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MARKET CALLS

Surprises of 2023 Volume 2: Oil Demand, With or Without EVs

Wednesday, January 11, 2023

Michael Warren and Donald Luskin

Demand will surprise on the upside, while supplies are kept artificially tight.

GLOBAL OIL DEMAND +2.5 MILLION BARRELS PER DAY

Probability: 80% Consensus: 30%

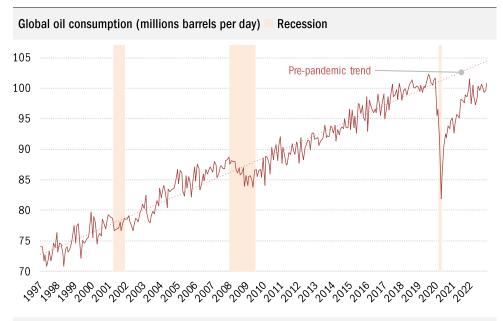
BRENT \$100

Probability: 80% Consensus: 80%

The biggest oil market surprise in 2023 will be faster demand growth than international agencies are projecting. In the pandemic depression of 2020, consumption fell to a record 19.3 million barrels per day below the trend from 1997 (please see the chart below). At 100.9 million now, demand has worked its way back to near pre-

pandemic levels after almost three years—but remains 3.7 million below trend. The world has not become either oil-efficient or green to the extent that demand can remain for long at the level seen as early as 2018.

We think there's no way demand doesn't make a big move back to trend (which, at year-end, will have risen to almost 5 million barrels above current levels). Our guess is that at least half the gap gets closed in 2023 – at least 2.5 million barrels per day.



Source: EIA, TrendMacro calculations

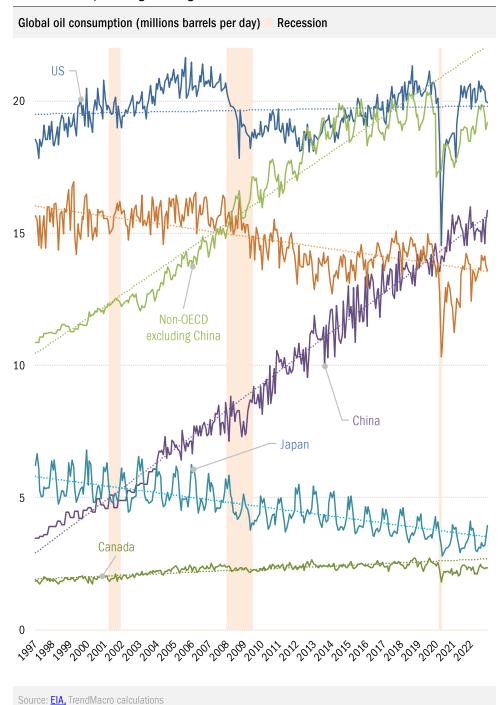
Update to strategic view

OIL: We forecast global crude oil demand growth of 2.5 million barrels per day in 2023, anchoring the high end of estimates. We don't expect a recession in 2023, and historically it takes big recessions to really dent crude demand. The greatest shortfall from trend for demand is among emerging markets, which have been the last to fully open up from the Covid lockdowns. With China's abandonment of its "Zero Covid" policies, the industrial and tourism ecosystem of emerging markets will come back to life. Growth in electric vehicles will have no effect on crude oil demand growth outside of rounding error - the share of EVs in the world is just too small to matter. The Biden administration has already begun refilling the SPR, putting in a price floor at about \$70. OPEC+ continues to keep supplies tight, despite record low levels of storage, pointing to a price target of \$100. Our demand forecast is very out-of-consensus. Our supply and price forecast is in-consensus among clients, but not markets.

[Strategy dashboard]

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- Demand growth will be driven by the world taking the final steps in re-opening from the pandemic lockdowns, especially emerging markets. Excluding China, non-OECD economies explain 80% of the gap between consumption and pre-pandemic trend (please see the chart below).
- In part, recovery in these economies will be driven by China's abandonment of "Zero Covid" policies. While the severity of those policies was no doubt exaggerated by the media (see, most recently, "Zero Covid" Protests? Zero Importance" November 29, 2022), letting them go will still, to some extent, revive the entire



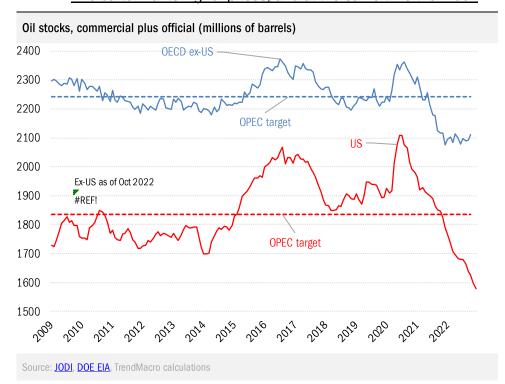


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- emerging markets ecosystem not least because of its reliance on tourism. South East Asia tourism collapsed by 90% in 2021 from pre-pandemic levels and remained depressed by 43% last year. Tourism, which relies on mobility, constitutes a large part of South East Asia's GDP and concomitant oil demand.
- Our growth forecast is connected, but not integrally, to our belief that there will not be a recession this year (see "Recession? No Thanks, We've Already Had One" December 30, 2022). But if there is, it can only be a mild one. Only the deepest and longest recessions make a dent in oil demand noticeably greater than the natural noise around the secular trend (again, see the chart on the previous page).

The US Energy Information Administration is forecasting demand growth of just 1 million barrels per day. The International Energy Agency is forecasting 1.7 million barrels per day. Our call for 2.5 million will be a shocker in today's environment in which global oil inventories—commercial and official—are at multi-decade lows in absolute terms, and at historic lows as a share of demand (please see the chart below). The global oil market, therefore is as tight as a drum—so small surprises in demand can make a huge difference in price.

- The official growth forecast closest to ours is <u>OPEC's</u>, at 2.25 million barrels per day. How telling, then, that with this relatively aggressive forecast in the face of record-low stocks, which would normally bring forth bigger production quotas, the cartel is curtailing production (see <u>"It's Official: OPEC Wants \$100 Oil"</u> September 30, 2022).
- The cartel wants higher prices, and at the same time the Biden

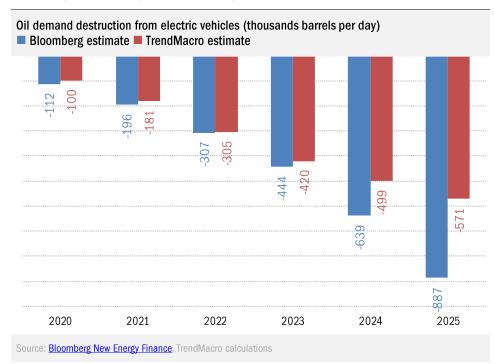




administration doesn't want lower prices. The White House announced in October that it intends to replenish its drastic drawdowns to the US Strategic Petroleum Reserve at prices between \$67 and \$72 per barrel. 3 million barrels were purchased in mid-December when the Brent benchmark hit \$70. That's 3 million down, 200 million to go. And a price floor. Remember, an administration devoted to abolishing fossil fuels wants prices high in order to reduce demand – at least when there's not an inflation emergency and an election. But all that's over (see "Surprises of 2023 Volume 1: From Inflation to Deflation" January 3, 2023).

As we talk to clients about this, one question comes up most frequently: what about the loss of demand from the proliferation of electric vehicles?

- At the margin, it's a thing. But it's not an important factor in any near- or intermediate-term forecasting framework.
- One reads that electric vehicles reduced oil demand by 1.5 million barrels per day last year.
- Then how come crude demand is at or a little above the prepandemic trend in China and Europe, the two places where electrification of the fleet has been most intensely promoted (please see the chart on the second page)?
- At the end of 2021, the global light duty vehicle fleet was 1.45 billion vehicles, of which EVs were just 12 million that's just 0.8%. Oil demand from on-road transportation of light duty vehicles is about 22 million barrels per day. So it must be that EV's took only 182,000 barrels out of demand in 2021, or just 0.19% out of the 95 million barrels per day total.
- <u>Bloomberg estimates it was 307,000 in 2022</u>, and we'll approximately accept that (please see the chart below).





- If you want to get excited about it you can frame that as a 69% increase in barrels of demand destruction year-over-year. Or you can not get excited about it and say it's just another 125,000 barrels per day, or about an additional 0.13% of 2022's higher global demand of 99 million barrels. Rounding error.
- For all the political rhetoric and for all the subsidies that's all that's been achieved so far. How much more demand destruction can we expect anytime soon?
- Looking at 2023, we estimate the global light-duty vehicle fleet will expand to 1.53 billion vehicles. Given the aggressive subsidies for EV purchases in Europe and the US, the global EV fleet could expand to 30 million vehicles – still less than 2% of the global fleet. The impact on global oil demand will be slightly more than 400,000 barrels per day (again see the chart on the previous page).
- By 2025 we see the pace of electric vehicle adoption slowing, especially in Europe where electricity is emerging as a scarce and costly fuel compared to gasoline. The total light duty vehicle fleet will climb to 1.73 billion and the EV fleet will expand to 44 million units just 2.5% of the global fleet. The impact on oil demand will be less than 600,000 barrels per day out of a global oil market of 105 million barrels (again see the chart on the previous page).
- It's worth noting that wishful predictions about EV adoption have consistently missed targets. For example, in 2016 Bloomberg predicted that "electric vehicles could displace oil demand of 2 million barrels a day as early as 2023." Now with six years of reality under their belt, they've cut that number more than in half for 2025 (again see the chart on the previous page).

<u>On the supply side</u>, again, the OPEC+ cartel led by Saudi Arabia and Russia is engineering volumes that keep inventories tight – tighter than the cartel has ever tolerated before (again, see "It's Official: OPEC Wants \$100 Oil").

And we cannot underestimate the supply constriction that consumers in the West have levied upon themselves, especially in fossil fuel-poor Europe, as part of a long-term utopian policy to convert to exclusive use of so-called green and renewable fuels (see "Video: A conversation with Dr. John Constable on the energy crisis facing Europe" October 6, 2022). That's bad enough – but it is probably these policies, more than anything else, that are driving the cartel to curtail production, to make it as costly as possible for the West to stay the green course (see "Ukraine: A Pawn in Putin's Energy Survival Strategy" July 11, 2022).

• The Russia crude oil price cap drama in early December allowed the West to avoid a significant price spike at the end of last year. The G7 set the cap at \$60, below where Urals crude oil was trading anyway (see "Europe: Winter of Energy Discontent" December 5, 2022). This allowed continuation of Russian exports to non-EU and Anglo countries such as China, India and Indonesia. That said, going forward, now that the EU's ban on accepting seaborne crude imports from Russia has gone into effect, Russia will have to find a home for an additional 900,000 barrels per day.



- An EU ban on Russian refined products takes effect on February 5. This could be more punitive than the crude ban that went into effect in early December, because if new markets for cut-rate distillate and gasoline volumes are not secured quickly, the back-up of about 1 million barrels per day of refined product supplies that used to be exported to Europe could slash Russian refinery runs due to lack of storage, thereby taking refined product volumes off the global market.
- There is a critical distinction between crude and refined here.
 Russia's <u>"shadow fleet"</u> of crude oil tankers is large, and it has been used effectively to evade western sanctions. But Russia's refined product carriers are both smaller and fewer.
- <u>Today's news that EU and US officials are meeting</u> to establish a
 price cap on Russian diesel and gasoline similar to that on crude
 will only complicate markets more and send prices for oil and
 refined product higher.
- Russia's response to the EU crude price cap was announced in a decree at the end of last year: countries that abide by the G7 price cap will be banned from importing Russian crude oil and refined products from February 1 to July 1 (although President Vladimir Putin can override the ban on special occasions). We believe that Russia will be able to offset some but not all of the crude oil and refined products exports previously sent to Europe. If volumes are left on the docks in Russian ports, Saudi has the ability to marginally increase export volumes to manage prices and mitigate severe price spikes. But this would be Saudi's opportunity to nudge prices back toward what we think its target is -- \$100 (again, see "It's Official: OPEC Wants \$100 Oil").

We think our demand forecast is very out-of-consensus, probably because of the widespread belief that the Fed's 2022 policy tightening has already put a recession unavoidably on the calendar.

But our view that the supply side points to higher crude prices has become very in-consensus among clients over the last several months (as the Russia/Ukraine conflict has dragged on and OPEC+ has continued to underproduce its quotas, and finally tighten them). After more than two decades of doing macro research, we've learned not to be afraid of being in-consensus with our clients. After all, you are some of the smartest people in the world. We do, however, enjoy the opportunity to be out-of-consensus with markets, which we (and our clients) self-evidently are.

Bottom line

We forecast global crude oil demand growth of 2.5 million barrels per day in 2023, anchoring the high end of estimates. We don't expect a recession in 2023, and historically it takes big recessions to really dent crude demand. The greatest shortfall from trend for demand is among emerging markets, which have been the last to fully open up from the Covid lockdowns. With China's abandonment of its "Zero Covid" policies, the industrial and tourism ecosystem of emerging markets will come back to



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