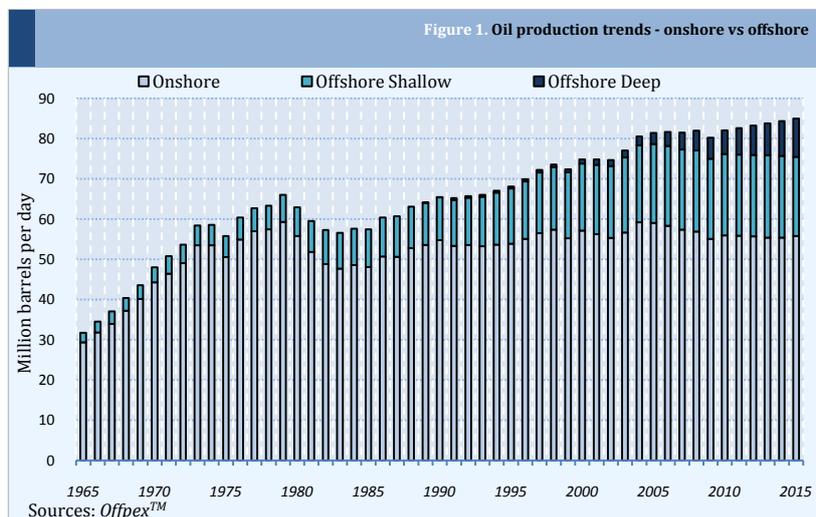


Offshore Outlook

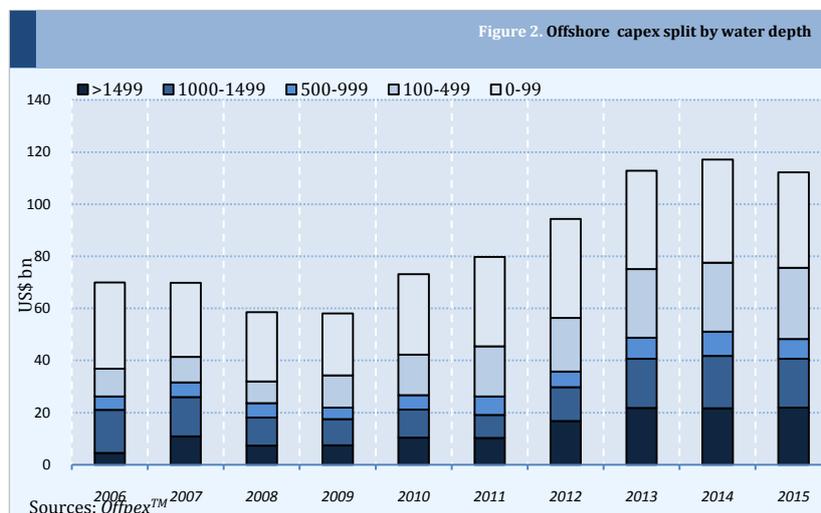
There can be no doubt that the Earth is becoming a crowded planet. According to United Nations statistics, the world's seven-billionth inhabitant was born on 31st October 2011 – just twelve years after the birth of six-billionth. This rapid population growth, alongside the economic development of the BRIC nations, is not only placing an increasing strain on the planet's natural resources but also the industries that bring to them to market. Indeed, with an annual depletion rate of 8%, the oil industry has been tasked to bring an additional seven million barrels of production on-stream every year, just to maintain current levels. However, current levels are unlikely to suffice. Indeed, as global population pushes onwards and upwards, demand for oil is likely to follow suit and this will have an inflationary impact on oil prices. With these most basic drivers of exploration and production activity firmly in place, the question is, where will the additional oil come from?

Production trends

Today the offshore industry is an increasingly important part of global oil and gas supply. Indeed, as conventional onshore production has levelled-out, and in some cases declined, it has been new offshore developments that have sustained the level of production required to meet increasing global demand for hydrocarbons. According to Infield Systems' Offshore Energy Database, total offshore oil production accounted for 22% of global production in 2000 – 1% of which was from deepwater. In 2010 these figures had risen to 33% and 7% respectively. The prospects for the future remain equally positive with total deepwater production expected to account for 11% of global oil production by 2015.



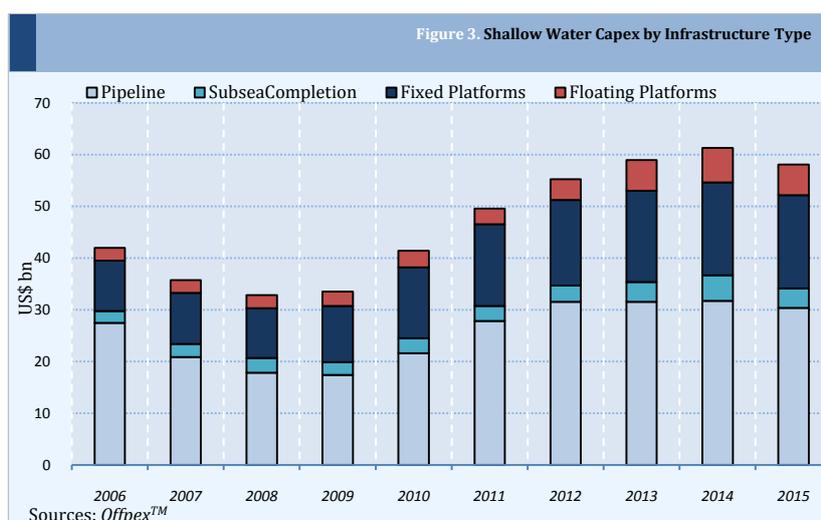
Translating these future production curves into capital spending trends reveals some interesting comparisons. Indeed, despite all the glitz and glamour of the the deep and ultra-deep sector, the shallow water sector commands by far the greatest proportion of total offshore spending - both on a historical and forecasted basis. Between 2006 and 2010 the shallow water market accounted for some 61% of total offshore Capex – looking ahead over the next five years Infield System's expects this figure to remain steady. Meanwhile the deepwater market accounted for 30% of total spend over the last five years and this is expected to rise to a forecasted 34% over the next business cycle.



Shallow water spends & trends

Despite the growing bias towards deep and ultra-deep activity in the trade press - a result of the sectors impressive growth rate, cutting edge technology and innovation - shallow water E&P activity is expected to continue apace over the next five years. Indeed, of the 1,000+ offshore oilfields that are forecast to be developed between 2011 and 2015, some four-fifths of these will be in shallow waters of less than one hundred meters. Moreover, shallow water fields account for 85% of the total oil and gas reserves expected on-stream over the next five years. Statistics such as these provide compelling evidence of the continued importance of shallow water E&P activity.

In terms of capital spending, the shallow water platforms, subsea and pipelines markets are forecast to grow from an estimated US\$50bn in 2011 to nearly US\$60bn by 2015. In the shorter-term a considerable level of growth is expected as 2012 Capex levels are forecast to finish nearly US\$6bn higher than 2011 levels - representing a year-on-year growth rate of 11%. Indeed, 2012 should herald first oil on a number of major projects, including: Kashagan in Kazakhstan, South Pars Phases 12 and 17-18 in Iran and Obsskoye Bay in Russia. These *reserve-rich* NOC projects are driving forward capital spending in the shallow waters. Moreover, these projects underline the size difference between shallow and deepwater reserves - Kashagan, at an estimated nine billion barrels recoverable, is over ten times larger than its closest 2012 deepwater rival, Usan at 800 million barrels.



In terms of Capex the pipeline market dominates the shallow waters. However, over the next five years, the fixed and floating platform markets are expected to outperform the pipeline sector in terms of relative growth. Indeed, the level of platform expenditure is expected to double between 2008 and 2014 and this is driven by developments in traditional International Oil Company (IOC) and National Oil Company (NOC) basins.

Popular conception tells us that traditional, shallow water, easy to access reserves, are dominated by NOCs and that IOCs are being forced in to increasingly difficult operating environments. In terms of the access to reserves this is certainly true. Indeed, according to Infield's Offshore Energy Database, when acting as the lead operator, NOCs control more than double the shallow water reserves that are expected to come on-stream over the next five years compared to IOCs. Looking beyond 2015 this gulf only widens. However, contrary to these trends, it is IOCs and Independent operators that are expected to invest more heavily in shallow water developments - with a particular emphasis on the North Sea, North Western Australia and West Africa, whereas NOCs are more prevalent in the Middle East, South East Asia and Latin America.

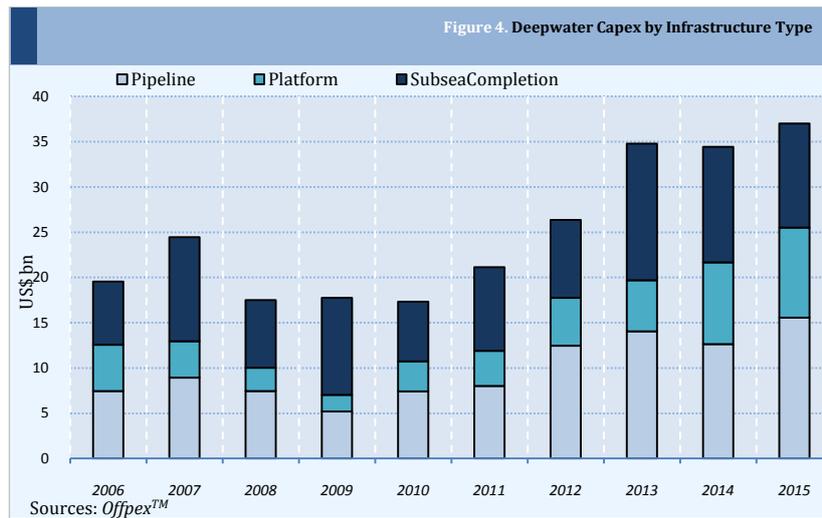
In the North Sea, a host of independent oil companies are seeking to bring smaller O&G fields, which have previously been deemed too marginal, in to production. The use of subsea technologies plays a key role here as their deployment negates the requirement for a costly fixed production platform that would otherwise render the field uneconomic. However, we also continue to observe much larger projects being developed in the shallow waters of the North Sea. In the UK, BP has recently received the green light from the UK Government to push ahead with the second phase development of the Clair oilfield. Located in 140m of water, and to be developed by a further two production platforms with an expected Capex of US\$7bn, the Claire Ridge project could extend production on the field through to 2050. Further evidence of continued shallow water success lies in the 1.7 billion barrel Aldous Major South discovery on the Norwegian Continental Shelf earlier this year.

Elsewhere the regional shallow water markets are displaying various signs of strengths and weaknesses. In the US Gulf of Mexico for example, a continued lack of shallow water exploration and appraisal activity is having a depressive effect on the number of shallow water installations. Whilst Infield expects the market to gain strength, the exact timings of a recovery remain unclear as suppressed gas prices and onshore shale investments continue to have an adverse impact on offshore activity.

Deep water growth.

Driven by floating production and subsea technologies the global deepwater market is probably the fastest growing sector of the offshore oil and gas industry. Indeed, with many onshore and shallow water regions facing production decline and NOCs in control of prolific resource-rich regions such as the Middle East, operators are increasingly seeking to explore and develop reserves in frontier regions. This is occurring not only in the three deepwater “heavyweight” regions – the GoM, West Africa and Brazil – but also in Asia, Australasia and Europe as well.

In terms of capital spending, Infield forecasts the deep and ultra-deep water platforms, subsea and pipelines markets to grow from US\$21bn in 2011 to over US\$37bn by 2015. Like the shallow water market we also expect significant deepwater year-on-year growth in 2012 – driven by the installation of seven floating platforms, including: five FPSOs (all operated by Petrobras in Brazil), one TLP (Walker Ridge 029-A TLP Big Foot) and one semi-sub (Gumusut Kakap FPU). Moreover, the continued development of a further 20 deepwater floaters (all under or nearing construction) will ensure that deepwater spending is back on a robust growth trend following the recent contraction.



Looking slightly further ahead in to 2013-2015, the deepwater market is expected to gain considerable momentum as developments in Brazil, West Africa, the US GoM and South East Asia are executed. However, pre-salt Brazil is set to be the deepwater success story for this decade, and as a result, the nation’s NOC, Petrobras, is expected to be a major player in the global energy market approximately ten years from now. The development of deepwater pre-salt reserves off the coast of south-east Brazil in the Santos Basin is likely to be the main driver behind this trend (though pre-salt fields have also been found in the Campos and Espirito Santo basins as well). Not only is Petrobras’ deepwater Capex expected to represent one-third of total Capex among the top six deepwater operators during 2011-2015, but deepwater Capex from the Brazilian NOC is also expected to comprise 22% of total global Capex among all operators during that period (US\$209bn).

Overall, however, Infield Systems expects West Africa to surpass Latin America as the largest deepwater region in terms of Capex during the forecast period, 2011-15. This is not the result of an expected decline in the Latin American market – far from it – but because of spectacular growth in investment in West Africa (especially in Angola where deepwater Capex is expected to reach US\$34.5bn compared to Nigeria’s US\$15.6bn over the 2011-15 period). Indeed, Infield views the Angolan deepwater market as one to watch over the next five years.

Deepwater growth but shallow rules for now....

Whilst we’re now some way from the financial crisis of 2008/2009, the global economy is still far from healthy. Indeed, with Greece in turmoil, and the spotlight shifting to Italy, the Eurozone crisis continues to plague global markets and fears for other European nations grow. Meanwhile, in the US, the Federal Reserve has sharply downgraded its forecasts for the US economy and issued warnings of weak growth and high unemployment for the coming years.

Whilst news such as this could have a negative impact on near-term oil demand in Europe and the US, the longer term global drivers for oil demand are firmly in place. Indeed, the world is becoming both more crowded and increasingly wealthy – two key drivers of energy demand. This, in combination with slowing production trends onshore, is creating a solid environment for increased exploration and production activity offshore. Robust commodity prices will continue to encourage deepwater growth, but Infield expects the shallow waters to rule for now.