



НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ
УНИВЕРСИТЕТ

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NRU HSE

SUPPLY DYNAMICS AMONG THE “BIG THREE” OIL PRODUCERS: RUSSIA, SAUDI ARABIA AND THE USA

PREPARED FOR SABANCI UNIVERSITY IICEC, 4 OCTOBER 2018

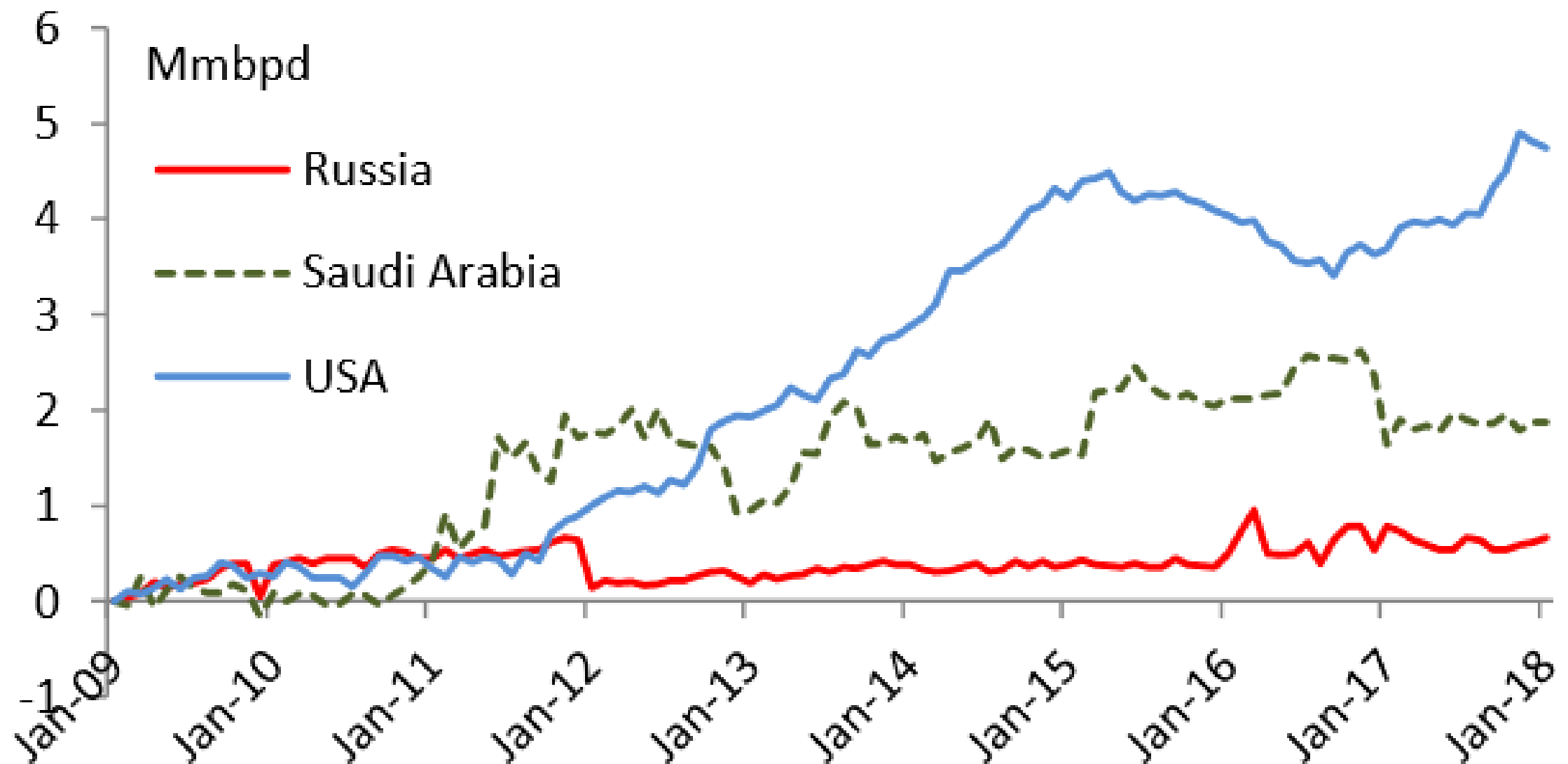
“BIG THREE” ACCOUNT FOR OVER ONE-THIRD OF GLOBAL OIL SUPPLY AND SET THE RULES FOR NEW GREAT GAME



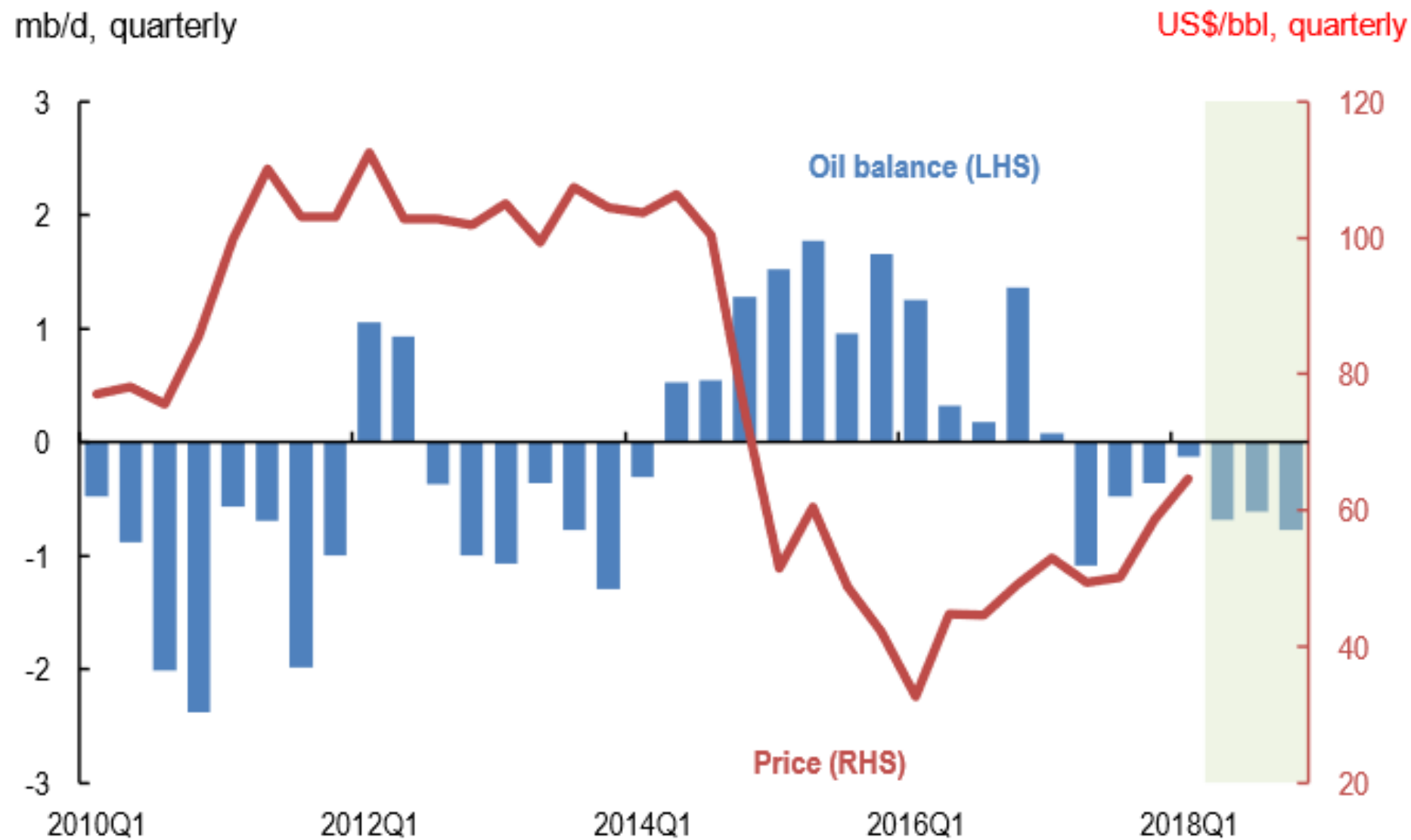


LONG AND PAINFUL MARKET REBALANCING

INCREMENTAL CHANGE IN CRUDE OIL OUTPUT

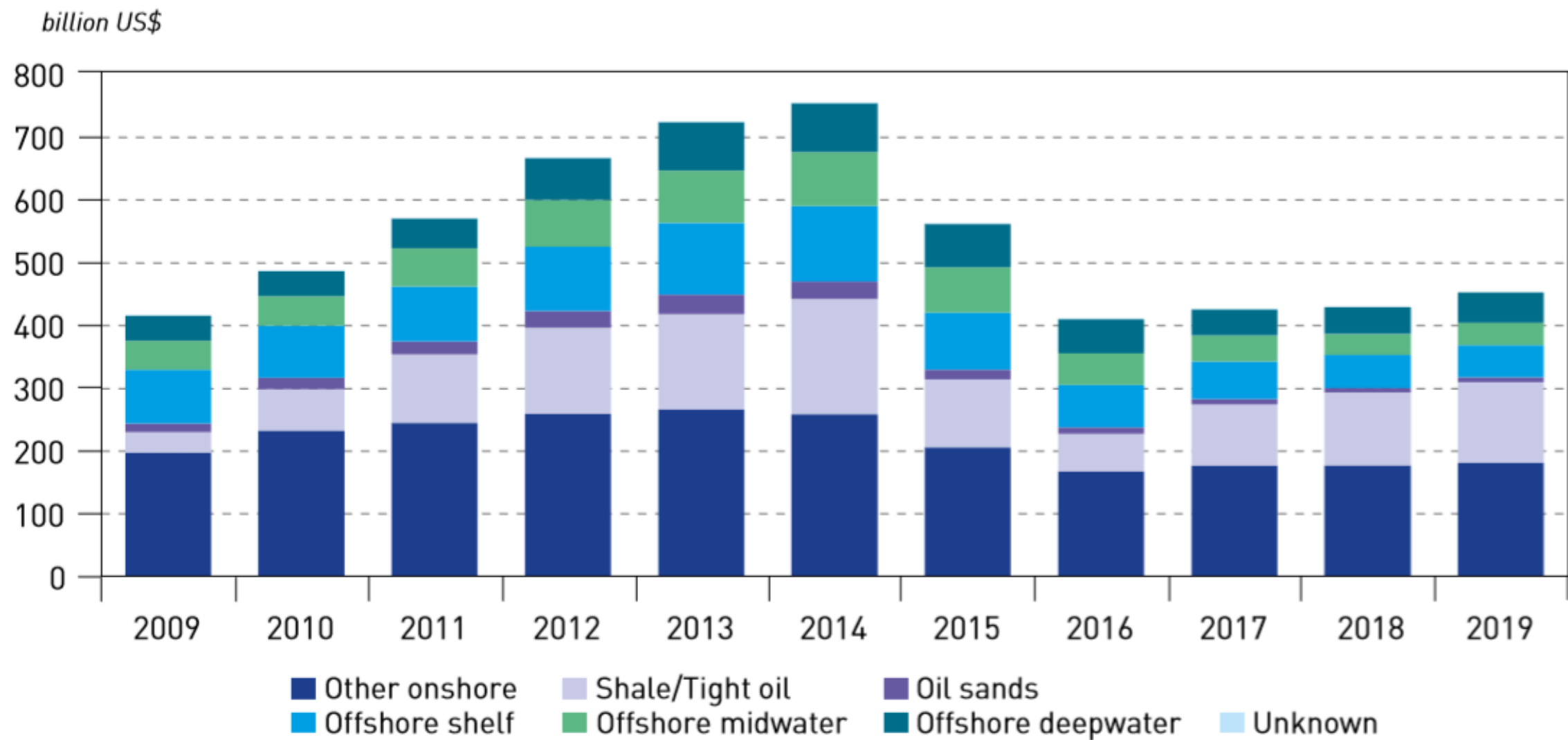


WORLD OIL BALANCE AND OIL PRICE



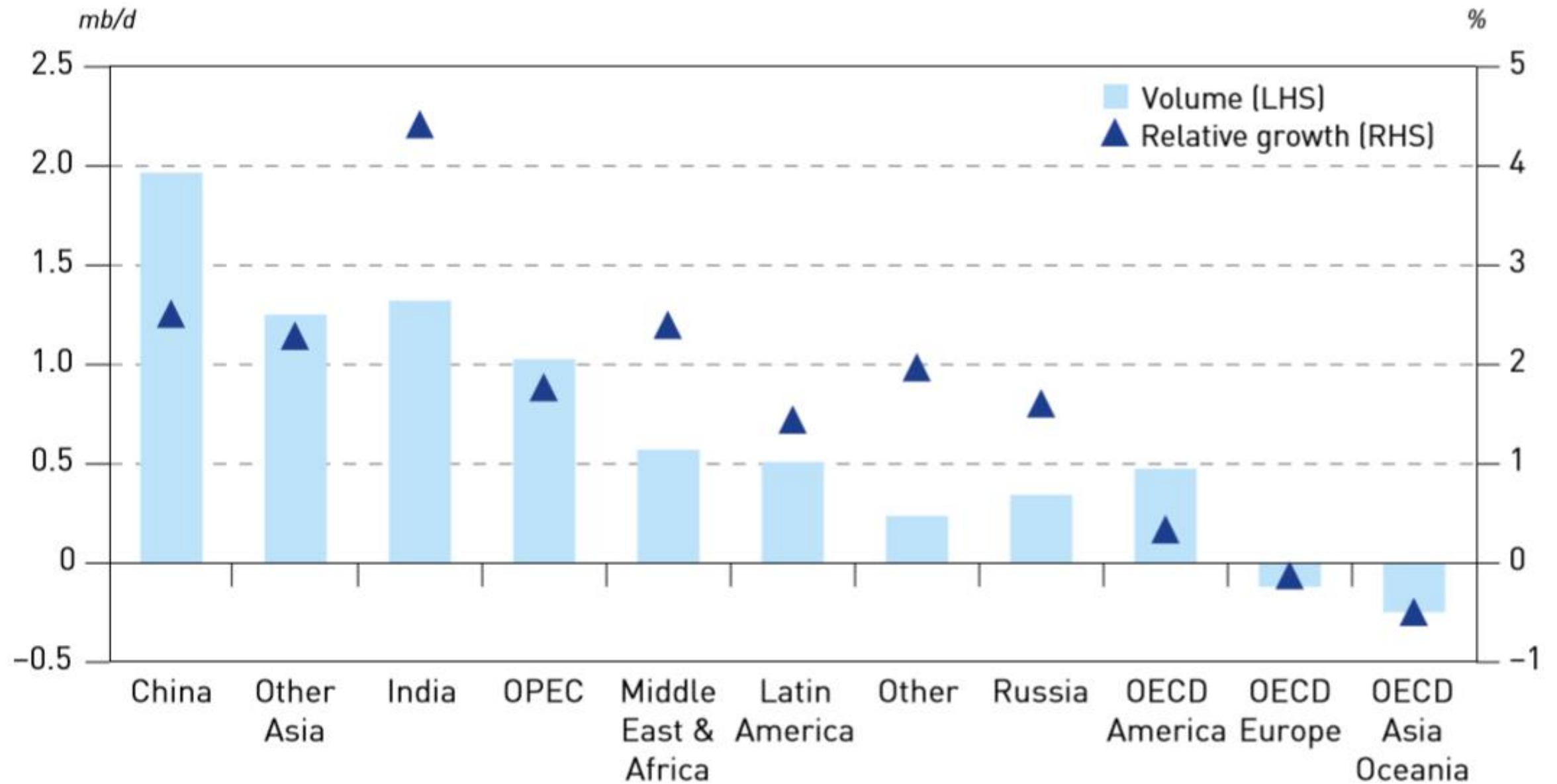
Source: IEA, World Bank, shaped area represents IEA projection

NON-OPEC INVESTMENT BY SUPPLY SEGMENT

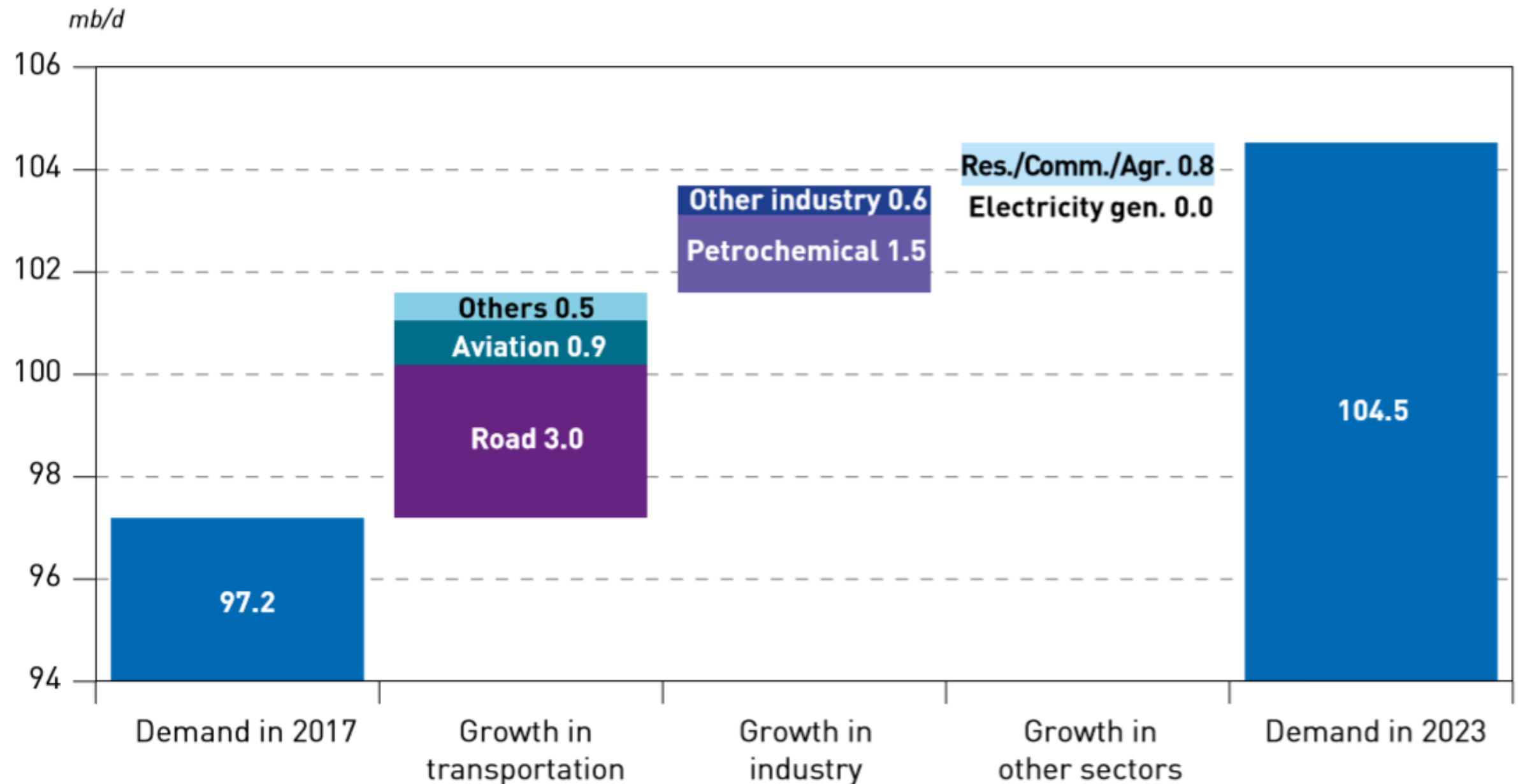


Source: OPEC Secretariat and Rystad Energy.

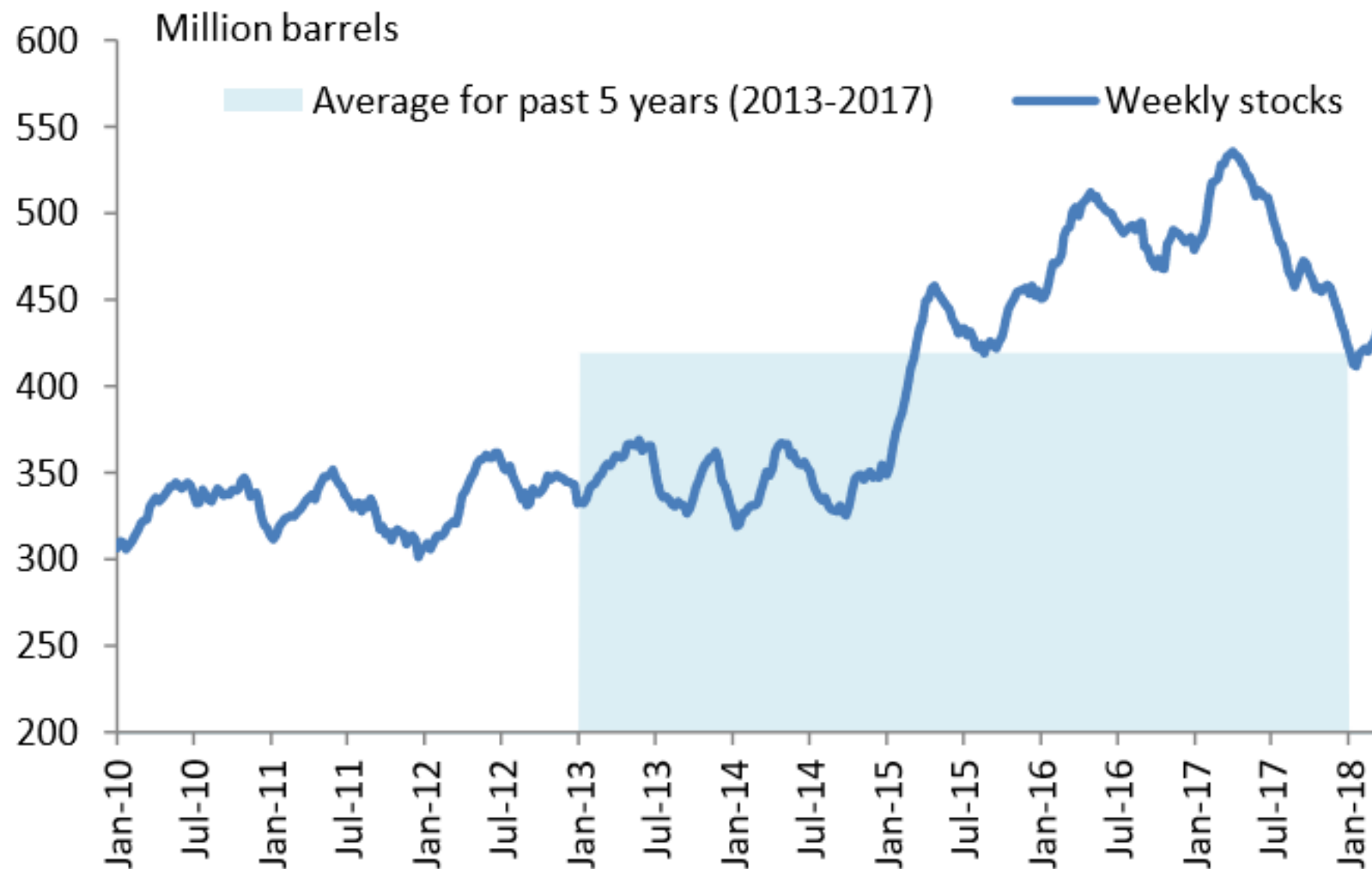
REGIONAL OIL DEMAND GROWTH BETWEEN 2017 AND 2023



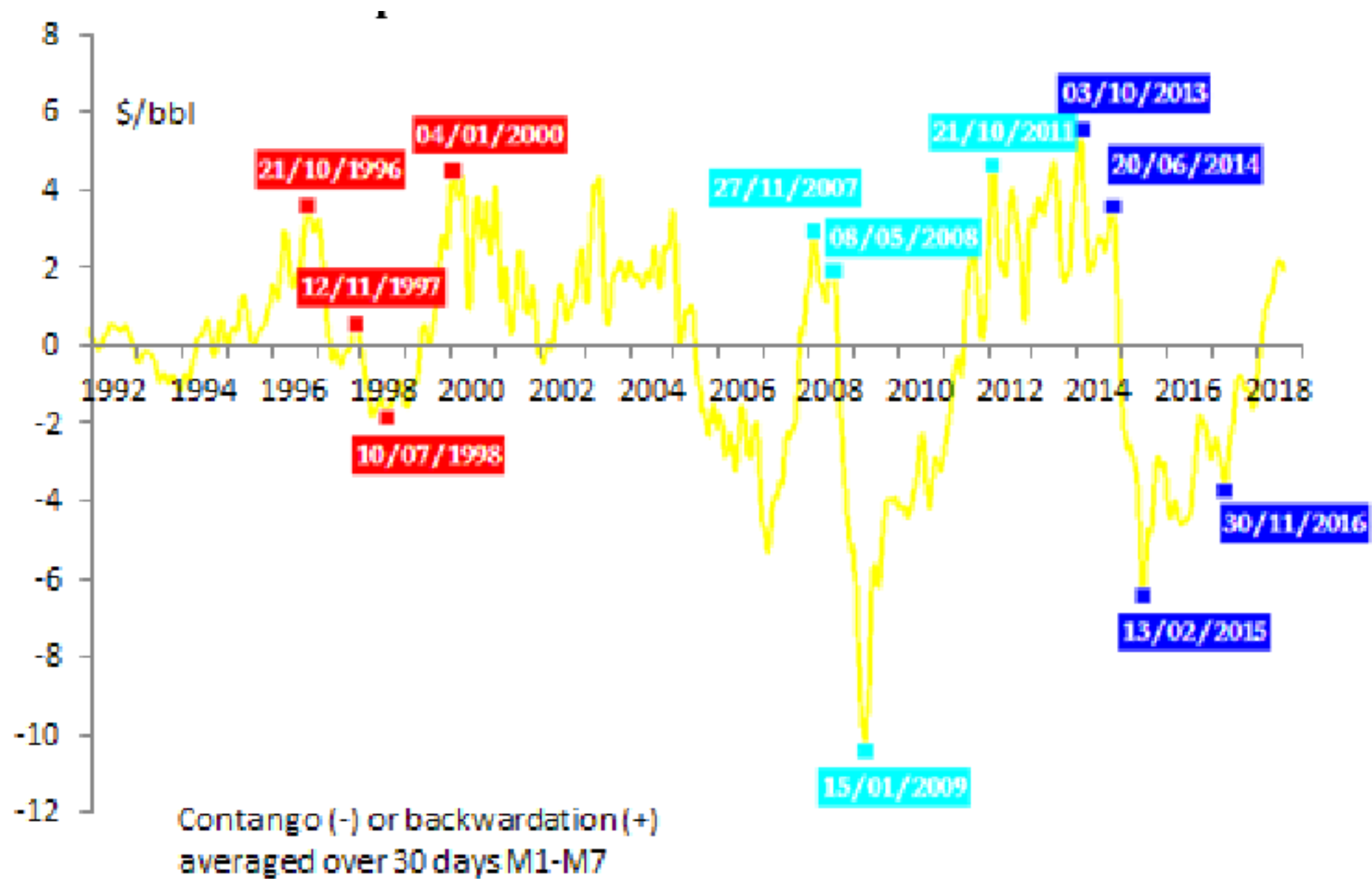
GROWTH IN GLOBAL OIL DEMAND BY SECTOR BETWEEN 2017 AND 2023



U.S. CRUDE OIL STOCKS EXCLUDING SPR



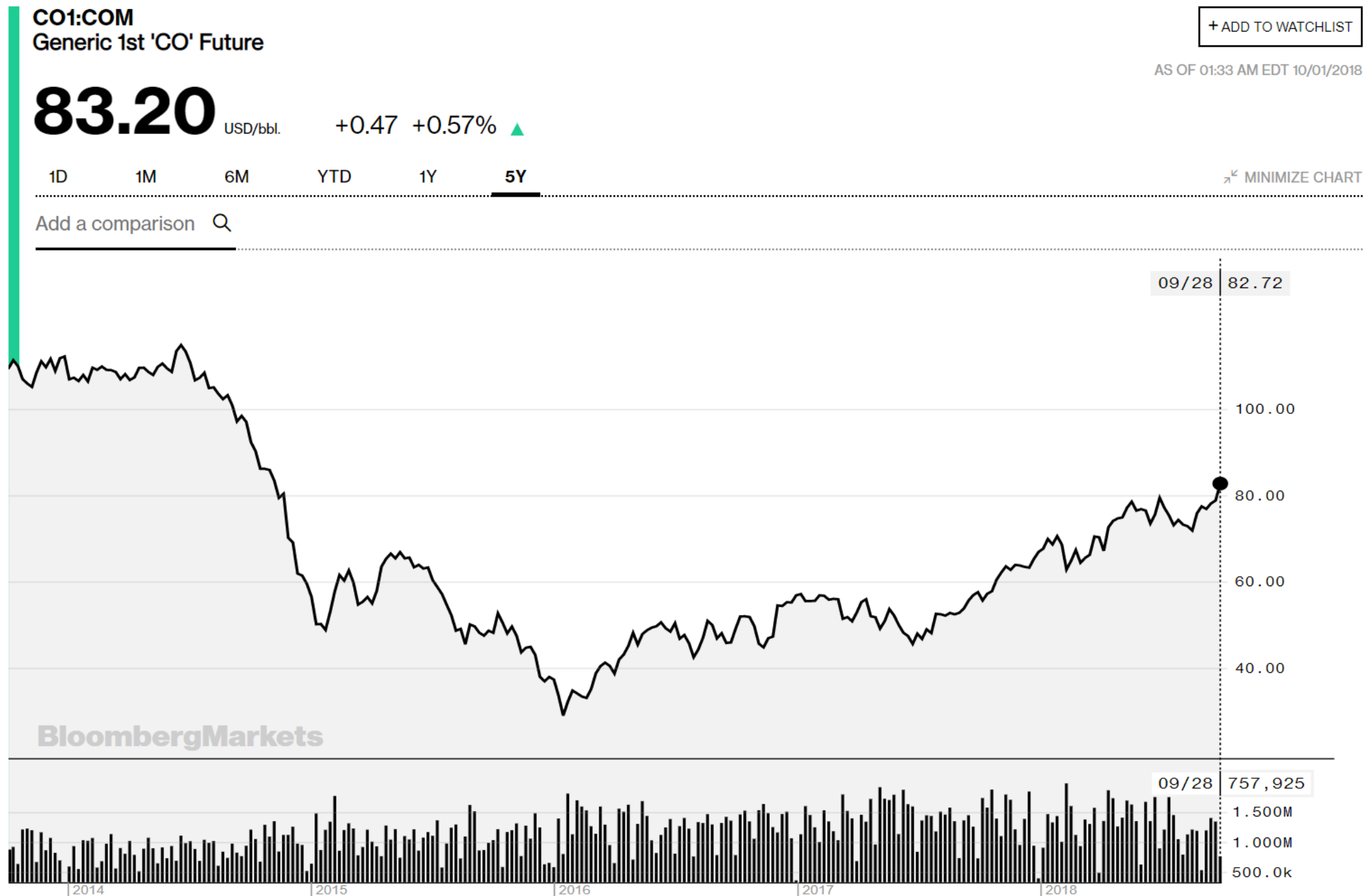
SHAPE OF THE FUTURES CURVE IN BRENT CRUDE



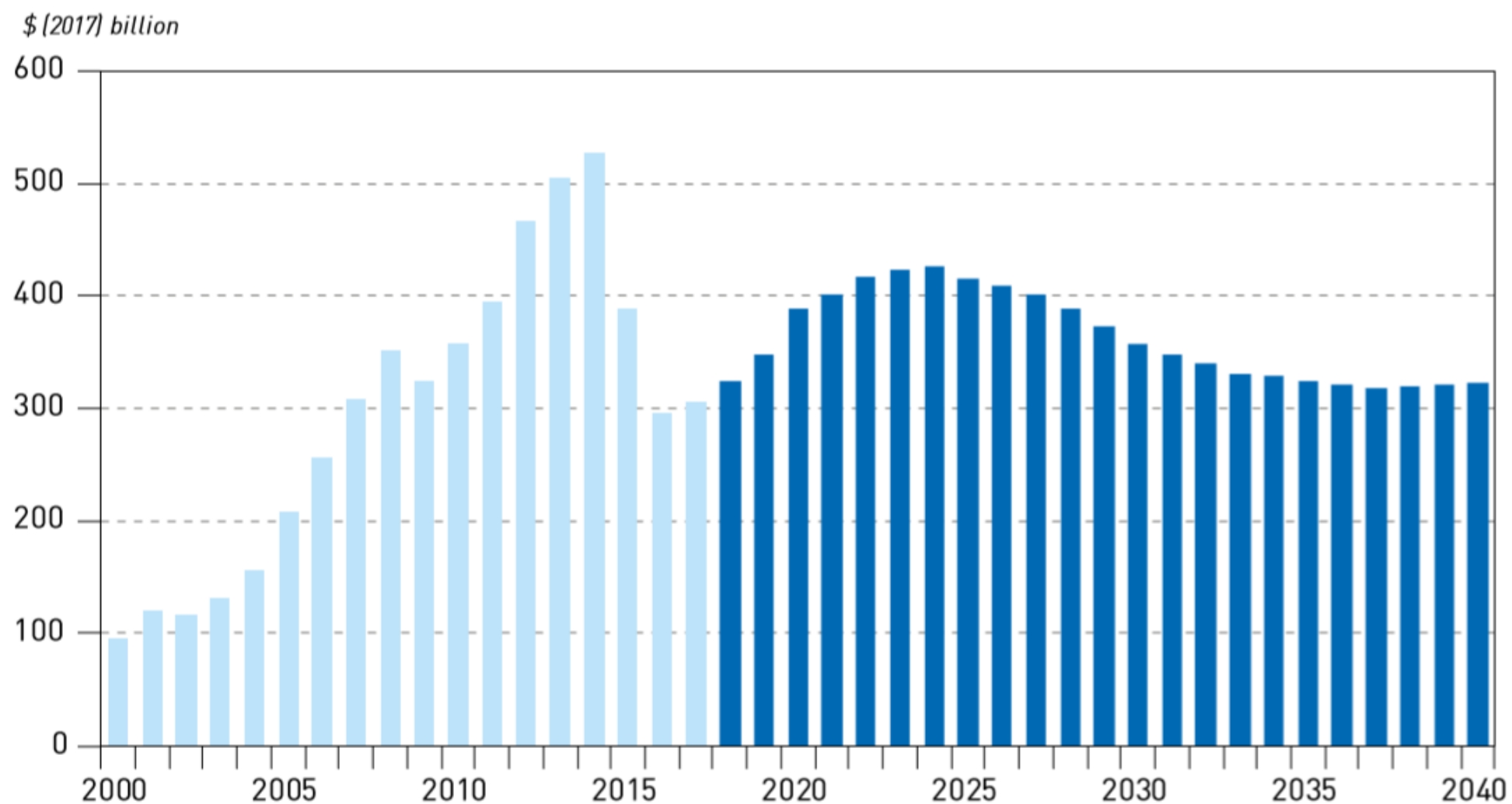
Source: Thomson Reuters Eikon, ICE Futures@KempEnergy



OIL PRICE BREAKS \$80 LEVEL – TALK OF RETURN OF \$100 OIL



ANNUAL GLOBAL UPSTREAM CAPITAL EXPENDITURE, HISTORICAL AND FUTURE REQUIREMENTS

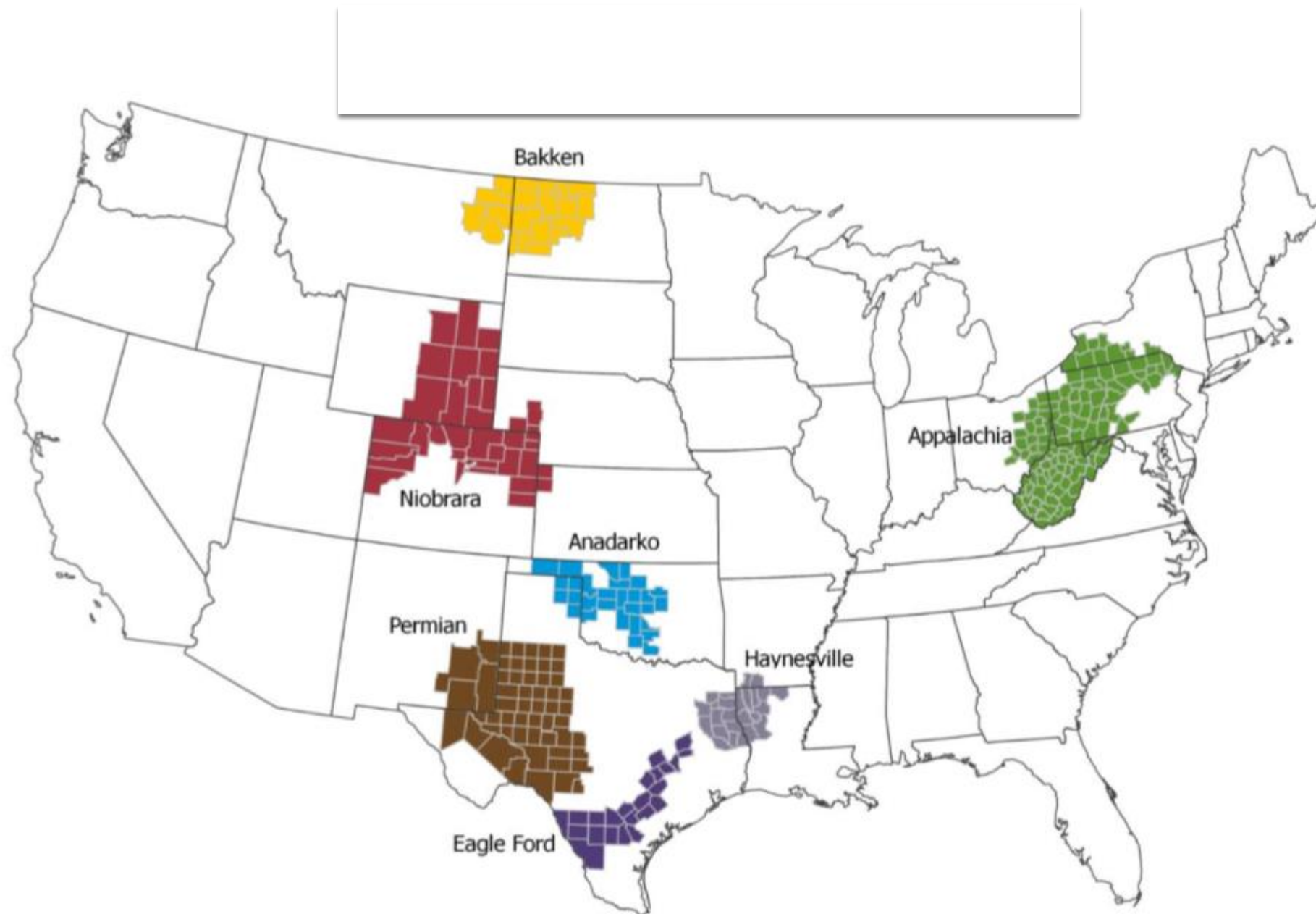


Source: Rystad Energy (historical, adjusted for inflation), OPEC (projection).



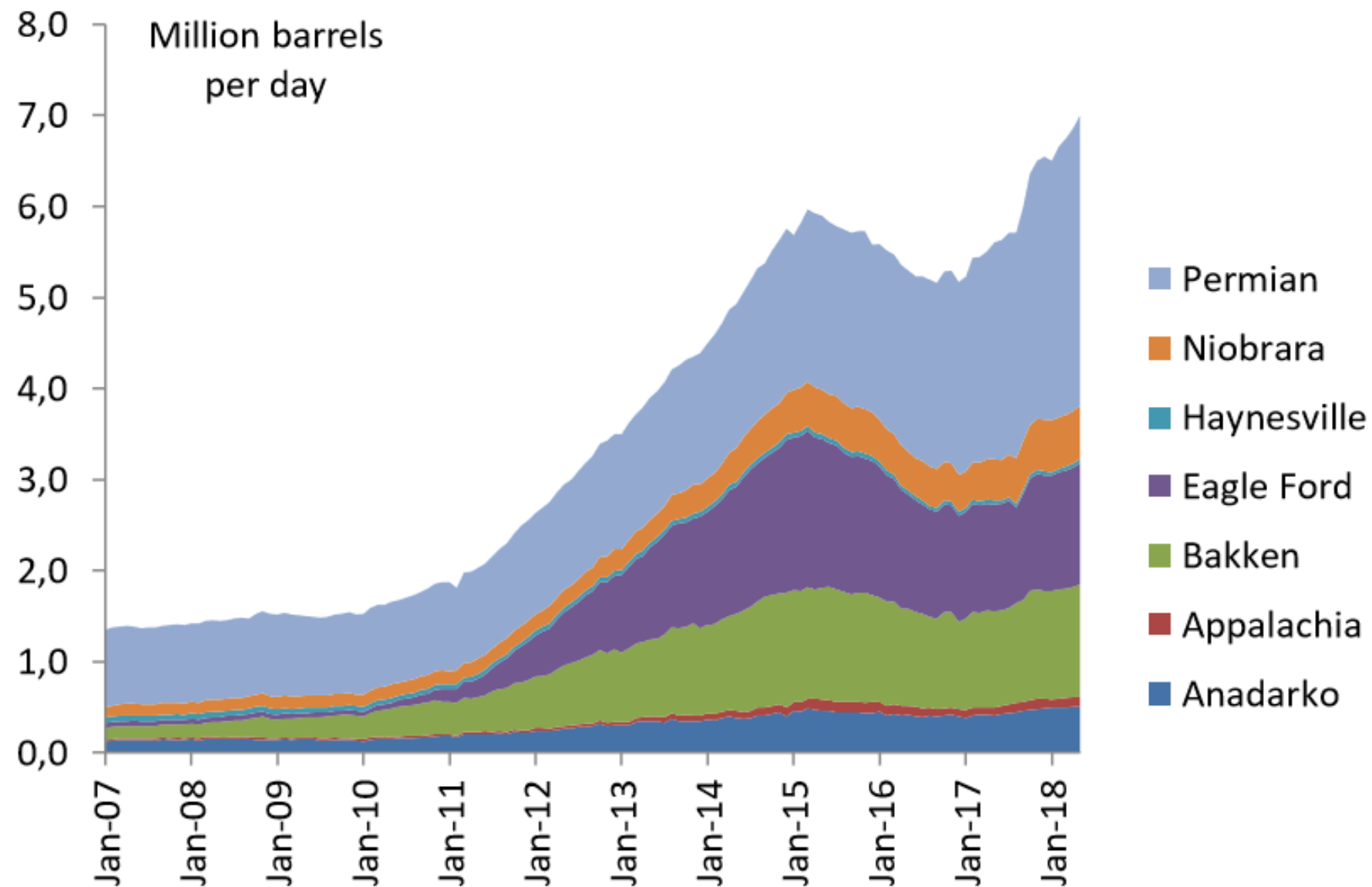
THE UNITED STATES: THE CONTINUING MIRACLE IN THE OIL FIELDS

OIL PRODUCING REGIONS IN THE USA



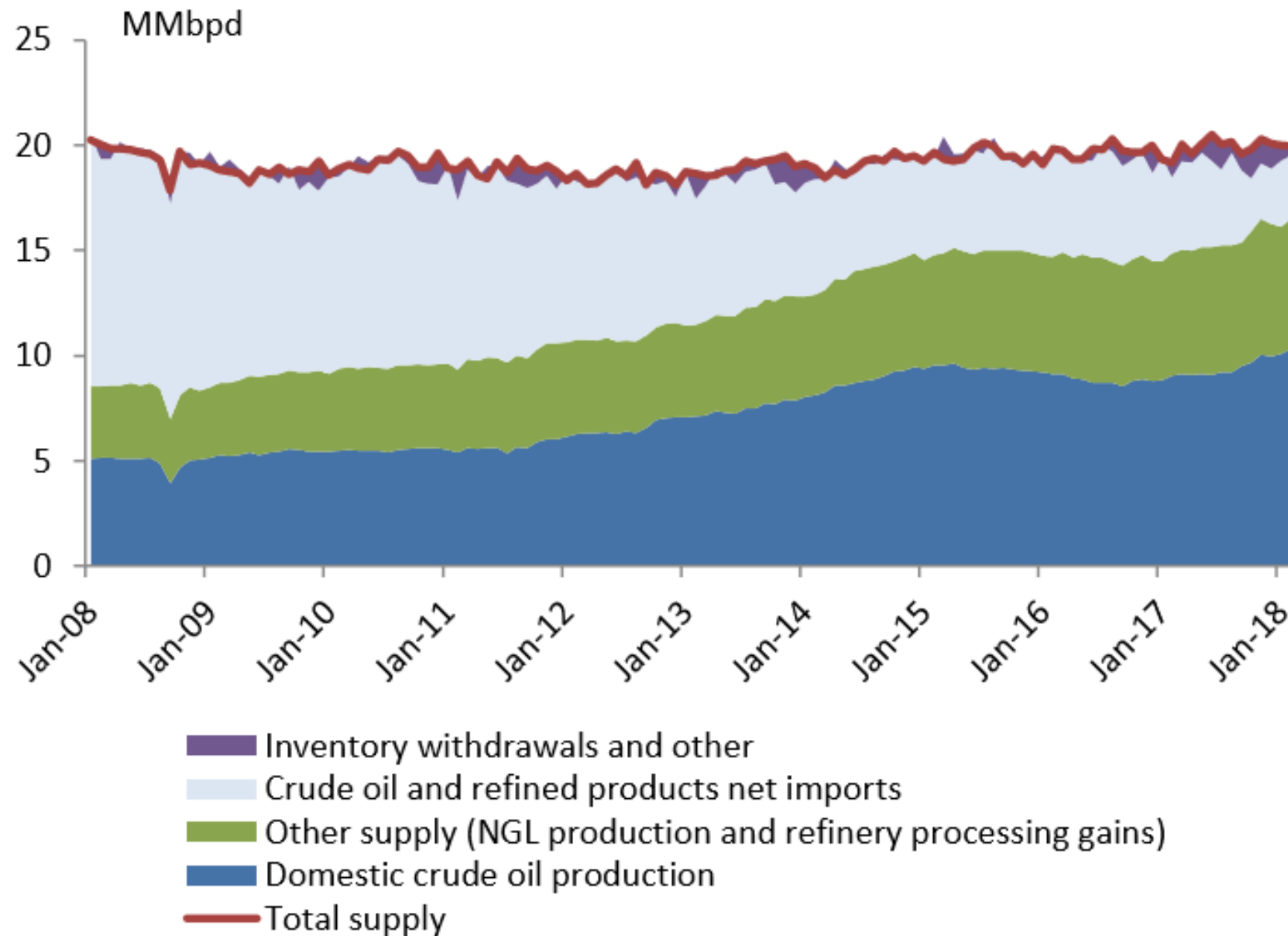
Source: EIA

OIL PRODUCTION IN THE CONTINENTAL UNITED STATES



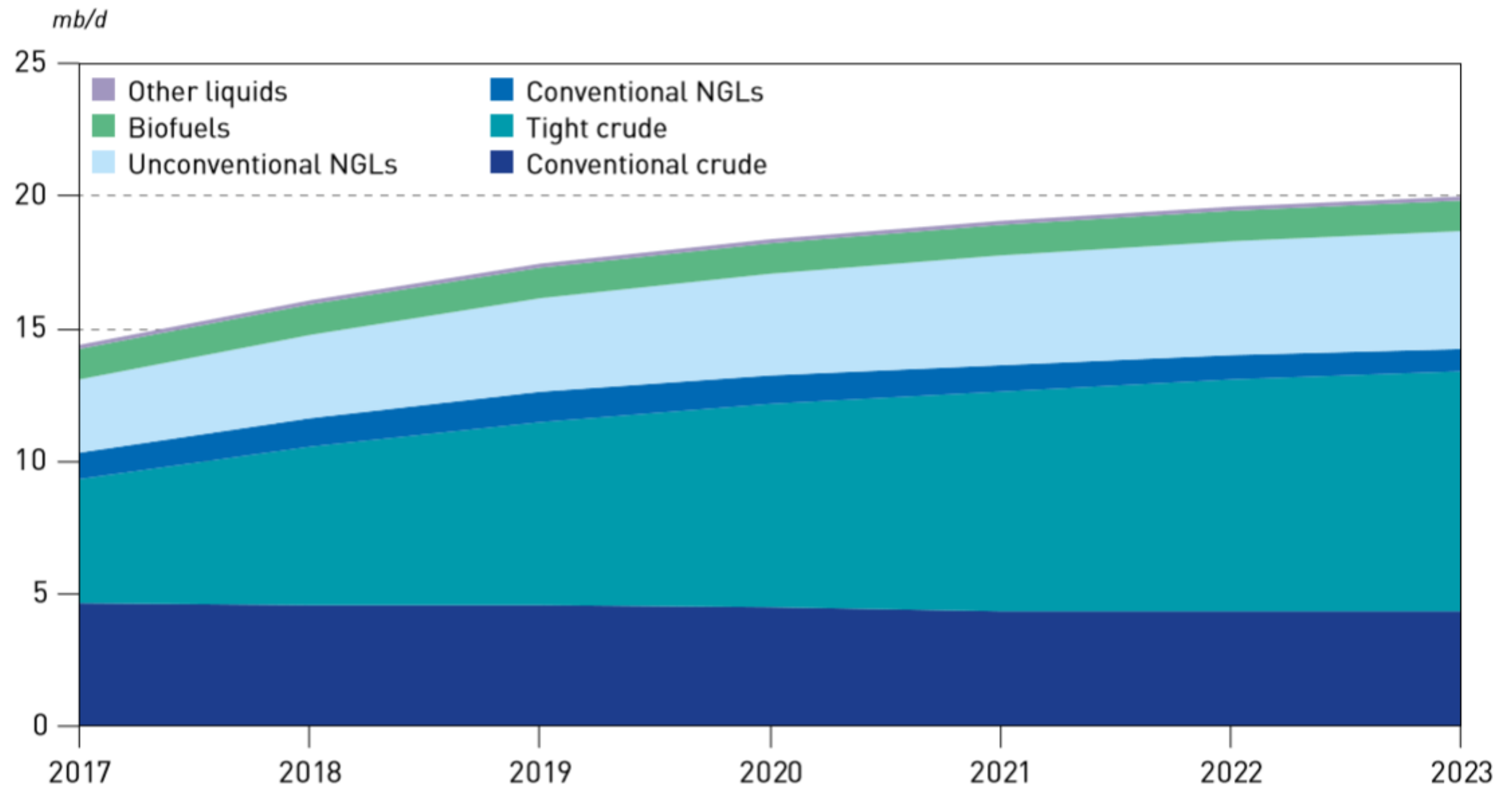
Source: CERP NRU HSE, data from EIA

COMPOSITION OF U.S. PETROLEUM SUPPLY



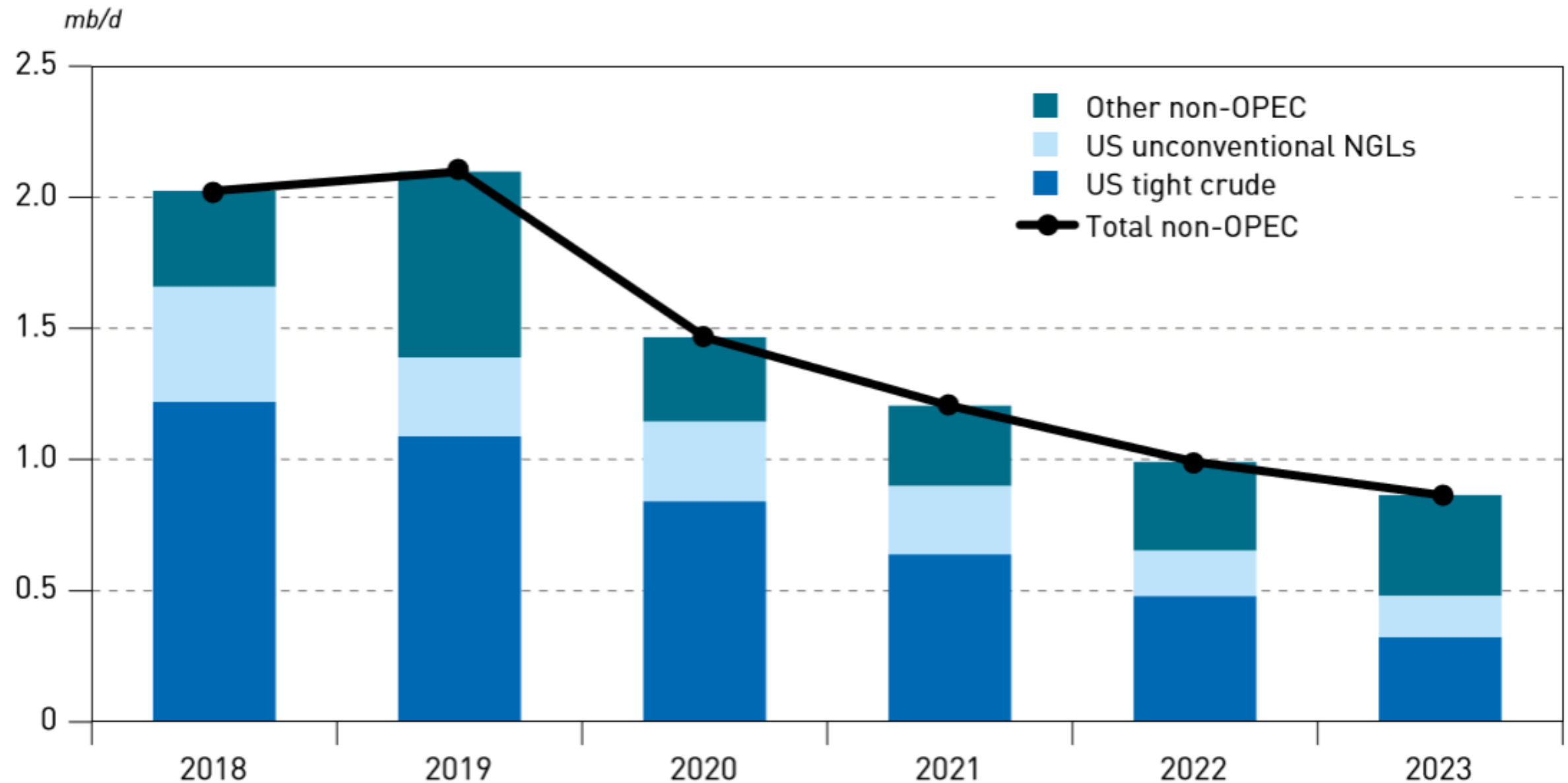
Source: CEPR NRU HSE, data EIA

US MEDIUM-TERM TOTAL LIQUIDS SUPPLY



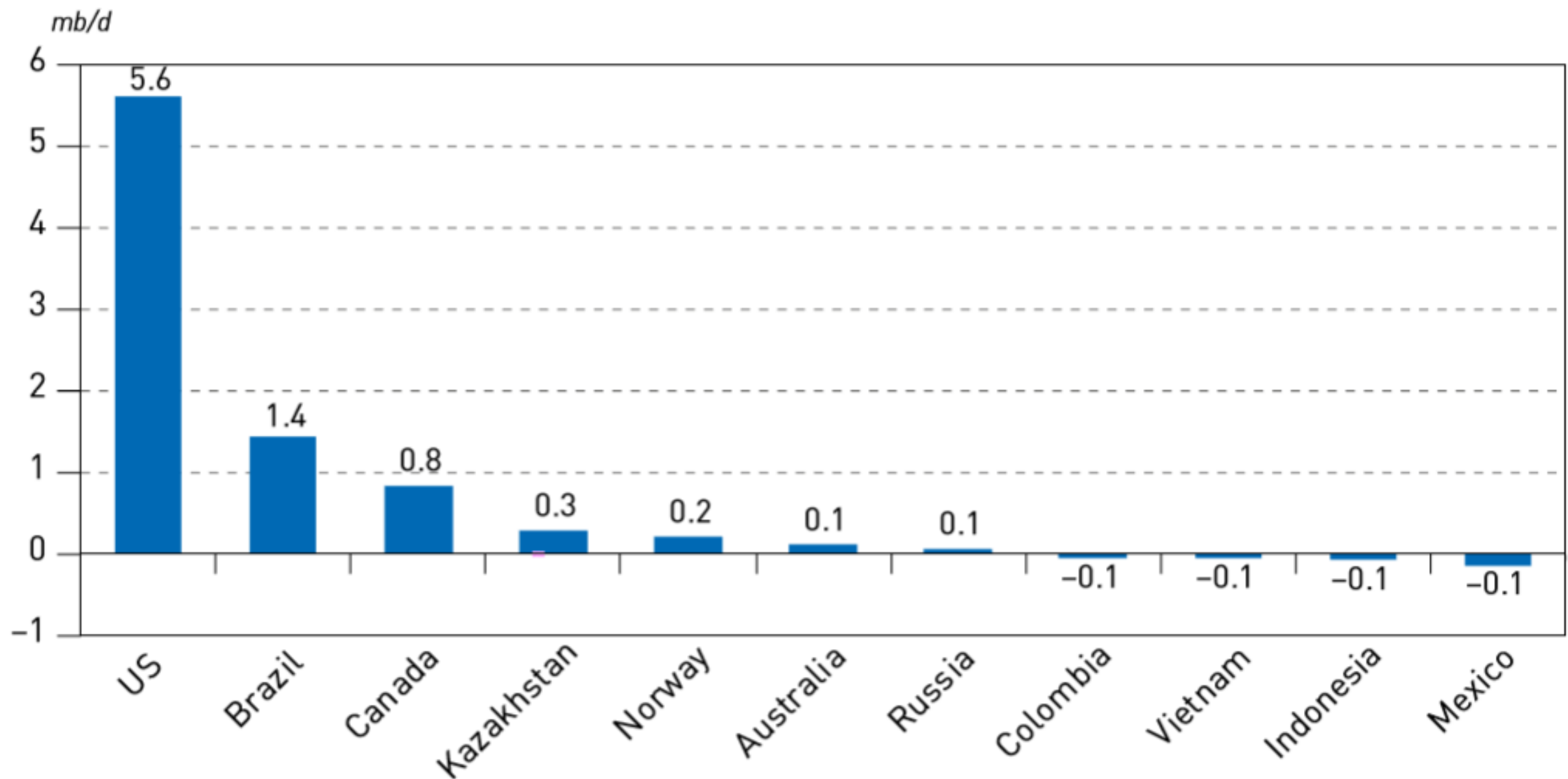
Source: OPEC WOO-2018

US TIGHT OIL SUPPLY GROWTH (Y-O-Y CHANGE)



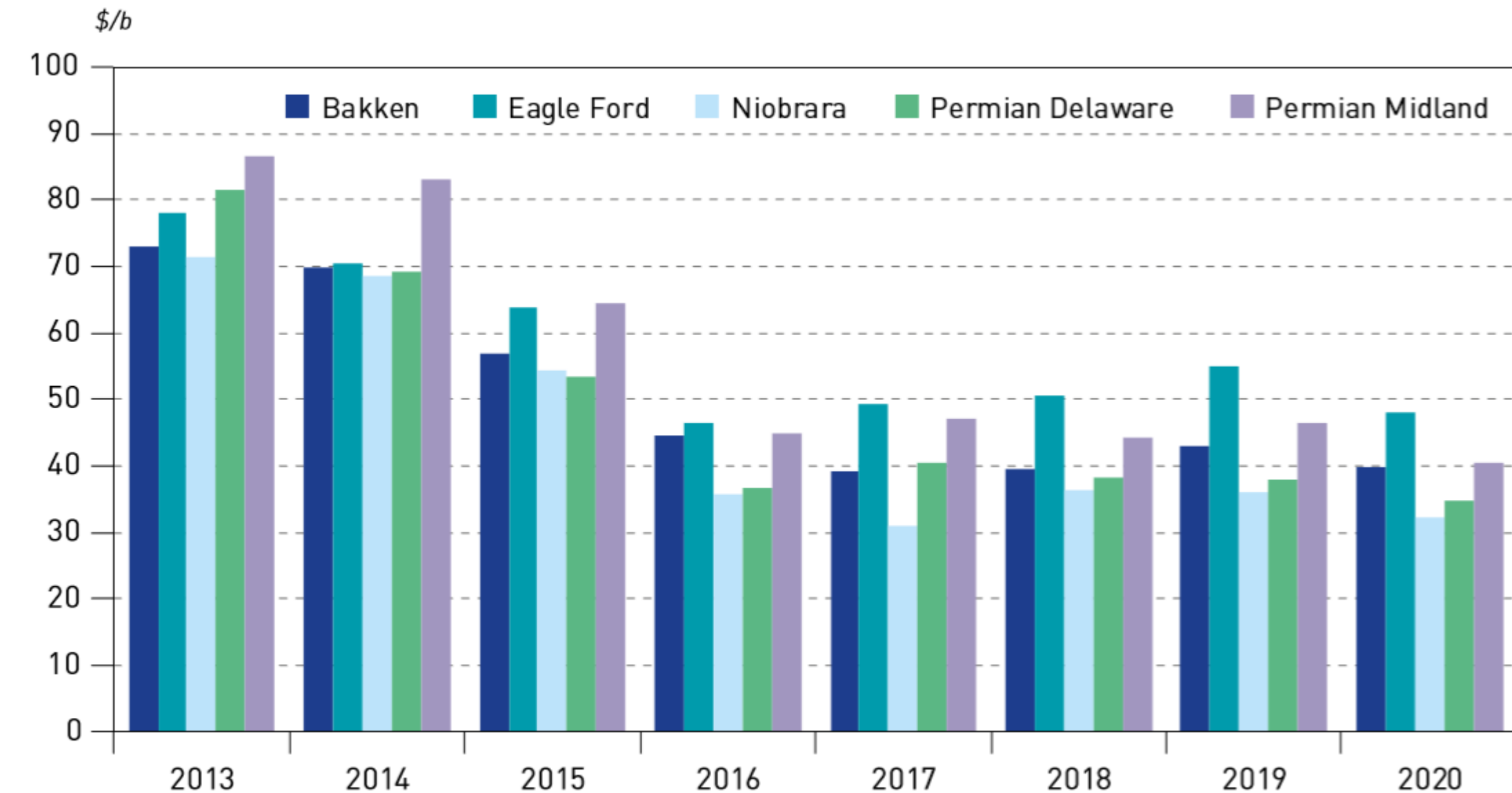
Source: OPEC WOO-2018

SELECT CONTRIBUTORS TO NON-OPEC TOTAL LIQUIDS CHANGE 2017–2023



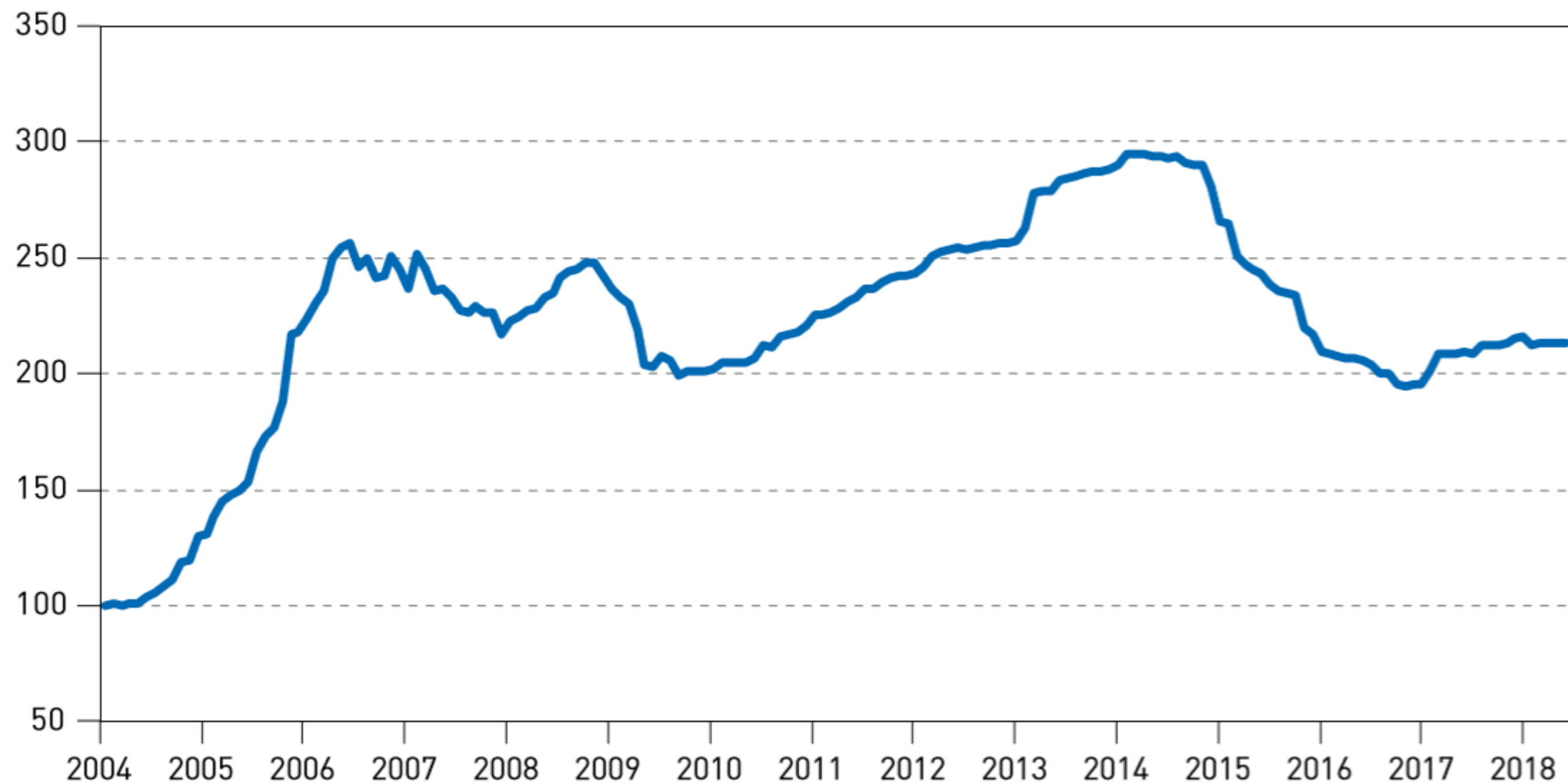
Source: OPEC WOO-2018

EVOLUTION OF WELLHEAD BREAK-EVEN PRICES BY PLAY



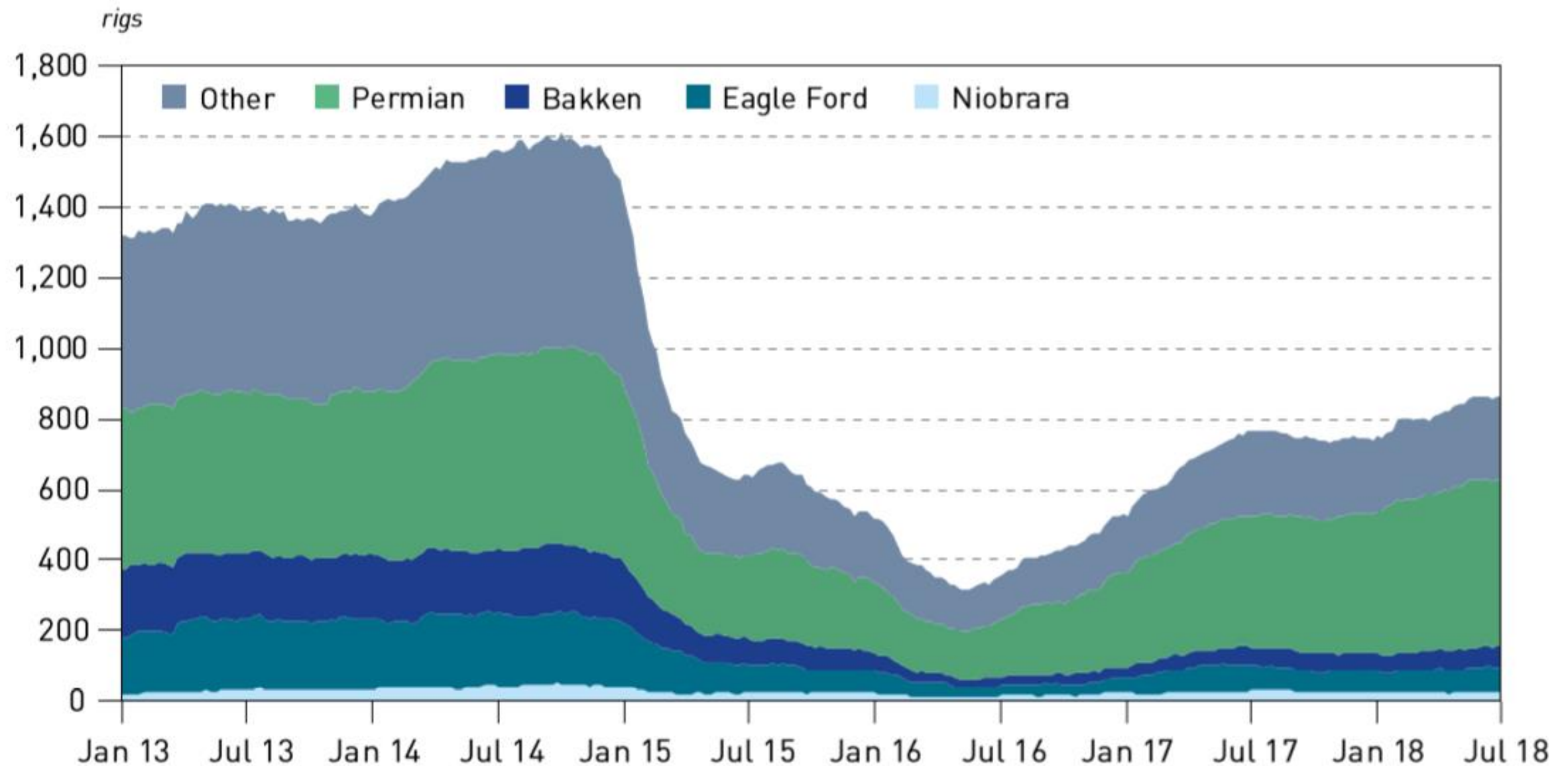
Source: Rystad Energy.

COST OF DRILLING OIL & GAS WELLS IN US (JAN 2004 = 100)



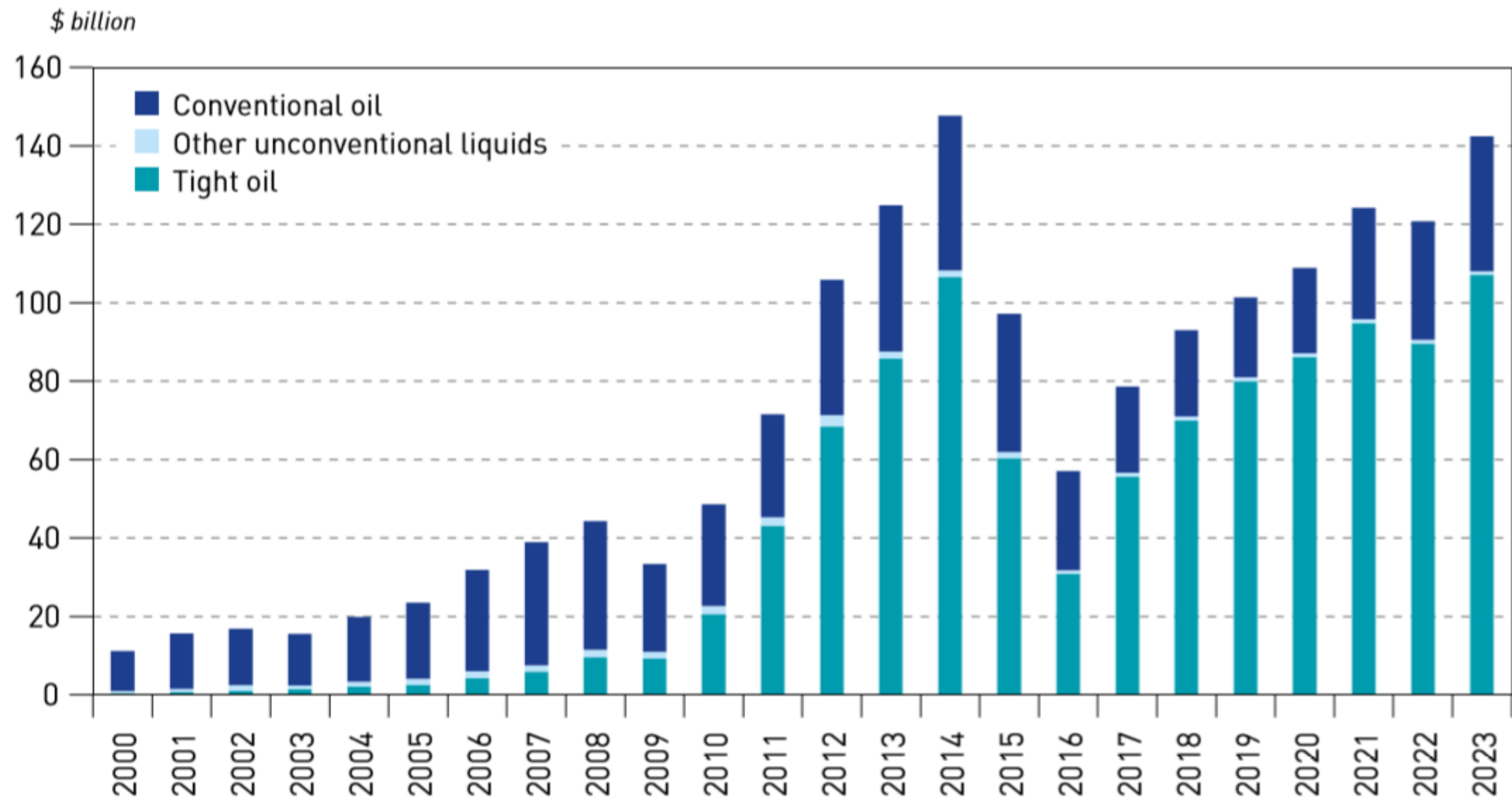
Source: US Bureau of Labor Statistics.

US OIL RIG COUNT BY MAJOR BASIN



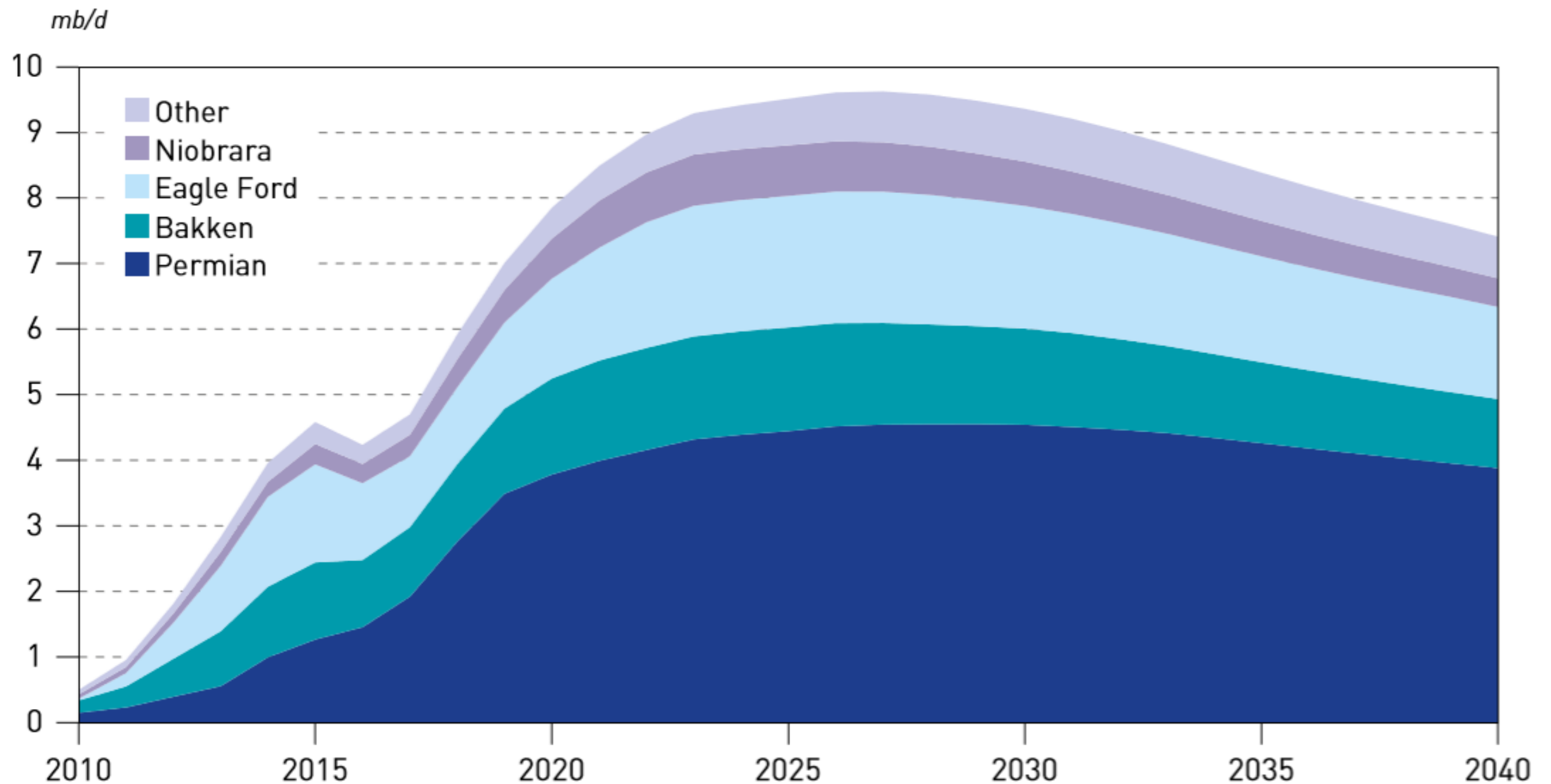
Source: Baker Hughes.

US UPSTREAM INVESTMENT BY TYPE OF LIQUIDS

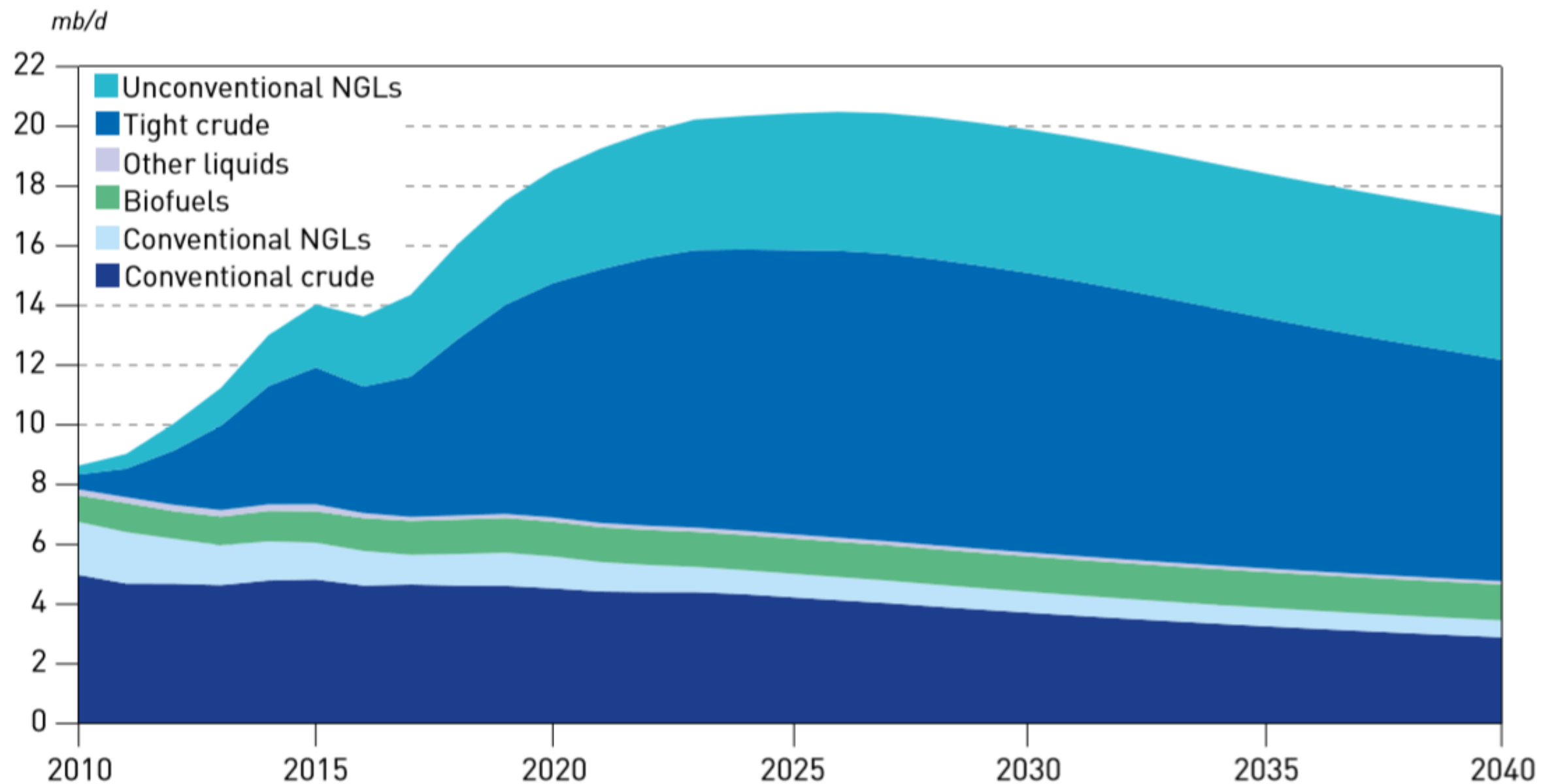


Source: Rystad Energy.

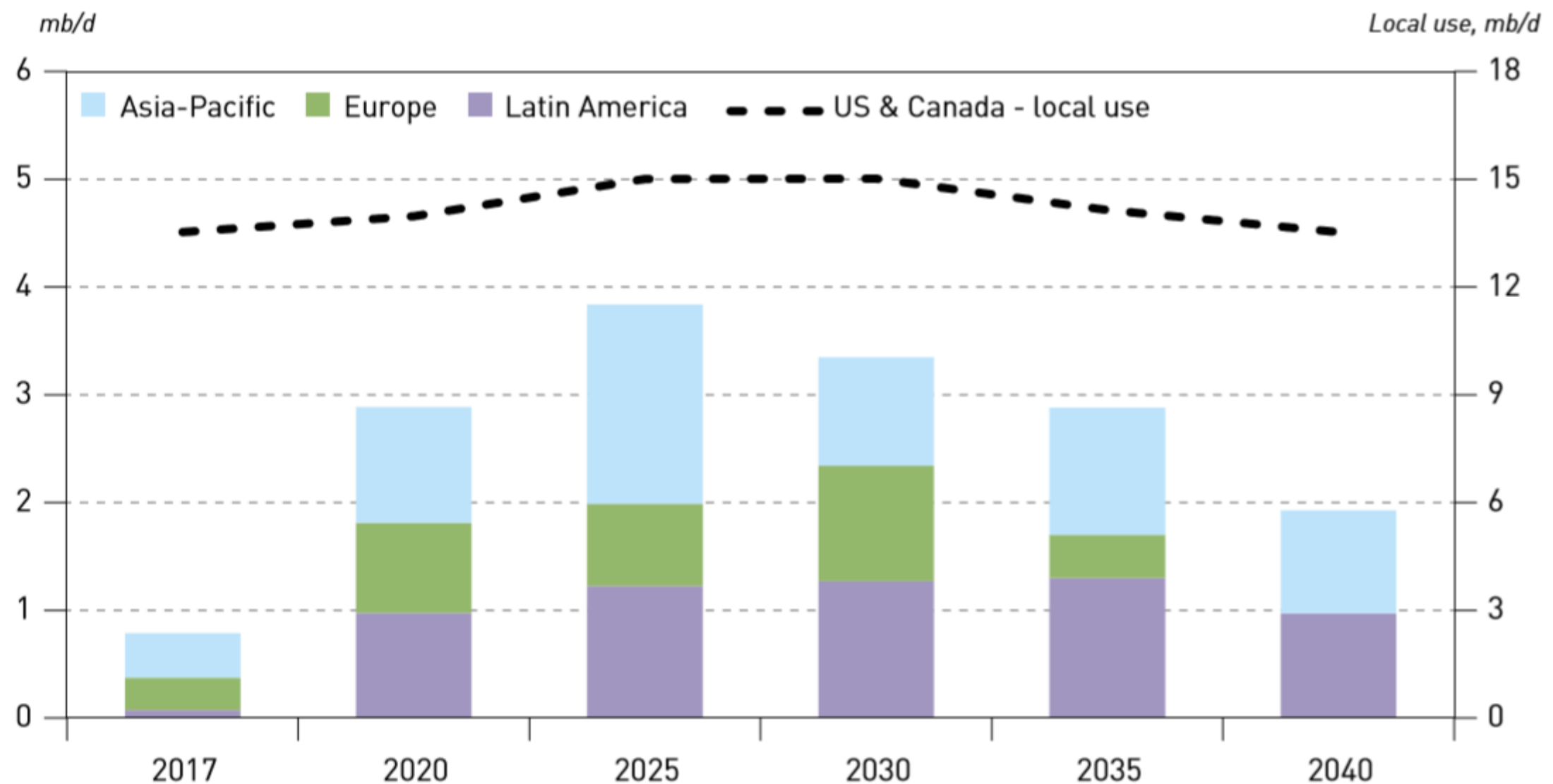
US TIGHT CRUDE SUPPLY BY BASIN



US TOTAL LIQUIDS SUPPLY OUTLOOK

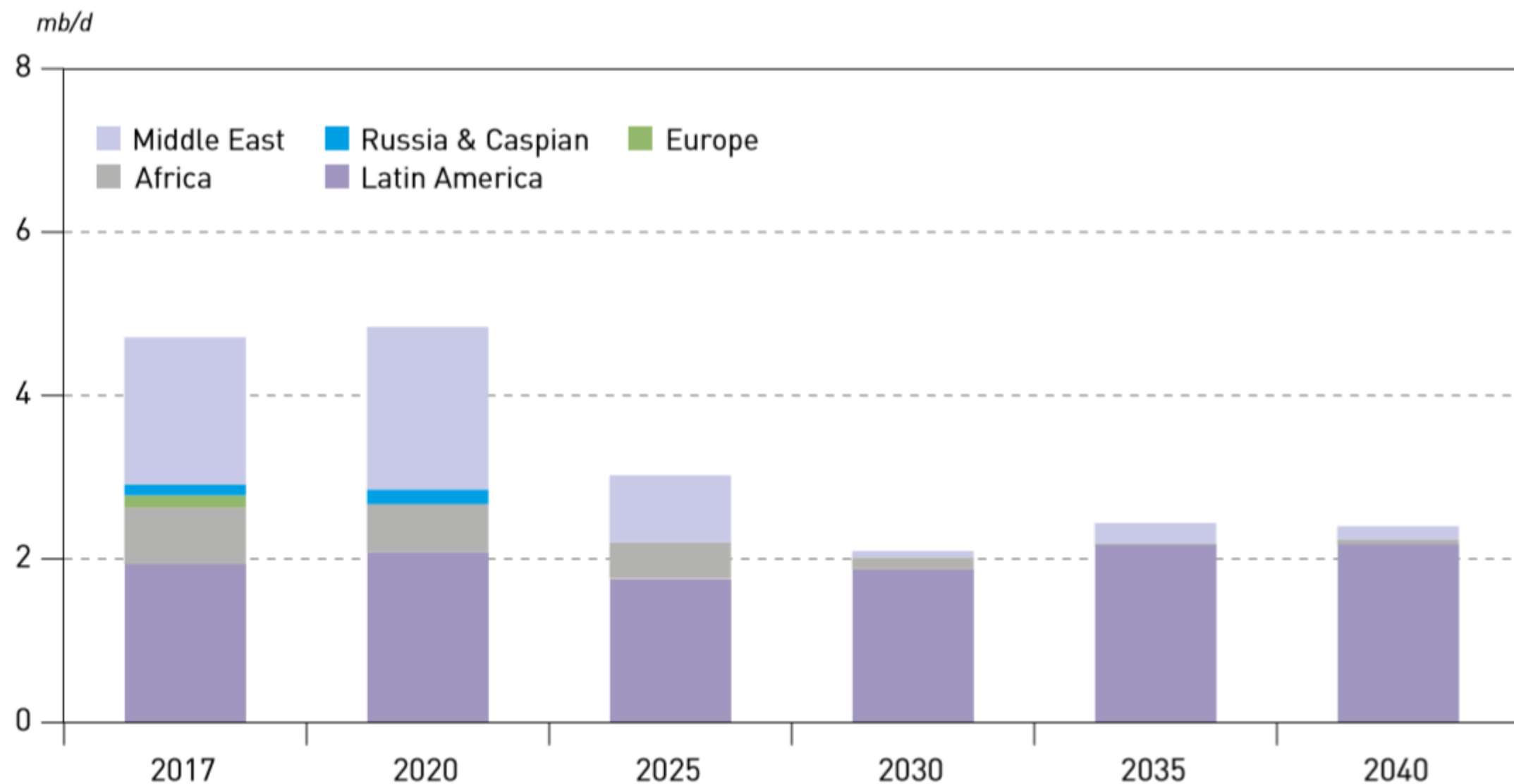


CRUDE OIL EXPORTS FROM THE US & CANADA BY MAJOR DESTINATIONS, 2017–2040



Source: OPEC WOO-2018

CRUDE OIL IMPORTS TO THE US & CANADA BY ORIGIN, 2017–2040

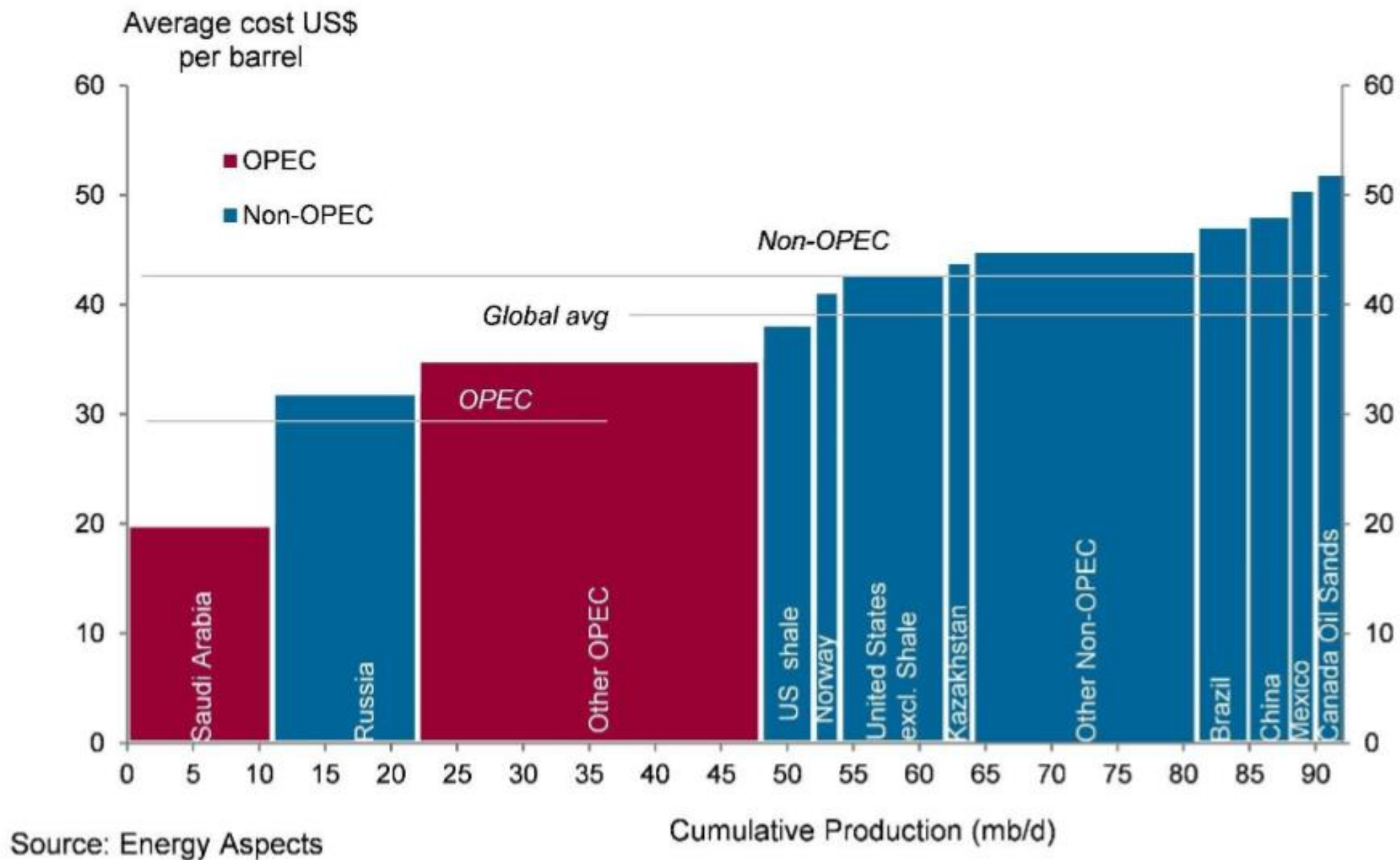


Source: OPEC WOO-2018

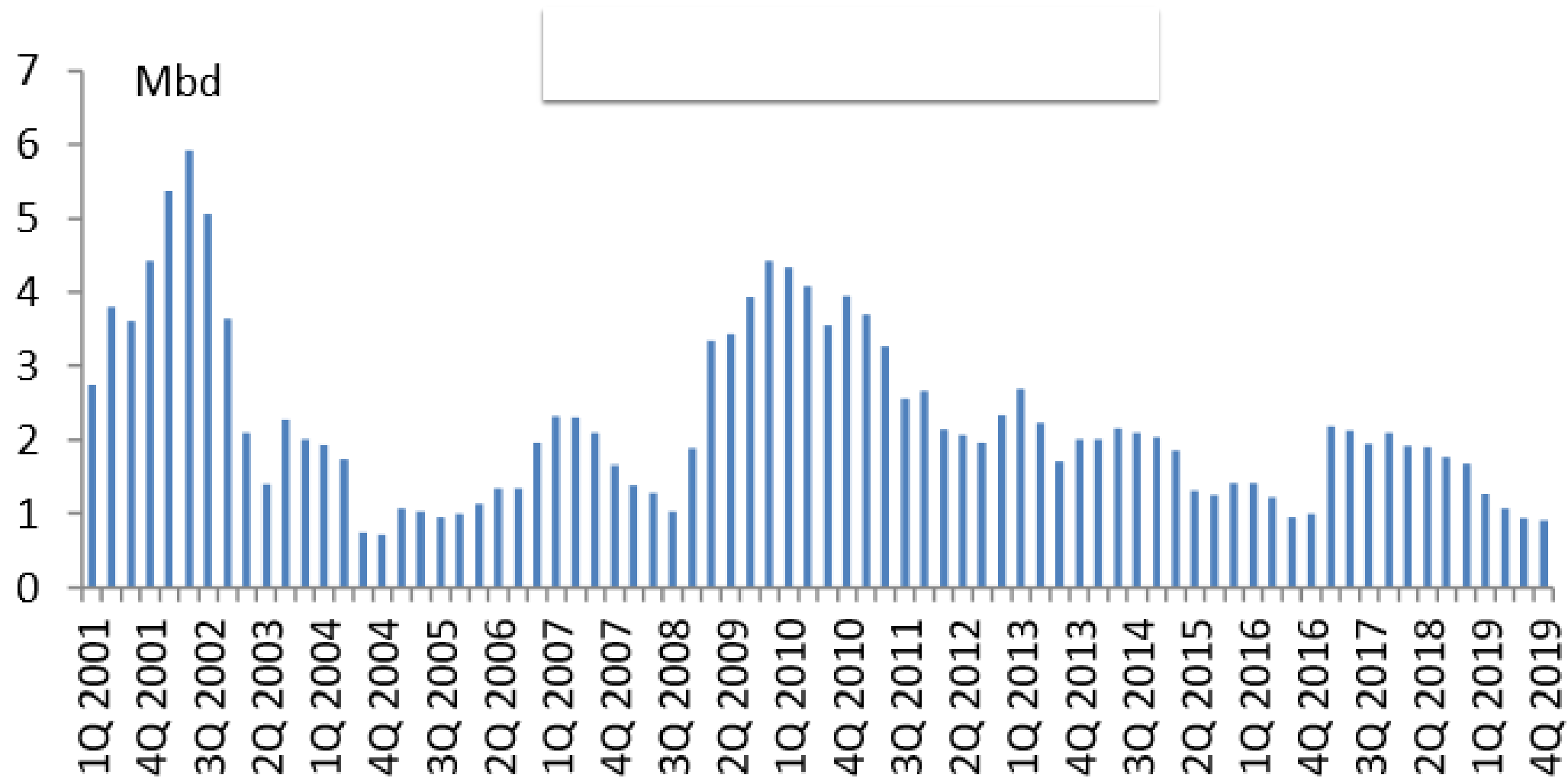


KINGDOM SAUDI ARABIA: SHIFTING VISION

GLOBAL COST CURVE FOR CRUDE OIL

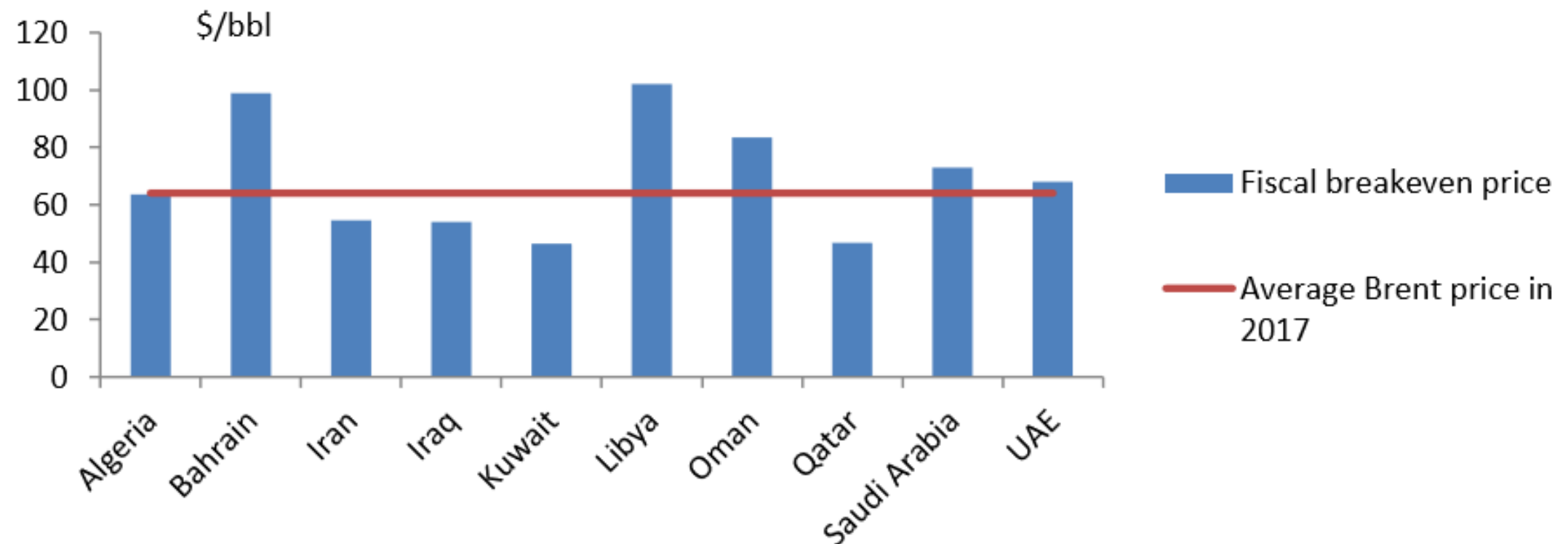


OPEC SPARE PRODUCTIVE CAPACITY



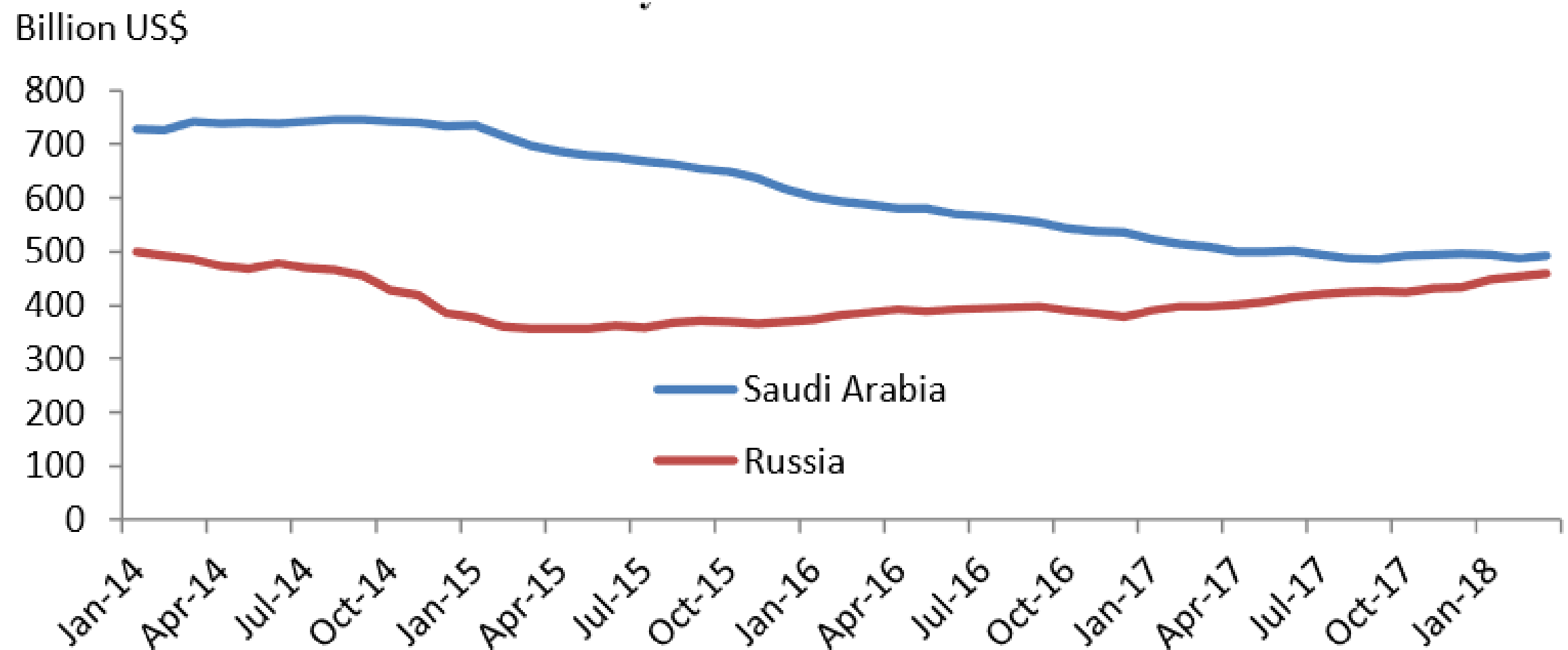
Source: US EIA

MOST OIL PRODUCERS IN THE MIDDLE EAST HAVE HIGH FISCAL BREAK-EVEN PRICE



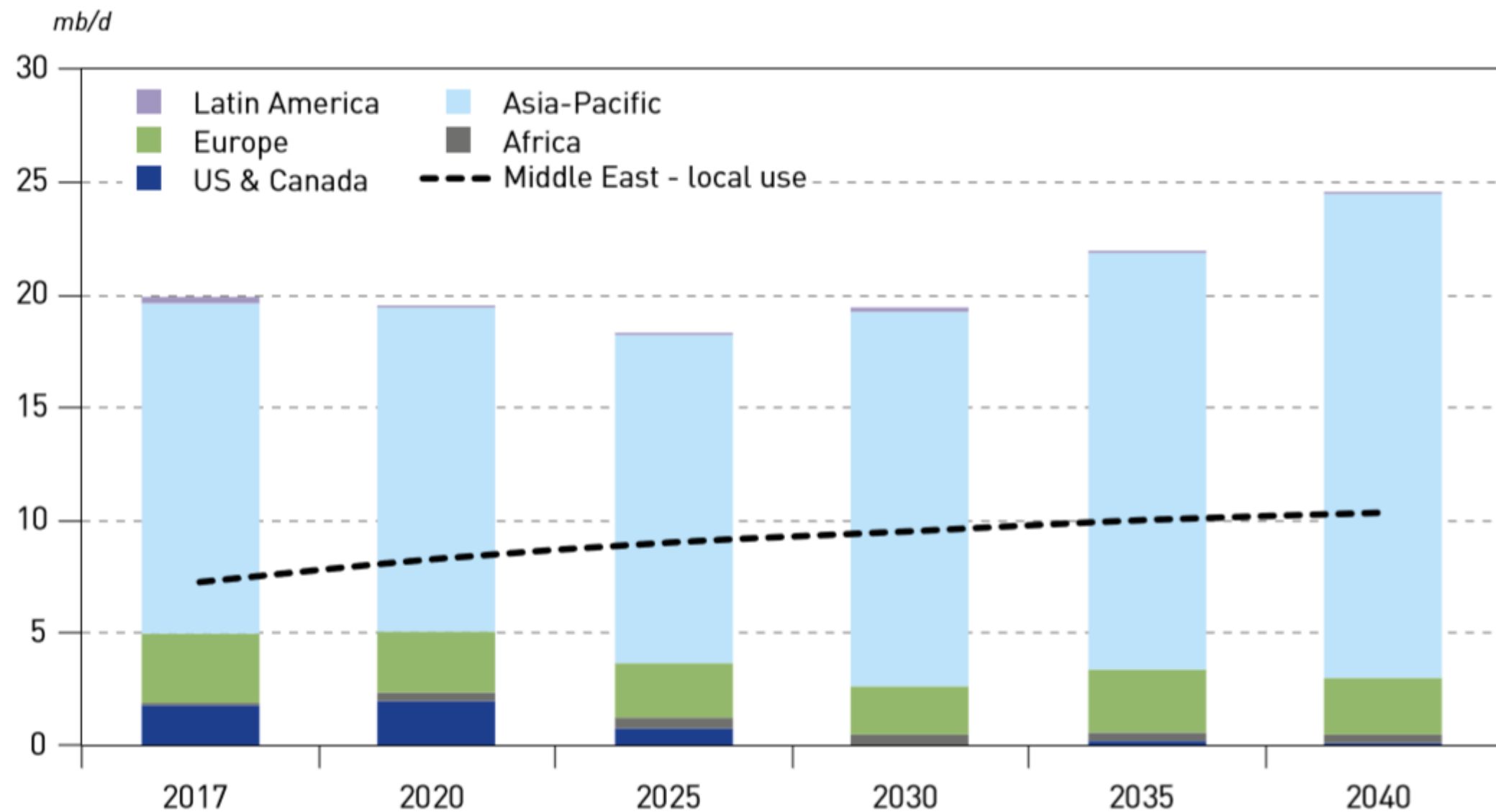
Source: CEPR NRU HSE, IMF data

INTERNATIONAL CURRENCY RESERVES: SAUDI ARABIA VS. RUSSIA



Source: CEPR NRU HSE, data from IMF

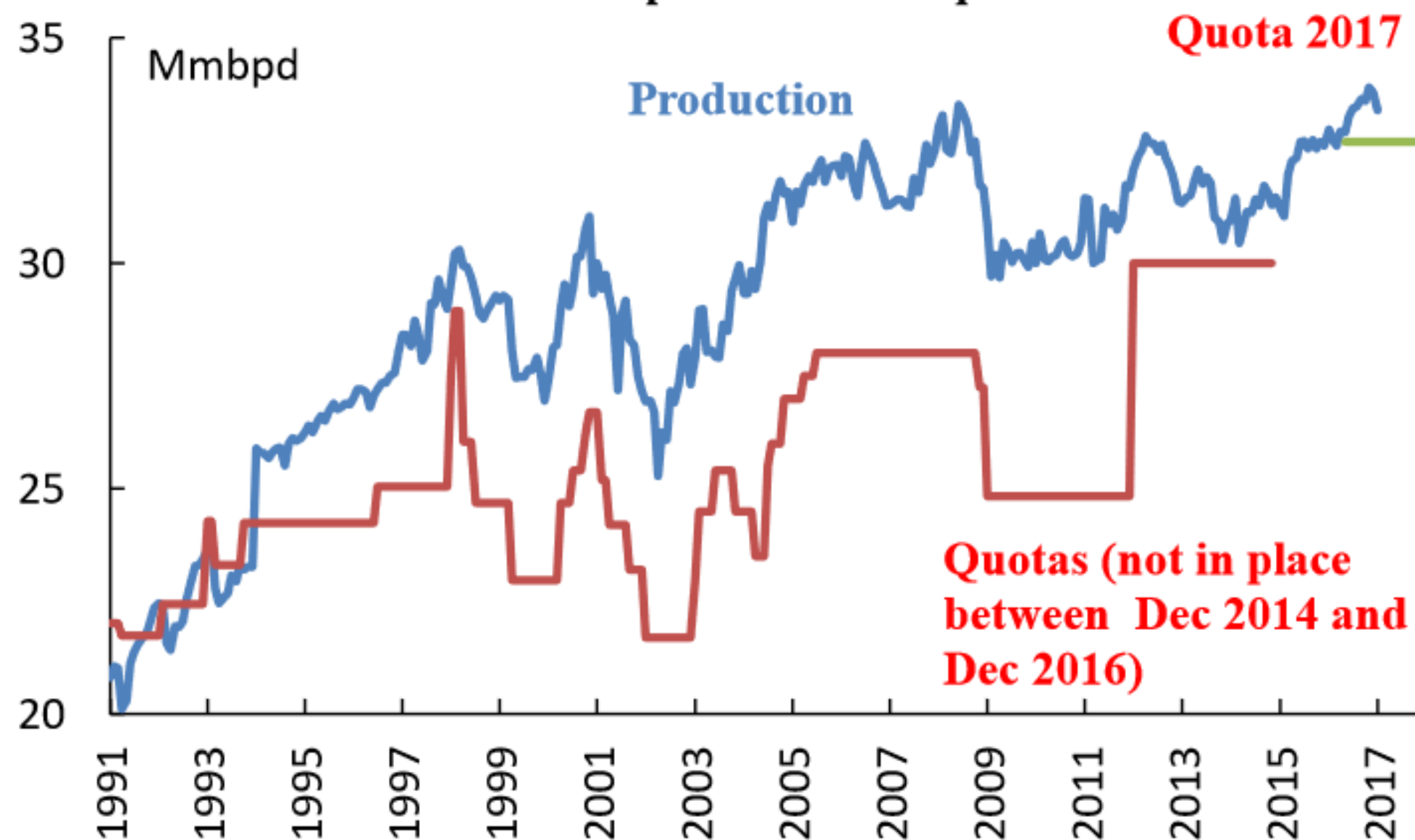
CRUDE OIL EXPORTS FROM THE MIDDLE EAST BY MAJOR DESTINATIONS, 2017–2040



OPEC+ AGREEMENT: DIFFICULT TIMES – STRANGE BEDFELLOWS



OPEC+ DEAL DID NOT REQUIRE MAJOR CUTS FROM ACTUAL PRODUCTION

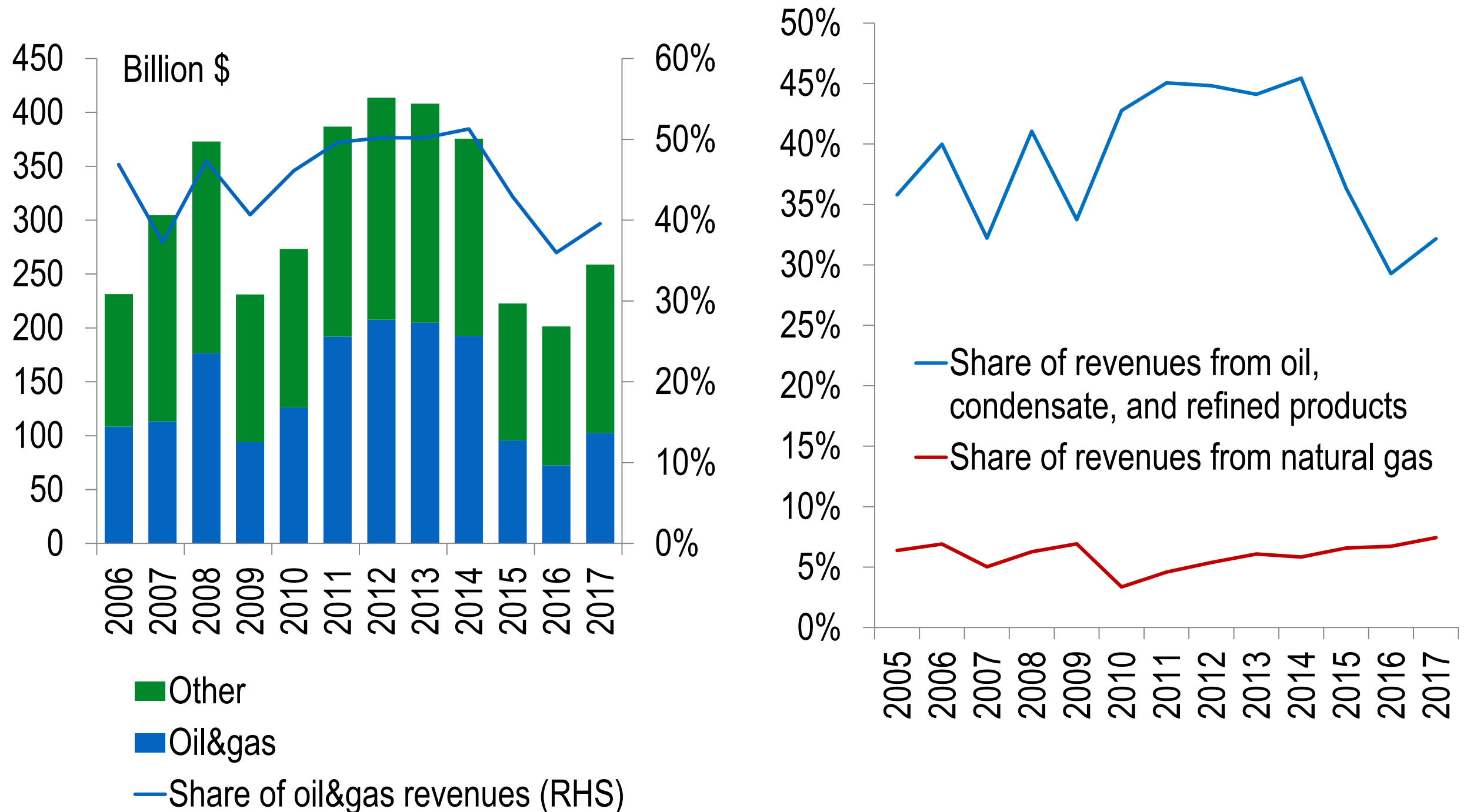


Source: World Bank, IEA

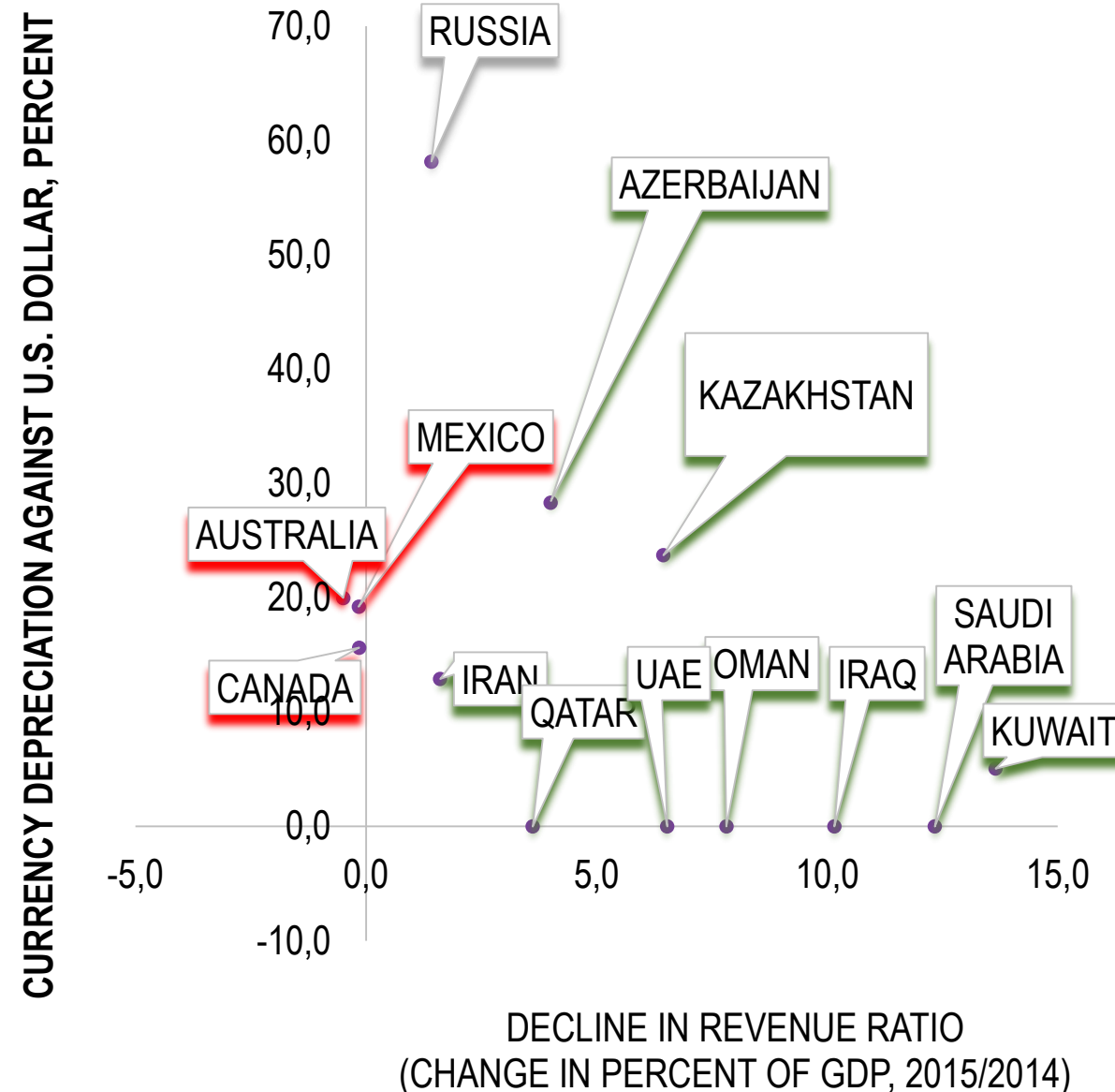


**RUSSIA:
NEVER AS STRONG AS LOOKS,
NEVER AS WEAK AS IT LOOKS**

OIL AND GAS – KEY TO RUSSIA’S STATE REVENUES



RUSSIA'S "SECRET WEAPON" – FLOATING EXCHANGE RATE AND CURRENCY DEPRECIATION – NO BUDGET DEFICIT SINCE 2017



RUSSIA'S BUDGET DEFICIT: SENSITIVITY TO OIL PRICE AND EXCHANGE RATE										
RUBLE TO US\$ EXCHANGE RATE	OIL PRICE, US\$/BBL									
	70	65	60	55	50	45	40	35	30	
	60	-0.6	-1.3	-2	-2.8	-3.6	-4.4	-5.3	-6.3	-7.3
	65	0	-0.6	-1.4	-2.2	-3	-3.9	-4.8	-5.8	-6.8
	70		0	-0.8	-1.5	-2.4	-3.3	-4.2	-5.3	-6.4
	76			0	-0.9	-2.7	-2.6	-3.6	-4.7	-5.8
	84				0	-0.9	-1.8	-2.9	-4	-5.2
	94					0	-0.9	-2	-3.1	-4.4
	105						0	-1.1	-2.3	-3.6
	120							0	-1.2	-2.6
140								0	-1.4	
168									0	

PARAMETERS THAT KEEP RUSSIA'S BUDGET DEFICIT WITHIN 3% TARGET

SOURCE: KAPSARC'S RESEARCH, BANK OF AMERICA MERILL LYNCH ESTIMATES



OIL AND RUBLE HAVE DE-COUPLED IN 2018, WEAK CURRENCY – A FIX FOR RUSSIA’S BUDGET AND BOOSTER SHOT FOR OIL EXPORTERS

CO1:COM
Generic 1st 'CO' Future

+ ADD TO WATCHLIST

AS OF 08:52 PM EDT 09/30/2018

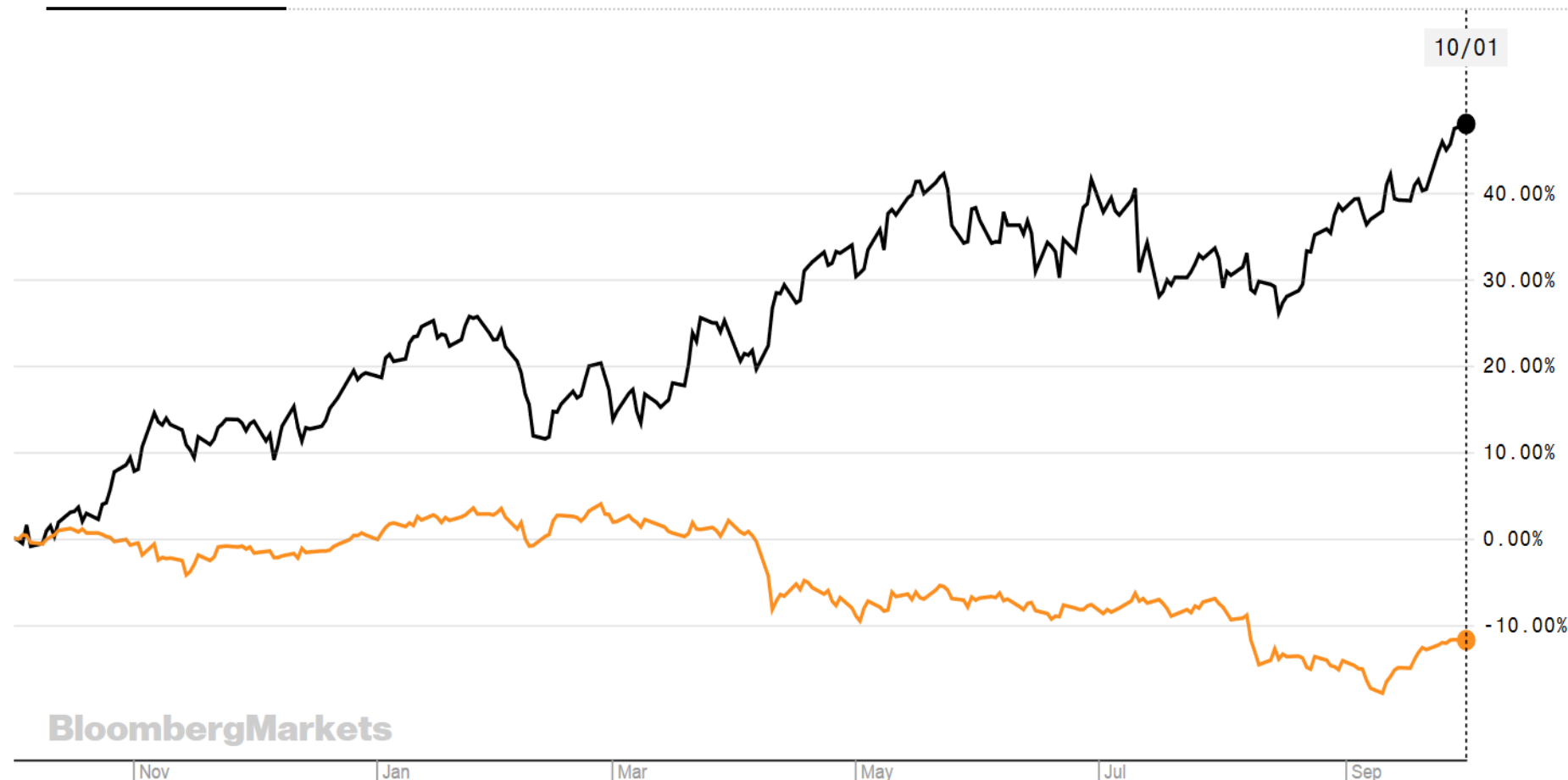
83.04 USD/bbl. +0.31 +0.37% ▲

1D 1M 6M YTD **1Y** 5Y

MINIMIZE CHART

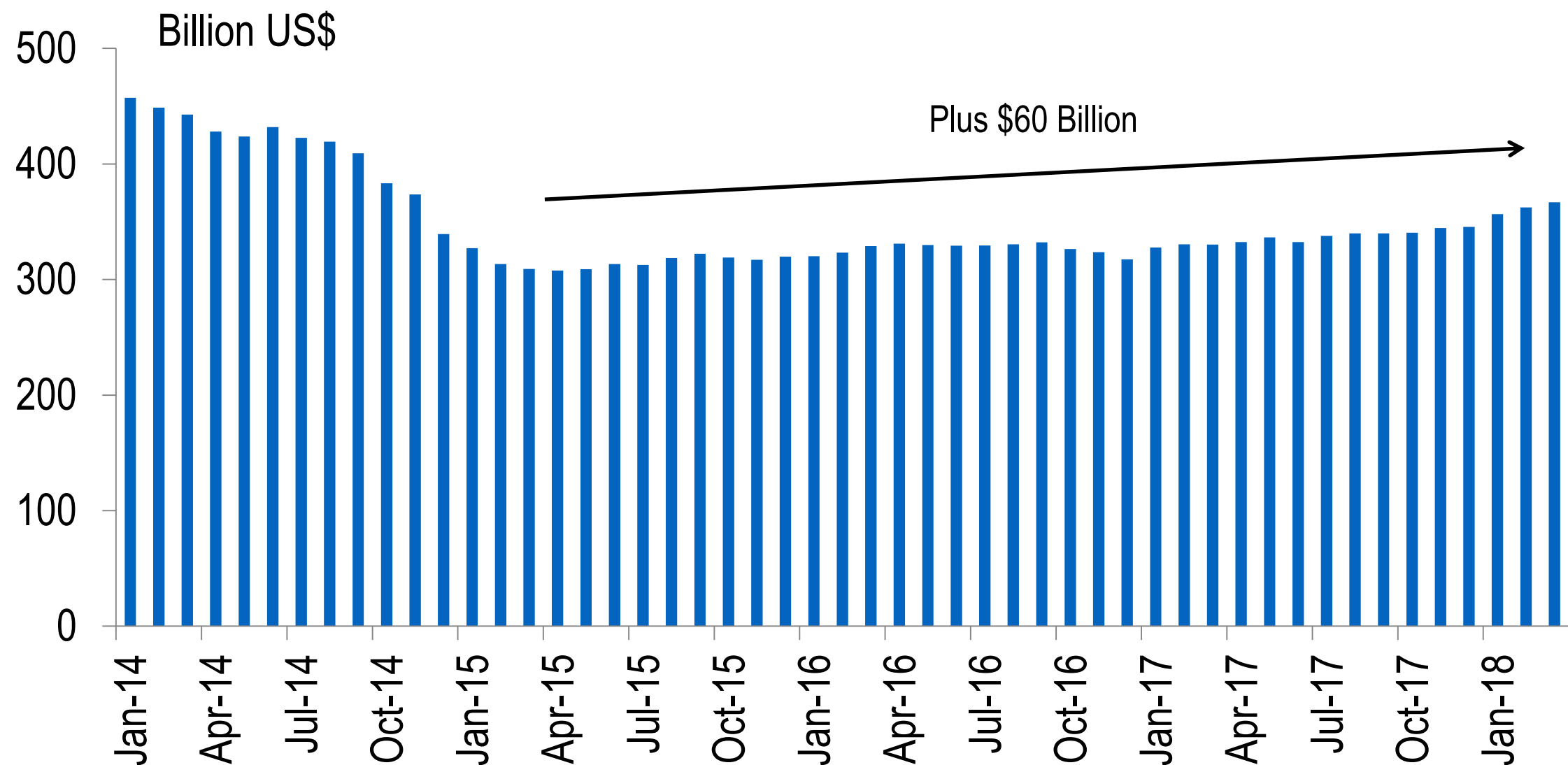
Add a comparison

● CO1:COM 47.95% ● RUBUSD:CUR -11.75% ×

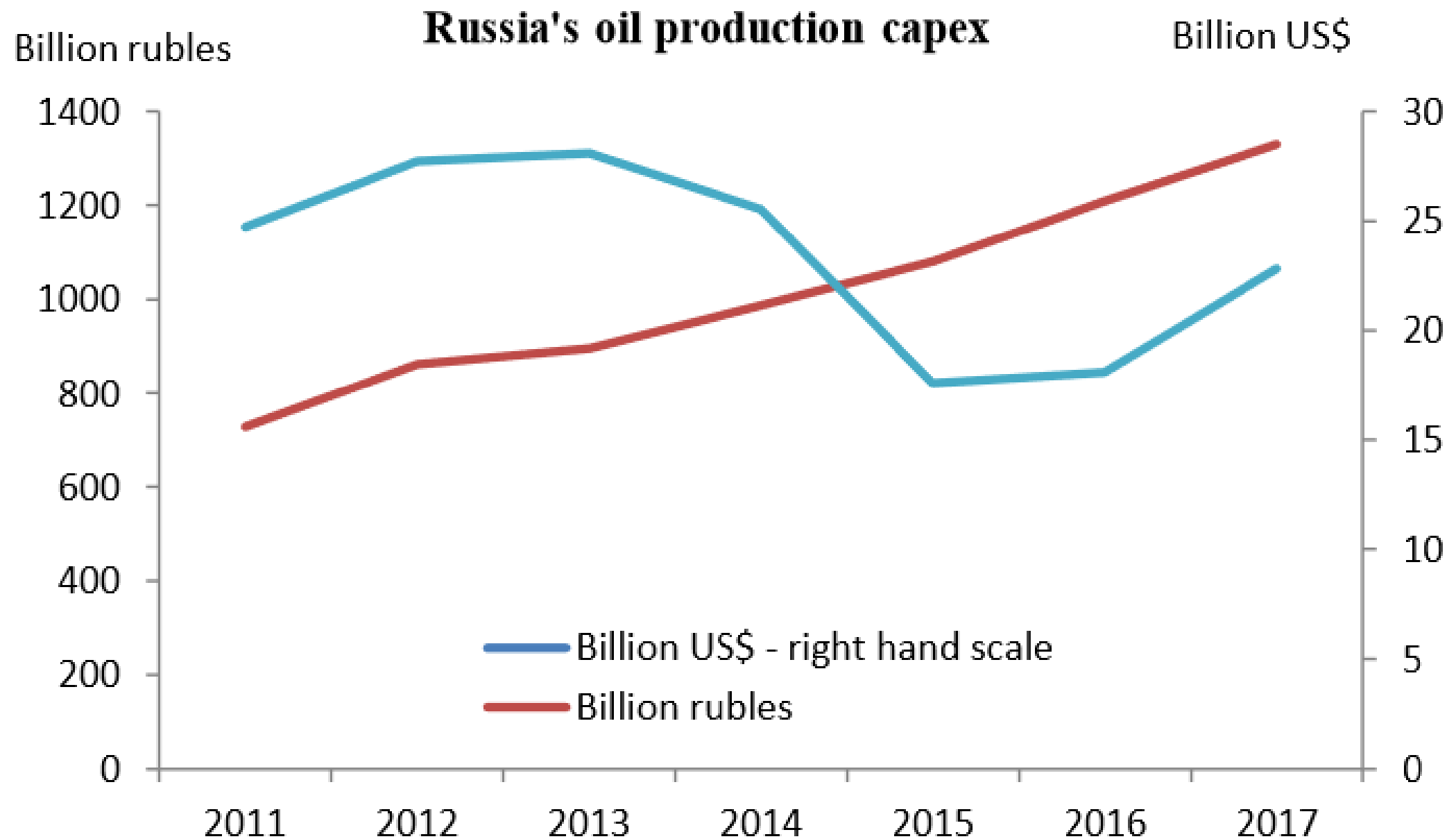


BloombergMarkets

RUSSIA'S FOREIGN CURRENCY RESERVES GROW

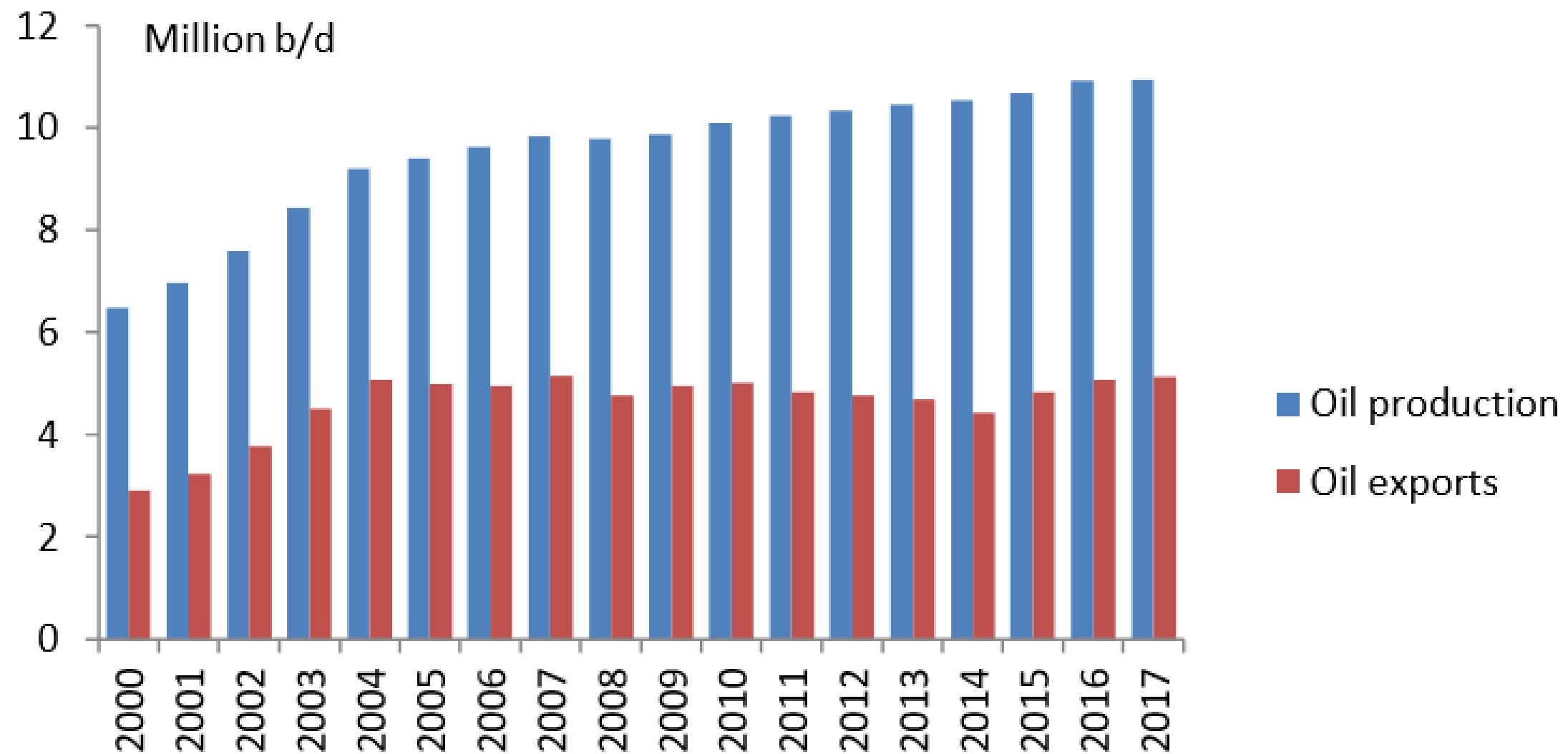


RUSSIA'S OIL INVESTMENTS CONTINUED TO RISE IN RUBLES



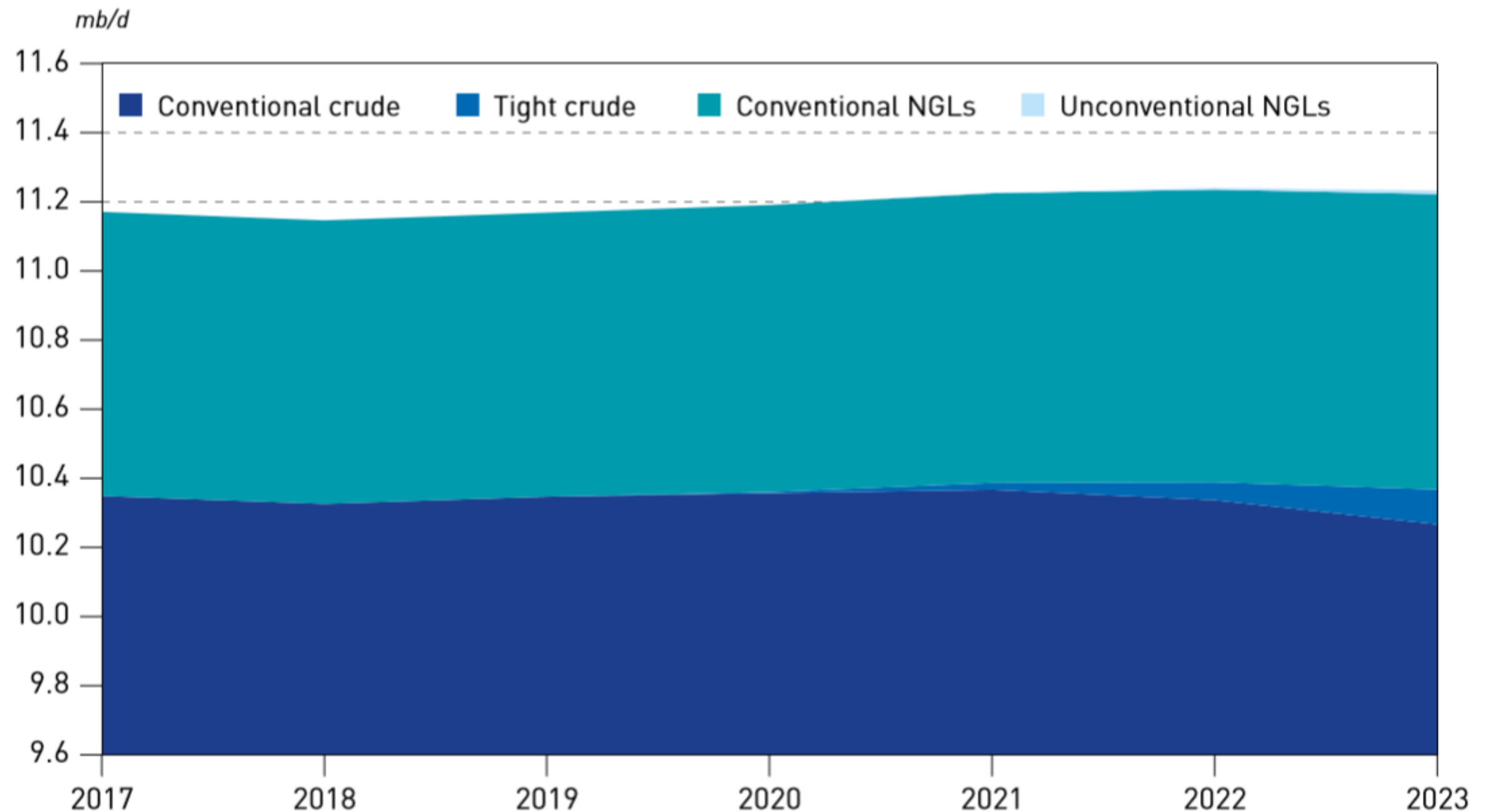
Source: CDU TEK

RUSSIA'S OIL PRODUCTION AND EXPORTS



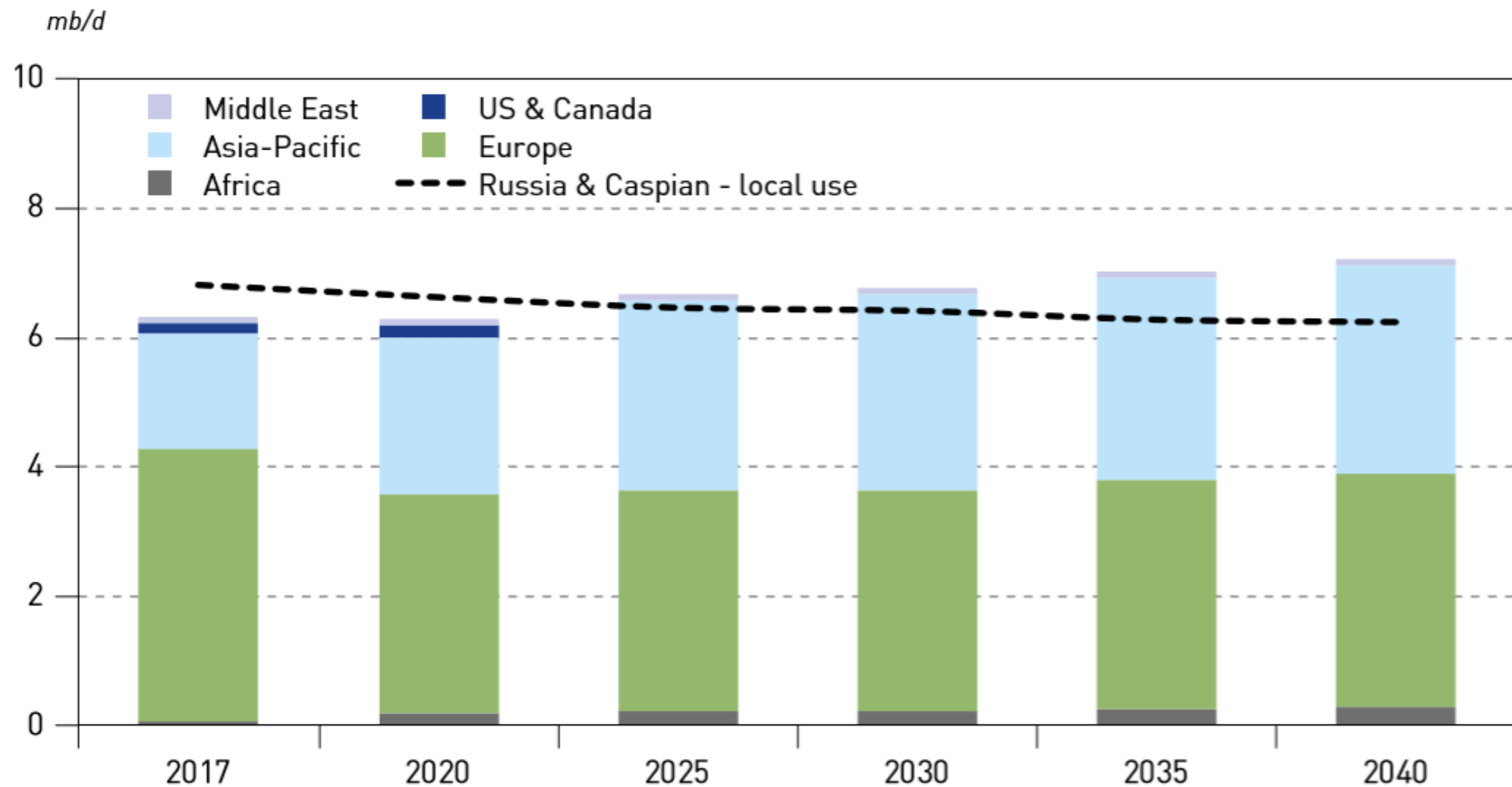
Source: CEPR NRU HSE, Russia's Ministry of Energy data

RUSSIA MEDIUM-TERM TOTAL LIQUIDS SUPPLY



Source: OPEC WOO-2018

CRUDE OIL EXPORTS FROM RUSSIA & CASPIAN BY MAJOR DESTINATIONS, 2017–2040



Source: OPEC WOO-2018



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