Investment in exploration/ production: the end of an upward cycle

After a relatively stable 2014, global investment in exploration/production fell by more than 20% in 2015. The decline was particularly sharp for independent companies and affected every region around the globe to some extent. The sole exception was the Middle East, where expenditures rose slightly.

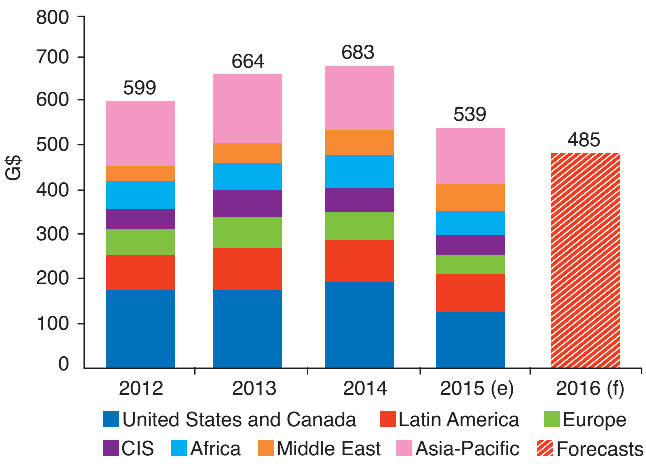
A sharp decline in investments during 2015

Following a moderate 3% increase in 2014 after four years of strong growth (+60% between 2009 and 2013), investments in exploration/production (E&P) are projected to fall 21% in 2015 to approximately $540 billion, down by more than $140 billion compared with the previous year (Fig. 1).

This trend has been especially pronounced for independents, whose budgets fell by 34% compared with 15% for the majors, and only 11% for national companies (NOC). At the regional level, only the Middle East avoided the slump, with investments expected to rise by 3%, supported by NOCs which represent approximately 70% of regional investments. North America and Europe suffered the sharpest declines, with budgets falling by 35% and 33% respectively. The pullback in investment in Africa (–22%) and the Commonwealth of Independent States (CIS) countries (–21%) was fairly close to the global average, while Asia-Oceania (–15%) and particularly Latin America (–8%) posted smaller declines.

This downward trend is expected to continue during 2016. Early indications by companies currently support the likelihood of further investment budget reductions of around 10%, if there is no significant change in the outlook for price per barrel and oil demand. Note that, even before the price of crude oil fell sharply, a slowdown — or even a decline — in investments was already anticipated in certain regions, particularly Europe and Oceania. Revised figures for 2014 reveal that investments had already started to decline in four regions: Europe (–7%), the CIS (–7%), Asia-Pacific (–5%) and Latin America (–2%).

Fig. 1 – Change in worldwide investment in E&P

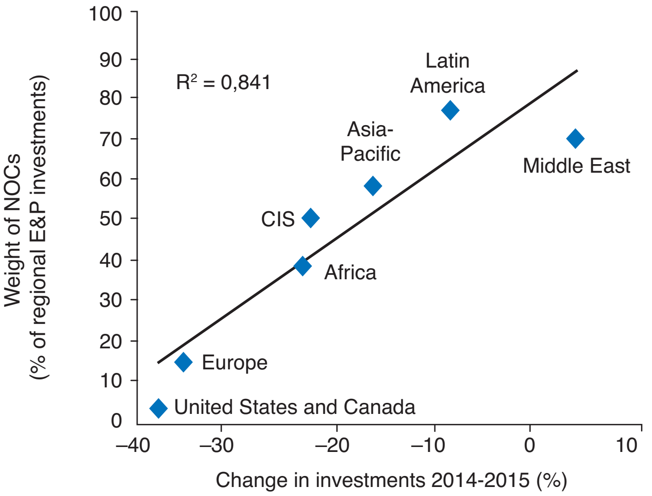


Source: IFPEN

Investment trends vary significantly by region

Except for the Middle East, all regions worldwide posted a net decline in investment, with relatively marked regional differences (Fig. 2). Note that there seems to be an inverse relationship between the relative weight of NOC investments and the scope of decline in a given region. North America and Europe, where NOCs have a small presence (aside from Statoil in Europe), suffered the largest declines, while Latin America and the Middle East — where investments by NOCs represent between 70% and 80% of the total — were less affected. The Middle East even posted moderate growth in E&P expenditures. Declines in other regions, where NOCs represent between 40% and 60% of investment (the worldwide average was 45% in 2015), fell within the middle of the range.

Fig. 2 – Change in E&P worldwide investment and weight of NOCs



Source: IFPEN

In North America, investments took the full brunt of falling oil prices, which jeopardize the profitability of deposits. Shale oil and gas are particularly affected due to a shorter investment cycle than conventional oil and gas, since rapid declines in well productivity require ongoing investment to maintain production levels. The number of wells drilled dropped precipitously across the Atlantic in 2015, falling by nearly 50% in the United States and Canada, illustrating the strong reactivity of North American operators.

In Europe, even before the fall in oil prices, investment was already expected to decline sharply in the North Sea due to a lack of new major projects. Since August 2014, the Norwegian statistics bureau has predicted an 18% decline for investments in Norway during 2015. Thus, the current crisis has merely reinforced this trend, though it should be noted that the drop of the krone (NOK) against the dollar accounts for a significant part of the downturn as expressed in US$, –29%, while it is only –10% in NOK. The Norwegian administration expects a further 10% decline (in NOK) during 2016. In the United Kingdom, which has experienced a sharp decline this year (–38% in US$, –34% in GBP (Great Britain Pound)), and where numerous deposits are unprofitable at current prices, the outlook is even more pessimistic (approximately –30% decline in GBP expected for 2016).

Investments in Africa fell by 22% following a sharp 13% rise in 2014 stimulated by successful explorations in sub-Saharan Africa. They could rebound in Egypt during 2016, following the massive Zohr discovery by ENI in September 2015. But this will not be enough to revive the growth of E&P investments in the region, where the crisis in the oil sector has been heightened by insecurity in a number of countries, especially in North Africa. However, the numerous discoveries made in sub-Saharan Africa (Congo-Brazzaville, Gabon, Kenya, Mozambique, Senegal, Tanzania, etc.) and the development of major projects, specifically in Angola, provide a positive long-term outlook.

In the CIS, investments are expected to drop by 21% in 2015, following a 7% decline in 2014. They are suffering from declining oil prices, US and European sanctions and falling demand for gas in Gazprom's principal export markets. Gazprom's investments are expected to decline by 22%, including its subsidiary Gazprom Neft, while investments by Rosneft — the other regional giant — are projected to fall by 13%.

A 15% decline took place in the Asia-Pacific region, where NOCs are responsible for approximately 60% of regional investments. The drop is especially significant for Chinese NOCs. Investments by Petrochina, the world's leading investor in 2014 and 2015, are expected to fall by more than $5 billion. CNOOC, which had invested close to $11 billion in the region, is anticipating a 35% reduction in its budget for 2015. The Indian company ONGC is the only NOC whose investments rose during 2015 (+21%), while investments remained stable at its compatriot company, Oil India Limited. Investments by other non-Chinese NOCs also declined: –18% for Petronas, –12% for Pertamina and PetroVietnam, –10% for PTTEP. In Australia, investments were expected to decline, with development of a number of LNG projects reaching their peak in 2014.

In Latin America, where the weight of NOCs in E&P investments approaches 80% (including 60% for Petrobras, Pemex and PDVSA combined), the decline was more limited (–8%). Petrobras reduced its 2015-2019 five-year investment plan by 37% compared with the previous plan (2014-2018). However, this should not significantly impact investments for 2015, since they had already retreated by 20% in 2014. The Brazilian company's E&P budget is expected to remain relatively stable this year. PDVSA's investment expenditures are also expected to stabilize, while investments by Pemex should fall by 12%.

The Middle East is the only region to record growth in 2015, at around 3%. The increase was especially marked in Oman (+20%) — where activity has been simulated by

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development of the Khazzan unconventional gas field and by numerous enhanced oil recovery (EOR) projects — and in Kuwait (+16.5%), where KOC is investing to optimize the Burgan operation — its main asset — and to increase its production capacity. Investments are also increasing in Abu Dhabi and in Qatar, but are stagnant in Saudi Arabia, where Saudi Aramco has slowed the development of new oil projects in response to falling oil prices, while continuing to invest in gas fields to cope with soaring demand. The Iraqi government, faced with budgetary constraints, has asked BP and ExxonMobil to reduce their investments in the Rumaila and West Qurna-1 fields.

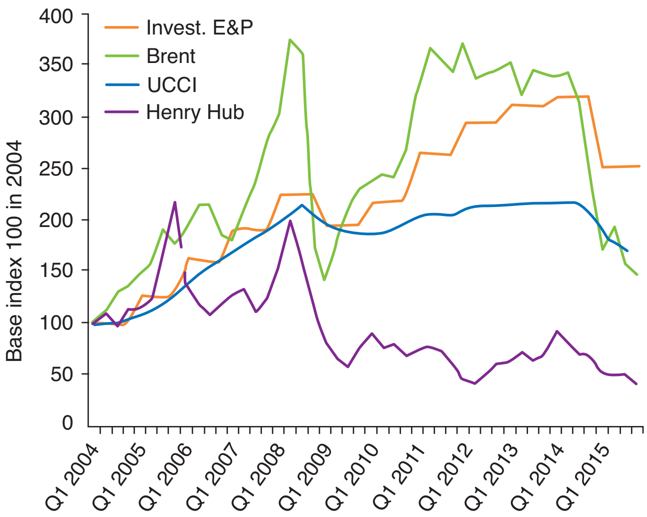
Independents are particularly affected

The decline in investment during 2015 has been significantly more pronounced for independents (–34%) — which represent about one-third of global investment and which substantially increased their E&P expenditures in 2014 (+11%) — than for other types of players. As with all players, the decline was markedly greater in North America, where investment by independents fell by more than 40% over one year, versus a decline of slightly below 25% in the rest of the world. Investments by majors (some 20% of the world's total) fell by approximately 15% in North America, like in the rest of the world. Shell and ExxonMobile experienced a sharper decline (around 20%), while Total's investments fell by only 6%. Chevron and BP landed within the middle of the group, with a drop of about 15% of their capital expenditures. Lastly, investments by NOCs (around 45% of the world's total in 2015) lost 11% compared with 2014, declining in all regions except for the Middle East, where they rose by 5%.

Sharp drop in investment costs

The IHS-CERA Upstream Capital Costs Index (UCCI Index) lost 20% between the fourth quarter of 2014 and the third quarter of 2015, by far the largest one-year decline ever recorded for the index since it was created in 2000 (Fig. 3). During the 2008-2009 crisis, when Brent lost more than 60% of its value between the second quarter of 2008 and the first quarter of 2009, the UCCI index only lost 13% between its peak in the third quarter of 2008 and its low point during the first quarter of 2010. According to a Wood Mackenzie study published in April 2015, exploration costs could fall by more than 30% between 2015 and 2016. Around two-thirds of savings would be achieved through lower unit costs on a like-for-like basis, while the remaining one-third would come from simplification of processes, improvements in efficiency and the declining dollar.

Fig. 3 – Change in E&P investment, prices and costs



Sources: IFPEN, Reuters, IHS-CERA

Conclusion

2015 marked a downturn in upstream oil investment trends, which followed an upward cycle that lasted over a decade. Investments in E&P had increased six-fold since 1999, posting uninterrupted growth with the exception of 2010, when investments fell following a sharp drop in oil prices, and in 2002 when they were stagnant. By all evidence, the main reason for this downturn is the drop in oil prices since mid-2014, but it should be noted that even at the beginning of 2014, many international companies were announcing strategic reorientations, favoring budgetary discipline and profitability over growth. Thus, declining oil prices have simply accelerated and amplified a shift that was already underway. This downward trend is expected to continue during 2016, albeit at a slower pace.

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