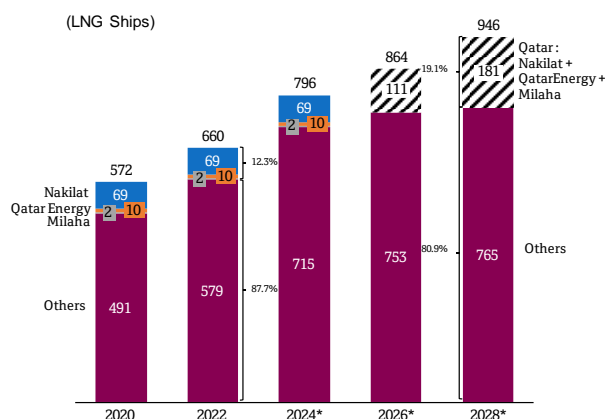


Qatar Emerges as a Top Global Logistics Hub; Highlighting Attractive Equity Plays Delivering Growth

The sky is the limit for a geographically prime-located peninsula on a quest to become the preferred global air and maritime logistics hub, linking the East and the West. Certainly capable of punching above its weight – with the "best-ever" edition of the FIFA World Cup under its belt – Qatar is pursuing a dual strategy that has potential spin-offs on various QSE-listed logistics players. **First, anchored by Qatar Airways – world's best airline (as ranked by Skytrax for an unprecedented 7th time in 2022) and largest air cargo carrier in the world (Table 1), with a rapidly expanding cargo tonnage capacity enabled by its ballooning fleet size and focused expansion on the cargo business – Qatar has emerged as a global giant in air cargo transportation (Table 2).** Now ranked 6th globally in the air cargo rankings, the country's emergence has been years in the making, with its air cargo volume rising 2.6x between 2014 and 2021 (Fig 7). All this, despite facing trade route restrictions and embargoes during the blockade that Qatar managed to outmaneuver, even flying in 4,000 cows to speedily achieve dairy self-sufficiency. **Second, going forward Qatar's position as a leading global LNG producer and shipper (Fig 1) will be cemented by its ongoing LNG expansion mega-project.** These enviable milestones would not have been possible without a visionary government policy to invest in developing global-scale logistics infrastructure as part of its economic diversification strategy. Dividends are beginning to show and during 9M2022 the logistics sector saw a whopping 26.7% real GDP growth (Fig 2), partly driven by the colossal requirements of the FIFA World Cup Qatar 2022, witnessing the highest growth among other prominent sectors of the economy. **In the coming years, contribution of the logistics sector to the economy could more than double from 4.2% in 2022 to ~10.0% as it outpaces growth of the overall economy.**

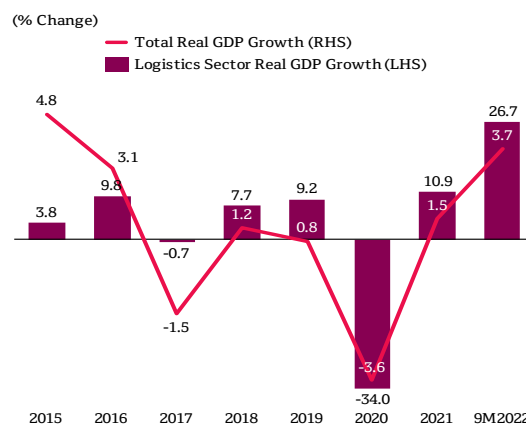
Fig 1: Global LNG Shipping and Outlook (2020-2028*)



*Estimates

Source: IGU, Bloomberg, QatarEnergy, Nakilat, GIIGNL Annual Report 2022 and Planning and Statistics Authority

Fig 2: Total Real GDP Growth Vs. Logistics Sector Real GDP Growth (2015-9M2022)



Correspondingly, the QSE-listed logistics stocks are well-positioned to ride this wave. **Nakilat or Qatar Gas Transport Co. (QGTS; Rated Accumulate with a target price of QR4.100) has the largest LNG shipping fleet in the world and holds the most promising prospects in the years ahead, tapping into Qatar's planned significant LNG expansion** as it will drive overall demand and growth for LNG shipping over the coming years. The LNG expansion will see Qatar's overall LNG output increasing by 64% by end-2027/early 2028 to reach 126 million tonnes per annum (MTPA), from the current 77 MTPA. These additional LNG cargoes should require 100+ LNG ships. Considering Nakilat's strategic importance and impressive track record in Qatar's existing LNG shipping value chain, we expect QGTS to be a major beneficiary of this expansion. **Our analysis also reveals that every incremental vessel (@100%) adds roughly 1% to Nakilat's target price and an award of 20-30 ships could significantly increase our price target and estimates.** Meanwhile, **Gulf Warehousing Co. (GWCS; Rated Accumulate with a target price of QR5.100), which is by far the leading and biggest logistics service provider in Qatar** and was the official logistics service provider for the recently concluded FIFA World Cup Qatar 2022, holds potential as air and sea freight needs grow. **Milaha or Qatar Navigation (QNNS; Rated Outperform with target price of QR10.00) also provides exposure to container shipping and logistics.**

- **LNG exports** hold the most promise in the coming years with QatarEnergy's diverse and long-term customer base across many continents. Most importantly, Qatar's huge LNG expansion will drive large LNG shipping requirements and opportunities for QGTS over the coming years. The LNG expansion will see Qatar's overall LNG output increasing by 64% to reach 126 million tonnes per annum (MTPA), from the current 77 MTPA. **Worldwide LNG ships are expected to increase by 43.3% from the current count of 660 LNG ships to over 946 LNG ships by 2028 (Fig 1).**

- **Qatar Airways rapid expansion has led to Qatar emerging as a major global air cargo and logistics hub** as it climbed up the world rankings to 6th in 2021, from 17th in 2014 with over 2.58 million metric tonnes in international freight cargo moving through Doha's Hamad International Airport (Table 1).
- **FIFA World Cup Qatar 2022** has led to the further rapid establishment of Qatar's Logistics Infrastructure through higher government spending for a wider logistics infrastructure for air cargo through Hamad International Airport and maritime logistics through Hamad Seaport. This has led to **higher real GDP growth for the logistics sector and increased contribution to the economy**. Logistics sector economic growth as measured through real GDP has made a strong recovery by 10.9% in 2021 and by a significant 26.7% for 9M2022 (Fig 2). **GWCS**, the official logistics provider for the most successful edition of the FIFA World Cup, holds strong potential as logistics needs rise with Qatar's increasing air and maritime cargo growth.
- **Container Shipping** got a major boost in 2018 when overall traffic volumes increased by 73.1% due to the opening of the Hamad Port and the direct shipping to Qatar's new port due to the blockade. **QNNS** is set to benefit from the overall positive global outlook for container shipping and specifically growth for Qatar in the coming years.

Stock Recommendations

Stock	Rating	Target Price (QR)	Implied Upside	Key Themes
QGTS	Accumulate	4.100	10.81%	<p>We stay bullish on Nakilat, which is the best avenue for equity investors to participate in the LT growth expected in Qatar's LNG sector. Irrespective of the volatility of the LNG shipping market, Nakilat's business should remain relatively unaffected given the LT nature of its charters. Nakilat's fleet continues to provide QGTS with stable, contractually sustainable cash flow that allow for a healthy residual income stream for equity investors after providing for debt service. Moreover, the 40-year life of Nakilat's vessels vs. maximum debt life of 25 years (last debt maturing 2033), could allow for value enhancement. <i>Considering Nakilat's strategic importance (Nakilat ships ~80% of Qatar's current LNG exports) and impressive track record in Qatar's existing LNG shipping value chain, we expect QGTS to be a major beneficiary and secure a meaningful share of new contracts. We also estimate that every incremental vessel (@100%) adds ~1% to QGTS' target price and an award of 20-30 ships could significantly increase our price target and estimates. Given typical lead-times for LNG ship construction, we should expect to hear about final ship owner selections in early 2023. We do expect QGTS shares to come under pressure in the unlikely scenario that the company does not secure a meaningful portion of the new LNG shipping contracts.</i></p>
GWCS	Accumulate	5.100	41.75%	<p>While the stock price could present compelling entry points, we expect more of a sustained momentum in 2H2023 as details of Al Wukair Logistics Park phase 2 and other/overseas expansion comes into focus. <i>We also believe a potential increase in dividends, given its current sub-3% yield, could make the stock more compelling especially for retail investors and await color from management in this regard as capex-intensive projects wind down potentially this year.</i> In terms of fundamental drivers, corporate restructurings could boost outsourced logistics solutions and 4PL remains a growth area. In terms of risks, LT growth in warehousing demand in Qatar remains uncertain. Execution risks persist especially for international expansions.</p>
QNNS	Outperform	10.00	11.11%	<p>We remain bullish longer-term on the QNNS growth story and our investment thesis has been spot-on so far with the stock up 32.9% in 2022 (QSE Index down 8.1%) despite weakness thus far in 2023. The stock, over 2011-2021, always traded at a significant discount to its sum-of the parts, sometimes worth only the value of its "non-core" assets (investment stake in Nakilat and its equity/bond portfolio). This implied that investors received Milaha's "core" or operating businesses for almost free. However, what has changed is that Milaha is enjoying several catalysts, which has helped in making progress toward the stock's re-rating. We note strength in oil prices (despite volatility), recovery in sentiment and the massive North Field Expansion project, are all positive tailwinds. Lack of large impairments in the future should also help QNNS' earnings trajectory and highlight its growth story to investors.</p>

Source: QNBFS

QATAR'S LOGISTICS DRIVERS

In sub-sections that follow, we provide detailed analysis and data supporting Qatar's Logistics sector investment proposition. Some of the themes covered include:

- LNG tanker demand is on the rise
- LNG customer base is expanding,
- rapid growth in air and maritime cargo
- logistics infrastructure is world-class through investments and supportive policy over the years

Qatar to Remain Among Largest Global LNG Exporters with Increasing and Diverse Customer Base

LNG Expansion to Drive LNG Tanker Demand

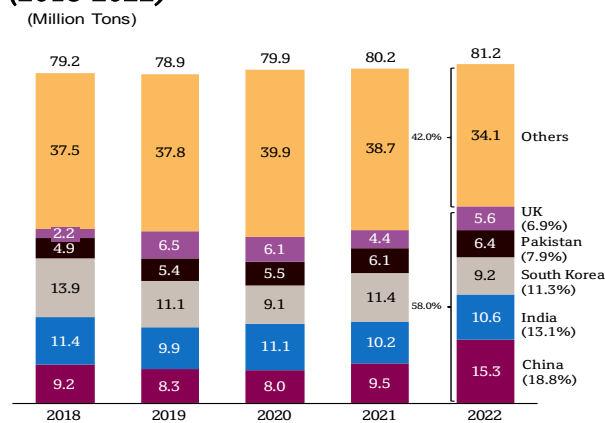
Qatar's huge LNG expansion will drive large LNG shipping requirements over the coming years. The LNG expansion will see Qatar's overall LNG output increasing by 64% to reach 126 million tonnes per annum (MTPA), from the current 77 MTPA. The first phase of the expansion (North Field East) is estimated to cost \$28.75bn and is set for completion by 2025, raising total output to 110 MTPA. The second phase of the expansion (North Field South) will raise overall output to 126 MTPA by 2027/early 2028. We expect overall LNG tanker demand to be driven by this huge LNG expansion over the coming years. As such, LNG vessels are expected to increase from the current global total of 660 LNG ships to over 946 LNG ships by 2028 as per order books (Fig 1). Qatar's LNG expansion requirements could account for over 100 of the upcoming LNG ship orders.

Expanding Global LNG Export Destinations and Among Largest Global LNG Exporters

Qatar's LNG export markets have grown significantly over the years and in 2022 Qatar exported to over 21 countries. Qatar exported an estimated 81.2 million tonnes (mt) of LNG in 2022 (Fig 3), with over 69.5% of exports going to the Asian region. China is currently the leading export destination for Qatar's LNG and in 2022 accounted for 18.8% of overall LNG Exports.

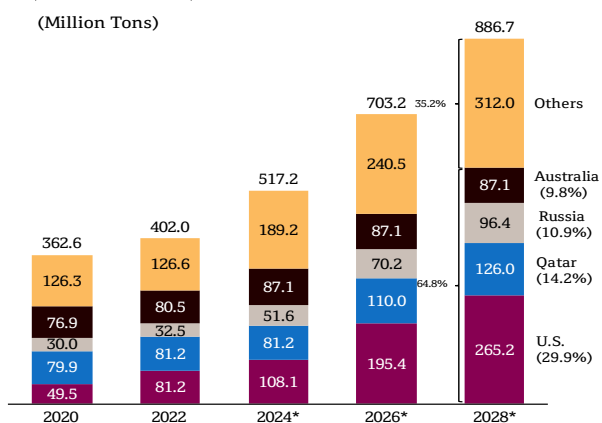
Qatar will remain among the largest LNG exporters in the world after its planned expansion and is expected to be the second largest global LNG exporter by 2028 with 126.0 mt (Fig 4). Qatar has an existing diverse and long-term customer base across many continents and with the recent deals will be able to fill the global supply-demand gap. China's Sinopec secured one of the longest ever liquefied natural gas deals in November 2022, signing a 27-year Sale and Purchase Agreement (SPA) with QatarEnergy for the supply of 4 MTPA of LNG to China. This deal marks the longest gas supply agreement in the history of the LNG industry and is the second SPA between Sinopec and QatarEnergy, following the 10-year SPA signed in March 2021 for the supply of 2 MTPA to China. QatarEnergy has also concluded construction contracts and long-term time charter agreements for 60 LNG carriers as part of its historic shipbuilding program in support of the LNG expansion, with the carrier numbers expected to rise to over 100 in the future. Qatar is also looking to ship LNG from the U.S. to Germany. QatarEnergy has a 70% stake in the Golden Pass LNG plant in Texas, which is slated to become operational by 2024 and as per the offtake agreement could export over 12 MTPA of LNG from the facility.

Fig 3: Qatar LNG Exports by Main Destinations (2018-2022)



Source: IEA, Bloomberg, QNBFS Analysis

Fig 4: Largest Global LNG Exporters (2020-2028*)



Qatar Airways Remains Top Global Air Cargo Carrier in the World

Qatar Airways continued to maintain its spot as the top global air cargo carrier in the world for 2021, with overall traffic in scheduled cargo tonne kilometer (CTK) growing by 17.2% in 2021 to reach 16,102mn CTK (Table 1). Qatar Airways Cargo achieved a record revenue of \$6.326bn for the Fiscal Year 2021/2022. Qatar Airways Cargo rapid expansion has enabled Qatar to emerge as a major global logistics hub and with the ongoing expansion in both infrastructure and fleet capacity, it should cement Qatar's position as a global air logistics hub in the years ahead.

Table 1: Top 10 Airline Cargo Carrier Rankings (2021)

Current Global Rank (2021)	Previous Global Rank (2014)	Airline	2021 CTK (Million)	% Change Vs 2020
1	6	Qatar Airways	16,102	17.2%
2	1	Emirates	11,842	23.8%
3	3	Korean Air	10,429	28.7%
4	21	Turkish Airlines	9,223	32.2%
5	2	Cathay Pacific Airways	8,215	1.0%
6	9	China Southern Airlines	8,078	22.6%
7	7	China Airlines	7,513	18.9%
8	8	Air China	7,016	14.6%
9	5	Singapore Airlines	5,462	31.4%
10	4	Lufthansa	5,324	10.3%

Source: IATA 2021 World Air Transport Statistics

Qatar Airways Cargo has witnessed phenomenal growth from 2015-2021, with an annual average growth of 15.4% during the period in terms of CTK. Qatar Airways Cargo has increased its output from 7,660mn CTK in 2015 to 16,102mn CTK in 2021 (Fig 5). Qatar Airways Cargo revenues have increased from QR5.6bn in 2016 to over QR23.0bn in 2022 (as at Fiscal Year ending 31st March 2022), accounting for 44% of overall revenues (Fig 6). Qatar Airways Cargo fleet size has almost doubled from 16 in 2016 to 30 in 2022. In January 2022, Qatar Airways signed an USD20bn order for the additional purchase of up to 50 of the world's largest twin-engine cargo jet, the Boeing 777-8 Freighter aircraft and two current generation 777 freighters. Qatar Airways Cargo as at the end of the first quarter of 2022 had over 65 dedicated freighter and more than 140 belly-hold passenger destinations worldwide.

Fig 5: Qatar Airways Cargo Tonne Kilometres (2015-2021)

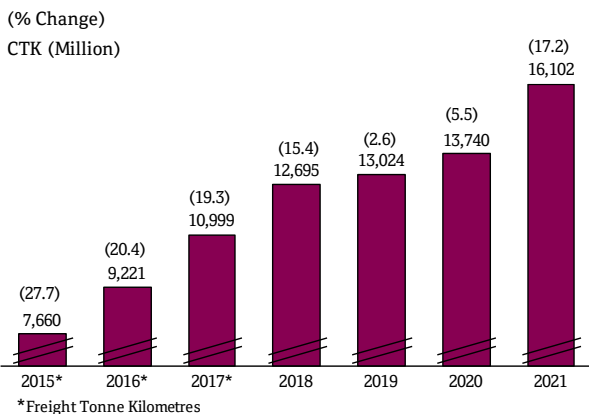
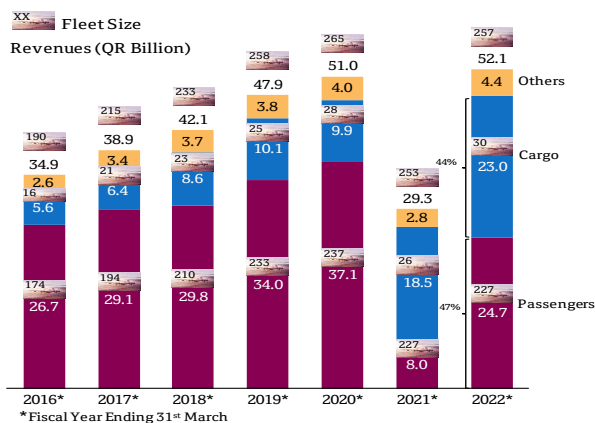


Fig 6: Qatar Airways Total Revenues and Fleet (2016-2022*)



Source: IATA 2021 World Air Transport Statistics and Qatar Airways

Qatar Emerges as a Global Air Cargo Hub

Qatar Airways rapid expansion has led to Qatar emerging as a major global air cargo and logistics hub as it climbed up the world rankings to 6th in 2021, from 17th in 2014 with over 2.58 million metric tonnes in international freight cargo moving through Doha's Hamad International Airport (Table 2).

Table 2: Global Air Cargo Rankings (2021)

Current Global Rank (2021)	Previous Global Rank (2014)	Airport City (Country)	2021 (Metric Tonnes)	% Change Vs 2020
1	1	Hong Kong (Hong Kong)	4,986,256	12.8%
2	2	Incheon (South Korea)	3,273,004	18.6%
3	4	Shanghai Pudong (China)	3,245,548	9.9%
4	5	Taipei (Taiwan)	2,793,584	20.2%
5	6	Tokyo – Narita (Japan)	2,591,255	32.3%
6	17	Doha - HIA (Qatar)	2,589,283	20.7%
7	10	Anchorage (US)	2,438,809	9.8%
8	3	Dubai (UAE)	2,319,185	20.0%
9	7	Frankfurt – Main (Germany)	2,194,653	20.7%
10	11	Miami (US)	2,040,547	17.9%

Source: Airports Council International

Qatar's emergence and rapid growth trajectory as a global air cargo hub has been achieved through its incredible cargo tonnage increase in recent years (Fig 7). Air cargo tonnage has increased from 0.98 million tonnes in 2014 to over 2.58 million tonnes in 2021 (Fig 8). Qatar had an air cargo growth of 20.7% in 2021 and an average growth of 15.5% from 2014-2021. GWCS, the official logistics provider for the most successful edition of the FIFA World Cup, holds strong potential as logistics needs rise with Qatar's increasing air cargo growth.

Fig 7: Air Cargo Growth (2014-2021)

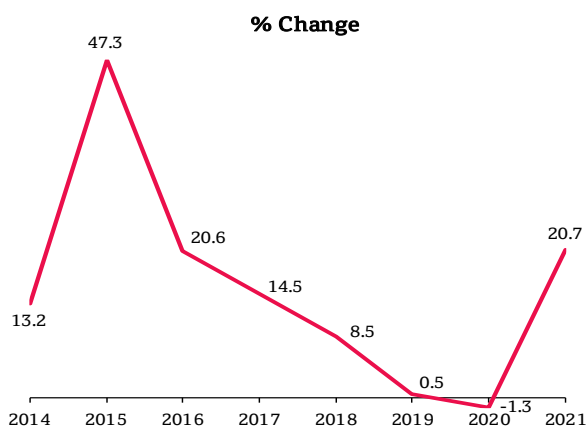
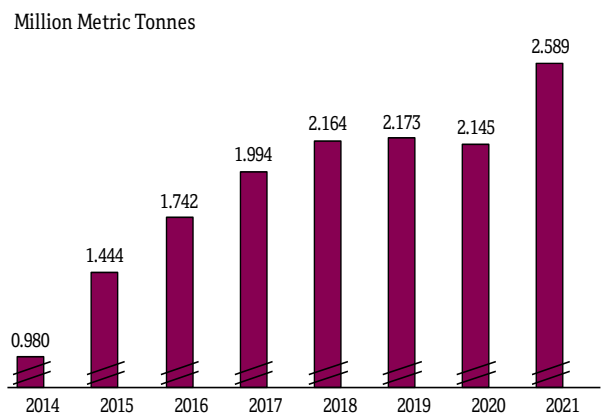


Fig 8: Air Cargo Tonnage (2014-2021)

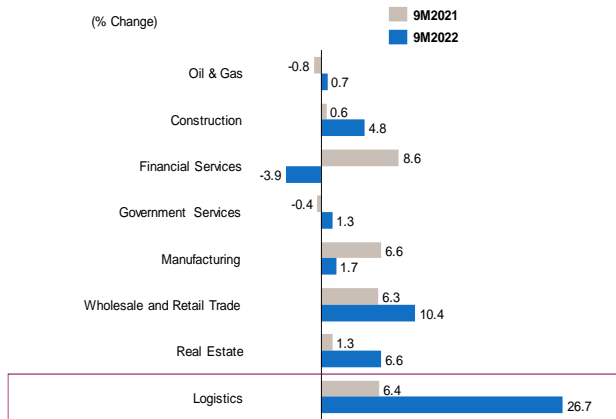


Source: Airports Council International and Planning and Statistics Authority

FIFA World Cup Qatar 2022 Creates Platform for Logistics Sector Growth and Economic Diversification

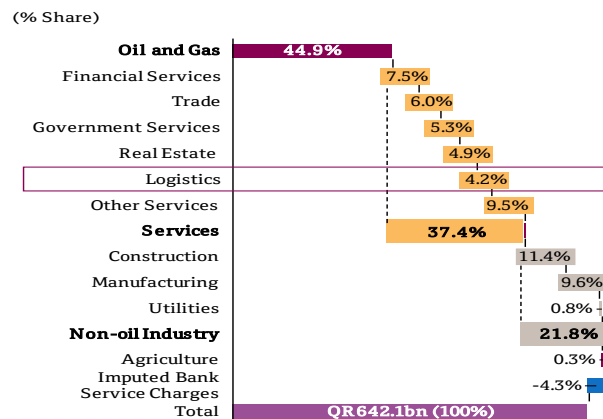
Real GDP growth of the Logistics Sector was at an average of 5.9% from 2015-2019 before dropping by 34.0% in 2020 and has recovered with a growth of 10.9% in 2021 (Fig 2). For the first three quarters of 2022 or 9M2022, the Logistics Sector witnessed the highest growth of 26.7% (Fig 9), among the prominent economic sectors. The high growth in the sector can be attributed to the gigantic logistics requirements in hosting the hugely successful FIFA World Cup Qatar 2022. The highly successful global sporting event has created a solid platform for the both economic growth and diversification, with the Logistics Sector contributing to 4.2% of the overall economy for the 9M2022 (Fig 10), growing from a 3.7% contribution to the economy in 2015.

Fig 9: Logistics Sector Growth Comparison (9M2021 Vs 9M2022)



Source: Planning and Statistics Authority

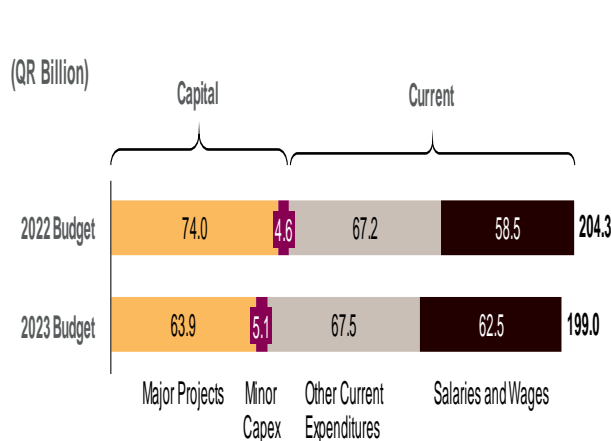
Fig 10: Logistics Sector Economic Contribution (9M2022)



Government Spending Providing for Global Scale Logistics Infrastructure Development

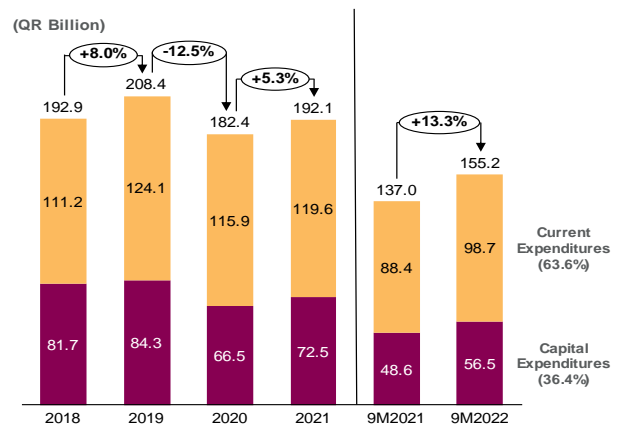
The State Budget overall expenditures for 2023 showed a slight decline in spending by 2.6% to QR199.0bn (Fig 11). The main reason behind this drop was a budgeted cut by 13.6% in allocations for major projects, resulting from the completion of many planned infrastructure and strategic projects, including the expansion of the Hamad International Airport before the start of the FIFA World Cup Qatar 2022. For the 9M2022 Actual government spending increased by 13.3% compared to 9M2021 (Fig 12).

Fig 11: Government Expenditure Budget (2022 Vs 2023)



Source: Ministry of Finance

Fig 12: Government Expenditure Actuals (2018-9M2022)



Qatar Free Zones Authority Providing Additional Global Scale Logistics Infrastructure

Qatar Free Zones Authority (QFZA) was established in 2018 to oversee and regulate world-class free zones in Qatar, furthering on the strength of the country’s position as a global industrial and logistics hub with a growing economy. Qatar being one of the world’s largest cargo hubs makes logistics a natural area of focus, providing easy access to many dynamic markets, making it a preferred base to pursue regional and global expansion. QFZA provides a unique global scale logistics value proposition and has currently developed two free zones (Pic 1 and 2) that provide quick access to the country’s airport and seaports.

Pic 1: Airport Free Zone at Ras Bufontas



Pic 2: Port Free Zone at Umm Alhoul



Source: Qatar Free Zones Authority

Container Shipping holds Promise in the Coming Years

Global container shipping got back on track in 2021 after the pandemic shock in 2020. According to the Lloyds list of top 100 ports, overall global volumes grew by 7% in 2021 to reach 676.1mn Twenty-Foot Equivalent Units (TEU). China’s Shanghai Port was the world’s largest container port in 2021 with a throughput of just over 47mn TEU (Table 3). Qatar’s Hamad Port increased its container shipping by 9.0% in 2021 to reach 1.52mn TEU.

Table 3: Top 10 Global Container Ports Ranking (2021)

Current Global Rank (2021)	Port (Country)	2020 (TEU)	2021 (TEU)	% Change Vs 2020
1	Shanghai (China)	43,503,400	47,030,300	8.1%
2	Singapore (Singapore)	36,870,900	37,470,000	1.6%
3	Ningbo-Zhoushan (China)	28,720,000	31,070,000	8.2%
4	Shenzhen (China)	26,550,000	28,767,600	8.4%
5	Guangzhou (China)	23,505,300	24,180,000	2.9%
6	Qingdao (China)	22,010,000	23,710,000	7.7%
7	Busan (South Korea)	21,824,000	22,706,130	4.0%
8	Tianjin (China)	18,353,100	20,269,400	10.4%
9	Hong Kong (China)	17,953,000	17,798,000	-0.9%
10	Rotterdam (Netherlands)	14,349,446	15,300,000	6.6%
11	Dubai (UAE)	13,488,000	13,742,000	1.9%
NR	Hamad (Qatar)	1,396,755	1,522,785	9.0%

Source: Lloyds List – Top 100 Ports 2022 and Mwani

Qatar has two container shipping ports, namely Hamad and Ruwais. Container shipping got a major boost in 2018 when overall traffic volumes increased by 73.1% to reach 1.343mn TEU. The main reason behind this jump in volumes was the opening of the Hamad Port and the direct shipping to Qatar’s new port due to the blockade. Hamad Port is Qatar’s main container port handling about 97.2% of overall throughput, translating into 1.395mn TEU in 2022, compared with just 0.042mn TEU of container shipping traffic moving through Ruwais Port in 2022 (Fig 13).

The Global outlook for Shipping in 2023 is mainly restricted by the expectations of a possible global recession. The IMF’s Managing Director Kristalina Georgieva recently stated that global growth headline numbers continue to slow down in 2023, from the earlier projections. The war in Ukraine had a drastic impact on global growth in 2022 and was the major cause for rise in global energy and food prices, leading to worldwide inflationary conditions. Inflation continues to remain a huge concern for central banks in 2023 and it is likely that interest rates could continue to rise to maintain price stability. However, the reopening of China in 2023 holds better prospects for overall global trade and growth in 2023. According to a survey poll of shipping industry experts conducted by Lloyds Shipping, the best shipping sector in 2023 is expected to be Tankers (mainly LNG) followed by Container shipping (Fig 14).

Fig 13: Qatar Ports Container Shipping (2017-2022)

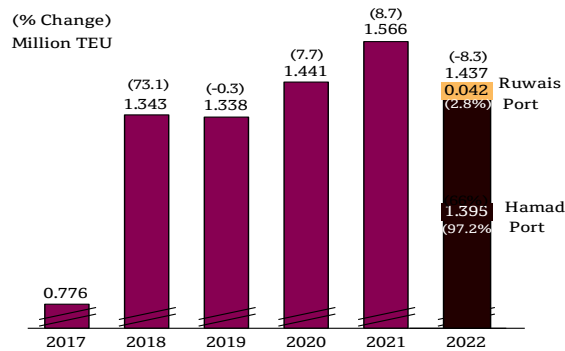
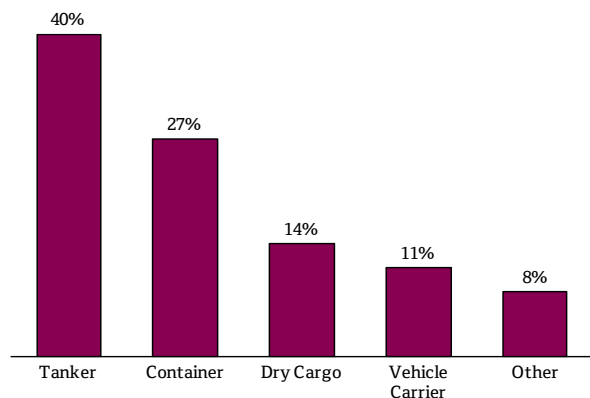


Fig 14: Best Shipping Sector in 2023 – Survey*



* Based on Twitter and online responses surveyed between Nov 28 and Dec 6, 2022

Source: Lloyds Shipping Survey Poll and Mwani

The Global outlook for Air Cargo in 2023 continues to remain positive, after playing a critical role during the global pandemic, ensuring vital vaccines and medical supplies were made available globally, while also supporting businesses and economic activity to continue functioning in the midst of the pandemic mayhem. According to IATA, airlines transport over 65.6mn tonnes of goods a year, representing more than 35% of global trade by value but less than 1% of world trade by volume. With a value of more than \$6.8tn worth of goods transported annually or \$18.6bn worth of goods daily, air cargo holds the most promising growth prospects in the years ahead as it has become a lifeline for governments and society. Further, the pandemic has had a significant impact on the sky rocketing of e-commerce and it is estimated that 80% of cross-border e-commerce is transported by air. Cross-border e-commerce sales are expected to increase by 13% in 2023 to reach about \$2.1tn, from an estimated \$1.9tn in 2022.

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