

EASTERN MEDITERRANEAN

NATURAL GAS: A REGIONAL OVERVIEW

For about a decade now, the exploitation of new natural gas reserves in the Eastern Mediterranean has had significant economic consequences for producing countries, and has been upgrading the region's position on the international gas market. Egypt still dominates the sector, with significant reserves and export infrastructure, but Israeli production is increasingly impacting the region's exports. 2022 was a very favourable year for the sector due to rising prices and European demand. Despite the current decline in prices on the European market, this trend should continue in the coming years. Beyond that, the outlook is more uncertain: while global gas production capacities are expected to increase significantly, the role of this hydrocarbon in the energy transition is likely to be challenged.

RESERVES AND PRODUCTION

Egypt and Israel are the two largest producers of natural gas in the Eastern Mediterranean. Egypt has the largest reserves (2.13 trillion m3), in particular thanks to the discovery of the Zohr gas field in the 2010s. More modest in size (0.59 trillion m3), Israel's reserves are distributed between several offshore fields; other relatively less significant reserves are located in Cypriot territorial waters (0.11 trillion m3) and in Lebanese territorial waters. Lebanese reserves are being estimated, after the border agreement entered into with Israel in October 2022. Although modest globally (around 3.5% of Middle East and North Africa natural gas reserves, and less than 2% of the world's reserves), the exploitation of these reserves has substantial consequences for the Egyptian economy (generating foreign currencies) and the Israeli economy (improving energy independence).

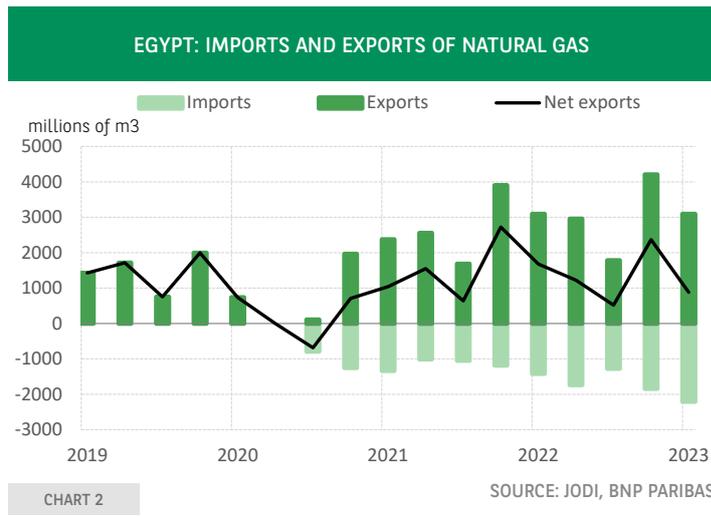
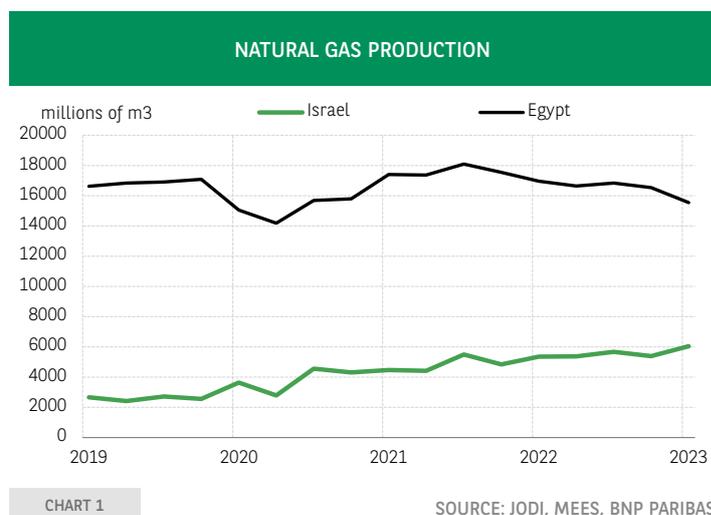
In Egypt, total natural gas production reached 67 billion m3 in 2022, according to data from the JODI (Joint Organisation Data Initiative). Thanks to new production capacities and the construction of gas-fired power stations, its share in the Egyptian energy mix has increased from 35% to 58% over the past twenty years. Exports of liquefied natural gas (LNG) to Europe, which were almost nil between 2014 and 2016, due to a lack of exportable quantities, resumed from 2017, thanks to the exploitation of the Zohr gas field. LNG exports reached 12 billion m3 in 2022.

In Israel, the production from offshore fields starting in 2013 has reduced the share of oil and, to a lesser extent, coal in the country's energy mix. The share of natural gas rose from 7% in 2005 to 38% in 2020. Natural gas production reached approximately 22 billion m3 in 2022, of which approximately 42% is exported by pipeline to Jordan and Egypt.

VARIOUS MACROECONOMIC CONSEQUENCES

In Israel and Egypt, the exploitation of new gas fields has had positive macroeconomic consequences, but varied in intensity, mainly due to the very different situation of the external accounts of the two countries.

Development of the Tamar and Leviathan fields has enabled the Israeli economy to significantly strengthen its energy sovereignty. Initially, production was mainly intended for domestic consumption and helped the country achieve total self-sufficiency and, therefore, reduce its vulnerability to the volatility of the market. In addition, export agreements to Jordan (2016) and Egypt (2019) have contributed to a significant improvement in investment profitability. While, in the case of Jordan, imports are meeting domestic demand, the gas exported to



Egypt is liquefied at Egyptian terminals to be re-exported primarily to the European market. As a result, with the energy crisis in Europe, Israeli gas exports to Egypt increased by 49% in 2022.

The macroeconomic consequences of these exports are relatively minor for Israel. Between 2020 and 2022, they represented on average only 0.9% of total current account revenue. External accounts are one of the main strengths of the Israeli economy. They are dominated by exports of high-tech services, which have enabled almost structural current account surpluses.

In Egypt, gas exports are a substantial but volatile source of foreign currency. In June 2022, the agreement between the EU, Egypt and Israel led to a sharp increase in Egyptian total exports, which increased by 7% y/y in 2022. Sales to Europe jumped 177% in volume, reaching 47% of Egypt's total LNG exports (compared to 18% in 2021). Furthermore, with the sharp rise in spot prices of LNG on the European market in 2022, export revenue more than doubled, reaching USD 8.4 billion. Against a backdrop of a balance of payments crisis (from Q1 2022), LNG exports represented 8% of total current account receipts (3.8% in 2021).

We can therefore see that while gas exports significantly support Egyptian external accounts, which are structurally fragile, gas production in Israel is, above all, an element of energy sovereignty and its export, a means of regional influence.

SUPPORTING EUROPEAN DEMAND

The momentum of gas exports in 2022 is expected to continue in the coming years, but there are a number of uncertainties. The disruption of pipeline supply from Russia has made Europe highly dependent on LNG imports in the short term and has provided new opportunities for other producers. European LNG imports increased by 67% in 2022 y/y, primarily from North America.

Despite this positive outlook, Egyptian LNG export revenues are expected to decrease in 2023 due to less tension on European supply compared to 2022 (although some tension could resurface from the second half of the year) and lower prices in 2023. While data for Q1 2023 confirm Europe as the number one destination for Egyptian gas exports (76% of the total), export volumes and prices have fallen. During H1 2023, the spot price of LNG for the European market (TTF reference in Rotterdam) averaged EUR 44/mwh, compared to an average of EUR 132/mwh in 2022. In terms of volume, exports fell by 38% in Q1 2023. More generally, maintaining or even increasing exports will depend on the discovery of new reserves, given the maturity of existing fields and the technical difficulties constraining their production. As a result, total natural gas production in Egypt was down 5% in 2022, and the increase in exports was explained by a record level of imports from Israel (49% y/y).

Egypt's gas supply is not under threat, for the time being. In fact, 2022 saw a drop in gas consumption, thanks in particular to the transfer of a proportion of domestic demand for primary energy to oil. Over time, further declines in total production are likely to increase Egyptian dependence on imports from Israel. An additional constraint: the increase in the Egyptian government's dues to international energy companies (currently estimated at USD 3 billion according to the MEES) could hinder investment and therefore the increase in production capacity.

EGYPT: CURRENT ACCOUNT RECEIPTS

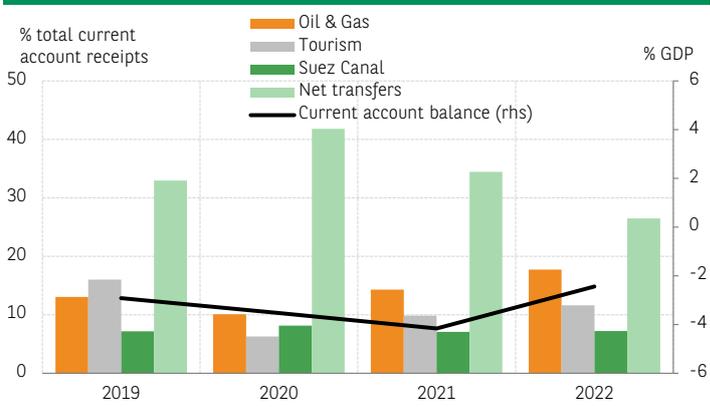


CHART 3

SOURCE: CBE, IMF, BNP PARIBAS

As for Israel, production could almost double by 2030, thanks to the exploitation of additional reserves in existing fields and of new smaller fields. Domestic gas consumption is expected to increase moderately with the increase in the share of gas in the energy mix, as the use of coal is expected to be phased out by 2025. However, part of the additional consumption should be met by renewable energy sources (mainly solar). These factors will increase Israeli export capacity.

UNCERTAIN PROSPECTS

In the medium term, European gas demand could slow, due to the uncertain future role of natural gas in the global energy mix. Disruptions in the gas market in 2022 could challenge its status as an energy of transition according to the International Energy Agency (IEA)¹. Geopolitical events in 2022 have caused supply disruptions and very high price volatility.

This possible change in gas status could reduce European demand, along with an increase in renewable energy capacity. In its central scenario, the IEA expects a sharp slowdown in the growth in global gas demand. While this rose by 20% between 2010 and 2020, this increase would only be 5% in the following decade. On the supply side, the marketing of new production capacities in Qatar from 2025 will significantly increase the quantity of gas available on the market.

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¹ World Energy Outlook - Topics - IEA