

Need to know*

Delivering capital project value in the downturn

An unparalleled period of soaring commodity prices and economic growth has given way to slowdown and recession. Companies in the energy, utility and mining sectors are faced with the challenge of balancing their immediate and short-term response to the current economic downturn, constrained funding environment and lower market prices with their long-term need to develop capacity and prepare for future demand.



The downturn capital project challenge

The World Bank's chief economist is reported as predicting the "worst recession since the Great Depression".¹ The bank expects "world trade will contract by 2.1% in 2009 – the first time since 1982 that world trade will shrink".² Energy and commodity prices have plummeted. The oil price ended 2008 below US\$40 less than six months after being close to US\$150. NYMEX natural gas prices have more than halved from over US\$12 to under US\$6 in a similar period and iron ore spot prices in China have fallen to less than US\$70 a tonne down from an all time high of just under US\$200 a tonne earlier in 2008.

Capital projects are being cancelled or put on hold. Mining giant Rio Tinto has announced a reduction of net capital expenditure for 2009 from over US\$9 billion to US\$4 billion. Companies including Centrica, BP and Royal Dutch Shell are reviewing or have pulled out of offshore wind power investments. South African utility company Eskom has decided not to proceed with investment in the construction of a second nuclear power station in South Africa. Such examples are echoed by many companies elsewhere.

Optimising capital project planning

Companies need to learn the lessons from previous downturns but also ask themselves what is different this time round and assess the implications for their planning horizons. The uncertain economic context will reinforce the importance of optimising capital project plans and outcomes. Even without the added challenge of the downturn, a PricewaterhouseCoopers global review of project management found that only 2.5 per cent of projects could be defined as successful when assessed across the four critical dimensions of: scope, cost, schedule and business benefits.

The big question is whether the sudden downturn represents a relatively short-term interruption in growth, or whether it is the harbinger of a more long-run recession. Companies have to balance short-term responses with long-term strategy, weighing the long timescales needed for major infrastructure such as new power generation, grid infrastructure and mine development against sharp downturns in prices and demand. In the energy sector, in particular, the influence of climate change adds an extra twist with companies having to factor in the challenge and uncertainties that flow from carbon economics and regulation into their planning. The cost of delay may be felt in higher costs later.

Taking the long view

The International Energy Agency estimates that cumulative investment of US\$27 trillion is needed in the energy sector over the 2007-2030 period to keep pace with world energy demand. US\$13.2 trillion, 52% of the total, is in the power sector. In the oil sector alone, a 27% increase over 2008's oil supply level is expected to be needed to meet global energy demands in 2030. That is almost the equivalent of the combined consumption of the US and China today.

The capital investment and capital projects challenge is even greater when account is taken of the need to mitigate climate change. In the power generation sector, for example, where more low carbon generating capacity is needed, investment over the 2007-2030 period rises from US\$6.1 trillion in the IEA's reference scenario to US\$7.3 trillion in a scenario where CO₂ emissions are stabilised at 550ppm.

Across all three sub-sectors – energy, utilities and mining – the challenges of the downturn add to the already significant complexities associated with the need to plan over long timescales. In the power sector, it may take decades to construct and produce energy from a nuclear power station as it evolves through planning and regulatory approvals to construction and operation. Building a significant new offshore gas and oil production platform is often a similarly lengthy undertaking. According to a National Petroleum Council report, US\$5 billion was invested in the Hibernia Platform off the east coast of Canada, which took 19 years from discovery to production.

Technological complexity

The challenge of developing and delivering capital projects is further intensified as the nature of the projects themselves become more complex and demanding. For example, many projects need to be sited in demanding locations in order to source more marginal mineral reserves or, in the case of offshore wind power, because of planning considerations. Projects are also becoming increasingly technologically demanding as companies factor in the impact of evolving technologies such as carbon capture and sequestration or seek to ramp up expansion in existing technologies such as nuclear following years of stand-still or contraction. Companies also have to contend with the ups and downs of labour and skills availability.

Sources:

¹ Global oil demand to collapse, *Financial Times*, 10 December 2008.

² World Bank, *Global Economic Prospects 2009*, 9 December 2008.

Keeping a steady nerve

The uncertainties that arise from the credit crunch and economic downturn amplify and strengthen the importance of bringing effective challenge to decisions at all stages of the capital project lifecycle (see checklist). It will be important for companies to distinguish and achieve a balance between the short-term actions required to stabilise in response to current volatility and the long-term strategic investment needed to position the company effectively during economic recovery.

Companies will need a steady nerve in volatile economic and market conditions, exercising rigour in their option analysis and risk evaluation. Sector-wide, companies are expected to adjust their strategies by reducing costs and evaluating risks versus returns on new and existing projects. Postponement or cancellation, however, can increase costs and leave companies exposed to market share losses in an upturn.



PwC Talking Point

What is different this time round?

The 'perfect storm' of a banking crisis, credit crunch, commodities slump and economic downturn does set the current period apart. The distinctive financial market contribution to the downturn should make companies even more mindful of the need to balance short-term responses against the long-term fundamentals. It is the ingredient that has added greatest destabilisation and uncertainty. Its effect has been abrupt but some correction measures could have equally abrupt upturn consequences.

Checklist

- 1 Analysing and planning for the project's regulatory climate enables companies to fully identify and manage relevant issues based on regulatory expectations and requirements.
- 2 Establishing a capital investment management framework identifies project components and related issues for each phase of the project lifecycle.
- 3 Implementing a phased project evaluation process ensures investment decisions are consistently made based on sound financial, social, environmental and sustainable development analysis.
- 4 Effectively managing project portfolios enables a company to compare projects and ensure priority is based on strategic fit and risk considerations.
- 5 Front end loading the key elements of project evaluation reduces risk and decreases cost escalation at later stages.
- 6 Determining a contracting strategy early in the project evaluation process, which incorporates a sound risk management approach, increases the likelihood of a successful outcome.
- 7 Developing focused management reporting of both ongoing and exception situations to highlight project risks, adequacy of mitigating actions and the impact on operations and enterprise risk.
- 8 Learning from successes and mistakes and ensuring these are documented and incorporated into knowledge management for future projects is key to continuous improvement.

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