

## The Future of Deepwater Oil & Gas

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**Andrew J Latham**, Wood Mackenzie, Kintore House, 74-77 Queen Street, Edinburgh EH4 2NS United Kingdom, phone: +44 131 243 4408, fax: +44 131 243 4206, [andrew.latham@woodmac.com](mailto:andrew.latham@woodmac.com)

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Deepwater business opportunities for oil and gas companies around the world include both exploration and development projects. A combination of both technical and economic analyses is used to make quantitative assessments of relative commercial attractiveness. The balance of risk and reward for the best-known deepwater exploration plays are highlighted along with a selection of the more interesting frontier countries.

Most of the key deepwater plays saw full cycle returns of 15-20% throughout the 1990s. Exploratory drilling is expensive, but the wells discovered sufficient reserves to keep average finding costs small during this period (typically much less than US\$1 per boe). However, the overall scale of exploration success showed a sharp decline, from around 10 billion boe discovered in 1999 to less than 3 billion boe found in 2002, despite an increase in global deepwater wildcat activity. The business case for deepwater exploration remains strong but needs to be continually under review to ensure appropriate focus of future investment.

These results are compared with the economics of exploitation opportunities. Undeveloped deepwater resources already present a huge opportunity for the sector. Almost half of the world's deepwater reserves as at start 2003, representing over 30 billion boe, are not yet under development. Companies can unlock this value through techniques including monetisation of remote deepwater gas, solving some of the challenges of heavier crude, or capitalising on infrastructure improvements. On a risked basis, these development-led strategies will potentially create as much or even more value than exploration-led strategies.

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