

Bargate Advisory Country Focus

Egypt

September 2013

Unstable Equilibrium – Analysing the Downstream Petroleum Market in Egypt

Summary

Egypt has seen – some would argue – almost unprecedented political, social and economic turmoil in the last two and a half years. Since the resignation of President Hosni Mubarak on 11th February 2011 the country has veered between military and civilian rule. The recent overthrow of President Mohamed Morsi this July has caused yet more political uncertainty and the possibility of civil war looms large across the country.

Bargate investigates what effect these dramatic events have had on the petroleum market.



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In Bargate's opinion it is too soon to tell what mid-term effects the unrest will have, although there is insufficient evidence to support full-on pessimism. Egypt's economy can be said to be wobbling precipitously. If one is to try and visualise the situation, perhaps imagine a great inverted pyramid swaying ominously. Despite these pressures it is highly unlikely the products market will shrink – it is likely to stagnate or grow slowly in the short term but recover in the medium term. However, there may be ground for optimism in the liquefied petroleum gas (LPG) market. The overall energy market therefore has potential, but political uncertainty is currently the main problem hampering progress.

Bargate Advisory Country Focus

Backdrop

Why are we doing this?

Egypt is the largest non-OPEC oil producer in Africa. They also have the third largest population on the continent – over 80 million people. It is both a large producer and increasingly an even larger consumer of petroleum products. Until fairly recently, sustained economic growth and increased investment in new refineries suggested Egypt's upstream and downstream petroleum markets were potentially strong growth markets. However, there is evidence to suggest that these positive trends may have been interrupted even before the political crisis (and may even have been partly the cause). Since 2011, Egypt's economy has stagnated with dire consequences for both the petroleum market and also the political climate.

What's our plan of attack analysis?

We begin with an overview of recent Egyptian economic history and try to find patterns within consumption and production trends. Then we attempt a brief explanation of the institutional structure of the petroleum market (dull but important) and analyse international trade between Egypt and the rest of the world. Then we evaluate how far the recent political revolutions constitute a fundamental shift for these markets. Finally we venture an opinion on the direction of the Egyptian products market.

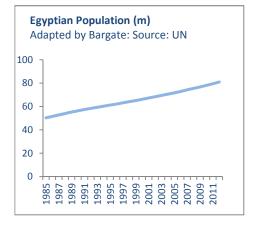
A bit of a disclaimer

While we are confident that our analysis is based on internally consistent parameters, our views are based entirely on the data we have independently sourced and verified where necessary.

Egypt at a glance

Population: 84.6m GDP (current prices, 2012 est.): US\$548 bn

Daily consumption of refined petroleum products: 816,300 bbls (2011 est.) Proven reserves of crude oil: 4.4bn bbls (2011 est.) Proven reserves of natural gas: 77tn cubic feet (2011 est.)



Did you know? The first Ancient Egyptian pyramid (The Step Pyramid of Djoser built around 2600 BC) was originally surrounded by a 34 ft. tall wall which had 15 doors in it. For some reason only one of the doors opened – clearly the architect was trying to send a message to would-be trespassers!



Unemployment Rate (%)

Source: IMF; 2013 onwards estimated

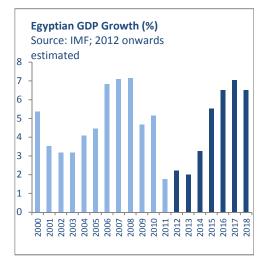
2008

2004 2006

2012 2010

2014

2016



Monumental Challenges

Inflation Rate (%)

18

16

14

12

10

8

6

4

2

0

2000 2002 2004 2006

Source: IMF; 2012 onwards estimated

2000 2010 2012 2014 2016

The fall of President Mubarak coincided with economic growth decline and stagnation in Egypt – however we see no fun in discounting the possibility that the latter is the cause of the former rather than the other way around. Due to apparently rampant corruption, poor economic management and the global economic crisis, from 2008 onwards Egypt has experienced falling GDP growth, higher inflation and higher unemployment. Whilst it is clear that many of the protestors in Tahrir Square were motivated by political concerns, many Egyptians also rebelled due to economic concerns.

As we see from the graphs below, both inflation and unemployment were rising before the ousting of President Mubarak. Some economists like to combine both inflation and unemployment into a 'pain index' - in a country with at least 25% of its population below the poverty line, it is not difficult to see that Egyptians have been hurting more than most.

16

14

12

10

8

6

Δ

2

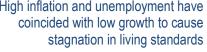
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What has been truly demoralising for Egyptians in the past decade is the lack of growth in per capita incomes. Despite growth of 6-7% in the mid-2000s, huge population growth and

concerning of all is that the economic problems have barely been addressed since 2011, and there are worrying signs of gridlock in the Egyptian political system. All these issues

inequality meant that per capita incomes actually fell in that period. What is most

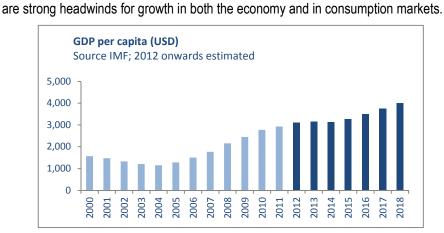
2000 2002



High inflation and unemployment have

Fast population growth and inequality mean that per capita incomes have not grown

guickly over the last decade



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EGYPTIAN PRIVATE

SECTOR COMPANIES

Egyptian Natural Gas

Ganoub El Wadi

Petroleum Holding Company (GANOPE)

Iding Company (EGAS)

Oil Floats but Gas Rises

The Egyptian General Petroleum Corporation (EGPC) is in charge of the petroleum industry is organised (please hang on – it will be over soon). The ultimate authority for the industry is the Egyptian government, which exercises authority though the Egyptian General Petroleum Corporation (EGPC). Whilst EGPC only accounts for 20% of all oil production, as the controller of the industry it has a joint venture in any foreign investments in Egypt. In addition to the various government-run holding companies (EGPC, EGAS, ECHEM and GANOPE) engaged in production, there are also foreign companies and Egyptian private sector companies operating in the sector. These

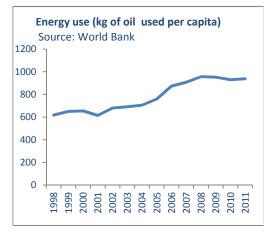
administered by the relevant holding company.

FORFIGN COMPANIES

Egyptian General troleum Corporation (EGPC)

Egyptian Petrochemicals

Holding Company (ECHEM)



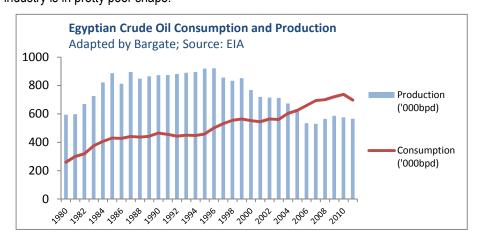
No increase in Egyptian refining capacity for 10 years

The Egyptian government controls all refinery operations in Egypt through its state-owned subsidiaries. Egypt has nine refineries with a combined crude oil distillation capacity in excess of 726 kb/d as of 1 January 2013, making it Africa's leading refining centre. However, Egypt has seen no increase in crude distillation capacity since 2001. In 2007 \$222.65m was invested by private companies for prospecting in the Gulf of Suez and the Western and Eastern Deserts. However, despite these developments, the Egyptian oil industry is in pretty poor shape.

companies are granted concession areas for exploration after periodic bidding rounds

PETROLEUM

MINISTRY OF PETROLEIM

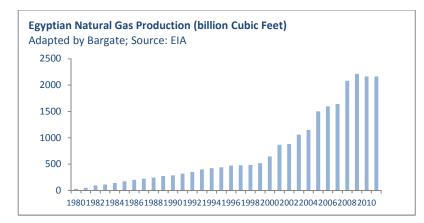


Since 2005 Egypt has been a net importer of crude oil. Production has fallen from a peak of 900 kb/d in the mid-1990s to just 550 kb/d in 2012. In trying to keep supplying growing energy consumption Egypt has severely depleted its foreign currency reserves. With growth stalled and fuel prices high – Egyptians are getting increasingly restless about the expense of heating their homes and fuelling their cars.

Egypt has been a net importer of crude oil since 2005



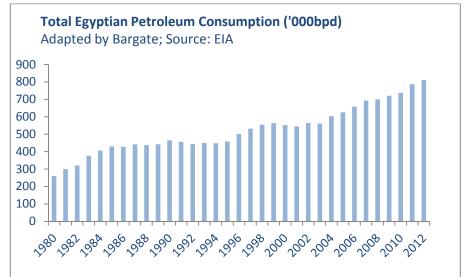
However, the natural gas industry presents a ray of hope for the country. Production has tripled in a decade, with current production at around 2.2tn cubic feet, with around 77trn of proven reserves.



Over 80% of Egypt's gas reserves and 70% of its production is located in the Mediterranean and Nile Delta. Natural gas makes a substantial contribution to Egypt's exports – last year 371bn cubic feet were exported – mostly to Europe and Africa. However, gas production and export will need to maintain a breakneck speed of growth if it is to keep up with increasing demand.

Let them buy Diesel?

The Egyptian population has grown increasingly demanding in recent years, and not just politically. Domestic oil consumption has grown by over 30% over the last decade, from 550 kb/d in 2000 to 811 kb/d in 2012.



Domestic oil consumption has grown by over 30% over the last decade to 811,000 bbl/d in 2012.

1992 1994 1996 1998 2000 2002 2004 2006 2008 2010

Natural gas production has tripled in a

Egyptian Consumption of Motor

Adapted by Bargate; Source: EIA

Gasoline ('000b/d)

140

120

100 80

> 60 40 20

> > n

decade

24 September 2013

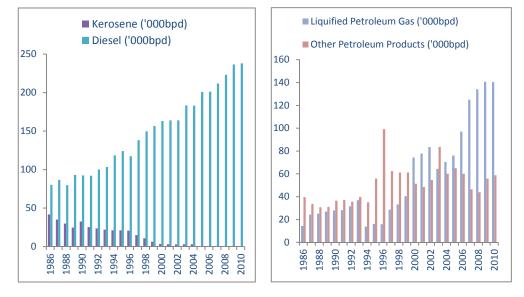


Analysing the Downstream Petroleum Market in Egypt

Cuts to fuel subsidies remain a contentious political issue

The issue of fuel is likely to cause great political difficulty – Egypt's fuel subsidies currently make up 20% of government expenditure. Cuts in the level of subsidies over 5 years are required to access a \$4.8bn loan from the IMF – which is increasingly becoming a lifeline for the economy.

What can we say about consumption patterns in the Egyptian economy? Firstly, like many developing countries it has seen a decline in kerosene and a corresponding rise in Diesel. This is a sign of, among many things, structural changes in consumption patterns and appliance stock. Also LPG is becoming increasingly popular as a source of energy. Rising demand is likely to attract more foreign and domestic capital into the industry. The Graphs below show some of the patterns in consumption over the last 20 years or so;



Egypt has seen a broad movement towards the consumption of diesel and LPG

The Egyptian government may introduce fuel rationing in the near future

However, the recent economic slowdown has meant that not only have prices risen, but it is likely that the Egyptian government will have to begin rationing fuel in the near future. Failure to get the economy moving has finished off two Presidents in as many calendar years – if the current military regime is unable to make tangible progress in the next few months, it is unlikely that Egyptians will be forgiving.





LPG is a potential growth market, and Egypt remains a major consumer of petroleum products. However political uncertainty presents a formidable problem.

What is Bargate's View?

Egypt's products market is currently experiencing challenging times, although LPG is likely to be a growth market in the short and medium term. Consumption patterns suggest Egyptians are becoming more mature consumers, and will continue to demand more petroleum-based products in the near future. However, Egypt's reliance on petroleum imports is causing both domestic inflation and shortages of supply.

We would like to stress however that the economic fundamentals are currently subordinate to the political crisis currently engulfing the country. The Egyptian crisis is obviously likely to have far reaching consequences on the country's energy sector as a whole. However there is currently insufficient evidence to support significant negative impact on the infrastructure network for products distribution. Therefore we expect growth in total oil demand, especially for LPG and diesel consumption over the medium term.

So, what next?

Bargate is happy to provide a more detailed analysis (including long term forecasts) of the market for Egypt's downstream petroleum market on request.

For more information, please contact: reports@bargateadvisory.com



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