The oil & gas industry has suffered from external discreditation through climate and social misconceptions, generating stigmas that affect the investment attractiveness; thus, discouraging investors from financing upstream projects. The investment crisis in the O&G sector became more evident during the COVID-19, raising concerns that still have not been solved.

In general, four key challenges in the oil & gas industry are generating concerns among policymakers and investors regarding investment attractiveness. They are 1) price volatility, 2) uncertainties due to big diverging long-term forecasts, 3) increasing climate change concerns, and 4) the lack of regulations making environmental, social, and governance (ESG) governance unclear. This study provides a deep insight into those challenges, providing an analysis that will help us understand different perspectives about the investment situation in the industry.

The analysis has been done based in observational and compiled data from different sources presenting investment data assessment in the oil & gas industry. It also includes analysis based in industry bibliography, trying to bring everything together to support the hypothesis that the oil & gas industry needs.

A report analyzing each one of the challenges in the oil & gas industry which are generating concerns among policymakers and investors regarding investment attractiveness. Results show that in the short-term, price volatility is the most critical investment challenge in the oil & gas market. However, the long-term matters, such as 2040 outlook projections discussed in the report or the actions of environmental defenders for tarnishing the reputation of oil & gas markets combined with new ESGs practices that are not standardized, also affect financing attractiveness in the oil & gas sector.

A substantial increment in investment in oil & gas is needed today to guarantee energy security from 2025 and beyond.

High volatility combined with backwardation trends in the crude oil futures has led investors to shy away from investing.

A misinterpretation of oil & gas outlooks could bring investment scarcity and instability to the oil & gas market.

Many of the net-zero assumptions are contingent on extensive and successful implementation of climate policies. Those scenarios aim to guide what needs to be done instead of actual energy outlooks.

Companies with long-life conventional production portfolios, such as Aramco, have lower corporate upstream emission intensities than those with other production mechanisms such as shale producers.

The intervention of activist shareholders and environmentalists has also pushed most big international oil companies (IOCs) to set net-zero targets during 2021 or even before.
• The significant pressure that climate policies have on governments, NOCs, and IOCs is evident. The private sector is the most vulnerable and will probably be the first to succumb to rapid transitions and cuts to production and exploration investment.

• The inclusion of ESG strategies in the oil & gas industry has focused mainly on environmental issues, not social issues.

• Attracting and retaining human talent in the oil & gas industry is an issue that needs to be managed today.