



THE WORLD BETTER HURRY UP TO DEVELOP NON-OPEC RESERVES AND RESOURCES IF OPEC IS TO BE BELIEVED

A QUICK REVIEW OF THE OPEC WORLD OIL OUTLOOK 2017 IMPLICATIONS OF THE OPEC NUMBERS

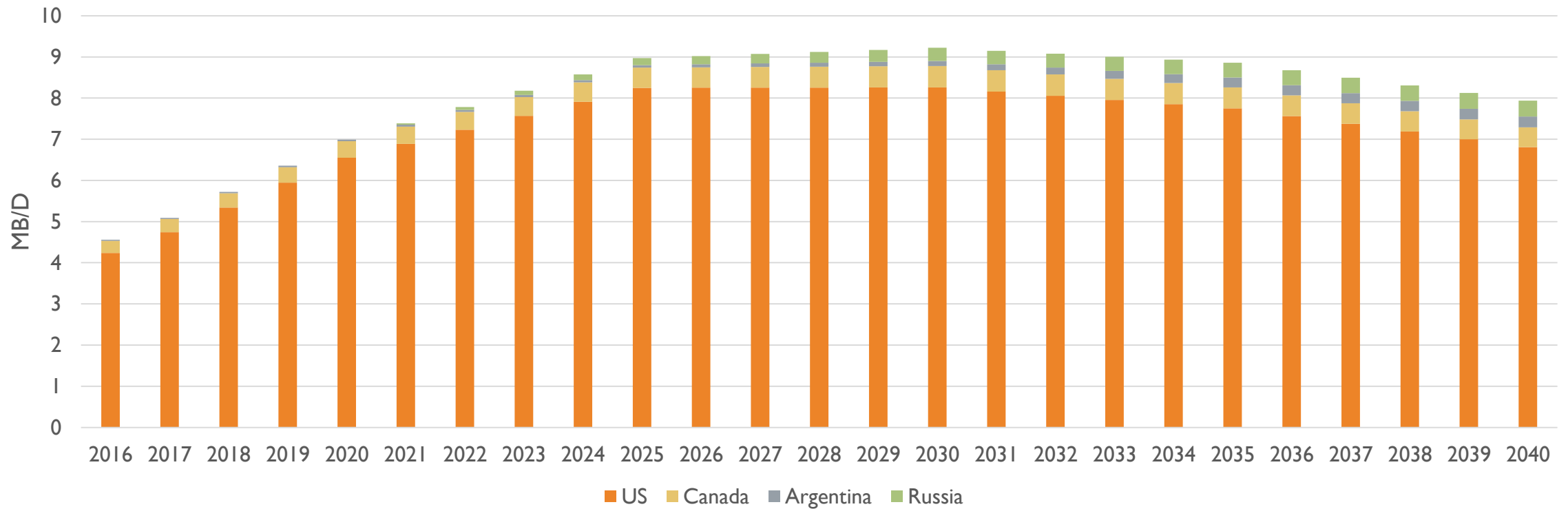
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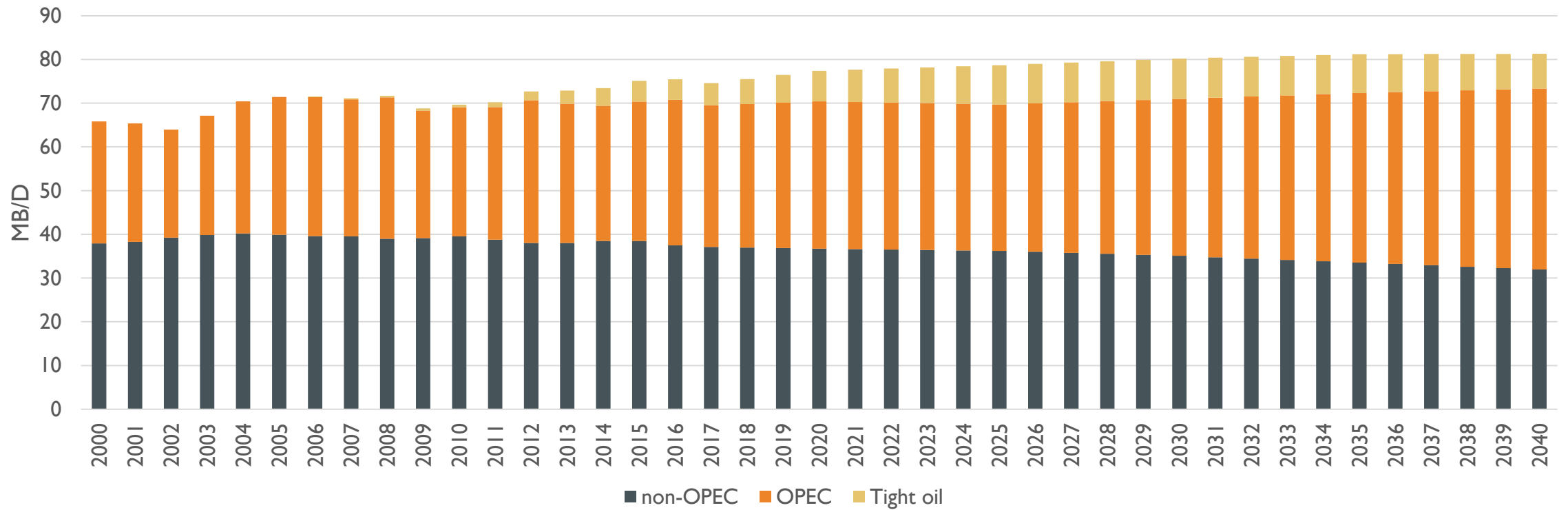
All data from OPEC World Oil Outlook 2017 and OPEC Annual Statistical Bulletin 2017

OPEC WORLD OIL OUTLOOK CRUDE OIL REVIEW, MAARTEN VAN MOURIK

GLOBAL TIGHT CRUDE OIL PRODUCTION FORECAST PLATEAU AT 9 MB/D, 80% OVER CURRENT LEVELS OR 4 MB/D



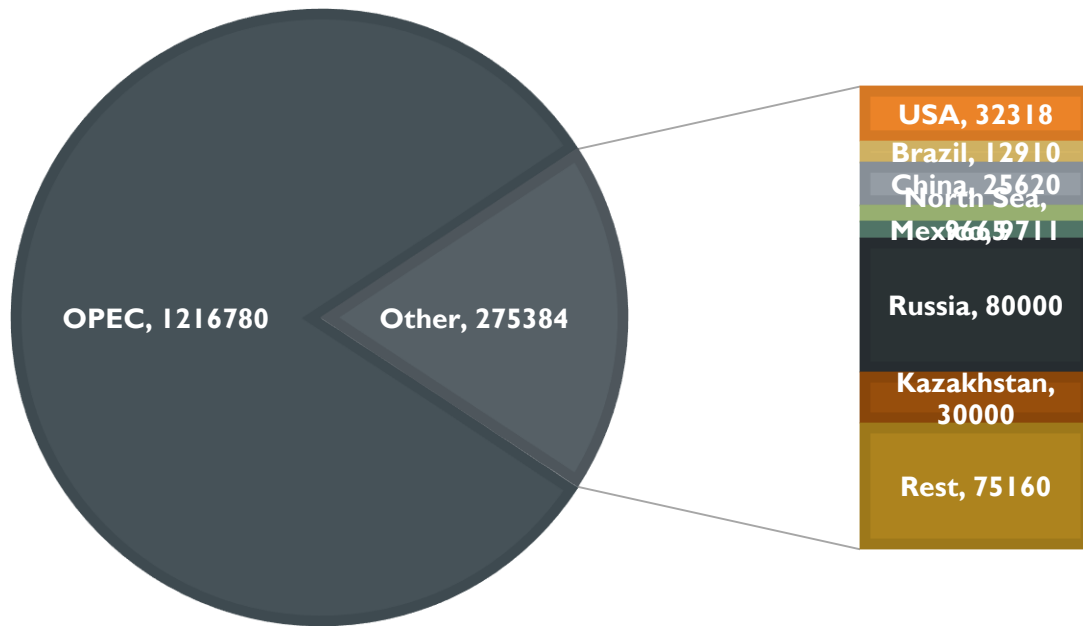
CRUDE OIL PRODUCTION 2000-2040 CONVENTIONAL PLUS TIGHT OIL



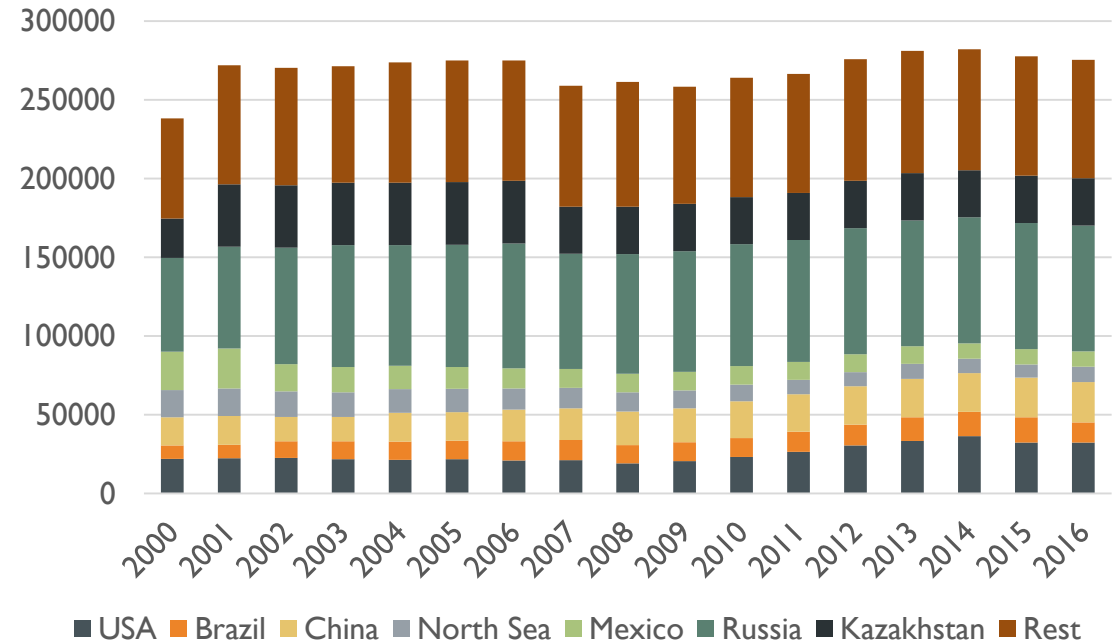
PROVEN RESERVES OF CRUDE OIL

SOME PRODUCE AND DECLINE OTHERS JUST PRODUCE...

PROVEN RESERVES (MB)



Non-OPEC proven reserves, MB



EVEN THOUGH THERE WILL BE CONVERSION OF UNDEVELOPED RESOURCES AND NEW OIL WILL BE FOUND, NON-OPEC BETTER HURRY UP

- The OPEC data covers proven reserves
- But not really, since there are also probable reserves
- And tight oil and Orinoco heavy
- But ignoring that, some countries produce oil without depleting their reserves and others see their reserves crash when producing
- It seems a leap of faith to believe that low development activity transforms sufficient undeveloped resources into producible reserves
- And that no exploration effort or success replenishes the developed and produced reserves
- If the current activity continues then within 15 years non-OPEC has no more oil left to produce
- That won't happen as new oil will be found
- But more importantly, decline will increase to reduce the depletion rate
- And a scramble to develop will ensue quite soon, since the tremors of considerable production decline will be felt long before the bottom of the barrel is in sight
- Basically, that process is underway now

