Caspian bridge

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First conceived in the mid-1990s, the trans-Caspian pipeline is a proposed 30 billion cubic metre per year undersea natural gas pipeline between the western coast of Turkmenistan and the Sangachal terminal near Baku, Azerbaijan. Various industry participants have conducted feasibility studies and other analyses over the past decade, and most recently two European energy companies established a joint venture to investigate and promote the development and construction of a pipeline link across the Caspian. Now that the Nord Stream pipeline project, a cross-border gas pipeline running under the Baltic Sea to Greifswald, Germany, has reached financial close, these latest sponsors may be tempted to accelerate their development efforts in the belief that project lenders would embrace a trans-Caspian pipeline project with similar enthusiasm.

Like Nord Stream and the Baku-Tbilisi-Ceyhan (BTC) oil pipeline financed in 2004, the prospects for cross-border pipelines ultimately depend on the availability and terms of limited recourse debt from a variety of institutional and commercial lenders. Project lenders, in turn, will not commit substantial funds to a project without a reliable legal regime or a robust contractual framework that properly allocates project risks and generates steady long-term revenues. Whilst certain extraneous factors have in the past impeded the development of a trans-Caspian pipeline, one may nevertheless begin to consider how such a pipeline would be appropriately structured to attract long-term debt financing. Contrasting the trans-Caspian pipeline's structural elements with other cross-border projects, however, highlights the numerous and unique challenges that its sponsors must successfully tackle to bring their pipeline to financial close.

Five if by sea

Most significantly, the transportation of petroleum resources through a trans-Caspian pipeline has been pre-empted by a disagreement over the Caspian's legal status. Unlike the waters of the Baltic Sea, under which the Nord Stream pipeline will lie, the Caspian Sea is, for purposes of public international law, neither a sea nor a lake. In fact, the five surrounding nations of Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan have debated for more than a decade how to resolve this ambiguity and divide up the 1,200 km-long seabed and associated petroleum reserves. Several state summits convened to resolve the conflict – the last held in Ashgabat in November 2009 – have proven unsuccessful, leaving the Caspian's waters and other resources mired in a juridical no-man's land of outdated treaties, bilateral accords and governmental dialogue.

Soviet-era treaties forged between Iran and the USSR in 1921 and 1940 recognized a Soviet-Iranian sea and awarded the two nations the exclusive use for fishing and navigation, creating a presumption that the Caspian Sea should be treated as a border lake. Outside of an exclusive ten-mile fishing zone extending from each state's shoreline, the waters and seabed were made subject to common management under a condominium principle. In practical terms, Iran's viewpoint translates into a proposal to divide the seabed into equal 20% shares for each littoral state, and to require unanimous agreement among the littoral states with respect to projects or initiatives that involve multiple sectors. In particular, Iran has posited that a trans-Caspian pipeline can only be built if all five littoral states approve.

If the Caspian was considered a sea, its resources could be demarcated along median lines according to the United Nations Convention on the Law of the Sea, assuming Azerbaijan, Kazakhstan and Turkmenistan would ever ratify it. Following several bilateral accords entered into between 1998 and 2003, most littoral states have now broadly agreed to permit the waters and surface of the sea to be shared by all, but to use the shoreline to divide the seabed. Using median lines drawn from the boundaries of each state's shoreline, the Caspian can be neatly divided in proportion to the size of each littoral state's coastal presence. In Iran's case, however, this amounts to only 13-14% of the seabed, covering an area in the deepest water and with the least proven oil and gas reserves.

Consequently, unlike most offshore pipeline projects that secure access to well-established territorial waters or exclusive economic zones through a regulated permitting process, a trans-Caspian pipeline is essentially dependent on the littoral states reaching agreement on a unanimous, five-party convention clarifying the Caspian Sea's legal status. Indeed, lenders will not consider financing a trans-Caspian pipeline without absolute clarity over such matters. Once agreed, a Caspian convention must not only clarify and preserve the legal regime applicable to the pipeline, but should ideally also address fiscal, security and environmental matters in order to stimulate foreign investment and provide greater certainty for project lenders.

All of the littoral states support a convention as a means to resolve their disagreements, but the task of crafting a five-party treaty that will dictate the access to and exploitation of strategic petroleum reserves is enormously challenging in light of political and economic differences. As the former Soviet states consider the development of several upstream and midstream oil and gas projects, however, they have recently shown some inclination to make progress in this area. For example, after a nine-year stalemate between Turkmenistan and Azerbaijan over the latter's decision to independently develop the Azeri, Chirag and Gunashli fields, the two nations have recently begun cooperating on how best to divide or jointly exploit the fields overlapping their median line demarcations.

Structural lessons

The Nord Stream and BTC projects demonstrate that project lenders and their advisors require not only sound project fundamentals, including viable upstream and downstream markets, but also a structurally solid framework of commercial contracts that allocate project risks among project participants in a commercially acceptable manner. Transport contracts must be well-designed with ship-or-pay transport obligations that both produce a balanced revenue stream for the borrower and shift no market or volume risk to the lenders. In addition, shippers or suppliers should have verified proven natural gas reserves that are either in production or supported by a convincing capital development plan to deliver first gas to creditworthy downstream customers consistent with the pipeline's construction schedule. Finally, all long-term project contracts must treat key project risks, such as force majeure, uniformly across the value chain in order not to disproportionately burden the project borrower.

Of course, the contractual framework for a trans-Caspian pipeline has yet to be established, but one could expect it to follow the traditional model of a common pipeline company that owns and operates the pipeline facilities, markets the pipeline's capacity, transports gas in consideration for a commercial tariff and acts as borrower of limited recourse debt. To the extent national laws dictate that an onshore portion of the pipeline must be owned by a domestic company, sponsors can establish special purpose subsidiaries that own such pipeline facilities and transfer marketing capacity to the project borrower.

As a tariff-based commercial enterprise, the economic viability of a trans-Caspian pipeline relies on the continuous flow of natural gas; in this instance, Turkmenistan's roughly 7.9 trillion cubic metres of proven natural gas reserves should satisfy lenders' supply requirements. Transport contracts may be signed with Turkmen or other shippers depending on the point of sale of the relevant volumes, although it is worth noting that the European Commission is reviewing the feasibility of establishing a block purchasing entity to buy and sell Caspian oil and gas on a pass-through basis in order to stimulate further upstream development. Finally, lenders will likely insist that each of Azerbaijan and Turkmenistan enter into governmental support arrangements that protect the long-term investment in the pipeline, even though it is at present more probable than not that neither of those countries would participate in the ownership of the pipeline.

In addition, although the practice of transporting petroleum products over long distances underwater is technologically proven and widely employed, all offshore pipeline projects are nevertheless evaluated on the basis of environmental impacts. The trans-Caspian pipeline, in particular, should expect to draw environmental scrutiny given the Caspian's closed ecosystem and its importance to the littoral states – not only for its petroleum reserves but also for transport, commercial fishing, recreation and other uses. As the participation of multilateral lenders and export credit agencies (ECA) in any project financing grows, so too does the level of analysis and consultation regarding environmental issues. Environmental priorities identified in the course of concluding a Caspian convention may further affect the pace of development.

Financing challenge

With an estimated project cost of at least Eu3.7 billion ($5 billion), the development, construction and financing of a trans-Caspian pipeline will require between Eu2.5-3.0 billion in debt. At these levels, sponsors will need to assemble a sizeable bank syndicate – a process that is by no means novel to cross-border pipeline projects. The BTC pipeline, for example, was financed by 25 lenders, not including the $900 million of senior debt that the project sponsors also provided. Nord Stream borrowed from at least 30 different financial institutions.

The strong support of multilateral financial institutions, whose additionality and mandate for transparency can attract commercial banks, is critical. However, equally important are the ECAs and political risk insurers, which provide essential cover against commercial and political risk. More than ever, commercial lenders are demonstrating a limited appetite for political risk in the region. Only 25% of Nord Stream's Eu3.9 billion of debt is uncovered against commercial and political risk, and over 80% of the uncovered portion is subject to a significant interest rate step-up at commissioning, to encourage its refinancing. Whilst regional security concerns may be overstated, the sponsors of a trans-Caspian pipeline may expect to encounter similar demands for lender protections with respect to any uncovered portion of commercial bank loans.

Conclusion

Assuming the littoral states can agree upon an enforceable legal framework for the Caspian Sea and that environmental concerns associated with a subsea pipeline can be assuaged, the proposed trans-Caspian pipeline appears to be consistent with Turkmenistan's strategy to monetise its considerable gas reserves. Indeed, even though it will undoubtedly continue to ship gas to the north along existing infrastructure and to the east through the newly completed Central Asia-China gas pipeline, Turkmenistan has acknowledged the benefits of a balanced export portfolio that includes a trans-Caspian link as well as potential transit routes through Afghanistan and Pakistan to India. It may be some time before a trans-Caspian bridge can be realised, but if sponsors carefully structure the ownership and contractual arrangements and adequately address the complex economic and technical risks in a manner consistent with comparable projects, Nord Stream's close suggests that project lenders would be supportive.

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