June 2023

IEF Comparative Analysis

Of Monthly Oil Market Reports

IEF

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eia

Oil Market Context

Fragile economic outlook persists

The OECD's updated global economic outlook, released on June 6th, noted that the global economy "has begun to improve, but the recovery will be weak." The global GDP growth projections for 2023 and 2024 were unchanged from March's forecast at 2.7% and 2.9%, respectively. The report noted that the balance of risks remains skewed to the downside as inflation could prove more persistent than expected. OPEC's 2023 oil demand forecast assumes global GDP growth of 2.6%. IEA did not include its GDP assumption in this month's report.

Production cuts plus

OPEC+ met on June 4th and agreed to extend current crude production cuts through 2024. The cuts had been scheduled to expire at the end of 2023. In addition, Saudi Arabia announced an extra voluntary cut of 1 mb/d for the month of July 2023 that may be extended. OPEC+ stated that these efforts are to provide long-term guidance for the market while being "precautious, proactive, and pre-emptive." The group also agreed to adjust some members' baseline levels to better reflect their current maximum production capacity. The new baselines go into effect in 2024. The next OPEC+ Ministerial meeting is scheduled for November 26, 2023.

US rig count falters

The US oil and gas rig count has fallen for 6 consecutive weeks for the first time since July 2020. The latest figure, for June 9, 2023, shows oil and gas rigs stand at 695 – the lowest level since April 2022 and more than 11% below the post-COVID peak seen in early December 2022. The US rig count is closely watched as an early indicator of US production. However, the IEA, OPEC, and EIA forecasts see US production growing by ~1 mb/d this year, accounting for more than half of all non-OPEC supply growth.

Russian exports take to the sea

Tanker tracking data shows Russian seaborne crude exports rose to a post-war high of 3.9 mb/d in May, while oil product exports fell 13% month-on-month due primarily to seasonal refinery maintenance. The increase in seaborne crude exports is due in part to reduced pipeline exports to Europe and lower domestic refinery runs. Nearly 90% of the seaborne crude exports are now headed to Asia and Turkey, up from pre-war levels of ~35%. India imported 2 mb/d of Russian crude in May, a record high.

2023 Forecast Highlights:

- **Global demand**:
  - IEA and OPEC remain fairly aligned on global demand growth (~2.3-2.4 mb/d), while EIA sees lower growth (1.6 mb/d).
  - This month, IEA revised up its 2023 demand growth forecast by 0.2 mb/d primarily on higher Chinese demand.
  - IEA sees ~0.7 mb/d higher Chinese demand growth this year vs. EIA and OPEC with 1.5 mb/d vs. 0.8 mb/d, respectively.
  - OPEC and IEA see global demand averaging above 103 mb/d by 4Q23, whereas EIA's quarterly forecast remains below 102 mb/d.
- **Non-OPEC and OPEC NGL supply**:
  - EIA sees the strongest non-OPEC and OPEC NGL supply growth this year at 2.1 mb/d. IEA and OPEC are more closely aligned at 1.7 mb/d and 1.5 mb/d, respectively.
  - The largest divergence in supply forecasts is in Russian production. OPEC sees a 0.7 mb/d decline in Russian output this year vs. IEA's and EIA's forecast of a 0.2-0.3 mb/d decline.
  - All three forecasters expect the US to be the largest driver of non-OPEC supply growth, adding ~1 mb/d of new supply this year.
- **"Call on OPEC"**:
  - IEA and OPEC see the "call on OPEC" rising to 30.2-30.6 mb/d in the second half of the year. This implies a >2 mb/d global supply shortfall in 2H23 if OPEC production were to remain constant at May levels (28.07 mb/d).
  - EIA's 2023 "call on OPEC" is 2.0 mb/d lower than IEA's due to EIA's lower demand and higher supply forecasts.
- **May OPEC production**:
  - OPEC secondary sources show OPEC production declined by 0.46 mb/d in May to 28.1 mb/d led by a 0.5 mb/d cut from Saudi Arabia. IEA estimates show OPEC crude production falling by 0.38 mb/d in May to 28.5 mb/d led by a 0.5 mb/d decline from Saudi Arabia. IEA estimates a higher production figure for Iran and UAE vs. OPEC secondary sources.
- **OECD inventories**:
  - IEA estimates OECD commercial inventories rose by 33.6 mb in April to 2,795 mb and stood 86.4 mb below the five-year average. OPEC estimates OECD commercial stocks rose by 30.2 mb in April to 2,808 mb and stood 74 mb below the latest five-year average and 119 mb below the 2015-2019 average.

2024 Forecast Highlights:

IEA issued its inaugural 2024 forecast this month. OPEC is scheduled to issue its first 2024 outlook in July.

- **Global demand:**
  - IEA sees global demand growth slowing to 0.9 mb/d in 2024 from 2.4 mb/d y/y in 2023.
  - EIA's 2024 global demand growth forecast is unchanged this month at 1.7 mb/d.
  - IEA sees OECD demand declining by 0.4 mb/d next year, with US demand dropping by 0.23 mb/d. Meanwhile, EIA sees OECD growing by 0.25 mb/d, with US increasing by 0.26 mb/d.
  - Despite having a lower y/y growth forecast compared to EIA, IEA sees *higher* demand levels than EIA for most of 2024 due to a higher 2023 baseline forecast. IEA sees quarterly demand rising to 104.4 mb/d by 4Q24 vs. EIA's 103.1 mb/d.
- **Non-OPEC and OPEC NGL supply:**
  - Both IEA and EIA see non-OPEC and OPEC NGL supply growing by 1.0-1.1 mb/d in 2024. This is a sharp slowdown from IEA and EIA's 2023 estimates of 1.7 mb/d and 2.1 mb/d, respectively.
  - Notably, IEA and EIA both see US production growth slowing to 0.4 mb/d next year from ~1.0 mb/d this year. Despite a significant slowdown, the US is still the strongest driver of non-OPEC supply growth in 2024. Canada, Brazil, and Norway are also expected to contribute growth next year.
  - IEA sees a slightly steeper drop in Russian production at -0.2 mb/d vs EIA's -0.1 mb/d.
- **"Call on OPEC":**
  - IEA's balance implies OPEC would need to produce an average 29.4 mb/d in 2024 to balance the market. This is 1.3 mb/d higher than the group produced in May 2023.
  - EIA's balance implies OPEC would need to produce an average of 28.4 mb/d in 2024 to balance the market. This is 0.3 mb/d higher than the group produced in May 2023.
  - EIA's 2024 "Call on OPEC" is 1.0 mb/d lower than IEA's largely due to wide divergences in the 2023 baseline forecasts.

2023 Outlook Comparison

Summary of 2023 Balances and Revisions

- IEA and OPEC remain fairly aligned on global demand growth (2.3-2.4 mb/d) and non-OPEC and OPEC NGL supply growth (1.5-1.7 mb/d). Meanwhile, EIA sees lower demand growth (1.6 mb/d) and higher supply growth (2.1 mb/d).
- The largest revisions this month include IEA's 0.3 mb/d upward revision to annual non-OECD demand (mostly China) and EIA's 0.3 mb/d upward revision to annual non-OPEC supply (US, Mexico, and Russia). OPEC revisions were marginal this month.

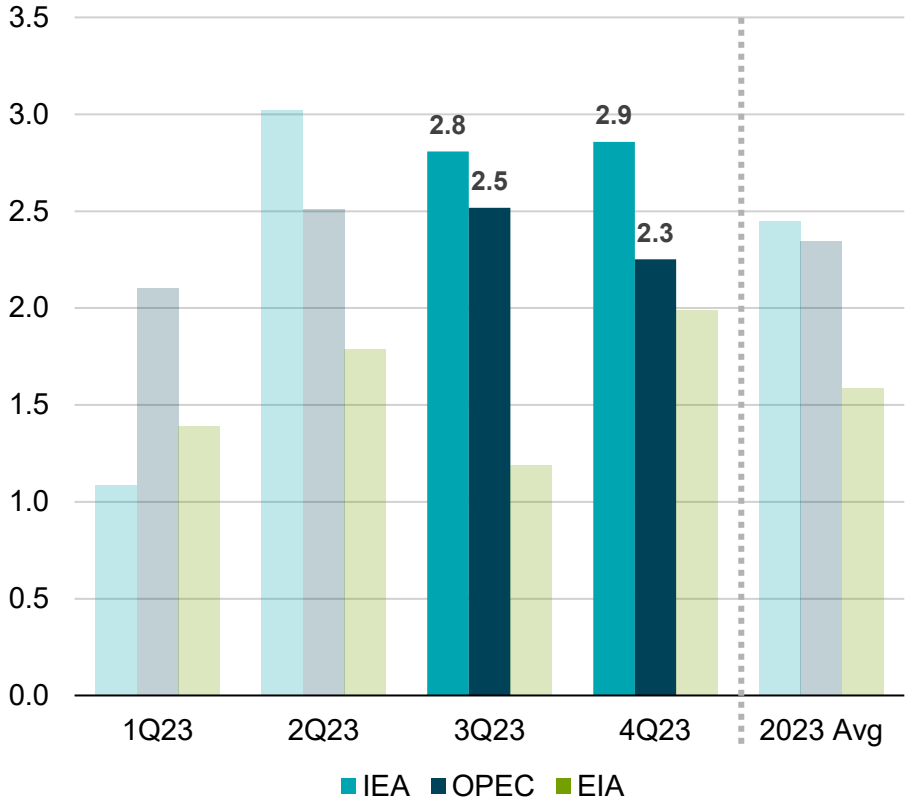
		2023 Balance Summary											
		Updated Forecast						*Revisions to Last Month's Forecast*					
		1Q23	2Q23	3Q23	4Q23	2023	2023 Y/Y	*1Q23*	*2Q23*	*3Q23*	*4Q23*	*2023*	*2023 Y/Y*
Global Demand	**IEA**	100.5	101.6	103.4	103.5	102.3	2.4	*0.0*	*0.3*	*0.3*	*0.4*	*0.2*	*0.2*
	OPEC	101.6	100.8	102.0	103.3	101.9	2.3	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*
	EIA	99.9	100.8	101.6	101.7	101.0	1.6	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
OECD Demand	**IEA**	45.5	45.7	47.1	46.6	46.2	0.3	*0.0*	*-0.2*	*0.0*	*0.0*	*-0.1*	*-0.1*
	OPEC	45.4	45.5	46.9	46.2	46.0	0.0	*-0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
	EIA	45.5	45.6	46.4	46.5	46.0	0.1	*0.0*	*-0.1*	*0.0*	*0.0*	*0.0*	*0.0*
Non-OECD Demand	**IEA**	55.0	55.9	56.2	56.9	56.0	2.2	*0.0*	*0.5*	*0.3*	*0.4*	*0.3*	*0.3*
	OPEC	56.1	55.3	55.2	57.1	55.9	2.3	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*
	EIA	54.5	55.2	55.2	55.2	55.0	1.5	*0.0*	*0.1*	*0.0*	*0.0*	*0.1*	*0.1*
Non-OPEC Supply* and OPEC NGLs	**IEA**	72.3	72.3	72.9	72.9	72.6	1.7	*0.1*	*0.3*	*0.3*	*0.2*	*0.2*	*0.2*
	OPEC	73.2	72.5	72.2	72.7	72.6	1.5	*0.1*	*0.1*	*-0.1*	*-0.2*	*0.0*	*0.0*
	EIA	72.6	72.9	73.6	73.9	73.3	2.1	*0.1*	*0.2*	*0.4*	*0.4*	*0.3*	*0.3*
OPEC Crude**	**IEA**	29.3						*0.1*					
	OPEC	28.8						*0.0*					
	EIA	28.5	28.4	27.8	27.8	28.1	-0.6	*0.0*	*0.0*	*-0.6*	*-0.4*	*-0.2*	*-0.2*
Call on OPEC	**IEA**	28.2	29.3	30.5	30.6	29.7	0.7	*-0.1*	*0.0*	*0.1*	*0.1*	*0.0*	*0.0*
	OPEC	28.4	28.3	29.9	30.6	29.3	0.9	*-0.2*	*0.0*	*0.1*	*0.2*	*0.0*	*0.0*
	EIA	27.3	27.9	28.0	27.8	27.7	-0.5	*0.0*	*-0.2*	*-0.4*	*-0.3*	*-0.3*	*-0.2*
Global Stock Change and Miscellaneous to Balance**	**IEA**	1.1						*0.2*					
	OPEC	0.5						*0.2*					
	EIA	1.1	0.5	-0.2	0.0	0.4		*0.1*	*0.2*	*-0.2*	*-0.1*	*0.0*	

* Includes biofuels and processing gains
** Only EIA publishes a forecast of OPEC crude production and global stock change
Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

IEA and OPEC both see global demand growth outpacing non-OPEC supply growth by 1.7 mb/d in 2H23

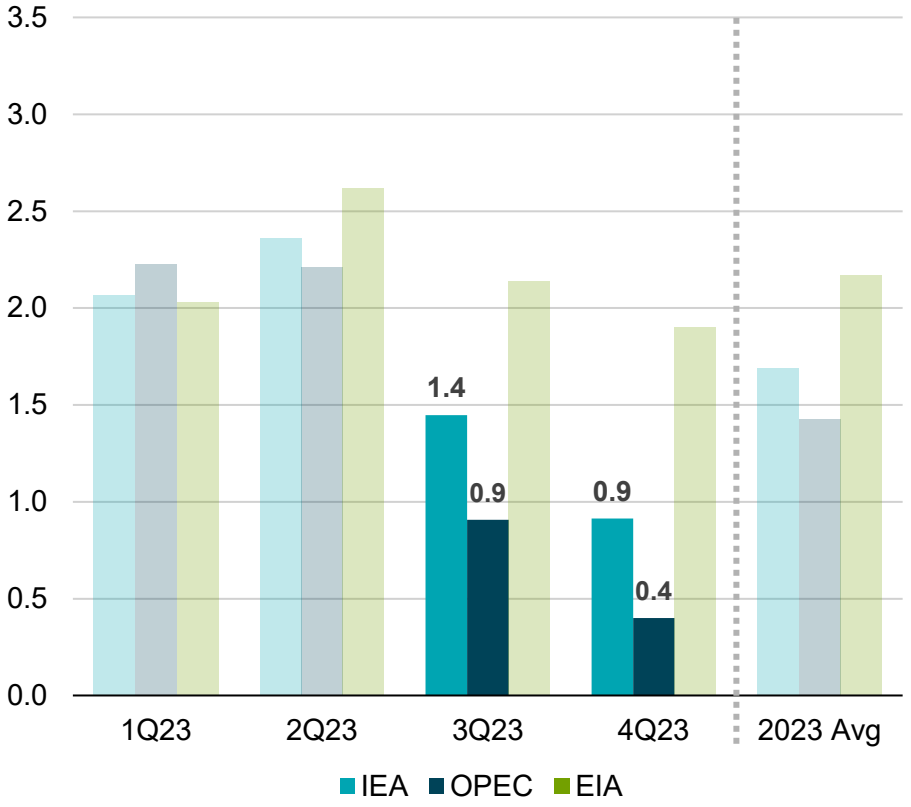
Global Demand Y/Y Growth

y/y growth in million barrels per day



Non-OPEC Supply Y/Y Growth

y/y growth in million barrels per day

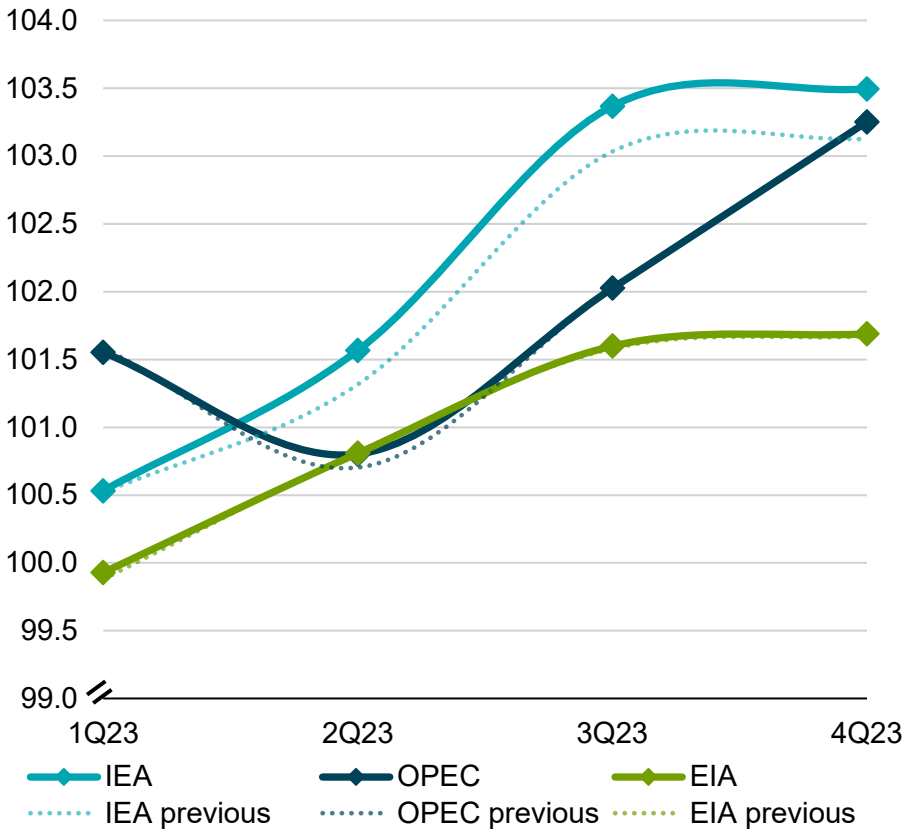


Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

IEA and OPEC see global demand surpassing 103 mb/d by the end of 2023; OPEC sees non-OPEC supply weakening after 1Q23

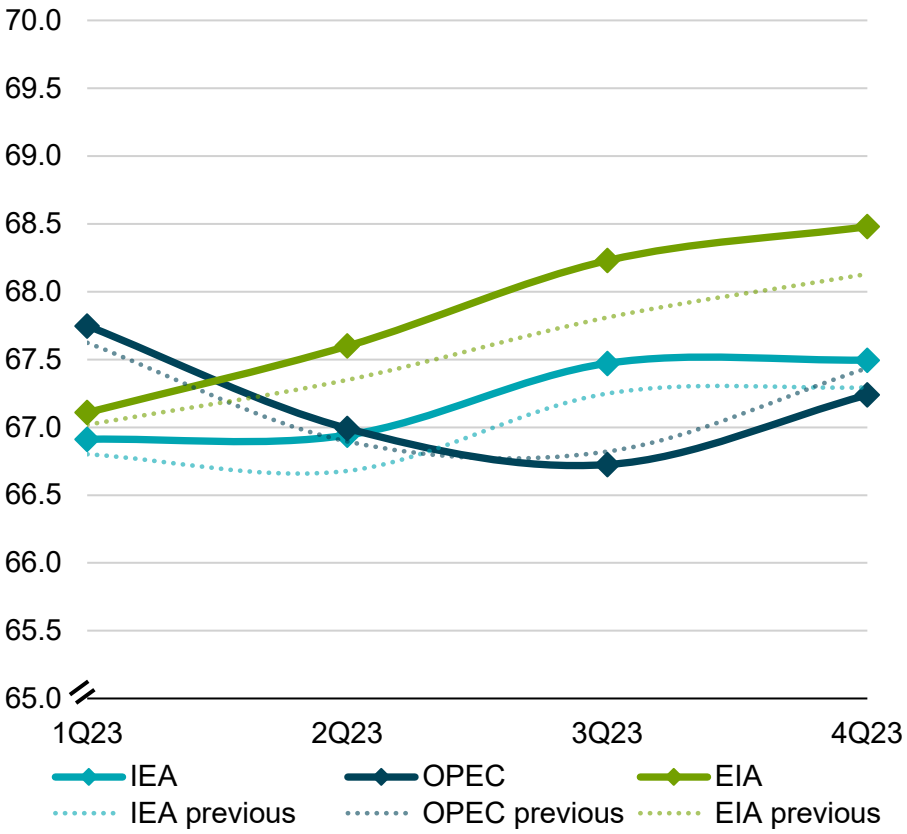
Global Demand

demand in million barrels per day



Non-OPEC Supply

supply in million barrels per day

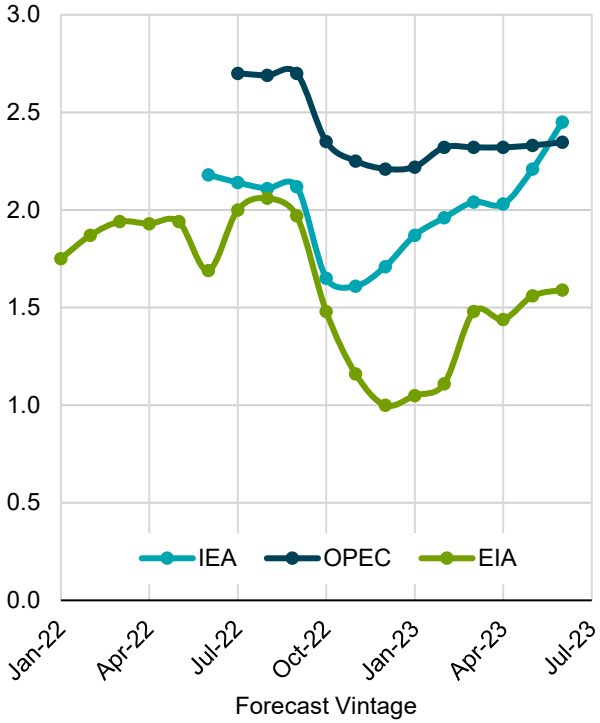


Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

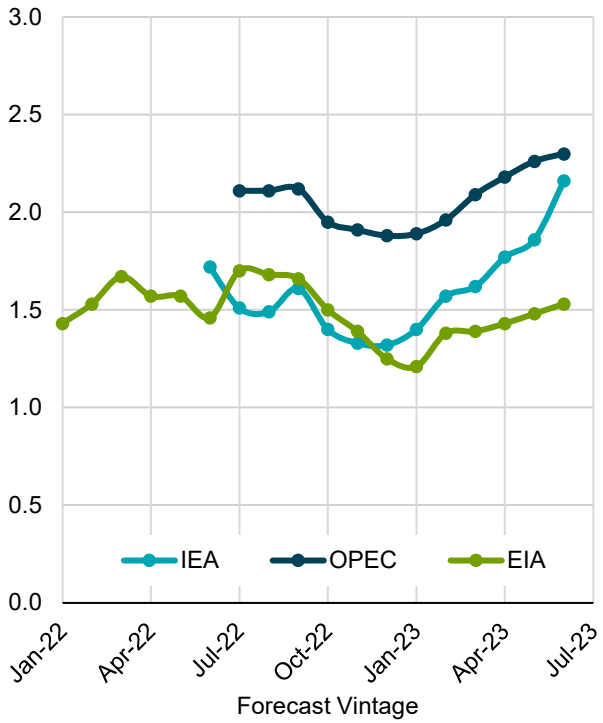
Evolution of 2023 Demand Growth Forecasts

- IEA has revised global demand growth higher by nearly 0.5 mb/d over the past two months. This has been driven largely by a higher Chinese demand forecast.
- EIA continues to see the weakest demand growth this year, driven by a lower non-OECD demand forecast.

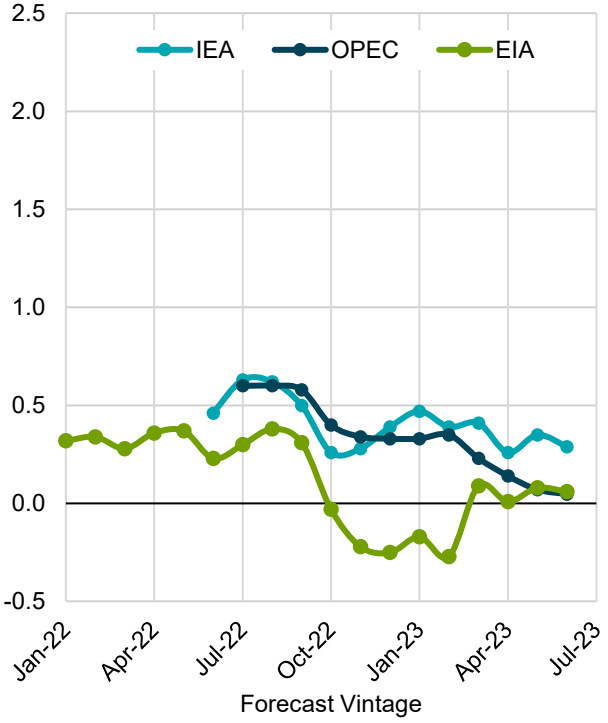
Global Demand Growth
Evolution of 2023 Forecasts
y/y growth in million barrels per day



Non-OECD Demand Growth
Evolution of 2023 Forecasts
y/y growth in million barrels per day



OECD Demand Growth
Evolution of 2023 Forecasts
y/y growth in million barrels per day

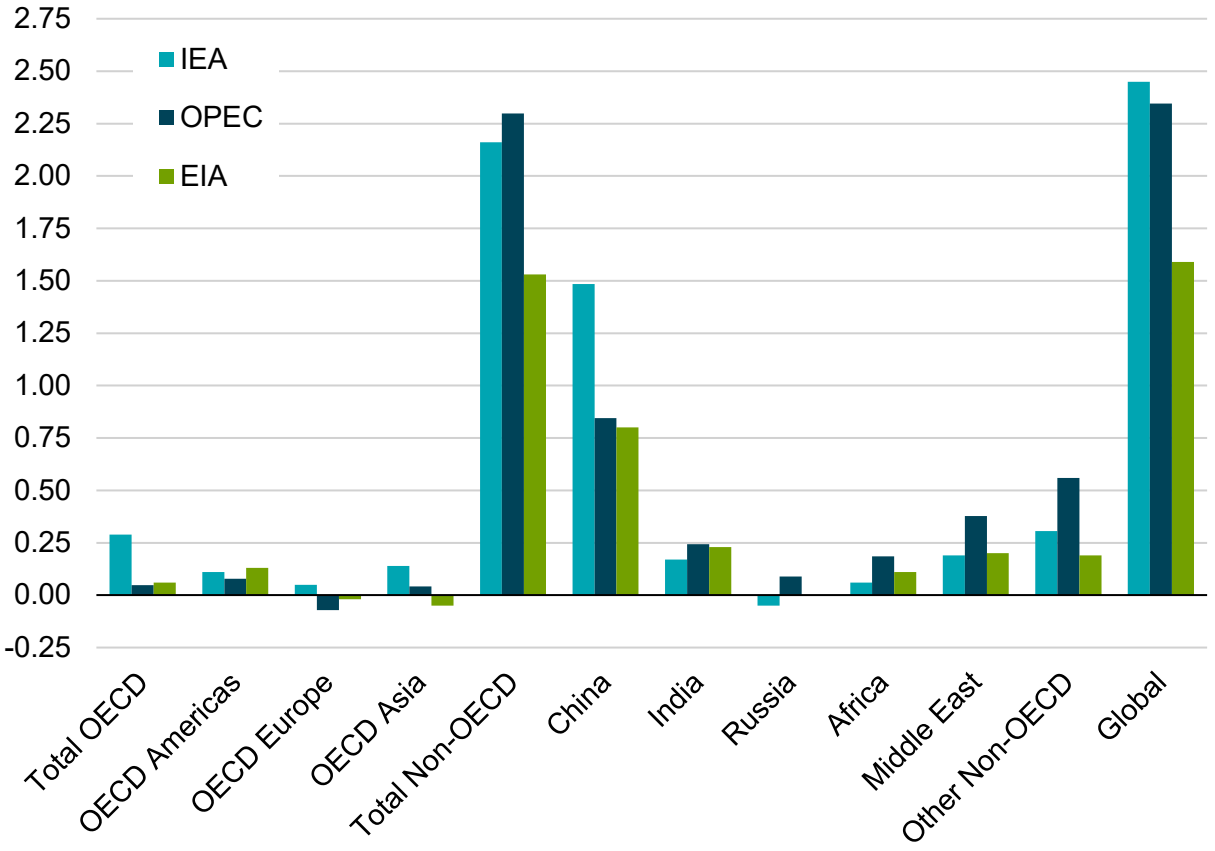


**EIA first released a 2023 forecast in Jan 2022; IEA in June 2022; and OPEC in July 2022*
Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

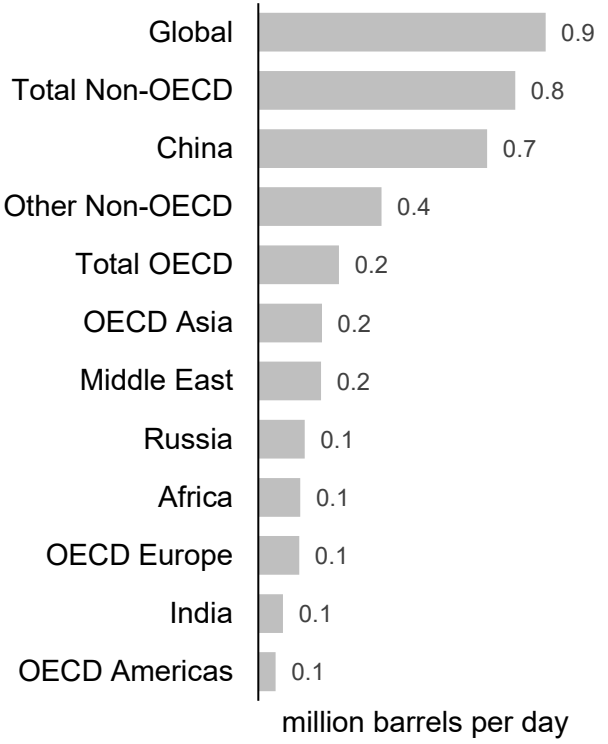
China drives the largest demand growth forecast divergence with IEA seeing the most robust growth

2023 Demand Growth Forecasts by Region

y/y growth in million barrels per day



Range in 2023 Demand Growth Forecasts



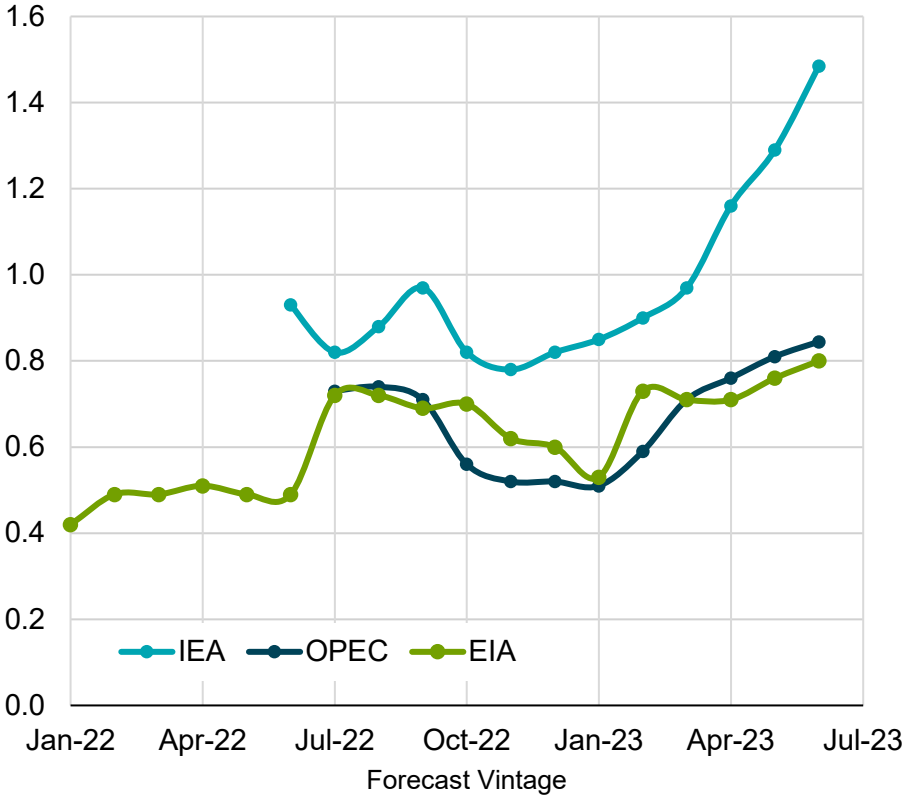
Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

IEA sees ~0.7 mb/d stronger Chinese demand growth this year; OPEC sees Chinese demand weakening mid-year before robust growth in 4Q23

Chinese Annual Average Demand Growth

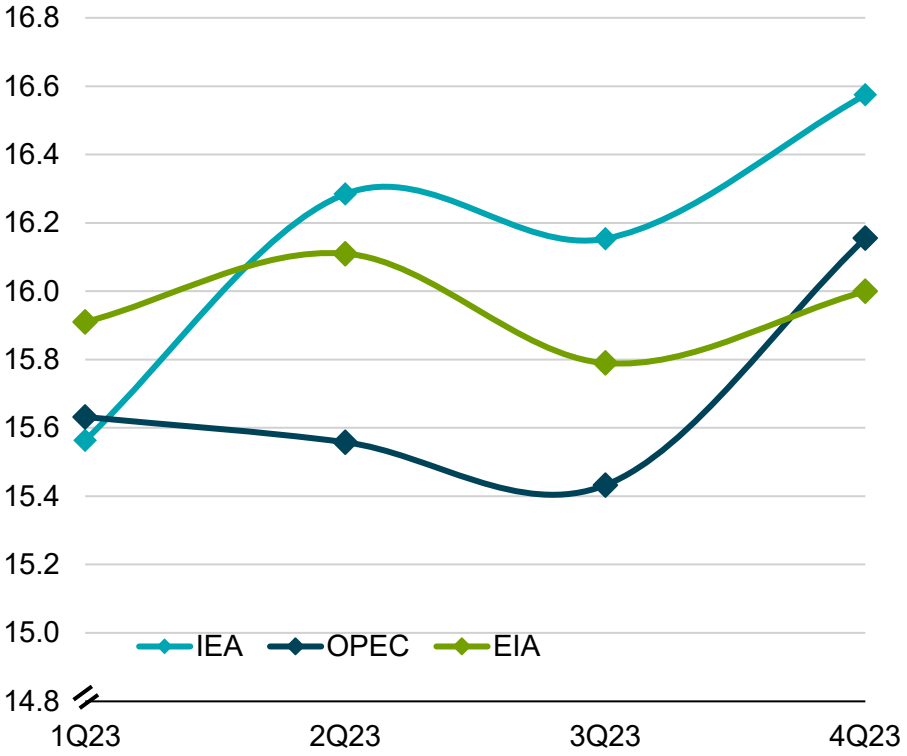
Evolution of 2023 Forecasts

y/y growth in million barrels per day



Chinese Quarterly Demand

million barrels per day



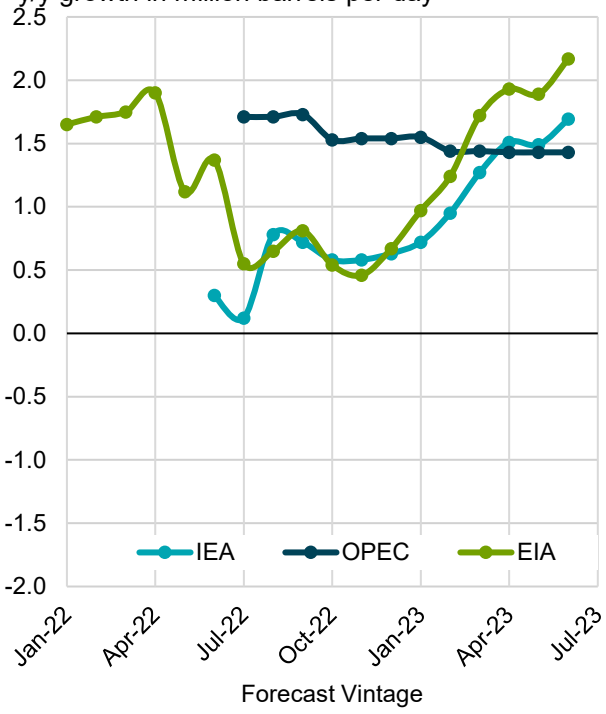
**EIA first released a 2023 forecast in Jan 2022; IEA in June 2022; and OPEC in July 2022*

Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

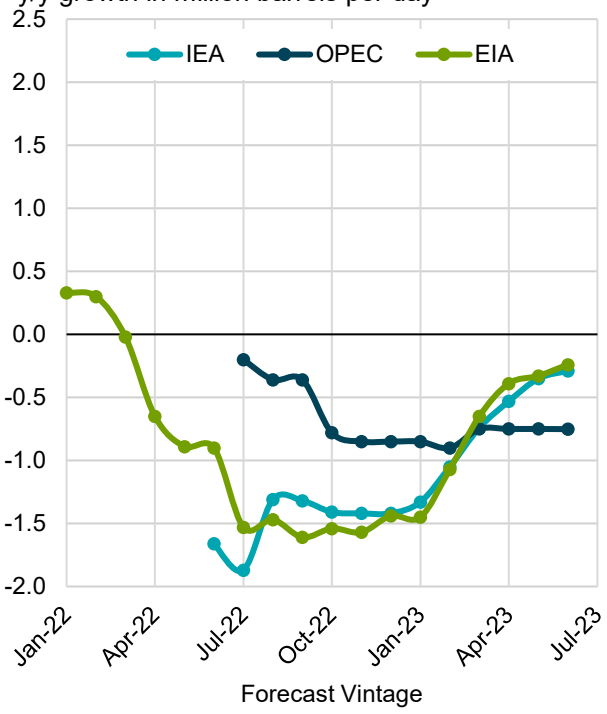
Evolution of 2023 Non-OPEC Supply Growth Forecasts

- EIA revised up non-OPEC supply growth by 0.3 mb/d on stronger US, Mexico, and Russian forecasts. IEA revised up non-OPEC supply growth by 0.2 mb/d, primarily on a higher US forecast.
- EIA continues to see the strongest non-OPEC supply growth this year, driven by a higher forecast for Norway and Russia.

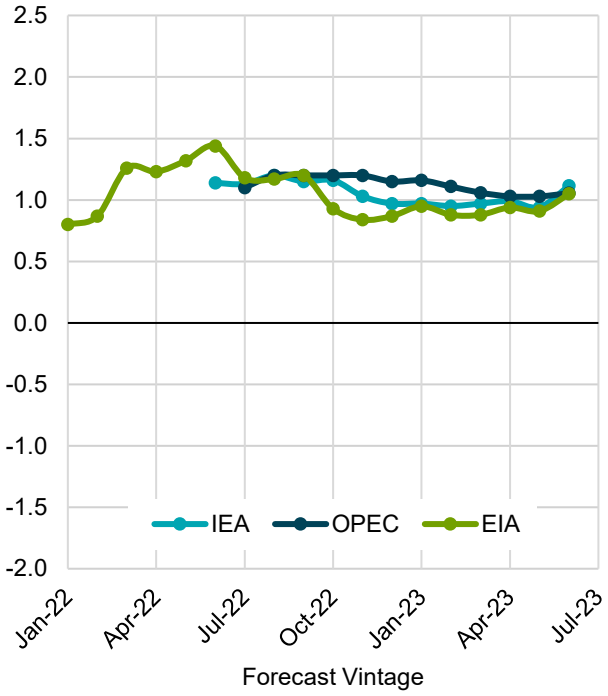
Non-OPEC Supply Growth
Evolution of 2023 Forecasts
y/y growth in million barrels per day



Russia Supply Growth
Evolution of 2023 Forecasts
y/y growth in million barrels per day



US Supply Growth
Evolution of 2023 Forecasts
y/y growth in million barrels per day

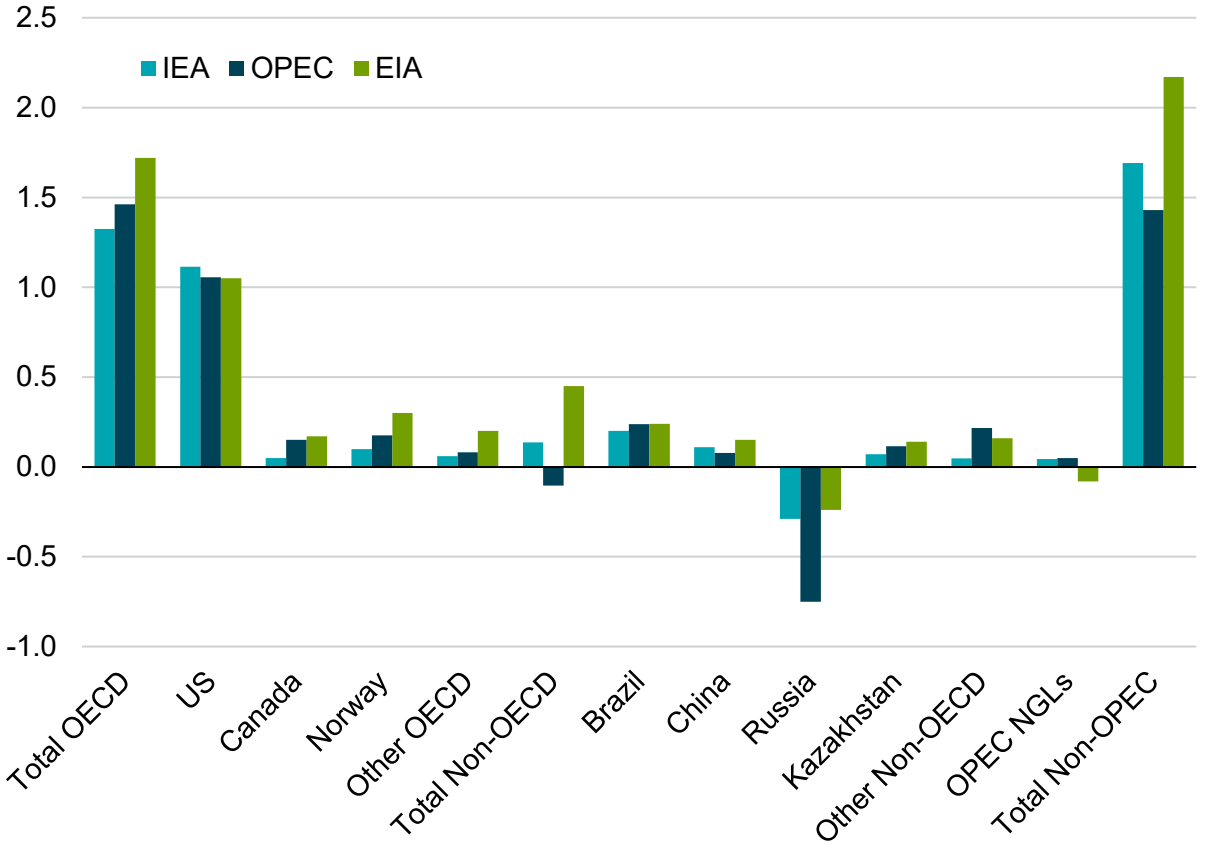


**EIA first released a 2023 forecast in Jan 2022; IEA in June 2022; and OPEC in July 2022*
Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

Russia drives the largest supply growth forecast divergence with OPEC seeing the steepest decline

2023 Supply Growth Forecasts by Region

y/y growth in million barrels per day



Range in 2023 Supply Growth Forecasts

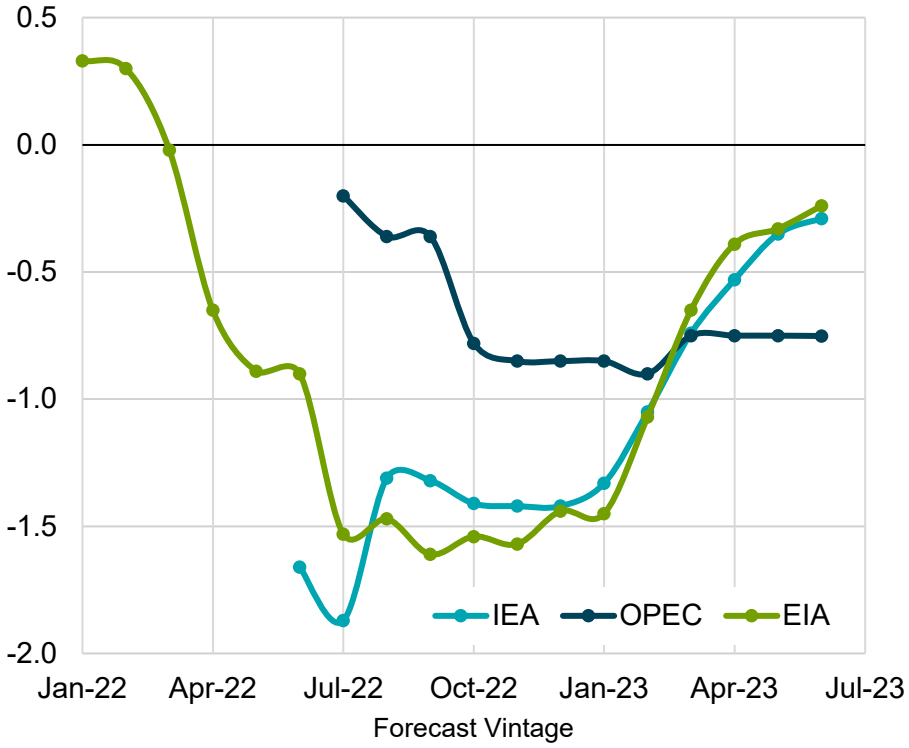
Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

IEA and EIA have revised Russian supply forecasts sharply higher since January; OPEC sees significantly lower output in 2H23 vs. IEA and EIA

Russia Annual Average Supply Growth

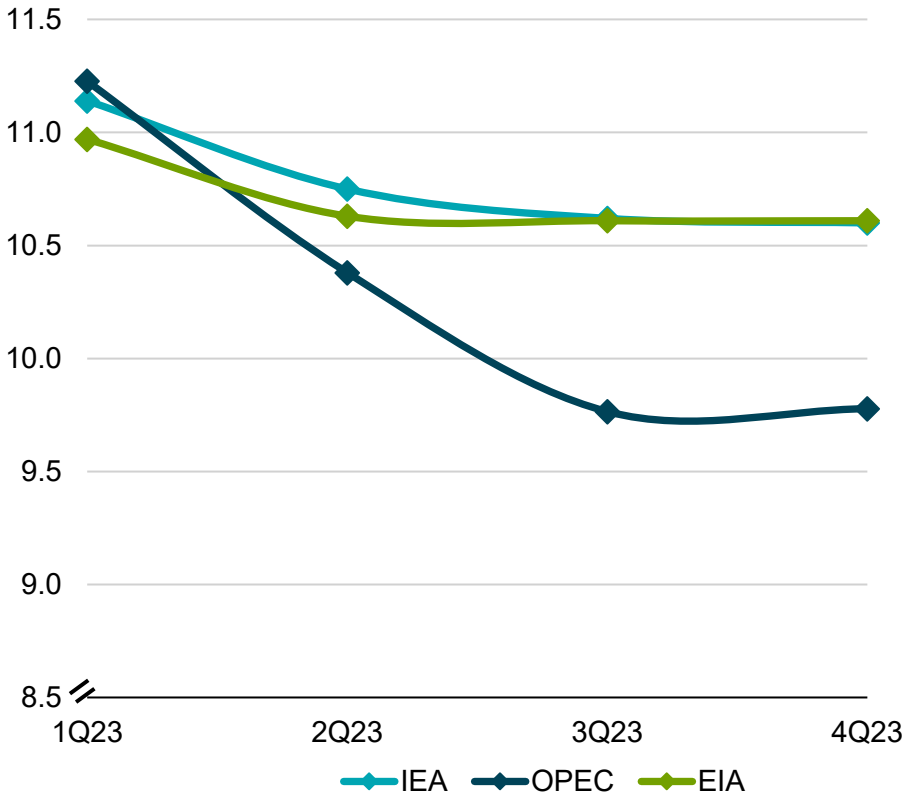
Evolution of 2023 Forecasts

y/y growth in million barrels per day



Russia Quarterly Production Forecast

million barrels per day



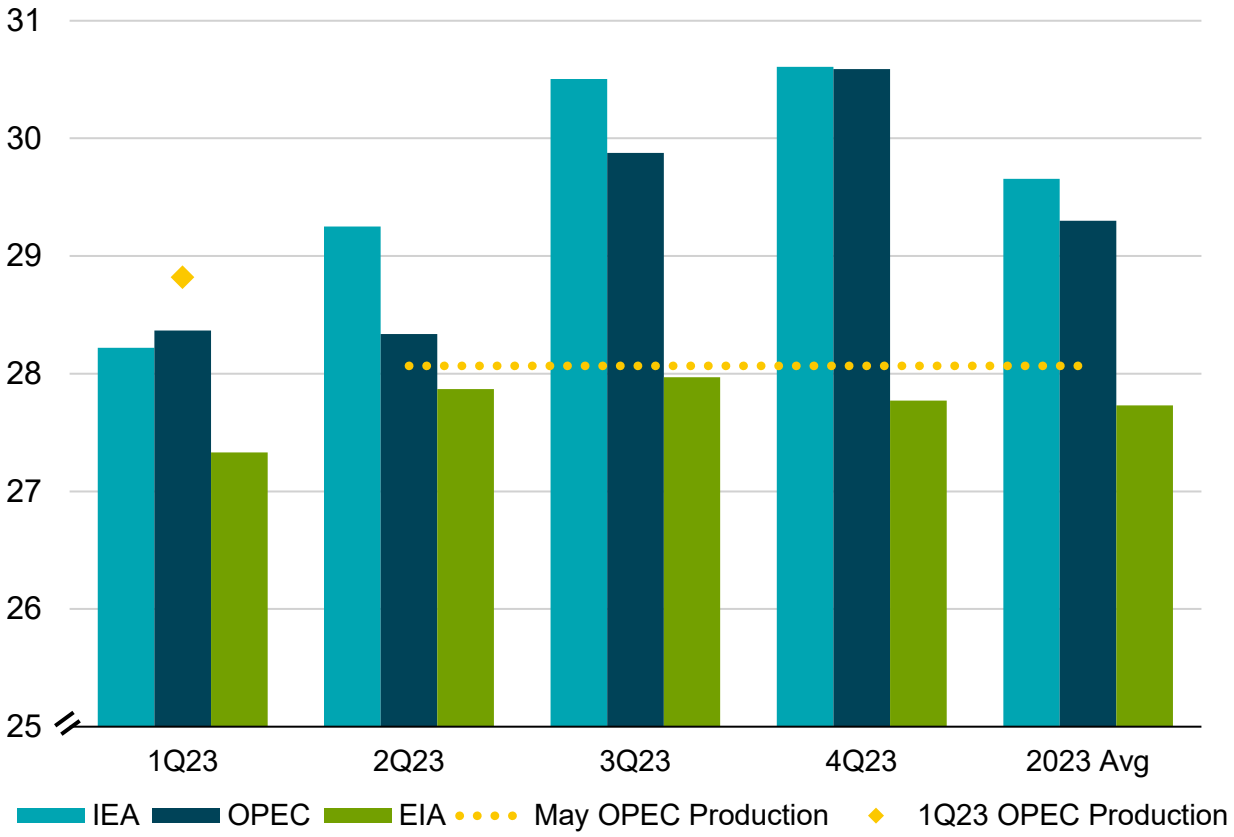
**EIA first released a 2023 forecast in Jan 2022; IEA in June 2022; and OPEC in July 2022*

Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

IEA and OPEC balances imply a >2 mb/d global supply shortfall in 2H23 if OPEC production were to remain at May levels

2023 Call on OPEC and Recent OPEC Production Levels

million barrels per day



- The “call on OPEC crude” is a calculation and not a forecast of actual OPEC production.
- The “call on OPEC” estimates what OPEC would need to produce to balance global supply and demand.
- It is estimated by subtracting a forecast for non-OPEC production and OPEC NGLs from global demand.

Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

2024 Outlook Comparison

Summary of 2024 Balances and Revisions

- IEA released its inaugural 2024 balance this month and OPEC will release its in July.
- IEA sees global demand growth slowing from 2.4 mb/d y/y in 2023 to 0.9 mb/d in 2024. This is significantly lower than EIA's forecast of 1.7 mb/d. IEA sees OECD demand cratering by 0.4 mb/d while EIA projects a 0.3 mb/d growth.
- Both IEA and EIA see non-OPEC and OPEC NGL supply growing by 1.0-1.1 mb/d in 2024.

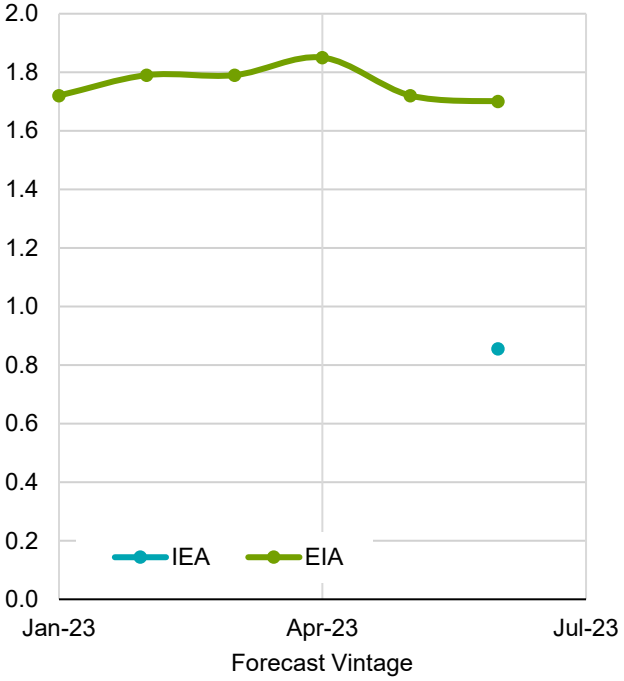
		2024 Balance Summary											
		Updated Forecast						*Revisions to Last Month's Forecast*					
		1Q24	2Q24	3Q24	4Q24	2024	2024 Y/Y	*1Q24*	*2Q24*	*3Q24*	*4Q24*	*2024*	*2024 Y/Y*
Global Demand	**IEA**	101.5	102.5	104.1	104.4	103.1	0.9						
	OPEC												
	EIA	102.2	102.4	103.1	103.1	102.7	1.7	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
OECD Demand	**IEA**	45.1	45.5	46.7	46.0	45.8	-0.4						
	OPEC												
	EIA	46.1	45.7	46.6	46.6	46.3	0.3	*0.0*	*-0.1*	*-0.1*	*-0.1*	*-0.1*	*0.0*
Non-OECD Demand	**IEA**	56.4	57.0	57.3	58.3	57.3	1.3						
	OPEC												
	EIA	56.1	56.6	56.6	56.5	56.5	1.4	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.0*
Non-OPEC Supply* and OPEC NGLs	**IEA**	73.0	73.7	74.2	74.0	73.7	1.1						
	OPEC												
	EIA	73.7	73.9	74.6	75.1	74.3	1.0	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.0*
OPEC Crude**	**IEA**												
	OPEC												
	EIA	28.3	28.5	28.5	28.2	28.4	0.3	*-0.6*	*-0.6*	*-0.7*	*-0.7*	*-0.6*	*-0.4*
Call on OPEC	**IEA**	28.5	28.8	29.9	30.3	29.4	-0.3						
	OPEC												
	EIA	28.5	28.5	28.6	28.0	28.4	0.7	*-0.3*	*-0.2*	*-0.2*	*-0.3*	*-0.3*	*0.0*
Global Stock Change and Miscellaneous to Balance**	**IEA**												
	OPEC												
	EIA	-0.2	0.0	0.0	0.2	0.0		*-0.2*	*-0.3*	*-0.4*	*-0.4*	*-0.3*	

* Includes biofuels and processing gains
** Only EIA publishes a forecast of OPEC crude production and global stock change
Source: IEF, IEA OMR, OPEC MOMR, EIA STEO

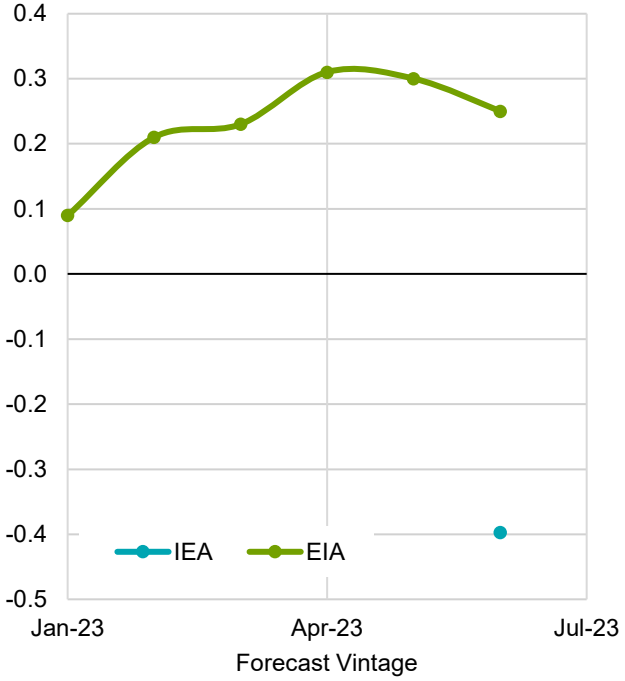
Evolution of 2024 Annual Demand Growth Forecasts

- EIA's 2024 global demand growth forecast is nearly double IEA's due to a higher OECD demand forecast.
- IEA sees OECD demand declining by 0.4 mb/d next year, with US demand dropping by 0.23 mb/d. Meanwhile, EIA sees OECD growing by 0.25 mb/d, with US increasing by 0.26 mb/d.

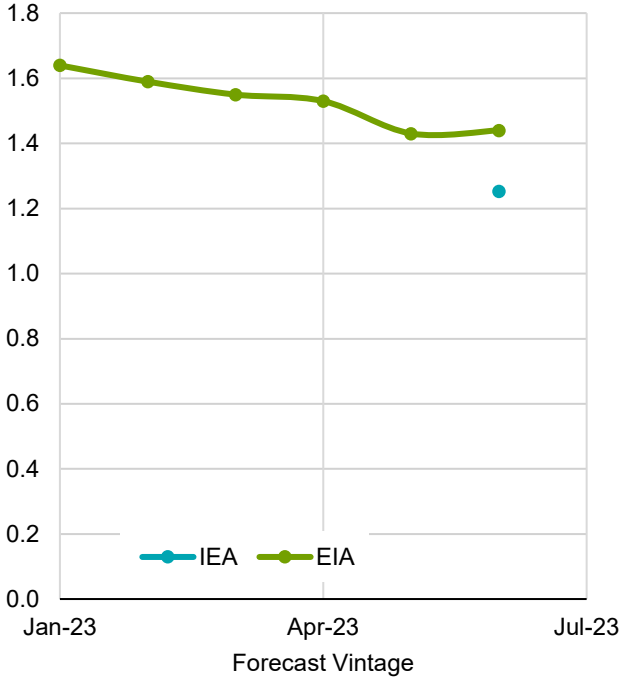
Global Demand Growth
Evolution of 2024 Forecasts
y/y growth in million barrels per day



OECD Demand Growth
Evolution of 2024 Forecasts
y/y growth in million barrels per day



Non-OECD Demand Growth
Evolution of 2024 Forecasts
y/y growth in million barrels per day

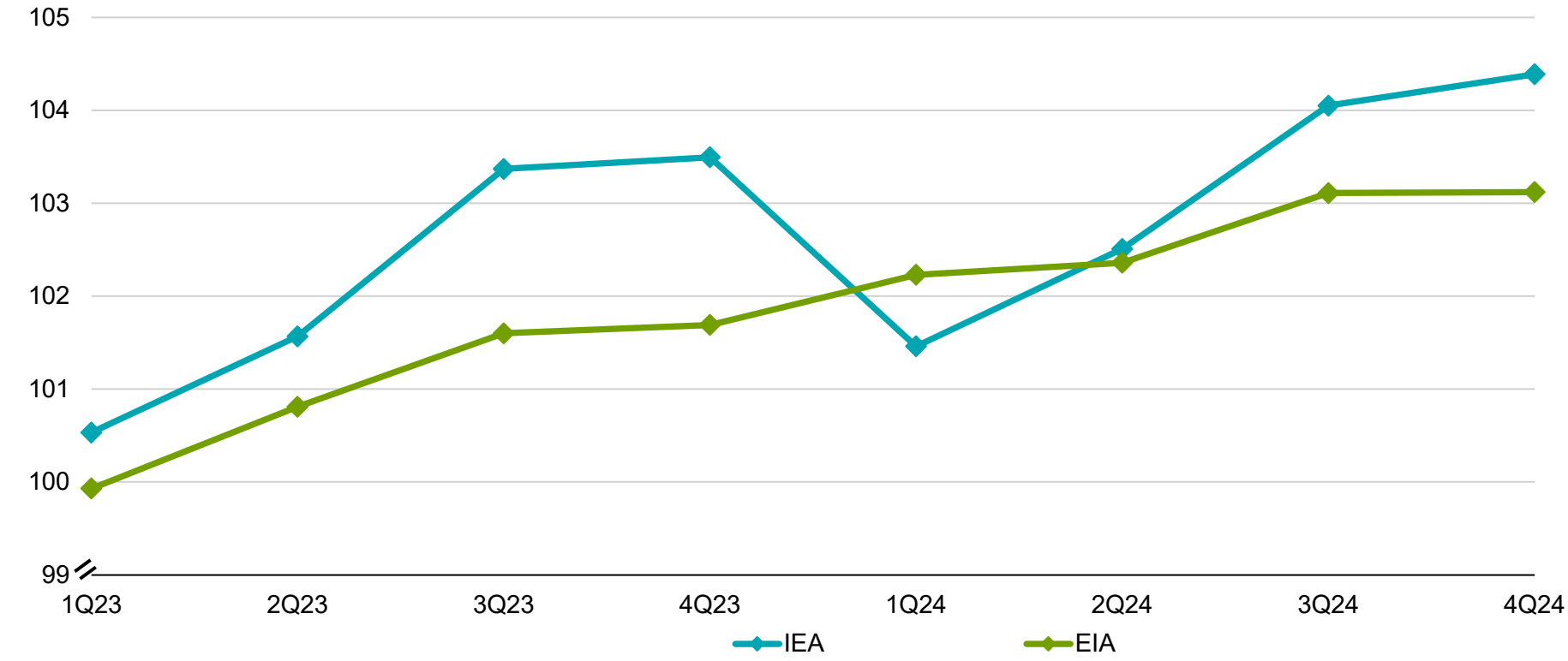


**EIA first released a 2024 forecast in Jan 2023; IEA in June 2023; and OPEC in July 2023*
Source: IEF, IEA OMR, EIA STEO

Despite having a lower demand growth forecast, IEA sees higher demand levels than EIA for most of 2024 due to a materially higher 2023 baseline demand forecast

Global Demand

demand in million barrels per day

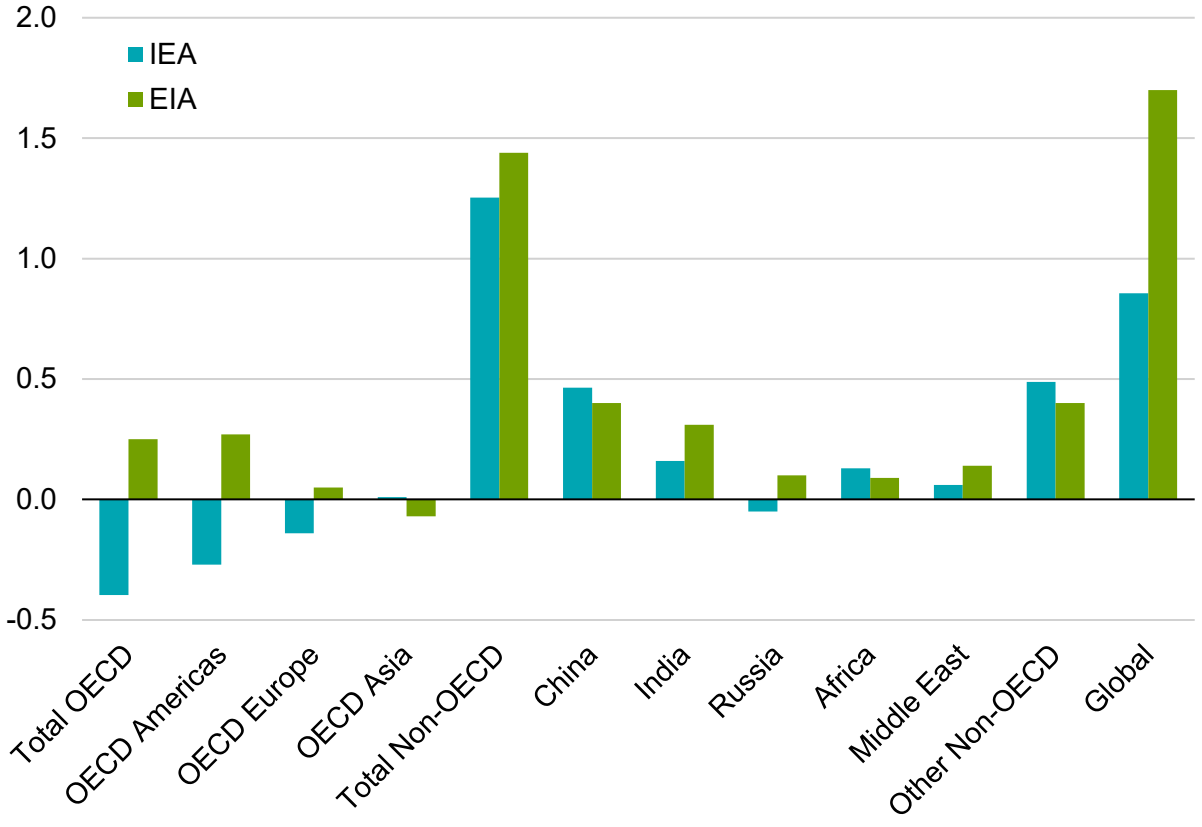


Source: IEF, IEA OMR, EIA STEO

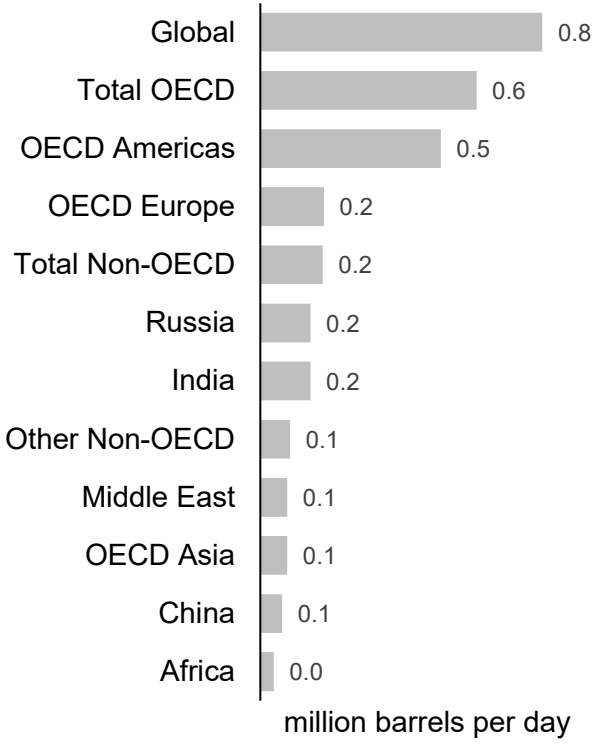
IEA and EIA demand growth forecasts differ by 0.8 mb/d, driven by diverging OECD demand forecasts

2024 Demand Growth Forecasts by Region

y/y growth in million barrels per day



Range in 2024 Demand Growth Forecasts

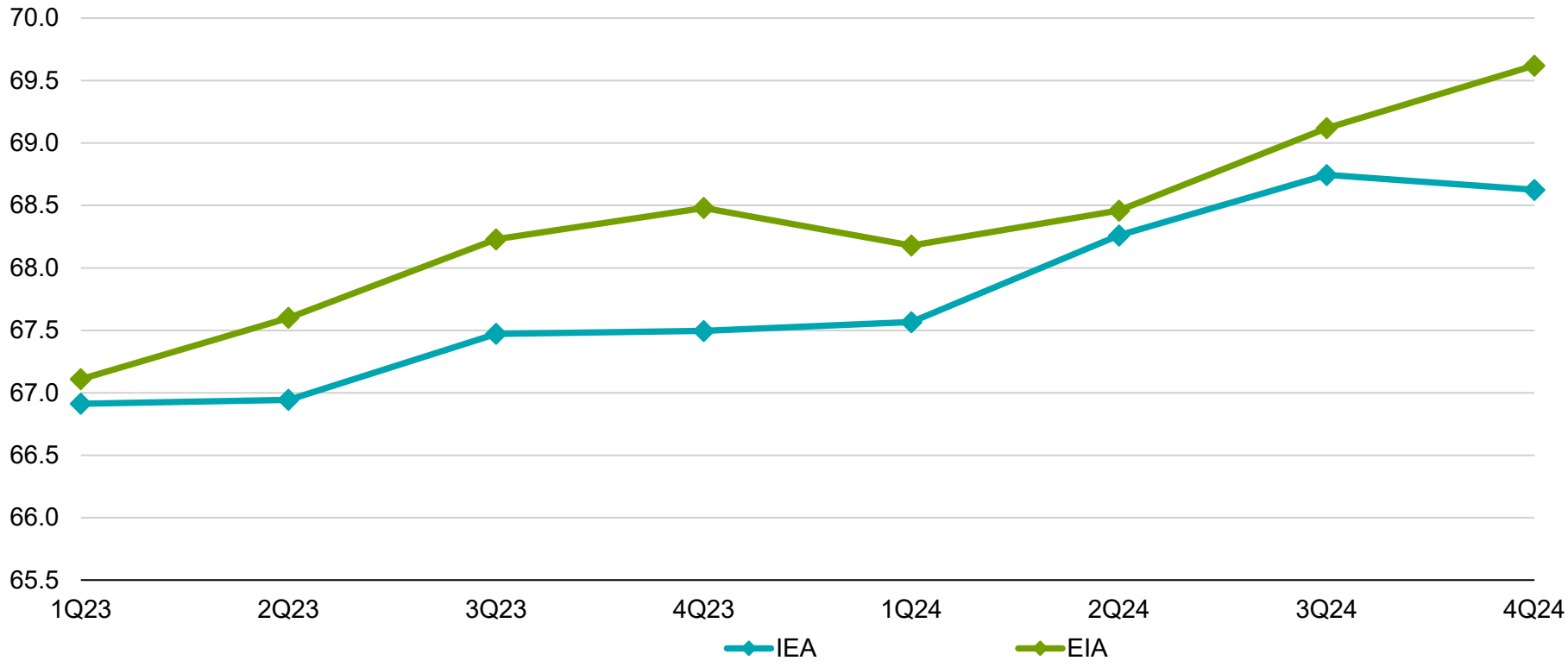


Source: IEF, IEA OMR, EIA STEO

While the gap in forecasts narrows slightly in 2024, EIA sees higher non-OPEC supply than IEA through the entire forecast period

2023-2024 Non-OPEC Supply

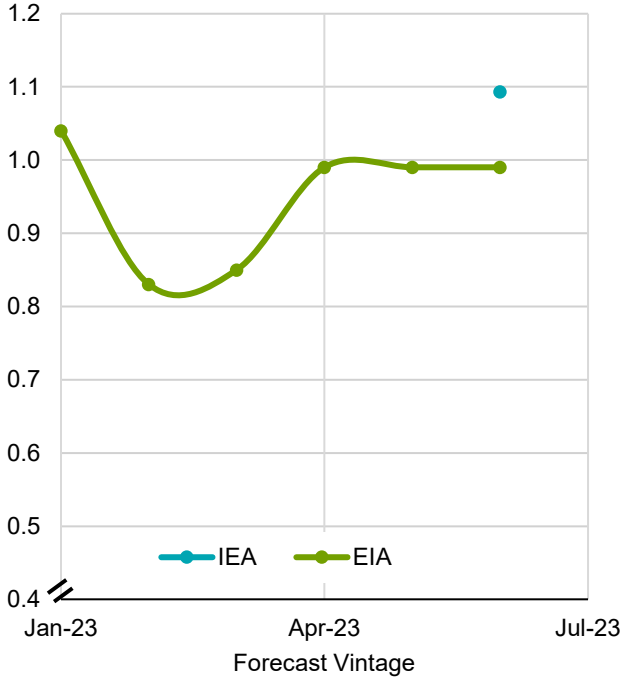
supply in million barrels per day



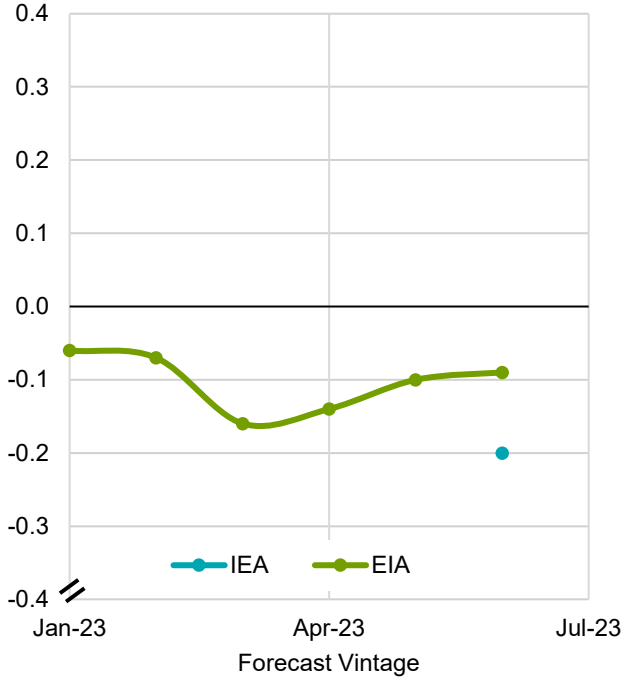
Evolution of 2024 Annual Non-OPEC Supply Growth Forecasts

- IEA sees a slightly higher non-OPEC supply growth forecast than EIA despite seeing a steeper drop in Russian production.
- EIA's forecast is largely unchanged from last month.

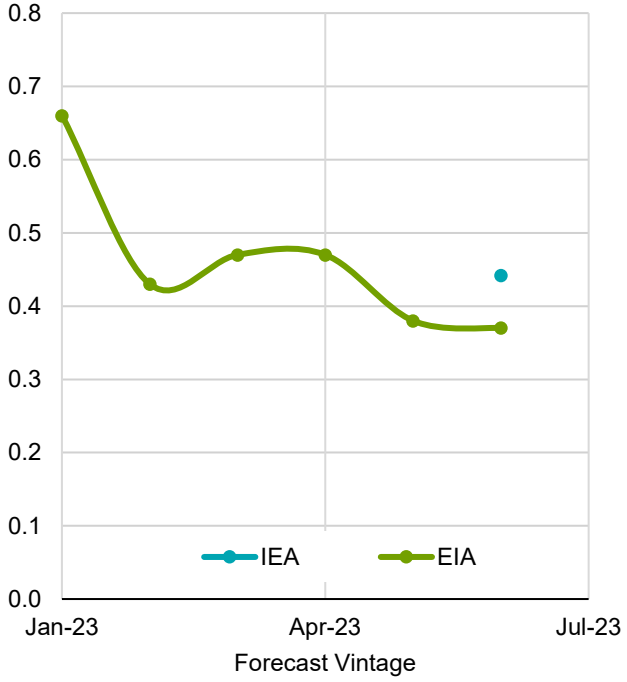
Non-OPEC Supply Growth
Evolution of 2024 Forecasts
y/y growth in million barrels per day



Russia Supply Growth
Evolution of 2024 Forecasts
y/y growth in million barrels per day



US Supply Growth
Evolution of 2024 Forecasts
y/y growth in million barrels per day

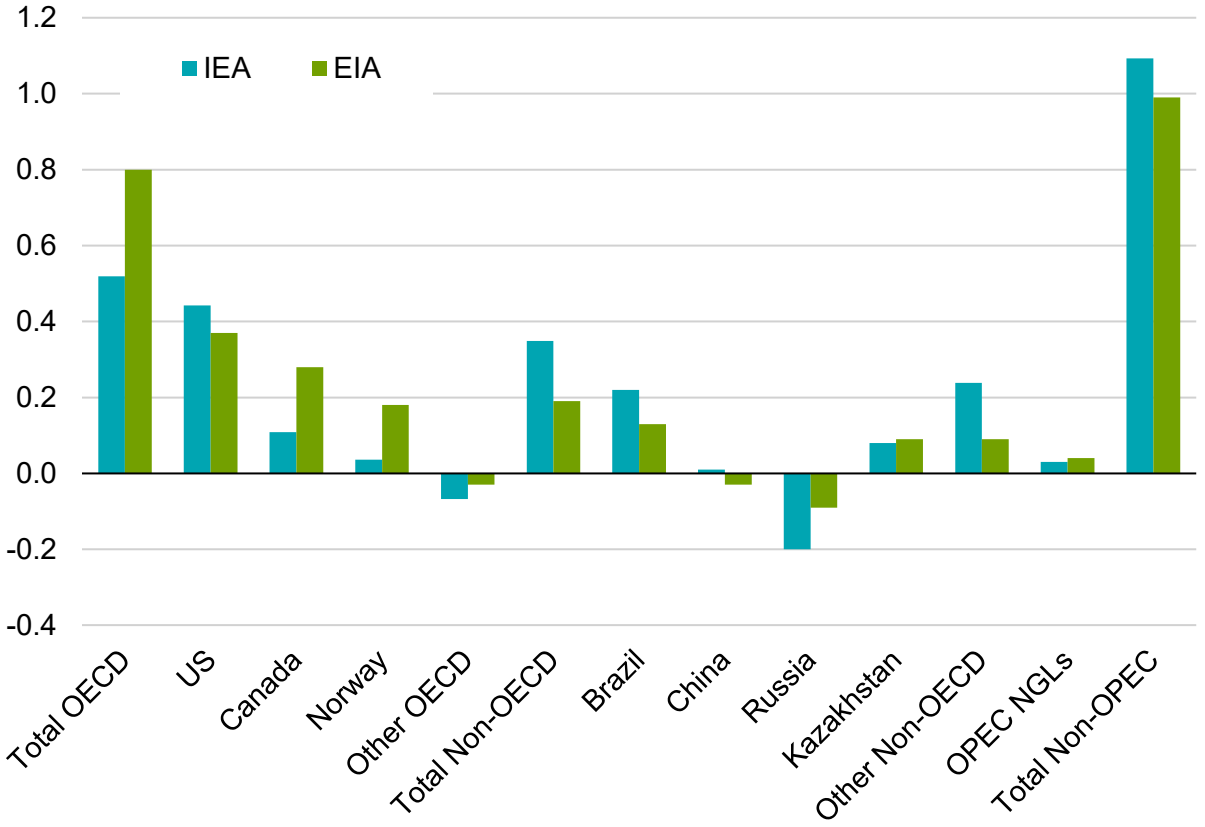


**EIA first released a 2024 forecast in Jan 2023; IEA in June 2023; and OPEC in July 2023*
Source: IEF, IEA OMR, EIA STEO

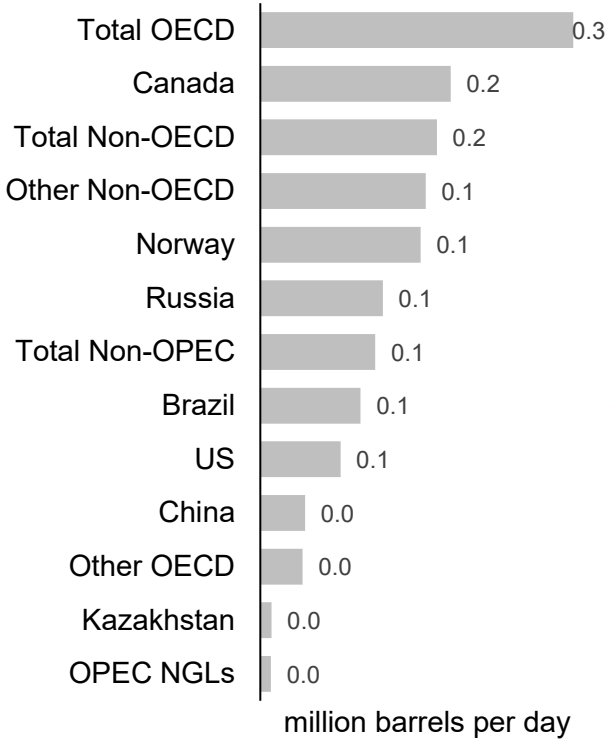
IEA and EIA non-OPEC supply forecasts diverge by 0.1 mb/d driven by differing Russia outlooks

2024 Supply Growth Forecasts by Region

y/y growth in million barrels per day



Range in 2024 Supply Growth Forecasts

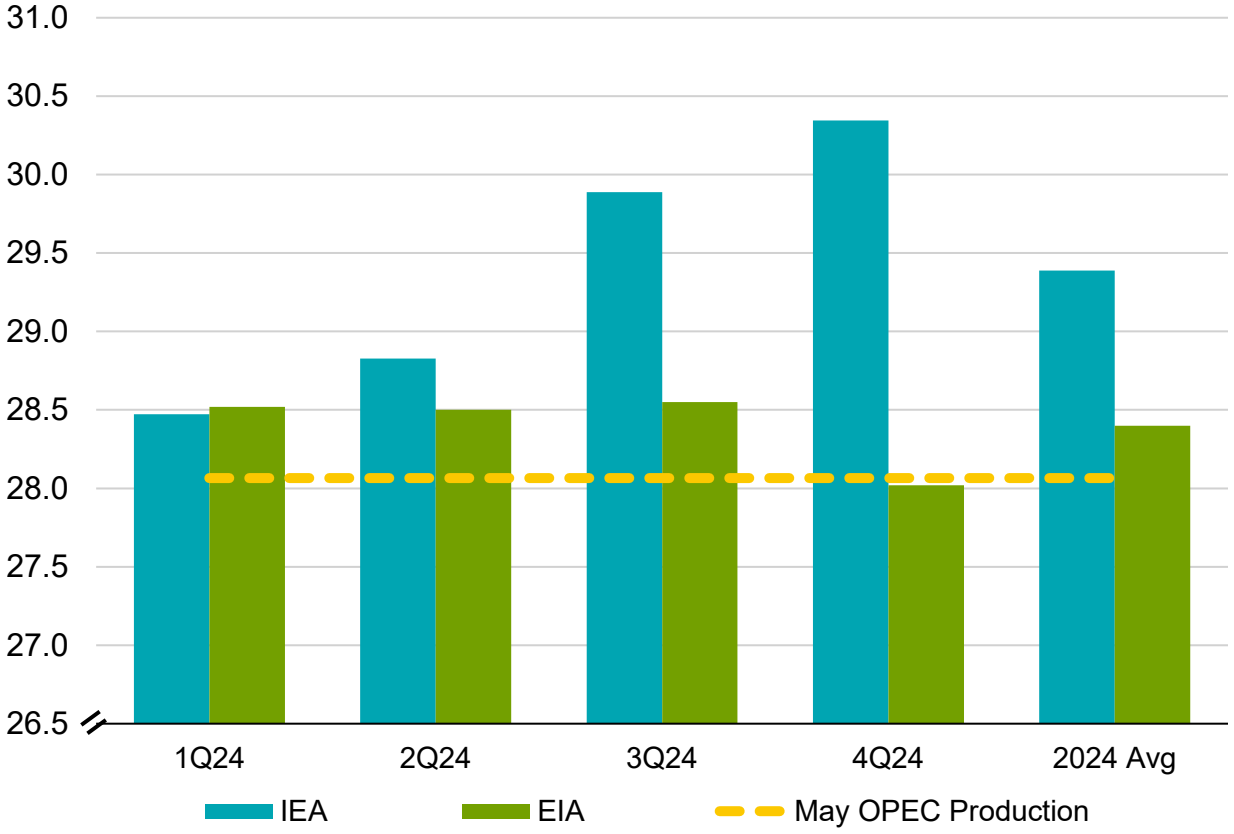


Source: IEF, IEA OMR, EIA STEO

IEA's 2024 balance implies a ~1.3 mb/d supply shortfall if OPEC production were to remain at May levels

2024 Call on OPEC and Recent OPEC Production Levels

million barrels per day



Source: IEF, IEA OMR, EIA STEO

- The "call on OPEC crude" is a calculation and not a forecast of actual OPEC production.
- The "call on OPEC" estimates what OPEC would need to produce to balance global supply and demand.
- It is estimated by subtracting a forecast for non-OPEC production and OPEC NGLs from global demand.
- IEA's balance is tighter than EIA's primarily because of a tighter 2023 baseline.

Appendix

Notes:

- The IEF conducts a comprehensive comparative analysis of the short-, medium-, and long-term energy outlooks of the IEA, OPEC, and the EIA to inform the IEA-IEF-OPEC Symposium on Energy Outlooks that the IEF hosts annually in Riyadh as part of the trilateral work programme.
- To inform IEF stakeholders on how perspectives on the oil market of both organizations evolve over time regularly, this monthly summary provides a snapshot overview of data points gained from comparing basic historical data and short-term forecasts of the IEA Oil Market Report, the OPEC Monthly Oil Market Report, and the EIA Short-term Energy Outlook.
- Data in tables and charts may not sum due to rounding.
- Some differences in regional/country supply figures may stem from different conventions in reporting processing gains and biofuels. EIA country-level data includes biofuels and processing gains, while OPEC only includes biofuels and IEA excludes both. All total non-OPEC production figures include biofuels and processing gains.

Upcoming Publication Dates

	IEA OMR	OPEC MOMR	EIA STEO	JODI
June	*14th (Wednesday)*	*13th (Tuesday)*	*6th (Tuesday)*	19th (Monday)
July	13th (Thursday)	13th (Thursday)	11th (Tuesday)	17th (Monday)
August	11th (Friday)	10th (Thursday)	8th (Tuesday)	16th (Wednesday)
September	13th (Wednesday)	12th (Tuesday)	12th (Tuesday)	18th (Monday)

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