace than SNs in all categories but mortgages



*net usage calculated as weighted average based on answers and rebased to 100%: 0 = I will not spend on this or the same; -2 = much less, -1 = a little less, +1 = a little more, +2 = much more;Source: AlphaWise, Morgan Stanley Research

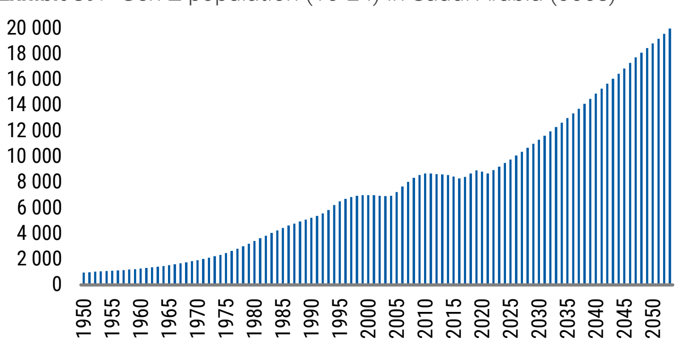
Demographics: To 2030 and Beyond

Saudi Arabia is currently in the demographics sweet spot; high and relatively stable births, low and stable deaths. The near- and medium-term growth outlook from a vibrant and growing Gen-Z and working population is supportive alongside large and generous policy support. Saudi Arabia's total current population size is c. 36 million people, with c. 14 million or 39% of this total accounted for by expatriates. Government targets imply that Saudi Arabia's population will rise to 50-60 million people by 2030, with expats reaching 50% of the population by this time. A 50% proportion would put Saudi Arabia more in-line with the likes of Bahrain or Oman in terms of expat population proportion, though Saudi's population size is much higher than Middle East comparables or even the likes of Singapore or Hong Kong.

Looking beyond 2030, investors will need to navigate relatively fast changes in the country's dependency ratio. Births are already slowing. The main unknown is what happens to expats as they age and retire. If they are able to - and choose to - stay in the country, as our survey shows they intend to , then this would put longer term pressure on the healthcare system (as in any country). Yet, with expats such a large portion of the population and largely required to lean on private rather than public health insurance and facilities, we see private healthcare as the most compelling way to play this long-term dependency ratio evolution.

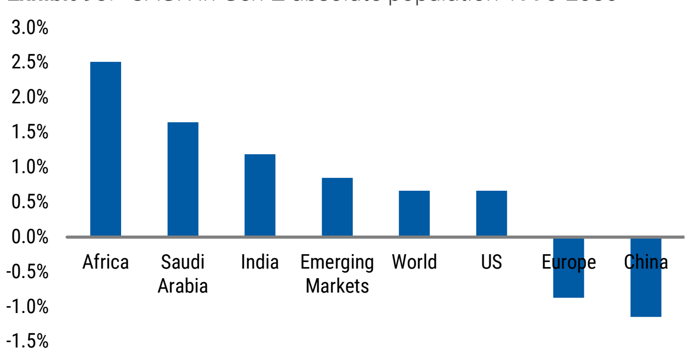
The patterns and trajectories shown below tally with our Economists' views : Working age population will depend on the fertility rate evolution which we think will be an inverse function of the labour participation rate. In our base case, we assume participation rate to continue to gradually increase to about 65% from the current 61.2%. In the bear case scenario, we assume the participation rate to remain unchanged while in the bull case to increase to about 70%.

Exhibit 89: Gen Z population (10-24) in Saudi Arabia (000s)



Source: UN, Morgan Stanley Research

Exhibit 90: CAGR in Gen-Z absolute population 1990-2030

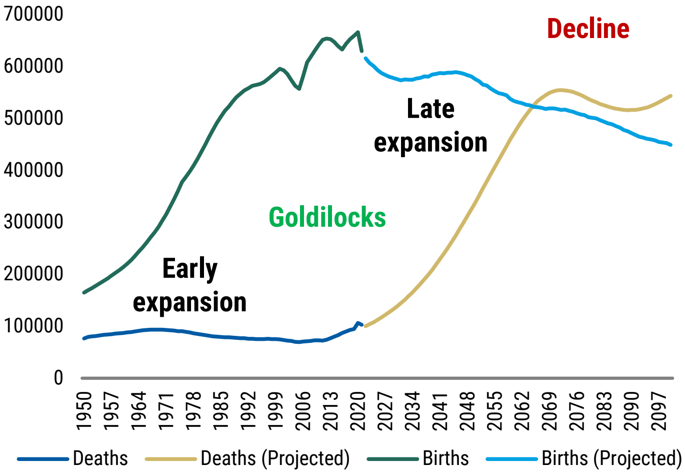


Source: UN, Morgan Stanley Research

Saudi Arabia has a quite remarkable demographic profile relative to almost any other major country on the planet. As with any demographic analysis, the most important conclusions are: 1) rate of growth in Gen-Z (12-24 year olds); 2) the speed of decline in natural fertility rates; 3) rate of increase in crude death rate and dependency ratio.

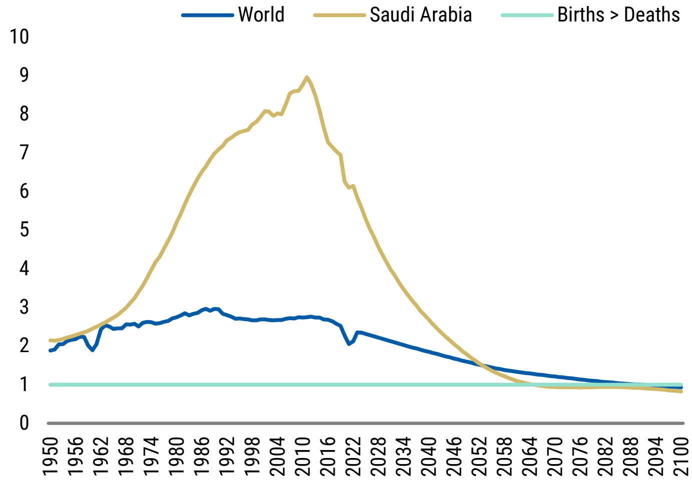
On the former, the digital-native consumer engine of Gen-Z starts to become a more material part of the workforce and consumer base by 2030. Saudi Arabia's Gen-Z growth will be out-paced only by that of Africa and is even faster in its CAGR than that of India, which we lay out in this report is one of the only other regions in the world with appealing demographics, policy and technology coalescing simultaneously.

Exhibit 91: Births versus deaths in Saudi Arabia



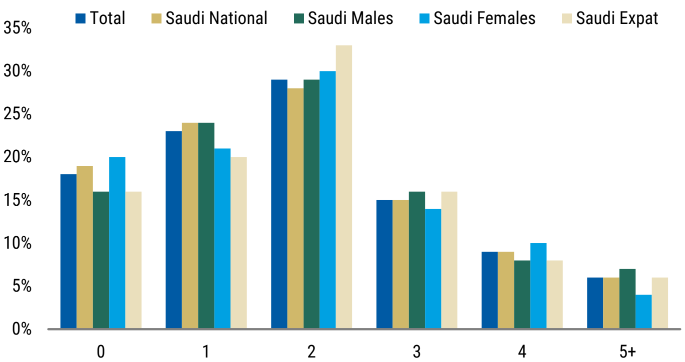
Source: UN, Morgan Stanley Research

Exhibit 92: Births relative to deaths in Saudi and Globally



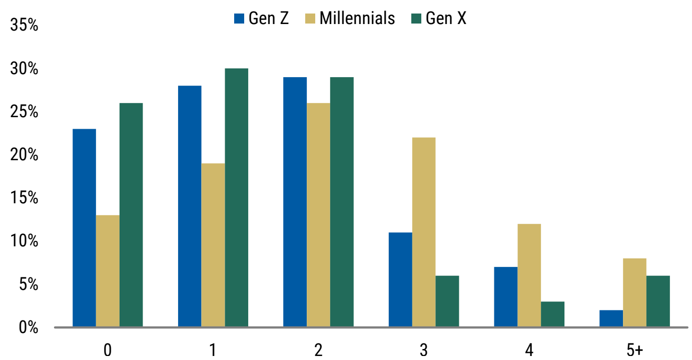
Source: UN, Morgan Stanley Research

Exhibit 93: Desired number of children by category of survey respondent



Source: AlphaWise, Morgan Stanley Research

Exhibit 94: Desired number of children by age of survey respondent



Source: AlphaWise, Morgan Stanley Research

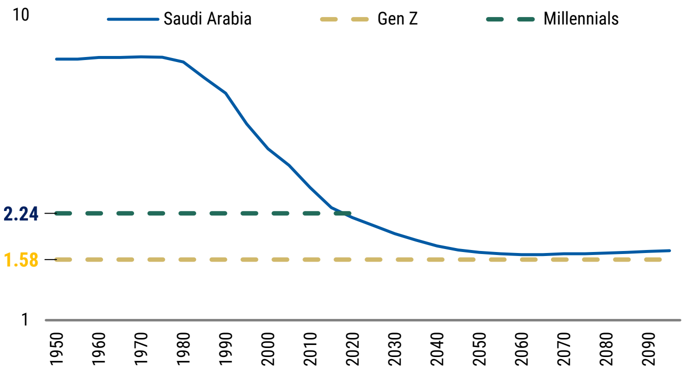
Saudi follows the same broad trend we expect to see from any emerging high-growth nation; high and steady birth rate with low and steady deaths, supplemented by improving healthcare and favourable migration inflows (see here). However, to understand how unusual this ratio spread of Births:Deaths is, we compare it to the global pattern over time (Exhibit 92). Typically in high growth phase, countries may see 3x more births than deaths. In Africa this number can be as high as 6-8x. In Saudi Arabia over the past decade this reached nearly 10x. However, as can be seen below, based on UN predictions this ratio will fall below 1x by 2050; a far faster decline than typically seen.

Given the death rate is only rising gradually, this faster than normal decline in natural population increase is (and will continue to be) led by falling fertility rates. Per our AlphaWise survey, the vast majority of respondents want to have two children or fewer. Only 14% want or have 3, 8% want of have 4 and 5% 5. Strangely there is a bias in the Millennial respondent data skewed higher than Gen X and Z, which is in part explained by slightly higher responses for desired number of children from expats.

Applying the Millennial respondents' ambitions for an average of 2.24 children, the outlook is broadly in line with the UN's current birth rate for the country. However - and conscious that "desired number of children" is by definition aspirational only - applying the Gen Z response of 1.58 desired children on average is below even the bottom end of the UN's 2100 forecasts. This is not a major surprise as the UN has historically overestimated recoveries in birth rates in both developed and emerging markets.

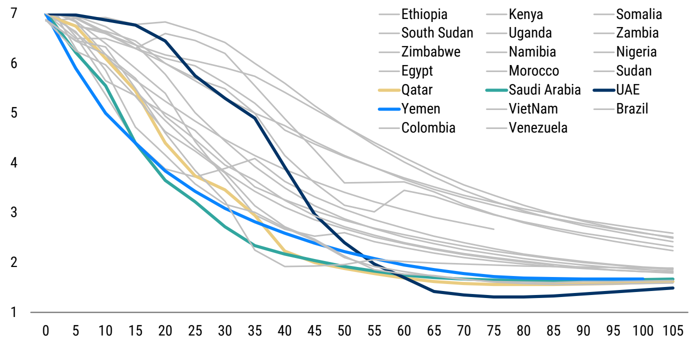
Moreover, even if we take the UN's more generous outlook on birth rates stabilising (in contrast to our AlphaWise results), the outlook is for a rapid decline. When we rebase all emerging markets to the point at which the average mother was having 7 children and look at how many years it took for this figure to fall on average to 2 (i.e. the natural replacement rate), Middle Eastern nations achieve this in record time. While the UAE is expected by the UN to have the most extreme high to low fertility rate delta, Saudi will have the fastest over the 30 years since the average fertility was 7 children per mother.

Exhibit 95: Births per woman in Saudi Arabia and implied by survey Gen Z responses



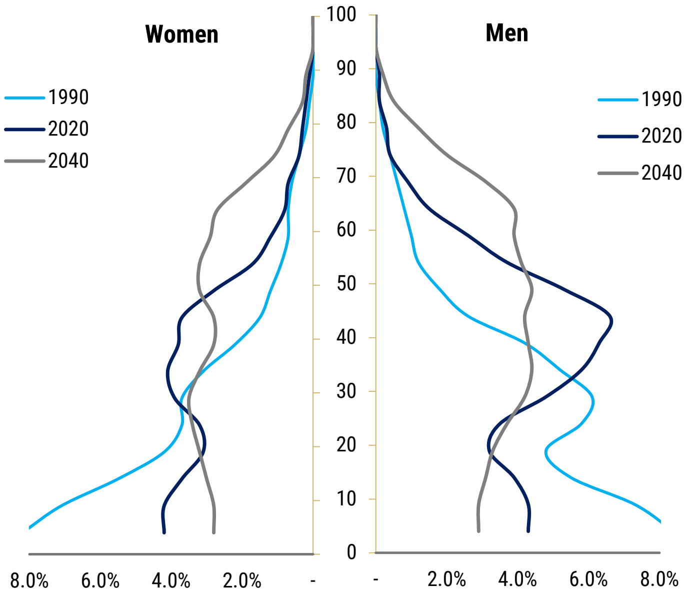
Source: United Nations, AlphaWise, Morgan Stanley Research

Exhibit 96: Saudi Arabia and other emerging market speed of decline (years) from 7 children per women



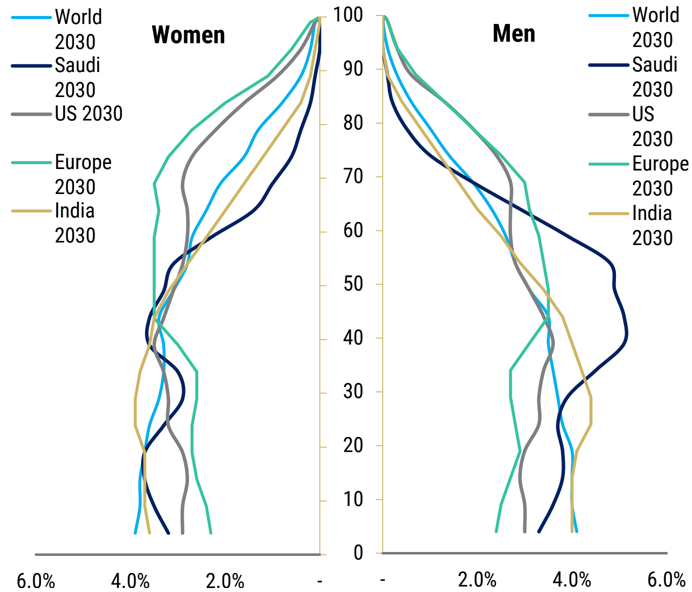
Source: United Nations, Morgan Stanley Research

Exhibit 97: Saudi Arabia population pyramid 1990, 2020, 2040



Source: UN, Morgan Stanley Research

Exhibit 98: Saudi Arabia vs other major nations 2030



Source: UN, Morgan Stanley Research

This rapid fall in the birth rate will see the population pyramid for the country move towards something resembling more of a developed market by as soon as 2040. Despite this "normalisation" in births over time, the skew in men versus women (particularly in the 40-60 year old category) is expected to persist. By 2040, male population concentration in these age cohorts will be c20% higher than in the same age cohorts for women.

To put this figure in wider context, it is helpful to see Saudi's 2030 expected population pyramid overlaid with the 10 year forward population structure of regions like the US, Europe, India and versus the world. The 40-60 male age group is an extraordinary demographic outlier.

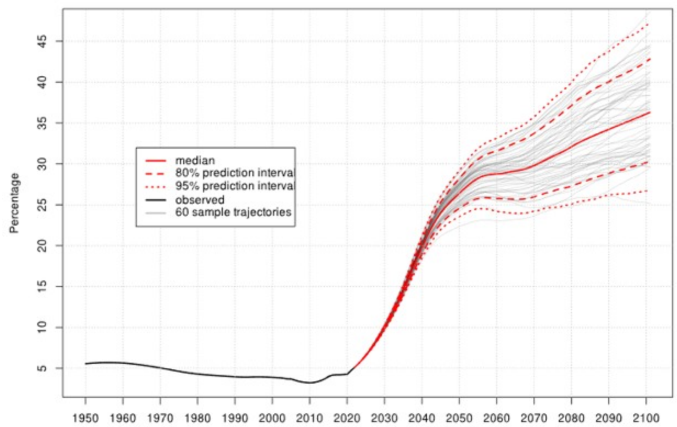
While this is clearly beneficial for growth in the near and medium-term, longer-term the inflow (and retention) of migrants will be a key determinant in achieving the ambitious population growth goals.

Looking more specifically at the speed and range of possible outcomes, for the traditionally used ranges of "dependents" >65s and "independents" 20-64 year olds, the medium- and long-term become challenging socio-economically. Both groups are at inflection points higher and lower respectively. Even assuming a +/- 5% margin of error in both birth and death rates does little to change the course of exponential increase in those >65 by 2050. As such, retention of expats will be an important driver to avoid burdensome dependency ratio changes over the coming 20 years.

In a global context - and in the absence of high and consistent migrant inflows - Saudi could move from having one of the lowest dependency ratios globally - given: 1) high birth rates, 2) low death rates, and 3) ample immigration - towards a ratio resembling more of a developed market nation, >30% elderly relative to working age.

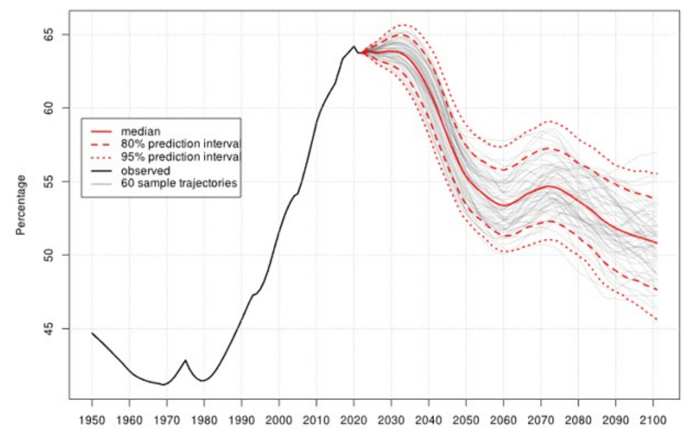
Given expats rely predominantly on private (rather than public) health facilities and insurance, we believe this demographic trajectory and expat profile should make private healthcare in the country a key long-term investment theme.

Exhibit 99: >65 as a percentage of population



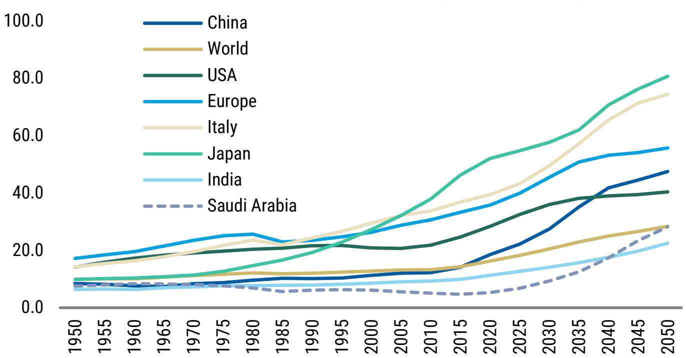
Source: UN, Morgan Stanley Research

Exhibit 100: 20-64 as a percentage of population



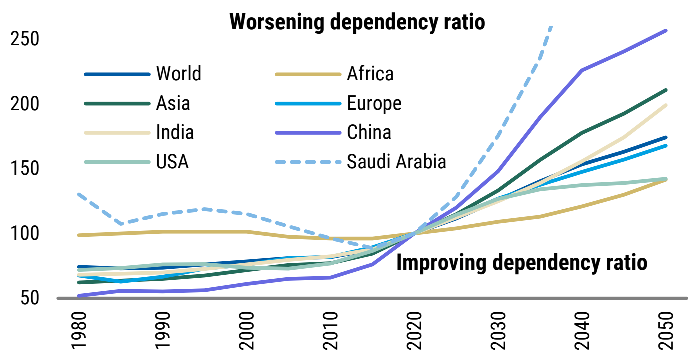
Source: UN, Morgan Stanley Research

Exhibit 101: Dependency Ratio by country (>65 vs 25-64)



Source: UN, Morgan Stanley Research

Exhibit 102: Dependency Ratio by country (>65 vs 25-64) rebased to 100 in 2020

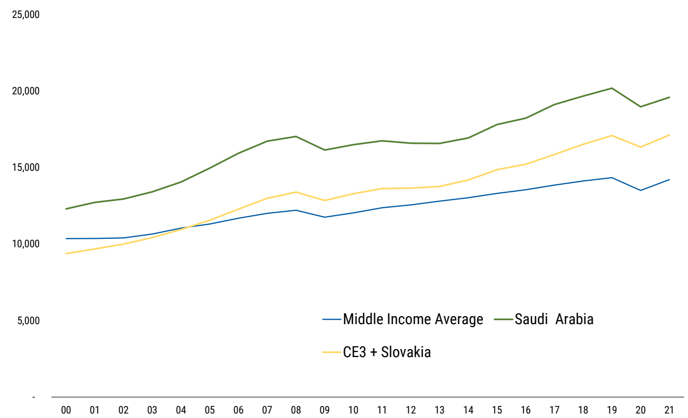


Source: UN, Morgan Stanley Research

Saudi Arabia in a Development Context

Rajeev Sibal and Cristina Arbelaez

Exhibit 103: Real GDP per Capita Time Series (USD)

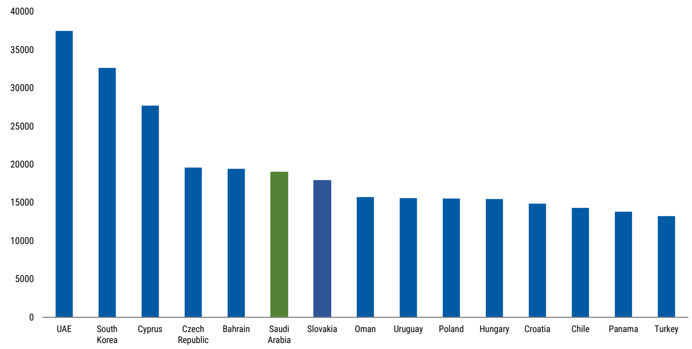


Source: World Bank (WDI), Morgan Stanley Research

Situating Saudi Arabia from a development perspective is challenging. Its per capita GDP is well above the average of middle and middle-high income Emerging Markets and most comparable to some of the wealthier countries in Eastern Europe (Exhibit 103 & Exhibit 104), but its Gini coefficient is closer to that of Turkey and Morocco (Exhibit 105). Exhibit 106 provides a visual of the conundrum that arises when trying to situate Saudi Arabia in a comparative development context. Saudi Arabia does not fit into conventional development boxes. To situate Saudi within an EM framework, whether it is high income, emerging, or even potentially an advanced developing economy in a "middle income trap", requires a broader context of fundamentals.

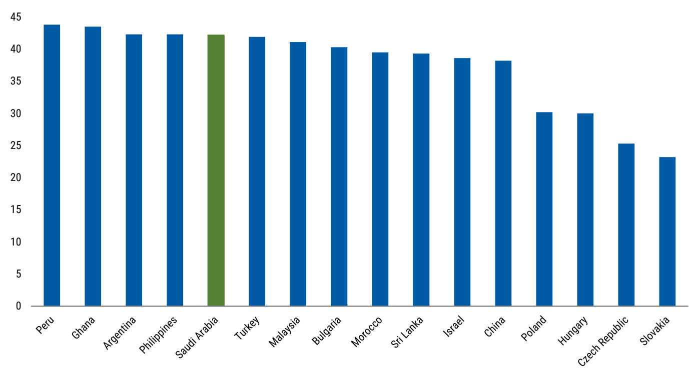
A preliminary expectation would be that the contrast in per capita GDP vs Gini likely comes from the fact that Saudi Arabia generates considerable income from it's natural resource endowments. Saudi stands out in the fact that oil drives a substantial part of "rents" - or non domestically sourced value add economic output - in their GDP (Exhibit 107 and Exhibit 108). Access to external capital via natural resources has a substantial impact on institutional structures of the local economy, which can be a good or a bad thing. Given the per capita measure is relative to population, we can actually attempt to compare Saudi versus a range of similarly sized nation states with substantive rents. With a population of around 36 million, Saudi Arabia is similar in size to Algeria, Iraq, Uzbekistan, Malaysia, Angola, Argentina, Australia, and Canada. It is safe to say that rarely does that group of countries fit into comparatively similar development baskets given the wide disparity of wealth within that grouping. The heterogeneity of those economies provides a great example of the importance of local context when thinking about development processes.

Exhibit 104: Selected EM GDP per Capita (USD, 2021)



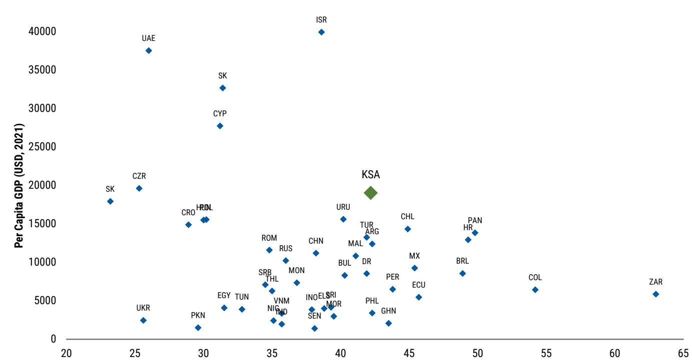
Source: World Bank (WDI), Morgan Stanley Research

Exhibit 105: Selected EM Gini Coefficient (Various Years, last reported)



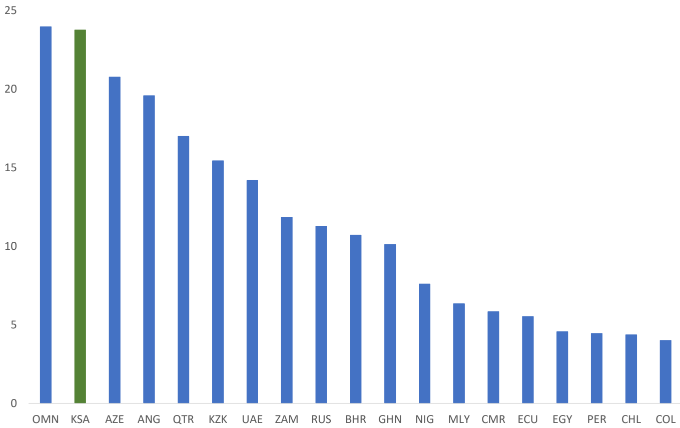
Source: World Bank (WDI), Saudi Arabia General Authority of Statistics, Morgan Stanley Research. Note: Saudi Arabia's Gini coefficient is derived from general expenditures in 2018. The estimate is academic research that attempts to similarly estimate a Gini of around 0.4.

Exhibit 106: Saudi Arabia Has a Higher Per Capita than Most Countries with Similar Gini Coefficients



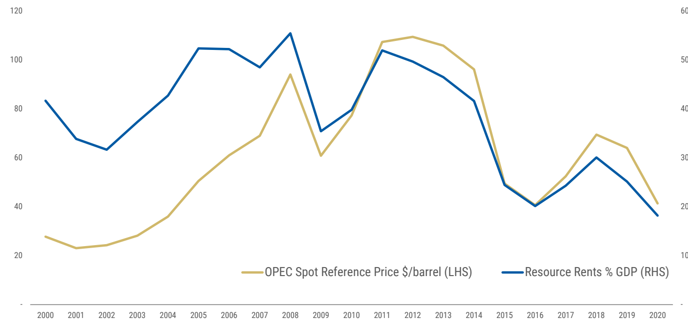
Source: World Bank (WDI), Saudi Arabia General Authority of Statistics, Morgan Stanley Research

Exhibit 107: Resource Rents as % GDP (2015-2020 average)



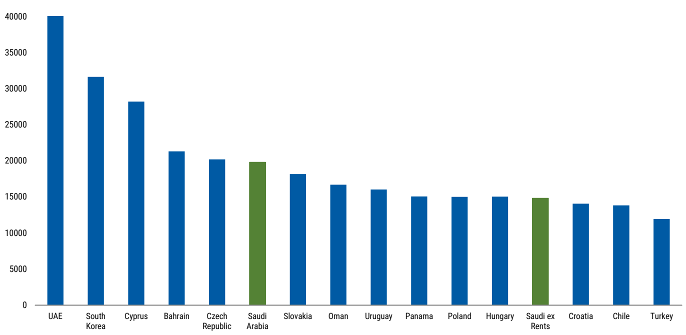
Source: World Bank (WDI), Morgan Stanley Research

Exhibit 108: Saudi Arabia Resource Rents as a % of GDP (RHS) vs Oil Price (LHS)



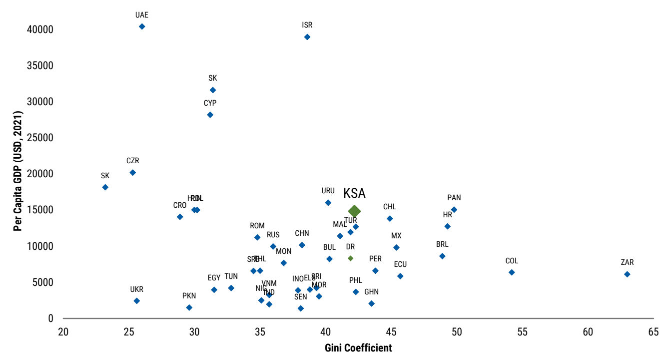
Source: World Bank (WDI), OPEC, Morgan Stanley Research

Exhibit 109: Selected EM GDP per Capita (USD, 2019) including Saudi and Saudi ex Rents



Source: World Bank (WDI), Morgan Stanley Research; note that 2019 per capita GDP is used because rents for 2021 have not yet been calculated by the World Bank WDI and because 2020 is not as representative because of the COVID distortions

Exhibit 110: Adjusted for Rents, Saudi's per Capita GDP (USD, 2019) follows expectations and more closely aligns with peers that have a similar Gini



Source: World Bank (WDI), Saudi Arabia General Authority of Statistics, Morgan Stanley Research; note that 2019 per capita GDP is used for the same reasons outlined in notes of Exhibit 109

The next step in trying to frame Saudi's per capita GDP in a comparative framework is to think about the economy ex-rents, or ex-oil. The lower level of per capita GDP places Saudi more closely with its range of peers like Croatia and Chile, and relative to the Gini estimate becomes less of an outlier. This provides us with a view on the underlying economic reality in Saudi Arabia and how the growth dynamic compares to other emerging markets. That Saudi fits more closely into a comparative developmental framework when one controls for the rents is an important framing to more explicitly understand the dynamics of the local economy and growth potential. At minimum, it frames a more likely framing for an industrial base, opportunity for productivity growth, and other developmental metrics that usually tend to cluster around certain levels of per capita GDP.

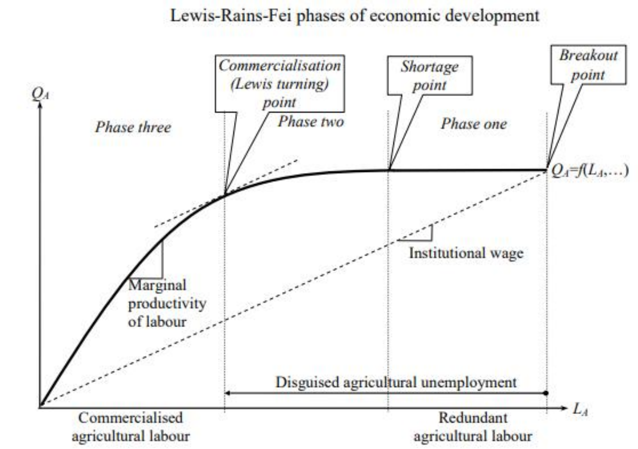
At the most basic level, per capita GDP is equal to GDP divided by population, but at a more technical level, it can be framed in terms of labor productivity and hours. Labor productivity is the amount of output per hours worked, or GDP per hour. This equivalence is particularly important in the Saudi case because the labor factor is the one economic input that can be an alternative source of future growth and development, given there is seemingly no shortage of capital inputs. Labor will play a central role in pushing Saudi Arabia forward, the outlook for which we discuss in prior sections: The Rise of Saudi Women and Expats: the Delta in Saudi's Accelerating Population Growth.

In development economics, labor is the key input that needs to be "freed" to drive enhanced productivity. Capital and other inputs can be channeled to free up labor. For example, when agricultural techniques drive efficiencies that enable the labor share of agriculture to reduce, then the economy can more rotate to industry and manufacturing through the re-allocation of labor; this is known as *The Lewis Turning Point* (Exhibit 111). The theory was cultivated and crafted in the post WWII era as the post-colonial era required greater analysis to recognize stages of economic development. To identify the turning point, one must calculate the point at which the diminishing agricultural share of employment enables rising productivity in other segments of the local economy. Developed economies achieved this turning point a century ago, but the theoretical framework had a subsequent burst of popularity approximately one decade ago when academics debated if China had in fact turned; the strong urbanization trends and rise of real wages in the early 2000s were signals of the mobilization of surplus agricultural labor in the Chinese economy. India is now at the centre of the academic debate as to whether or not that point has been reached there, given the continued pre-eminence of agriculture as a source of employment in India.

While the sequence of a Lewis Turning Point does not exactly apply in Saudi Arabia given that, due to its climate, it has never been an agrarian economy (Exhibit 112), but the concept of driving productivity from a reallocation of surplus labor is highly relevant. We know that Saudi can drive investment given the abundance of capital built over time through the sale of oil. But what can differentiate Saudi growth over the medium term is harnessing labor; the mobilization of labor will be the pivot point for the future development of Saudi Arabia.

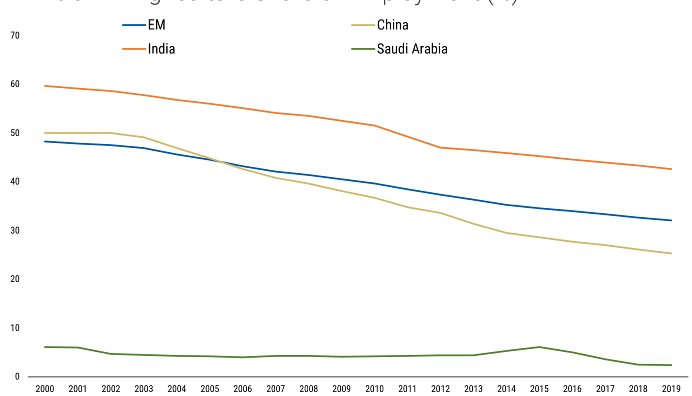
Currently, there are multiple sources of labor supply that can help drive enhanced productivity in the nation: further female participation in the labor market and higher education of the existing labor force. The government will also need to weigh and balance the role of expatriate workers in the economy, whether they continue to harness foreign labor to drive productivity or seek to "in-source" certain sectors. As discussed before, Females are under-represented in the labor market (Exhibit 113) and tend to be better educated on average (Exhibit 114), two immediate and obvious drivers of labour productivity. Looking across the broader labor force, one key will be aligning incentives across sectors. Expatriate labor accounts for a high proportion of the labor force as discussed before. The contrast across sectors is particularly important to consider in a development context (Exhibit 115). Vision 2030 includes a focus on education and human capital development, an area where clear policies will be required to ensure labor cost, employer cost, and local vs expat distribution incentives are aligned to drive productive outcomes.

Exhibit 111: Theoretical Lewis Turning Point Diagram where Agricultural Output is Q_A and Labor input is L_A



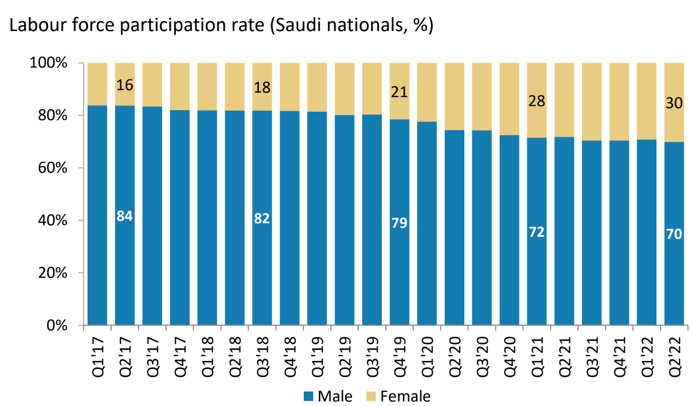
Source: Ercoloni and Wei (2010) An Empirical Analysis of the Lewis-Ranis-Fei Theory of Dualistic Economic Development for China in Asian Economic Papers Vol. 10, No. 3, p 1-29; Ranis and Fei (1961) A Theory of Economic Development in American Economic Review Vol. 51 p 533-565; Morgan Stanley Research

Exhibit 112: Agriculture Share of Employment (%)



Source: World Bank(WDI), Morgan Stanley Research

Exhibit 113: Further Female Participation Would be a Source of Enhanced Labor...

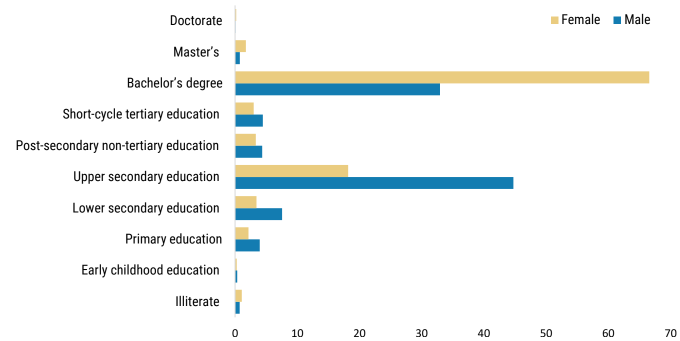


General Authority for Statistics, Morgan Stanley Research

The key challenge for Saudi will be the extent to which the capital provides a sufficient base for the country to "leapfrog" industrialization and shift into higher value add sectors. Given the wage levels of the domestic population in Saudi, it is highly unlikely that Saudi can benefit from a manufacturing renaissance built off low-value add labor arbitrage. Instead their manufacturing efforts will need to either "leapfrog" the traditional value chain progression or provide certain levels of subsidies that create a competitive cost base. The section on Economic Reform Commitments and Momentum delves into some of the approaches taken from an industrial policy perspective. One consequence of the dual efforts to both "leapfrog" and subsidize industrialization is that a certain reliance upon foreign labor is likely to persist. A related point, to avoid the pitfalls common to EMs caught in a "middle income trap," is that the local population will require deeper integration into the labor force alongside high levels of education. Government policy, through Vision 2030, is aiming to alleviate shortcomings through heavy investment in education and human capital. Infrastructure investment will also go a long way to supporting development. But softer reforms are also necessary; enhancements of legal institutions and personal freedoms have been introduced to help drive more efficient economic outcomes. It is through transparent and stable institutions that economic actors can drive productivity through more efficient economic interactions. Ultimately, for Saudi to become competitive in sectors outside of oil, it will require a mix of intelligent industrial policy and progressive and predictable institutional development.

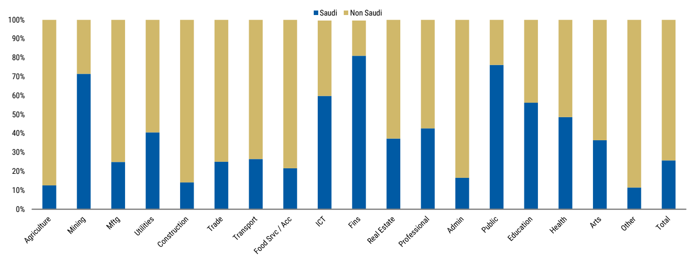
Exhibit 114: Especially considering how well educated Female Saudis are

Saudi nationals, unemployment rate: by gender and education level, Q2 2022



Source: General Authority for Statistics, Morgan Stanley Research

Exhibit 115: Rates of Localization Vary Across Sectors



Source: General Authority for Statistics Labor Market Data based on Participants Subject to Social Insurance Regulation, Morgan Stanley Research

A Very Real Energy Transition into Renewables

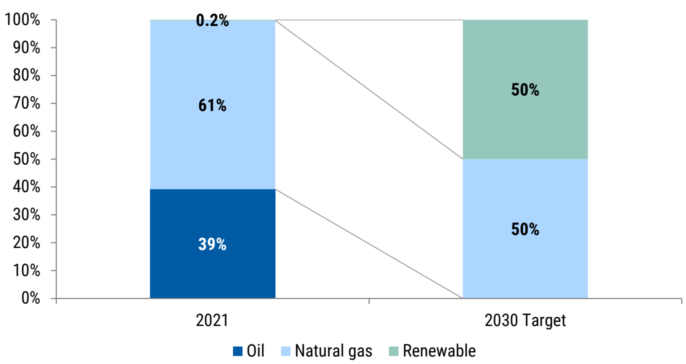
The Saudi government plans renewables to reach 50% (59GW) of its national power mix by 2030. In contrast to other parts of the world, strong economic rationale greatly incentivizes the acceleration in clean energy and renewables generation programs in the Middle East and Saudi Arabia, on top of the environmental incentives which are primary global drivers. The region indeed has a tremendous wealth of renewable energy resource potential, such as solar and, in some areas, wind power.

A policy with strong economic logic ... By 2030, the Saudi government wants to add 59GW of solar/wind capacity and eliminate the use of liquid fuels in the power sector. The policy is climate-friendly, but also reflects economics – we estimate that the opportunity cost of selling oil to the power sector at the domestic price instead of into export markets is 6x the all-in cost of renewables. Factoring in 59GW of new renewables, we estimate an implied national power output CAGR of 4.5-5.0% through 2030. That seems high, but may imply government optimism on GDP growth and/or indicate ambitions to become a regional electricity exporter.

... and more importantly, is climate-friendly. 59GW of renewables should be sufficient to displace the consumption of 750m barrels of oil or other liquid fuels per annum by the domestic power sector. Based on CO2 content of 0.43 tonnes per barrel of oil, we estimate that this would reduce Saudi Arabia's domestic CO2 emissions by 115m tonnes annually. Under its revised second Nationally

Exhibit 116: As part of its Vision 2030 reforms, Saudi Arabia seeks to achieve 50/50 renewables/natural gas mix in its electricity generation by 2030

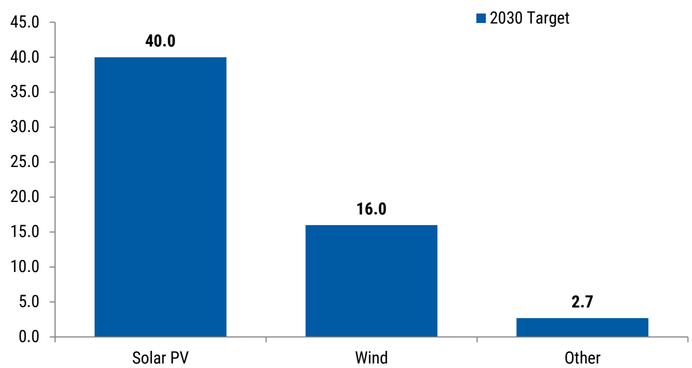
S. Arabia: Electricity generation mix by fuel



Source: BP Statistical Review of World Energy (2022), Vision 2030 and Morgan Stanley Research

Exhibit 117: In Saudi Arabia, by 2030, 58.7GW of renewable energy will mainly come from solar power (40GW or 68%), with wind also having a notable contribution (16GW or 27%)

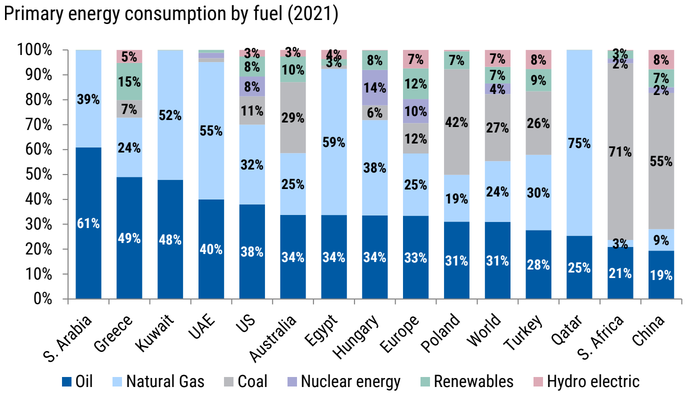
S. Arabia: Renewable energy planned capacity (GW)



2030 Targets are based on renewable energy target announcements in 2019, Source: National Renewable Energy Program, Middle East Institute and Morgan Stanley Research

Exhibit 118: Saudi Arabia's primary energy consumption fuels are oil & gas, while the share of clean energy sources are almost zero

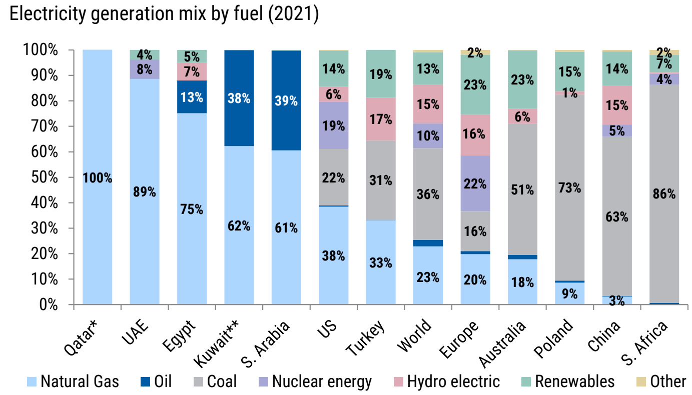
Primary energy consumption by fuel (2021)



Source: BP Statistical Review of World Energy (2022) and Morgan Stanley Research

Exhibit 119: 61% of Saudi electricity is generated by gas and the rest by oil

Electricity generation mix by fuel (2021)



*as of 2020; **as of 2019; Source: BP Statistical Review of World Energy (2022), Our World in Data, EIA and Morgan Stanley Research

Determined Contribution (NDC) under the Paris Climate Agreement, which the government revised in October 2021, the Kingdom aims to cut its CO2 emissions by 278m tonnes per annum (35%) relative to a projected 'business as usual' (i.e., no action) baseline scenario by 2030. We therefore estimate that the 59GW renewables programme would deliver 41% of the 2030 NDC target.

Saudi Arabia has a target of 58.7GW installed capacity of renewables by 2030 versus current 0.7GW online. **By August 2022, Saudi Arabia had already tendered 7GW, which is under construction**. The Sudair solar plant with capacity of 1.5GW is expected to start 1st phase of operations by end of the year. Another 1.2GW under construction is expected to become operational in 2023. Thus, there is indeed momentum for these projects to ramp up. Further, an additional 15GW worth of projects is expected to be tendered until end of 2023.

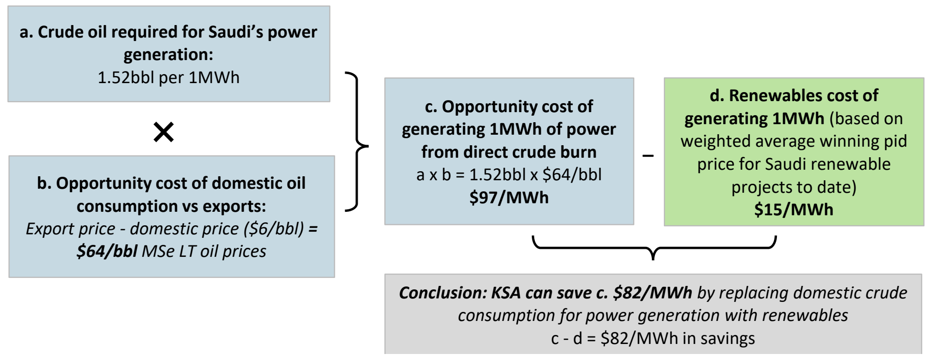
On the evidence so far, **costs for solar and wind power in the Gulf region are among the cheapest in the world**. While contributing to combatting climate change by cutting the carbon-intensity of the Saudi economy is likely seen as desirable, simple economics now point strongly in the direction of increasing the use of renewables to generate power. Saudi Arabia has a high potential for generating photovoltaic solar power (solar PV) at low cost, based on its high level of solar irradiance and other supportive factors (e.g., ample unused land). It also has a high potential for generating low cost wind power due to the wind characteristics of the region. The economics of renewables are further strengthened by the fact that solar irradiance peaks in the middle of the day and therefore coincides with the peak of daily power demand (linked to demand for cooling).

The low cost of renewables now creates an opportunity for Saudi Arabia to reduce the consumption of liquid fuels in its power sector. Based on industry norms for the energy content of crude oil and for the efficiency of thermal power plants, we estimate that the opportunity cost of generating power by burning crude oil rather than selling it in export markets is more than $95 per MWh. This assumes an oil export price of $70, in line with Morgan Stanley's long-term forecast for Brent crude. By contrast, the all-in weighted average cost of power from Saudi renewables projects to date is just $15 per MWh.

A successful renewables programme could have a material impact on Saudi Arabia's fiscal balance. We have estimated below that the Saudi government's targeted 59GW of renewables capacity should be sufficient to generate 122TWh of power annually from solar and 60TWh of power annually from wind. We estimate that this would eliminate the need to burn 750k bpd of liquids. At Morgan Stanley's long-term Brent price of $70, the extra revenue from selling the liquids in the export market rather than the domestic market would approximate $18bn (SAR 66bn) p.a., or 1.5% of 2030e GDP.

Exhibit 120: Saudi's opportunity cost of burning oil for power is much higher than generating it from renewables

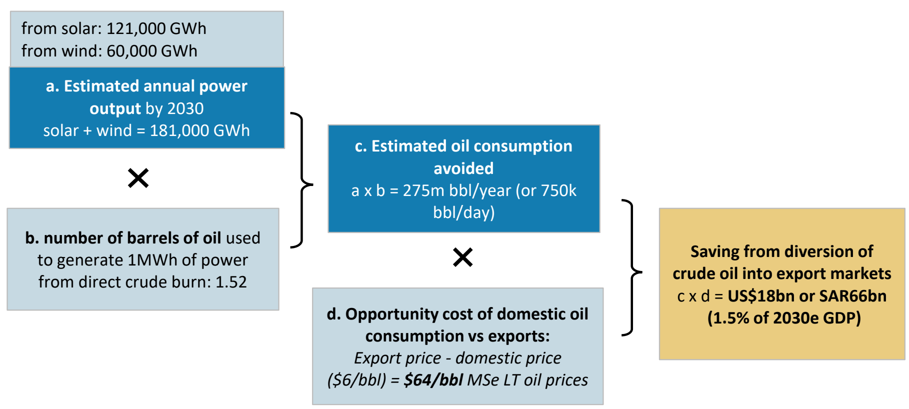
Saudi Arabia's opportunity cost of burning oil for power



Source: REPDO, ACWA Power, MEED, Morgan Stanley Research estimates (ave. thermal generation efficiency, energy intensity of oil, long-term oil price). * The weighted average winning bid price is based on REPDO rounds 1 & 2, the lowest shortlisted bids for REPDO round three and the PIF/ ACWA Power Sudair project. Levelised cost of energy is a measure of a system's all-in lifetime cost of generating electric power.

Exhibit 121: We estimate that by freeing up oil for export, the Saudi renewables programme could generate incremental annual oil revenues of US$18bn (1.5% of 2030e GDP)

Gross saving from diversion of crude oil into export markets



Source: Morgan Stanley Research estimates

Saudi Arabia has ambitions to be a leader in the global green hydrogen economy, which would require very large amounts of green energy. For example, the Helios hydrogen project, which is located at NEOM and worth $6.5bn of investments, aims to produce 600 tonnes of hydrogen (in form of green ammonia) per day from 2026. This will require 4GW of renewable power. As a reminder, hydrogen can be converted into ammonia, which is easier to ship and store.

Targets for green hydrogen costs. According to energy experts we spoke to, the Australian target has been to get below $2/kg of green hydrogen produced, which is roughly $16/MMBtu of natural gas energy equivalent. The long-term target would be to achieve $1/kg by 2050. In the UAE, hydrogen production costs may get down to $1.4-1.5/kg within the next few years, which is exceptionally good worldwide, and should be achieved through low cost of capital and, in particular, very low renewable energy inputs into the electrolyzers. With KSA and Egypt having more favourable conditions for solar + wind, they might record even lower solar power prices.

Hydrogen revenues as an important complement to O&G, but far from replacing it. To put into perspective, Saudi Arabia could earn ~$700m per year of revenues from hydrogen exports, assuming a price of $3/kg and NEOM producing 240k tonnes of hydrogen per year. In the meantime, with the Kingdom exporting 7 million barrels per day at $100/bbl, it earns $700m in one day. Thus, the industry has a long way to go until it reaches the same kind of revenues generated by O&G. Some market commentators we spoke with project by 2050 hydrogen to become between ½ and ⅓ of today's oil industry.

We think the **key upside risks to the 59GW target** are: (1) NEOM, where up to 40GW of green power might be needed; (2) any pivot to 'electrification' of the global economy (eg, ICEs to BEVs); and (3) hydrogen exports.

Risk of implementation slowdown if oil prices decline: The rationale for the region renewable projects, their economics, and the environmental aspects would remain very strong at lower oil prices. Even with oil at or below $70/bbl, the projects will still be attractive from a government returns perspective. However, they require a lot of government capital, thus they could slow down if oil prices fall.

Venture: Building The Saudi Tech Stack

The next five years should see $1 trillion of capital deployed across the Middle East in venture funding. By 2030, conservatively this figure could be $3 trillion, and if the Middle East were to grow in parallel to how the US grew (which we concede is an unlikely bull case for a number of reasons such as network effects and consumer density), the capital deployment could be as high as $9 trillion cumulatively between now and the end of 2030. This private tech stack will support and accelerate the development of the public tech stack discussed here .

It is a well documented phenomenon that a vibrant venture capital ecosystem leads to vibrant public tech and tech enabled markets - one need only look at Europe relative to the US and Asia in this regard. Given one of the major policy aims is to become a leading financial hub and equity market, precedent suggests this needs to be built with a venture-first mindset.

The Saudi (and wider Middle East) venture scene has progressed in much the same way any region did in its early days - that is until recently. It is not uncommon to see a higher weighting of deal count to seed and Series A deals in nascent venture markets. This is typically a function of: 1) relatively shallow capital depth in the early days of venture markets; and 2) the fact that promising technology tends to gravitate towards the US and other larger markets for funding, skills and a larger consumer audience. The progress of Saudi and the Middle East's venture landscape is therefore curious for three reasons:

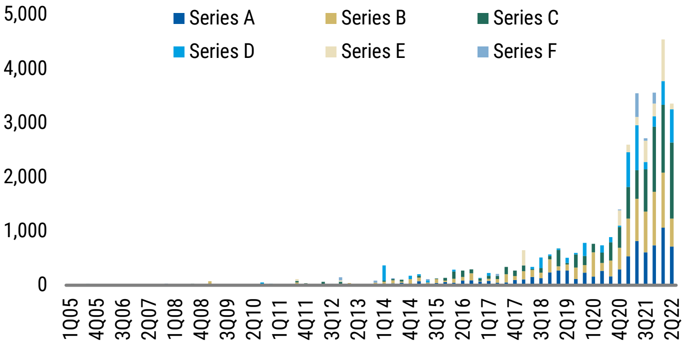
- **Depth:** The speed of diversification (as measured by % of total deals and capital) away from early stage Series A ($0-5m raises) to Series E/F ($100-500m typically pre-IPO) has happened at a faster rate than we can find in any country or region.
- **Breadth:** The depth of and breadth of well funded emerging technology verticals shows a level of maturity that rivals long-established markets such as Europe, and does not have a specific tilt toward any one area of dominance (i.e. SaaS/Tech in the US). The bulls could argue this equips the region for multi-disruption future, bears might argue that this means the region will not show leadership in any one vertical which will be critical for bringing in further talent and multiplier effects.
- **Growth through a downturn:** The region has continued to grow remarkably resiliently throughout 2022 when every other market around the world barring Africa and parts of Europe have seen sizeable corrections as interest rates have ramped up. This steady defensive growth into venture should allow Saudi and the region more widely to take innovation share as the world comes out of the current economic slowdown.

Exhibit 122: Largest companies (1st January 2022) and whether they were VC-backed

	Europe HQ				US HQ				Asia HQ			
	Company	MCap ($bn)	Category	VC-backed	Company	MCap ($bn)	Category	VC-backed	Company	MCap ($bn)	Category	VC-backed
1	ASML	352	Semis	✗	Microsoft	2523	Software	✓	Tencent	601	Internet	✓
2	Prosus	272	Internet	✗	Apple	2461	Hardware	✓	Alibaba	451	Internet	✓
3	SAP	168	Software	✗	Alphabet	1977	Internet	✓	Meituan	228	Internet	✓
4	Adyen	90	Fintech	✓	Amazon	1796	Internet	✓	JD.com	131	Internet	✓
5	Dassault S	83	Software	✗	Tesla	1020	Hardware	✓	Pinduoduo	115	Internet	✓
6	Infineon	63	Semis	✗	Meta	967	Internet	✓	LONG	79	Semis	✓
7	NXP	57	Semis	✗	NVIDIA	749	Semis	✓	Netease	72	Gaming	✓
8	Spotify	53	Internet	✓	Visa	449	Fintech	✗	Xiaomi	68	Hardware	✓
9	STMicro	46	Semis	✗	Mastercard	355	Fintech	✗	Baidu	58	Internet	✓
10	Delivery H	35	Internet	✓	Adobe	314	Software	✓	Kuaishou	53	Internet	✓

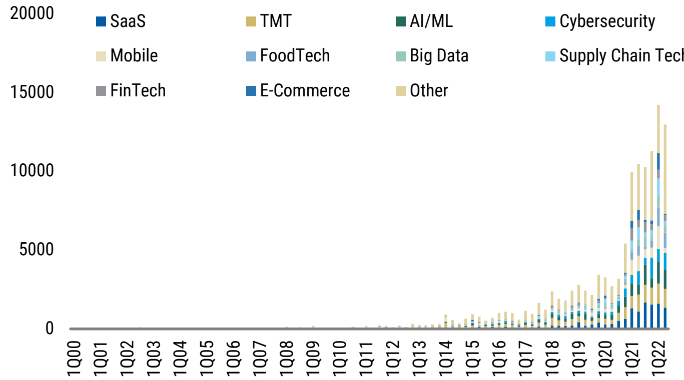
Source: Companies, Atomico, Bloomberg, Reuters, Morgan Stanley Research; NB - Country of HQ rather than listing (e.g. Spotify)

Exhibit 123: Middle East funding rounds by series



Source: Pitchbook, Morgan Stanley Research

Exhibit 124: Middle East capital deployment by major category



Source: Pitchbook, Morgan Stanley Research

Exhibit 125: Largest corporate venture capital investors globally

Investment Vehicle	Company	Sector	Investments	Active Portfolio	Investments in the last 5 years	HQ Location	Founded
Saudi Aramco Ventures	Saudi Aramco	Energy	93	40	58	Dhahran, Saudi Arabia	2012
Shell Ventures	Shell	Energy	81	45	61	The Hague, Netherlands	1996
TotalEnergies Ventures	Total	Energy	74	32	36	Paris, France	2008
BP Ventures	BP	Energy	71	23	28	London, United Kingdom	2006
Intel Capital	Intel	Tech	70	17	13	Santa Clara, CA	1991
Chevron Technology Ventures	Chevron	Energy	67	32	37	Houston, TX	1999
Equinor Ventures	Equinor	Energy	63	31	38	Stavanger, Norway	1991
Samsung Venture Investment	Samsung	Tech	57	23	20	Seoul, South Korea	1999
General Electric Ventures	GM	Autos	52	8	10	Menlo Park, CA	2013
GV	Alphabet	Autos	51	16	26	Mountain View, CA	2009
Applied Ventures	Applied Materials	Industrials	46	4	5	Santa Clara, CA	2001
BASF Venture Capital	BASF	Industrials	45	15	20	Ludwigshafen, Germany	2001
Bayer Leaps	Bayer	Industrials	44	21	14	Leverkusen, Germany	2015
ABB Technology Ventures	ABB	Industrials	44	15	23	Zurich, Switzerland	2009
ENGIE New Ventures	ENGIE	Utilities	39	11	23	Paris, France	2014
Constellation Technology Ventures	Constellation Energy	Energy	33	9	13	Baltimore, MD	2010
EDP Ventures	EDP	Utilities	33	17	26	Lisbon, Portugal	2008
Wayra	Telefonica	Tech	33	20	12	Madrid, Spain	2011
Innogy Innovation Hub	E.ON	Utilities	32	9	24	Berlin, Germany	2016

Source: Pitchbook, Morgan Stanley Research

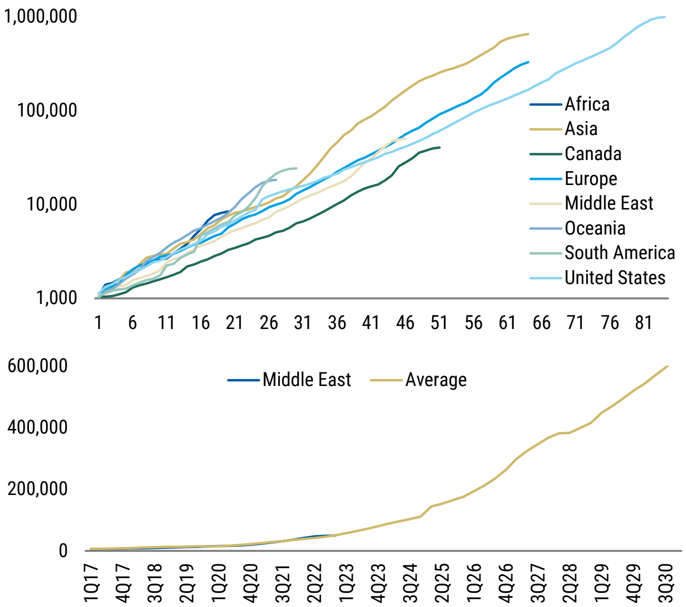
Just as nationally, the agenda for growth and change is being driven from the top, so too in the venture world is the tone being set from the top down. Saudi Aramco's venture arm has not only made more venture investments than any other energy company globally, it has made more venture investments than any corporate venture capital arm anywhere in the world and more remarkably still in the space of only a decade. The impetus to evolve from old to new economy appears to be core to both government and corporate strategy.

Only time will tell how successful the company will be in funding CleanTech breakthroughs - the vertical in which they and most Saudi businesses are playing within the venture field. Yet, the Aramco venture arm has achieved 18 exits to-date which, relative to its portfolio, puts it at the upper end of many venture firms who are able to show realised (versus paper) returns. Doubtless, these venture investments are negligible in the context of the company's hydrocarbon energy business. Nonetheless, the statement of intent is noteworthy.

It is hard to say with any great accuracy how we expect the venture capital (and thus innovation) landscape to evolve over time. There are a number of variables which determine this including: 1) direct air routes from the US; 2) ease of expat settlement; 3) capital breadth and depth; 4) a large and increasingly wealth market; 5) favourable government policies towards growth, innovators and investors.

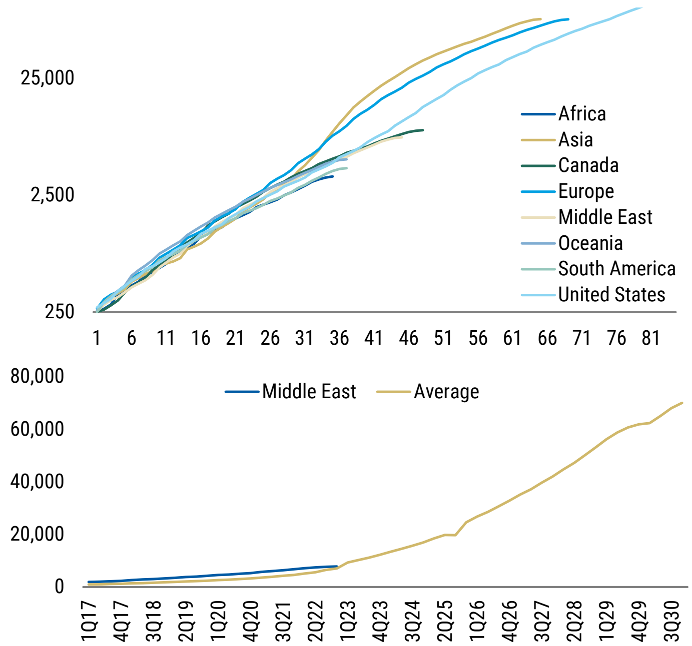
Saudi Arabia ticks off many of those criteria. An unknown is the concentration of talent recycling that occurs as unicorn successes spin off their alumni in the region. In Europe these alumni have left to the US to set up new ventures predominantly - time will tell if Saudi Arabia is able to retain this spin-off talent. Comparative cases have shown that with the correct policies this is possible but only with the vision of 10-20 year policies rather than Europe's focus on 3-5 year policies.

Exhibit 126: Capital ($m) deployment cumulatively by region from first $1bn invested (log scale); Middle East overlay with global average



Source: Pitchbook, Morgan Stanley Research

Exhibit 127: Deals completed cumulatively by region from first 250 completed deals; Middle East overlay with global average



Source: Pitchbook, Morgan Stanley Research

When we re-base the Middle East (and Saudi is a fair proxy for the wider region), at this stage progress is in line with what we would expect. There are good reasons why a US style venture market won't be replicated anywhere else in the world (namely: talent flywheels, funding scale, network effects, domestic market size). Our base case instead takes the trajectory of the slower-to-ramp European VC market which required time to spill-over from London and Stockholm's early successes to the rest of the region; just as the UAE's venture success will need to spill into Saudi and adjoining regions. Taking this proxy shows that by 2030, the region could be pulling in >$300bn per quarter in venture funding for local disruptors; $3 trillion cumulatively between now and then. Just taking the more tangible next 5 years, >$1 trillion capital deployed in the region is possible, even likely (of which clearly Saudi is only one, albeit increasingly large country competing for capital).

At current market share, Saudi would take c$500bn of this 2030 uplift and c$200bn over the coming five years. However, as seen in Europe and the ex-Bay Area of the US, challenger venture hubs tend to take share steadily and so these figures could be proven to be conservative as Saudi is not simply a growth story but also a wallet share story.

If we look at Saudi specifically within the Middle East, it is the fastest growing country in terms of venture-backed start-ups - albeit from a low base. There are now >300 venture-backed disruptors, a figure which has been compounding for 8 years at >70%. Capital raised in the country five years ago was barely $10m across five deals, in 2022 this figure is closer to $2.5bn spread across 70 deals; a more than 2.5x increase versus 2021. This makes Saudi Arabia the only country outside Africa seeing such material increases YoY in 2022 in venture funding given tightening financial conditions globally. With expected multiplier effects on public/private partnership, history tells us that the government-led injection of substantial spending in gigaprojects (amongst other projects) should draw in further private capital and start-up talent.

Exhibit 128: Largest recent raises by Saudi Arabia focussed or HQ'd companies

Companies	Verticals	Deal Date	Deal Size ($m)	Round	Country	# Investors	Post Valuation ($m)
Kitopi	FoodTech	May 22	715	5th	UAE	13	1,550
Allen Career Institute	EdTech	May 22	600	2nd	India	1	1,667
Simit Sarayi	Manufacturing	Jan 13	500		Turkey		
Sanad Cash	FinTech	May 21	310	1st	Saudi Arabia	1	
Livspace	E-Commerce	Mar 22	180	9th	India	11	1,180
Foodics	CloudTech & DevOps	Apr 22	170	5th	Saudi Arabia	8	
tabby	FinTech	Aug 22	150		UAE		
Vectra	AI/ML	Apr 21	130	8th	United States	13	1,120
Unifonic	AI/ML	Sep 21	125	2nd	Saudi Arabia	7	
Rain	Blockchain	Jan 22	112	3rd	Bahrain	12	
Tamara	FinTech	Apr 21	110	3rd	Saudi Arabia	3	
Gradiant	CleanTech	Oct 21	105	5th	United States	1	540
tabby	FinTech	Mar 22	104	4th	UAE	15	
Nozomi Networks	AI/ML	Dec 21	100	5th	United States	16	550
Quintessentially	Industrials	Oct 14	100		United Kingdom		100
SellAnyCar.com	Internet	Jun 15	100	3rd	UAE		1,000
Servify	Mobile, SaaS	Apr 21	100	7th	India		
Tamara	FinTech	Aug 22	100	4th	Saudi Arabia	5	
TruKKer	E-Commerce	Sep 22	100	7th	UAE	5	
Vectra	AI/ML	Jun 19	100	7th	United States	11	400
TruKKer	E-Commerce	Feb 22	96	6th	UAE	15	
Livspace	E-Commerce	Sep 20	89	7th	India	13	158
Sary	E-Commerce	Dec 21	84	4th	Saudi Arabia	8	
droppTV	AI/ML	Nov 21	75	2nd	United States	1	375
Livspace	E-Commerce	Sep 18	70	5th	India	5	
JollyChic	E-Commerce	Aug 19	65	6th	China	1	
Servify	Mobile, SaaS	Aug 22	65	8th	India	7	
Kitopi	FoodTech	Oct 20	60	4th	UAE	12	
Livspace	E-Commerce	Nov 21	60	8th	India	2	202
Lyve Global	Supply Chain Tech	Feb 22	50	4th	UAE	5	
Nana	E-Commerce	Feb 22	50	3rd	Saudi Arabia	8	
tabby	FinTech	Jun 21	50		UAE		
Wahed	FinTech	Jun 22	50	6th	United States	5	300
Zid	E-Commerce	Oct 22	50	3rd	Saudi Arabia	7	

Source: Pitchbook, Morgan Stanley Research

AlphaWise Survey of Saudi Nationals & Expats

To a large extent we have already covered our AlphaWise survey results of Saudi Nationals and expats in earlier sections of this report - most notable focussing on social reforms , women , and expats . In this section, **we round-up additional conclusions from the survey, including regarding rising incomes, propensity to multi-earn, reasonable levels of savings, and Gen Z trends** (given c. 60% of the Saudi National population is below 30, hence such trends can give insight into the 'Future of Saudi Arabia').

- **58% of Saudi Nationals and expats say their income increased in the last 12 months**, this is higher among Saudi Males at 61%. **3 in 4 of Saudi National Gen Z reported increased income**, significantly higher than that obtained by Millennials and Gen X. Saudi Nationals already have substantial savings and 3 in 4 expect them to increase in the next 2 years.
- In the last 12 months, **Gen Z generally spent more than the broader Saudi National group, including on luxury goods (48% vs. 42%**, respectively), gym membership (39% vs. 35% Saudi Nationals), electronics (54% vs. 50% Saudi Nationals) and household appliances (47% vs. 44% Saudi Nationals).
- **In the next two years, Saudi Nationals, especially Gen Z, anticipate an increase in income**. During this period, Gen Z plans to spend more on: leisure, electronics and food delivery. They will most likely still spend more than other Saudi National cohorts on leisure, luxury, electronics, gym membership and household appliances. **Increased use of credit cards by Saudi Nationals is expected**, followed by savings/deposit accounts, point of sales finance, and personal finance.
- **58% of working Saudi Nationals expats in our survey are using at least one multi-earning platform:** content creation (26%), eCommerce (24%), financial trading (29%) or a P2E game (12%) to increase their income. Lower income Saudi females are the biggest users of content creation to supplement their incomes.

Exhibit 129:

alphawise α

Methodology.

In November 2022, we carried out a total of 3,206 online interviews with respondents in Saudi Arabia: 2,189 with Saudi Nationals and 1,017 with Saudi Expats. The Saudi National sample is representative in terms of age, gender and region and consists of 1,116 Saudi National Males and 1,073 Saudi National Females.

The margin of error at a 90% per sample is:

Saudi Nationals + /- 1.76%

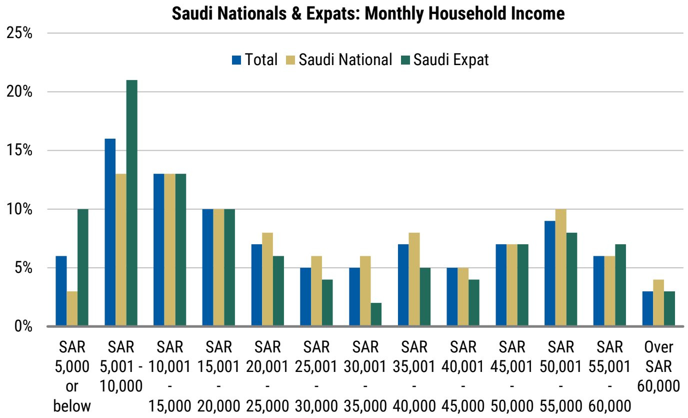
Saudi Expats + /- 2.58%

Team behind the analysts.

AlphaWise Primary Research gathers alternative data and generates unique insights via an innovative analytical and visualization platform.

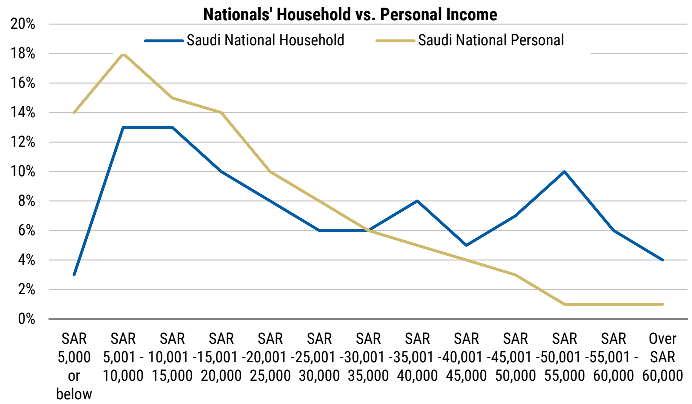
Source: AlphaWise

Exhibit 130: Income distribution of survey respondents



Source: AlphaWise, Morgan Stanley Research

Exhibit 131: Income distribution of survey respondents (household and personal)



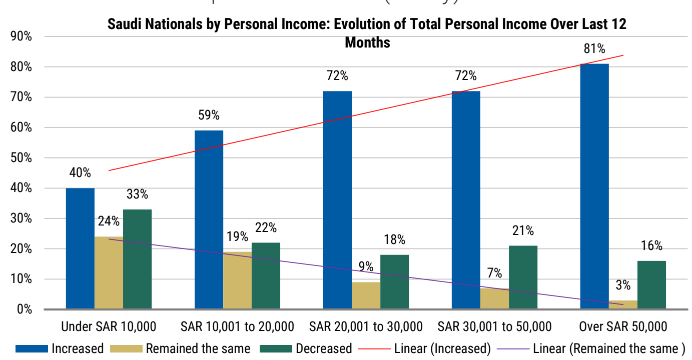
Source: AlphaWise, Morgan Stanley Research

Salaries and Spending

Household salaries in the country are, as expected of an emerging high-growth nation, weighted towards the lower end of a barbel in shape than would be expected in a developed nation. Interestingly, expat household income distribution is skewed to the lower end of monthly earnings than Saudi Nationals. However, the relatively consistent household income proportion in each salary range belies a substantial fall in personal income weighting in the higher income categories.

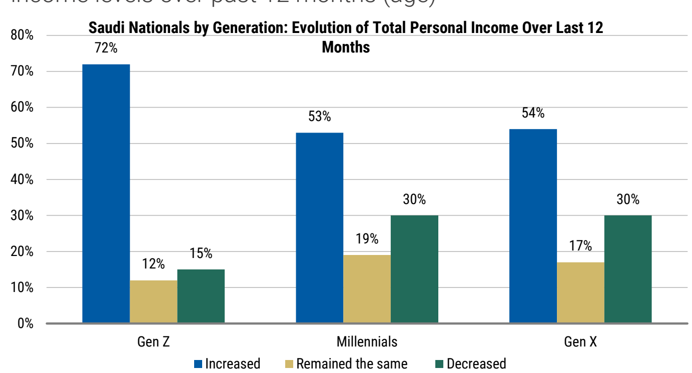
Our AlphaWise survey shows that salary level and age are the most material variables in progress of income change over the past 12 months. Slightly counter-intuitively, those on higher salary brackets were most likely to see increases in income over the past year. The percentage magnitude of income change is also highest for those with higher incomes. This also tallies with the greatest uplift in salaries occurring in the Gen Z category; the youngest cohort in the workforce.

Exhibit 132: Saudi National respondents by rate of change in income levels over past 12 months (salary)



Source: AlphaWise, Morgan Stanley Research

Exhibit 133: Saudi National respondents by rate of change in income levels over past 12 months (age)



Source: AlphaWise, Morgan Stanley Research

The table below is constructed as follows:

- Our >3000 respondents were asked how much they spent on each category over the past 12 months and again how much they expect to spend on each category over the coming two years. In each case their answers were on a scale of 0-5 (much less, a little less, same, a little more, much more). We then took the average of their responses for the forward looking spending intentions and deducted the average of the responses for the backward-looking change in consumption. The result is the numbers in the table below. Green numbers indicate an intention to spend more on a specific vertical over the coming two years versus the change in spending over the prior two years. Green represents the highest positive change, red is lowest positive change or negative expected change in funding.

Exhibit 134: Expected change in spending or use over the next two years versus two years ago

	Disposible Income									Financial Planning				
	Travel to GCC	Travel outside GCC	Leisure activities	Gym Membership	Luxury Goods	Electronics	Food Delivery	Healthcare	White Goods	Credit Card	Mortgage	Savings	BNPL	Personal Finance
Female	0.4	0.4	0.1	0.3	0.2	0.1	0.0	0.1	0.2	0.3	0.4	0.5	0.2	0.4
Gen X (42 to 55 years)	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.2	0.3	0.3	0.1	0.3
Expat	0.1	0.3	0.1	0.1	0.2	0.0	0.0	-0.2	0.2	0.4	0.2	0.4	0.2	0.4
Saudi National / Citizen	0.3	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.1	0.3
Millennials (26 to 41 years)	0.4	0.4	0.1	0.4	0.3	0.2	0.0	0.2	0.3	0.2	0.4	0.5	0.3	0.5
Expat	0.4	0.3	0.1	0.4	0.4	0.3	0.1	0.1	0.3	0.3	0.5	0.6	0.3	0.6
Saudi National / Citizen	0.4	0.4	0.1	0.3	0.3	0.2	0.0	0.2	0.3	0.2	0.4	0.5	0.3	0.5
Gen Z (16 to 25 years)	0.4	0.4	0.1	0.3	0.2	0.1	0.0	0.1	0.2	0.4	0.3	0.5	0.3	0.4
Expat	0.6	0.5	0.1	0.4	0.1	0.1	0.0	0.3	0.1	0.3	0.4	0.3	0.5	0.3
Saudi National / Citizen	0.4	0.3	0.0	0.2	0.3	0.1	0.0	0.0	0.2	0.4	0.3	0.6	0.2	0.5
Male	0.3	0.3	0.1	0.3	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.5	0.4	0.3
Gen X (42 to 55 years)	0.3	0.3	0.2	0.3	0.3	0.2	0.1	0.2	0.3	0.2	0.2	0.5	0.4	0.4
Expat	0.3	0.5	0.2	0.3	0.5	0.3	0.1	0.2	0.4	0.3	0.2	0.4	0.5	0.5
Saudi National / Citizen	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.2	0.1	0.2	0.2	0.5	0.2	0.3
Millennials (26 to 41 years)	0.4	0.3	0.1	0.3	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.5	0.4	0.3
Expat	0.5	0.5	0.1	0.4	0.3	0.3	0.1	0.1	0.3	0.2	0.4	0.5	0.4	0.3
Saudi National / Citizen	0.3	0.2	0.1	0.3	0.2	0.2	0.0	0.1	0.2	0.4	0.4	0.5	0.4	0.3
Gen Z (16 to 25 years)	0.2	0.2	0.1	0.3	0.2	0.1	0.1	0.3	0.2	0.4	0.3	0.4	0.4	0.3
Expat	0.4	0.2	0.1	0.3	0.4	0.1	0.1	0.3	0.4	0.6	0.3	0.4	0.4	0.3
Saudi National / Citizen	0.2	0.2	0.2	0.3	0.1	0.1	0.0	0.2	0.1	0.3	0.3	0.4	0.3	0.3
Overall	0.3	0.3	0.1	0.3	0.2	0.2	0.1	0.1	0.2	0.3	0.3	0.5	0.3	0.4

Source: AlphaWise, Morgan Stanley Research

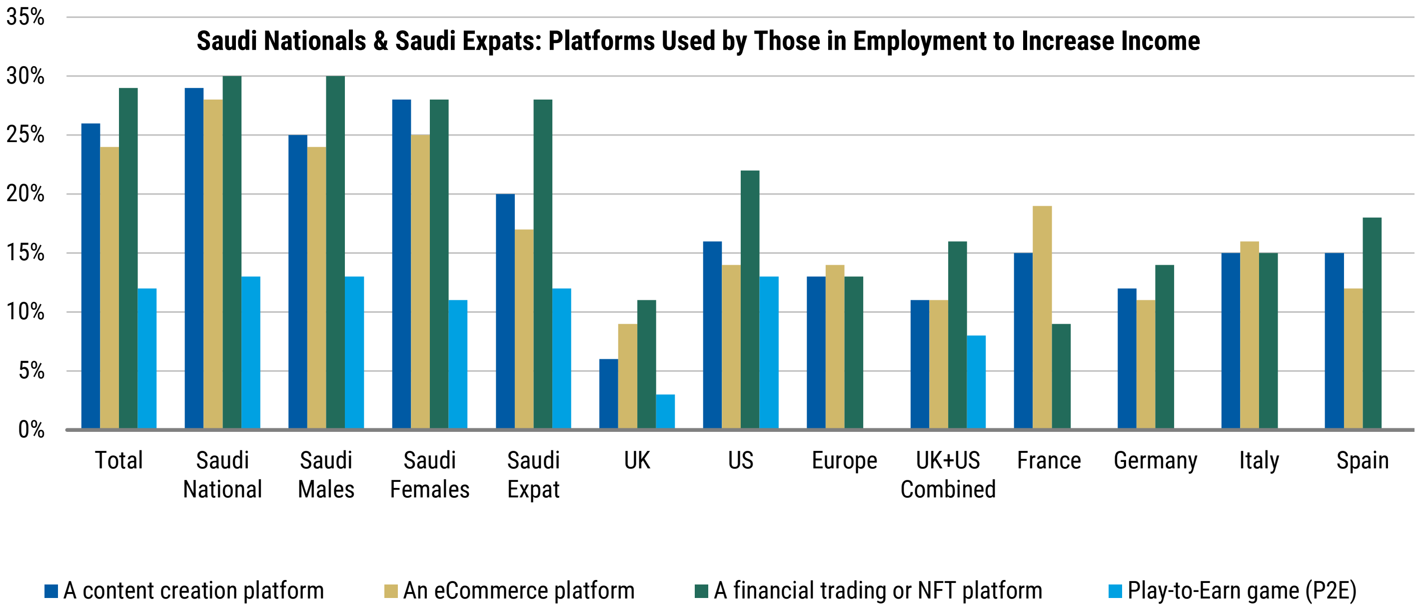
The key takeaways are as follows:

1. **Growth expected (almost) everywhere:** In all but one category expectations are for higher spending over the coming two years versus the change in the previous 12 months. The one category expected to see a fall in disposable income is Gen X expats spending on healthcare.
2. **The main beneficiaries of change:** The segments where ambitions are highest to spend more disposable income are in travel (both within and outside of GCC countries), and to a lesser extent gym memberships, luxury goods and white goods. In terms of the biggest positive change expected in financial planning, it is across the demographic spectrum when it comes to savings intentions. Here, women appear to want to take greater ownership of mortgages, savings and personal finance than the change likely to be seen by men (which is likely a denominator effect - discussed more here).
3. **On the less positive (albeit not negative) front:** the intentions to spend more on general leisure, food delivery and healthcare are amongst the lowest in our survey, and particularly with women.
4. **Men versus women:** The final noteworthy point is that female ambitions to grow spending or financial planning is driven by age - Millennials and Gen Z are planning to ramp up their spending and financial ownership across the board to a greater degree than Gen X (those over the age of 42). By contrast, men's ambitions to change their consumption patterns is much more driven by "Expat vs Saudi National" status than it is by age. Again, this is likely to be both a denominator effect but also the varying professions and pay of male expats relative to female expats.

We look in greater detail at which sectors and equities are best placed to see tailwinds from this demographic and wealth uplift (see here).

Multi-Earning

Exhibit 135: Saudi involvement in multi-earning versus other nations

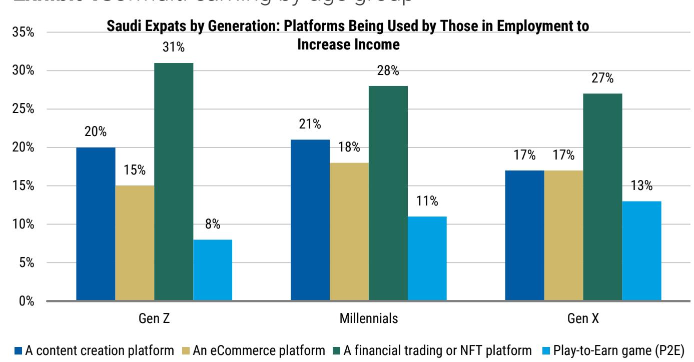


Source: AlphaWise, Morgan Stanley Research

The corollary to the above data on spending intentions is income intentions. We first spoke about this major Future of Work sub-theme in this piece. Since then the data from >40,000 respondents across 7 countries and across multiple time frames have reinforced our initial conclusions: we are entering a multi-earner era. The results from the latest survey show a number of fascinating data points which: (1) reinforce the global trend we had noted in our original work, but (2) **paint a picture of Saudi as not so much an up-and-coming flexible workforce, but rather a leader in the trend of multi-earning**. As we have argued in previous work, these figures are not necessarily representative of the whole population, however, it is helpful in gauging the differences between countries.

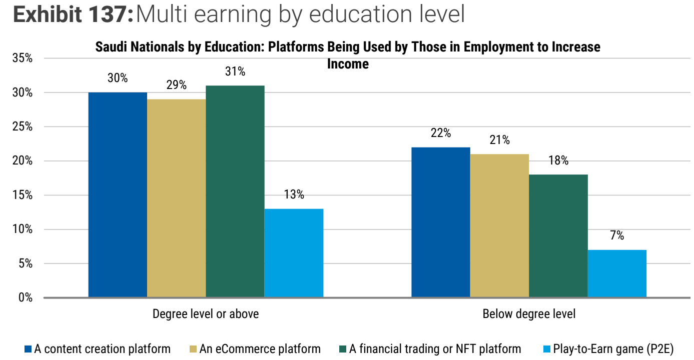
Unlike our surveys in other countries, age is not a key determining factor in people's willingness or ambition to multi-earn. If anything cutting the data by age show the opposite of what we see in other countries. In Europe and the US older people tend to do more financial trading and less play-to-earn activity - in Saudi this appears to be the reverse, and with content creation earning broadly stable across all ages which is surprising for the same reason. Clearly, a much more important variable is whether the respondent has degree-level qualifications in each of these multi-earning verticals.

Exhibit 136: Multi earning by age group



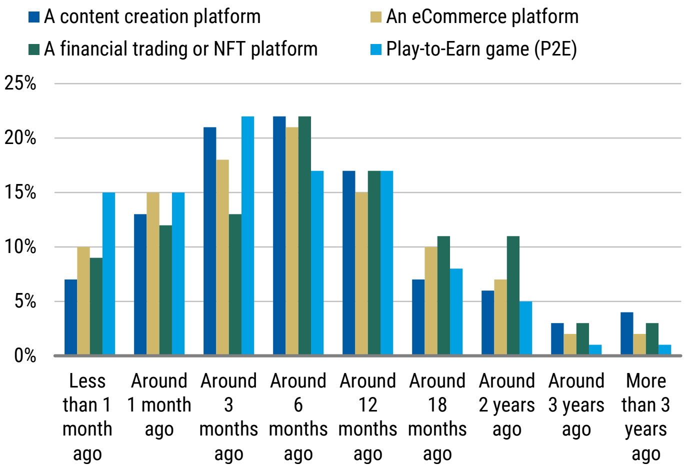
Source: AlphaWise, Morgan Stanley Research

Exhibit 137: Multi earning by education level



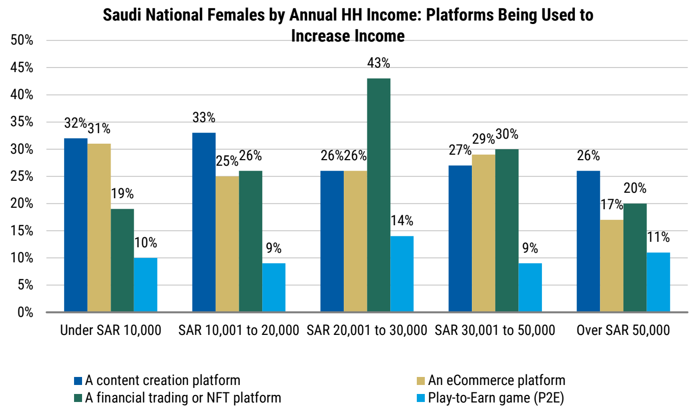
Source: AlphaWise, Morgan Stanley Research

Exhibit 138: Most people involved in multi-earning only started in the last 12 months



Source: AlphaWise, Morgan Stanley Research

Exhibit 139: Female engagement in multi-earning streams are not dissimilar to male levels of participation



Source: AlphaWise, Morgan Stanley Research

One of the main surprises coming out of these data has been the appetite to engage in this form of multi-earning relatively recently. Add to this that play-to-earn - which hinges in large part on underlying crypto token prices - continues to be popular in Saudi when it has diminished elsewhere, making the country an interesting outlier. Most people in our survey started multi-earning in the last 12 months and this is across all income brackets. As we have noted before, there is no guarantee of success in multi-earning and many tend to stop if the supplementary income is not sufficient relative to input time and enjoyment. However, for now at least, young demographics and growth-first policymaking make Saudi a relative leader in this Multi-Earning phenomenon.

Global Stock Implications: Spotlight on Korean Contractors

Analysts: Joon Seok, Byungsoo Kim

Deep Rooted History of Large-scale Developments in the Middle-east, Particularly Saudi Arabia

Korea has a deep history of working in the Middle-east starting from 1970s

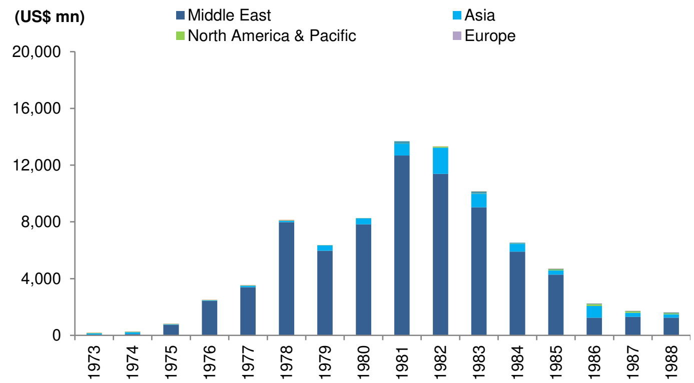
In the 1970s and 1980s, the Middle-east presented an opportunity for corporate Korea as the development boom led to a proactive drive by Korean construction companies into the region. The first project awarded to a Korean company was the construction of a highway (awarded by Saudi Arabia) and it paved the way for a slew of infra-structure projects from roads, seaports, airports and other key facilities. The boom cycle lasted around 10 years and eased off from the mid-1980s.

Another super-cycle emerged from the mid-2000 led by plant orders

The Middle-east market, or more accurately the GCC region, once again became the largest overseas market for Korean contractors from the mid-2000. From 2007 to 2014, there was a significant increase in new orders from the MENA region as a downstream hydrocarbon super-cycle emerged, which was an area where Korean contractors were competitive vs. European contractors.

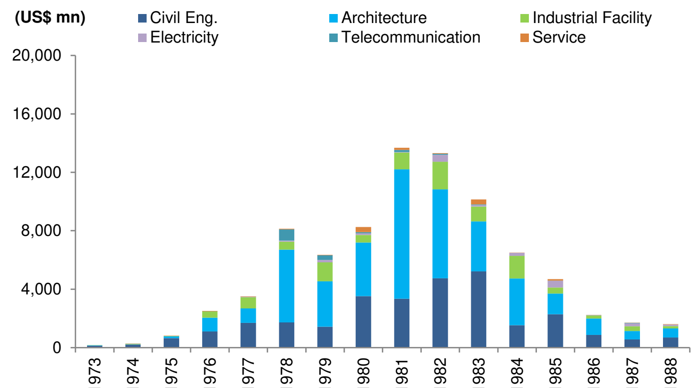
- From 2007~2014, Korean contractors had received total project awards of US$267bn from the MENA market, which averages U$32bn per annum, which is higher than the average per annum total overseas orders from 2016~2022 (around US$29bn per annum).
- Based on project type, the industrial facility segment (i.e. downstream plants, refineries, powerplants) showed the strongest order flow during 2007~2014 (total: US$319bn, per annum: US$40bn) with most of the orders coming from MENA region. On the other hand, infrastructure orders totaled US$127bn from 2007~2014 (per annum: US$16bn), which was more mixed in terms of geography. In the past few years, infrastructure order flow has been largely unchanged while the industrial facilities side has declined sizably.

Exhibit 140: Overseas new orders trend by region (1973~1986)



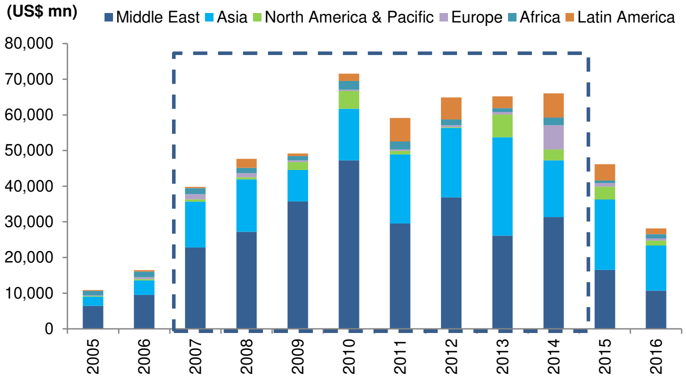
Source: International Construction Association of Korea (ICAK), Morgan Stanley research

Exhibit 141: Overseas new orders trend by project type (1973~1986)



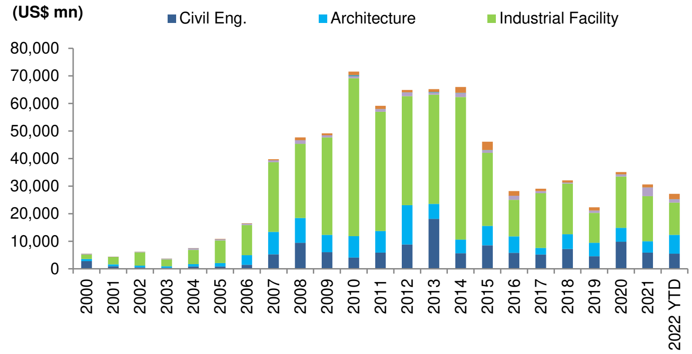
Source: ICAK, Morgan Stanley research

Exhibit 142: Overseas new orders trend by region (2005~2016)



Source: ICAK, Morgan Stanley research

Exhibit 143: Overseas new orders trend by project type (2005~2016)



Source: ICAK, Morgan Stanley research

Exhibit 144: List of MOUs signed at the forum

Project Name	Involved Corporate Entity	Saudi Arabia Counterpart
MOU with Saudia Arabia government		
Neom rail way construction	Hyundai Rotem	PIF
Chemical sector	Lotte Fine Chemcial	PIF
Construction of a synthetic manufacturing factory	DL Chemical	PIF
Pharmaceutical sector	GL Rapha	PIF
Gaming sector	Shift Up	PIF
Smart City Solution	YEDNS	Department of Data and Artificial Intelligence
MOU with Saudi Arabian corporations		
3D modular construction for future cities in Qiddiya and Red Sea (collaboration)	Samsung C&T	PIF
Green hydrogen development collaboration	Five construction companies including Samsung C&T	PIF
Green hydrogen ammonia collaboration	KEPCO	Acwa Power
Oil, gas and Petrochemicals project collaboration	Deawoo Construction	Alfanar
Gas Insulated Switchgear	Hyosung Heavy Industrials	Alfanar
Coorperation in forging plant construction	Doosan Enerbility	Alfanar
Cogeneration project	KEPCO	Al-jomaih Energy
Smart Farm project collaboration	Kolon Global	FAIDH Int'l Food
Probiotics production collaboration	Bifido	Jamjoon Pharma
Manufacturing of commercial fitting and valve	BMT	Industrial Systems Group
Construction of recycle plant	MECEN IPC	NSK Consultants
Electronic compressor manufacturing collaboration	Turbo Win	Earth Reservoirs for Oil & Gas
Vaccine and serum technology transfer	U Biologics	ARABIO
Engineering service (subway, railway, water pipe-line system)	Dongmyung engineering	Alrabiah Consulting Engineers
Supporting startups	KVIC	SVC
Envrionmental technology collaboration	Cheong-su industry	Global Grand Group
Commercial car manufacturing collaboration	Ja-il motors	Al Yamama
MOU between S-Oil and domestic construction companies		
The EPC contract involving S-Oil and its phase 2 Shaheen project is expected to advance the two countries' partnership in petrochemicals and clean energy.		

Source: Ministry of Commerce and Industries, Morgan Stanley research

A New Saudi Led Development Super-cycle?

Considering the history with Saudi Arabia development and Korea's industrial capability, we believe Korea is strongly positioned to be a key beneficiary of Saudi Arabia's giga, mega, and related project initiatives. There had been building expectations of a boost to the overseas construction order cycle from 2023 with newsflow on NEOM City development and Crown Prince Mohammed bin Salman's visit to Korea (Nov. 17). During the visit, he met with President Yoon and as well as the leaders of Korea's largest conglomerates including Samsung group, Hyundai Motors, SK, Doosan, CJ, DL, Hyundai Heavy Industries and Hanwha Solutions.

A Korea-Saudi Investment Forum was held on November 17 during the visit that was set up by the Ministry of Commerce and the Saudi Ministry of Investment, which was attended by the Saudi Minister of Investment and Saudi Minister of Economy & Planning. During the Forum, 26 investment agreements and Memoranda of Understanding were signed with a combined value of US$30bn. We will need to see how each of the projects develop but most are linked to construction and energy related collaboration.

Since the visit there have been continued meetings and conferences between Saudi officials/corporate management with Korean government officials and corporates.

Exhibit 145: Recent events linked to Saudi's 'Giga' Project development

Event date	Event type	Project details
10-Nov	Korea-Saudi Business Workshop	Korea-Saudi Business Workshop was held in celebration of 60th years anniversary of diplomatic relationship. Approx 100 corporates attended the workshop from both the countries to discuss further collaboration opportunities in energy, infrastructure and smart city.
17-Nov	Crown Prince visits Korea	Arrived on November 17, welcomed by Han Duck-soo, prime minister of South Korea. **9:00:** Saudi-Korea investment Forum was held and signed 26 MOUs/contracts worth W40tn. Detailed projects include Neom City, Renewable energy, SMR, hydrogen infrastructure, Carbon Capture & Storage, Mobility and Defense. **Noon:** Luncheon conference with the president Yoon to discuss boosting Saudi-Korean cooperations. **17:20:** Conference with eight South Korean corporate leaders such as Lee Jea-yong (Samsung electronics). **20:40:** Departed
30-Nov	Visit (construction)	Delegation by a minister of Saudi's Ministry of Municipal and Rural Affairs and Housing visited Naver Corporation. Discussed how to use digital technologies to solve Saudi Arabia's urban problems related to traffic, public security, sanitization and management of housing and buildings
1-Dec	Conference	Post the MBS visit, South Korea's MOTIE held a operational support converence to review the progress of each MOU and provide appropriate support
1-Dec	Conference (Construction)	Held a conference between Minister of Saudi's Ministry of Municipal and Rural Affairs and Housing and LG CNS for smart city cooperation
5-Dec	Placement of bid (Infrastructure)	Korea East-West Power (in collaboration with EDF and Mardas) pitched for renewable energy facilities construction contract in Amaala, Saudi Arabia
5-Dec	MOU signed (media)	Chief producer at SM entertainment and Haifa bint Muhammad Al Saud, the Saudi royal and deputy minister of tourism signed MOU to create marketing materials on Saudi Arabia's cultural heritage
7-Dec	MOU signed (non-hydrocarbon)	K-Sure and Saudi Arabia Export-Import Bank (ECA) signed MOU to promote trade and overseas investments, share project information/trade know-hows and promote import-export transactions

Source: Media (Yonhap), Morgan Stanley research

Infrastructure this time rather than industrial facilities

A number of Korean construction companies are already taking part in the Saudi's key 'giga' projects with Samsung C&T (SCT) and Hyundai E&C already working on a project linked to NEOM city.

- The two companies were jointly awarded a tunnel construction project for 'The Line' worth US$1.1bn in June 2022 and the construction started on November 8 with the project aiming to be completed by December 2025. The Korean contractors will be responsible for 12.5km of the total 28km of tunnels in the The Line with the remaining being constructed by Spain's FCC and China State Construction Engineering Corp.

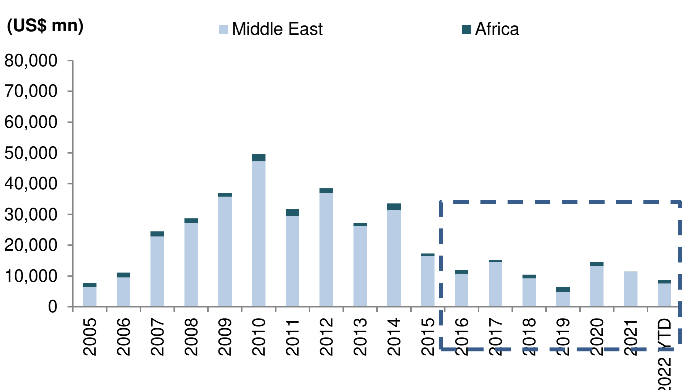
Based on our discussions with Korean contractors, the expectations seem high for sizable new orders to be awarded from Saudi Arabia in the coming years and the key project types are:

- NEOM City - The Line: Transportation network construction including roads, railways and subways
- NEOM City - The Spine high-speed rail link
- NEOM City - Port in the Oxagon industrial complex
- Modular construction for future cities in Qiddiya and Red Sea projects
- Nuclear powerplant project
- Renewable energy projects

How sizable could the opportunities be?

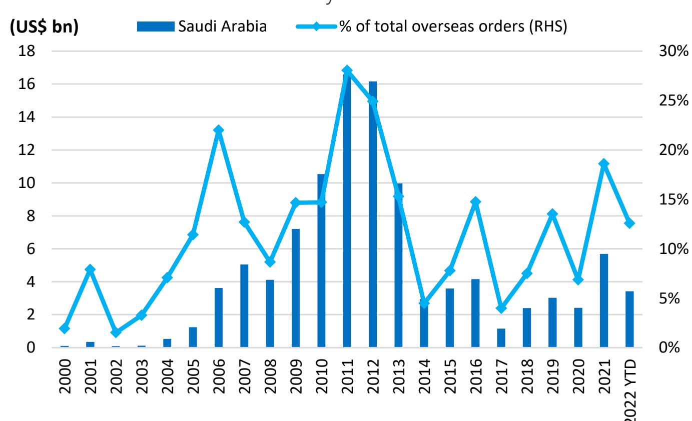
As end-October, Korean contractors have received around 13% of new orders related to Saudi's NEOM city initiative, which is similar to Chinese contractors who have received 14%, with the largest order-taker being Saudi contractors (around 50%). The aggregate value of the NEOM city phase 1, Red Sea and Qiddiya projects amount to around US$345bn and if Korean contractors are able to secure 10% of the projects it would equate to more than three years' worth of projects based on new order volumes shown since 2015.

Exhibit 146: Korea E&C Industry: Middle-east and Africa new order trend



Source: ICAK, Morgan Stanley research

Exhibit 147: Korea E&C Industry: Saudi Arabia new order trend



Source: ICAK, Morgan Stanley research

Nuclear plant project also a potential opportunity: In our recent 2023 strategy outlook report, we had mentioned the Korean government's move toward increasing nuclear energy generation domestically while also pushing for increased nuclear generation-related exports.

- The government also held the 3rd nuclear export strategy committee meeting on November 23, and key discussion points were: (1) follow-up to Poland nuclear project cooperation, (2) nuclear equipment/components export project, and (3) nuclear export support for Czech and Poland markets. One of President Yoon's goals is to export 10 nuclear power plants by 2030 according to press (Asia Economy, Nov. 16).
- According to media (Joongang Daily, Nov. 16), Crown Prince Mohammed Bin Salman had officially announced Saudi's nuclear power plant project in order to diversify its energy mix and conform to climate change relate efforts. Two nuclear reactors with 1.4GW capacities are expected to be built initially and gradually increase to 16 by 2040. Note that Korea built Middle East's first nuclear plant in UAE (Barakah) and went on line in April 2021.

Why are Korean contractors well positioned?

Strong track record combined with technical capability

In the MENA market, competition is known to be quite tough with Korean contractors competing with European, Chinese and Indian contractors.

(1) Long history of working in the region and healthy bilateral government relationship: As previously discussed, Korean contractors have been working in Saudi Arabia since 1973 and since then have been awarded around US$155bn worth of EPC projects with a further US$83bn in the UAE.

- In order to strengthen Korea's position, the Korean government led by the Ministry of Land and Transport set up a cooperative team called One Team Korea, which comprises of 22 companies, to actively interact with the Saudi government to secure more projects.

(2) Technical prowess and sourcing capacity in MENA region: Korean companies have carried out some of the toughest projects in MENA related to infrastructure and downstream hydrocarbon plants. Having extensive experience working in the region, particularly Saudi Arabia, Korean companies have developed extensive networks required to source labor, equipment and other key elements.

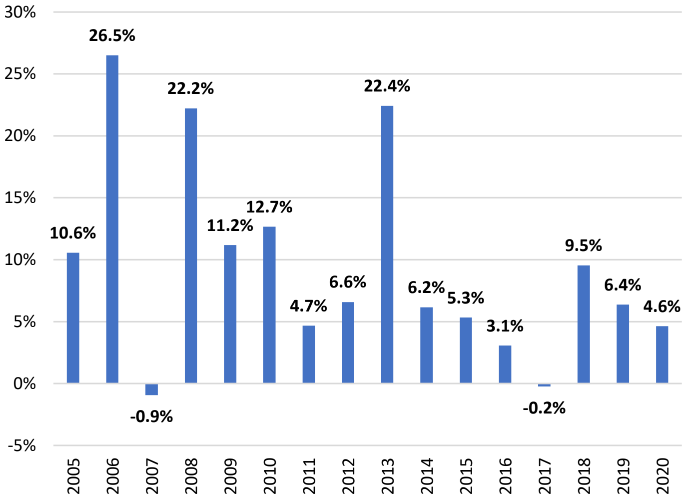
(3) Track record for getting projects done on time with reasonable pricing: Korean contractors have a track record for finishing projects on time/ahead of time, without substantial problems. This combined with competitive pricing has enabled Korean firms to take on a sizable number of projects in the MENA area. However, since experiencing a severe margin deterioration from 2014~2017, Korean contractors are no longer the lowest bidders for projects in the Middle-east as they are committed to maintaining sensible margins but they remain competitive vs. European players.

Exhibit 148: Saudi Arabia-based projects for top-3 Korean contractors

Company	Project Owner	Project Name	Contract Date	Completion Date	Project Value W(tn)
Samsung C&T	Arriyadh Development Authority	Saudi Riyadh Metro	Oct-13	Dec-20	2.76
	Fast Consortium LLC	Saudi Riyadh Metro (M&E)	May-16	Jan-20	0.38
	Tadawul Tower PJT	Saudi Tadawul Tower PJT	Sep-12	Jul-21	0.33
	Arriyadh Development Authority	Riyadh Metro	Oct-13	Dec-20	2.76
	Tadawul real estate company LLC	Saudi Tadawul Tower PJT	Sep-09	Dec-20	0.33
	Fast Consortium LLC	Saudi Riyadh Metro (M&E)	May-16	Aug-19	0.34
	NEOM company	Saudi NEOM Running Tunnel construction	Jun-22	Dec-25	0.69
HDEC	Saudi Aramco	Saudi Mazan waste oil management facility	May-19	Jul-24	2.00
	Saudi Aramco	Saudi Mazan waste gas management factory sub-facility	May-19	Dec-24	1.68
	NEOM company	Saudi NEOM Running Tunnel construction	Jun-22	Dec-25	0.69
	Public Works Authority	Undercurrent water pipe construction	Dec-20	Dec-24	0.27
Samsung Engineering	Jubail United Petrochemical Company	Saudi SABIC EO/EG	Dec-17	Oct-22	0.84
	Advanced PolyOlefins	SAUDI APOC PDH/UTOS Project	Apr-21	Jun-24	1.60
	Aramco Asia Japan	Saudi Aramco HUGRS Project	Dec-19	Apr-23	2.40
	SAUDI ARABIAN OIL COMPANY	Saudi Aramco Jafurah GPF Project	Nov-21	Feb-26	1.70
	Saudi Aramco Base Oil Company	Saudi ARAMCO Luberef Refinery	Oct-12	Dec-22	1.04

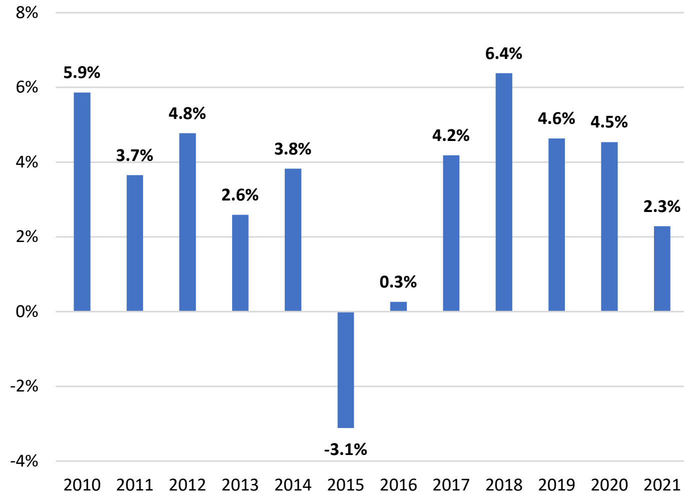
Source: Company data, Morgan Stanley research

Exhibit 149: Annual overseas construction business GPM trend - Large-sized contractors aggregate



Source: NSO, Morgan Stanley research

Exhibit 150: SCT: Annual construction business OPM trend



Source: Company data, Morgan Stanley research

What should be different this time?

In the previous super-cycle (2007~2014), Korean contractors experienced severe margin deterioration from the back-end of the cycle (2014~2016), which led to sizable losses for many contractors and even recapitalizations. GPM fell sharply from 2014 as the contractors had to make provisions for problematic projects, which was due to projects being priced too low, being overstretched especially in terms of quality project management capacity, and an inability to finish projects ahead of time.

After experiencing a severe margin downturn from 2014~2016, Korean contractors have become more vigilant toward margin management and the target for most companies is to maintain a 10% GPM level. In the upcoming cycle, based on our channel checks, we believe margins should be healthy considering:

- Project bidding is being done with a closed group of contractors rather than open competition with focus on technical prowess and construction quality rather than cost.
- The complexity of the projects present considerable risk and working conditions should be quite tough for the NEOM city as the area is not developed. Hence, we believe it more likely reserve funding should be set up when drawing up project agreements.

Potential Korean Players for the MENA Super-cycle

Key Korea construction companies focused on overseas business

The number of large-cap Korean construction companies that are more focused on the overseas EPC business has decreased and the top players are shown in the below table.

Exhibit 151: Selected large-cap construction companies with overseas exposure

Company	Ticker	MS Rating	Closing Price (KRW)	Market Cap (Wtn)	60-day Avg. Trading Val (Wbn)	2023e		
						P/E	P/B	Div. Yld
Samsung C&T	028260.KS	EW	117,500	19.4	31.5	11.0	0.7	2.5
Samsung Engineering	028050.KS	EW	23,050	4.5	30.3	8.7	1.5	1.8
Hyundai E&C	000720.KS	NC	36,800	4.2	32.5	7.9	0.5	2.0
DL E&C	375500.KS	NC	38,100	1.6	6.8	3.5	0.3	4.5
GS E&C	006360.KS	NC	22,650	1.9	29.4	4.2	0.4	5.3
Daewoo E&C	047040.KS	NC	4,480	1.8	6.8	3.5	0.4	0.0

Source: WiseFN Consensus estimates, Morgan Stanley Research estimates; Priced as at Dec. 12, 2022

Samsung C&T expected to be a key player on infrastructure and powerplant build-up

There will be many other beneficiaries on the E&C side from the Saudi development super-cycle and within our coverage we believe SCT should be the key beneficiary. SCT has been an active player in the MENA region especially related to infrastructure and architecture projects in Saudi as shown in exhibit 125. However, SCT's resume is also quite expansive outside of Saudi having successfully carried out:

- (1) Construction of the Burj Khalifa in UAE and also it took part in Petronas Twin Towers and the Taipei 101 projects.
- (2) On the infrastructure side, SCT built the Riyadh Metro Package 3 - Line 4, 5, 6 and numerous other transportation projects globally and hence is well positioned to get NEOM transport projects.

SCT's construction backlog used to be more leaning to overseas but since 2020 the focus has been more on domestic projects including captive Samsung group projects.

With the launching of the The Line tunnel construction project from November, the company believes that this is the start of the Saudi order cycle. Some of the projects that SCT is expected bid for are in the near-term are: (1) The Oxagon seaport project; and (2) The Spine tunnel project.

Samsung Engineering a player focused on hydrocarbon but also looking to grow renewables

Unlike SCT, SSE is a more specialized contractor that mainly focuses on downstream hydrocarbon projects rather than infrastructure projects. We believe that the energy transition and energy security should be a factor for SSE considering its forte is hydrocarbon EPC but the company has been increasingly positioning itself in green solution areas such as hydrogen, which is where potential upside may come from.

We would need to see how SSE positions itself on the Saudi development boom but SSE cited increasing project opportunities in the gas space and it would prioritize projects with less competition and better margins. As of 3Q22, SSE's current project pipeline amounts to ~US$13.5bn, with US$10bn awaiting bid results. Some of the more visible overseas projects in the pipeline are Jordan Refinery ($1bn) and Saudi Amiral Package 1 and 4($3bn).

Exhibit 152: SCT construction backlog

(W in bn)	2018	2019	2020	2021	20223Q
Backlog	**27,949**	**26,645**	**24,521**	**25,290**	**28,503**
Construction	14,740	13,777	13,776	13,012	15,888
Infrastructutre/Civil Eng.	5,408	4,664	2,986	2,481	3,204
Plans	7,706	8,127	7,625	9,629	9,411
Overseas	16,772	14,313	12,736	10,537	12,076
Domestic	11,177	12,332	11,785	14,753	16,427

Source: Company data, Morgan Stanley research

Exhibit 153: SSE construction backlog

(W in bn)	2018	2019	2020	2021	3Q22
Backlog	**20,385**	**19,365**	**15,636**	**12,805**	**11,557**
Hydrocarbon	14,261	11,444	8,368	7,579	5,945
Non-Hydrocarbon	6,124	7,921	7,268	5,225	5,612
Overseas	17,512	16,670	13,256	11,406	9,901
Domestic	2,072	2,695	2,379	1,399	1,656

Source: Company data, Morgan Stanley research

Shift to nuclear: Stock screen

Refer to 2023 South Korea Outlook: Keep Sails Hoisted, but Tacking Needed (1 Dec 2022) for more details.

Exhibit 154: Selected Korean nuclear policy stocks

Company	Ticker	Closing Price (KRW)	MS Rating	Market Cap (W tn)	60-day Avg. Daily Trading Val (W bn)	P/E		P/B		ROE		Div. Yield	
						2022E	2023E	2022E	2023E	2022E	2023E	2022E	2023E
KEPCO	015760.KS	20,700	EW	13.3	27	NM	NM	0.3	0.5	-40.9%	-43.6%	0.0%	0.0%
Doosan Enerbility	034020.KS	16,050	NC	10.3	100	24.5	21.9	1.6	1.5	6.4%	7.0%	0.0%	0.0%
KEPCO E&C	052690.KS	56,400	NC	2.2	29	83.0	54.8	4.0	3.8	4.9%	7.3%	0.6%	0.5%
KPS	051600.KS	33,800	NC	1.5	7	14.5	12.4	1.3	1.2	9.3%	10.2%	3.8%	4.3%
Hyosung Heavy Ind.	298040.KS	81,700	NC	0.8	7	15.9	8.8	0.8	0.8	5.3%	9.3%	0.0%	0.0%

Source: WiseFN Consensus estimates, Morgan Stanley Research estimates; Priced as at Dec. 13, 2022.

Global Stock & Sector Implications

Luxury Goods - The Next Hong Kong?

Analyst: Ed Aubin

Sales of personal luxury goods brands have benefited over the past few decades from a constant expansion of the total addressable market, be it in terms of income brackets (the upper middle class is now powering the growth of the industry), nationalities (>70% of Vuitton worldwide sales in 1990 were to Japanese nationals but demand is much more diverse now), age (increasingly younger customer), gender (greater male participation). **We see the share of Middle Eastern nationals growing going forward (from about 5% today)**, driven by some of the above mentioned factors (e.g. increase of the middle class), as well as specific regional factors discussed in this note: overall population growth, female empowerment, dress code evolving (from traditional attire to more in line with international fashion trends), increased retail presence (currently very limited in KSA for example), etc. **Overall, we would expect sales in the Middle East to grow at a 10-15% CAGR by 2030**. Should that prove to be correct, their share of total industry sales would increase to about 8% by 2030 and their contribution would add about 40 bps of growth to the ~6% CAGR most third parties are assuming for other nationalities' growth over the period.

The Middle East accounts for around 3-5% of sales for most luxury companies (see Exhibit 157), of which we estimate Saudi Arabia at c.1-2%. We believe that the spend by the Middle Eastern cohort is slightly higher given many purchases are done abroad (mostly in Europe); however, it is difficult to truly quantify. As seen in Exhibit 160 , **growth has been quite substantial in the Middle East since the Covid-19 pandemic**, driven by: 1) Repatriation of spending; 2) Strong GDP growth, fuelled by the buoyant oil market and economic reforms; and 3) Strong USD, hence benefitting the dollar-pegged currencies. Back in May 2022, **CEO Gildo Zegna of the Italian luxury group Zegna said "The new Hong Kong is Dubai. And next will be Saudi Arabia" at the FT's Business of Luxury Summit in May 2022.** However, one of the key debates from luxury's standpoint is whether the growth in the region is cyclical (as it has been in the past, see Exhibit 155 from Bain) or structural.

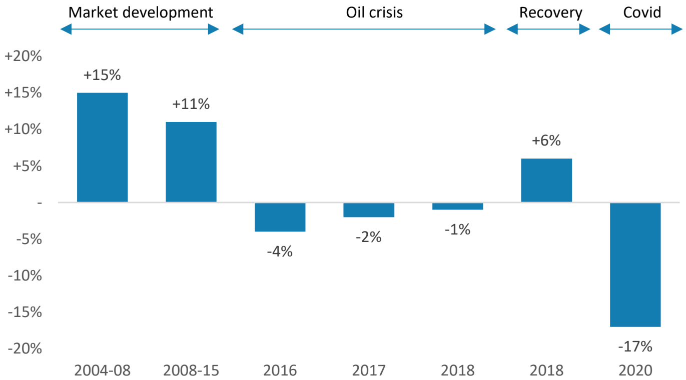
As per Bain Altagamma, the Middle East is expected to grow at a +5-7% CAGR over 2022-2030, in line with the overall personal luxury goods market – thus retaining its 4-6% share of the market. This is in line with estimates by the Chalhoub Group for 2022/2023 (one of the leading luxury retail partners in the region), see Exhibit 159 for the GCC region and Exhibit 161 for Saudi Arabia. One particularity of the GCC market for luxury companies is the need to have a local partner for distribution in the form of franchise relationships, joint venture, or, in some cases distribution-only models, which has hindered luxury groups from building out their direct presence which they prefer (Partners such as the Chalhoub Group (LVMH, Louboutin) or Al Tayer Group (Kering, Armani, Dolce & Gabbana).

We believe Richemont is the most exposed name to the Middle East under our coverage, as it over-indexes because of the nature of the jewellery category (the Jewellery Maison division posted 8.8% of sales to MEA in FY22). As can be seen in Exhibit 156 , Richemont, which has reported its sales to the Middle East & Africa since FY12, has had volatile growth in the region.

As for Saudi Arabia particularly, **a recent article by Glitz Paris (see here) has suggested that the top luxury groups are preparing themselves for the emergence of Saudi Arabia's luxury scene which has been relatively untouched till now. Kering incorporated a new subsidiary in Saudi Arabia last year "Luxury Goods Arabia".** Looking forward, luxury goods growth in Saudi Arabia should be powered by the continued strength of the USD, the developing retail landscape and repatriation of demand (many Saudis purchase luxury goods in Dubai and in Europe), and the empowerment of women and their increased labour participation.

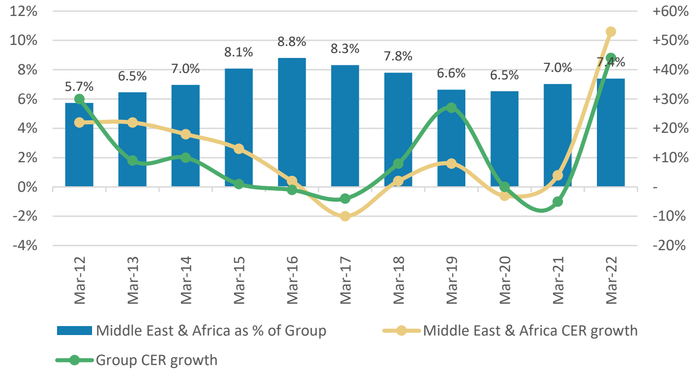
Of note, **some luxury brands have taken the opportunity to organize localised luxury events in KSA recently**: Dior (LVMH) Sauvage event in Al-'Ula in November 2021 (launch of new men's fragrance in the Saudi desert), Dior (LVMH) Villa private event showcasing its full offering (invitation only event), Cartier (Richemont) celebrated the relaunch of the Cartier Pasha in Riyadh; Chaumet (LVMH) had a "Tiara Dream" exhibition in Riyadh in March 2022.

Exhibit 155: GCC Luxury Goods market growth



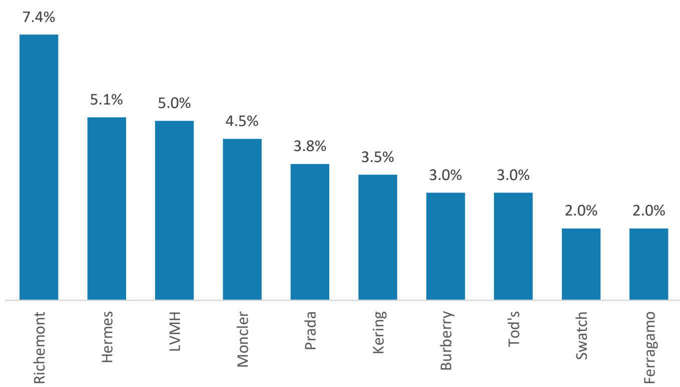
Source: Bain & Company

Exhibit 156: Richemont - Middle East & Africa sales (€m) and CER growth



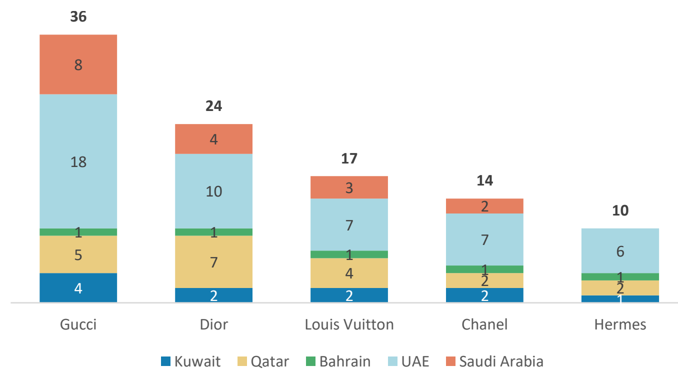
Source: Company data

Exhibit 157: Luxury goods - exposure to Middle East



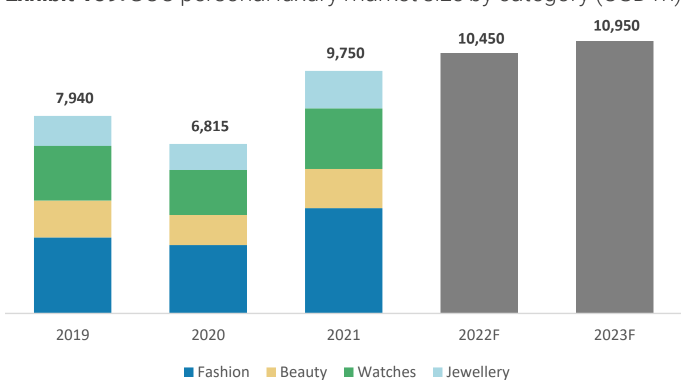
Source: Company data, Morgan Stanley estimates for 2021

Exhibit 158: Luxury Goods - Stores in the GCC



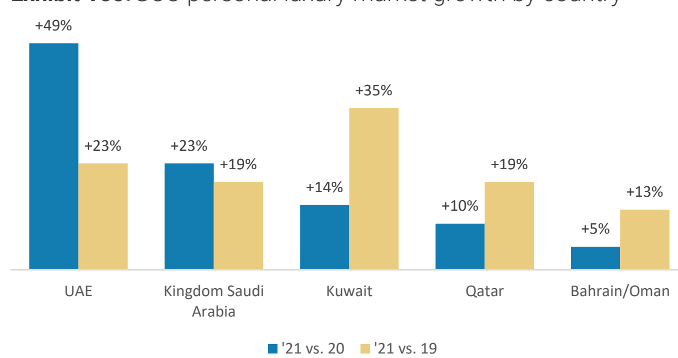
Source: Brands websites, Morgan Stanley research
Note: Includes airport stores, pop-ups and specialized stores (such as kids). Excludes fragrance only or beauty only stores.

Exhibit 159: GCC personal luxury market size by category (USD m)



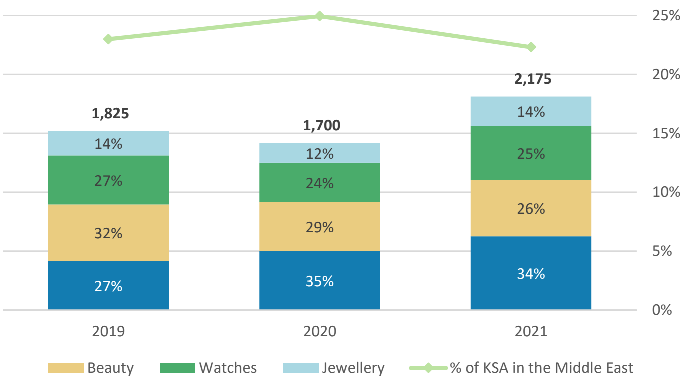
Source: Chalhoub Group

Exhibit 160: GCC personal luxury market growth by country



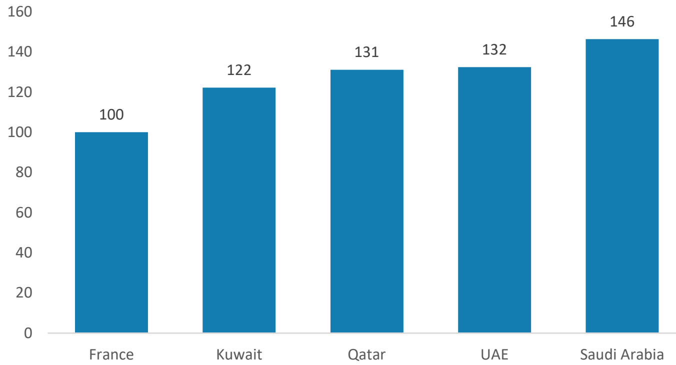
Source: Chalhoub Group

Exhibit 161: Saudi Arabia personal luxury market by category (USD m)



Source: Chalhoub Group

Exhibit 162: GCC luxury goods pricing differential - indexed to 100



Source: Brand website
Note: Data is for the Louis Vuitton Neverfull MM bag. Local price (including sales tax and VAT) from website converted to EUR as of 6 December 2022

Indian Contractors - L&T

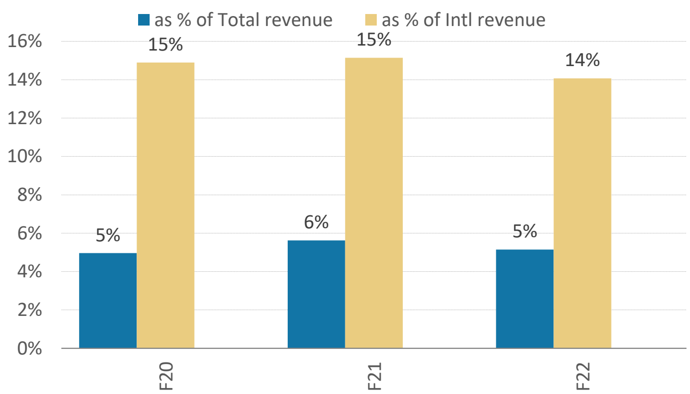
Analyst: Girish Achhipalia

Larsen & Toubro (L&T), India's largest EPC company, has exposure to the opportunities in Infrastructure, Hydrocarbon, Power, Industrial valves etc. Saudi Arabia over F19-22 has contributed to ~5-6% of L&T's consolidated revenue and ~14-15% of its International revenue. **Saudi's contribution in L&T's international order book has risen steeply from 32% in F21 to 63% in F22 with large order win during F22**. Also in F23YTD, L&T ordering has seen good traction from Saudi Arabia.

In the Hydrocarbon segment, L&T sees a favorable capex environment in the Middle East region given the higher oil prices. L&T provides integrated D&B turnkey solutions for the hydrocarbon industry, both in offshore and onshore segments. The business executes projects for oil & gas extraction and processing, petroleum refining, chemicals & petrochemicals, fertilisers, cross-country pipelines & terminals, and has recently launched asset management as well as services for offshore wind. The business has integrated capabilities across the value chain, supported by in-house front-end design and detailed engineering, R&D, project management, procurement, modular fabrication facilities, Onshore construction, Offshore installation, and commissioning. L&T is one of the four preferred EPC partners for oil & gas giant Saudi Aramco.

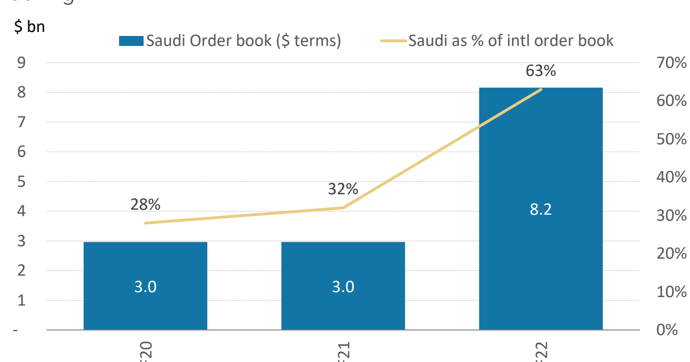
In the infrastructure segment, **L&T sees opportunities with Saudi Arabia's ramp up in tendering on its Public Investment Fund (PIF) 'giga projects' program**, particularly on the Neom, Red Sea, Diriyah Gate and Qiddiya developments.

Exhibit 163: Saudi Arabia over F19-22 has contributed to ~5-6% of L&T's consolidated revenue and ~14-15% of its International revenue



Source: Company data, Morgan Stanley Research

Exhibit 164: Saudi's contribution to L&T's international order book has risen steeply from 32% in F21 to 63% in F22 with large order win during F22



Source: Company data, Morgan Stanley Research

In the Power segment, L&T offers EPC services in setting up large scale renewable projects and transmission and distribution segments in the country. The expansion of the 380 kV network in Saudi Arabia presented sizeable opportunities for Substations and Overhead Lines. The opportunities for providing Reactive Power Compensation devices like STATCOMs, Static Var Compensators (SVCs), and Reactors have previously been limited only to India. However, such opportunities are on the rise in other operating geographies such as KSA, UAE and Qatar recently. In KSA and Oman, GW scale plants characterized by substantial BESS and Grid components continue to provide huge opportunities, given the Net Zero commitments and Green Hydrogen prospects.

Also, with the Mining fund being established, low power tariffs and flexible policies under vision 2030 for KSA to be net exporter of value-added products in the mineral mining sector **L&T sees strong EPC opportunities from the metal and mining sectors**. Steel, Aluminium, Copper, Gold, Phosphate and their allied industries is becoming an attractive investment destination in UAE and KSA due to low power tariffs and flexible policies which is included in their Vision 2030 to be net exporter of value-added products.

L&T is focusing on increasing its localization in KSA. The Piping shop and the proposed Pressure Vessel Manufacturing shop in KSA will mainly cater to the local market and for developing local skills to support the IKTVA programme.

European Contractors - Select Opportunities

Analyst: Nicolas Mora

European Contractors have historically been modestly active in the Middle East (max. 5-10% of backlogs) with the emphasis put initially on Dubai/UAE (Besix, Bouygues, Carillion, Hochtief/Cimi's HLG JV, Strabag, etc) via residential/non-residential projects, with an aggressive push into Qatar from the late 2000/early 2010's (Besix, Bouygues, Ellaktor, FCC, Porr, Vinci via the QDVC JV, Webuild) mostly but not exclusively via large Infrastructure works (Doha's Metro; new Lusail city/infrastructure) and later non-residential projects ahead of the 2022 Football World Cup.

At that time, Saudi Arabia was more seen as an ad hoc mega-project opportunity: the focus would be on winning large, one-off complex civil engineering projects (2011's €7bn Mecca-Medina High-Speed Rail won by the Spanish-led Alshoula consortium with OHL / Cobra-ACS for example; 2013's Riyadh Metro project with two of the three work packages led by European contractors Webuild and FCC). **Yet, this has been - for some - an opening to start longer-standing operations in the Kingdom beyond infrastructure mega-projects**. **This is true in particular for Webuild** (ex-Salino Impregilo, from Italy) which has won multiple contracts in residential/non-residential developments (2017: US$300m Al Faisaliah District Redevelopment Project in Riyadh; 2019's US$1.3bn housing/urban planning for 6K villas over 7m sqm east of Riyadh).

The modest active presence of European contractors in Saudi Arabia means the opportunities offered by the c. $1 trillion worth of long-term giga/mega-projects to 2030-35 looks bound to be somewhat lost.

Exhibit 165: European Contractors - Involvement in Saudi Arabia's Giga/Mega projects

European Contractors	Country	Project	Project value	Tender date	% of backlog
Bouygues	France	Six Flags theme park within Riyadh's Qiddiya Entertainment destination	**USD1bn** 50% share for Bouygues 50% for local partner Saudi Almabani General Contractors	Dec-21	**2%** *of Bouygues Construction*
Webuild	Italy	Diriyah Square Package 2 Super-Basement Works (10.5K multi-storey car park)	**EUR940m**	Jan-22	**5%** *(total Saudi Arabia)*
FCC	Spain	First tunnels for HSR & Freight rail + underground passages for NEOM	**EUR735m** for FCC, as part of a consortium alongside China State Construction Engineering Corporation and Shibh Al Jazira Contracting Co.	Jun-22	**15%** *(total Saudi Arabia) of FCC Construccion*

Source: Company reports, Morgan Stanley Research

Early-mover ex-European builders appear better placed to benefit (Chinese & Korean contractors, L&T from India, local construction companies). That said, the prospects can be material for a selective group of well-established European contractors like Webuild and FCC, which have already won sizable works on Diriyah and NEOM projects, while **other contractors may target Saudi Arabia on an opportunistic, ad hoc mode (Bouygues**, with a US$1bn project to build the Six Flags theme park in Qiddiya).

European contractors with specific skill sets (foundations/soil improvement, desalination / water & wastewater treatment plants, etc) **could also benefit from early sub-contracting works** (foundations/soil improvements specialists like **Vinci's Soletanche-Bachy,the UK's Keller and Germany's Bauer** for example) or new projects at a later stage (desalination/water specialists like **Acciona, FCC, Sacyr, Webuild via Fisia Italimpianti**).

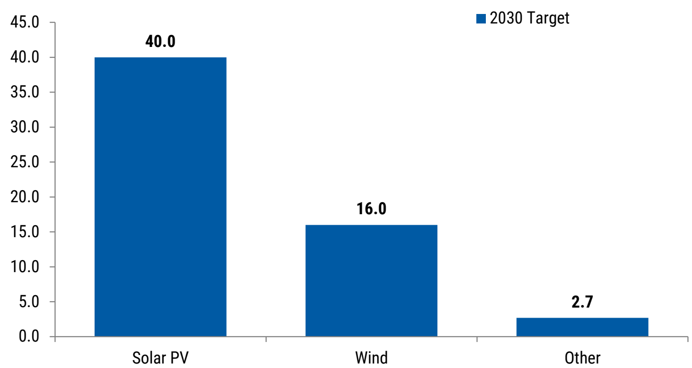
Chinese Solar - JA Solar

Analyst: Simon Lee, Teresa Yan

We are bullish on global solar demand in 2023 with 30% growth in installed capacities to 280GW. In this context, Saudi Arabia's target for 58.7GW of installed capacity of renewables by 2030 versus current 0.7 GW online, with 40GW of this capacity in solar, is not negligeable. As our Saudi Arabia research team highlights in the renewables section of this report, by August 2022, Saudi Arabia had already tendered 7GW, which is under construction. The Sudair solar plant with capacity of 1.5GW is expected to start 1st phase of operations by end of the year. An additional 15GW worth of projects is expected to be tendered to the end of 2023.

Exhibit 166: Saudi Arabia targets 58.7 GW of renewables installed capacity by 2030, 40 GW of this in solar

S. Arabia: Renewable energy planned capacity (GW)



2030 Targets are based on renewable energy target announcements in 2019, Source: National Renewable Energy Program, Middle East Institute and Morgan Stanley Research

Our top pick is solar module company JA Solar. In fact, **JA Solar is one of the solar market leaders in the Middle East**, and it has more than 30% of the Jordan solar market, and its shipments to the Saudi Arabia, UAE, Egypt and other Middle East countries have also grown in the last several years. We note JA Solar's recent involvement in a Webinar addressing the 'Roadmap to Sustainable Saudi Vision 2030 With Solar PV Systems' (see here). Saudi Arabia has strong natural resources in solar and its Sakaka Solar Power Plant set a new world record for low costs in the solar photovoltaic sector, which amounted to SAR0.08775 per kWh.

European Banks

Analysts: Magdalena Stoklosa, Vishal Shah, Nick Lord, Kerry Shaw

Low DCM/Lending penetration currently, but expect increase over next decade: To round up most Saudi exposed banks within our coverage we look at DCM (Debt Capital Markets) and Syndicate lending volumes data from Dealogic. We identify HSBC, STAN, BNP as most active European banks in Saudi DCM context, especially HSBC with an outsized 17% market share in volumes done since 2017. On Syndicate Lending side too, HSBC is most active with c. 9% market share in volumes done since 2017, followed by Credit Agricole and BNP. Overall we note that for the six banks in Exhibit 167 , market share in Saudi DCM volumes has increased by 5% pt. since 2017. Saudi volumes, however, still remain small in the banks' overall DCM activity, at c. 1%. Standard Chartered showed highest increase in Saudi mix. On the lending side, market shares have markedly increased to c. 27% in 2022 so far for the banks in Exhibit 168 . Saudi lending volumes currently at 3.5% of global lending mix, increased from negligible presence back in 2017. On a bank level, HSBC owns 31% stake in Saudi British Bank (SABB), which provides retail banking services. Saudi contributed c. €360mn in PBT (c. 2% of group) in 2021 with overall MENA region contributing c. 8% of PBT. At STAN, Saudi Arabia is a focus area for their IB operations in Middle East, having opened a branch in Apr-21. Government, Oil & Gas and Finance sectors have attracted most financing. On the lending side Oil & Gas, Utilities/Energy and Finance sectors have received the most. Going forward we think the financing mix should shift towards energy transition as moving away from Oil & Gas forms a key pillar of the Saudi 2030 vision. Transition financing has been key to wholesale strategy of European banks, and their pioneering business, high global market shares in ESG related funding should be a unique opportunity in Saudi Arabia too, as they support the 2030 vision.

Wealth Managers expanding already established Saudi presence: In our coverage we note that both UBS and BAER have already positioned themselves to capture the Saudi wealth growth opportunity. In our Wealth/AM Bluepaper earlier this year, we forecast c. 5% Household Wealth growth CAGR in Middle East + Africa over 2022e-26e. UBS has been present in Saudi and UAE for a while now and in Apr-21 opened another WM advisory office in Doha, Qatar. As per press reports, UBS has c. 300 FTEs in Middle East and continues to grow its offerings and presence in the region. At Julius Baer too, Middle East and Saudi has been a core market for more than a decade now and more recently BAER has expanded its presence in Qatar with a new office (See press release).

Exhibit 167: HSBC, STAN and BNP most active European Banks in Saudi DCM

Rank	Bank	Dealogic DCM Volumes done in Saudi, $mn						
		2017 YR	2018 YR	2019 YR	2020 YR	2021 YR	2022 YR	Total since 2017
1	HSBC	4,871	3,476	4,876	9,833	5,747	4,408	33,212
6	Standard Chartered Bank	520	1,499	2,107	2,156	2,177	2,174	10,632
7	BNP Paribas	1,500	1,042	2,159	1,484	1,666	1,154	9,004
19	SG Corporate & Investment Banking	160	0	980	696	564	298	2,697
20	Credit Agricole CIB	176	372	396	746	527	439	2,656
22	Deutsche Bank	1,571	62	66	44	0	164	1,906
	Total	**29,978**	**23,156**	**34,325**	**41,818**	**37,836**	**25,739**	**192,851**

	Market Share %						
	2017 YR	2018 YR	2019 YR	2020 YR	2021 YR	2022 YR	Total since 2017
HSBC	16%	15%	14%	24%	15%	17%	17%
Standard Chartered Bank	2%	6%	6%	5%	6%	8%	6%
BNP Paribas	5%	4%	6%	4%	4%	4%	5%
SG Corporate & Investment Banking	1%	0%	3%	2%	1%	1%	1%
Credit Agricole CIB	1%	2%	1%	2%	1%	2%	1%
Deutsche Bank	5%	0%	0%	0%	0%	1%	1%

	DCM Volumes Saudi % Total						
	2017 YR	2018 YR	2019 YR	2020 YR	2021 YR	2022 YR	Total since 2017
HSBC	1.9%	1.4%	2.0%	3.5%	2.3%	2.6%	2.3%
Standard Chartered Bank	1.2%	3.4%	3.9%	3.2%	3.4%	5.0%	3.4%
BNP Paribas	0.7%	0.6%	1.0%	0.5%	0.6%	0.6%	0.7%
SG Corporate & Investment Banking	0.1%	0.0%	0.8%	0.5%	0.4%	0.3%	0.4%
Credit Agricole CIB	0.2%	0.4%	0.3%	0.5%	0.4%	0.4%	0.4%
Deutsche Bank	0.6%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Total	**0.4%**	**0.3%**	**0.5%**	**0.5%**	**0.4%**	**0.4%**	**0.4%**

Source: Dealogic, Morgan Stanley Research

Exhibit 168: HSBC, CASA and BNP most active European banks in Saudi Syndicated Lending

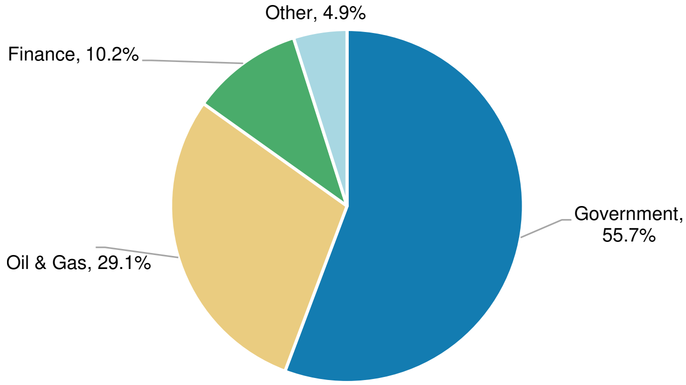
Rank	Bank	Dealogic Syndicate Lending Volumes done in Saudi, $mn						
		2017 YR	2018 YR	2019 YR	2020 YR	2021 YR	2022 YR	Total since 2017
1	HSBC	219	3,666	2,338	1,518	7,673	4,111	19,524
3	Credit Agricole CIB	0	3,263	1,312	3,250	4,066	3,298	15,189
7	BNP Paribas	0	1,972	1,000	1,000	4,400	3,298	11,670
10	Standard Chartered Bank	219	3,033	1,000	175	1,921	1,924	8,272
11	SG Corporate & Investment Banking	0	1,222	100	1,600	1,000	1,624	5,546
21	Santander	0	0	0	2,100	0	0	2,100
26	Deutsche Bank	0	0	144	600	0	214	958
	Total	**11,304**	**41,835**	**26,296**	**26,460**	**66,850**	**52,796**	**225,541**

	Market Share %						
	2017 YR	2018 YR	2019 YR	2020 YR	2021 YR	2022 YR	Total since 2017
HSBC	2%	9%	9%	6%	11%	8%	9%
Credit Agricole CIB	0%	8%	5%	12%	6%	6%	7%
BNP Paribas	0%	5%	4%	4%	7%	6%	5%
Standard Chartered Bank	2%	7%	4%	1%	3%	4%	4%
SG Corporate & Investment Banking	0%	3%	0%	6%	1%	3%	2%
Santander	0%	0%	0%	8%	0%	0%	1%
Deutsche Bank	0%	0%	1%	2%	0%	0%	0%

	Syndicate Lending Volumes Saudi % Total						
	2017 YR	2018 YR	2019 YR	2020 YR	2021 YR	2022 YR	Total since 2017
HSBC	0.2%	3.1%	2.3%	1.8%	6.5%	5.3%	3.2%
Standard Chartered Bank	0.9%	10.0%	3.2%	0.7%	5.6%	6.6%	4.8%
BNP Paribas	0.0%	1.4%	0.8%	0.7%	2.6%	2.8%	1.5%
SG Corporate & Investment Banking	0.0%	1.6%	0.2%	2.6%	1.2%	3.1%	1.4%
Credit Agricole CIB	0.0%	3.4%	1.7%	4.3%	4.8%	5.0%	3.3%
Deutsche Bank	0.0%	0.0%	0.2%	0.7%	0.0%	0.3%	0.1%
Total	**0.2%**	**0.8%**	**0.6%**	**0.7%**	**1.2%**	**1.2%**	**0.8%**

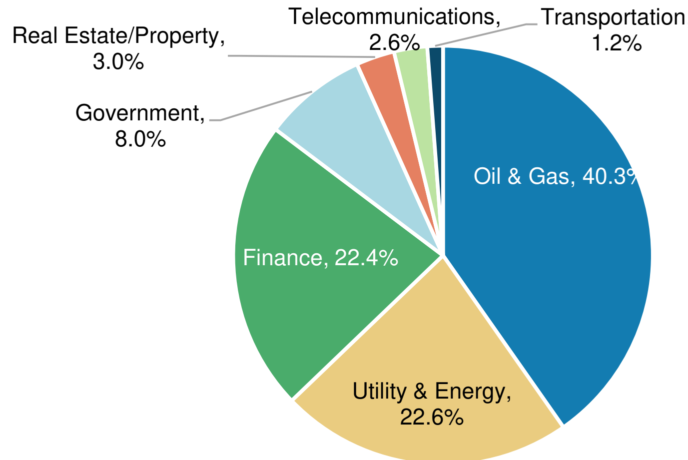
Source: Dealogic, Morgan Stanley Research

Exhibit 169: DCM Volume split since 2017 by industry for active European Banks as per Exhibit 167



Source: Dealogic, Morgan Stanley Research

Exhibit 170: Syndicate Lending Volume split since 2017 by industry for active European Banks as per Exhibit 168



Source: Dealogic, Morgan Stanley Research

European and US Chemicals

Analysts: Vincent Andrews, Charlie Webb, Lisa De Neve

Industrial Gases vs Hydrogen (Air Liquide, Air Products and Linde) - **Industrial gas companies volume growth has benefitted from a step-up in petrochemicals capex in the Middle East post mid-2010s** as (i) the region sought to dilute export income reliance on oil, and (ii) Oil & Gas companies were diversifying their industrial base, especially as the industry was digesting the prospects for peak fossil fuel demand (and hence the risk for lower fossil fuel prices in the long run); this was also consistent with policy themes included in Saudi Arabia's Vision 2030. **Over the mid-term, the industrial gas opportunity is now shifting into (clean) Hydrogen, including the greenfield NEOM project**. The NEOM project targets the production of 600t of green hydrogen per day and 1.2mT of green ammonia per year. **Air Products (Covered by Vincent Andrews) will be the off-taker of the green ammonia and is involved in the construction of the plant** including the supply of the air separation technology as well as water electrolysis services.

Ingredients vs Consumer Spending (incl. Givaudan, Croda, Symrise, Kerry) - Our Ingredients Coverage only derives single-digit sales from the Middle Eastern region today (Croda ~5% and Givaudan ~4% of Group Sales) but various players are increasing their presence in the region to capture the robust growth in consumer spending. For example, **Kerry opened a €80m Taste & Nutrition technology facility this year in Jeddah**. Similarly IFF added a taste center in Dubai in 2020, Symrise added an innovation center in Dubai in 2021, and DSM-Firmenich opened an R&D center in Dubai this year.

Global Autos

Analysts: Harald Hendrikse, Adam Jonas, Ross Macdonald

Saudi unit sales have upside to normal levels ... At c. 600k units per annum the Saudi automotive ranks 21st globally in terms of size vs a current global GDP ranking of 18th. Light Vehicle volumes of 600k compares to a 10Y pre-covid run rate of c.650k, implying that 2022 volumes are, like most regions, still well below normal levels. Volume growth within the Saudi automotive market should therefore be supported by easy comps and robust GDP growth moving forward. Size of the parc tends to rise with GDP/per capita, so policy initiatives that can boost these metrics are likely to be supportive for LV volume growth too.

... but dominant players in the region are not European ... Market share in the Saudi automotive market is currently dominated by two key players; Toyota and Hyundai are estimated to account for 31% and 14% of 2022 sales per S&P Global data. **Nissan, Changan, Isuzu, Kia and MG are each estimated to hold a 5% share** with the remaining 30% spread across brands. Importantly, European representation amongst both the best-selling brands and nameplates is very low. Clearly there is an opportunity for European brands to compete in the country more. This being said, without the network presence of the incumbent brands, we feel it unlikely the European OEMs will dominate the Saudi market in the coming decade.

… but the opportunity for premium brands is sizeable. Instead, where it is possible to see considerable upside to European volumes is arguably on the premium side – **although European market share is very low in Saudi, the region may see significant upside at the premium end of the automotive market**. Anecdotally, premium car sales (based on price point bands) represent only 5% of the 600k units currently sold in Saudi Arabia vs a global average penetration of around 15%. Notably, nearby markets such as Kuwait, Qatar, UAE and Oman are much further ahead on premium penetration at this time. Even a 5% increase in premium penetration would be significant given this effectively double high-end sales volumes. **Simplistically if we assume that 30k units (5%) of premium sales did double over the coming years, that would imply a c. $2.2bn opportunity for premium OEMS** assuming a high-end ASP of $75k. **Best placed European OEMs to target such growth would be Mercedes Benz, BMW and Porsche**. Sub-brands such as Bentley and Lamborghini (part of VW group), and Rolls Royce (part of BMW) could also benefit from such a dynamic.

US Autos

Analyst: Adam Jonas

In an uncertain macro-environment, Ferrari is the most recession proof company in the auto space. The Ferrari moat, built on scarcity, desirability, and brand values around performance and luxury is as strong as ever. These factors make it hard for competitors to replicate the Ferrari model overnight. With the Purosangue and Daytona SP3 entering the model range in 2023, there is potential for price/mix to contribute more to top line growth versus the last two years. Building on the ICE business, Ferrari is working towards the unveiling of a BEV for 2025. We see the Ferrari brand as the main driver of BEV success. In our view, buying a Ferrari today is not so much about "the sound of the engine" or the "performance" in and of itself. Rather, **we think it is a totality of factors that drive customers to want the elements that a Ferrari possesses: scarcity, desirability, connotations of luxury and performance (stemming from Formula 1 racing pedigree), and exquisite Italian design and engineering.** Ultimately, in a world of proliferating battery EVs, where some competitors may have better performance and priced cheaper vs Ferraris, Ferrari still has brand prestige and desirability which takes decades to build. This remains its key moat and competitive advantage, in our view. **While the Middle East accounted for 3% of shipments in 2021, this was up c10% YoY, pre the ramp-up in Saudi Arabia's leisure events and reform-driven spending this year** (this disclosure includes UAE, Saudi Arabia, Bahrain, Lebanon, Qatar, Oman and Kuwait).

Late in 2022, Lucid Group became one of the first global EV auto makers to have a studio in Riyadh. Clearly, with the nation's Vision 2030 focussed on renewables and the energy transition this move is aligned with that and we would expect others to follow suit. **Earlier in 2022, Lucid announced plans for a full production factory at King Abdullah Economic City in Saudi Arabia**. At its peak, output could be as much as 155,000 vehicles annually from the factory. The Government of Saudi Arabia subsequently stated its intention to buy 100,000 vehicles over a ten-year period from the company in two equal tranches over that period.

Japanese Autos

Analyst: Shinji Kakiuchi

In CY2021, **Toyota** distributed around 161 thousands units to Saudi Arabia, which was 1.9% of the company’s global auto sales. Main models of Toyota in Saudi are Camry (Mid-size sedan), Hilux (Pickup Truck) and Land Cruise (Large size SUV). Toyota shipped 10 thousand units of Lexus brand vehicles to Saudi Arabia in 2021. Land Cruise and Lexus are more profitable models at Toyota.

Nissan sales in Saudi Arabia were 39 thousand units in 2021, accounting for 1.1% of its global sales. The sales exposure to Middle East (in addition to Saudi, United Arab Emirates, Oman, and Kuwait are key countries) by major Japanese OEMs are 4.0% at Toyota, 3.2% at Nissan, and 0.5% at Honda. Other than major OEMs **Mitsubishi Motor** (7211, not covered) had 7.3% exposure to Middle East in 2021.

Australian Mining

Analysts: Rahul Anand, Gary Zhang

Saudi Arabia offers a number of opportunities for the resource extraction industry. Notable resources include gold (56Moz, ~4.5%), copper (2.2Mt, ~0.10%), zinc (4.4Mt, ~0.23%), lead (449kt, ~0.02%) and nickel (108kt, ~0.08%) which translate to a sizeable amount (particularly gold) relative to total global resources (% given above).

Of interest would be the development of battery metals including copper and nickel. Morgan Stanley is bullish medium to long-term on copper, as we think by 2027, there could be an increasing deficit of copper required (2.5Mt by 2030). While for nickel, our commodities team sees a similar story playing out from 2026 onwards with a 276kt deficit by 2030.

Although opportunities exist in Saudi Arabia, we think the country at this stage could at minimum be 5-7 years away from producing from greenfield assets due to the lengthy nature of establishing greenfield projects (generally ~10 years). However, this will largely be dependent on the legislative processes; as such any promising projects could begin within ~5 years, hypothetically.

Recent press reports indicated that Saudi may be seeking investment from Australian miners to support its $170bn plan to expand its mining industry (see here). While we have yet to hear interest from Australia miners looking to investing in Saudi Arabia, we think if the financial and political conditions are available, there could be potential up-take of the opportunities.

Global Steel and Copper

Strategists: Marius van Straaten, Amy Sergeant

We estimate that Saudi's giga-projects could add about 0.2 to 1% to global metal demand, which is not insignificant but also not a game changer for metals markets, though it will drive up its domestic demand significantly. Saudi Arabia's spending on its several giga-projects will be US$900 billion to 2030, or about US$100 billion per year. **To put Saudi's spending level in context, Bloomberg Economics puts China's infrastructure spending at US$3.4 trillion just in 2021, while the US Infrastructure Investment and Jobs Act covers about US$1.2 trillion over 5 years (US$240 billion/yr).** While China's infrastructure packages can definitely be market moving for metals, the US infrastructure bill so far hasn't been.

While the capital outlay suggests that Saudi's projects may not be a game changer for metals, we attempt to quantify demand for steel and copper more specifically by making some high-level assumptions. As a rule of thumb, the steel intensity of infrastructure projects is in the order of 50kt per US$ billion spent. This would mean annual additional steel consumption by Saudi Arabia of 5Mt/per year, or just 0.2% of global annual finished steel demand. Nevertheless, **Saudi's domestic steel demand would expand by about 50%.**

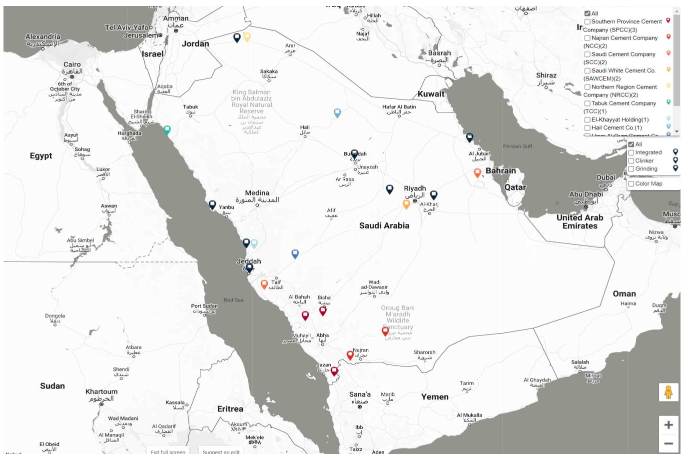
Looking at copper, it is a bit more nuanced and project specific, and we assess housing, power and grid demand separately. Starting with property construction, we estimate that NEOM's (about half the of planned capital outlay) housing development for 9 million people could require 600kt of copper. The city will be fully dependent on renewables, with estimates of 8-10GW of wind and 16-20 GW of solar capacity to be installed, which could contain as much as 115kt of copper. Lastly, NEOM's almost 200km of anticipated grid requirements could mean another 500kt of copper demand. This leaves NEOM's cumulative copper demand at 1,215kt. Doubling this to account for all giga-project spending and (somewhat simplistically) distributing it equally over 10 years, leaves us with **c.240kt of additional Saudi copper demand per year. While this is more than 2.5x Saudi's current annual copper demand, it will add about 1% to current global annual copper demand.** While not necessarily a game changer for global copper demand, it could help offset expected declines in China's copper demand growth rate, and could also be more meaningful in certain years if copper purchases were done in larger bundles.

Pharmaceuticals

Analyst: Mark Purcell

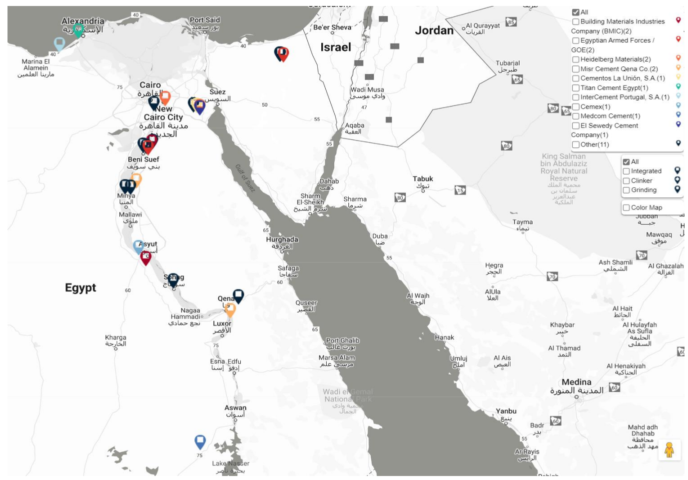
According to IQVIA, medicine spending in Saudi Arabia is currently c.$8bn and it represents the largest market in MEA in value terms. The COVID pandemic had a significant impact on spending in 2020, but this has now rebounded and IQVIA anticipate growth in the range of 3.5-6.5% over the next four years and projects the pharma market to reach c.$9-13bn in 2026. **Growth is predominantly driven by tender and institutional markets, as opposed to retail channels**. The largest international corporations are Pfizer, Sanofi, Novartis, GlaxoSmithKline, Hikma, AstraZeneca and Novo Nordisk. In terms of therapeutics, anti-infective and anti-cancer medicines are amongst the most important categories, followed by vaccines such as Prevnar and Menactra, cardiovascular disease and diabetes.

Exhibit 171: Cement plant locations - Saudi Arabia



Source: Cemnet

Exhibit 172: Cement plant locations - Egypt



Source: Cemnet

Cement and Concrete

Analyst: Cedar Ekblom

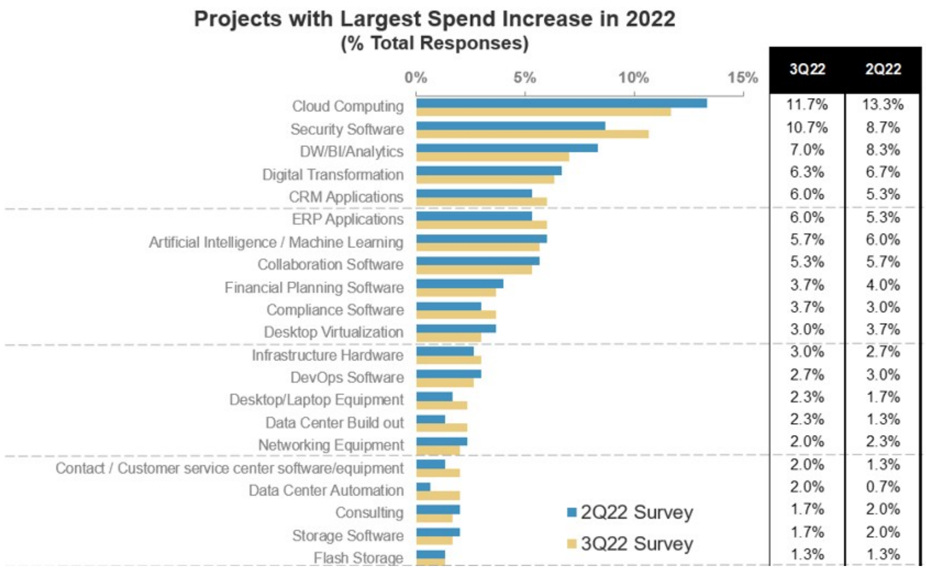
Concrete and cement demand should benefit from investment in a number of large infrastructure / property projects. We present the location of cement plants relative to giga-project locations. Primary beneficiaries should be local Saudi cement companies, and potentially producers in Egypt should domestic Saudi cement supply not prove sufficient.

Cemnet suggests domestic cement demand in Saudi is currently 51Mt vs. installed capacity of 85Mt across 23 plants. In Egypt, demand is estimated at 46Mt vs. 92Mt capacity according to Cemnet. Both Holcim and Heidelberg own and operate cement producing assets in Egypt. Holcim has 1 plant with 10Mtpa cement capacity. Heidelberg operates 2 facilities with a combined capacity of 10Mt. While larger assets in isolation, when considered in the context of group revenues / profit the assets are small (very low single digit group contribution).

Saudi Arabia/GCC Technology Stock Ideas

With digitalization and technological development a key element of Saudi Arabia's Vision 2030 reforms, we break out Saudi Arabia (or GCC with sizable Saudi exposure) stock ideas in the technology sector. This includes IT services, fintech, and food delivery. On the latter we also note that our survey results point to supportive demographic drivers both in terms of increased demand from women entering the workforce and from degree level or above expats moving into the Kingdom.

Exhibit 173: Projects with largest spend increase in 2022 (% total responses)

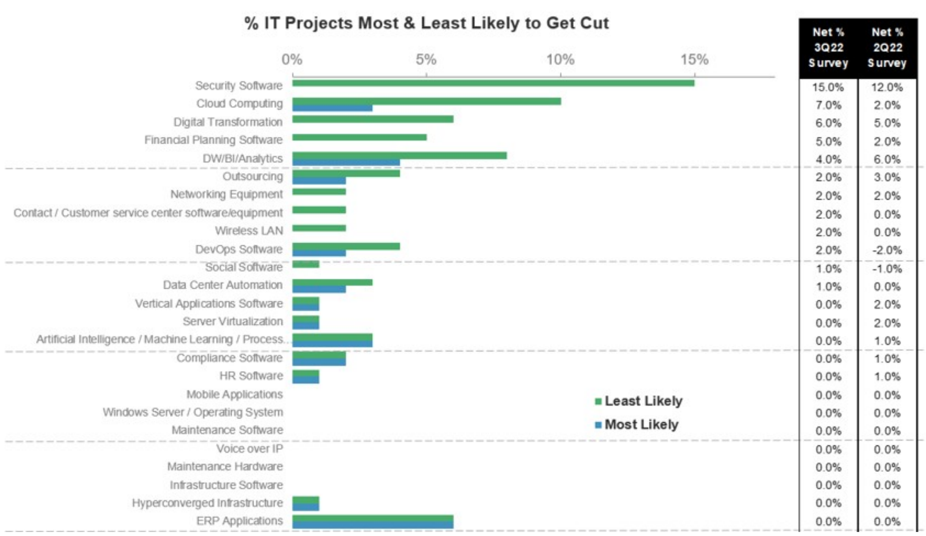


NB: exhibit responses continue beyond the lower cut-off. Source: AlphaWise, Morgan Stanley Research. n=100 (US and EU data).

IT Services: Solutions by STC

Analyst: George Webb

Exhibit 174: IT projects least and most likely to get cut in the event of economic downturn

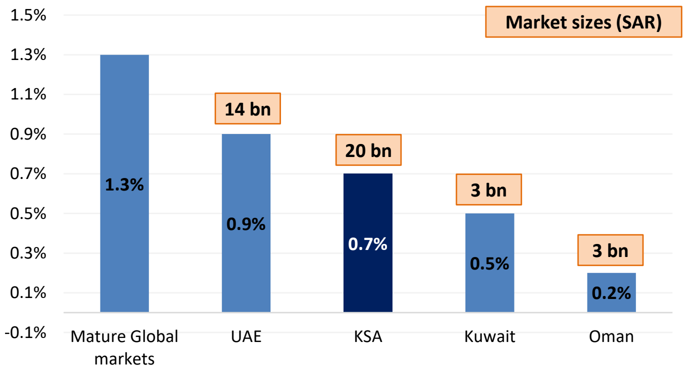


NB: exhibit responses continue beyond the lower cut-off. Source: AlphaWise, Morgan Stanley Research. n=100 (US and EU data).

KSA's IT Services market is in structural growth mode, Vision 2030 to be a supporting driver of adoption: Vision 2030 as an important driver of market growth, particularly given the public sector is a large IT services customer vertical in KSA. Technology adoption – and therefore digital transformation is a key enabler of the Vision and we see this helping to underpin the overall IT Services market growth rates. Data from Gartner suggests this can continue at a double-digit growth pace over the medium-term. Given the current low level of penetration, we believe government policy will act as an important catalyst for the increased adoption of digital technologies over the next decade. As in the case with many IT services markets, the KSA ICT services industry structure is relatively fragmented with a high proportion of the market with small local players. Solutions by STC is the market leader with a low-teens % market share. Similar to developed markets; while much of the industry revenue is involved with the run of the business (e.g. infrastructure outsourcing, legacy application maintenance - lower growth segments), the adoption of digital technologies is driving outsized growth in new high growth market segments. These include, cloud, digital, and cybersecurity. In our latest 3Q22 AlphaWise CIO survey, IT spend areas such as cloud computing, artificial intelligence, and digital transformation continued to rank highly in terms of priority spend areas by EU and US CIOs and are also areas less likely to be cut in an economic downturn, and we think this consistently applies across the global market.

IT penetration within KSA businesses remains lower than in more mature global markets: In 2018, B2B IT services spend was forecast at c. 0.7% of GDP, versus the UAE at 0.9% and mature global markets at c. 1.3%. We see this as supportive of the stronger growth rates forecast for the KSA IT market versus more mature markets (e.g. Germany, US, the UK) and other fragmented markets in the Middle East (e.g. Oman, Kuwait, Bahrain).

Exhibit 175: B2B IT services spend (% of GDP)



Source: Estimates from Solutions by STC / ADL who have adapted data from "IDC" baseline market data from 2018, Morgan Stanley Research

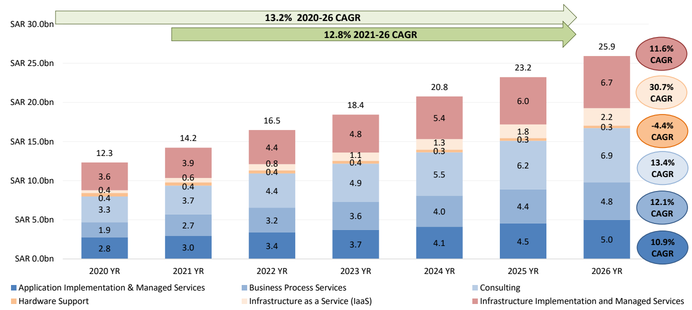
Exhibit 176: Vision 2030 is a key driver for digital adoption in the region

Source: Solutions by STC text, Morgan Stanley Research

Gartner forecast the KSA IT Services growth rate to continue in the double-digits % range: Aside from digitalisation and the adoption of cloud technologies, a number of other drivers are supporting growth in the KSA IT Services market. These include: 1) an increasing push by corporates to outsource non-strategic parts of their organization, 2) increasing demand for vertical-specific solutions, with IT services companies well placed to develop expertise and deliver these, and 3) stricter regulations in some industries, which is increasing compliance requirements and also stimulating more outsourcing of IT work. The banking sector (in particular) is shifting towards outsourcing a greater proportion of IT services work. Gartner forecast the total IT services market size at c. SAR 14.2bn in 2021, growing to c. SAR 26bn by 2026, with strong growth across most market segments.

Solutions by STC offers a mid-cap route to gaining exposure to structural IT growth themes: Solutions is the KSA ICT market leader, offering an end-to-end ICT services offering including Communications & Internet, and IT areas such as Consulting, Systems Integration, Managed Services and Cloud Services. Government customers accounted for c. 54% of Solutions' FY21 revenue. While Solutions' exposure to the Communications & Internet market (MSe 20-25% of group revenue) will likely weigh on group growth rates in the mix, the remainder of revenues are skewed into the higher-growth IT market. Solutions has seen consistent earnings upgrades since its listing in 2021; we now forecast c. 15% organic growth for FY22 (c. 18% including inorganic contribution from Giza), and c. 9% org. in FY23 (c. 17.5% including inorganic contribution). We expect the

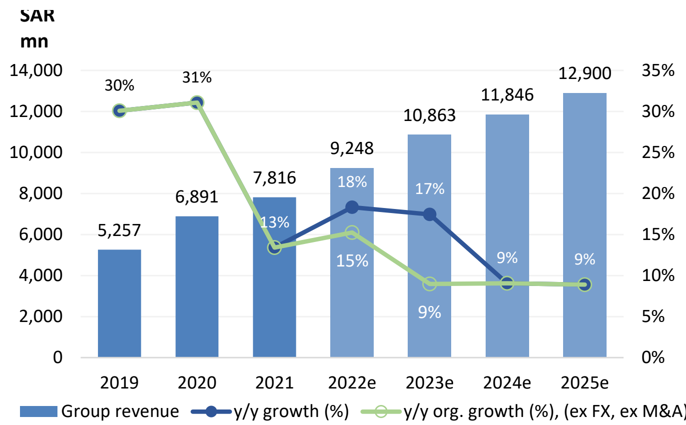
Exhibit 177: KSA IT services market by market segment



Data is adjusted by Solutions by STC for COVID-19 impact. System integration bucket includes IT consulting and training;

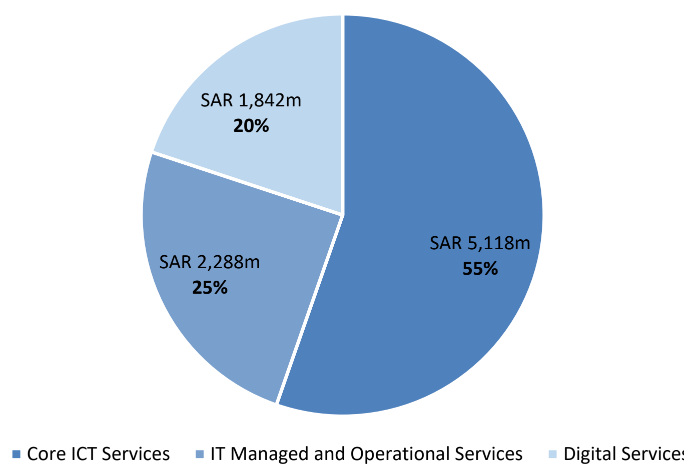
Source: Estimates from Solutions by STC / ADL who have adapted data from "IDC" baseline market data from 2018, Morgan Stanley Research

Exhibit 178: Solutions by STC has demonstrated a strong org. revenue growth profile



Source: Solutions by STC data, Morgan Stanley Research estimates (e)

Exhibit 179: Over half of Solutions' revenues are derived from Core ICT Services



Source: Solutions by STC data, Morgan Stanley Research company to revert to a c. 9% organic growth CAGR between 2022-2025. We acknowledge contract visibility on project work in the mix is more limited, but also the general trend of outperformance that Solutions has delivered since IPO. In our bull-case, we would see revenues growing at a low-teens % organic revenue CAGR through that period.

Outside of Solutions by STC, we point out the two other largest (non-MS covered) listed companies that have high exposure to ICT themes in Saudi Arabia: **Al Moammar Information Systems Co. (MIS)** and **Al-Elm Information Security Co. (Elm)**.

Payments: Network International

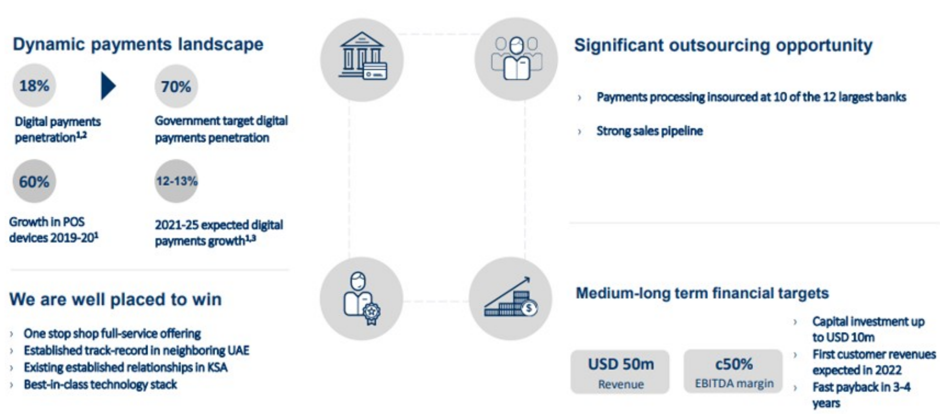
Analyst: Alastair Nolan

Saudi expected to see a sharp rise in digital payments - supported by government initiatives ... The Saudi market represents a significant growth lever for Network International, which is currently expanding its payments services into the region. Saudi is the largest economy in the Middle East, with GDP of c. $800bn and a relatively young population of 35m. Similar to other Network markets, Saudi has a low penetration of digital payments, which make up c. 18% of total consumer and commercial payments in 2020, up from just 8% in 2017. The increase in digital payments is a function of the COVID pandemic, but also the Saudi government's 2030 Vision to reach 70% digital payment penetration, creating a strong cash-to-card tailwind in the region. Elsewhere, the outsourcing of payment processing activities remains nascent, with operations conducted largely in-house by banking participants and minimal presence from independent payment processing companies. Eight of the 10 largest banks in the region insource their processing operations (as of 2021).

... with a lower cost of market entry due to cloud hosting becoming available: Network has been able to reduce the expected capex around entering the Saudi market by more than half due to cloud based hosting services becoming available in Saudi. Previously, any new entrants were required to have an on-soil presence, resulting in expensive data centres and associated costs. However, since Azure is now present in the country, with an on-soil presence in Jeddah, this up-front cost can now be avoided, reducing cost and accelerating the time to market. As a result, Network now plans to allocate $10m of capex to entering the market, down from the initial estimate of $25m. Network will use a technology platform largely based on the Network One platform, using the Openway Way4 payments processing software. Network expects to commence services in 2022, focusing on Issue Solutions card processing and Merchant Solutions acquirer processing in the first instance. As of 3Q22 results, Network has been approved to receive a Major Payment Institution category license from the Saudi Central Bank, opening up to direct-to-merchant opportunity going forward (although the initial market entry will focus be focused on issuer outsourcing.

Saudi market entry on-track, targeting $50m of revenues over five years: As of 3Q22, the entry into Saudi remains on-track, having completed a full technology deployment on-soil and established connectivities with domestic and international card schemes. Network expects to deliver $50m of revenue within 5 years, and a corresponding EBITDA margin of c. 50%. As of 3Q22, Network has announced a number of new customer wins in the region, providing a minium contractual revenue of c. 20% of the $50m target, with revenues expected to ramp through 2023. Network highlights that operating expenses are broadly fixed and embedded early on, supporting the expectation to be EBITDA breakeven within two years, and a 3-4 year payback period for the investment overall.

Exhibit 180: Payments opportunity in KSA



Source: Network International, 1. Edgar Dunn 2. 2020 share of non-cash transaction count as a % of total consumer and commercial payment transactions. 3. Expected digital Tx value growth

Food Delivery: Jahez and Delivery Hero

Analysts Luke Holbrook and Miriam Josiah

Jahez and Delivery Hero benefit from structural strength of Saudi food delivery

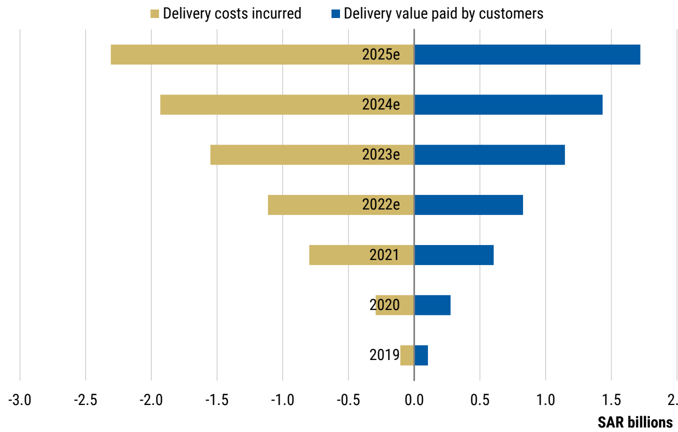
Jahez is the second largest food delivery company in Saudi Arabia, after Delivery Hero's Hunger Station, with nearly all its revenues generated from this one geography. The Saudi market is one of the most structurally sound globally of any food delivery company that enabled Jahez to turn adj. EBITDA break-even just three years after founding. Both Jahez and Delivery Hero have a robust c.3-4% to EBITDA margin (to GMV) profile in Saudi. Simply put, consumers are ordering food delivery frequently in the Middle East as a result of: 1) a relatively wide inequality disparity with low cost of labour but a section of society with high affluence (supportive of low cost, higher demand environment), 2) climatic factors (hot weather encouraging less walking), 3) demographics (median age is just 28 years old in Saudi with c.90% internet penetration), among others. The set up for food delivery companies is positive with both Jahez and Delivery Hero profitable and cash generative in the country.

Our survey suggests a positive outlook for the sector

One of investor concerns surrounding the Saudi food delivery industry has been the degree to which the market already has a high degree of penetration at c.38%. Jahez posted a c.160% revenue growth in 2021 and Delivery Hero's HungerStation c.65% - both high and the expectation is that this rate tapers quickly as the market matures in the next few years. However, importantly our AlphaWise survey found that 38% of Saudi National Females aged 16 or over surveyed are currently in paid employment but of those that are currently not in work, 71% plan to join the workforce in the next 5 years (54% in the next 2 years), the majority motivate by gaining financial independence. We think this could help the food delivery industry by potentially reducing the shortage of drivers (which is an industry-wide problem) if women enter the food delivery industry and also by resulting in potentially more demand if women have the financial independence to order their own deliveries.

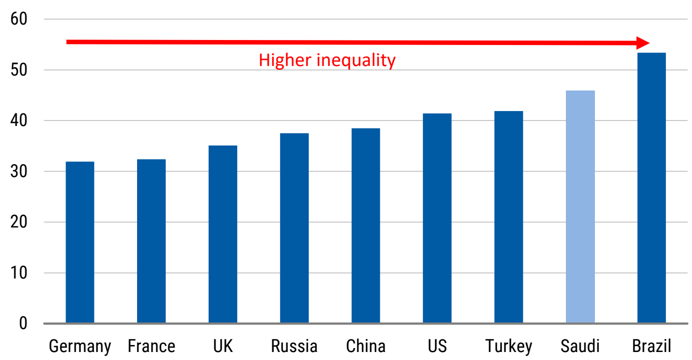
On a separate point, in our survey, over the next two years Saudi Nationals, especially Gen Z, anticipate an increase in income. They will most likely still spend more on several categories including prepared food. By function of Saudi having a young population (28 years old is the median age), with higher internet penetration, combined with rising incomes means, we think this supports demand in the medium term. Our survey points to half of Saudi nationals and expats spending more on food delivery in the next two years, versus only a fifth cutting spend.

Exhibit 181: Profitability is aided by Jahez passing on delivery fees to consumers, who are more willing to pay than in the West (where delivery is subsidized)



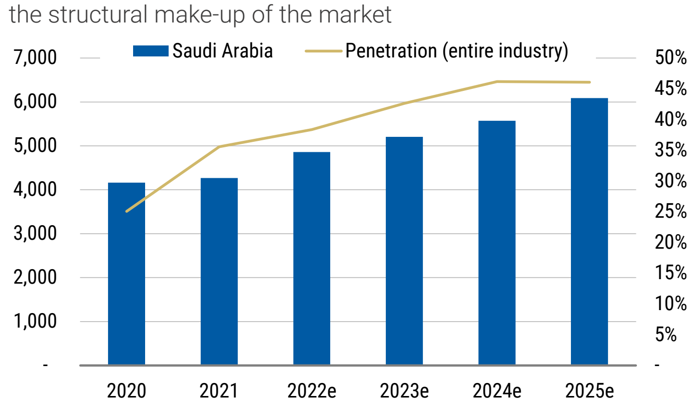
Source: Company data for 2021, Morgan Stanley Research

Exhibit 182: Driver costs are relatively low, but with a section of society relatively affluent. The large wealth disparity noted in the Gini Coefficient



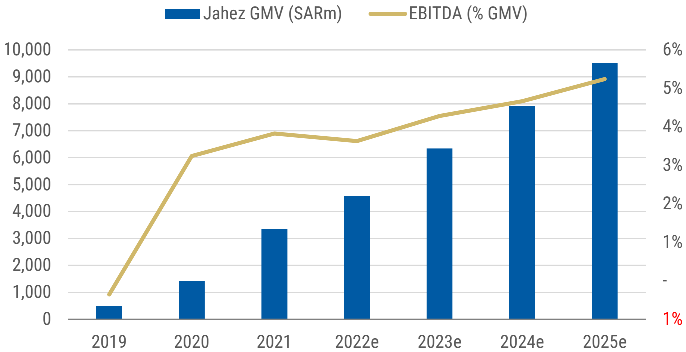
Source: Company data, Morgan Stanley Research

Exhibit 183: Saudi food delivery at c.38% penetration already, due to the structural make-up of the market



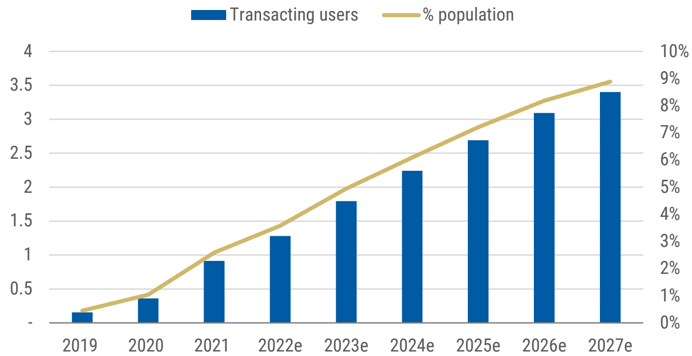
Source: Company data, Morgan Stanley Research estimates (e), Euromonitor

Exhibit 184: Structural set up of the Saudi market enabled Jahez to turn adj. EBITDA profitable c.3 years post-founding



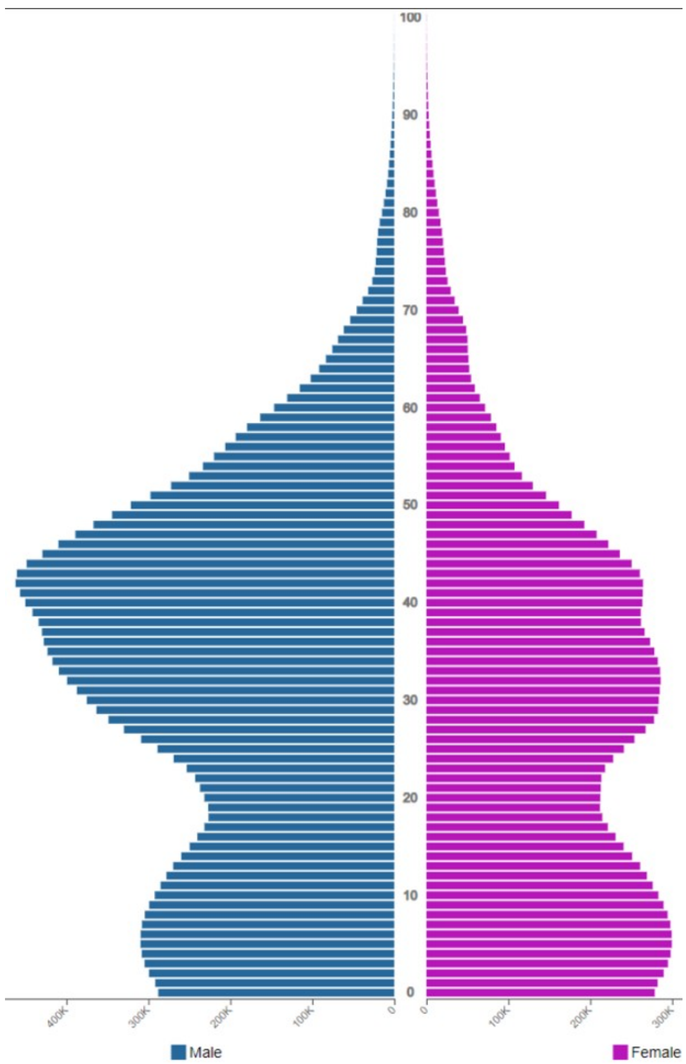
Source: Company data, Morgan Stanley Research estimates (e)

Exhibit 185: Jahez's penetration of total population is only c.3% of transacting users but more women in the workforce, population growth, and other factors should support growth



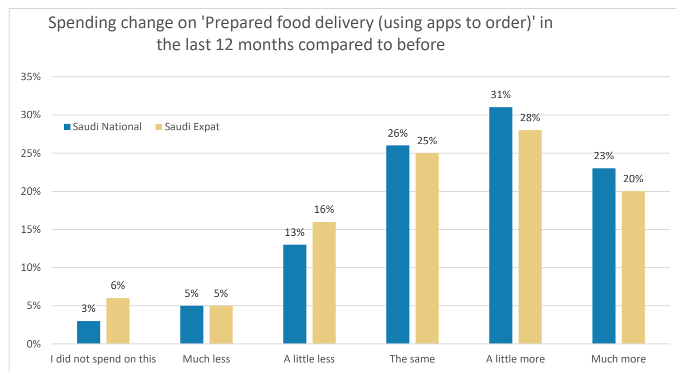
Source: Company data, Morgan Stanley estimates, World Bank

Exhibit 186: The median age in Saudi is just 28 years old and a younger population tends to result in higher use of food delivery apps



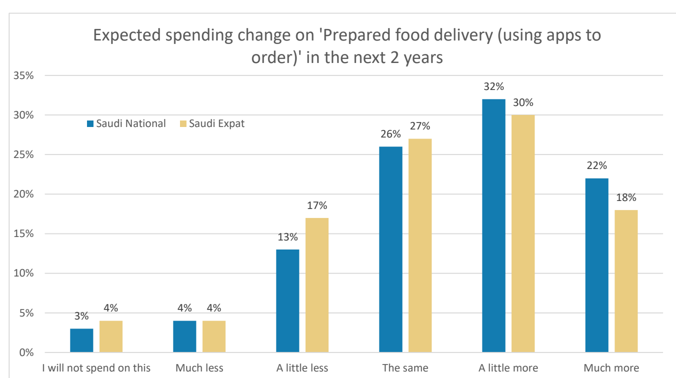
Source: World Population Review

Exhibit 187: Around half of Saudi nationals and expats are looking to spend more on food delivery in the next two years, compared to a fifth looking to cut spend ...



Source: AlphaWise, Morgan Stanley Research

Exhibit 188: ... similarly, on a two year view, around half are looking to increase spend on food delivery versus a fifth cutting



Source: AlphaWise, Morgan Stanley Research

Saudi Financials: Large Credit Growth Potential but Risks to Margins

Analysts: Nida Iqbal, Fredrik Nyh

Key takeaways

Large credit growth opportunity: The Saudi banking sector is set to benefit from the government's Vision 2030 plan via the following pillars: i) a potential capex boom fuelled by a large project pipeline driven by Giga projects and investment spending; ii) continued growth in penetration of mortgages for households given the government's target of 70% home ownership levels by 2030; iii) growth in SME loans driven by the government's target of increasing loan penetration to 20% of total loans by 2030; and iv) increase in unsecured consumer finance supported by higher employment levels and increase in work force participation rates of women, driving up consumer credit per capita. All together, we estimate potential for SAR2 trillion credit expansion between 2022 to 2030, twice the SAR1 trillion in the prior decade between 2011-21.

Funding the potential pipeline is likely to result in competition for deposits and diversification of funding sources: Saudi banks' loan to deposit ratios (LDR) have increased by ~16ppt since the beginning of 2020 to 102% as of 10M22 as loan growth of 48% in this period has outpaced deposit growth of 27%. Assuming deposits grow at 1.2x GDP multiplier, in line with history, would suggest SAR3.7 trillion of deposit base by 2030, and LDR ratios of 115%. We believe this means that funding for the credit opportunity is likely to come from 1) higher dependence on wholesale markets for the banks, 2) increased competition for deposits and a shift towards profit bearing term deposits, 3) potential use of liquidity enhancing tools by SAMA such as open market operations, placements of deposits with banks, changes to definitions of regulatory ratios. Deposits may also increase above historic levels of GDP multiplier as credit expansion drives up the money multiplier.

Margins headwinds for the sector: The Saudi banks are well capitalised with a capital adequacy ratio for the sector at 19.4% and liquidity coverage ratio at 174%, both indicators of strong financial soundness. Saudi banks average ROE of 13.5% as of FY22 also stands out vs GEMS banks (ex-Brazil and Turkey) at ~12%. Strong credit expansion combined with a shift in funding mix as competition for deposits increases and there is higher reliance on more expensive wholesale funding could mean margin pressure ahead. In addition, there could be risk to loan yields as competition increases because banks want to capitalize on this opportunity for corporate loan growth. Over the coming years, this could be offset by improvement in cost efficiencies due to scale and digitisation, as well as improvement in leverage due to higher asset growth via lending.

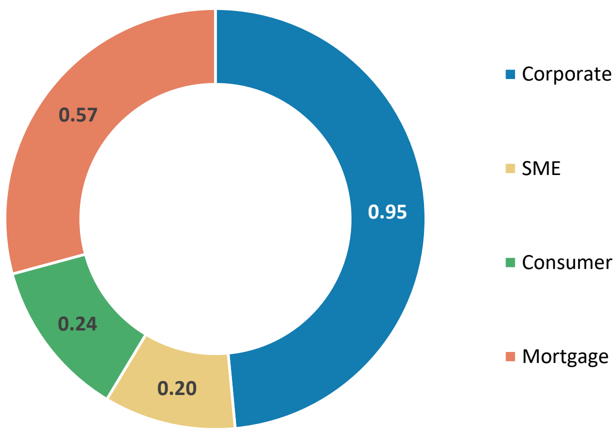
Alternatively, loan growth could be slower than anticipated by the project pipeline. If competition is high, more conservative banks may decide to limit loan growth, in order to limit margin pressures, driving sector loan growth to be lower than anticipated. There could also be a preference for higher yield loans such as SME, retail, which could result in shift in asset mix, and therefore less pressure on margins.

We analyze two hypothetical scenarios for the sector: 1) Lower loan growth but higher margins; alternatively 2) high loan growth but margin weakness. Whilst ROA in the scenario of lower margins (but higher growth) is lower, we note that higher leverage could mean that ROE is still higher in this case vs the lower growth. Based on ROE of 13.0%, and assuming our COE of 10% and long term growth rate of 5%, would imply a P/BV for the sector of 1.6x . Assuming a scenario of higher loan growth but lower margins, the corresponding figures are an ROE of 14.2% and 1.8x. The last ten year average ROE for the sector is ~13% (based on the Saudi banks under coverage by MSe).

Not all banks face liquidity tightness: Banks with lower LDR ratios relative to peers, such as SNB, SABB and Riyad bank could face less margin pressures near term vs peers with higher LDRs. Structurally, we see Riyad and SNB as well placed for the corporate loan growth opportunity. Al Rajhi is best placed for retail loan growth over the long term, driven by increase in consumer finance per capita, further mortgage penetration and SME growth.

Exhibit 189: We see a SAR +2trn credit growth opportunity from 2022-2030

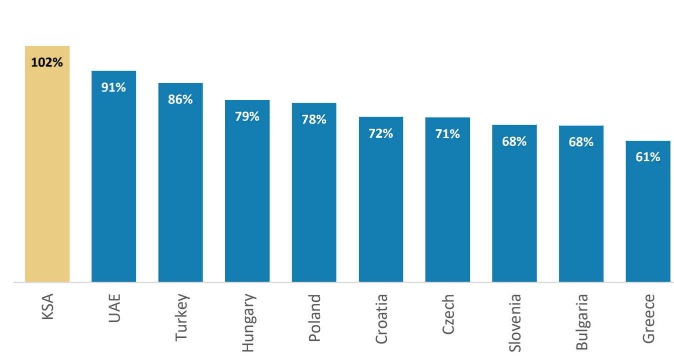
KSA Banking Sector 2022-2030 Loan Growth MSe (SARtrn, absolute terms)



Source: Morgan Stanley Research estimates

Exhibit 190: Saudi banking sector LDR ratio is 102% vs peer countries suggesting increased competition for deposits and diversifying funding via increased reliance on wholesale funds

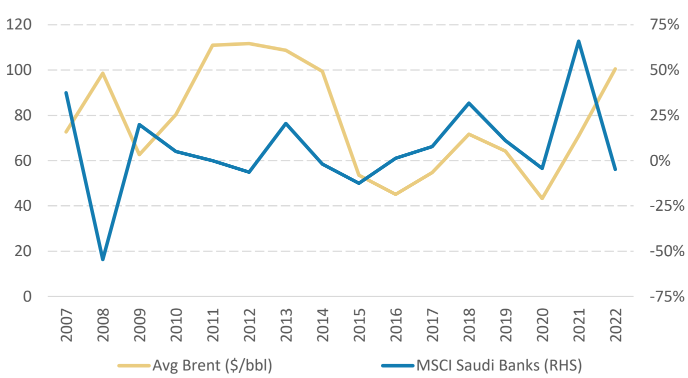
Loan to Deposit Ratio



Source: Haver, Morgan Stanley Research

Exhibit 191: Whilst the structural story is positive, cyclical downturns can drive corrections

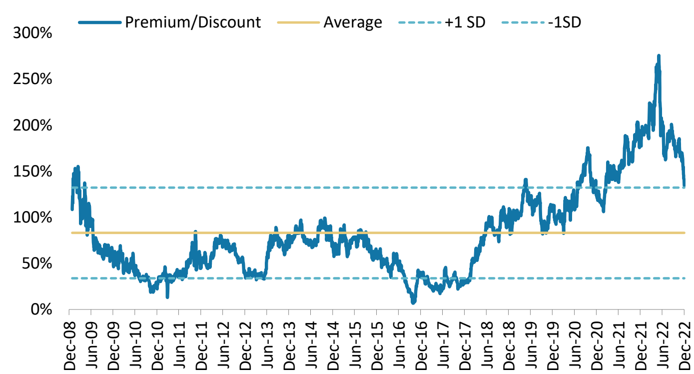
MSCI Saudi Banks Index Performance (YoY) vs. Oil Price



Source: Datastream, Morgan Stanley Research

Exhibit 192: Following strong re-rating over the last 2 years, the premium vs EM peers is normalising

12m Fwd P/B prem/disc of KSA Banks vs. GEM Banks



Source: Datastream, Morgan Stanley Research

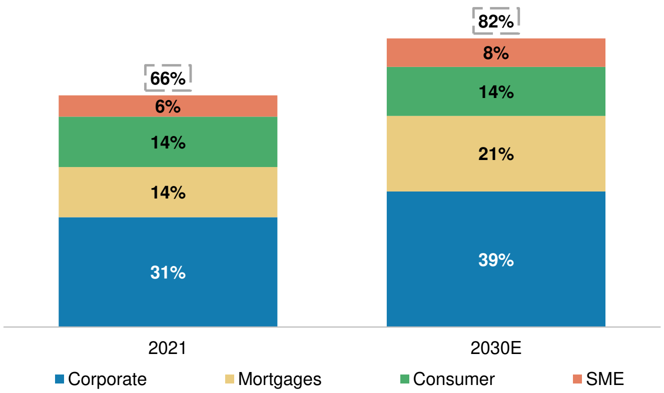
Large Credit Opportunity to Drive Increase in Penetration Levels

Loans to large corporates were the predominant driver of loans for the Saudi banking sector, historically, accounting for over 60% of sector loans. This changed following Vision 2030 driven mortgage reforms, which resulted in mortgage loan growth of ~40% per annum for the sector since 2019, driving up share of mortgage loans for the sector to ~23% as of 3Q22 vs 10% in 2018.

Looking forward, we see loan growth CAGR of ~8% between 2022-30 (~12% in 2022-24) or credit expansion potential of SAR2 trillion vs ~SAR1 trillion between 2011-21 driven by 1)~ SAR950bn potential credit growth from large corporates; 2) SAR570bn from mortgage growth; 3) ~SAR240bn from unsecured consumer finance and 4) ~SAR200bn from SME loan growth. We do not see material shifts in share of loan types for the sector, given a strong loan growth outlook supported by government reforms for corporate, mortgages, and SMEs, whilst we see increasing share of women in employment, higher work force participation rates, lower unemployment levels, and growth in expats as drivers of growth in consumer finance. Credit penetration levels for Saudi Arabia are low at 66% as of FY21 vs over 100% for GCC peers and 99% in developed markets such as the Euro Area. We expect credit penetration levels to improve to 82% by 2030.

Exhibit 193: Saudi banking sector credit penetration

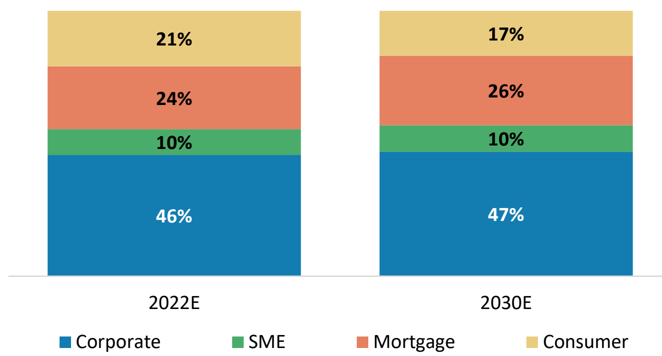
Loan Penetration in KSA (Loans as a % of GDP)



Source: SAMA, Company data, Morgan Stanley Research estimates (E)

Exhibit 194: Banking Sector Share of Loans per Lending Segment

Sector Loan Split



Source: SAMA, Morgan Stanley Research estimates (E)

Exhibit 195: Total Loans Sector Model - Summary

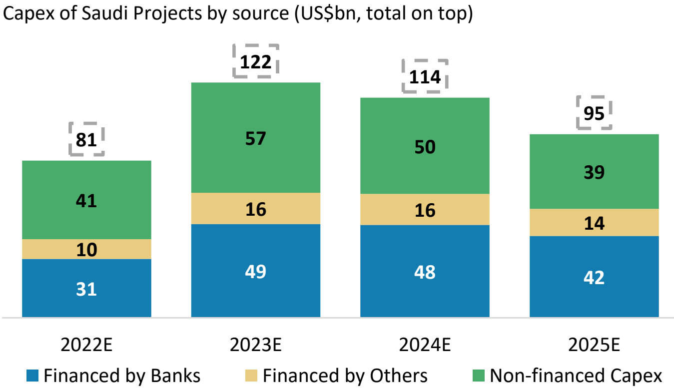
(SARmn, unless noted otherwise)	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Total Loans (Sector)								
Corporate	1,214	1,358	1,485	1,591	1,681	1,789	1,904	2,015
SME	257	286	315	341	365	385	405	425
Consumer	526	562	590	615	641	668	696	726
Mortgage	641	718	792	864	933	998	1,062	1,123
Total	**2,638**	**2,924**	**3,182**	**3,411**	**3,619**	**3,841**	**4,067**	**4,288**
% of Total								
Corporate	46%	46%	47%	47%	46%	47%	47%	47%
SME	10%	10%	10%	10%	10%	10%	10%	10%
Consumer	20%	19%	19%	18%	18%	17%	17%	17%
Mortgage	24%	25%	25%	25%	26%	26%	26%	26%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
YoY								
Corporate	14%	12%	9%	7.1%	5.7%	6.5%	6.4%	5.8%
SME	13%	11%	10%	8.4%	6.9%	5.6%	5.0%	5.0%
Consumer	8%	7%	5%	4.2%	4.2%	4.2%	4.2%	4.2%
Mortgage	16%	12%	10%	9.0%	8.0%	7.1%	6.4%	5.7%
Total	**13%**	**11%**	**9%**	**7.2%**	**6.1%**	**6.1%**	**5.9%**	**5.4%**

Source: Morgan Stanley Research estimates

We see the following key drivers of loan growth for the sector (see report for details: Looking past volatility: Vision 2030 credit playbook).

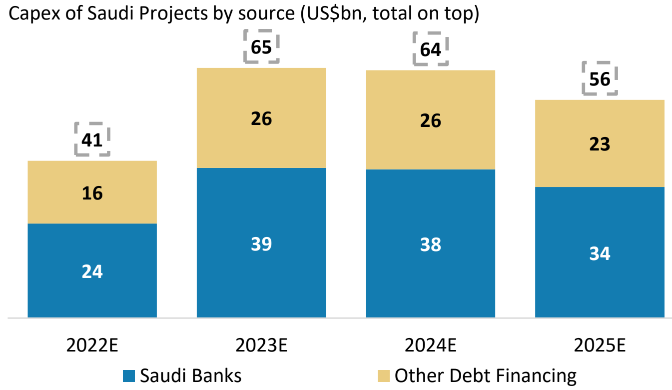
1) Corporate loan growth driven by a large project pipeline (47% of total sector loans and ~SAR950bn credit expansion potential): We have estimated the potential corporate loan growth opportunity for the Saudi banks via a bottom up analysis of the project pipeline in Saudi Arabia, worth US$800bn, as per MEED Projects. Using conservative assumptions on capex timelines, debt to equity financing shares, and the share of financing likely to be provided by banks, we estimate a potential credit expansion opportunity for the Saudi banks at ~SAR 950bn. Our assumptions imply that ~35% of the project pipeline in Saudi Arabia is financed via local banks, with the remaining being a mix of equity financing (starting at 50% due to lower bankability of projects in early stages), financing via debt capital markets, and foreign funding. We forecast 14% sector corporate loan growth in 2023, followed by 12% in 2024, and a CAGR of 7% in 2024-30.

Exhibit 196: Our estimates assume that ~30-35% of the estimated capex will be financed by local banks into 2030



Source: MEED Projects, Morgan Stanley Research estimates (E)

Exhibit 197: A ~SAR 950bn loan financing opportunity for the Saudi banks by 2030 (~90% of current sector book)



Source: MEED Projects, Morgan Stanley Research estimates (E)

2) Mortgage loan growth supported by demographics, cultural shifts (26% of sector loan book and ~SAR570bn credit expansion potential): Mortgage loans have grown 3-fold over the last three years to become a SAR+500bn market. We see continued growth for mortgages driven by: 1) Demographics: Given a young population demographic (~60% of population under 30 years), we see an average 176k new household formation per annum (out of which ~1mn will be financed and owned); 2) Continued Government support to drive increased home ownership via mortgage subsidies, mortgage guarantees for low income households, low property taxes, developer financing, and improving housing supply and affordability; 3) Shift in culture with a decline in household size as younger people move out of family homes. We estimate the current home ownership level to be near the mid 60% level, and forecast 9% mortgage loan growth CAGR between 2022-30 to reach 70% home ownership levels by 2030.

Exhibit 198: Mortgage loans growth sensitivity to average number of members per household (in 2030) and loan Size (as of 2022)

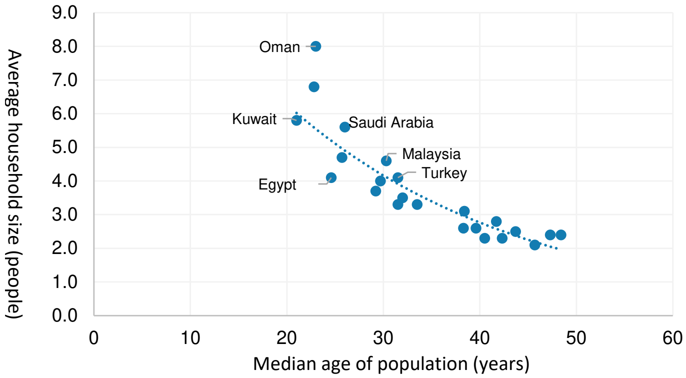
Mortgage Loan CAGR (2022-2030)		Loan Size (vs. base case of SAR 780k) -10%	-5%	0%	5%	10%
Number of Members per Household	5.0	2.8%	3.1%	3.3%	3.6%	3.9%
	4.7	3.9%	4.1%	4.4%	4.7%	4.9%
	4.2	8.5%	8.9%	9.3%	9.6%	9.9%
	3.7	13.0%	13.4%	13.8%	14.3%	14.6%
	3.2	16.8%	17.3%	17.8%	18.2%	18.7%

Source: General Authority for Statistics, SAMA, Morgan Stanley Research

There could be large upside to our base case estimates if household size in Saudi Arabia declines faster than expected. Our AlphaWise survey results indicate there is increased appetite to enter into mortgage contracts, with 31% respondents answering that they are more likely to use that financial product (see Exhibit 40).

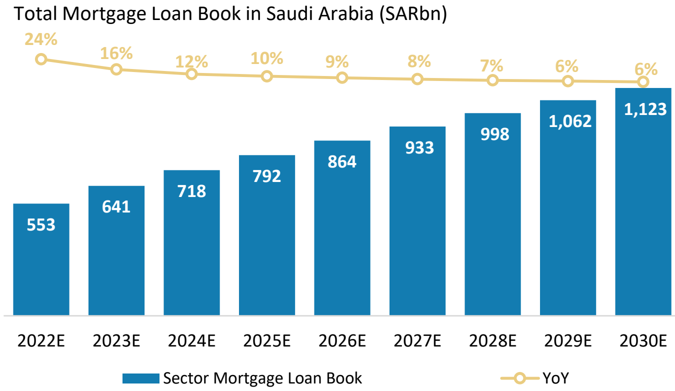
Our base case assumes average household size in Saudi Arabia declined to 4.2 by 2030 vs 4.9 as of 2022 driven by a cultural change as more young people move out of family homes. Given an increase in women employment levels, we analyse what a faster than expected decline in household may suggest for upside to our base case for mortgage growth: if household size is lower by 0.5, this would increase our 2022-30 CAGR by 4-4.5ppt for mortgages. Of note, each 0.2 change in household size implies in roughly 200k new households formation and therefore a ~SAR 110bn in new mortgages being originated. Alternatively, a 0.2 decrease in household size by 2030 implies in a 1.2p.p additional mortgage growth vs. our base case (2022-2030 CAGR of 9%), and 0.3p.p additional total sector loan growth vs. our base case (2022-2030 CAGR of 9%).

Exhibit 199: As populations age and young people leave the family home, household size falls and the number of households rises



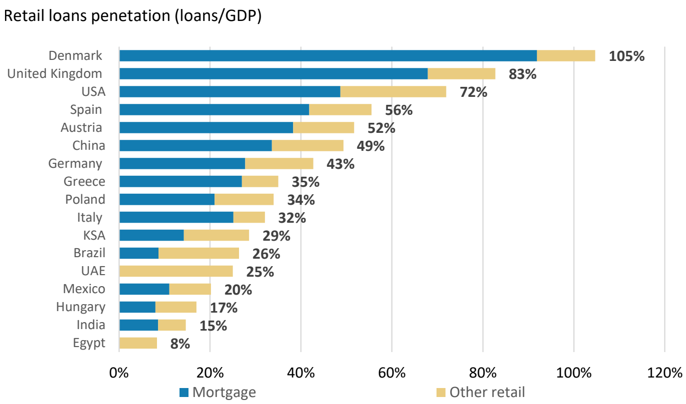
Source: United Nations (median ages and average household sizes), Morgan Stanley Research. All data are for 2017. Countries represented in this exhibit are Saudi Arabia, Kuwait, Oman, Turkey, Egypt, Iran, Pakistan, United States, Mexico, Brazil, Argentina, Germany, France, Italy, UK, Poland, Russia, China, Malaysia, Japan, S Korea, Indonesia, Philippines

Exhibit 200: We forecast a 9% CAGR in mortgage loans in 2022-2030



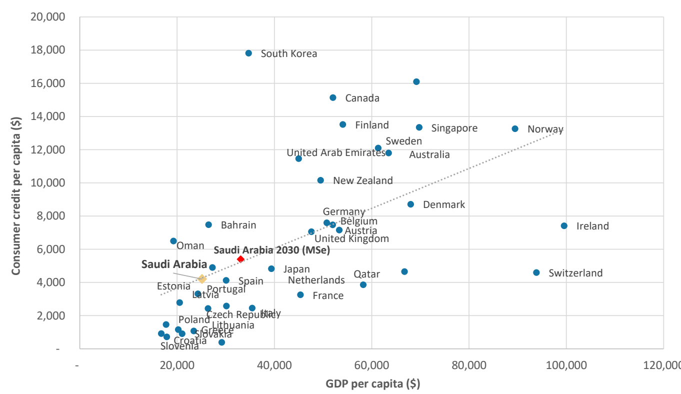
Source: Morgan Stanley Research estimates

Exhibit 201: When compared to global peers retail penetration (ex-mortgages) in KSA does not look very under penetrated



Source: : IMF, Haver analytics, Morgan Stanley Research. UAE and Egypt are as of 2020, Qatar loan break-down not available, majority of it is corporate sector loans

Exhibit 202: Increase in GDP per capita results in higher consumer credit per capita ...

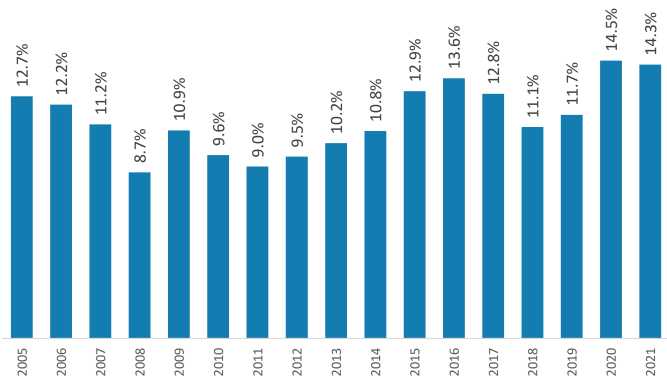


Source: Euromonitor, Morgan Stanley Research

3) Consumer finance supported by increase in employment levels and improvement in GDP per capita (17% of total loans and ~SAR240bn credit opportunity): As per our AlphaWise survey, 60% of the Saudi female respondents who are employed, have started working in the last two years, while out of the female respondents which are currently not working, 60% plan to join the workforce in the next two years. Such pick-up in employment has the potential to expand the addressable market (as a function of increased GDP per capita and a higher percentage of bankable population) which banks can then tap into in order to offer consumer finance products. In fact, as per AlphaWise results, shown in Exhibit 44, more than 25% of the employed women have indicated increased intent to use more credit cards, around 17.5% plan to increase use of BNPL, and roughly 20% indicated the intent to contract a mortgage over the next two years. Based on the current employed population in Saudi Arabia of ~9.8mn individuals, implied consumer finance per employed person is ~SAR50k. Using this as a proxy, each 100k additional people in employment, translates into ~SAR5bn of new loans, or ~1% of the consumer finance book for the sector.

Exhibit 203: ... this should help consumer finance loans to grow

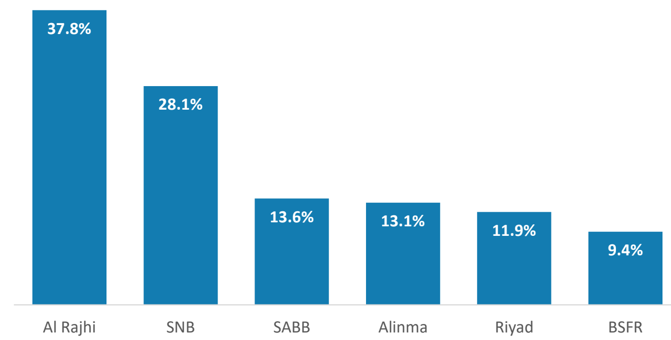
Unsecured Loans Penetration



Source: SAMA, IMF, Morgan Stanley Research

Exhibit 204: Saudi bank exposure to unsecured retail loans (estimated)

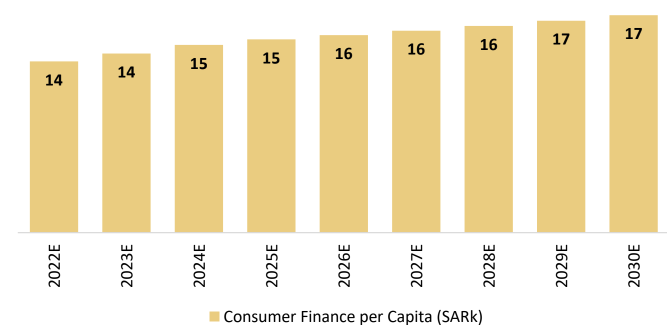
Consumer loans (ex Mortgage, % of Total Loans)



Source: Company data, Morgan Stanley Research

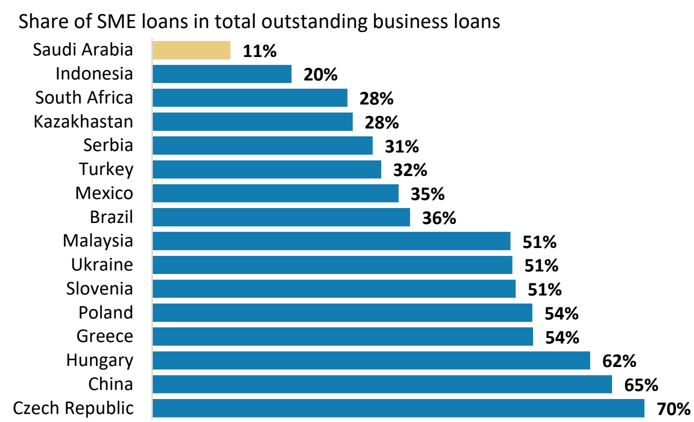
Exhibit 205: Simplified Consumer Loans Model

Consumer Finance per Capita Forecast



Source: Morgan Stanley Research estimates

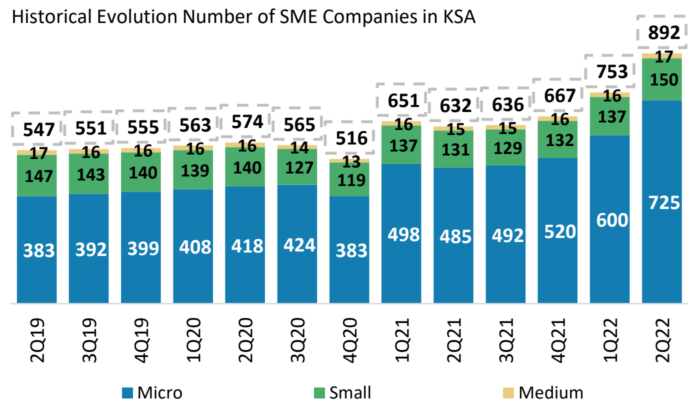
Exhibit 206: Share of SME loans in Saudi Arabia is below other countries



Note: Data as of 2018. Source: OECD, Morgan Stanley Research

Exhibit 207: The number of SMEs in Saudi Arabia is up 34% YTD

Historical Evolution Number of SME Companies in KSA



Source: Small and Medium Enterprises General Authority (Monsha'at), Morgan Stanley Research

4) SME loan growth is another avenue of growth (10% of total loans and ~SAR200bn credit potential): We estimate the share of SME loans in Saudi Arabia to be less than 20% of corporate sector loans, well below other emerging market countries highlighted in Exhibit 206 , which range from 20% to up to 70% (as of 2018). One of the Vision 2030 initiatives is to boost SME participation in the country's GDP from 20% in 2015 to 35% in 2030, and the share of SME loans for the banking sector to 20%. The low contribution of SME loans in Saudi Arabia, in our view is a function of 1) strong governmental presence in the economy (and related to that the importance of oil for the economy), and 2) like other developing countries, lower availability of bank funding given typically higher risk costs associated with SME lending. We see this as changing driven by government support to drive Vision 2030, as well as growth in number of SMEs in Saudi Arabia, which was up 34% YTD. Our base case estimates assume SME loan growth CAGR of 8% in 2022-30, supported by growth in SMEs at 7% CAGR during this period and increase in loans as a % of revenue from 19% to 23%, we estimate. Our estimates are below the government target of 20% share for SME loans in total sector loans given the strong loan growth potential in other segments as well.

Exhibit 208: Given the elevated pace of growth we anticipate for large corporate loans and mortgages, our base case does not assume that the Vision 2030 target of SME loans reaching 20% of total loans is achieved. For that to happen penetration of loans would need to reach nearly 50% of SMEs revenues. Our base case scenario is 8% SME loan CAGR from 2022-2030

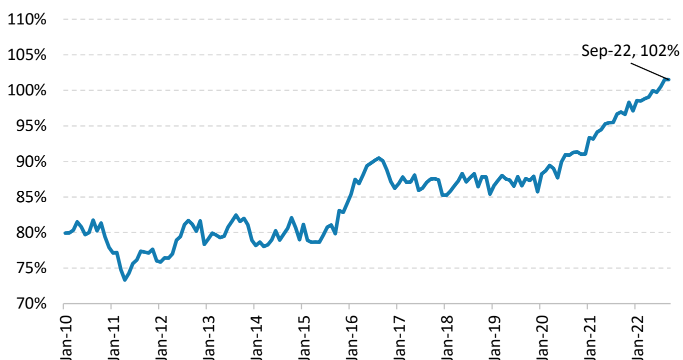
SME Loans as a % of Total Loans (2030)		Loans as a % SME of Revenues (Penetration)				
		17%	**20%**	**23%**	**26%**	**29%**
2021-2030 Number of SMEs CAGR	**5.0%**	6%	8%	9%	10%	11%
	7.5%	7%	8%	9%	10%	12%
	10.0%	7%	9%	10%	11%	12%
	12.5%	8%	9%	10%	12%	13%
	15.0%	8%	10%	11%	13%	14%

Source: Monshaat, SAMA, Morgan Stanley Research

Potential for Structural Shifts in Funding Mix

Exhibit 209: LDR ratios for the Saudi banking sector are up 16ppt since 2019 YE

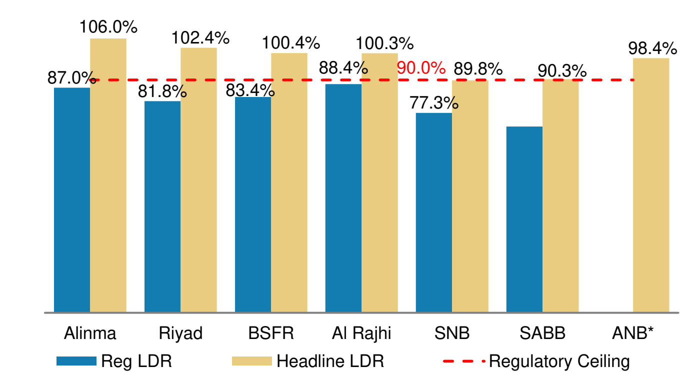
Saudi Banking Sector LDR - headline ratio



Source: SAMA, Morgan Stanley Research

Exhibit 210: Amongst the banks SNB and SABB are in a more comfortable position with LDR well below regulatory ceiling of 90%

LDR per Bank (3Q22)



Source: Company data, Morgan Stanley Research. Regulatory LDR assigns higher weights to longer term deposits and also includes capital instruments in the denominator. According to SAMA rules, it cannot exceed 90%. SABB doesn't report regulatory LDR, During the 3Q22 results call CFO mentioned it to be in "low to mid 70s" *ANB does not report Regulatory LDR

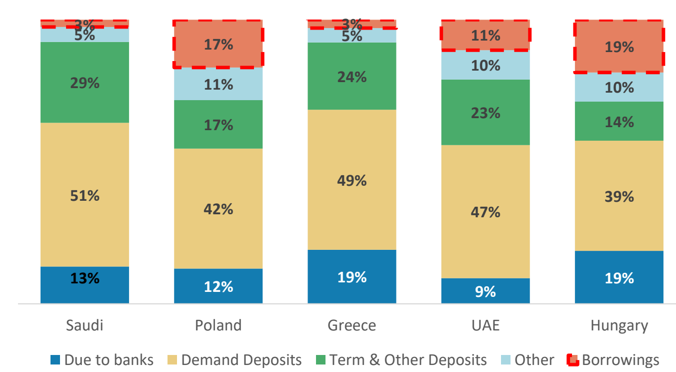
Sector loan growth of ~50% since the end of Dec/2019 has resulted in loan to deposit ratios (LDRs) for the sector to increase from 86% to 102% as of 9M22. Our loan growth forecasts imply a nominal GDP multiplier for loan growth at 1.5x on average between 2022-30 vs. 1.3x between 2010-18 (prior to the mortgage boom which started in 2019). This compares to deposit growth of 1-1.2x historically, suggesting a need for measures to be implemented to improve the liquidity conditions for the sector to fund loan growth. Assuming deposits grow in line with historical average levels of 1.2x nominal GDP multiplier, we calculate the sector deposit base would grow from SAR2.3trn in 2022 to SAR3.7trn by 2030 - an increase of SAR1.4trn. This compares to SAR2trn of additional loan growth during this period, and would result in sector headline ratios increasing from 102% as of 9M22 to 115% by 2030.

Assuming sector LDR ratio was to be kept constant at 9M22 levels of ~100%, this implies a funding gap of ~SAR700bn that needs to be met via: 1) diversifying funding sources such as wholesale funding; ii) attracting more deposits to the system; iii) liquidity and regulatory measures from the Central Bank. We note however, as we highlight in Exhibit 213 if deposit growth is higher vs history, or loan growth is slower, the implied funding needs would be lower.

Levers to improve the funding base to support credit expansion

Exhibit 211: Saudi banks reliance on wholesale funding is lower vs other countries

Liability Mix



Source: Haver, Central Banks, Morgan Stanley Research

1) Diversifying funding via increasing share of wholesale financing: The Saudi banks have low reliance on wholesale funding at ~2-3% of liabilities on average, which compares to 11% in UAE, 17% in Poland, 19% in Hungary, and higher in developed markets such as the US where large cap banks have over 20% share of wholesale funding. We estimate, if the entire gap above is funded via wholesale funding, that would increase the share of wholesale funds for the banking sector to ~16%. The Saudi banks have raised ~SAR36bn

Exhibit 212: Deposit growth needs to be higher to close the funding gap, vice versa loan growth could be slower

Funding Gap (SARbn)		Deposit CAGR (2022-2030) 1.3x	1.2x	1.1x	1.0x	0.9x
Loan CAGR (2022-2030)	1.3x	12	154	292	426	555
	1.4x	159	302	440	574	703
	1.5x	312	455	593	726	856
	1.6x	470	612	750	884	1,013
	1.7x	633	775	913	1,047	1,176

Source: Morgan Stanley Research estimates

Exhibit 213: Funding gap as a % of the deposit base under deposit and loan growth CAGR scenarios

Implied additional wholesale funding as % of funding base		Deposit CAGR (2022-2030) 1.3x	1.2x	1.1x	1.0x	0.9x
Loan CAGR (2022-2030)	1.3x	0%	4%	7%	10%	13%
	1.4x	4%	7%	11%	13%	16%
	1.5x	8%	11%	14%	16%	19%
	1.6x	11%	14%	17%	19%	21%
	1.7x	14%	17%	20%	22%	24%

Source: Morgan Stanley Research estimates

already YTD (For more details see: The Funding Conundrum); however, we note that the above implied funding gap would be a challenging amount to raise.

2) Increase in sector deposit growth: We see the following factors that could affect deposit growth in Saudi Arabia: 1) Monetary policy: including interest rates and money supply; 2) money multiplier effect: which is driven by banks' lending activities, as each time banks lend money, they create new money in the system; 3) structural shifts in savings attitudes.

a) Interest rates: 2022 has seen a very strong rate tightening cycle , with Fed Funds rate expected to peak at 4.625% by 1Q23, as per our macro team's forecasts. Current SAIBOR levels of ~5.5% are similar to levels last seen in 2004-05. The higher rates mean that there is likely to be a shift into term deposits away from demand deposits (increasing funding costs for banks) and in addition, the attractiveness of other savings products such as bonds/sukuks has increased relative to deposits. Therefore, in a high rate environment, deposit growth above average levels may be limited. As rates normalise, the attractiveness of other higher yielding products may be lower, however, given the government's Vision 2030 pillar of increasing household savings via new products such as deeper debt markets and sukuks, we think the fight for deposits could be higher in coming years due to competing products for household savings.

b) Liquidity measures from the Central Bank: The Saudi Central bank can use policy tools to improve money supply in the banking sector. This could be done via:

1) Placement of public funds with the banks: SAMA has injected liquidity in the banking sector by placing deposits with the Saudi banks on behalf of autonomous government institutions. In 2016, when the Saudi banking sector was facing liquidity tightness, SAMA placed SAR35bn with the banks, and this summer, according to Bloomberg, it placed SAR50bn with the domestic banks (see here).

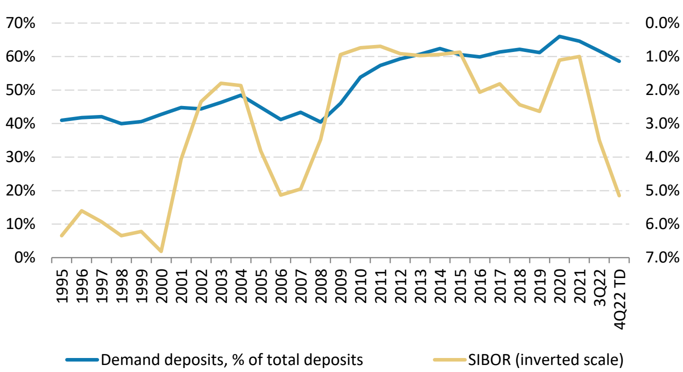
2) Open market operations: The Central banks can use open market operations such as repos to alleviate liquidity conditions, as well as extending maturities on repos as done in the past via offering longer dated repos for 7-day, 28-day and 90-day tenors as previously done in 2016.

3) Changes to regulatory ratios such as i) cash reserve ratios (the min % of customer deposits to be held with SAMA as cash reserves), which is currently set at 7%, similar to other GCC states like UAE, but above other EM and DM countries such as 2% in CEE, 4% in India, and 1% in the Euro area. We note that reserve requirements are not changed frequently by Central Banks and we have no indication of any potential change taking place; 2) Regulatory LDR ratio which is currently set at 90% but was increased from 85% in 2016. There could be potential changes to the definition/weighting assigned to longer duration funding to ease the regulatory LDRs for banks.

We discuss Saudi Arabia's monetary policy in our note published today (see Fuelling its Potential) where we launch our economics coverage of Saudi Arabia.

Exhibit 214: Demand deposit share at 59% currently compares to 46-47% in 2004-05 when SAIBOR was at a similar level

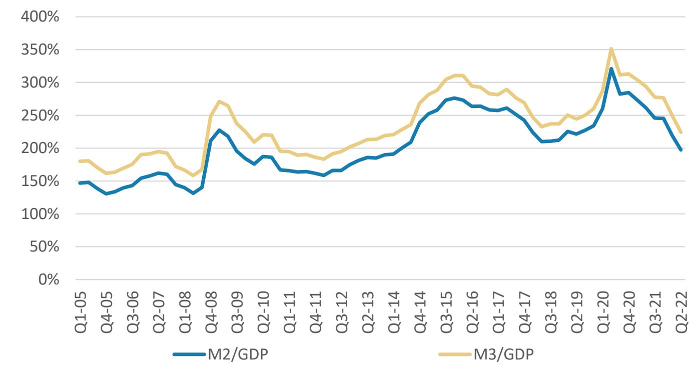
Demand deposits vs. SIBOR Historical Evolution



Note: 4Q22 TD is October SAMA data and the average SAIBOR for that period. Source: SAMA, Refinitiv, Morgan Stanley Research

Exhibit 215: Money supply as a % of GDP has declined this year

Money Supply/GDP



Source: SAMA, Haver, Morgan Stanley Research

c) Money multiplier: Exhibit 216 shows that deposit growth was affected by money multipliers till 2016, when the relationship broke down due to a shift of deposits from the banking sector to investments in government bonds, as well as withdrawals of large government-related entities' accounts from the banking system. We have seen an increase in the money multiplier, and as credit growth continues, in coming years, this could support deposit growth to be higher than long term average levels of 1-1.2x.

d) Improvement in financial literacy: could improve deposit penetration in Saudi Arabia which is currently low at 67%. According to our recent AlphaWise survey , 26-44% of respondents have savings in other assets such as real estate, gold and jewellery, with only ~25% of respondents keeping any savings in deposits. See details in: The Funding conundrum.

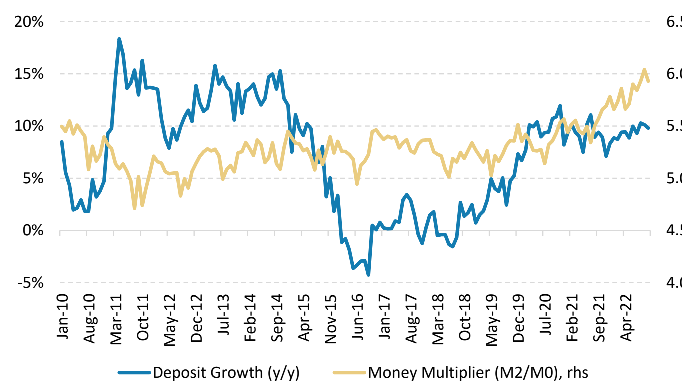
The flip side of the coin: The funding constraints could mean loan growth is slower than expected: Given high LDRs for the sector, it will be difficult for banks near term to keep asset growth as well as strong margins, we think. In a scenario that domestic deposit growth is not higher than average levels, this could result in lower loan growth than anticipated, resulting in less margin pressure.

Whilst ROA could be lower by 2030 on funding constraints, higher operating leverage would support ROE expansion

We provide two scenarios of how the banking sector returns could evolve into 2030: Under both scenarios we assume cost efficiencies improve due to scale, but COR is higher as well vs 2022 levels to more normalised levels. Of note, this scenario analysis only takes into account the 6 stocks we cover (Al Rajhi, Alinma, SABB, SNB, Riyad and BSFR) which we estimate to have an accumulated 80% market share of banking loans in KSA.

Exhibit 216: The money multiplier has increased, but deposit growth has lagged loan growth

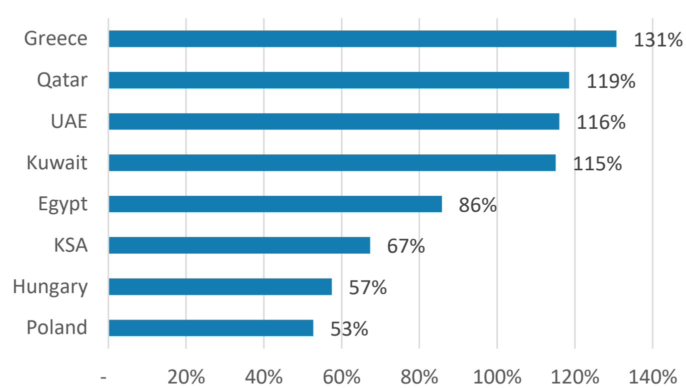
Money Multiplier and Deposit Growth in Saudi Arabia



Source: SAMA, Morgan Stanley Research

Exhibit 217: Deposit penetration in Saudi Arabia is low vs other countries

Deposit penetration (2021)



Source: IMF, Haver analytics, Morgan Stanley Research

1) Scenario 1: Funding tightness and competition result in the banks taking a more conservative approach to lending. The banks take part in driving the Vision 2030 ecosystem, but with slower loan growth, easing the need to diversify funding via wholesale issuances or more expensive deposits, resulting in lower margin pressure. Margins are still lower to reflect shifts in deposit mix to term deposits but not to the extent as in scenario 2. This results in ROE of ~13% in 2030, close to the long term ROE of ~12.7% (last 10 years). Under this scenario, implied P/BV for the sector is 1.6x, assuming a COE of 10% and long term growth rate of 5%.

2) Scenario 2: The banks capitalise on strong loan growth at 8% CAGR in 2022-30, at the cost of margin compression due to higher funding costs. Whilst scale supports improvement in cost efficiencies, the higher funding mix results in lower ROA. That said, higher leverage (due to asset growth and lending) results in ROE reaching 14.2% by 2030, 1.2p.p above scenario 1. Under this scenario, implied P/BV for the sector is 1.8x, assuming a COE of 10% and long term growth rate of 5%.

The responses of our AlphaWise survey suggest (see Exhibit 40) increased use of savings product in the coming two years: To evaluate the potential financial implications of a shift into saving products, we have constructed three scenarios:

Scenario #1. Non-interest bearing retail bank deposits are converted into interest bearing retail bank deposits.

Scenario #2. Non-interest bearing retail bank deposits are withdrawn from the banking system (eg, for investment into government retail savings products) and banks replace the funding with bond issuance.

Scenario #3. Non-interest bearing retail bank deposits are withdrawn and invested in fee-generating saving and investment products distributed and managed by the banks themselves. Banks again replace the lost deposits with bond issuance.

Exhibit 218: 2030 ROE Outlook - Scenario Analysis

DuPont			Scenario (2030)	
	2011-2021	2021	1	2
Loan CAGR (2022-2030)			**5.8%**	**7.8%**
Deposits CAGR (2022-2030)			**5.5%**	**7.1%**
Wholesale % of Total Funding (2030)			**0.0%**	**11.0%**
NIM		**2.98%**	**2.91%**	**2.77%**
Operating Revenues		**3.9%**	**3.8%**	**3.7%**
Net Interest Income		2.96%	2.92%	2.89%
Net non-interest Income		0.9%	0.9%	0.8%
Opex		**-1.3%**	**-1.1%**	**-1.1%**
Total Impairment Charges		-0.4%	-0.4%	-0.4%
Other non-operational income		0.0%	0.0%	0.0%
Zakat		-0.2%	-0.2%	-0.2%
ROA		**1.86%**	**1.96%**	**1.87%**
Leverage		7x	7x	8x
ROE	**12.7%**	**12.8%**	**13.0%**	**14.2%**

Note: 1) This is based on covered companies only (Al Rajhi, Alinma, SABB, SNB, Riyad and BSFR), 2) NIM for 2021 is the simple average. Source: Company data, Morgan Stanley Research estimates

Exhibit 219: Our Sector Scenario and Sensitivity Analysis

	Scenario #1 Demand deposits shifted into interest-bearing deposits	Scenario #2 Demand deposits shifted into government savings products, funding replaced by bond issuance	Scenario #3 Demand deposits shifted into fee-generating, bank managed investment products, funding replaced by bond issuance
Demand deposits (% of total deposits, 3Q22)	**62%**	**62%**	**62%**
Shift in demand deposits of 10%			
Demand deposits, share of total deposits	57%	60%	60%
Sector net income - change	-3%	-7%	-6%
Sector RoE - change	-0.4%	-0.9%	-0.8%
Sector fair value - change	**-5%**	**-11%**	**-9%**
Shift in demand deposits of 20%			
Demand deposits, share of total deposits	53%	58%	58%
Sector net income - change	-7%	-15%	-12%
Sector RoE - change	-0.8%	-1.9%	-1.5%
Sector fair value - change	**-10%**	**-21%**	**-17%**
Shift in demand deposits of 30%			
Demand deposits, share of total deposits	48%	56%	56%
Sector net income - change	-10%	-22%	-18%
Sector RoE - change	-1.3%	-2.8%	-2.3%
Sector fair value - change	**-15%**	**-32%**	**-26%**

Source: SAMA, Company data, Morgan Stanley Research

Saudi Arabia Consumer, Telecoms, and Chemicals

Saudi Arabia Consumer and Telecoms

Analysts: Henrik Herbst, Filipa Falcao, Linda Lin

Telcos is our preference in our Consumer and Telecoms coverage to play the transformation in Saudi. While the consumer and retail sectors overall are set to benefit from the favourable demographics in Saudi Arabia and ongoing reforms, the upside will not be uniform across all verticals and finding exposure to this transformation through public equities has been difficult. We also note the wallet shift from Saudi consumers, with recent data suggesting that spending on discretionary items has already fallen materially while spending on leisure has grown. Further, our proprietary AlphaWise survey suggests that this trend should continue, with leisure at the top of the list of categories on which consumers intend to increase spending in the next two years.

In Saudi telcos, several segments are already benefiting from Giga-projects and social/economic reforms, and we expect this to remain a tailwind for the sector. We have seen rising penetration in fixed broadband (incl FWA), and consumer mobile revenues are boosted by line growth and B2B with the number of SMEs increasing by 34% YTD.

At the stock level, we see less of these favourable trends currently priced in, both near term (consensus) and longer term (reverse DCF), among the telco names than in our consumer stock coverage. We see Mobily as our preferred play within telcos and believe 4% 2024-30E revenue CAGR implies a value of SAR57 per share (close to 70% upside potential vs current share price) for Mobily if it can only grow in line with the market of c.4% longer term. We think there is scope for Mobily to do better, gaining market share in B2B from stc as contracts are opened up for bidding, and in the consumer market from Zain KSA.

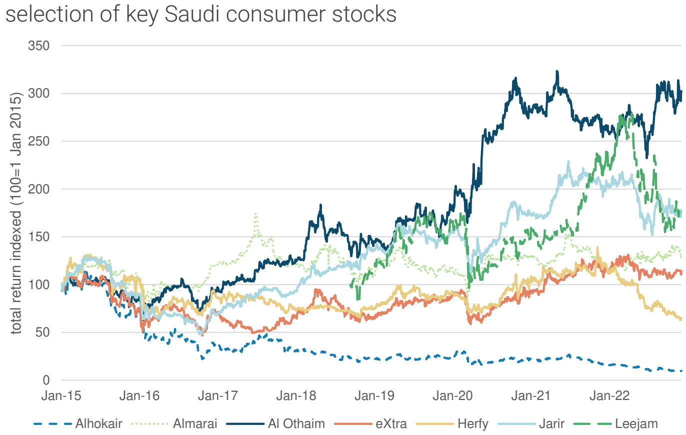
We prefer Mobily over STC as a purer play on telco trends. We see STC being driven near term more by capital allocation decisions than fundamentals.

Saudi Consumer - limited rerating among consumer names so far

The consumer and retail sectors overall are set to benefit from the favourable demographics in the KSA and the ongoing reforms. However, not all verticals are set to benefit the same and we also note thus far in the transformation finding exposure to the main beneficiaries through public equities have been difficult.

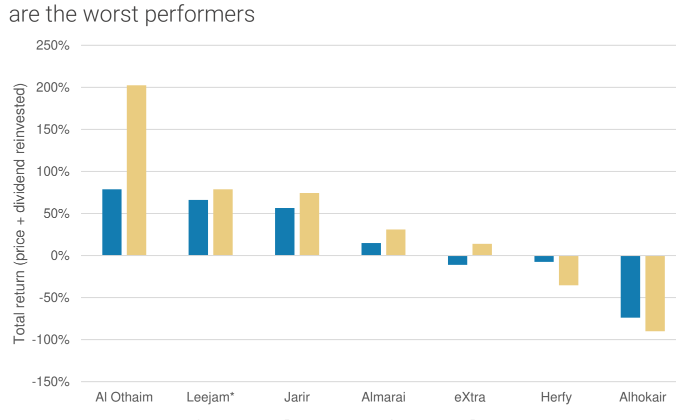
Our charts from Exhibit 220 - Exhibit 228 show that till now, the structural tailwinds, including in the financial system have not been strong enough to benefit all the consumer stocks and/or their valuations. Similarly, the financial performance of the consumer companies have been mixed, with generally negative operating leverage and only eXtra (electronics retailer + consumer finance) and Al Othaim (food retailer) the only companies outgrowing GDP as seen in Exhibit 227 .

Exhibit 220: Shareholder returns (price plus dividend reinvested) for a selection of key Saudi consumer stocks



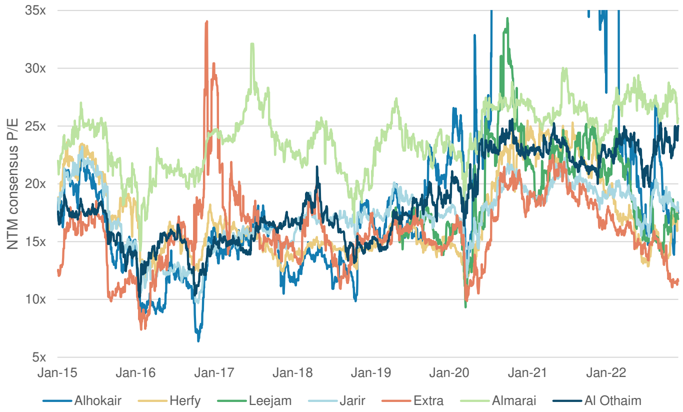
Source: Refinitiv

Exhibit 221: Performance among the Saudi consumer names have varied materially, with the clear winner being food retailer (Al Othaim), the more discretionary / leisure skewed names like Herfy and Alhokair are the worst performers



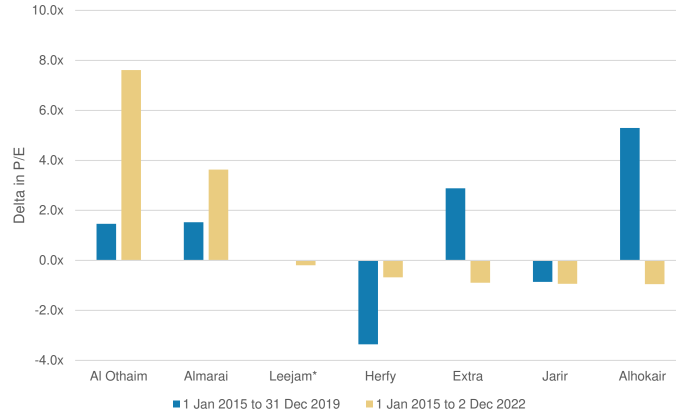
Source: Refinitiv, Morgan Stanley research, *data from Leejam's listing 10 Sep 2018

Exhibit 222: Valuations are starting to normalise after Covid, with no real signs of a sector wide re-rating



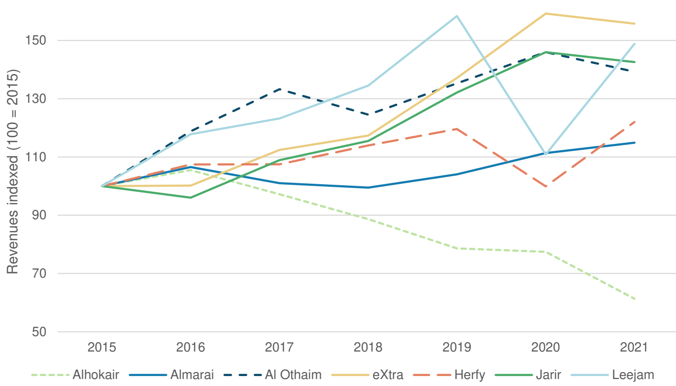
Source: Refinitiv, Morgan Stanley research

Exhibit 223: The more staples like stocks, Almarai and Al-Othaim are the only ones with and material improvement on P/E vs early 2015



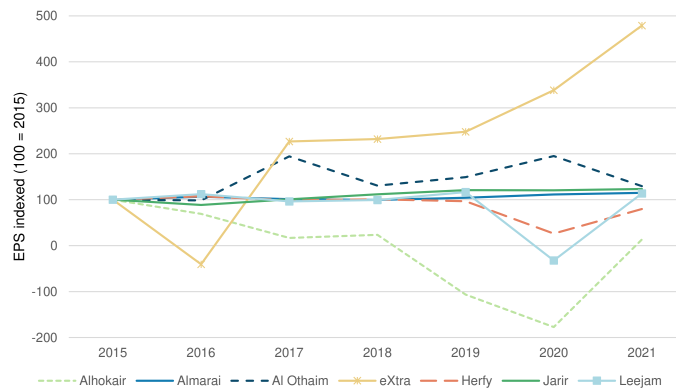
Source: Refinitiv, Morgan Stanley research, *from first available data point 10 Apr 2019

Exhibit 224: Consumer electronics retailers have grown revenues more than rest of the consumer peers, Alhokair (eg has the Inditex franchise in the KSA) a leisure play lags behind



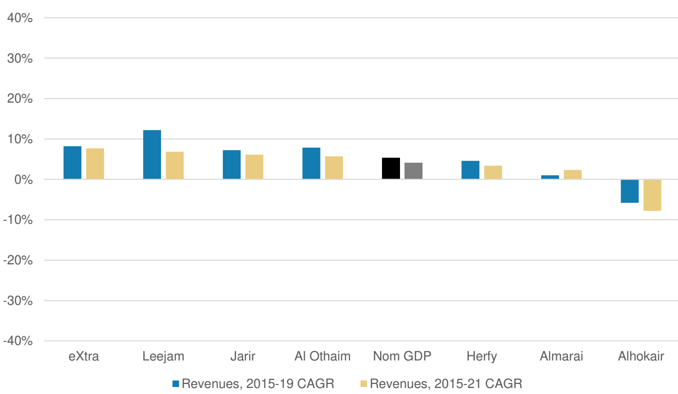
Source: Refinitiv, Morgan Stanley research

Exhibit 225: eXtra has materially outperformed peers on EPS growth helped by its Tas'heel (consumer finance) business



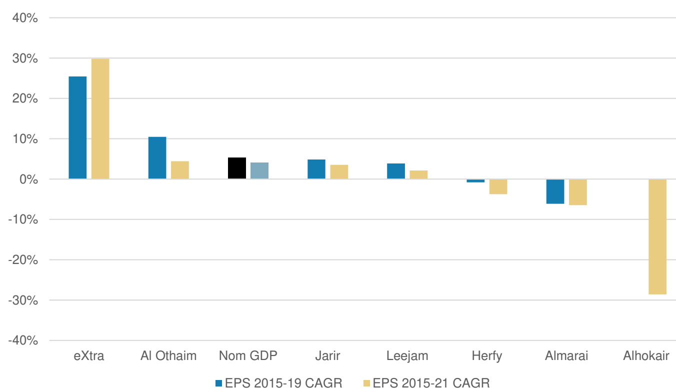
Source: Refinitiv, Morgan Stanley research

Exhibit 226: Most of the consumer stocks managed to outgrow nominal GDP (and thus inflation) on top-line ...



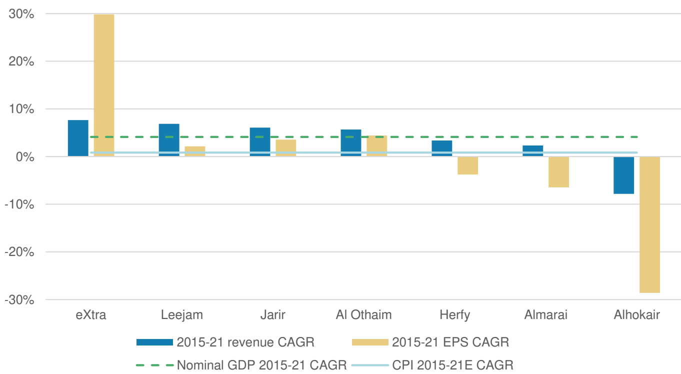
Source: Refinitiv, Morgan Stanley research

Exhibit 227: ... but the costs have been high, and only eXtra and Al Othaim EPS outgrew GDP over 2015-21 ...



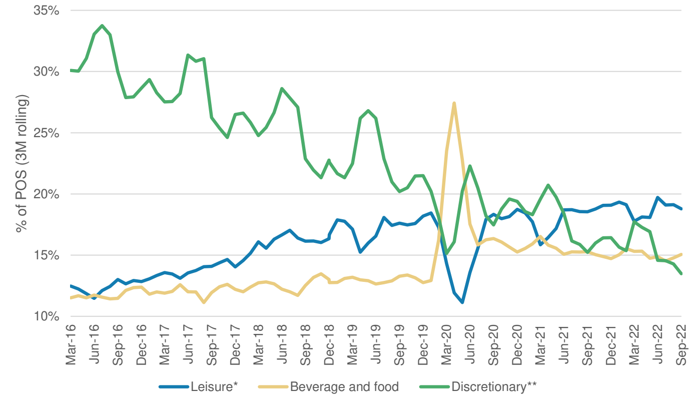
Source: Refinitiv, Morgan Stanley research

Exhibit 228:... and only eXtra showed positive operating leverage, we believe mostly owing to the launch of consumer finance (ranked by revenue CAGR)



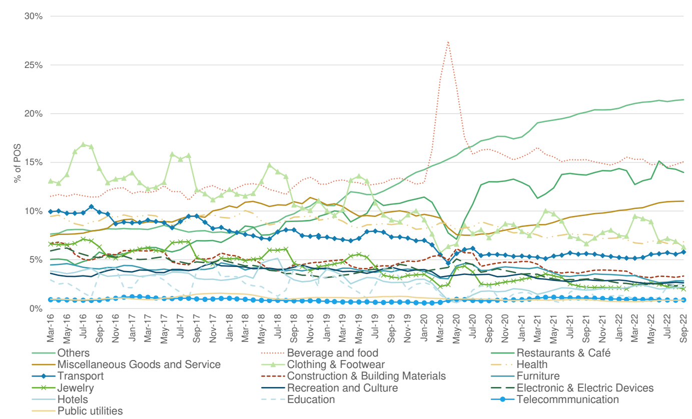
Source: Haver, Morgan Stanley research

Exhibit 229: Spending on discretionary items has already fallen materially while spending on leisure has grown



Source: SAMA, Morgan Stanley research, *Leisure includes Restaurants & Cafe, Hotels and Recreation and Culture, **Discretionary includes spending on Clothing and footwear, electronic and electric devices, furniture and jewelry

Exhibit 230: Saudi sales as % of total POS



Source: SAMA, Morgan Stanley research

Behavioral and spending shifts already in progress

While share prices and financials of the main listed consumer stocks in Saudi representing different verticals such as food producers (Almarai), food retail (Al Othaim), gym (Leejam), electronics (eXtra and Jarir), restaurants (Herfy), clothing / food and beverage (Alhokair) do not show any clear benefits from the reforms yet, it does not mean consumer behaviours/spending shift are not changing.

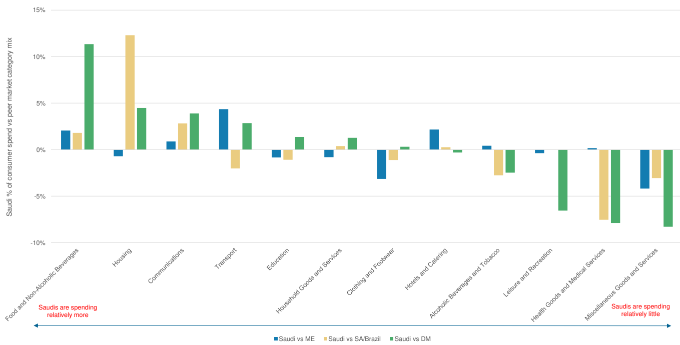
Point of Sales (POS) data from the Saudi Central Bank (SAMA) in Exhibit 229 and Exhibit 230 shows a clear shift in spending mix. Spending on discretionary categories (we include clothing & footwear, electronic & electric devices, furniture and jewelry) has gone from around 30% (March 2016) of total POS volumes in SAR to around 15% currently, although the trend is still negative. Leisure spending (restaurants & Cafe, hotels, and recreation and culture) was on a steady rise pre the pandemic and while still rising, the pace of the increase in the POS mix appears to have slowed somewhat. From the details, this slowdown has mainly been driven by recreation, culture and hotels. We see scope for, in particular, hotel spending to pick up given the level of investment into tourism within Saudi (eg the Red Sea development), and also some scope for recreation and culture to continue to grow with the emergence of more options (eg Riyadh season growing each year, Arabian Centres is seeing a considerable increase in mix of entertainment vs retail in its malls). We caveat that the spending groups provided by SAMA are relatively broad, and only includes card spending and we have no visibility split of cash transactions (cash withdrawals in Saudi are broadly equal the size of POS) or split of e-commerce (now around ¼ of POS) so it is not perfect, however we believe the data provided by SAMA gives a relatively good insight into the spending trends.

Saudi consumer spending mix vs other markets

Comparing the Saudi consumer expenditure mix vs other Middle Eastern markets, SA / Brazil and a selection of developed markets in Exhibit 231 and Exhibit 232 shows that Saudi's on a relative basis are still spending materially less on a relative basis on leisure and recreation vs developed markets and somewhat less than in other Middle Eastern countries. Saudi's only spend relatively less on hotels and catering (includes restaurants) vs developed markets. Meanwhile Saudi's spend a relatively large portion of expenditures on food, housing and communications.

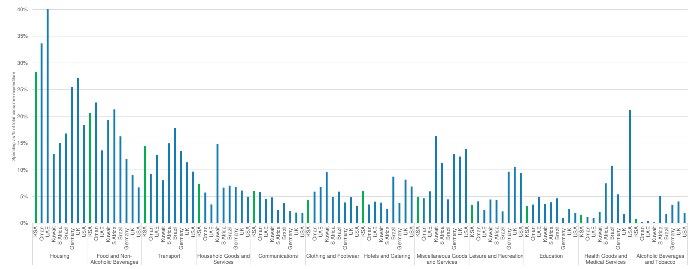
While the spending gap in percentage points on Hotels and Catering vs DMs is relatively small at 0.3pp, total spending on hotels and catering is relatively small at 6% of total consumer expenditure and there is also a relatively big spread with 7% and 8% of consumer expenditure in the US and UK but only 4% in Germany. We further believe the introduction of new cuisines and opening of new restaurants will stimulate demand.

Exhibit 231: Saudi spending mix vs other ME markets, SA/Brazil and Developed markets (DMs) (ranked by spending vs DMs)



Source: Euromonitor, Morgan Stanley research

Exhibit 232: Spending mix (Consumer spend as % of consumer expenditures)



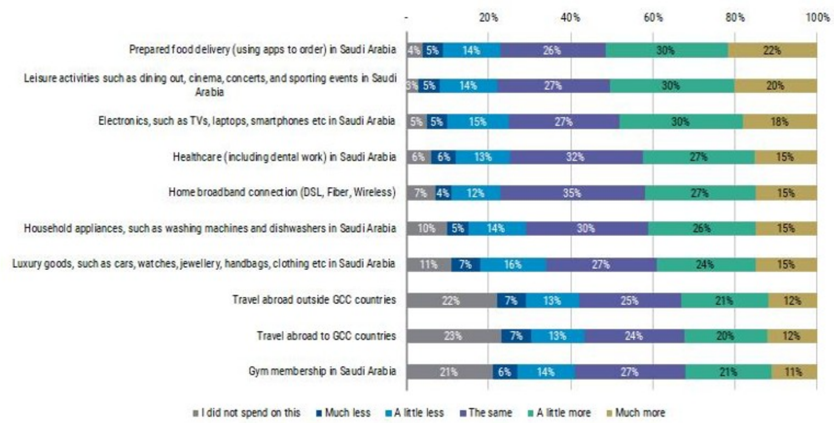
Source: Euromonitor, Morgan Stanley research

AlphaWise points to growing intention to spend more on leisure

The result of our AlphaWise survey shows that the ongoing change in consumer behaviour, with prepared food delivery and leisure seeing the largest increase in spending over the last 12 months, see Exhibit 233 and Exhibit 234 .

Intended changes in spending over the coming two years are generally positive with little signs of consumers under material pressure and cutting back on spending. Leisure continues to top the list of categories where consumers intend to increase spending the most. In our survey this category also includes restaurant spending.

Exhibit 233: Spending change in the last 12M: Leisure and restaurants saw the largest increase in spending, in line with SAMA POS data

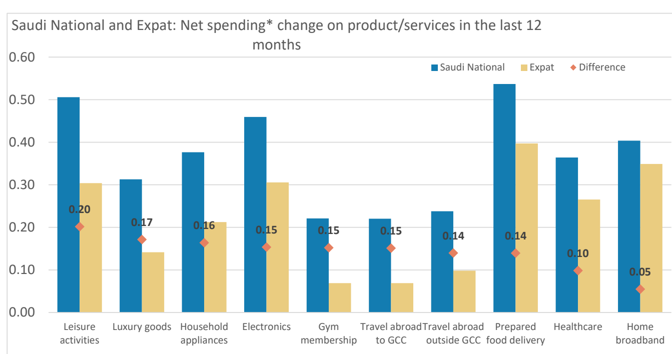


Source: AlphaWise, Morgan Stanley research

For the domestic consumer names we also note that although there is an intention to increase spending on international travelling, it is still a relatively low priority.

The delta in intention to spend over the coming two years vs the increase in spend in the last 12 months is the highest for international travelling, we believe a further rebound post limitations to international travel during Covid. It is also still a relatively low priority, with only spending on gym membership seeing less weighted interest.

Exhibit 234: Expected spending change in the next 2 years: Consumers expect to continue increasing spend on leisure, incl restaurants but there are also strong intentions to increase spending on more discretionary items such as electronics



Source: AlphaWise, Morgan Stanley research

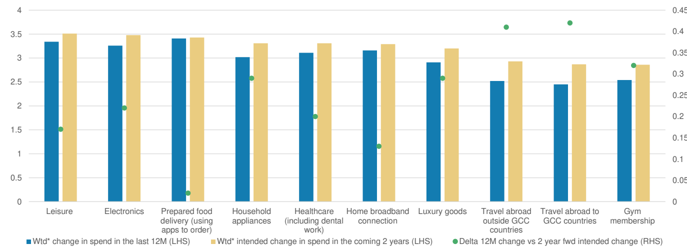
What is priced in on reverse DCF?

The results from our AlphaWise survey we believe suggest a relatively strong outlook for the consumer electronics retailers, a sector that has been under pressure since Covid as consumers stocked up on electronics equipment during Covid (eg PCs/laptops for home learning/work-from-home).

To better understand what the market, ie current share prices, prices in for future growth for the Saudi consumer sector we look at reverse DCFs for Leejam, Jarir and eXtra. Current valuations imply relatively modest growth expectations for both Jarir and eXtra, while the current share price of Leejam implies a more ambitious growth outlook, see Exhibit 236 , Exhibit 237 and Exhibit 238 . In more detail;

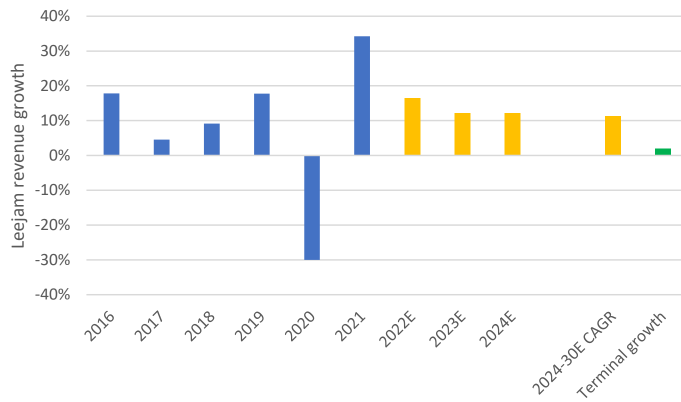
- Leejam: our analysis suggests that the market implies >10% growth until 2030, assuming a 2% terminal growth rate and 8.5% WACC. While Leejam is indeed accelerating the roll-out of new gyms, the rate of growth implied is well above pre-Covid growth levels and does imply the market adoption is picking up, we believe. Again our AlphaWise survey does not show signs of materially rising appetite on gym spending.
- eXtra: Consensus expects a mid-single digit top-line growth in 2022-24E, but our analysis implies the negative revenue growth for 2024-30E to get to the current share price assuming a 1.5% terminal growth rate and 8.5% WACC. With c.50% of EPS coming from the consumer financing business with near term pressures from the rising cost of financing the eXtra trajectory could indeed be more volatile. Over time, however, the consumer finance business we believe is strong, with the market underpenetrated and it should contribute positively to growth in the medium term.
- Jarir: Despite some structural headwinds with wallet shifting towards experiences, Jarir managed to grow revenues by an average of >10% per annum in the three years leading up to Covid (2016-19E CAGR). After a reset in 2021-22, consensus expects revenue growth to rebound to c.7-8% pa in 2023-24E. Beyond this however our analysis suggests the current share price implies a more modest c.4% 2024-30E revenue CAGR, assuming 1% terminal growth and 8.5% WACC.

Exhibit 235: Weighted change in spend intention, and delta vs actual change in spending in the last 12 months: Leisure continues to gain momentum



Source: AlphaWise, Morgan Stanley research, *weightings, 0=not spending / no intention to spend, 1 = spend much less, 2 = a little less, 3 = the same, 4 = a little more, 5 = much more

Exhibit 236: Revenue growth priced in to Leejam share price



Source: Refinitiv, Morgan Stanley Research estimates (E)

We are making the following key assumptions:

- WACC of 8.5%, assuming a longer term average risk free rate of 4% (currently closer to 6%), 9.5% cost of equity and c.5% cost of debt. For simplicity we have assumed similar WACC for all three stocks.
- For 2023-24 we assume consensus estimates and our own estimates where there is no consensus available (eg for lease payments).
- We assume a total capex/sales target for 2030E of 13% for Leejam (3% expansion, 10% maintenance), 1.1% for eXtra (0.1% expansion, 1% maintenance), and 1.1% for Jarir (0.2% expansion, 0.9% maintenance).
- We estimate a target 2030E EBITDA (IFRS-16) margin to be 47.5% for Leejam, 10% for eXtra, and 13% for Jarir.

What is the upside?

Assuming longer term, 2024-30E CAGR, revenue growth of 3-7% varying the flow through of economic growth to the electronics retailers implies that even at the low end share valuations are broadly in line with our current target prices as shown in Exhibit 239 .

We believe the electronics retailers should be geared to stronger economic growth in general on the back of the ongoing social and economic reforms, in particular the trends of digitization and housing formation. eXtra is also, through its Tasheel consumer finance business geared to the growth in the credit market (albeit near term rising interest rates is a headwind).

Saudi telcos pricing in c.2% revenue growth (we believe) vs MS 2021-30E base case market CAGR of c.4%

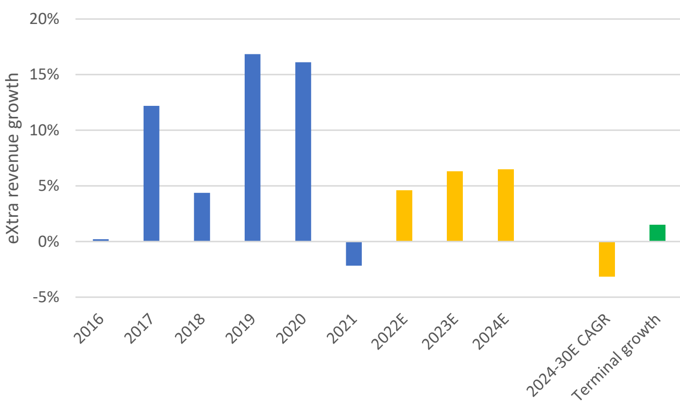
We believe that the Saudi telco market should be more resilient to other global markets owing mainly to: i) the regulatory regime supporting investment with price regulation giving telco operators a chance to generate a return on investment (stc generating roughly high teens ROCE), ii) the market structure (3 player market), and iii) Gigaprojects and social/economic reforms are supportive of B2B growth in the Saudi with number of SME's increasing by 34% YTD.

Segments of Saudi Telcos with stronger growth include fixed broadband (incl FWA) with penetration rising (high margin revenue stream), consumer mobile driven by line growth and enterprise delivering strong growth off the back of gigaprojects.

Preference for Mobily as it is likely to see the highest market share gains and is geared the most towards Saudi Telco trends

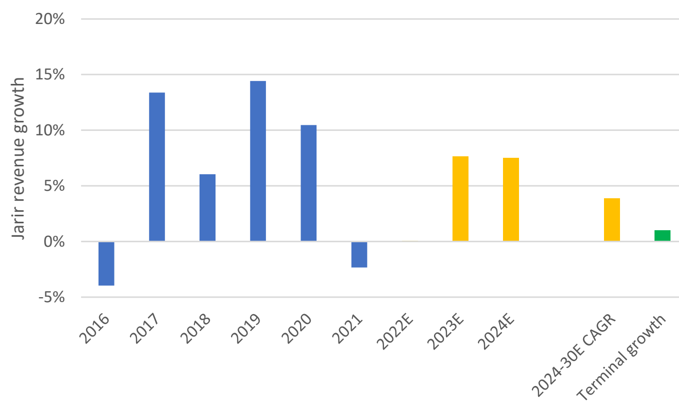
Currently, the Saudi telco stocks on our analysis prices in around 2-3% top line growth, more in-line with our conservative scenario. Instead assuming the c.4% revenue CAGR in our base case, on a relatively fixed OPEX base, implies a valuation of Mobily of SAR57 per

Exhibit 237: Revenue growth priced in to eXtra share price



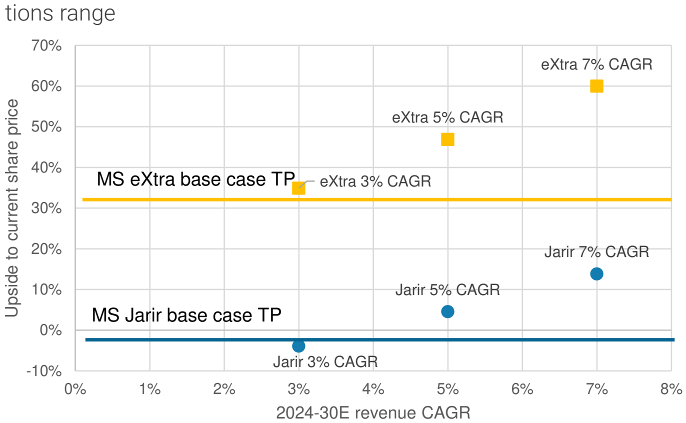
Source: Refinitiv, Morgan Stanley Research estimates (E)

Exhibit 238: Revenue growth priced in to Jarir share price



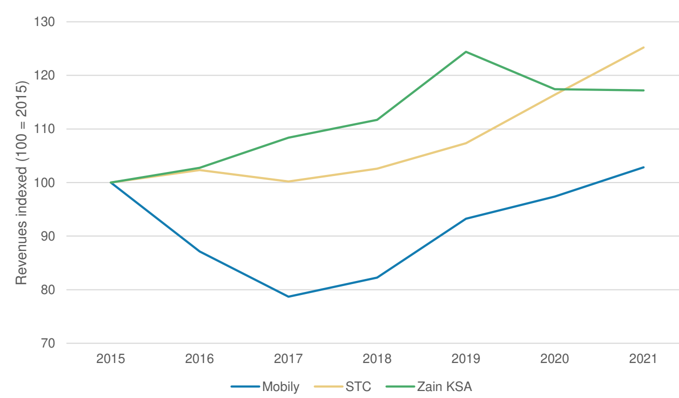
Source: Refinitiv, Morgan Stanley Research estimates (E)

Exhibit 239: Our target prices are at the lower end of the implied valuations range



Source: Refinitiv, Morgan Stanley Research estimates (E)

Exhibit 240: Saudi telcos have been delivering broadly stable growth since 2017



Source: Refinitiv

share (close to 70% upside), c.SAR51 for stc (c.40% upside) and SAR18 for and Zain KSA (close to 70% upside). In reality we see Zain KSA continuing to lose market share growing closer, if growing at all, to the conservative market growth while Mobily is likely to outperform the market. With high operational gearing, our upside case of c.+6% market growth provide further material upside.

We prefer Mobily as it is i) the most geared to the positive market trends, ii) seeing the most upside from market share gains, iii) offering the most upside vs consensus EBITDA and EBIT, and iv) relatively undemanding valuation at 9-11% 2023-24E equity FCF yield.

We expect c.4% 2021-30E CAGR in our base case

With the current social and economic reforms in Saudi Arabia we believe the telco market can grow by c.+4% 2024-30E revenue CAGR in our base case, +6% in a more ambitious case and +2% (ie what the market is currently pricing in on our analysis) in a more conservative case.

We discuss the basis for our growth assumptions in more detail below. We see fixed broadband together with corporates to be key drivers of growth, with the core mobile market benefitting from population growth. We discuss our assumptions in more detail below.

Mobile revenues: we assume growth broadly in line with population growth, which in our base case is +2.5% per year. Near term population growth could be higher as we see the benefit from expat worksers returning to Saudi (c.2.5m leaft the country as a result of Saudisation and Covid). On our ambitious scenario we assume +4%, slightly below the implied CAGR from Vision 2030 of 4.6% at the low end (50-60m population). We assume +1% in our cautious scenario, reflecting some price dilution.

Fixed revenues: We see fixed growth as although the smallest of the market revenue streams (we estimate around 10%) it is an important growth driver, and we believe likely the main thing investors is underestimating. Fixed broadband penetration of household in Saudi is currently around 45% of households, well below most European markets which tend to be >80%. Similarly broadband penetration of population (see Exhibit 245) in Saudi is well below most other markets. Relatively high fibre availability (c.60% of homes) and the roll-out of 5G FWA (ie mobile broadband) should drive further

Exhibit 241: Base case: Telco market revenues could grow by +4% on average per annum over the coming nine years

	2021	2030E	2021-30E CAGR
Base case			
Consumer mobile	51,691	64,555	2.5%
Consumer fixed	8,650	18,787	9.0%
B2B/IT services	25,811	36,737	4.0%
Total	**86,152**	**120,078**	**3.8%**

Source: Refinitiv, Morgan Stanley Research estimates (E)

Exhibit 242: Upside case: The Saudi telco market could grow by c.+6% per annum

	2021	2030E	2021-30E CAGR
Base case			
Consumer mobile	51,691	73,572	4.0%
Consumer fixed	8,650	28,129	14.0%
B2B/IT services	25,811	40,041	5.0%
Total	**86,152**	**141,742**	**5.7%**

Source: Refinitiv, Morgan Stanley Research estimates (E)

Exhibit 243: Conservative case: assuming mobile growth well below population growth, only modest consumer fixed and B2B / IT growth

	2021	2030E	2021-30E CAGR
Base case			
Consumer mobile	51,691	56,534	1.0%
Consumer fixed	8,650	11,286	3.0%
B2B/IT services	25,811	33,677	3.0%
Total	**86,152**	**101,497**	**1.8%**

Source: Refinitiv, Morgan Stanley Research estimates (E)

growth in penetration. In addition we see housing formation on the back of strong population growth and fewer people per household (Saudi is currently very high, meaning relatively few households per population, see Exhibit 246) to further add to the growth outlook in terms of addressable market.

Our AlphaWise survey suggests continued strong demand for fixed broadband - Exhibit 196 . More consumers expect to increase spending on fixed broadband over the coming two years than for example luxury goods, travel and gym membership. This further support our view that fixed broadband penetration should continue to rise.

Depending on where people per household and fixed broadband penetration goes to we estimate the fixed broadband market can grow by 6-14% 2021-30E CAGR, see Exhibit 243 .

- We assume B2B to benefit from mega project investment, with corporate formation etc… with our base case of 4% well below our economists forecasts for near term GDP growth of 6-7%

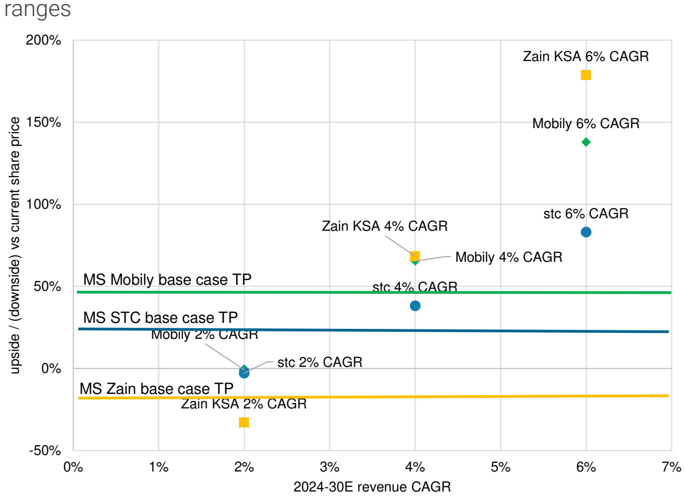
What is stronger for longer growth worth on DCF?

We show the valuation implications on DCF for the three growth scenarios discussed above in Exhibit 200 . We assume the same three top-line growth scenarios for all three stocks, ie +2%, +4% and +6% 2024-30E revenue CAGR which reflect our expectations for market growth. In reality, we do expect some market share changes with Mobily the main winner (in consumer, but more so in B2B), STC broadly flat net (could gain in some areas but lose in some, and overall we don't expect major changes) and Zain KSA to continue to lose share on deteriorating network quality. We further note our analysis is somewhat simplified in that it assumes the CAGR over the period, while in reality growth is likely to be more front end loaded, meaning the upside to valuations to be somewhat higher.

Other key assumptions in our DCF scenario analysis are:

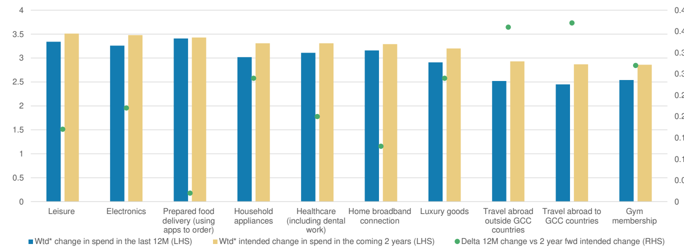
- WACC of 8.5%, assuming a longer term average risk free rate of 4% (currently closer to 6%), 9.5% cost of equity and c.5% cost of debt. For simplicity we have assumed similar WACC for all three stocks
- We assume a terminal growth rate of +1%
- For 2023-24 we assume consensus estimates and our own estimates where there is no consensus available (eg for lease payments)
- We assume 16% CAPEX/sales
- +2% OPEX growth. The core connectivity telco business has a high operating leverage and we forecast costs as growth rather than as % of revenues to reflect this

Exhibit 248: Our target prices are the low end of the implied valuation ranges



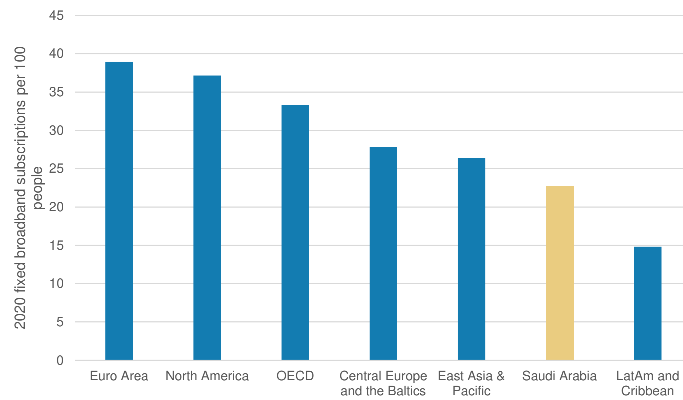
Source: Morgan Stanley Research estimates

Exhibit 244: Weighted change in spend intention, and delta vs actual change in spending in the last 12 months: Leisure continues to gain momentum



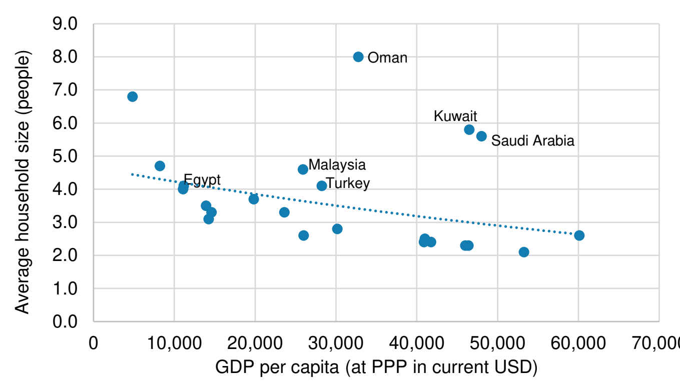
Source: Alphawise, Morgan Stanley research, *weightings, 0=not spending / no intention to spend, 1 = spend much less, 2 = a little less, 3 = the same, 4 = a little more, 5 = much more

Exhibit 245: With a high fibre household coverage(c.60%) and 5G roll-out we see scope for fixed broadband (incl FWA) penetration to continue to positively to growth



Source: OECD, Morgan Stanley research

Exhibit 246: Saudi has a relatively young population, living in large households



Source: UN Household Size and Composition Around the World 2017

Exhibit 247: Fixed broadband revenue growth scenario analysis

		People per household 2030E				
		4.25	4.50	4.75	5.00	5.25
2030E fixed broadband penetration	45%	5.9%	5.2%	4.6%	4.0%	3.4%
	55%	8.3%	7.6%	7.0%	6.3%	5.8%
	65%	10.3%	9.6%	9.0%	8.3%	7.8%
	75%	12.1%	11.4%	10.7%	10.1%	9.5%
	85%	13.7%	12.9%	12.3%	11.6%	11.0%

Source: Refinitiv, Morgan Stanley Research estimates (E)

Saudi Chemicals

Analyst: Ricardo Nasser de Rezende Filho

Chemicals: key driver of non-oil revenues

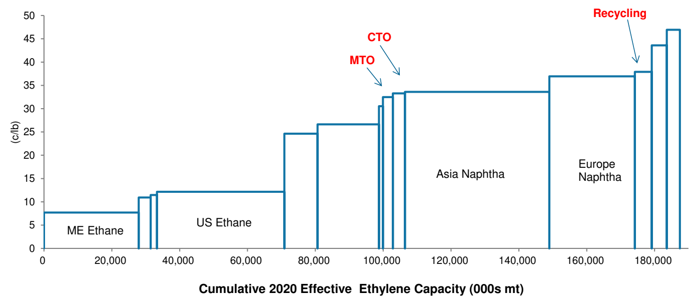
Owing to vast availability of hydrocarbon-based raw materials at competitive prices, Saudi Arabia is among the largest chemical producers globally. The sector has been developed in recent decades to help diversify the economy and to monetize part of the associated gas produced in the Kingdom. Industrial bases were initially established in Jubail and in Yanbu, and SABIC was founded in 1976. More recent, the Kingdom's geographical location has also proved to be a boost, positioning Saudi Arabia as a leading supplier to the fast growing Asian markets. As such, chemicals account for approximately 60% of non-oil exports. Set in this context, it shouldn't be a surprise that chemicals is listed among the key sectors within Vision 2030. The Kingdom plans to leverage on its competitive advantages and aims to double the sector's contribution to the Saudi GDP.

Strong profitability supported by competitive feedstock prices

Having access to low priced feedstock enabled the development of the chemicals industry in Saudi Arabia and positioned the regional producers among the most profitable on a global scale. This relative advantage becomes even more relevant when are oil prices are high (i.e., naphtha-based producers pay more for their feedstock, whereas Saudi producers have access to raw materials at fixed prices). Set in this context, a key discussion is how potential increases in raw materials prices (ethane, propane, etc) could alter this dynamic. Feedstock prices have already been increased in the past. In December 2015, ethane prices were raised from \$0.75/MMBtu to \$1.75/MMBtu, whereas the discount applied on the propane benchmark was reduced from 30% to 20%. Despite the increase, these prices imply that regional producers still sit at the lower end of the global cost curve. As a comparison, while Saudi producers buy ethane at \$1.75/MMBtu, spot prices in the United States (a region with very competitive economics) are roughly \$5.0/MMBtu.

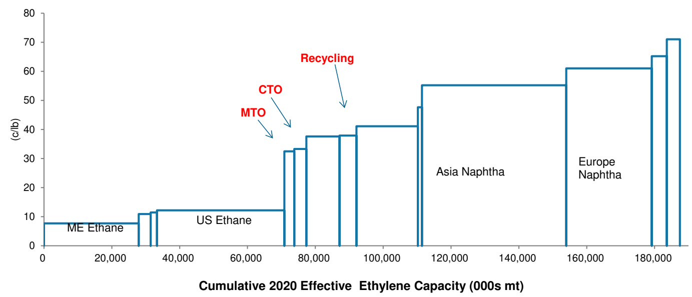
There have also been occasions were price increases have been discussed, but were not implemented. That was the case in 2018, when the Ministry of Finance pointed to higher prices starting in 2020. However, that hasn't materialized yet. In July 2022, local media reported that the Ministry of Industry and Mineral Resources will raise feedstock prices across different products starting in 4Q23, with annual adjustments then taking place until 2030.

Exhibit 249: Global Ethylene Cost Curve - \$65/bbl Brent



Source: Chemical Market Analytics by OPIS, a Dow Jones Company, Morgan Stanley North America Chemicals Research (here); Note - We adjust for 7% downtime

Exhibit 250: Global Ethylene Cost Curve - \$100/bbl Brent



Source: Chemical Market Analytics by OPIS, a Dow Jones Company, Morgan Stanley North America Chemicals Research (here); Note - We adjust for 7% downtime

Will subsidies be eliminated?

With reforms accelerating and the prospects of higher feedstock prices, the relative profitability of Saudi chemicals has gained prominence. Our base case does not assume feedstock incentives being fully eliminated in the medium to long term, owing to: i) the relative importance of the sector for the Kingdom to lower its dependence on oil revenues. In fact, Vision 2030 and other related programs stress the crucial role of competitively priced feedstock as a source of the segment attractiveness (among other lower cost inputs, such as electricity); ii) Even in such a scenario, the Kingdom could eventually offset part of the increased feedstock prices with other benefits/incentives, to continue fostering investments in the sector. As shown on the charts above, US producers paying spot market prices for ethane still rank among the most competitive globally ; iii) Other feedstocks could gain prominence within the mix. In late November SABIC announced it is analysing a 400kbpd crude-to-chemicals plant in Ras Al-Khair, in partnership with Saudi Aramco and with the Ministry of Energy.

Sovereign Credit Strategy: Higher Spending, On or Off-Budget

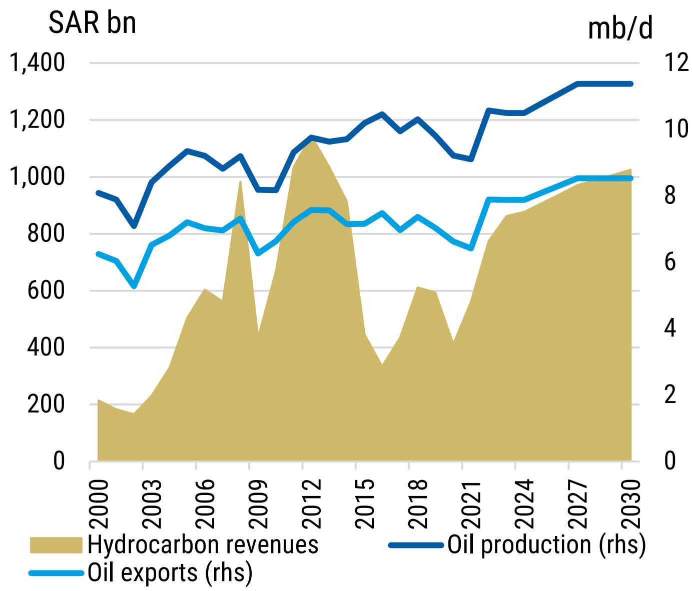
Pascal Bode

Modelling the long-term budget trajectory: From a fiscal perspective, the longer-term impact of social reforms and investment in economic diversification is clearly positive via broadening of the tax base and increased non-hydrocarbon revenues. Over the medium term, however, investor focus is likely to rest on the evolution of the funding mix for Vision 2030, and in particular whether planned capital expenditure will end up finding its way back to the central government budget.

On the revenue side, output growth benefits hydrocarbon revenues... While the focus of Vision 2030 is clearly around the non-hydrocarbon component, hydrocarbon revenues remain the primary driver of the central government budget. We model these with an assumption of a gradual ramp-up of production to 11.4 mb/d by 2027, below the targeted sustainable production capacity goal for Aramco, of which we assume 75% will be designated for export. Taxation and royalties benefit from the increased output, while our equity colleagues see Aramco dividends rising at a 5% annual pace over the forecast horizon.

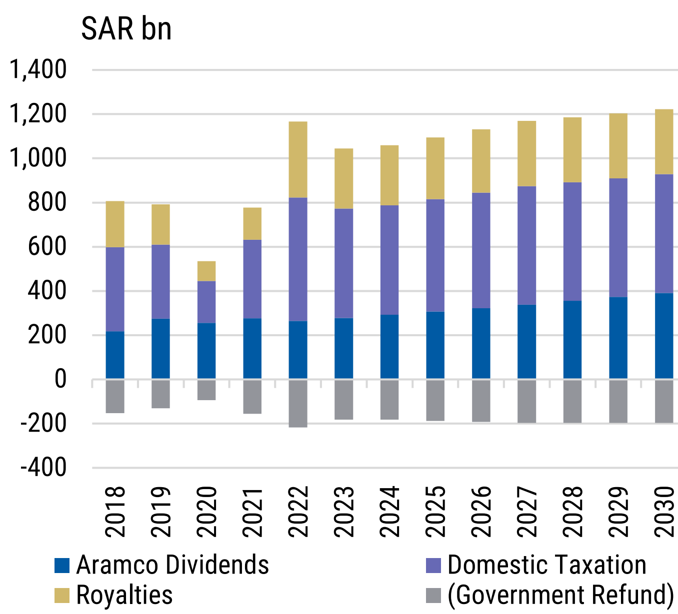
...while non-hydrocarbon revenues grow strongly as the non-oil sector expands: We assume that non-hydrocarbon growth outpaces headline growth given the magnitude of investment in diversification, with greater outperformance in lower oil price scenarios. Our non-hydrocarbon revenue forecasts use this growth trajectory to model potential non-hydrocarbon revenue collection, assuming that taxation rates remain stable, including the VAT hike to 15% remaining in place. With these parameters, non-oil revenues grow to SAR 731 billion at US$90/bbl by 2030.

Exhibit 251: Oil revenue trajectory at US$90/bbl, assuming 75% exports



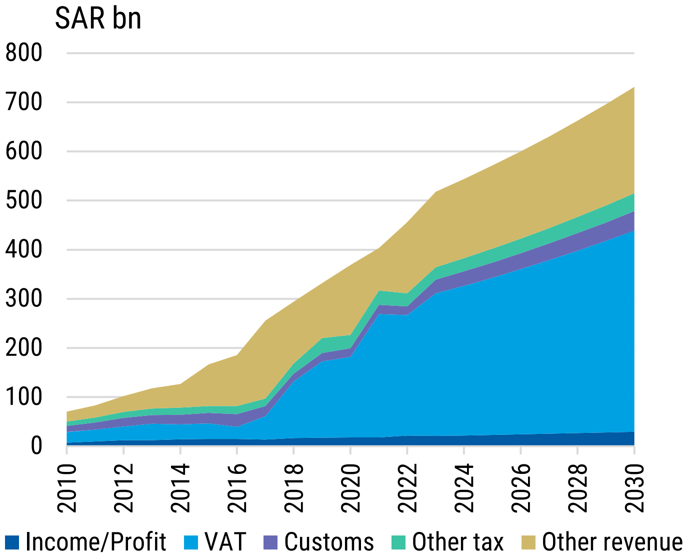
Source: Country sources, IMF, Morgan Stanley Research forecasts

Exhibit 252: Hypothetical breakdown of hydrocarbon revenues at US$90/bbl from 2023-30



Source: Country sources, Morgan Stanley Research forecasts

Exhibit 253: Potential non-hydrocarbon revenue trajectory with oil at US$90/bbl



Source: Country sources, Morgan Stanley Research forecasts

Exhibit 254: We assume that non-oil growth outpaces headline growth in lower-oil scenarios

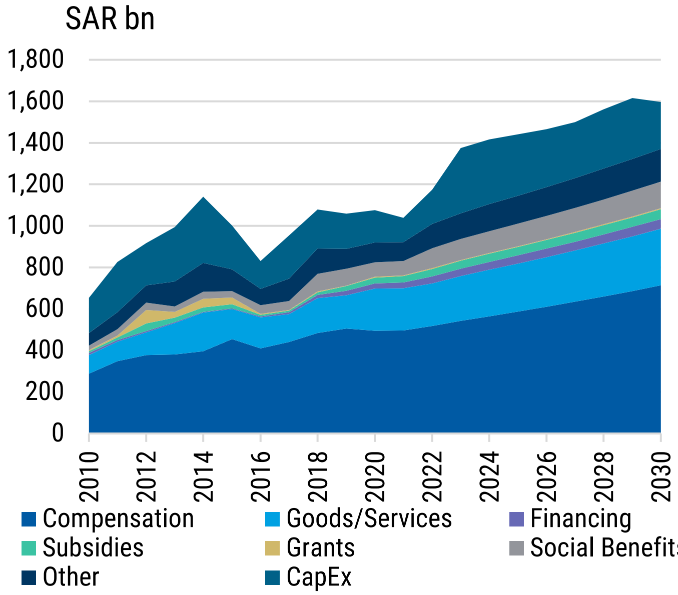
Real growth				
Headline GDP scenarios	**2022**	**2023**	**2024**	**2025**
US$110/bbl	9.8%	4.8%	4.4%	3.4%
US$90/bbl	9.8%	2.6%	2.2%	1.3%
US$75/bbl	9.8%	1.0%	0.6%	-0.4%
US$65/bbl	9.8%	-0.1%	-0.6%	-1.5%
Non-oil GDP scenarios	**2022**	**2023**	**2024**	**2025**
US$110/bbl	6.4%	4.6%	4.5%	4.5%
US$90/bbl	6.4%	2.9%	2.8%	2.9%
US$75/bbl	6.4%	1.8%	1.7%	1.7%
US$65/bbl	6.4%	1.2%	1.0%	1.1%

Source: Morgan Stanley Research forecasts

The shorter-term impact of Vision 2030 is on the expenditure trajectory... We model the rise in current expenditures over the forecast horizon in line with GDP growth except for public sector wages, the largest component, which we instead grow at CPI + 2%. However, Vision 2030 will mainly affect the capital expenditure side, with the key question being how much, if any, of Vision 2030-related spending requirements could end up finding their way to central government fiscals, in turn driving funding needs.

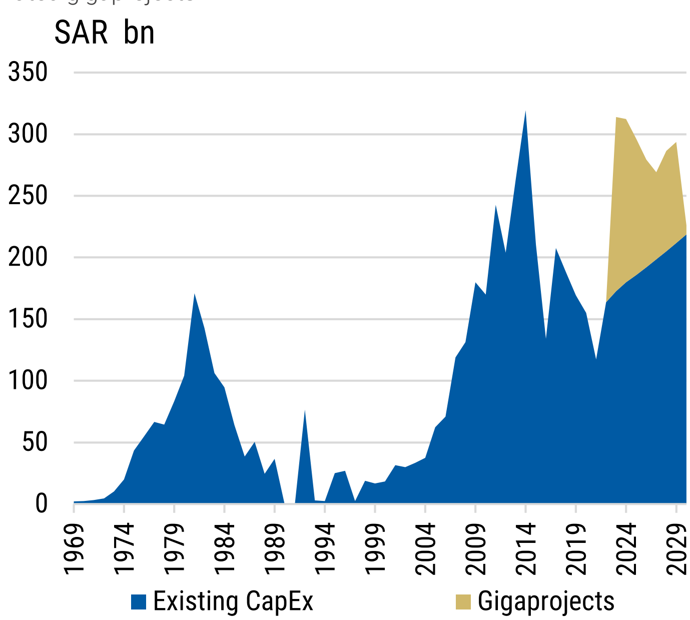
...which is primarily dependent on the extent of foreign involvement in financing Vision 2030: For the capital expenditure side, investors should distinguish between existing expenditure programme and new Vision 2030-related expenditure coming. For this, we see the central government as the 'spender of last resort'. We model three scenarios where foreign investors provide 10%, 30% and 50% of the total US$900 billion in funding needs until 2030. The residual is funded domestically, first via the PIF.

Exhibit 255: On-budget capital expenditure would likely need to rise if there are broader funding shortfalls...



Source: Country sources, Morgan Stanley Research forecasts

Exhibit 256: ...driven by additional demands from Vision 2030-related gigaprojects



Source: Country sources, Morgan Stanley Research forecasts

Higher foreign participation would take pressure off domestic funding sources... The PIF has targeted US$40 billion in annual spending until 2025, of which we assume 75% will fund Vision 2030, bringing total spend to US$240 billion. Saudi banks, meanwhile, are expected by our equity analysts to spend up to US$250 billion in the 10% foreign participation scenario. As foreign participation –

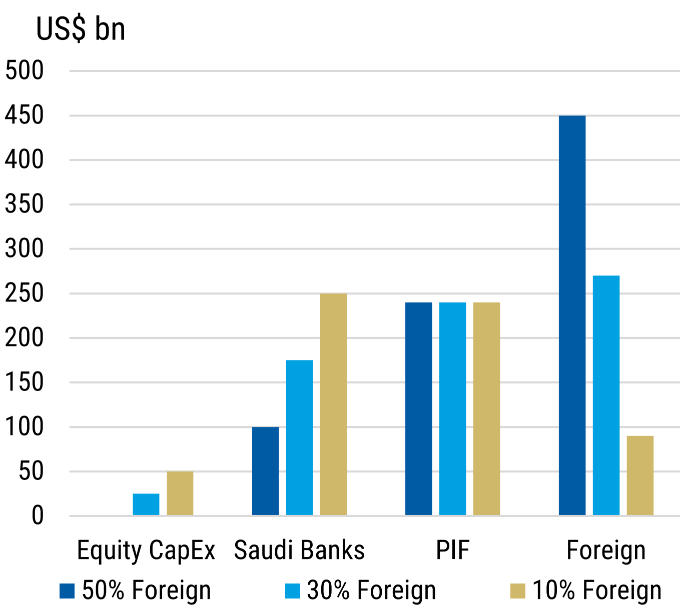
including lending from foreign banks – increases, some of the pressure is taken off Saudi banks, with only US$100 billion in lending materialising in a 50% foreign participation scenario. Lastly, we model for some equity capital expenditure, which drops off as foreign participation increases.

Exhibit 257: Across our three foreign funding scenarios, the residual gap ranges from US$110 billion to US$270 billion

2023-2030 spending, US$ bn	Foreign funding 50%	30%	10%
Spending commitments	900	900	900
- Foreign spending	450	270	90
- PIF	240	240	240
- Saudi Banks	100	175	250
- Equity Capex	0	25	50
= Residual	110	190	270

Source: Morgan Stanley Research forecasts

Exhibit 258: Saudi banks and equity capital expenditure are modelled to fill in some of the gap from lower foreign funding



Source: Morgan Stanley Research forecasts

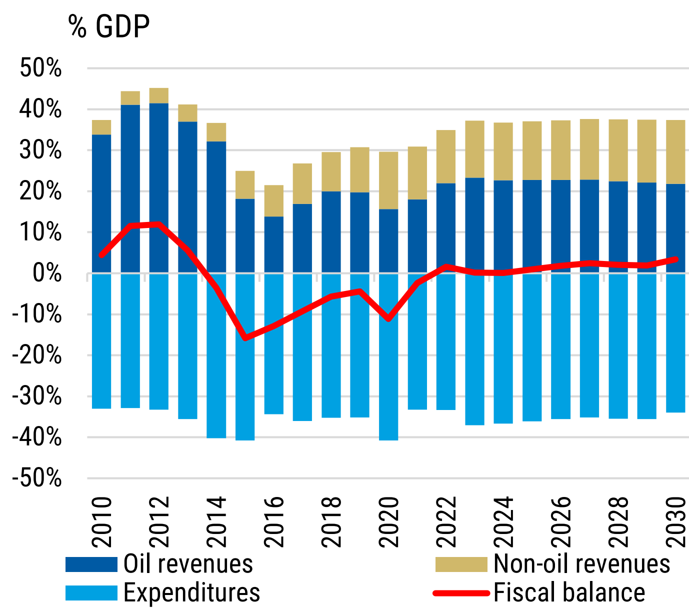
...but a funding gap remains, of which a substantial amount will likely be filled off-budget: In these three scenarios, we model a funding gap of US$110-270 billion, which we assume is filled by the government. For simplicity we place the entire funding gap on-budget, which results in breakevens rising to a range of US$76/bbl to US$86/bbl at 50% foreign participation and 10% foreign participation, respectively, but a significant amount will likely instead be filled outside of the budget. This means that the central government headline fiscal balances will likely be stronger than our illustrative calculations here.

Exhibit 259: Cumulative 2023-30 fiscal balances by oil price and foreign funding participation rate

Fiscal balance, % GDP		Oil US$65	US$75	US$90	US$110
Foreign funding	50%	-1.8%	-0.2%	2.6%	6.3%
	30%	-2.8%	-1.1%	1.7%	5.5%
	10%	-3.8%	-2.1%	0.8%	4.7%

Source: Country sources, Morgan Stanley Research forecasts

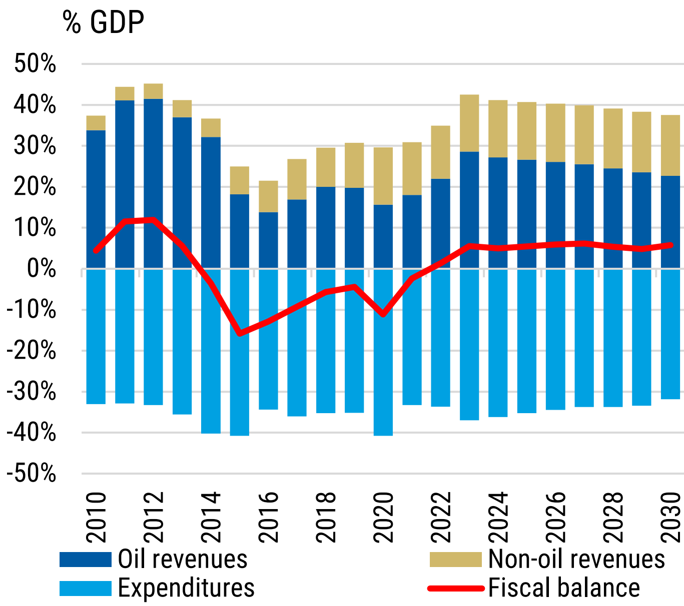
Exhibit 260: We model for non-hydrocarbon revenues to grow as a share of total revenues over the forecast horizon



Source: Country sources, Morgan Stanley Research forecasts

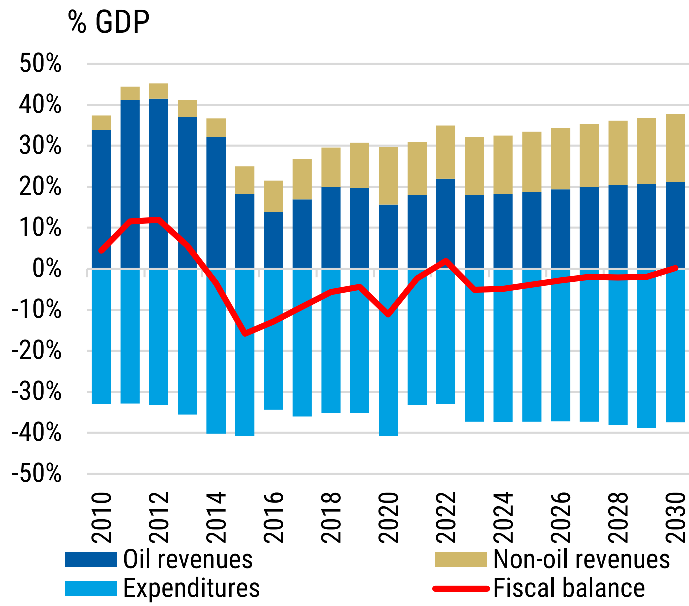
In the end, oil at US$90/bbl+ would provide the sovereign with fiscal space; the bear case of US$65/bbl is trickier: Similarly, we also model for bull and bear cases, at US$110/bbl and US$65/bbl over the forecast horizon, respectively. In the bull case, Saudi Arabia could see a cumulative 4.7% of GDP surplus over the forecast horizon with 10% foreign funding, growing further to 6.3% of GDP at 50% foreign participation. Conversely, in the bear case, fiscal deficits appear at 3.8% of GDP with 10% foreign funding, falling to 1.8% with 50% foreign funding. This suggests that greater debt raising or reserve drawdown would be a possibility in the bear case.

Exhibit 261: In our bull case of US$110/bbl oil, the sovereign remains in a sizeable surplus



Source: Country sources, Morgan Stanley Research forecasts

Exhibit 262: In our US$65/bbl bear case, deficits materialise unless capex is restricted more materially



Source: Country sources, Morgan Stanley Research forecasts

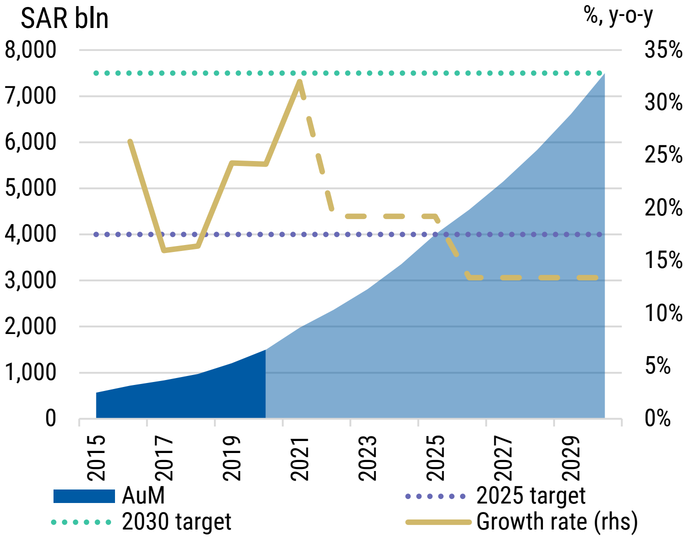
Stronger non-government domestic spending is a potential source of upside... The lower bound in our fiscal breakeven range is higher than what might be expected given that the IMF's current breakeven estimate is at US$73/bbl. This is mainly due to the assumption that bank lending and equity capital expenditure fall simultaneously as foreign participation increases. If domestic spending remains stronger, the central government would be able to avoid significantly more of the expenditure burden.

...while macro-adjustment would similarly help to bring down breakevens versus our forecast: The sovereign itself also can modify the expenditure stack to bring down breakevens, most notably by curtailing some of the existing capital expenditure programmes and redirecting freed-up liquidity to Vision 2030-related projects. We model some of this transfer in our estimations, but if acutely necessary, the sovereign could cut the existing capital expenditure stack more aggressively. Notably, this was one of the main methods utilised by the sovereign in 2015/16, when capital expenditure fell by 34% and 36%, respectively, year on year.

Lastly, the source of the PIF's growth will be key: While we model central government breakevens here, one of the key questions revolves around how the PIF will finance its AuM growth, and in turn its domestic annual spending target of SAR 150 billion/US$40 billion. First, internal generation of profit is likely to take precedence. The PIF made a net profit of SAR 86 billion in 2021 on SAR 1,980 billion in end-2021 AuM, around 4.3%. Modelling this out over the AuM forecast leads to an average of SAR 201 billion profit per year until 2030. The average AuM growth needed over the forecast horizon, however, is triple thereof at an average SAR 613 billion annually.

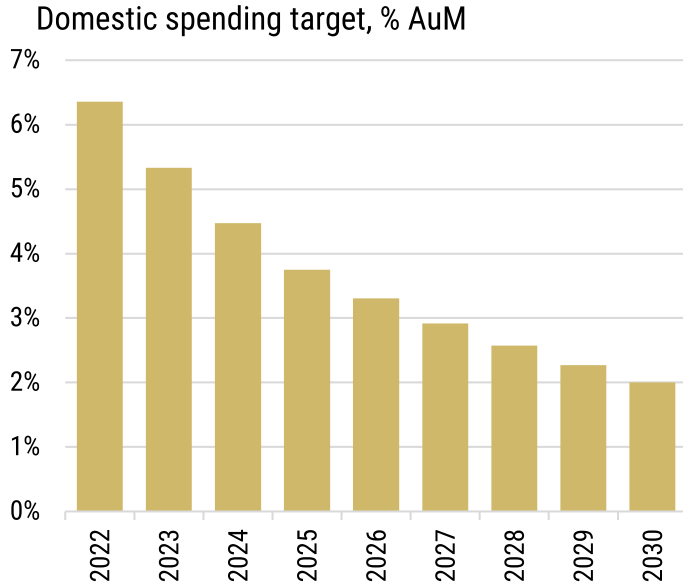
For one, the PIF has room to increase leverage significantly... The PIF recently refinanced its US$11 billion in syndicated loans into a larger US$17 billion loan, generating net US$6 billion in new financing. The new bond programme is still comparatively small at just US$3 billion issued, while the remaining US$10 billion comes from a drawn-down revolving credit facility. This means that gross leverage is very low at just US$30 billion or 5% of AuM. There is hence room for a scenario where the PIF starts raising leverage more broadly. For example, a relatively high US$30 billion in annual net financing would lead to SAR 113 billion being generated per year. This would leave the fund at SAR 1,125 trillion in leverage by 2030, or a relatively manageable debt/assets ratio of 15%.

Exhibit 263: The PIF is targeted to grow by an average of SAR 613 billion per year



Source: Company sources, Morgan Stanley Research forecasts

Exhibit 264: The fund's SAR 150 billion domestic spending target would become more manageable if AuM growth continues



Source: Company sources, Morgan Stanley Research forecasts

...while transfer of government surpluses should support PIF growth: Lastly, there is also a possibility for the transfer of government surpluses to the PIF. At US$90/bbl and 30% foreign funding, our model sees an annual average surplus of around SAR 69 billion. Transferring two-thirds thereof to the PIF would result in an additional SAR 46 billion annually. Naturally, this is where the transmission of oil prices to the PIF occurs, and in the bull case of oil at US$110/bbl and 50% foreign funding, a much higher SAR 177 billion could be transferred annually.

Nonetheless, not all AuM growth is accounted for yet, making further cash/stake injections likely: This would leave a funding shortfall estimate of around SAR 253 billion/US$67 billion annually to reach AuM targets. This compares to the PIF's current AuM of ~US$610 billion and the value of the government's Aramco stake at ~US$1.75 trillion. Thus, higher oil prices or larger foreign funding of gigaprojects would do much to fill the funding gap as the government redirects resources to growing the PIF.

For sovereign credit investors, decoupling from GCC debt reduction should be in focus: As we have discussed previously in Global EM Strategist: Searching for the Peak, October 17, 2022, Vision 2030 brings with it the potential for greater public sector debt raising and a stickier expenditure profile, with higher fiscal breakevens than GCC IG peers. While resilient growth should see deleveraging continue, debt reduction in nominal terms – as is currently the case in Qatar and Oman – is less likely given the funding needs identified above. External and domestic primary is hence likely to continue for the sovereign, with higher funding in lower oil scenarios as deficits emerge, creating a technical overhang that should see the Saudi curve remain wide to Qatar.

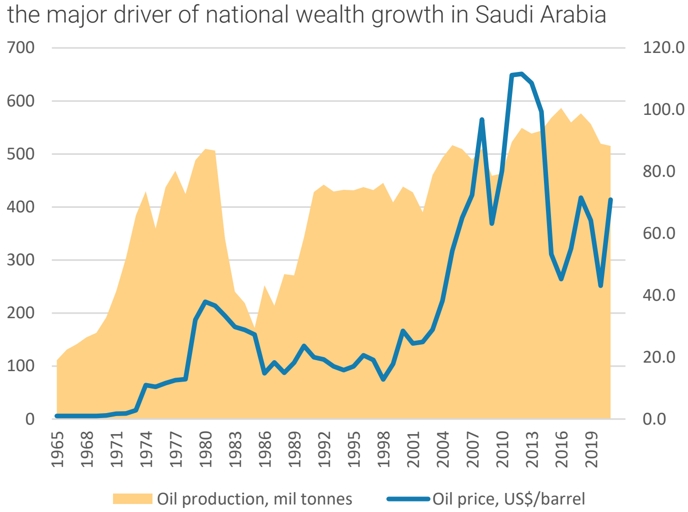
Economics: Saudi Arabia's Potential Growth – Stretching its Limits

Alina Slyusarchuk, Georgi Deyanov

Since the 1950s, Saudi Arabia has been through an astonishing development path from a country of subsistence farming to a major player in the oil markets and in the global economy overall. Since oil was discovered in 1938, it became the major driver of national wealth growth. What's more important, the government has been increasingly investing oil-related revenues in new technologies and non-oil development. Today Saudi Arabia is the largest oil producer and the second-largest oil exporter. With hydrocarbons accounting for 73% of export revenues and 58% of budget revenues, its economic cycle has been to a large extent a reflection of global oil prices and demand. However, this does not reflect the transformation process that has been ongoing within the economy. Diversification efforts of the government resulted in the emergence of new sectors, with the share of the non-oil economy in gross value added going from just 10% in the 1970s to 25% in the 2000s and 45% most recently. High fertility and strong inflows of expats doubled the population over the last 30 years, and the share of the non-Saudi population is up to 36% of the total.

In the most recent history, in 2016 the government launched an ambitious and detailed long-term national investment strategy, Vision 2030, aimed at opening and diversifying the economy and reducing its dependence on oil. The plan includes six giga-projects as well as a comprehensive plan for structural reforms in almost every sphere.

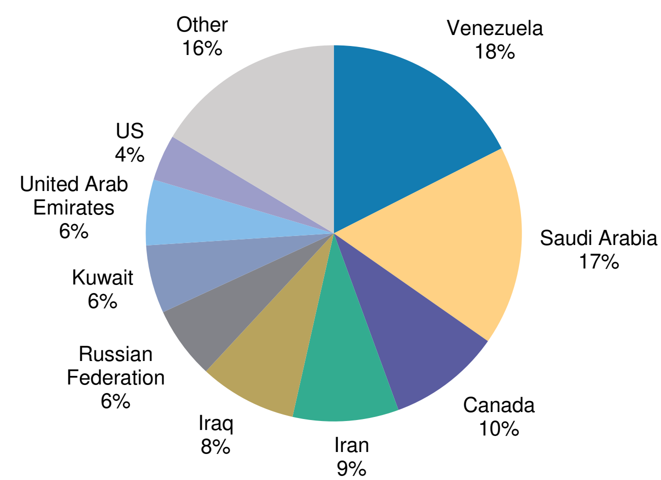
Exhibit 265: Discovery of oil and a surge in global oil prices became the major driver of national wealth growth in Saudi Arabia



Source: BP, Statistical Review of World Energy, Haver Analytics, Morgan Stanley Research

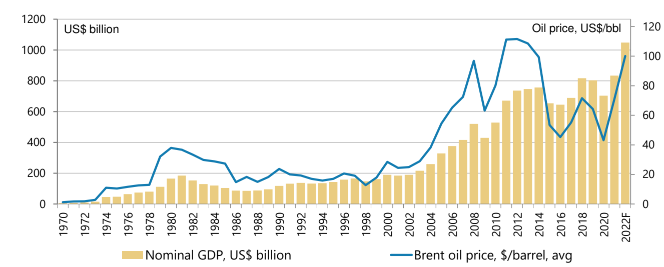
Exhibit 266: The country now possesses the world's second-largest proved oil reserves, and is the largest producer and the second-largest exporter of oil

Proved oil reserves, % of total (end-2020)



Source: BP, Statistical Review of World Energy, Morgan Stanley Research

Exhibit 267: On track to reach a US$1 trillion economy in 2022



Source: Haver Analytics, Morgan Stanley Research forecasts

Assessing Saudi Arabia's potential growth

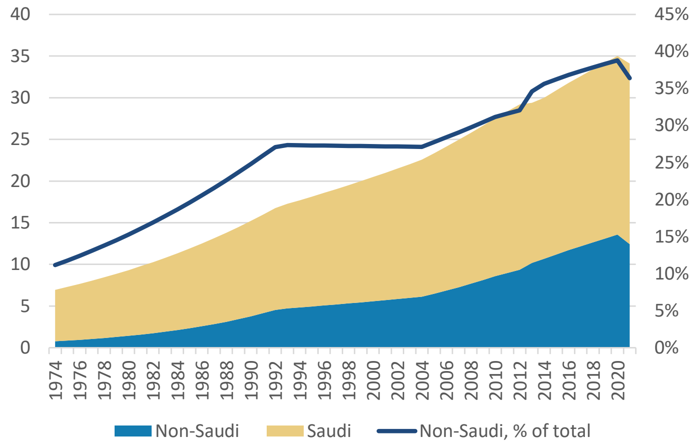
Given the major structural reforms and transformation of the economy, the past economic experience is a poor predictor of the future dynamics. To assess Saudi Arabia's potential growth, we consider three reform and investment scenarios:

- **'Reforms stall' is our bear case scenario:** We assume that reform efforts lose momentum and there are no further major reforms. In this case we see lower interest from both foreign and domestic investors to participate in new projects.
- **'Fast forward' is our bull case scenario:** In this case, we expect the high pace of reforms and investment efforts continuing in line with and often ahead of Vision 2030 targets, with the authorities focused not only on attracting new investors and accelerating economic growth but also developing institutions to support the process. We admit that this scenario is more realistic with high oil prices as they tend to support investor sentiment.
- **'Steady as she goes' is our base case scenario,** which is in the middle of two extremes, being both ambitious and highly realistic.

In terms of methodology, we use the Cobb-Douglas production function with constant returns to scale, in which output is determined by a capital input, labour input and total factor productivity (TFP) as a residual. Trends are extracted through a Hodrick-Prescott filter (lambda =100) from the input series to remove the cyclical component and then combined in the production function to obtain the potential output. We take the historical estimates available in the Penn World Table and build our three forward-looking scenarios based on our forecasts and assumptions. The three main assumptions that differentiate our scenarios are **fixed investment growth, the fertility rate and TFP growth.**

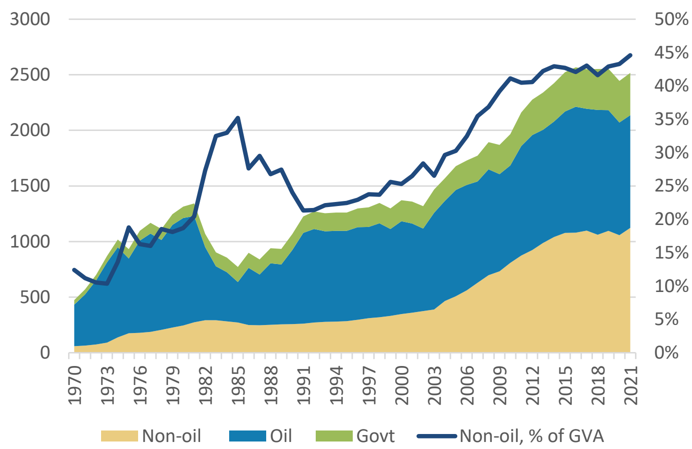
- **Fixed investment growth assumptions:** In our base case, we assume that fixed investment will grow by 6.5%Y in the long run, which is close to the historical average of the past 20 years. In our bear and bull cases we assume fixed investment growth of 3%Y and 10%Y, respectively, in the long run.
- **Fertility rate and working age population assumptions:** The working age population will depend on the fertility rate evolution, which we think will be an inverse function of the labour participation rate. In our base case, we assume that the total participation rate continues to increase gradually to about 65% from the current 61.2%. This includes the female labour participation rate improving to 50%, a level surpassed by Indonesia, Malaysia and Korea, and one comparable with

Exhibit 268: Surging potential: The population doubled over the last 30 years; the share of the non-Saudi population is up to as much as 36% of the total



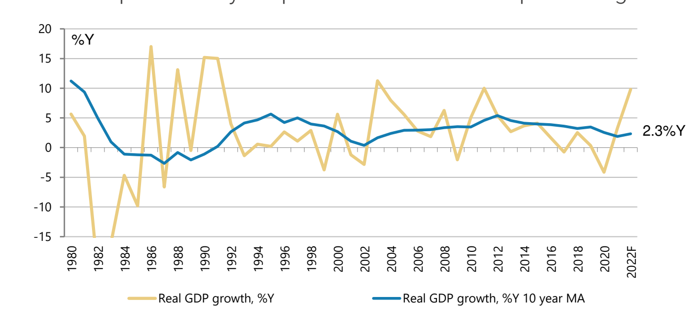
Source: Haver Analytics, Morgan Stanley Research

Exhibit 269: Diversifying efforts in action: The share of the non-oil sector in gross value added is up to 45% versus 25% in the 2000s



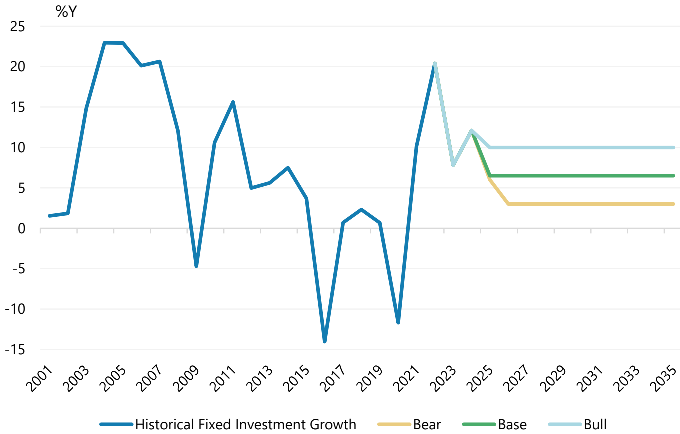
Source: Haver Analytics, Morgan Stanley Research

Exhibit 270: 10-year average real GDP growth stands at only 2.3%Y. However, the nature of reforms and the pace of transformation mean that past history is a poor indicator of future potential growth



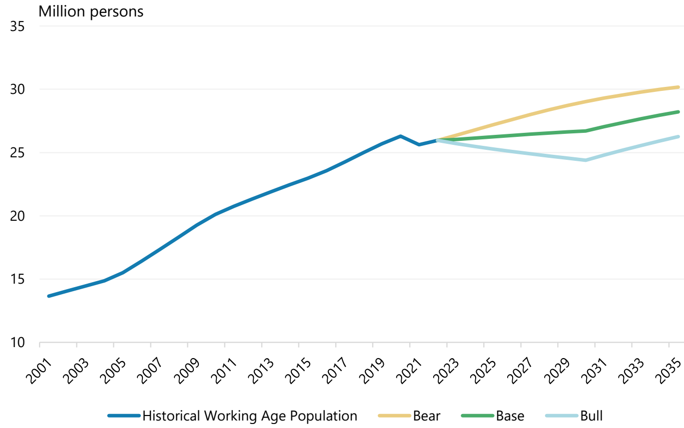
Source: Haver Analytics, Morgan Stanley Research forecasts

Exhibit 271: Fixed investment growth assumptions in the three scenarios



Source: Haver Analytics, Morgan Stanley Research forecasts

Exhibit 272: Working age population assumptions in the three scenarios



Source: United Nations, Haver Analytics, Morgan Stanley Research forecasts

Kuwait and the UAE, and the male labour participation rate staying broadly unchanged. In the bear case, we assume the participation rate to remain unchanged while in the bull case it increases to about 70%, including the female labour participation rate improving to 60%, a level surpassed by China.

The total factor productivity assumption requires a more detailed discussion: As a theoretical concept, TFP is defined as the overall efficiency with which capital and labour are used together in the production process. As mentioned above, by construction, in our model, with a given capital input, labour input and output, TFP is a residual. Our estimates suggest that Saudi Arabia over its history went through periods of very negative TFP growth, averaging -7.6%Y in 1975-85 and more recently averaging -4.5%Y in 2000-10. While there were periods of positive TFP reaching almost 2%Y, since Vision 2030 was announced in 2016 it has averaged -1.7%Y. We believe that one explanation for a more negative TFP in the past is the fact that Saudi Arabia has been moving to a market-based economy with stronger competition and more advanced institutions only in its recent history. In the past, a large public sector and distortions from its intervention would hinder resource reallocation. Even with quantitative growth factors like capital and labour expanding, boosted by oil revenues and economic growth, they have likely not been utilised as efficiently as they could be. Another complication in the analysis is data availability. There are no data on capacity utilisation in Saudi Arabia. Hence, in periods of downturns, the capital stock as well as labour would be under-utilised, but in our model it would be reflected in TFP, as a residual.

The GCC and Saudi Arabia in particular are set to see improving TFP growth rates as reforms bear fruit: The GCC as a region had persistent negative TFP growth over the past two decades. That said, the IMF in its recent study projects TFP improvement in the GCC over the medium term, as reforms start to bear fruit, including reforms to the business environment, labour market reforms and accelerated digitalisation (see IMF: Economic Prospects and Policy Challenges for the GCC Countries, 2021). In the region, in the next decade we see Saudi Arabia as the top reformer, and the argument above applies to it most strongly.

In Saudi Arabia, Vision 2030 and the associated reforms are set to improve TFP: While the scale of improvement is harder to grasp, directionally reforms planned as part of Vision 2030 *should boost TFP growth.* Saudi Arabia has already achieved tangible progress in reforms to labour market regulations and the business environment. The achievements include raising female labour market participation, introducing legislation that prohibits gender-based discrimination in employment and supporting private sector employment among nationals. More measures are in the pipeline to foster higher productivity growth and promote diversification. There is a strong commitment to improve ease of doing business, attract private and foreign investment and enhance SME development.

TFP in the three scenarios: In our model, in the bear case, with reforms stalling we assume no further improvement in TFP, with its growth also stalling at -1.7%Y, which is Saudi Arabia's average since Vision 2030 was announced. In terms of reform scenarios, we consider it best to choose the benchmark within the GCC region, given more similar economic and political systems. Note that Saudi Arabia set targets to improve significantly in the Global Competitiveness Index and Government Effectiveness Index as part of Vision 2030. We look at these and other rankings to assess how well advanced the countries are in terms of reforms, modern institutions and the busi-

Exhibit 273: The UAE is the regional top performer on global competitiveness rankings

	Ease of Doing Business Rank, 2020	Corruption Perception index, 2011	World Competitiveness Ranking, 2022
UAE	16	24	12
Saudi Arabia	62	52	24
Qatar	77	31	18
Bahrain	43	78	30
Oman	68	56	na
Kuwait	83	73	na

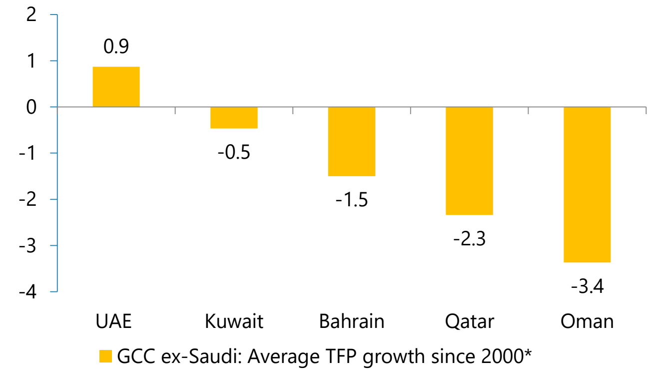
Source: doingbusiness.org, www.transparency.org, www.imd.org, Morgan Stanley Research

ness environment (Exhibit 273). In all three rankings, the UAE stands out as a top performer, while Saudi Arabia and Qatar compete for second place. When we look at TFP dynamics in the rest of the GCC, it has overall been quite volatile, so for the long-term scenarios we prefer to look at the longer-term averages. Since 2000, excluding the crisis years of 2008 and 2020, TFP growth varied between -3.4%Y and 0.9%Y in the GCC, with the UAE being the only country enjoying positive 0.9%Y TFP growth. Hence, in our bull case, with the high pace of reforms and investment efforts continuing in line with and often ahead of Vision 2030 targets, we assume Saudi Arabia's TFP growth at 1%Y, which is a touch above what has been achieved within the region. Our base case, with reforms ongoing, but at a more moderate speed, sees TFP growth at -0.35%Y, which is in between the two extremes.

Our results suggest that investment and ongoing reforms are key for boosting Saudi potential growth: As a starting point we estimate Saudi Arabia's current potential growth rate to be around 2%Y but based on our three reform scenarios we see it ranging from 1.5%Y in the bear case to 6.2%Y in the bull case. Our mid-point, the 'steady as she goes' scenario, points to potential growth reaching 3.7%Y in 2030. In all cases, fixed investment growth is by far the biggest contributor to potential growth, given high capital intensity of the Saudi economy.

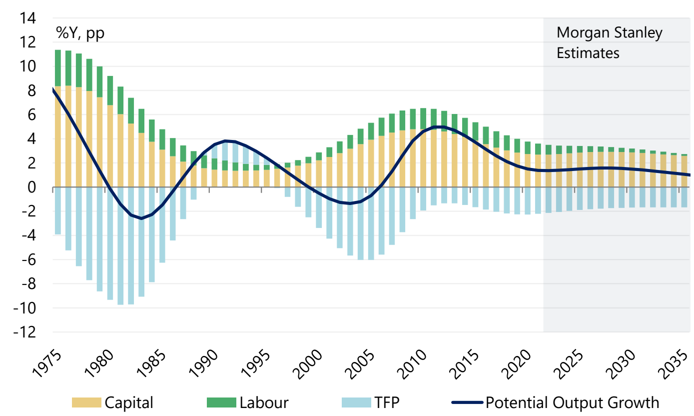
'Reforms stall': In our bear case, we find that potential growth is almost exclusively driven by fixed investment growth, with a slowly disappearing positive contribution from labour due to the lack of increase in the participation rate, despite the faster working age population growth. As mentioned above, we see potential growth at 1.5%Y by 2030, but the overall shape of the curve points to a further gradual deceleration.

Exhibit 274: TFP varied between -3.4%Y and 0.9%Y in the GCC over the past 20 years



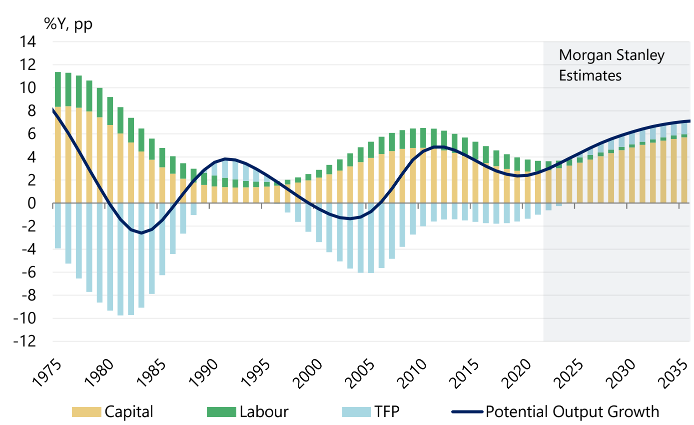
Source: www.conference-board.org, Morgan Stanley Research; *We exclude the year of global financial crisis (2008) and the year of the Covid pandemic (2020) from the calculation.

Exhibit 275: 'Reforms stall' scenario – potential growth at 1.5%Y by 2030



Source: Haver Analytics, Morgan Stanley Research forecasts

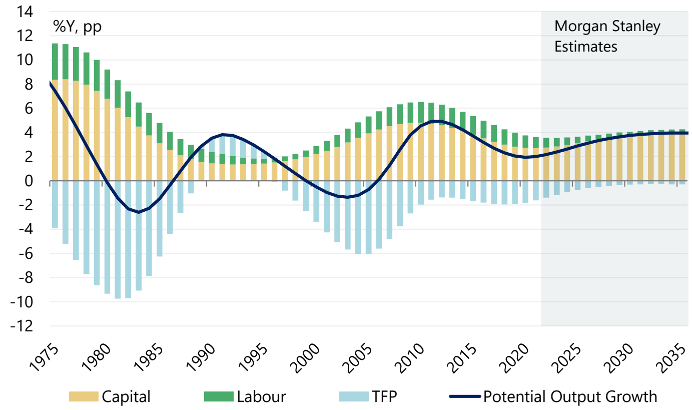
Exhibit 276: 'Fast forward' scenario – potential growth at 6.2%Y by 2030



Source: Haver Analytics, Morgan Stanley Research forecasts

'Fast forward': In our bull case, the contribution of capital increases over time due to the rapid pace of fixed investment growth, but is helped by labour, which contributes steadily and positively to potential growth due to the rising participation rate, which offsets the lower fertility rate and thus the slower working age population growth. Importantly, TFP becomes the second most important driver of potential growth given the more competitive economic environment and catch-up effects on the back of best practices transfers from across the globe. As a result, potential growth reaches 6.2%Y by 2030. This is a clear example that **economic and social reform efforts along with delivery on investment objectives should result in higher and less volatile potential growth** over the long term. The shape of the curve also suggests that potential growth could accelerate further beyond 2030 if the new investment and reform objectives are set.

Exhibit 277: 'Steady as she goes' scenario – potential growth at 3.7%Y in 2030



Source: Haver Analytics, Morgan Stanley Research forecasts

'Steady as she goes': In our mid-point and base case, potential growth settles around 3.7%Y by 2030. Capital contributes the most, as in the other two scenarios, with labour's gradually decreasing but still positive contribution offsetting TFP's negative contribution. We see this scenario as both ambitious and realistic, especially given our constructive view on oil. It shows that the current reform agenda and the National Investment Strategy make it possible to achieve potential growth above the commonly perceived level.

Our Saudi outlook for 2023-24 is quite constructive as we see above-consensus growth: This year major investment and construction along with an increase in oil prices and production resulted in a major acceleration in growth, up 10.2%Y in 1Q-3Q22 versus 3.2%Y in 2021, so we expect 9.8%Y growth in 2022 overall. Our constructive view on oil prices along with the expectation of ongoing investment and reforms brings our forecasts above consensus. We expect GDP growth at 4.8%Y in 2023 and 4.4%Y in 2024, mainly driven by investment and government construction, but also household demand. Looking at the external position, the current account is set to narrow from a record-high 16.5% of GDP this year to 12.4% of GDP by 2024, as investment-related imports are set to accelerate. Still, it would remain comfortably above the 5.5% of GDP 10-year average. Similarly, we see the fiscal balance in good shape at a 2.2% of GDP surplus in 2023 and 2.0% surplus in 2024, down somewhat from a 2.6% of GDP surplus in 2022, but in much better shape versus a 4.7% of GDP 10-year average deficit. In terms of the monetary and exchange rate policy, we see SAMA's SAR peg to USD intact with the bank following the Fed and tightening until early 2023.

Exhibit 278: Saudi Arabia macro forecasts

	2015	2016	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP (%YoY)	4.1	1.7	-0.7	2.5	0.3	-4.1	3.2	9.8	4.8	4.4
Non-oil GDP	3.2	0.2	1.3	-1.5	2.8	-2.5	4.9	6.4	4.6	4.5
Private consumption	6.8	0.9	3.2	2.4	4.5	-6.3	9.7	4.2	3.2	3.5
Gross fixed investment	3.7	-14.0	0.7	2.3	0.7	-11.7	10.1	34.3	14.3	11.5
Exports	0.7	8.0	-3.1	7.2	-5.0	-10.2	2.0	20.1	5.7	5.9
Imports	-1.2	-18.2	0.3	2.6	9.6	-19.8	3.3	21.2	15.9	14.1
Unemployment rate (%, eop)	5.7	5.8	5.9	6.0	5.6	7.7	6.7	5.7	5.5	5.4
Current account (% GDP)	-8.7	-3.7	1.5	8.8	4.8	-3.2	5.3	16.5	14.6	12.4
CPI (avg, %Y)	1.2	2.1	-0.8	2.5	-2.1	3.4	3.1	2.5	2.7	2.0
CPI (eop, %Y)	1.2	1.0	-1.1	1.9	-0.2	5.3	1.2	3.2	1.9	2.3
Key rate (eop, %)	2.00	2.00	2.00	3.00	2.25	1.00	1.00	5.00	5.00	3.00
Gov. budget balance (% GDP)	-15.8	-12.9	-9.2	-5.7	-4.4	-11.1	-2.3	2.6	2.2	2.0
Genl. government debt (% GDP)	5.8	13.1	17.2	18.3	22.5	32.4	30.0	23.6	20.7	18.0
USD/SAR (eop)	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Oil price, avg, US$/barrel	52	44	54	71	64	42	70	100	108	110

Source: Haver Analytics, Morgan Stanley Research forecasts

Exhibit 279: Lower oil price scenarios create downside risks to our macro projections

	2022F	2023F	2024F
Real GDP, %Y			
US$110/bbl	9.8	**4.8**	**4.4**
US$90/bbl		2.6	2.2
US$75/bbl		1.0	0.6
US$65/bbl		-0.1	-0.6
Gov. budget balance, % GDP			
US$110/bbl	2.6	**2.2**	**2.0**
US$90/bbl		0.9	0.7
US$75/bbl		0.0	-0.2
US$65/bbl		-0.7	-0.9
Current account, % GDP			
US$110/bbl	16.5	**14.6**	**12.4**
US$90/bbl		10.2	8.4
US$75/bbl		6.9	5.4
US$65/bbl		4.7	3.4

Source: Morgan Stanley Research forecasts; Note, Bold numbers reflect our base case.

What if oil prices surprise on the downside? As we discuss in detail, oil prices and production volumes have a major impact on export revenues, budget revenues, government spending and economic performance more broadly. Our view on oil prices stabilising at around US $110 is admittedly above the market consensus, the current oil price and the futures curve. In a less constructive scenario, lower oil prices inevitably create downside risks to our GDP projections. On our estimates, a US$10/barrel lower oil price reduces oil exports revenues by US$31 billion or 2.5% of GDP. The overall current account impact would be less, closer to 2-2.2pp of GDP per US$10/barrel change, given lower government spending, and growth would imply lower demand for consumer and investment imports. In terms of fiscal impact, a US$10/barrel lower oil price reduces oil budget revenues mechanically by SAR 85 billion or 1.8% of GDP. Again, the budget balance sensitivity would also be lower, and would depend a lot on the government response. We would expect the government to proactively adjust its spending commitments to keep the deficit more in check, similar to this year when expenditures overshot amid higher oil prices. On balance, with a US$10/barrel decline in average oil price, we would see GDP growth some 1.1pp lower. As a result, we would see 2023 GDP growth turning negative only if oil averages US$65/barrel or less. We believe with a high degree of probability that the current account would stay in surplus in all oil scenarios ranging between US$65-110/barrel and the fiscal balance would switch into deficit only if oil goes below US$75/barrel.

How should we think about Saudi potential growth-oil price dynamics? We intentionally leave the oil price assumptions outside the potential growth discussion. The government's ability to spend on Vision 2030 infrastructure projects would inevitably be affected by budget revenues, with oil revenues remaining the key driver in the foreseeable future. However, the share of public investment went down from its peak of 40% in 2012 to only 12% in 1Q-3Q22, while private investment now accounts for 88% of total investment in the economy. While oil prices should remain an important determinant for both public spending and private investor sentiment, the latter could be boosted by reforms and further government progress in improving the business environment, enhancing competition and transparency and building market institutions.

Saudi Arabia in a GEM Strategy Context

Daniel Blake, Jonathan Garner

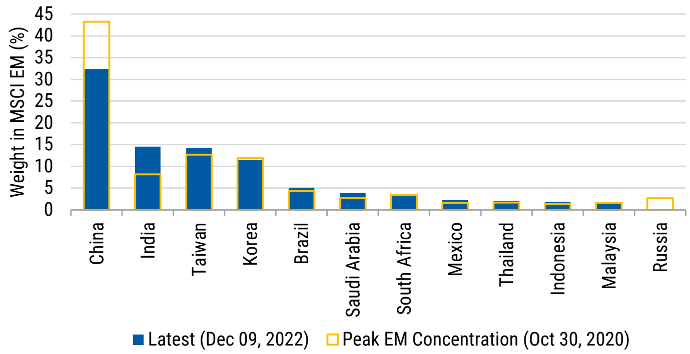
Saudi Arabia's Reform Program Makes it a Driver and Beneficiary of Emerging Markets Diversification Trends

New Camps in a Multipolar World for the EM Caravan: We continue to see the global economic order moving into a new multipolar arrangement, where the trajectory is away from a unipolar 'Washington consensus' and towards one where the US and China increasingly compete across multiple spheres, while Europe, Japan and the other large EMs such as India and Saudi Arabia vie for influence and economic opportunity. The Russia-Ukraine conflict has sharply increased the focus on energy supply chains and security, boosting Saudi Arabia's external revenue profile and helping to fund the modernization agenda laid out in this Blue Paper.

As the EM Caravan Moves On: Another outcome of the Multipolar World theme has been the increased diversification of the MSCI Emerging Markets equity index as well as active investment portfolios. We noted back in October 2020 that MSCI EM equities had become exceptionally concentrated by market and sector, with China's weight reaching a peak of 43% that same month, while correlation between MSCI China and MSCI EM had reached 0.90 – almost making it an equivalent risk exposure for investment portfolios. Since then, we have seen the Caravan Move On as EM equity investing gets reshaped across a broader array of opportunities and divergent trends, with India and Saudi Arabia gaining the most index weight over that period. And while China's market is in a recovery phase, we do not expect it to regain its valuation peaks over the medium-term, while investor research programs will remain more diversified.

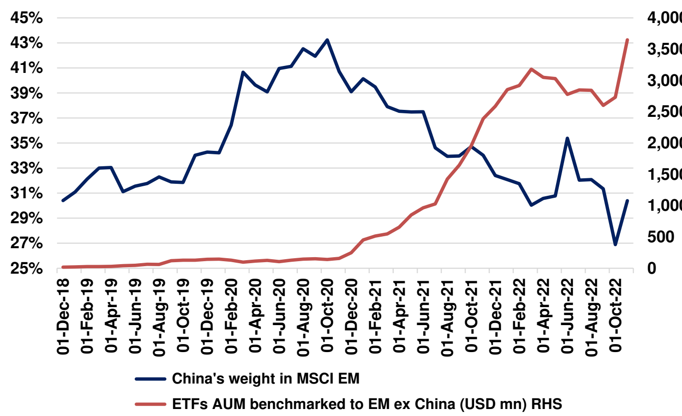
Saudi Arabia and India are Key Reform Stories, Deepening the Investment Opportunity Set: Across the larger markets in our MSCI EM coverage, we see Saudi Arabia and India as two of the most compelling market-oriented reform stories. Saudi Arabia has a clear vision to make sweeping changes in its economic structure over the decade. Deeper capital markets will be needed to enable this investment program and are themselves a development priority, creating a structural alignment with international investors. We see a similar dynamic in India, which has been building out digital, social and physical infrastructure rails to enable a new growth model (see The New India: Why This Is India's Decade).

Exhibit 280: MSCI EM index weight changes since October 2020 - more diversified benchmark, with India, Taiwan and Saudi Arabia gaining the most



Source: Factset, MSCI. Morgan Stanley Research; data as of Dec 9, 2022.

Exhibit 281: ETF AUM benchmarked to EM ex-China indices - grown by ~15x between end-2020 and November 2022



Source: ETF.Com, Bloomberg, RIMES, Morgan Stanley Research. Monthly data as of end-November 2022

Asia/EM Companies to Benefit from a Generational Buildout in Saudi Arabia: In this report our colleagues highlight the exposure of South Korean companies to Saudi Arabia's Vision 2030 program, but we see opportunities across a number of markets and sectors. In India, the leading engineering conglomerate, Larsen & Toubro is one of the four preferred vendors for Saudi Aramco and the share of international order book from Saudi Arabia has jumped from 32% in F21 to 63% in F22. Chinese companies reportedly signed almost US$30bn of initial agreements in a Saudi-Chinese Summit in early December. Investment in automation, smart manufacturing and renewable energy (wind, solar and hydrogen) are also likely to create opportunities for Japanese vendors.

Privatizations and the Future Equity Market

As part of the Vision 2030, the privatization program in Saudi Arabia '*aims to enhance the role of the private sector in providing services and making government assets available. This will improve the quality of services provided and contribute to the reduction of costs, also encouraging economic diversity and development, and boosting competitiveness to face regional and international competition. The Program also seeks to attract Foreign Direct Investment and improve the balance of payments*.'

Launched in late 2017, Saudi Arabia privatization program is planned to be developed in 16 sectors ranging from oil to healthcare, education, airports, sports and grain milling, with some estimates pointing to a potential raise of around $200 billion (excluding Aramco IPO in 2019) through the program. A bit more recently, in May 2021, Saudi Arabia Finance Minister indicated that the country hoped to raise about $55bn until 2025 as it planned to step up the pace of its privatisation program, with a split of $38bn through asset sales and $16.5bn through public-private partnerships. We estimate that since the program launch in late 2018 only $2bn have been already raised via government stake selling, and $32bn if we add the $30bn from Aramco IPO. However, we note a list of potential privatizations mentioned in the media (Exhibit 282). We note that the privatization programme does not include entities owned by the Public Investment Fund, the sovereign wealth fund, or further asset sales by Saudi Aramco, the state oil company. Including it, we estimate that an additional $7bn has been already raised via PIF selling since the start of the program.

Exhibit 282: Major privatizations in Saudi Arabia since late 2018 and potential future privatizations

Major privatisations in Saudi Arabia since late 2018					Deal	
Company name	**Sector**	**Seller**	**Privatisation method**	**Date**	**Size (USDbn)**	**Add'l info**
Past deals						
Rabigh 3 IWP	Utilities	Government/SWPC	PPP	Dec'18	0.7	25y contract
Shuqaiq-3 IWP	Utilities	Government/SWPC	PPP	Jan'19	0.6	25y contract
Saudi Aramco	Oil & Gas	Government	IPO	Dec'19	29.4	1.7% stake
Yanbu 4 IWP	Utilities	Government/SWPC	PPP	Feb'20	0.85	25y contract
Jubail 3A IWP	Utilities	Government/SWPC	PPP	Apr'20	0.65	25y contract
Flour Milling Companies	Food	Government/SAGO	Strategic Sale	Jul'20-Apr'21	1.5	100% stake
Schools Program, Wave 1	Education	Government/TBC	PPP	Sep'20	0.3	60 schools
Solutions by STC	IT	STC spin-off	IPO	Sep'21	1.0	20% stake
ACWA Power	Utilities	PIF	IPO	Oct'21	1.2	11% stake
STC	Telecom	PIF	SPO	Dec'21	3.2	6% stake
Saudi Tadawul Group	Exchanges	PIF	IPO	Dec'21	1.0	30% stake
Elm	IT	PIF	IPO	Jan'22	0.8	30% stake
Saudi Tadawul Group	Exchanges	PIF	SPO	Nov'22	0.6	10% stake
Marafiq	Utilities	PIF, RCJY, SAPCO, SABIC	IPO	Nov'22	0.9	29% stake
Potential*						
Saudi Aramco	Oil & Gas	Government/PIF	SPO		46-73	2.5-4% stake
Water Transmission and Technologies Co.	Utilities	Government/SWCC	IPO			
Matarat	Transport	Government				29 airports
Ras Al-Khair Integrated Desalination & Power Plant	Utilities	Government			~7.2	60% stake
Health facilities	Healthcare	Government				295 hospitals

*Sources of potential future privatization: for Saudi Aramco: Al JAzeera, Oil Price; for Water Transmission and Technologies Co.: argaam; for Matarat: Al Arabiya; for Ras Al-Khair Integrated Desalination & Power Plant: Al Arabiya; ; for health facilities: Al Arabiya; Source: Control Risks, Company data, Media reports and Morgan Stanley Research

Importantly, looking at PIF current holdings of public listed companies, at current prices, they totalled $208bn (Exhibit 283). There are different scenarios of which companies and how much PIF could divest from their public listed companies portfolio. Assuming what has been published in the press, in a hypothetical scenario of 1) reduction of participation in Aramco of 2.5% of company market cap (or even 4% as indicated in a recent article) and 2) decrease of STC ownership up to 50% of company market cap (from currently 64%), the sovereign wealth fund could raise c. 80bn, considering current prices. If, hypothetically, we also assume a reduction of ownership to 50% in companies that PIF has a participation higher than 50% would raise a total of $96bn.

Financial sector development program

The privatization program goes hand in hand with the Financial sector development program. It was launched in 2017 in order to '*enable financial institutions to support the growth of the private sector, develop an advanced capital market and to boost and enable financial planning*'. The program encourage the planned privatisation of SOEs through IPOs in the Saudi Stock Exchange and aims to diversify funding sources for the government and for the private sector. It also target to improve the market liquidity of both equity and debt capital markets.

In the first stage of the program, an important step was Saudi Arabia inclusion to MSCI and FTSE equity indices, which enabled significant foreign equity inflows. Currently, Saudi Arabia has a weight of 4.3% in MSCI Emerging Markets and 4.8% in FTSE all-Emerging Markets indices. Taking into account some targets for 2030 for the equity market, we try to assess how it compares in a global context and what's the potential impact to Saudi equity market size in the long-term. There are several targets for 2030 (some including mid point targets to 2025) and indicators related to this program, including: 1) total market cap (ex-Aramco) of the stock market to reach 88% as % of GDP, which compares to 70% currently, 2) to become one of the top-3 equity markets globally, 3) increase foreign ownership to 44% of the market cap free float, and more. Further, there were indications of a target of 24 to 26 new equity listings per year until 2025.

The number of IPOs in Saudi Arabia this year (23) and the strong pipeline for the next months have been outstanding in a global context. More recently, the CEO of the Tadawul exchange mentioned that there are no indications that this trend will slow down next year. Indeed, he also mentioned that there are 18 approvals that should materialize in the next three months and more than 70 listing applications were being reviewed by the bourse and the market regulator at that moment. In addition, there have been indications of potential IPO plans for some giga-projects such as NEOM and Red Sea Project and mega-projects such as Masar in the coming years, which would add significant further upside to Saudi financial market growth.

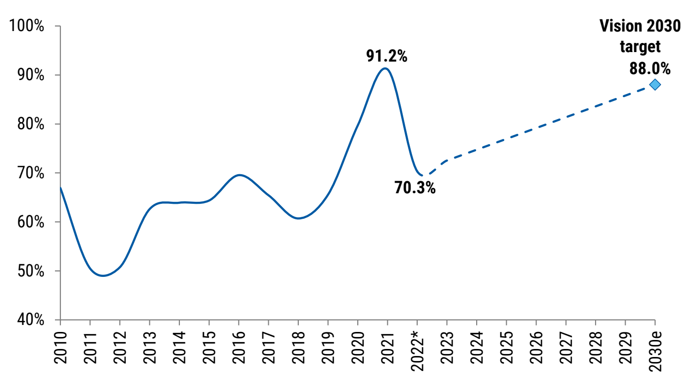
Exhibit 283: PIF Saudi holdings: in a hypothetical scenario of reduction in stakes in Aramco and STC, and assuming reduction of ownership to 50% in companies that PIF has a participation higher than 50%, PIF could raise almost USD100bn from divesting part of its portfolio of public listed companies

#	Ticker	Name	Sector	Market Cap (USDbn)	Holdings (USDbn)	Holdings as % of Mkt Cap
1	ARAMCO AB	Saudi Aramco	Energy	1,837.2	73.5	4.0%
2	SNB AB	SNB	Financials	55.9	20.8	37.2%
3	STC AB	STC	Telecom	48.6	31.1	64.0%
4	MAADEN AB	Ma'aden	Materials	44.9	30.2	67.2%
5	SECO AB	Saudi Electricity Co	Utilities	26.0	19.6	75.1%
6	ACWA AB	ACWA Power	Utilities	25.7	11.4	44.2%
7	RIBL AB	Riyad Bank	Financials	24.5	5.3	21.8%
8	ALINMA AB	Alinma	Financials	16.7	1.7	10.0%
9	ALMARAI AB	Almarai	C. Staples	14.0	2.3	16.3%
10	KINGDOM AB	Kingdom Holding	Financials	7.5	1.3	16.9%
11	ELM AB	Elm	IT	7.0	4.7	67.0%
12	TADAWULG AB	Saudi Tadawul Group	Financials	4.8	2.9	60.0%
13	NSCSA AB	Bahri	Energy	3.5	0.8	22.6%
14	ARABIAND AB	Arabian Drilling	Energy	2.5	0.9	35.7%
15	EMAAR AB	Emaar The Economic City	Real Estate	2.5	0.6	25.0%
16	SOCCO AB	Southern Province Cement	Materials	1.8	0.7	37.4%
17	QACCO AB	Qassim Cement	Materials	1.4	0.3	23.4%
18	YNCCO AB	Yanbu Cement	Materials	1.4	0.1	10.0%
19	SRECO AB	Saudi Real Estate Co.	Real Estate	1.1	0.7	64.6%
20	NGIC AB	GASCO	Utilities	1.0	0.1	10.9%
21	EACCO AB	Eastern Province Cement	Materials	0.9	0.1	10.0%
22	SCERCO AB	Saudi Ceramic	Industrials	0.6	0.0	5.4%
23	NADEC AB	Nadec	C. Staples	0.6	0.2	32.5%
24	SAPTCO AB	SAPTCO	Industrials	0.5	0.1	15.7%
25	DUR AB	Dur Hospitality	C. Discret.	0.5	0.1	16.6%
26	SFICO AB	Saudi Fisheries Co.	C. Staples	0.3	0.1	40.0%
	Total				**210**	
	Hypothetical proceeds from					
	Reducing stakes in STC to 50% and ARAMCO to 1.5%				**53**	
+	Selling the remaining 1.5% ARAMCO stake				**80**	
+	Reducing 50%+ stakes to 50%				**96**	

Priced as of 9 December 2022; Source: Company data, Eikon and Morgan Stanley Research

Exhibit 284: The Saudi Vision 2030 targets its stock market capitalisation (ex-Aramco) to reach 88% as % of GDP by 2030, from the current 70% ...

S. Arabia: Market Capitalisation ex-Aramco as % GDP

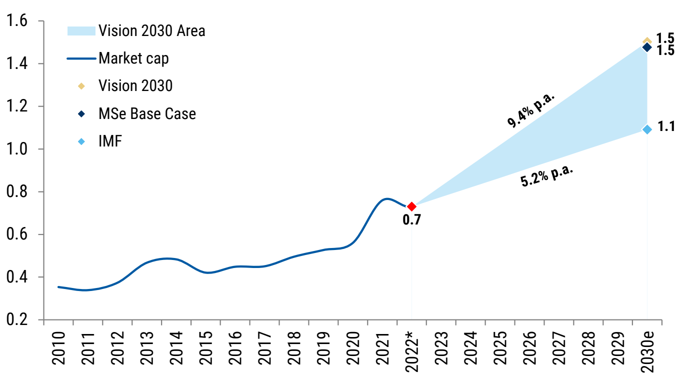


*Market capitalisation of Saudi's main market as of 9 December 2022 divided by IMF estimate of 2022 nominal GDP; e=Vision 2030 target; Source: IMF, Haver Analytics, Eikon and Morgan Stanley Research

Saudi Arabia Market Cap would double on Vision 2030 target. If the total market cap (ex-Aramco) of the stock market reaches 88% of GDP by 2030, we can back out a range of potential total market cap sizes using different GDP assumptions. Vision 2030 aims a +6.8% nominal GDP CAGR until 2030; in this case, the total market cap would double to USD1.5tr by 2030, which implies a +9.4% p.a.. In our economists' base case, which considers a 6.5% nominal GDP CAGR, the total market cap would be just under USD1.5tr by 2030, or +9.2% p.a.. In a more conservative approach, using IMF estimates until 2027 and applying the same nominal growth rate until 2030, the total market cap for Saudi Arabia would reach USD1.1tr by 2030, or +5.2% p.a..

Exhibit 285:... this would imply the Saudi market more than doubling in nominal terms

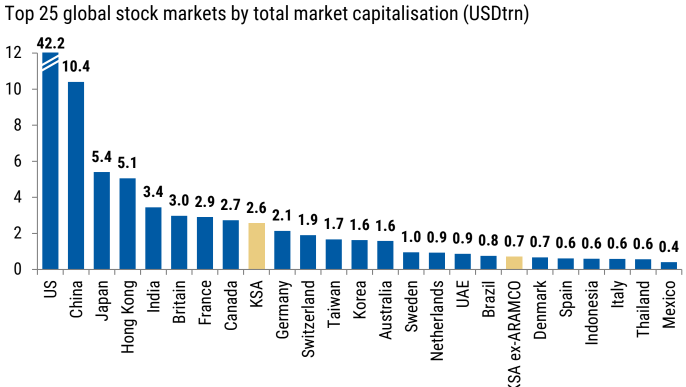
S. Arabia: Market Cap ex-Aramco and scenarios based on GDP assumptions (USDtrn)



*Market capitalisation of Saudi's main market as of 9 December 2022; e=Estimates based on 1) Vision 2030 nominal GDP target; 2) IMF nominal GDP forecast for 2027 which is then extrapolated to 2030 at the 2026/27 growth rate; 3) MSe Base 2030 nominal GDP forecast; Source: IMF, Haver Analytics, and Morgan Stanley Research estimates

Exhibit 286: Currently, Saudi Arabia's stock market holds #10 globally in terms of total market capitalisation and #19 ex-Aramco

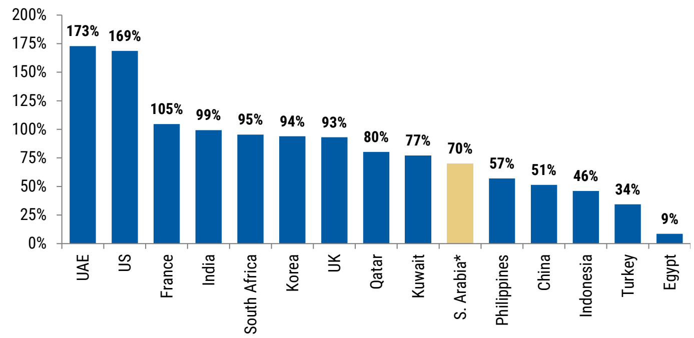
Top 25 global stock markets by total market capitalisation (USDtrn)



Source: Bloomberg, Eikon and Morgan Stanley Research

Exhibit 287: Comparing S. Arabia's market capitalisation as % GDP, Vision 2030 target of 88% would be comparable to countries such as UK or Korea

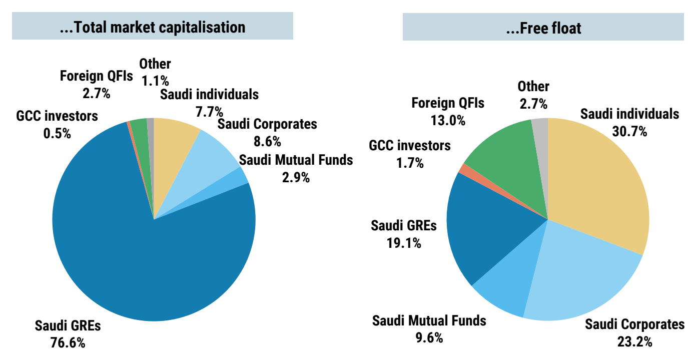
S. Arabia & select global equity markets: market capitalisation as % GDP



*ex-Aramco; Source: Bloomberg, Eikon, IMF and Morgan Stanley Research

Exhibit 288: Foreign ownership target for 2030 is 44%, meaning that the government expect a meaningful increase in international participation, if we compare to current level...

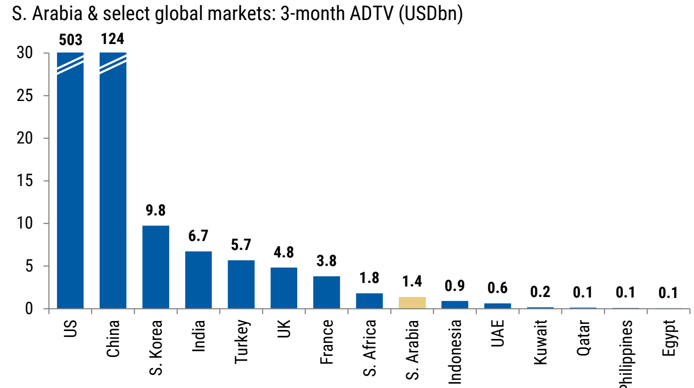
S. Arabia: main market ownership breakdown as % of...



Source: Data as of 1st December 2022; Source: Saudi Exchange and Morgan Stanley Research

Exhibit 289:...which should help liquidity to improve to levels compared to other major global markets

S. Arabia & select global markets: 3-month ADTV (USDbn)



China is the sum of Shanghai, Shenzhen and Hong Kong stock exchanges; Data as of end-Nov'22; Source: WEF, Haver Analytics, Bloomberg and Morgan Stanley Research

Privatization Program and Regulatory Framework

On Vision 2030, it is recognized that to achieving the Privatization Program's ambitions, it requires three key strategic pillars, which are establishing the legal/regulatory basis, establishing the institutional basis and steering the sector privatization program.

On the regulatory framework, the first pillar, different reports mention critical points for a privatization program to succeed including (but not exhaustive) clear regulations, identifying development areas that are compatible with the role of the future government as regulator and the role of the private sector as an operator, a high level of transparency and accountability, and others. From conversations with industry experts, we think it is important to put into place a series of cross-sector regulations applicable to all industries, including: antitrust, health and safety, environmental protection, and intellectual property rights.

Exhibit **290:** Saudi Privatization Programme is built on three pillars: establishing legal/regulatory basis. establishing the institutional basis and steering the sector privatization programmes

Source: Saudi Vision 2030 Realization Program: Privatization Program

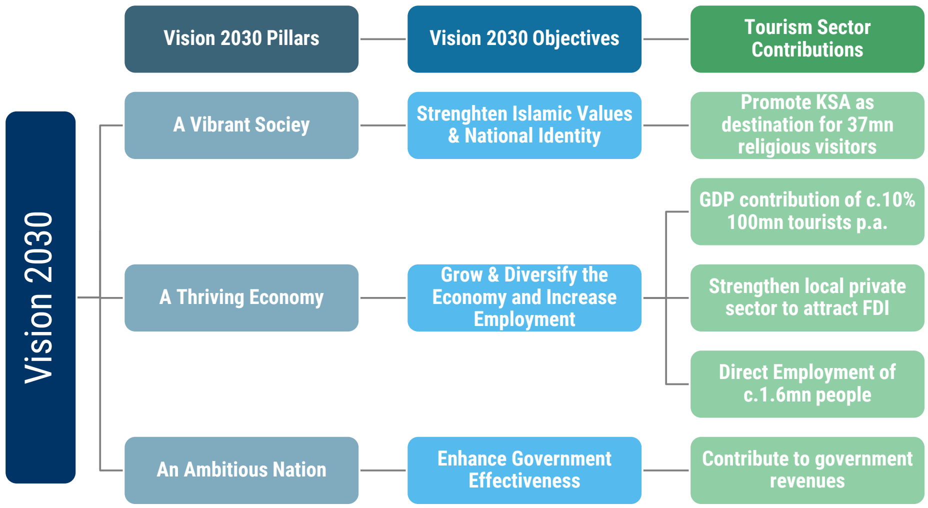
According to an international law firm (Linklaters), in July 2021, a new Private Sector Participation (PSP) law came into force which provided a comprehensive framework for the regulation of arrangements between the Government and private sector entities in relation to the provision of infrastructure and other public services projects. In January 2022, the National Center for Privatization (NCP) and PPP approved rules which govern how these agreements are reached. For examples, the Private Sector Participation (PSP) Law Implementing Regulations will require to have real competition in tendering processes and guarantee the public interest is protected. In addition, the new laws provide a plan to assure any conflict of interest is avoided. While we are not legal experts, the recent news indicates that changes have been made to engage international investors and to increase the private sector contribution to Saudi Arabia's GDP.

Tourism: Landing Onto the Global Stage

Tourism is a key pillar of the Kingdom's Vision 2030 plans to diversify its economy away from oil. As part of the Vision 2030, the tourism sector's direct contribution to GDP is targeted to increase to 10% by 2030 from roughly 2-3% in recent years, thus becoming one of the biggest industries after energy. We note that this year Saudi officials have guided for an even higher target of 15%. The sector is expected to create 1mn job opportunities over the period of 2019-2030 to a level of 1.6mn in direct employment, up from c.0.8mn in 2022. The government aims to attract FDI to develop its tourism sector and in November 2022 the Ministry of Tourism indicated that the country is offering USD 6trn worth of investment opportunities through 2030. **The World Travel & Tourism Council (WTTC) expects Saudi's travel & tourism sector will grow 11% annually on average over the next decade**, making it the fastest growing tourism market in the Middle East.

Aiming to become a top-5 global travel destination by 2030. The Saudi government aims to receive 100mn visitors annually by 2030, of which 55% are expected to be international and 45% domestic. To put Saudi Arabia into global context, Italy held the top-5 position in 2019 with 65mn foreign visitors. Historically, the majority of Saudi's foreign tourists visit the Kingdom for religious purposes, accounting for 61% in 2018, while only 16% visited for business purposes and 6% for leisure purposes (see Exhibit 294), though this was pre-major social reforms and leisure activity ramp-up post-COVID. According to Knight Frank, Saudi Arabia will see the completion of 310k hotel rooms, with giga-projects accounting for around 73% of the rooms. Saudi Arabia is also planning to create one of the world's biggest airports. The King Salman International Airport, to be built in Riyadh, is expected to have 120mn passengers per year by 2030, before a further planned increase to its capacity by more than 50% to 185mn by 2050.

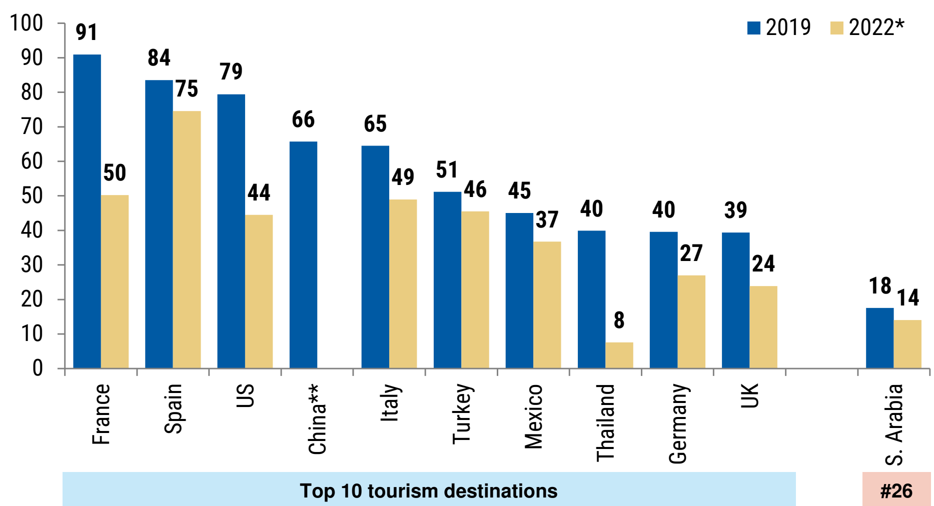
Exhibit 291: The National Tourism Strategy's role in supporting Vision 2030 reforms



Source: Saudi Vision 2030, Saudi Ministry of Tourism and Morgan Stanley Research

Exhibit 292: S. Arabia aims to become a top-5 tourism destination by 2030 - this would mean surpassing Italy which welcomed 65mn international tourists in 2019

Top-10 tourism destinations and S. Arabia: International overnight visits (mn)



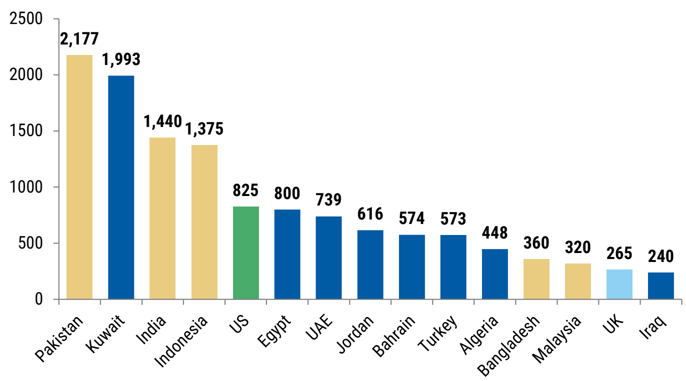
*Annualised figure; **No data available for China in 2022; Note: Ranking is as of 2019; Source: UNWTO and Morgan Stanley Research

Expanding entertainment offerings. Since 2019 when Saudi Arabia launched the tourist e-visa system, the Kingdom has hosted a number of prominent events including the **Formula 1 Grand Prix** and the Red Sea International Film Festival. **The Saudi Seasons initiative was launched for the first time in 2019, introducing 11 annual tourist seasons spread across most the Kingdom** (see Exhibit 302). Since the 35-year ban on movie screening was lifted in 2018, over 50 cinemas have been opened across Saudi Arabia. Sports activities are also in the Vision 2030 focus. **The Kingdom has bid for the 2026 Women's Asian Cup and 2027 Asian Cup.** Saudi Arabia is likely to host the latter since India has recently withdrawn its bid leaving Saudi Arabia the only country in the running. **The Kingdom has also won the bid to host the 2029 Asian Winter Games in 2029, which will be held in Trojena, NEOM.**

Shifting domestic spending towards leisure. With social reforms momentum picking up and new entertainment activities, we are seeing domestic tourists shifting their spending towards leisure (see sections on Expats and Women which cover wallet shifts on the back of social reforms). While this represents a partial wallet shift away from traditional retail listed on the local equities market, it also means that more money is spent at home rather than abroad according to our conversations with locals.

Exhibit 293: Pre-Covid, S. Arabia's top source markets of international visitors were countries from Asia and GCC/Middle East ...

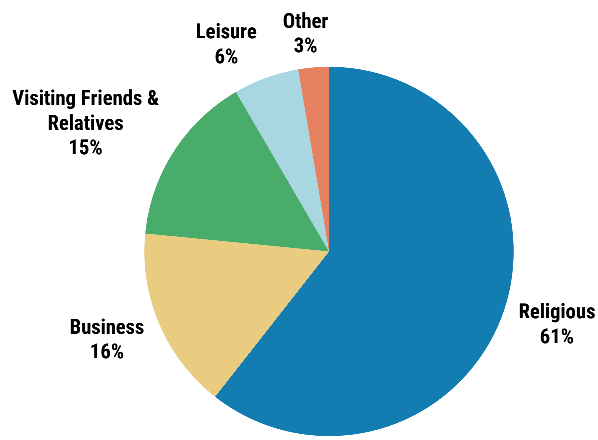
S. Arabia: Top-15 source markets in 2018 ('000)



Source: UNWTO and Morgan Stanley Research

Exhibit 294: ... primary for religious tourism (61% in 2018) - though this was pre-major social reforms & ramped up tourism investment

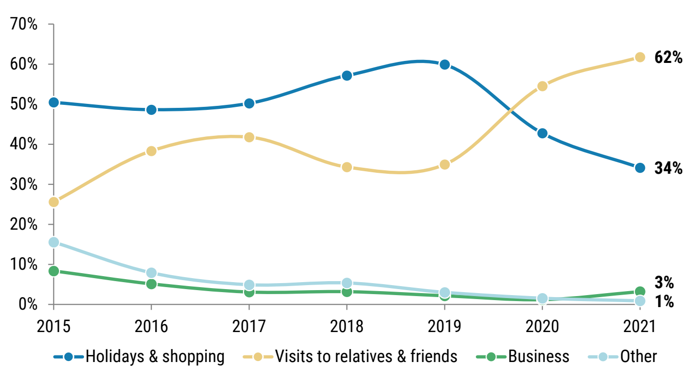
S. Arabia: Split of international arrivals by purpose in 2018 (%)



Source: Saudi Ministry of Tourism and Morgan Stanley Research

Exhibit 295: Post-Covid, Saudi's outbound tourism expenditure on leisure has decreased ...

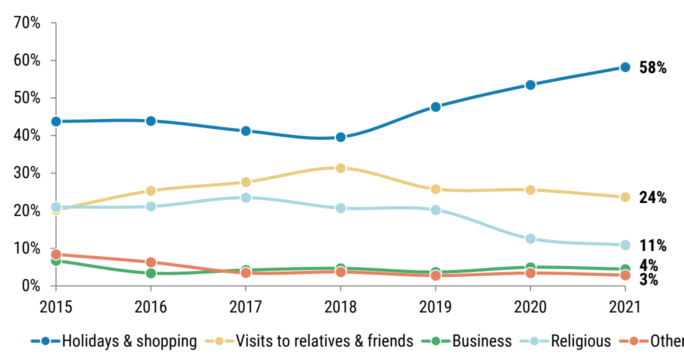
S. Arabia: outbound tourist expenditure by purpose



Source: SAMA and Morgan Stanley Research

Exhibit 296: ... while domestic tourism expenditure on leisure has risen on the back of new entertainment activities in the Kingdom

S. Arabia: domestic tourist expenditure by purpose

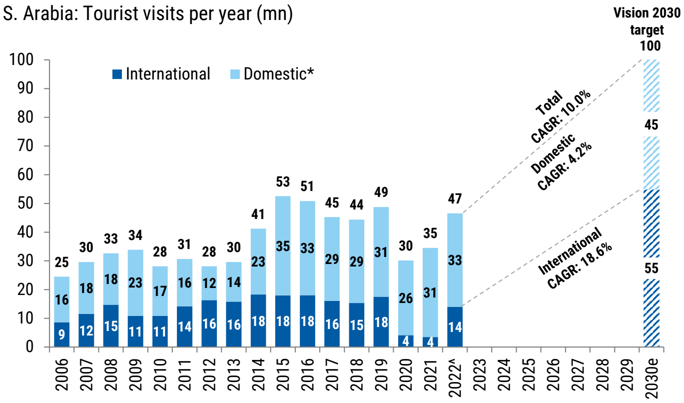


Source: SAMA and Morgan Stanley Research

Vision 2030 Targets for Tourism

Exhibit 297: The number of annual tourist visits will have to grow 10% p.a. to achieve the Kingdom's 100mn target by 2030

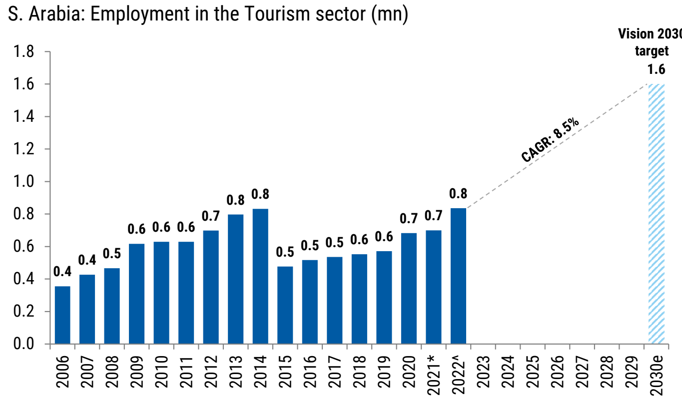
S. Arabia: Tourist visits per year (mn)



*Domestic visits relate to hotel guests and does not include overnight stays in other types of accommodations; ^for 2022 international visits we are using an annualised number of 9M22 and for domestic visits we are using Saudi Tourism Authority's 2022 target; e=Saudi Vision 2030 target; Source: UNWTO, Saudi Ministry of Tourism, Saudi Vision 2030 and Morgan Stanley Research

Exhibit 298: Direct employment in tourism is targeted to grow 8.5% p.a. from current levels over the next 8 years

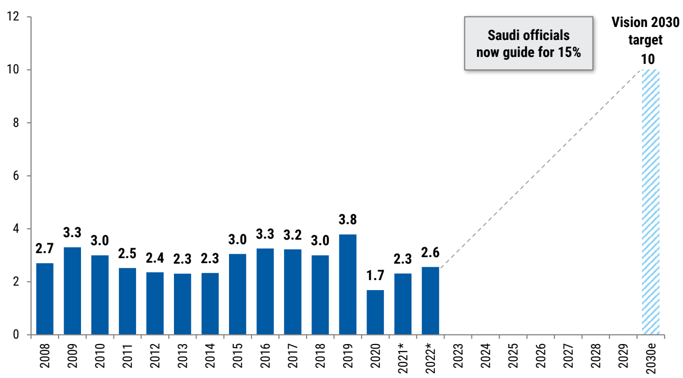
S. Arabia: Employment in the Tourism sector (mn)



*for 2021, we are using Saudi Tourism Minister's estimate; ^for 2022, we are using an Saudi Tourism Authority's 2022 target; e=Saudi Vision 2030 target; Source: UNWTO, Saudi Vision 2030 and Morgan Stanley Research

Exhibit 299: Tourism is targeted to become one of the largest contributing sectors to Saud's GDP by 2030...

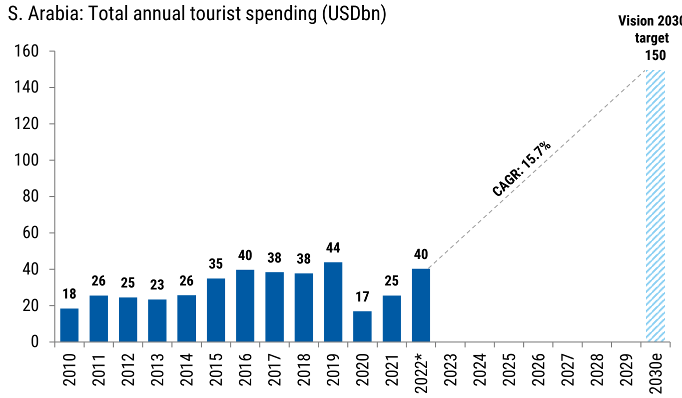
S. Arabia: Direct tourism contribution to GDP (%)



*2021 and 2022 values are based on WTTC's data of total (direct & indirect) tourism contribution to GDP where we assume direct contribution has the same share as the average of 2017-2019; e=Saudi Vision 2030 target, where 10% is the official target and 15% is what Saudi officials have guided for during 2022; Source: WTTC, UNWTO, GASTAT, Saudi Vision 2030 and Morgan Stanley Research

Exhibit 300: ... on the back of significant targeted growth in tourist spending

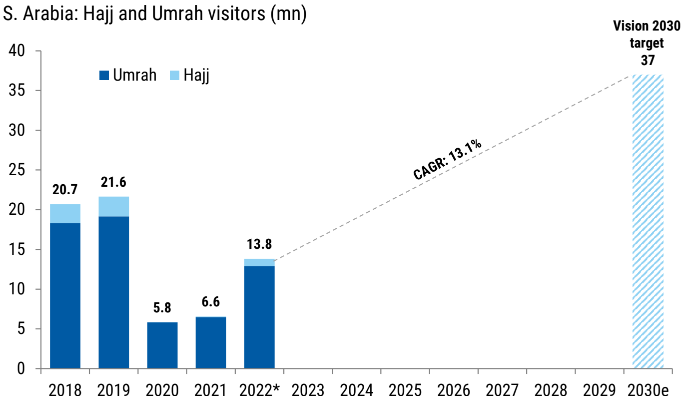
S. Arabia: Total annual tourist spending (USDbn)



*For 2022 we assume the same average spending per tourist as per 2017-2019 and multiply it by the number of tourists in 2022; e=Saudi Vision 2030 target; Source: SAMA, Oxford Economics, Saudi Vision 2030 and Morgan Stanley Research

Exhibit 301: Pre-Covid, the number of religious pilgrims in S. Arabia was around 20mn per year, which is expected to rise to 37mn by 2030

S. Arabia: Hajj and Umrah visitors (mn)



*YTD values as of 7th December; e=Saudi Vision 2030 target; Source: GASTAT, Saudi Vision 2030 and Morgan Stanley Research

Saudi Seasons Initiative - Extensive Leisure Events in the Kingdom

Soon after major social reforms were introduced, the Saudi Seasons initiative was launched for the first time in 2019, introducing 11 annual tourist seasons spread across most the Kingdom. Riyadh and Jeddah Season are the biggest seasons lasting the longest and with the largest number of events. However, the nine other seasons also offer growth in leisure activities across the year, from Taif's rose festival to the history and architecture of Medina.

Exhibit 302: Saudi Arabia now has '11 Seasons' - Cultural and Entertainment Events Across Major Cities

Saudi Seasons		
Season	**Timeline**	**Description**
Riyadh season	5+ month long season starting from October	It is a state-sponsored annual entertainment and sports festival, part of the larger Saudi Seasons initiative held since 2019 from October to March during winter in Riyadh, Saudi Arabia.First unveiled by the General Entertainment Authority in accordance with the Saudi Vision 2030 in October 2019, the festival brought unprecedented sports and entertainment themes in Riyadh.According to the chairman of the General Entertainment Authority, the government generated 6 billion Saudi Riyals in revenues from the first edition of the festival in 2019.
Jeddah season	2+ month long season starting from May	Jeddah Season includes interactive experiences, entertainment offerings for gamers, Arab plays, international plays, marine experiences and events, as well as international exhibitions, an interactive waterfall, and over 90 stores and restaurants.The season creates a numerous opportunities and partnerships for the private sector, as well as a wide range of employment opportunities for young Saudi men and women working at the event zones. During the season, more than 80% of all workers are Saudi, whether they are employed in stores, restaurants, cafes, markets, or other organizational and logistical services.
AlUla season	3-month long season	AlUla is a rocky desert town located in Tabuk in the northwestern province of Saudi Arabia. The AlUla Season is a 3-month long season with events taking place every weekend from December through to February. Hosting international music and dance shows, as well as show-stopping drone, shows AlUla Season is set to attract big crowds and lots of international visitors. Additionally, AlUla is known for its luxury tent hotels, high-end restaurants and magnificent hot air balloon displays.
Diriyah season	Begins in November and ends in December	Diriyah Season has a strong focus on sporting and entertainment events. Most of the events are hosted in two areas of Diriyah, these are Diriyah Oasis and Al Bujaira.Including Grand Prix events, Formula E, Boxing, Showjumping, Family Entertainment zones and much more, Diriyah season is targeted at attracting an international audience as well as appealing to locals. Diriyah is the original capital of the first Saudi State still preserved today and known as Al Turaif. Located a few kilometres West of Riyadh on the banks of the Wadi Hanifah, it has been designated a UNESCO World Heritage Site.
Taif season	Runs for 30 days in August	Known as the city of roses, Taif is based in the western province of Saudi Arabia. This Season boasts over 100 fun and exciting events targeted at locals and ex-pats.Taif season showcased what Saudi Arabia had to offer in cultural authenticity and artistic heritage. With events such as the camel festival and the rose village, there was a real focus on culture and creating an authentic Arad ambience.
Eastern province season	2 weeks at the end of March	This Season is predominantly targeted at locals, however, does also attract international visitors as well. With a number of exciting events in multiple cities across the Eastern Province, this season offers a variety of cultural and entertainment-based events. With a focus on sporting events, cultural showcases and Multimedia and immersive exhibitions the Eastern Province Season showcases the very best Saudi Arabia culture has to offer.
National Day Season	Runs for 9 days in September	Saudi Arabia celebrates its National Day which falls on Sep 23 with events lasting for a couple of days. Regions of the Kingdom prepare for the grand national celebrations, mainly the aerial and marine shows that are carried out by military and civil sectors of fighters, helicopters, civil airplanes, ships and boats in one of the biggest aerial and marine shows implemented on national days.
Almadinah Almonawarah season	NA	Almadinah is the second most important city to the Muslim world after Mecca. Madinah is the site of the mosque of the Prophet Mohammed bin Abdullah, peace be upon him, as well as his grave and the graves of his family and companions who spread the message of Islam. Madinah is considered an oasis of serenity and peace, and offers a unique opportunity for worshiping, visiting religious monuments, relaxation and comfort, as well as visiting many places associated with the biography of the Prophet Muhammed, peace be upon him, and sites of Islamic history. The city is also rich in diverse cultural heritage and many archaeological and historical sites.
Hail season	4 day long	Hail represents the nobility of the past and the outlook to the future. During Hail Season which is a regional festival, a variety of cultural, sports, entertainment and tourism activities are exhibited to the world. One of the large events that were created for Hail Season was a four-day mountain bike race tournament.
Ramadan season	Runs for a month	Ramadan Season aimed to achieve cultural, entertainment, sporting and religious goals. The season was created to showcase the virtues of the holy month. However, like so many other seasons, it aimed to bring in exciting sporting and entertainment events. Hosting basketball, volleyball and football events. As well as 3D shows and electronic gaming competitions.
Eid AlFitr season	3days post Ramadan	Eid Al-Fitr marks the end of Ramadan. Translated, Eid Al-Fitr season literally means "festival of breaking the fast" and is celebrated once Ramadan has come to an end. The Eid Al-Fitr season is focused around culture and religion, giving others a real insight into the importance of Eid Al-Fitr and the significance it has in Islamic culture in Saudi Arabia and across the world.

Source: Saudi Seasons and Morgan Stanley Research

Exhibit 303: Riyadh Season is the Largest Season and Anticipated to be larger than Ever this Year

Riyadh Season 2022/2023	
Festivity Zones	**Description**
Winter Wonderland	The largest skating rink in the region and five new games. The area contains over 80 games and experiences for all ages, in addition to a number of different entertainment options.
Boulevard World	It will highlight the cultures of different countries. It also features the largest artificial lake in the world.The zone will offer restaurants, markets and arts, in addition to options for diving underwater and flying over Riyadh via cable car which will transfer guests from Boulevard World to Boulevard Riyadh City with a capacity of 3,000 visitors per hour.
Boulevard Riyadh City	The zone has seen a 30% increase in size since the last Riyadh Season, allowing guests to experience unique multicultural shopping, dining and entertainment experiences from across the globe.
Fan Festival	It will feature eight large screens to display the World Cup matches, with a capacity of 20,000 spectators per match.
Souq Al-Zel	The oldest heritage market to enjoy musical performances and folk dances
Riyadh Zoo	Founded in 1987 features more than 1300 animals from 190 species in 6 sub zones, each with its special experiences.
Suwaidi Park	The zone will be hosting lots of outdoor experiences for guests to enjoy.
The Groves	A combination of ambience, entertainment shows, and global dishes including a space dedicated to the World Cup fans.
Riyadh Front	Feature a variety of exhibitions that will target multiple audiences. Each exhibition will have a theme and visitors can expect exhibitions ranging from gaming, fashion, technology, and much more.
Via Riyadh	A Salmani-style designed area, in a harmony with the Riyadh's local culture. It has one of the most popular five-star hotels, The St. Regis Riyadh, as well as seven luxurious cinema halls and several restaurants, cafes, and boutiques for the first time in KSA.
Al Murabba	A historic zone with the most famous and luxurious restaurants, cafes, and stores from around the world.
Riyadh Sky	This event will allow guests to view sections of Riyadh from a birdseye view, featuring multiple different skyscrapers. There will also be luxury restaurants, cinemas and international brands.
Qariat Zaman	Combining traditional Saudi Arabian heritage with modern-day lifestyle.
Riyadh Imagination Park	Riyadh Imagination Park will be a lively and exciting destination for all gaming and entertainment fans. With all kinds of different gaming experiences including several game experiences inspired by some of TV's biggest programmes over the last couple of years that guests can take part in. Not to mention, well as lots of adrenalin-filled activities, live shows and car shows showing the latest and rarest in the car industry.
Little Riyadh	Little Riyadh would offer an exclusive experience in a convenient location with a neighborhood. Little Riyadh would offer F&B offerings and seasonal activities.

+4 mn visitors so far
8,500+ Activities
15 Festive Zones
Daily Fireworks
150 Music Concerts
8 International Shows
17 Arabic Language Plays
108 Interactive Experiences
252 Restaurants
5-Months Long

Source: Riyadh Season and Morgan Stanley Research

Exhibit 304: Jeddah Season Was More Popular than Ever This Year

Jeddah Season 2022: Timeline of Select Events	
Date	**Festivity Zones**
02 May - 28 May	Fuzion by Cirque du Soleil (theatrical shows and acrobatic performances)
02 May - 30 Jun	Jeddah Art Promenade (beachfront avenue featuring carnivals, live performances, restaurants, cafés)
08 May - 07 Jul	The Marina (Restaurants and cafes with a sea view, plus global and local stores)
08 May - 30 Jun	Jeddah Yacht Club (first commercial marina to combine sea activities & luxury spots like theatres, and cinemas)
10 May - 24 Jun	Jeddah Jungle (A unique experience with 1,000+ animals, rare birds, interactive experiences, Jungle Trek, Safari Game Drive experience)
11 May - 14 Jun	Prince Majed Park (largest park in Jeddah & one of the free zones in Jeddah Season)
12-May	Kadim AlSahir concert
15 May - 30 Jun	City Walk (entertainment zone with experiences, various activities, and flavourful cafes)
17 May - 30 Jun	Jeddah Superdome (The largest column-free dome in the world presenting the concerts & international fairs)

6mn visitors
2,800+ Events
60+ Entertainment Games
20 Arabic Concerts
4 International Concerts
4 International Exhibitions
60 days

Source: Jeddah Season and Morgan Stanley Research

ESG-Labeled Debt Market Opportunities

Carolyn Campbell, Pascal Bode

Increased potential for green financing: The inherent funding needs from Vision 2030 and the focus on clean energy sources create an opportunity for increased green and transition-labeled supply from the region. We highlight the Public Investment Fund's (PIF) placement of a three-tranche, US$3 billion total green bond in October as one example of the emerging green debt in the region. The issuance included a 100-year bond (US$500 million), and funds will be used to finance, in part, Saudi Arabia's transition to net zero by 2060. As the region embraces decarbonisation and moves away gradually from fossil fuels, the opportunity set for green and transition-labeled supply should increase. However, whether that translates into favourable pricing remains to be seen.

Green issuance out of the Middle East may benefit from the scarcity principle... Our research has found that the 'greenium' (the difference in yield between green and vanilla debt from the same issuer with similar specs) is highly variable across issuer and slight on average: just 0.5bp. Historically, the greenium has been attributed to relative scarcity, with demand for green assets outpacing supply. As developed market supply caught up to demand, that premium has converged back towards zero in many instances. The concentration of the labeled bond market still skews heavily DM, and so investors who are searching for increased diversification in their labeled bond holdings may demonstrate outsized demand for green bonds from the Middle East in order to tap into that regional diversity.

...but social and governance considerations are likely to deter a subset of ESG investors: A recurring tension for investors is balancing the impact of a green bond's use of proceeds against the broader ESG profile and performance of the issuer (we discuss the trade-offs in Pakistan in our note here). As with Pakistan, we believe that any quasi-sovereign issuance from Saudi Arabia should be seen as an extension of the sovereign, and any assessment of the actual environmental impact of the bond should include the ESG context of the sovereign itself – including, where applicable, social and governance factors.

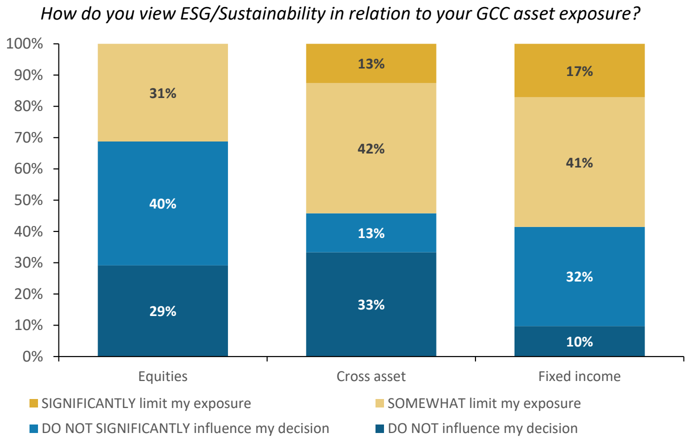
Saudi Arabia lags behind its A rated EM sovereign peer group on key governance metrics, per the World Bank. The European Sustainable Finance Disclosure Regulation (SFDR) lists corruption, political stability and rule of law as applicable criteria in assessing the potential adverse impact of sovereign investment. Furthermore, governance concerns could deter ESG investors who would be unsure of the quality of proceed allocation reports regarding green spending.

Exhibit 305: Saudi Arabia lags its A rated EM sovereign peer group on key governance metrics, per World Bank data

	World Bank Governance Indicators					
	Control of Corruption	Government Effectiveness	Political Stability and Absence of Violence/ Terrorism	Regulatory Quality	Rule of Law	Voice and Accountability
Range	0-100	0-100	0-100	0-100	0-100	0-100
Global Average	48.28	48.03	47.97	47.77	47.93	48.73
EM Average	42.47	46.18	42.20	46.76	43.10	44.32
Chile	78.35	68.44	51.73	74.06	73.56	74.90
United Arab Emirates	77.78	82.92	65.51	77.15	72.73	20.54
Israel	64.05	77.20	28.74	81.12	74.15	66.36
Qatar	69.51	72.51	67.16	71.32	74.90	17.80
Kuwait	48.28	45.90	56.27	57.18	58.19	33.05
Saudi Arabia	56.63	53.49	34.56	56.59	55.91	9.77
China	48.83	66.93	41.76	45.37	48.04	8.82

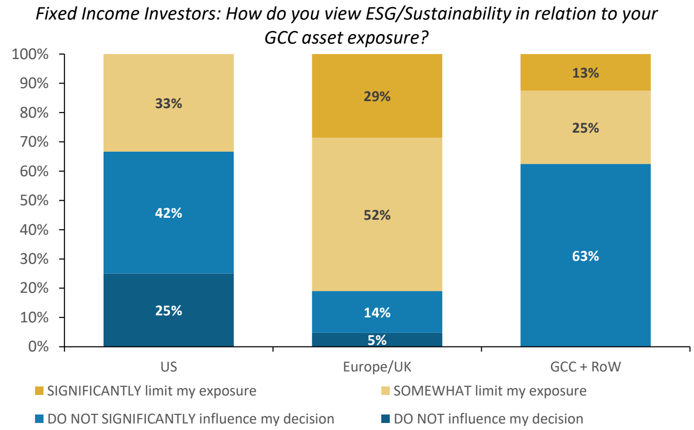
Source: World Bank sovereign ESG data, Morgan Stanley Research

Exhibit 306: Fixed income investors are more likely to incorporate ESG constraints than equity peers...



Source: Morgan Stanley Research

Exhibit 307:...with the focus being high in particular for European/UK fixed income funds, given upcoming legislation



Source: Morgan Stanley Research

Under the SFDR, funds will be required to report on their exposure to sovereigns subject to social violations: There are two Principal Adverse Sustainability Indicators for sovereigns that are mandatory: GHG intensity and number of investee countries subject to social violations "as referred to in international treaties and conventions, United Nations principles, and, where applicable, national law" (Final Report on draft Regulatory Technical Standards (2 February 2021), page 64). We believe that investors may look to country-level reports from international NGOs like Human Rights Watch and Amnesty International to assess how including sovereign and quasi-sovereign bonds from EM countries may affect their adverse impact reporting. Additionally, while not required disclosures, the SFDR notes that supplemental social indicators that are applicable to sovereigns include, "average income inequality score," "average freedom of expression score," and "average human rights performance score." See ESG, Regulations & Fixed Income: What to Know, November 30, 2021, for further information on SFDR reporting.

Improvement on social/environmental factors could help to attract foreign investors... Our latest Middle East investor survey revealed a clear divergence on ESG prioritisation between fixed income investors and their equity counterparts, with fixed income investors especially in Europe and the UK factoring ESG into their investment decisions (see Middle East Equity and Macro Strategy: Investor Survey Results, September 14, 2022). This largely relates to upcoming ESG fund disclosure regulations for funds with sovereign holdings. Improvements in the ESG profile, including in particular the social and environmental angles, may enable a greater investor pool to participate in the funding of Vision 2030. This would in turn reduce the reliance on domestic funding sources.

...particularly as we believe that Saudi Arabia has frequently been excluded from ESG funds: For myriad reasons, particularly social, we believe that some ESG investors have implemented exclusions in their funds against Saudi Arabia. A changing tide in Saudi Arabia on issues such as women's rights, LGBTQ+ rights, rule of law and an independent judiciary system could lead to changes to these exclusions given sufficient evidence that change is both meaningful and permanent.

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(as of November 30, 2022)

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	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1360	37%	286	41%	21%	593	38%
Equal-weight/Hold	1646	45%	327	47%	20%	732	48%
Not-Rated/Hold	3	0%	0	0%	0%	0	0%
Underweight/Sell	625	17%	77	11%	12%	216	14%
Total	3,634		690			1541	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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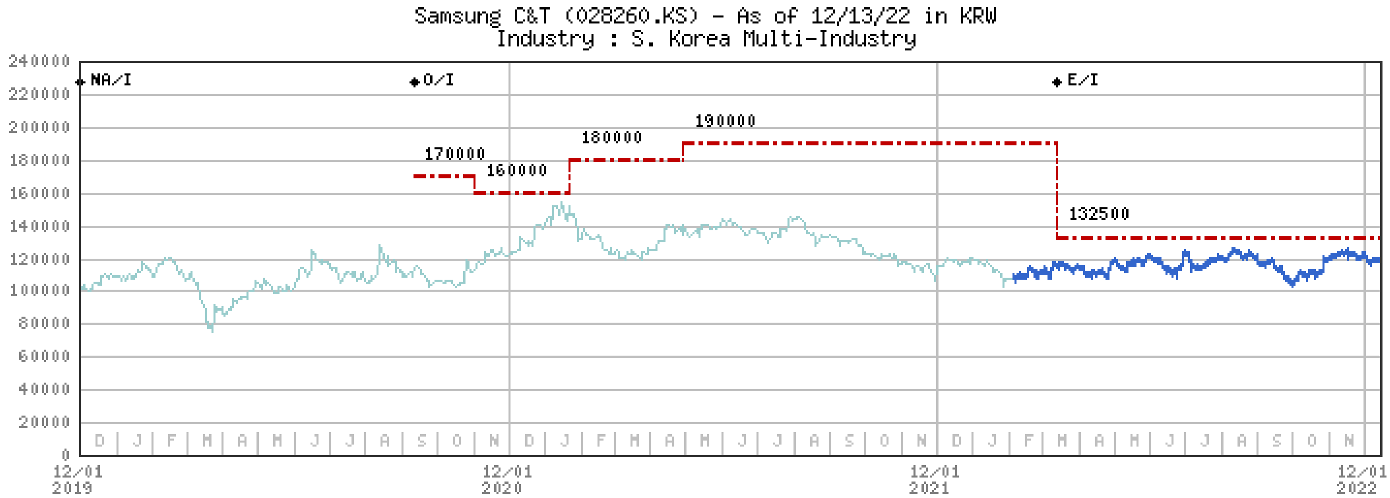
Stock Price, Price Target and Rating History (See Rating Definitions)



Stock Rating History: 12/1/17 : NA/A; 8/3/18 : NA/I; 9/20/18 : NA/I; 9/11/20 : O/I; 3/14/22 : E/I

Price Target History: 9/20/18 : NA; 9/11/20 : 170000; 11/2/20 : 160000; 1/22/21 : 180000; 4/29/21 : 190000; 3/14/22 : 132500

Source: Morgan Stanley Research   Date Format : MM/DD/YY   Price Target   No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst)   Stock Price (Covered by Current Analyst)
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)
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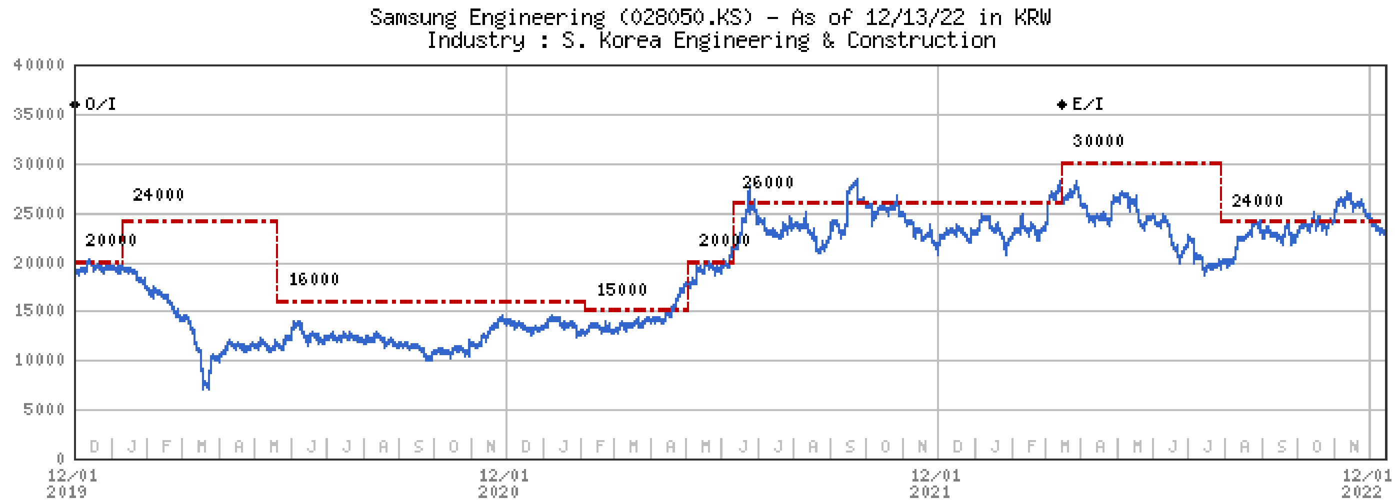

Stock Rating History: 12/1/17 : U/I; 2/22/18 : O/I; 3/16/22 : E/I

Price Target History: 3/27/17 : 11000; 2/22/18 : 18500; 9/13/18 : 20000; 1/10/20 : 24000; 5/20/20 : 16000; 2/5/21 : 15000; 5/3/21 : 20000; 6/10/21 : 26000; 3/16/22 : 30000; 7/28/22 : 24000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -- No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst) Stock Price (Covered by Current Analyst)
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

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