BUSINESS ENVIRONMENT

Global economy slowed down in 2019 with a deterioration in the international refining environment 55

GLOBAL ECONOMY¹ AND PETROLEUM INDUSTRY²

In 2019, the growth rate of the global economy slowed to the lowest levels post-crisis estimated at 2.4%, and lower versus the 3% recorded last year, amid weakening trade and investment. GDP growth in advanced economies declined by 0.6% to 1.6% and in emerging economies from 4.3% in 2018 to 3.5% in 2019.

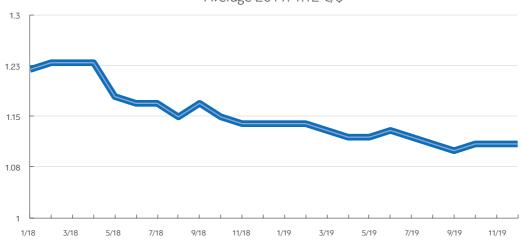
In the Euro Area, economic activity deteriorated significantly, with GDP growth slowing to an estimated 1.1%, compared to 1.9% in 2018 and 2.5% in 2017. Several economies were on the verge of recession at some point last year, with particular weakness in the German industrial sector, due to falling Asian demand. Uncertainty concerning Brexit also weighed on economic activity.

In the U.S., growth is estimated to have reached 2.3% in 2019, as investment and exports slowed down by 0.6% versus last year. Prior to the trade deal with China, rising tariffs have increased trade costs, while policy uncertainty has weighed on investment and confidence. As in many other advanced economies, the U.S. manufacturing sector was weaker.

With regard to emerging economies, growth in China, which remained strong, is estimated to have reached 6.1% in 2019 (down 0.5% compared to 2018), amid cooling domestic demand and heightened trade tensions. Trade policy uncertainty and higher trade tariffs with the United States weighed on investor sentiment for most of 2019. Industrial production growth has reached multi-year lows. In Turkey, the economy stagnated in 2019 (versus 2.8% in 2018) amid subdued confidence and investment.

€/\$ Exchange rate

Average 2019: 1.12 €/\$



World oil demand growth is estimated to have increased by 0.9 mbpd in 2019, taking global demand to 99.8 mbpd. Demand in Europe was stable while in North America it increased by 0.1 mbpd, affected in both regions by economic activity slowdown. Demand in Asian OECD was 0.1 mbpd lower, affected by weaker demand for industrial fuels and petrochemicals.

Global oil supply in 2019 declined by 0.1 mbpd compared to 2018. OPEC crude oil production in 2019 declined by 2.0 mbpd compared to a year earlier. Non-OPEC supply growth stood at 1.86 mbpd, with the US being the key contributor.

Brent crude oil averaged \$64/bbl in 2019, down by 10% vs. 2018. Brent prices were supported in 1H19 by OPEC production cuts and lower exports from Venezuela and Iran, due to sanctions, averaging \$68.5/bbl in 2Q19, but those were outweighed in 2H19 by weakening oil demand and deteriorating outlook.

In terms of crude oil differentials, the Brent-WTI averaged \$7.1/bbl in FY19, almost stable versus 2018 due to the continued increase in US production, albeit tighter in 2H19 on new pipeline infrastructure. Brent-Urals spread in 2019 decreased by \$1.2/bbl, reaching parity with Brent due to low availability and high demand in the Mediterranean region.

Brent Crude oil Prices (\$/bbl)

Average 2019: \$64.2/bbl



Benchmark refining margins³

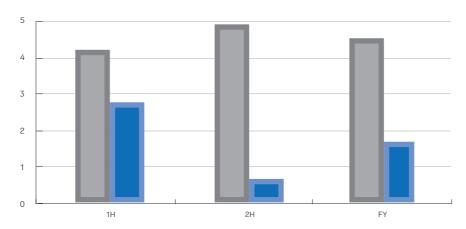
Benchmark margins for Mediterranean refineries were significantly weaker in 2019, at the lowest levels in the last 5 years. Key drivers were supply/demand balances of products and Urals crude pricing. The Med benchmark cracking margin averaged at \$1.7/bbl in 2019, \$2.9/bbl lower y-o-y with Med Benchmark Hydroskimming margin reaching \$0.3/bbl, a \$3.0/bbl decrease compared to 2018. In 4Q19, refining margins were at negative levels on the back of very weak fuel oil cracks.

Brent - Urals Spread (\$/bbl)

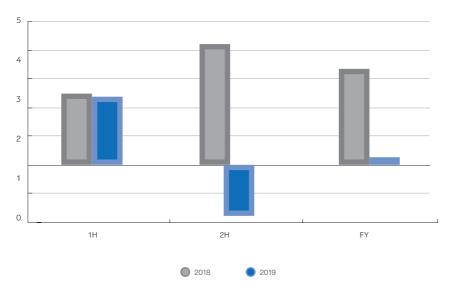




Med Benchmark Cracking Margins (\$/bbl)



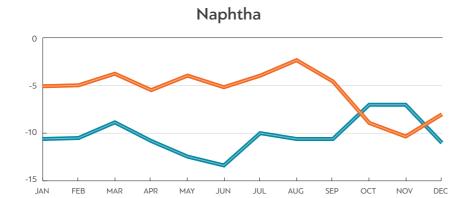
Med Benchmark Hydroskimming margins (\$/bbl)

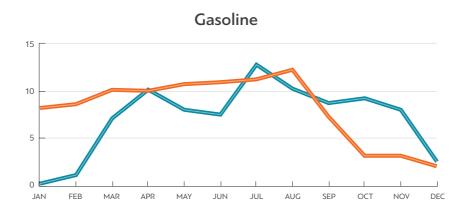


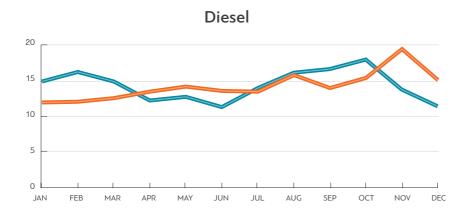
Oil product cracks

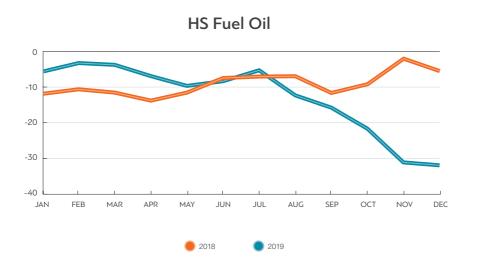
(\$/bbl)4

Most product cracks were lower vs. 2018, with the exception of diesel, which remained flat. Gasoline crack came in at \$7.1/bbl in 2019 (\$8.1/bbl FY18). Diesel cracks were at \$14.4/bbl in 2019 remaining stable y-o-y. The HSFO crack averaged \$-13/bbl in 2019, decreasing to \$-28/bbl in 4Q19 ahead of the IMO implementation.









Greek Market 5

Following the recovery of the Greek economy in 2018, growth accelerated in 2019 (estimated to have increased in nominal GDP terms by 2% vs. 1.9% in 2018), mainly due to an increase in exports of goods and services. Greece fully lifted its remaining capital controls while employment growth and declining unemployment further improved economic outlook.

Greek bonds yields declined during 2019, reaching historic lows, as fundamentals and confidence further improved, with 10-year Greek bond yields decreasing at a faster rate than other Eurozone periphery government.

Domestic fuel demand in 2019 amounted to 6.9 million tons, according to preliminary official data, a 3% increase compared to 2018, and higher than 2018 in all four quarters. Greek domestic market increased for the first time in the last 4 years, mainly due to a 12% increase in heating oil consumption. Auto-fuels demand recorded a 0.4% increase, with diesel 2% higher, partly offset by a small drop in gasoline.

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The Impact of the new Coronavirus on the Economy and the Oil Industry 6789

The emergence of the new Coronavirus (Covid-19) in December 2019 in China, its rapid spread worldwide and its categorization as a pandemic by the World Health Organization, has negatively affected the global economy, impacting industry, tourism and transportation, along with a rapid decline in demand for products and services and disruption of international supply chains. The severity of the pandemic's spread and its impact has prompted affected countries to take drastic measures to address it, with a significant negative effect on economic activity.

According to initial estimates (IMF April 2020 report), annual global GDP is expected to contract by -3% for 2020 due to the negative impact of Coronavirus, a significant downward revision vs. estimates at the beginning of the year. Advanced economies are anticipated to be more severely affected, with Eurozone GDP projected to be -7.5% lower, with the UK at -7.9%, while US GDP is anticipated to decline by -6.5%. The Chinese economy is expected to grow by 1.2%. Subject to the development of the pandemic and how it is addressed, the above predictions may be revised to even lower levels.

The pandemic will also have a strong impact on the Greek economy with the GDP forecasted for the year in April 2020 to fall by -10%, with a strong rebound in the following year, according to estimates regarding the effects of the pandemic on both domestic and global economic activity.

The new Coronavirus will also affect the oil industry, as the disruption in trade and global travel, as well as a sharp reduction in road traffic, are expected to lead to an unprecedented oil demand decline in 2020, mostly driven by a collapse in 2Q20 that could exceed 15-20 mbpd (about 15-20% of global daily oil production). This is expected to lead global demand to decrease by 5.2 mbpd in 2020 from an average of 100.7 mbpd last year before increasing by 6.4 mbpd in 2021.

In response to these developments, at an extraordinary meeting in April 9, 2020, OPEC and non-OPEC oil producing countries agreed to cut their overall oil production by c.10 mbpd, starting on 1 May 2020, for an initial period of two months, tapering to 8 mbpd for the rest of 2020 and reducing further to 6 mbpd until April 2022.

 $^{^5}$ Sources: Hellenic Statistical Authority, March 2020 / Hellenic Minister of Environment & Energy, January 2020

 $^{^6}$ Source: IMF, World Economic Outlook, April 2020

⁷Source: OECD Interim Economic Outlook – Coronavirus: the world economy at risk, March 2020

⁸Source: International Energy Agency (IEA), Oil Market Report, March 2020

⁹Source: U.S. Energy Information Administration (EIA), Short-Term Energy Outlook, April 2020