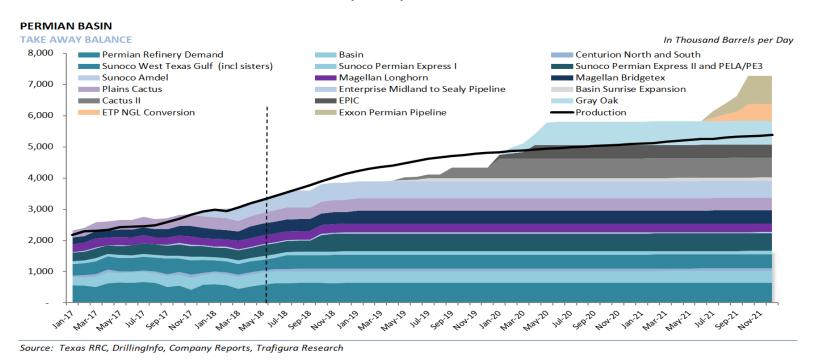
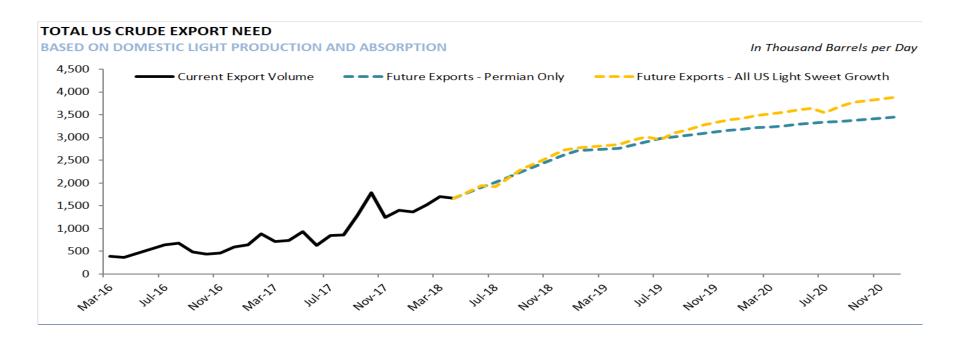


PERMIAN BALANCES

 Frantic pace of Permian production growth has ballooned price differentials as producers scramble for rail / truck capacity to evacuate the basin



US EXPORTS AND EXPORT REQUIREMENT



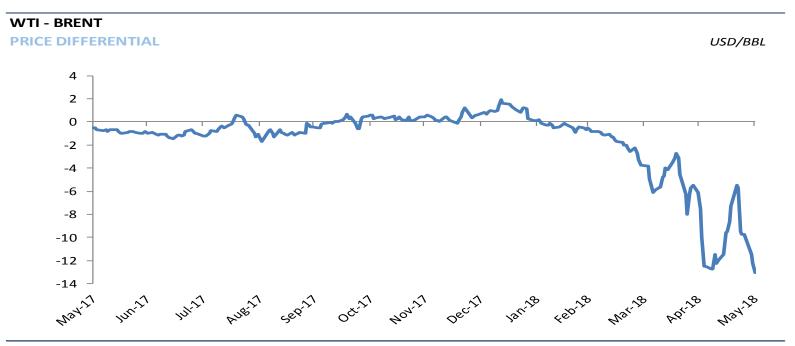


MIDLAND DIFFERENTIAL HEADING BACK OUT AFTER RECOVERING A BIT



Source: Bloomberg, Trafigura Research

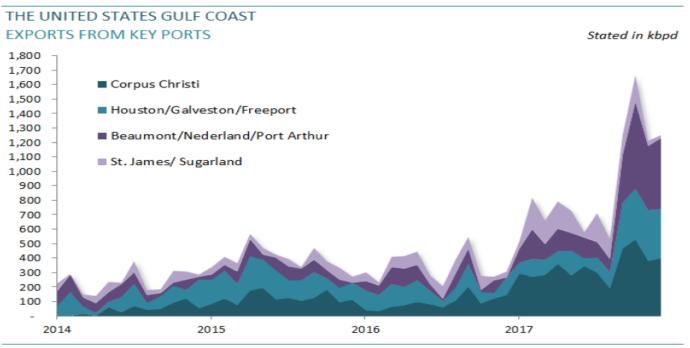
...WHILE WTI-BRENT CONTINUES TO WEAKEN



Source: Bloomberg, Trafigura Research



US IS NOW EXPORTING NEARLY 2 MMBPD FROM VARIOUS PORTS

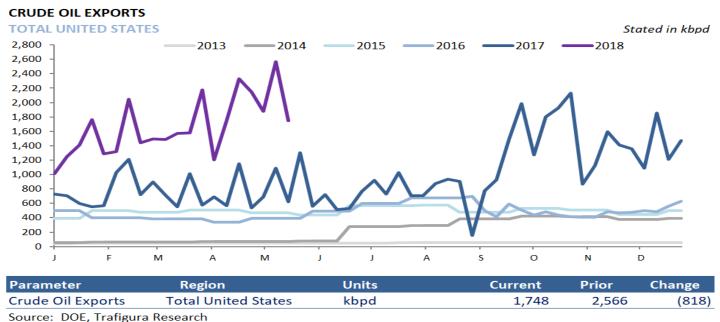


Source: Customs, Clipper, Lloyds, Trafigura Research



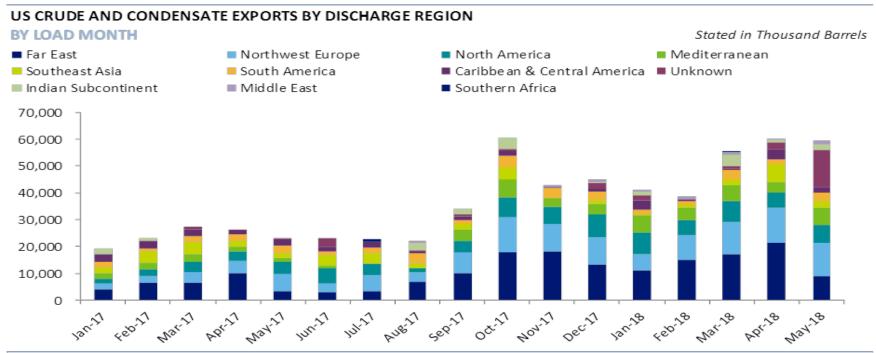
US EXPORTS AND EXPORT REQUIREMENT

- Exports rising strongly since mid-2017, absorbing significant portion of the incremental light US crude production over that period
- We expect that 1.8- 2.0 million bpd is the new US baseline for exports which will be tested to the upside as US production continues to boom





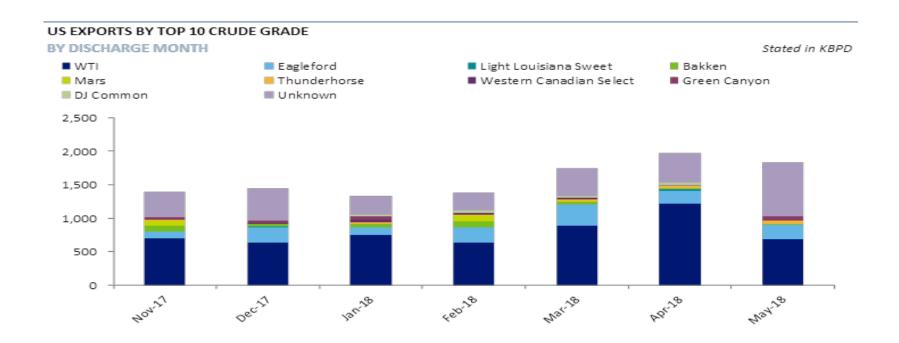
US CRUDE AND CONDENSATE EXPORTS ARE INCREASING TO ALL REGIONS



Source: APEX, Clipper, EIKON, Petrologistics, Broker Reports, Trafigura Research



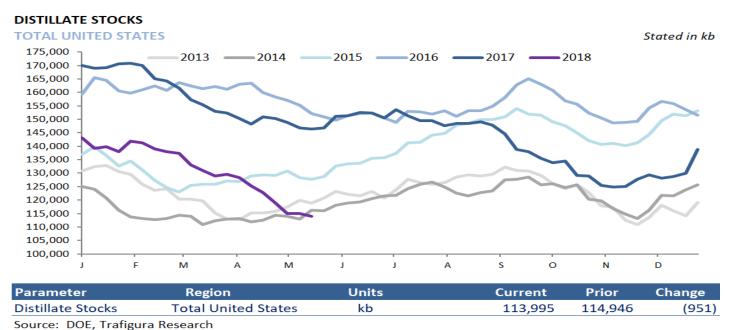
WTI EXPORTS ARE LIGHTENING THE GLOBAL SLATE





US DISTILLATE FUEL INVENTORIES

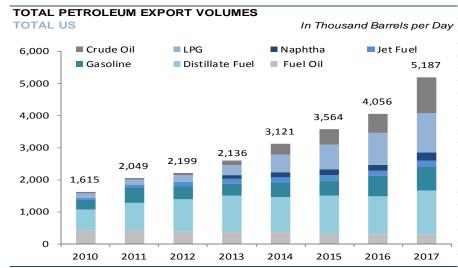
Distillate stocks in the US have breached the low-point of the five-year average – partially a
demand phenomenon but also a function of low yield due to US refineries maximizing runs of
high-naphtha light shale crude





UNITED STATES: PETROLEUM PRODUCT EXPORTS

- Total US petroleum exports continued to surge through end-2017, setting a new record high in aggregate and for each of the key individual products (crude oil, LPG, gasoline, distillate fuel, jet fuel)
- The majority of these steams are moving to Latin America (especially Mexico and Brazil), meeting heightened import requirements as local refinery production has collapsed due to operational, financial, and strategic decisions in recent years
- Europe (mainly the Mediterranean) is a large and growing destination for distillates, but competition from is intense the Arab Gulf, Russia, and local refining in that market
- For specific products (LPG / Naphtha), arbitrage to Asia is typically economic and products largely clear into India, South Korea and Japan



Source: EIA, Trafigura Research



LPG FLOWS TO KEY MARKETS US LPG Exports - 2010 (KBPD) Mexico Canada **CALENDAR 2010** Ecuador Dominican Republic **Total volume: 132 kbpd** Brazil Honduras Japan China Korea Netherlands UK Remarks: Mexico is the largest export market with small but ratable volumes moving to other Americas markets; occasional cargos to markets in Northwest Europe and North Asia

LPG FLOWS TO KEY MARKETS



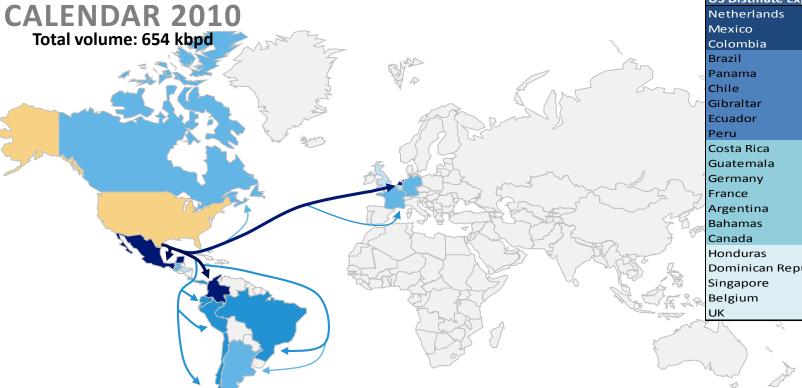


US LPG Exports - 2017 (KBPD) Japan 211 China 145 Mexico 131 Korea 94 Canada 77 India 59 58 Singapore Brazil 56 38 UK Netherlands 36 Dominican Republic 33 Norway 28 Indonesia 20 Australia 18 Ecuador 15 Guatemala 12 12 Honduras Morocco Panama

Remarks: The United States has become one of the single largest providers of LPG to Japan, Korea and China, displacing other regions; starting in 2016, the United States displaced most others supplies to India and Indonesia; it is likely that a good portion of this relates to OPEC cuts



DISTILLATE FLOWS TO KEY MARKETS



JS Distiliate Exports - 20	TO (KRAD)
Netherlands	115
Vlexico	94
Colombia	55
Brazil	46
Panama	38
Chile	38
Gibraltar	26
Ecuador	26
Peru	22
Costa Rica	17
Guatemala	17
Germany	16
rance	16
Argentina	13
Bahamas	13
Canada	12
Honduras	9
Dominican Republic	6
Singapore	6
Belgium	5
JK	5

DISTILLATE FLOWS TO KEY MARKETS

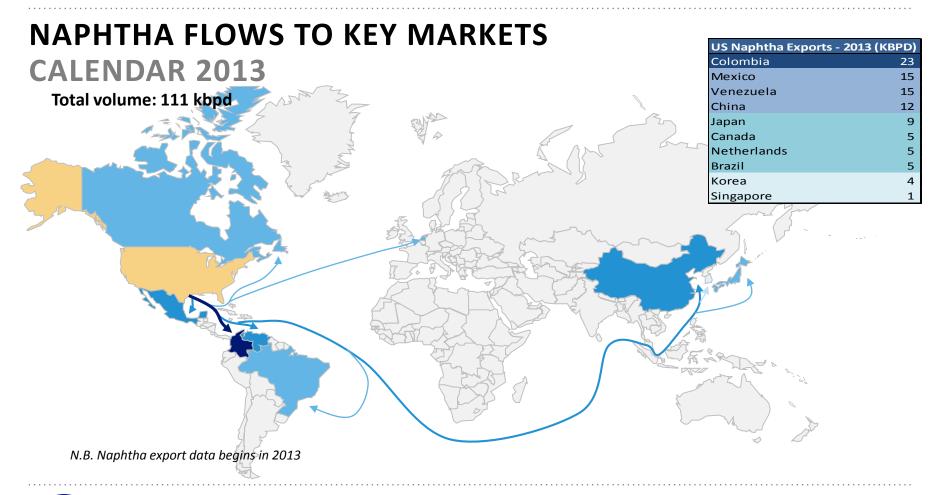




US Distillate Exports - 2017 (KBPD) Mexico 246 208 Brazil Chile 99 Netherlands Peru France Guatemala 46 Panama Argentina UK Fcuador Singapore Costa Rica 26 Gibraltar 26 Canada 21 Colombia 19 Bahamas 14 Honduras 14 Dominican Republic 13 Belgium 11 Germany

Most U.S. export growth originates from the increasing shortfall in Latin America and, seasonally, Europe due to refinery shutdowns; Northwest Europe competes for markets in Latin America







NAPHTHA FLOWS TO KEY MARKETS

