

## Oil Tracker: Hormuz Flows Remain Low, Policy Responds

- **Low trend for Hormuz flows.** Estimated oil flows through the Strait of Hormuz (SoH) based on reported vessel counts are down 19.4mb/d and stabilized at 0.6mb/d over the last days (4-day moving average).
- **Risk of low Persian Gulf exports for longer.** The net hit to Persian Gulf exports is slightly less extreme but grew to 16.2mb/d over the last two days (4-day moving average) because estimated redirection via the ports in Yanbu (Red Sea, Saudi Arabia) and Fujairah (Gulf of Oman, UAE) has decreased to 3.2mb/d (4-day moving average).
  - On the positive side for flows, Iraq expects to restart Kirkuk-Ceyhan pipeline shipments of crude to Türkiye's Mediterranean port of Ceyhan, potentially adding up to 0.4mb/d of redirection capacity.
  - On the negative side for flows, two tankers were attacked off the coast of Iraq, prompting oil terminals closure.
- **Rising hit to production:**
  - **Crude.** Estimates of Middle East crude production reductions are likely to continue to grow as storage fills. The IEA estimated at least 10mb/d of crude and condensate production losses as of March 10th (with the average estimate across various agencies at 7.3mb/d).
  - **Refined products.** We estimate that refinery outages in the Middle East increased to 2.0mb/d following a precautionary halt of the UAE Ruwais refinery (0.9mb/d of total capacity).
- **Policy responses will likely only partially offset disruptions:**
  - **OECD SPR:** IEA member countries agreed yesterday to make 400mb "available" to the market over the next 120 days, suggesting a 3.3mb/d release speed. We assume that the participants will release 213mb of SPR at an average speed of 2.4mb/d over the next 90 days if SoH flows start to recover from March 21st (faster than the peak monthly 1.4mb/d pace in 2022 as today's shock is much larger) (Exhibit 1). We estimate global policy (i.e. global SPR releases and draws in Russia crude) will dampen the hit to global commercial oil inventories by nearly 50%.
  - **Jones Act waiver:** The 30-day potential waver would facilitate transportation of fuel from the Gulf Coast to the East Coast and is estimated to decrease East Coast refined product prices by \$0.6-0.8/bbl.
- **Futures and prediction markets now price a slightly longer expected**

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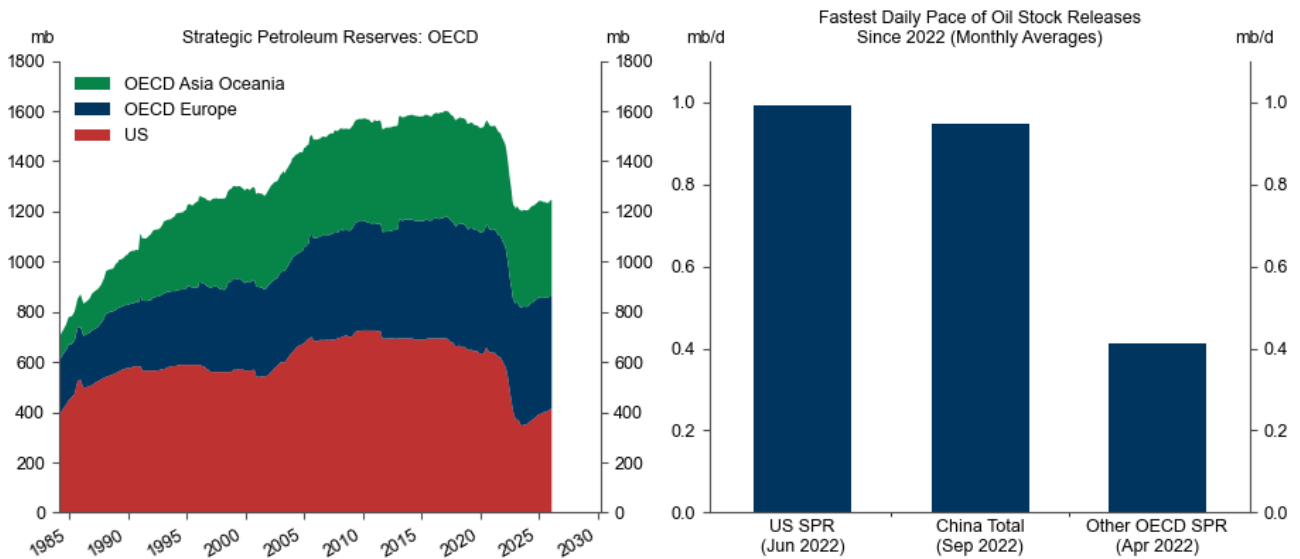
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**duration of disruptions:**

- Brent spot prices increased from just under \$90 to above \$100/bbl since Tuesday as the Polymarket-implied probability the conflict ends in March has decreased to 19% (vs 30% two days ago). However, Polymarket’s base case remains that the conflict ends between April 1 and May 15 (44%).
- The option markets implied probability of the Brent May contract expiring above \$100 increased from 5 to 15% over the last two days.

**Exhibit 1: OECD Strategic Petroleum Reserves Are Over 200mb Below Their Early-2022 Levels; We Estimate the Fastest Historical Average Monthly Speed of OECD SPR Draws at 1.4mb/d**

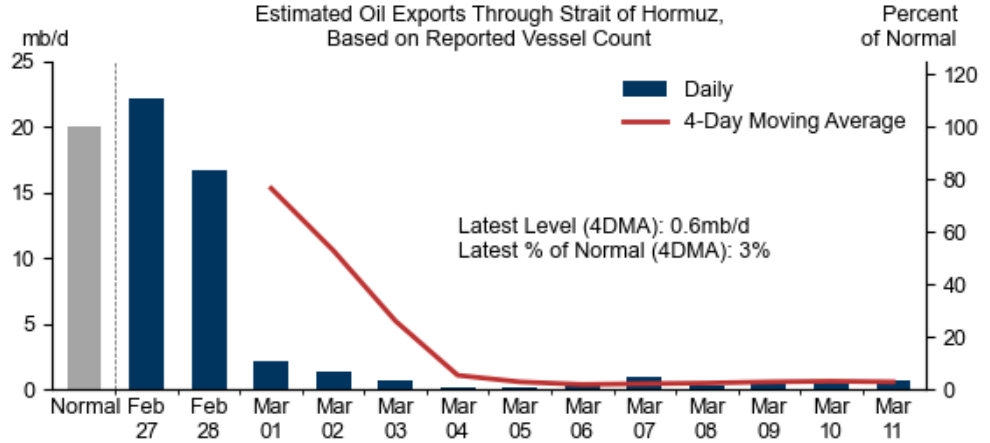


SPR includes crude and products stocks.

Source: IEA, Kpler, Goldman Sachs Global Investment Research

### 1) Persian Gulf Exports

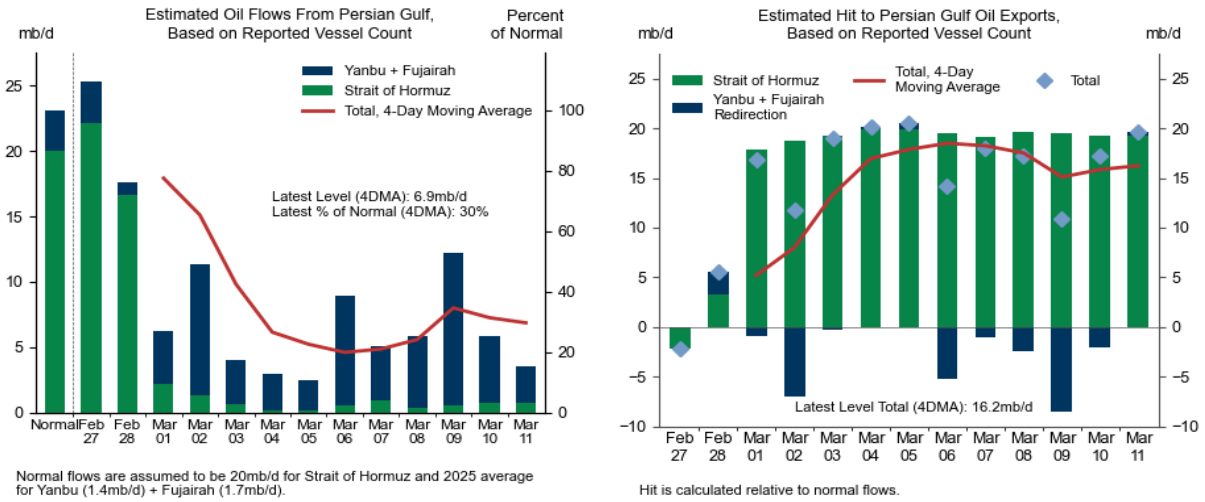
**Exhibit 2: We Estimate Based on Reported Vessel Counts that Average Daily Flows Through the Strait of Hormuz Are Down 97% From Their Normal Levels (4-Day Moving Average)**



Vessel count as percent of normal is based on an average of S&P and Bloomberg data on the daily number of oil tankers crossing the Strait of Hormuz, relative to the Jan 1 – Feb 14 average for S&P and the Feb 26–27 average for Bloomberg. Flows are estimated by applying this proportion to assumed normal flows of 20mb/d.

Source: S&P Global Commodities at Sea, Bloomberg, Goldman Sachs Global Investment Research

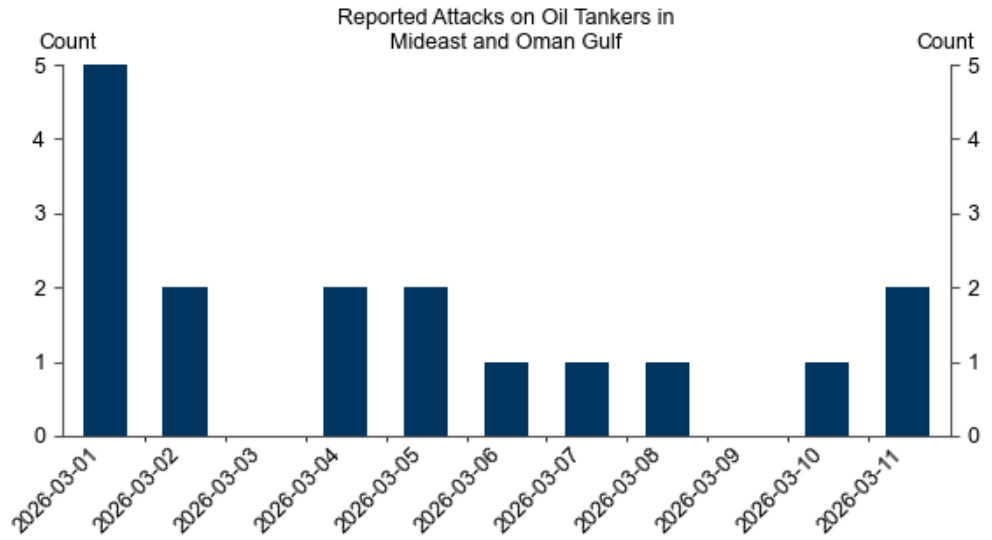
**Exhibit 3: The Estimated Total Hit to Oil Flows From the Persian Gulf Stands at 16mb/d (16 Times Larger than the Peak April 2022 Hit to Russia Oil Production)**



Source: S&P Global Commodities at Sea, Bloomberg, Goldman Sachs Global Investment Research

## 2) Risks to Oil Tankers

**Exhibit 4: Physical Risks for Oil Tankers in the Mideast and Oman Gulf Remain Elevated as Tankers Continue to Get Attacked**



Source: Data compiled by Goldman Sachs Global Investment Research

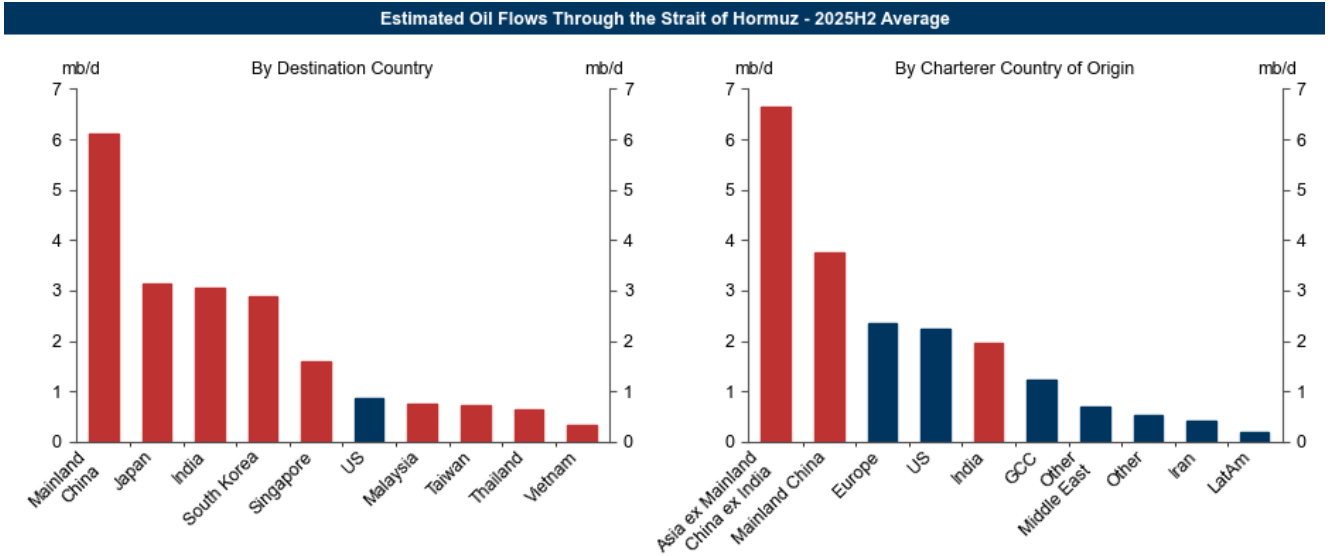
**Exhibit 5: According to S&P Global, Only 22 Tankers Crossed the Strait of Hormuz Since March 1st, With Most Tankers Operating with AIS Signal Off**

Tankers That Have Transited Strait of Hormuz Since March 1								
Vessel Name	Date of Transit	Tanker Type	Status	Origin	Destination	Operator Jurisdiction	Flag	Sanctioned?
<b>Into the Persian Gulf</b>								
SUN RISE I	1-Mar	Oil	Ballast	Pipavav, India	Khor Fakkan Port (Outer Port Limits), UAE	Marshall Islands	Panama	
<b>Out of the Persian Gulf</b>								
HH GLORY	1-Mar	LPG	Laden		Humen Port, China	UAE	Panama	
TORM ASTRID	1-Mar	Oil	Laden	Jubail, Saudi Arabia	Singapore	Denmark	Denmark	
SONGA NEPTUNE	1-Mar	Oil	Laden	Jubail, Saudi Arabia	Mumbai, India	UK	Marshall Islands	
DALIA	1-Mar	Oil	Laden	Port of Bandar-e Mahshahr, Iran	Port of Chah Bahar, Iran	Iran	Iran	Yes
CAPETAN ANDREAS	1-Mar	Oil	Ballast	Mina Al Ahmadi, Kuwait	Khor Fakkan Port, UAE	Marshall Islands	Liberia	
PUFFIN TWO	3-Mar	Oil	Laden	Fujairah, UAE	Dubai, UAE	Singapore	Liberia	
VOY	7-Mar	Oil	Laden		Qingdao, China	Hong Kong	Unknown	Yes
CUME	9-Mar	Oil	Ballast		China	UAE	Guyana (False)	Yes
<b>Unknown</b>								
ATHE NOVA	2-Mar	Oil	Laden	Sultan Qaboos Port, Oman	Khor Fakkan Port, UAE	UAE	Honduras	
SHIVA	2-Mar	Oil	Ballast		Khor Fakkan Port, UAE	Marshall Islands	Cook Islands	
POLA	3-Mar	Oil	Ballast					
BLOOMING DALE	3-Mar	Oil	Ballast		Khor Fakkan Port, UAE	UAE	Aruba (False)	Yes
SHENLONG	4-Mar	Oil	Laden					
PUSHPAK	5-Mar	Oil	Laden		Fujairah, UAE	UAE	Cook Islands	
DANUTA I	6-Mar	LPG	Laden		Khor Fakkan Port, UAE	Panama	Palau	Yes
NAVIXON	6-Mar	LPG	Ballast		"For order"		Madagascar (False)	Yes
PARIMAL	7-Mar	Oil	Ballast		Khor Fakkan Port (Outer Port Limits), UAE	UAE	Palau	Yes
DALIA	8-Mar	Oil	Ballast	Port of Bandar-e Mahshahr, Iran	Port of Bandar-e Mahshahr, Iran	Iran	Iran	Yes
M3S X	9-Mar	Oil	Laden					
MARSER	10-Mar	LPG	Laden		"For order"	UAE	Madagascar (False)	Yes
BREEZ	10-Mar	Oil	Ballast		Bandar Abbas, Iran	Marshall Islands	Comoros (False)	Yes

The "unknown" oil tankers are either vessels that don't have confirmed origins/destinations, or have their origin/destination on the same side of the Strait. "(False)" flag tag indicates vessels crossing under a different flag than their operator jurisdiction.

Source: S&P Global Commodities on Water, S&P Market Intelligence, Goldman Sachs Global Investment Research

**Exhibit 6: Asia-Bound Tankers Typically Account for Around 95% of Strait of Hormuz Transits; Asian Charterers Typically Account for Nearly 60% of Transits with Known Charterer**

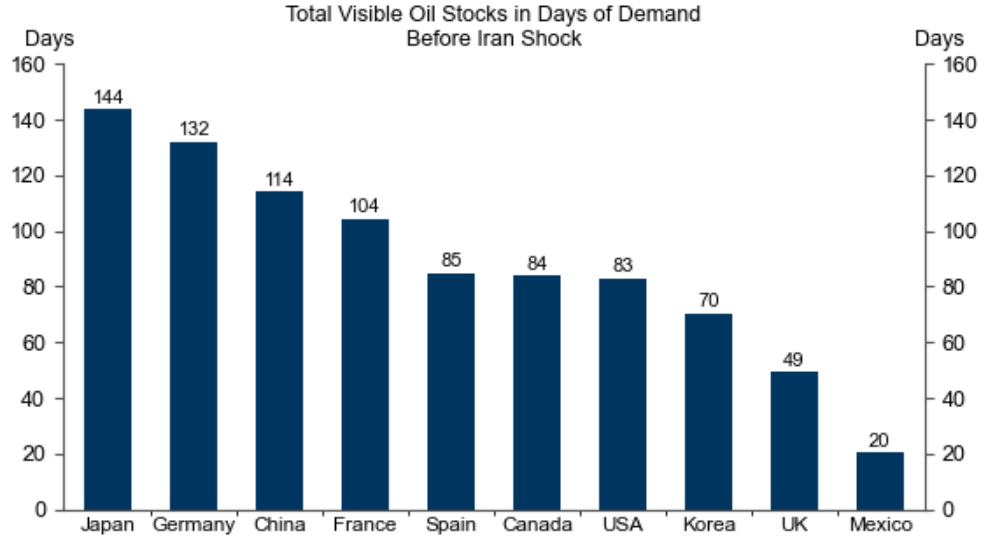


For both the LHS and RHS we consider the ten largest regions. For the RHS, we do not include flows with "Unknown" Charterer.

Source: Kpler, Goldman Sachs Global Investment Research

### 3) Inventory Buffers

**Exhibit 7: While Asian Countries Are the Most Affected by the SoH Disruptions, Japan and China Have Over 100 Days of Visible Oil Stocks in Days of Demand**

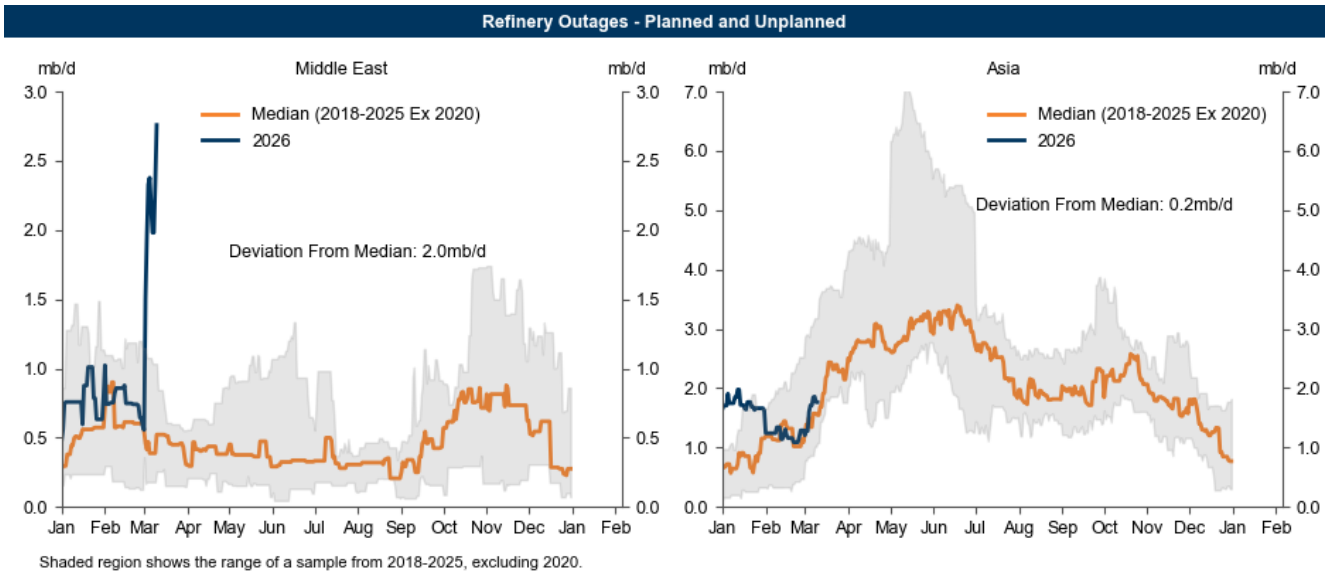


Total visible oil stocks includes commercial and SPR crude and products. To calculate total visible oil stocks in days of demand, we divide latest realized stocks data (January 2026 for all countries except Spain, for which we use December 2025) by latest realized demand data (January 2026).

Source: IEA, Kpler, Goldman Sachs Global Investment Research

### 4) Refined Products Production

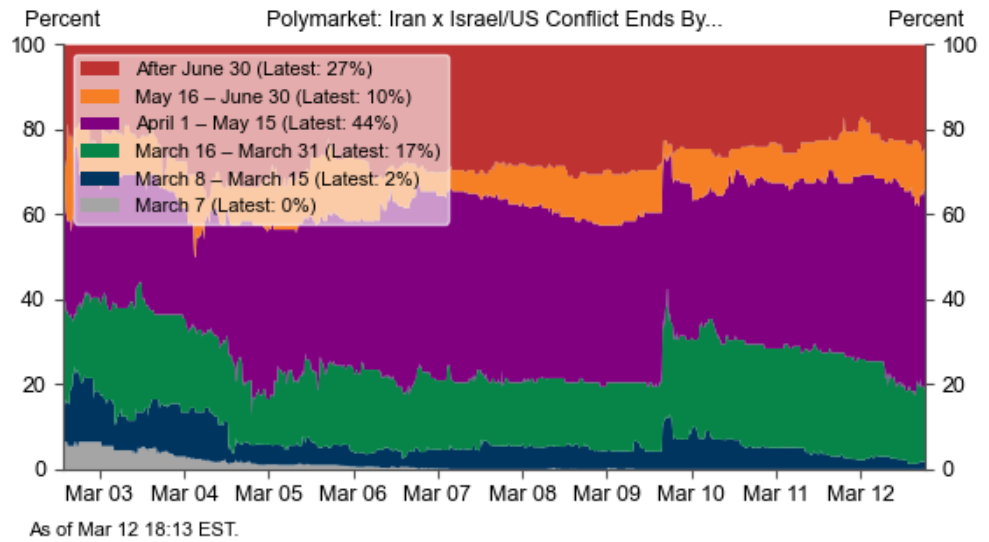
**Exhibit 8: Refinery Outages in the Middle East Jumped to 2.0mb/d Above Their Seasonal Norms**



Source: IIR, Goldman Sachs Global Investment Research

### 5) Signals About the Duration of the Impact of the Conflict

**Exhibit 9: The Prediction Markets- Implied Probability of the War in Iran Ending by March 31st Decreased From 30% On Tuesday Evening to 19% Now**



Source: Polymarket, Goldman Sachs Global Investment Research

**Exhibit 10: The Implicit Expectations of the Total Duration of the Impact of the Conflict Range From a Week to Over a Month**

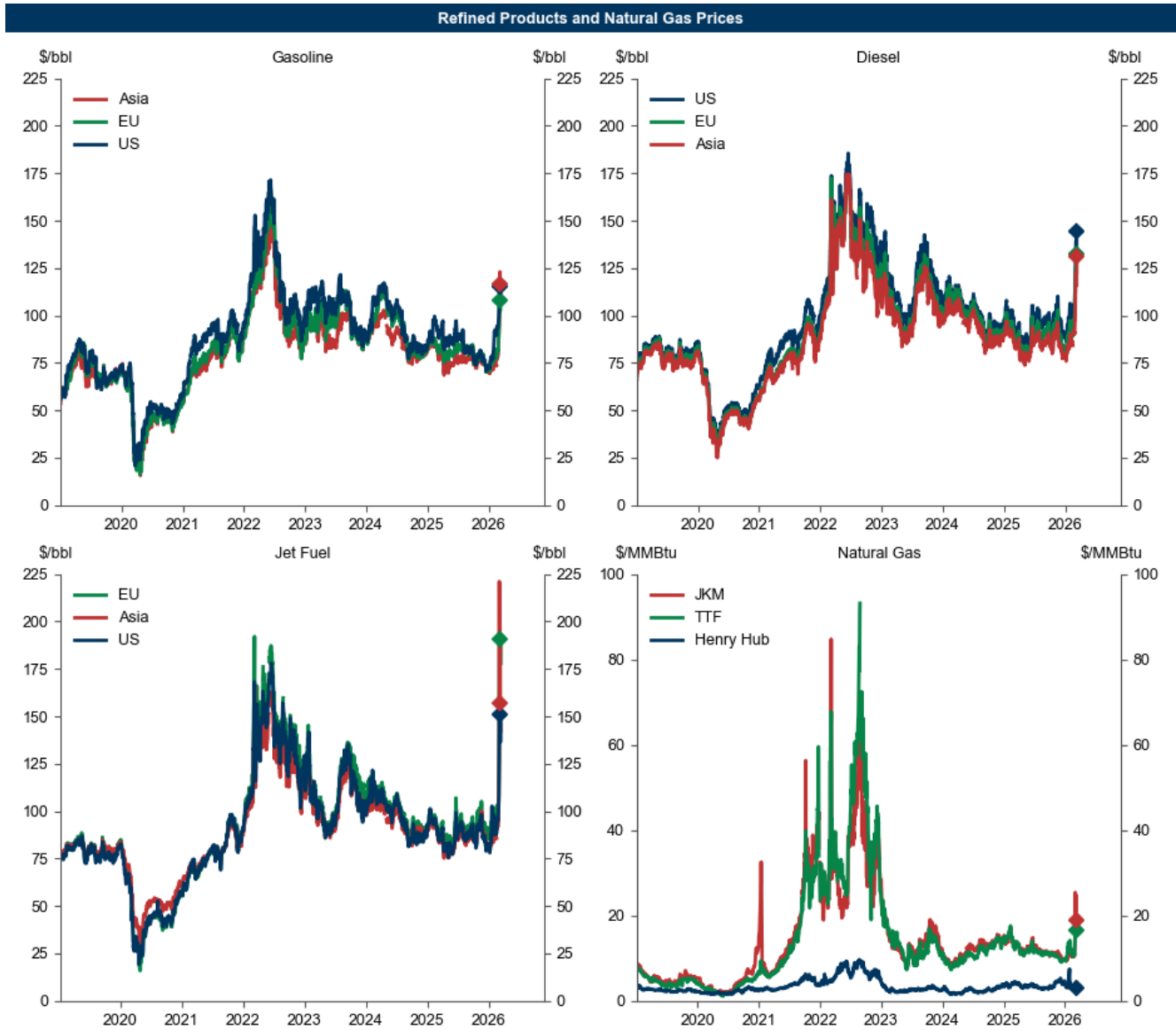
Entity	Date	Quote
<b>US Policymakers</b>		
US Energy Secretary Chris Wright	12-Mar	The US Navy is "simply not ready" to escort oil tankers through the Strait but will likely be able to <b>by the end of the month</b> .
President Donald Trump	9-Mar	The war will end "very soon", but <b>not this week</b> .
President Donald Trump	9-Mar	"The war is <b>very complete, pretty much</b> . They have no navy, no communications, they've got no Air Force."
US Energy Secretary Chris Wright	8-Mar	"We're not too long away before you'll see more regular resumption of ship traffic through the strait of Hormuz ... worst case that's <b>a few weeks</b> , that's not months".
US Energy Secretary Chris Wright	6-Mar	[Motor] gas prices will fall in " <b>weeks, rather than months.</b> "
US Defense Secretary Pete Hegseth	4-Mar	"It could be <b>six</b> , it could be <b>eight</b> , it could be <b>three</b> " <b>weeks</b> before the conflict is over.
President Donald Trump	3-Mar	Expects the US campaign to last <b>4-5 weeks</b> , but it could "go <b>far longer than that</b> ".
<b>Other</b>		
Trump Administration	12-Mar	Suspended Jones Act for <b>30 days</b> with the goal of lowering oil prices.
US Treasury	5-Mar	US issues license to permit Russia oil sales to India through <b>April 4</b> .
Indian Government Source	4-Mar	"New Delhi is scouting for alternative supply to prepare for continuing conflict in the Middle East <b>beyond 10-15 days.</b> "
Sinopec and PetroChina (Oil Refiner)	2-Mar	"Two Beijing-based feedstock management sources at state-run refiners told Platts that they estimate the Strait of Hormuz to be shut for around <b>10 days</b> . 'It will take time to end the conflict. Iran is a big country,' said one of the feedstock managers."

Source: Platts, Reuters, CBS News, The Guardian, Argus, CNN, Company guidance, Goldman Sachs Global Investment Research

## 6) Energy Prices

### Energy Prices Across Regions

**Exhibit 11: Diesel Prices Continued to Edge Higher Despite Some Moderation in Jet Fuel Prices**

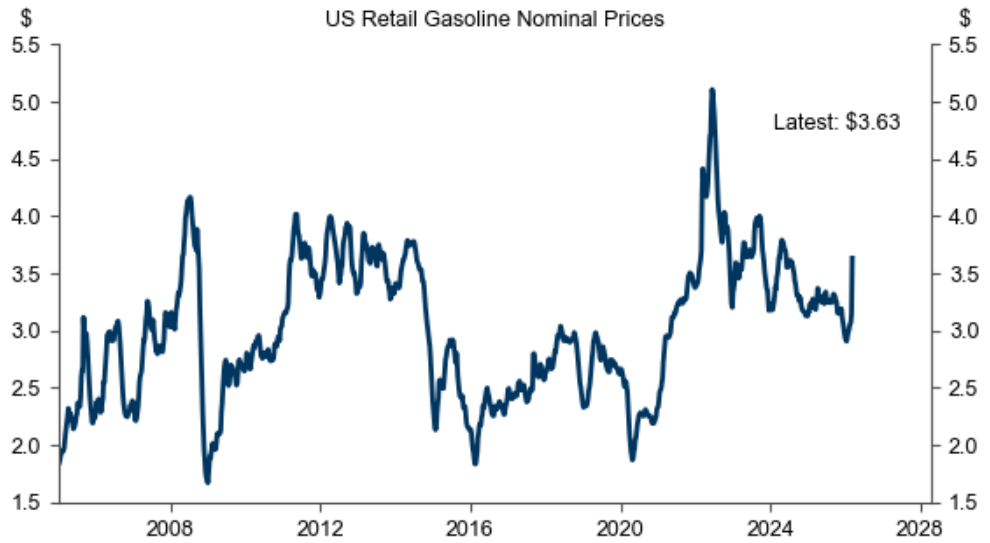


The refined product prices are wholesale prices.

Source: Platts, Goldman Sachs Global Investment Research

Us Retail Gasoline Price

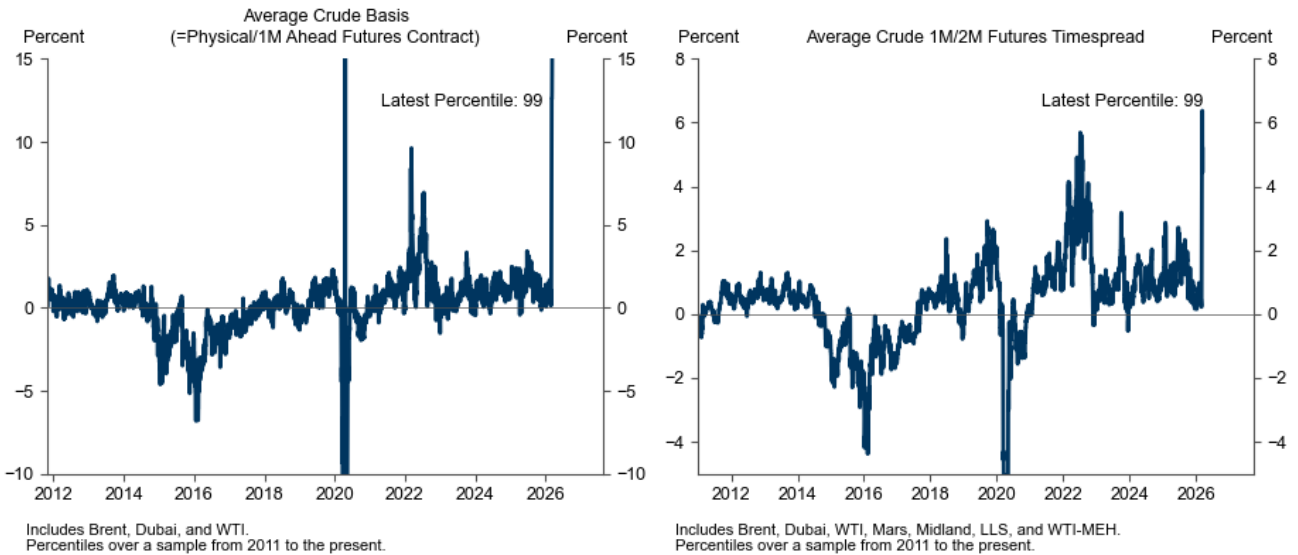
Exhibit 12: Average US Retail Gasoline Prices Jumped by 15% Week-Over-Week



Source: EIA, Goldman Sachs Global Investment Research

Crude Prices

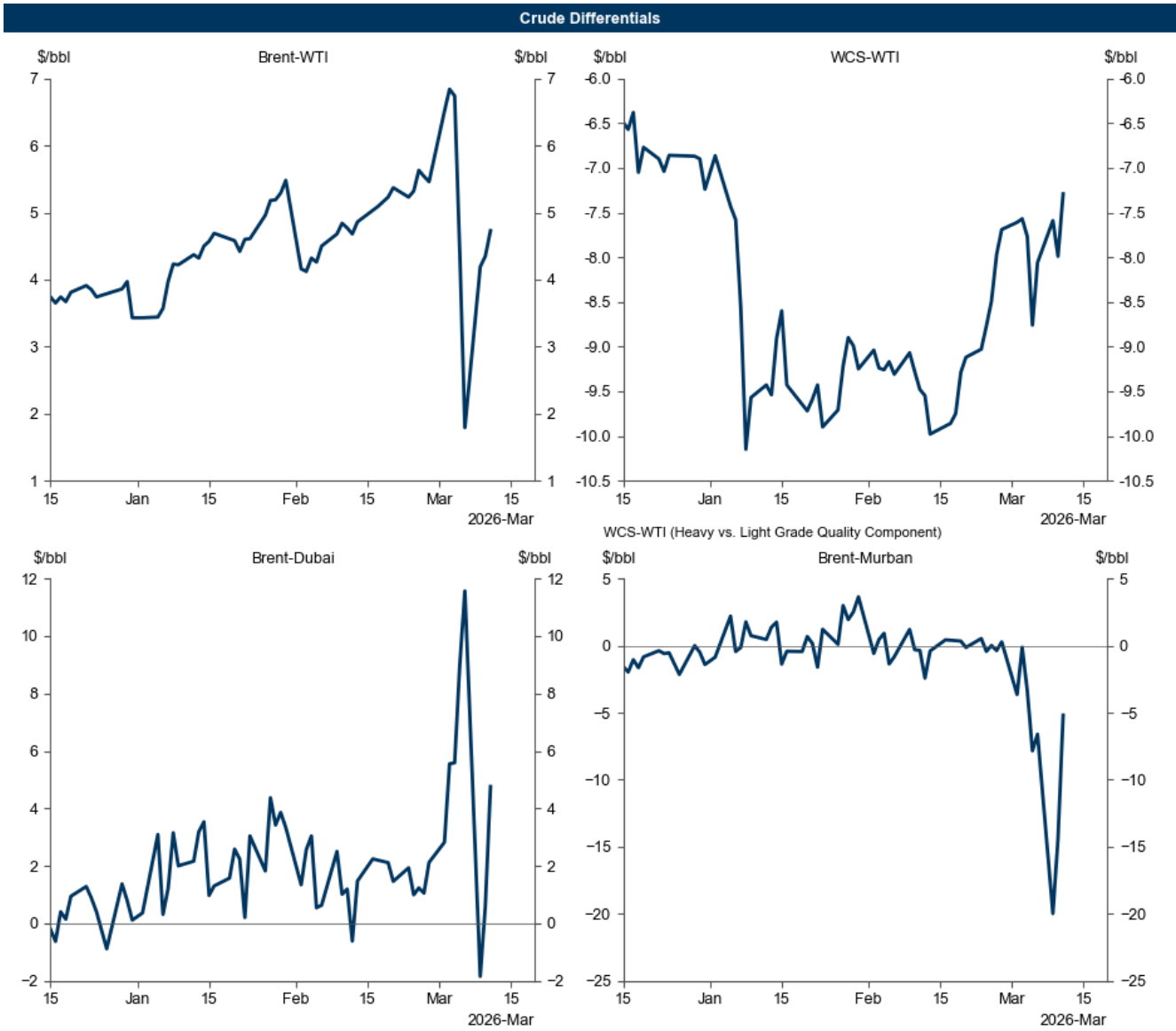
Exhibit 13: Spot Physical Markets Continue to Be Very Tight as Crude Consumers Rush To Secure Barrels for Prompt Delivery



Basis represents the difference (in % of 1M ahead futures) between spot physical crude futures and 1M ahead financial futures. We include Brent, Dubai, and WTI in crude basis on the left panel and Brent, Dubai, WTI, Mars, Midland, LLS, and WTI-MEH in 1M/2M timespreads on the right panel. We construct average crude spreads by first taking an unweighted average of crude types within a region and then taking a production-weighted average across regions.

Source: Platts, CME, Goldman Sachs Global Investment Research

**Exhibit 14: The WCS-WTI Heavy vs. Light Quality Price Differential Narrowed on Concerns About Lower Availability of Heavy and Medium Grades Globally**

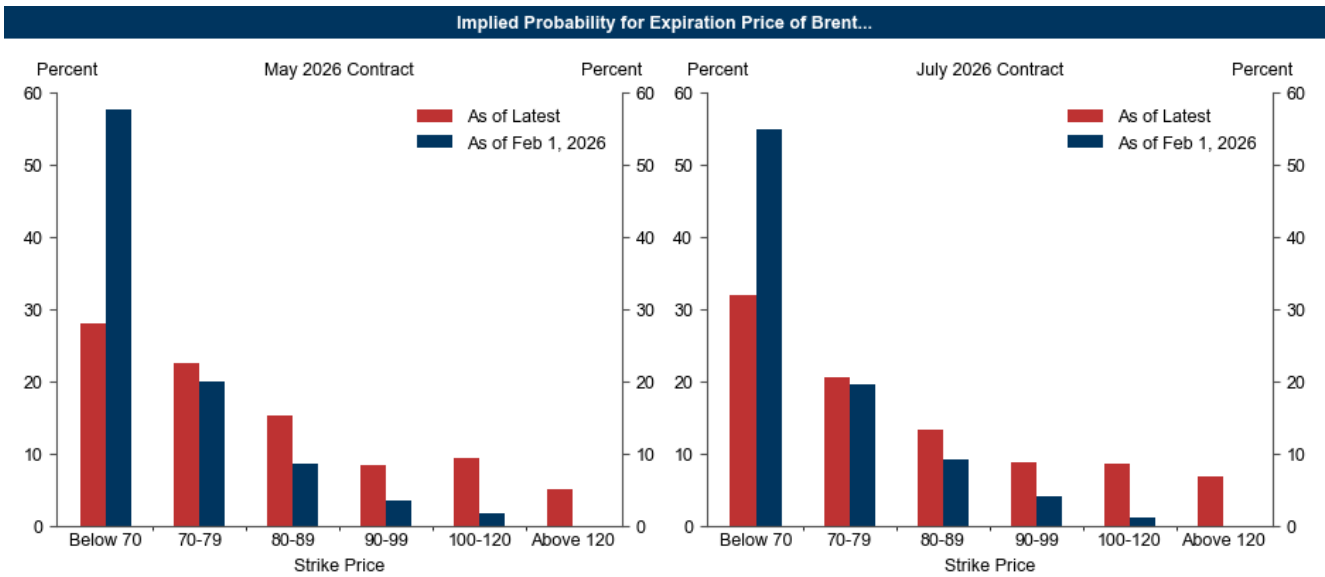


Price assessment centers for the featured grades: Brent — North Sea crude, NWE; WTI — US crude, Oklahoma; WCS - Canadian Crude, Texas; Dubai — UAE crude, Persian Gulf; Murban: — UAE crude, Gulf of Oman.

Source: Platts, ICE, Goldman Sachs Global Investment Research

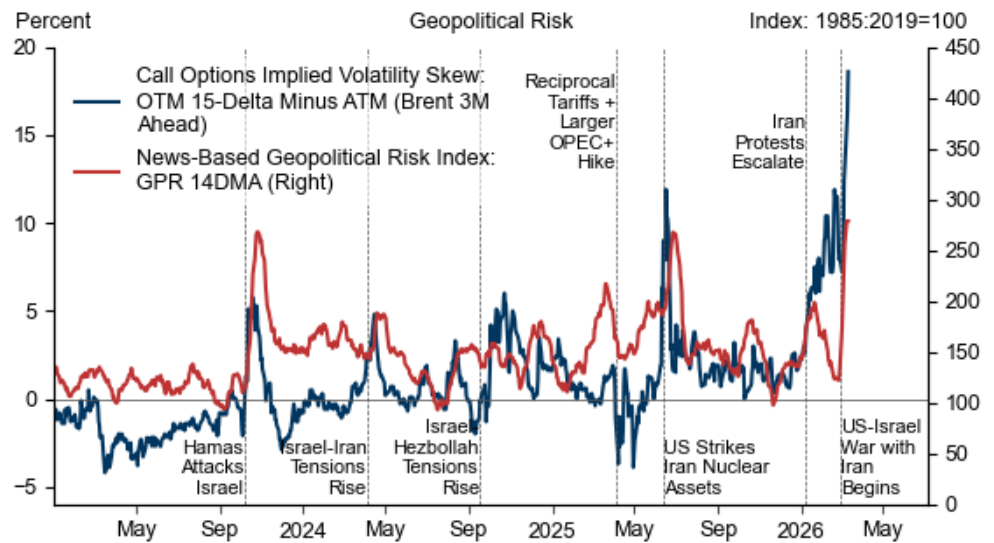
Options-Implied Pricing

**Exhibit 15: Options Market Now Prices Around 15% Probability that May-July Brent Contracts Expire Above \$100/bbl**



Source: Goldman Sachs Global Investment Research

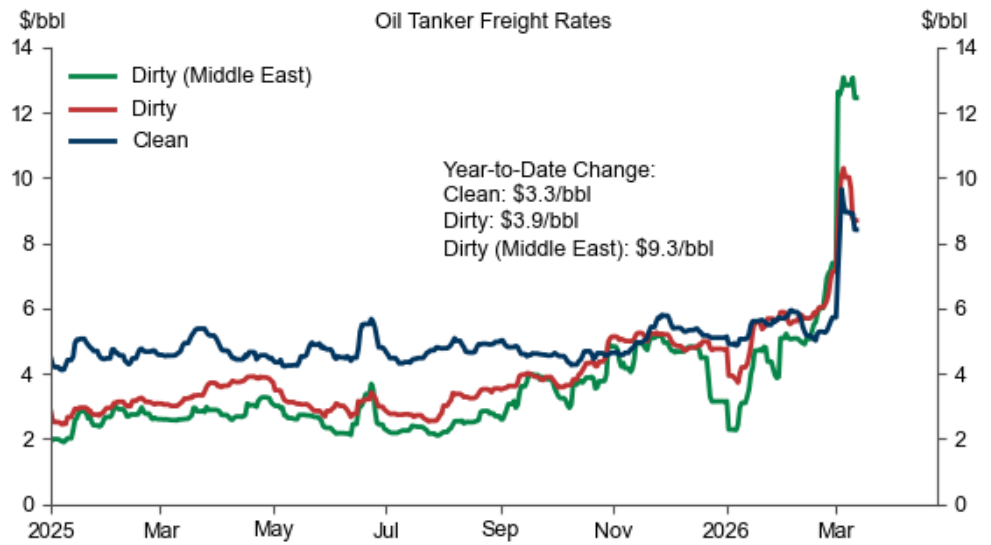
**Exhibit 16: Call Options Implied Volatility Skew (i.e., Implied Price of Hedging Against Higher Oil Prices) Reached a New All-Time High**



Source: Goldman Sachs Global Investment Research

### Freight Prices

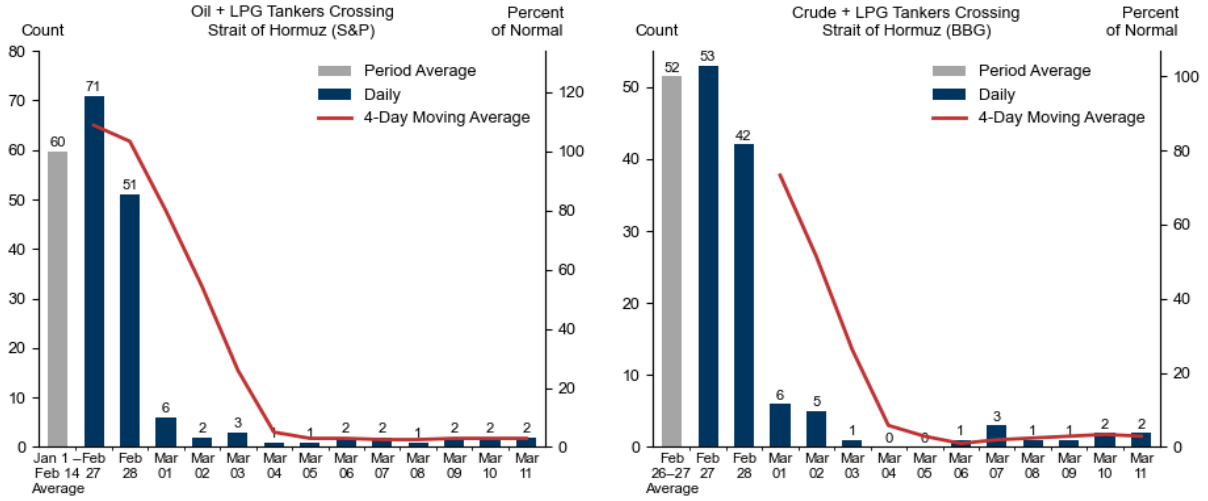
**Exhibit 17: Freight Rates Edged Down Over the Last Two Days, But Middle East Crude Freight Rate Is Still \$9/bbl Above the Pre-War Levels**



Source: Reuters, Refinitiv Eikon, Goldman Sachs Global Investment Research

### Appendix

**Exhibit 18: While Satellite Data on Strait of Hormuz Crossings Are Affected by AIS Signals Disruptions in the Region, Various Sources Point to Severe Disruptions in the Strait of Hormuz Flows**



Source: S&P Global Commodities at Sea, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 19: A Growing List of Attacks on Oil Tankers Suggests High Physical Risks for Vessels in the Region, but So Far No Confirmed Attacks on Asian Tankers**

Oil Tankers Attacked In/Around Strait of Hormuz						
#	Affected Tanker	Date	Location	Country Flag	Oil Being Carried	Capacity* (kb)
1	MKD VYOM	1-Mar	52 miles off coast of Muscat, Oman	Marshall Islands	Unknown	555
2	Ocean Electra	1-Mar	Off coast of Sharjah, UAE	Liberia (Greek-owned)	Unknown	355
3	Sea La Donna	1-Mar	Off coast of Abu Dhabi, UAE	Liberia	Unknown	308
4	Skylight	1-Mar	Musandam peninsula, Oman (5 miles north of Khasab Port)	Palau	Products	84
5	Hercules Star	1-Mar	Off coast of Mina Saqr, UAE	Gibraltar	Ship Fuel	60
6	Athe Nova	2-Mar	Off coast of Khor Fakkan, UAE (Gulf of Oman)	Honduras	Bitumen	22
7	Stena Imperative	2-Mar	Bahrain Port	US	Products	373
8	Libra Trader	4-Mar	10 miles east of UAE	Marshall Islands	Crude	2,328
9	Unknown	4-Mar	37 miles off Mubarak Al Kabeer port, Kuwait	Unknown	Unknown	
10	Sonangol Namibe	5-Mar	Off coast of Khor al Zubair port, Iraq	Bahamas	None	1,188
11	Unknown	5-Mar	North of Persian Gulf	US	Unknown	
12	Unknown	6-Mar	Off coast of Kuwait	Unknown	Unknown	
13	Louise P	7-Mar	10 miles north of Jubail, Saudi Arabia	Marshall Islands	Unknown	
14	Unknown	8-Mar	Off the coast of Oman	Unknown	Unknown	
15	Unknown	10-Mar	Near Abu Dhabi	Unknown	Unknown	
16	Safesea Vishnu	11-Mar	Off the coast of Iraq	Marshall Islands	Naphtha	500
17	Zefyros	11-Mar	Off the coast of Iraq	Malta	Condensate	340

\*Assuming a dwt to bbl conversion of 7.5.

Source: Data compiled by Goldman Sachs Global Investment Research

**Exhibit 20: IEA Members Agreed to Make 400mb of Strategic Oil Reserves Available to the Market, With the Earliest Delivery as Soon as March 16th**

Country	Max Announced (mb)	Implied Pace (mb/d)	Percentage of Total	Notes
US	172	1.4	43%	Release to begin next week; expected to take 120 days.
Japan	80	0.7	20%	Unilateral release starting as early as March 16.
South Korea	23	0.2	6%	Confirmed as part of the coordinated effort.
Germany	20	0.2	5%	Confirmed as part of the coordinated effort.
France	15	0.1	4%	Confirmed as part of the coordinated effort.
UK	14	0.1	3%	Confirmed as part of the coordinated effort.
Turkey	12	0.1	3%	To release within 90 days.
Other IEA Members (unconfirmed)	66	0.6	17%	Includes contributions from 26 other member states.
<b>Total</b>	<b>400</b>	<b>3.3</b>	<b>100%</b>	<b>Reserves "available to the market".</b>

Implied pace of SPR releases was estimated under a 120-day window delivery assumptions.

Source: IEA, Goldman Sachs Global Investment Research

## Disclosure Appendix

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