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The successful financial close of the limited-recourse project financing for the integrated Roy Hill iron ore project in Western Australia marks an important development in the evolution of the financing of large-scale mining projects, both in Australia and globally. By **Stephen McWilliams** and **Andrew Roche**, **Latham & Watkins**, **Garry Korte** and **Andrew Tsoulis**, **Roy Hill Holdings** and **Stephen Skinner**, **Hancock Prospecting**.

Mining projects have traditionally been financed on a corporate-finance basis, with mining companies themselves raising full-recourse debt from a variety of funding sources including commercial banks and the capital markets or, for those few that have been project-financed, on the basis of a full sponsor completion guarantee.

More generally, for large-scale projects (such as integrated mining projects, LNG and petrochemical projects) constructed under multiple and separate engineering, procurement and construction (EPC) contracts, and especially those that have been project-financed with multi-export credit agency (ECA) involvement, sponsors have typically been required to provide a full sponsor completion guarantee to mitigate completion risk.

Bucking this trend, the Roy Hill sponsors, led by Mrs Gina Rinehart's Hancock Prospecting Pty Ltd (Hancock), successfully structured and developed a large-scale integrated iron ore mining and infrastructure project that raised US\$7.2bn of project financing debt from a combination of multiple ECAs and commercial banks, and without a full sponsor completion guarantee.

In doing so, the Roy Hill project constitutes a new and innovative template for project financing large-scale and complex mining projects with multi-ECA involvement that could potentially be adapted to assist other similar projects to successfully raise limited-recourse project finance debt with multi-ECA involvement.

The project facilities, which are more than 60% completed (as at September 2014), are being constructed to schedule and first ore on ship is expected to be achieved in September 2015.

Project overview

The Roy Hill project, which is located in the Pilbara region of Western Australia – the world's premiere iron ore producing region – will be a world class, low cost, integrated open pit iron ore mine with a dedicated 344km railway and dedicated port facility, which will produce 55m tonnes per annum (mtpa) (wet) of premium quality iron ore for export to the world markets, including Japan, South Korea, Taiwan and China.

The project has Joint Ore Reserves Committee Compliant ore reserves of 776m tonnes,

supporting a 14-year life-of-mine with additional defined resources forecast to extend the life-of-mine to at least 17 years. Mining of ore commenced in April 2014 and the forecast first ore on ship is scheduled for September 2015. The product will be shipped from the project's port facilities in Port Hedland and, under its lease from the Pilbara Port Authority, the project has been allocated port capacity rights to ship 55 mtpa.

The project's sponsors comprise Hancock (70%), Marubeni Corporation (15%), Posco (12.5%) and China Steel Corporation (CSC) (2.5%). The project's construction arrangements are underpinned by a fixed price, turnkey Head EPC Contract with Samsung C&T Corporation (Samsung C&T) for the mine processing plant, port facilities and railway, with other construction contracts covering the remaining project infrastructure.

Approximately 50% of the iron ore produced by the project will be purchased by Marubeni, Posco and CSC under 10-year to life-of-mine off-take contracts, with the remaining product to be sold principally to Chinese steel mills under a mix of long and medium-term contracts as well as under spot contracts. The off-take contracts commit each customer to a volume of iron ore to be purchased, subject to market pricing, with prices set on a spot basis or over a period of time (up to a calendar quarter).

The US\$10bn project is financed by a combination of limited-recourse project financing debt and equity. The project financing debt package of US\$7.2bn comprises a combination of direct tied and untied loans from JBIC, Kexim, US Ex-Im and a consortium of 19 commercial banks from Australia, Japan, Europe, China, South Korea and Singapore, with a portion of the commercial bank loans covered under insurance or guarantees provided by Kexim, K-sure and Nexi.

The debt facilities comprise a combination of US dollar and renminbi term loans for US\$7.2bn (equivalent), with a fully amortising tenor of 10.5 years and an eight-year repayment period post-construction, as well as Australian dollar-denominated corporate facilities of A\$600m, which include a working capital facility and performance bond and letters of credit facilities.

This package of loan facilities represents the largest ever project financing for the development of a land-based mining project and were negotiated and finalised in less than 18 months during the period from the initial debt launch in December 2012 to financial close in April 2014.

The renminbi component of the debt package was the first renminbi loan provided as part of a syndicated facility to a non-Chinese borrower in Australia and will be used by Roy Hill for its renminbi-denominated expenditure.

The offshore renminbi loans were provided by Bank of China and Industrial and Commercial Bank of China, and demonstrate a further step in the growing internationalisation of the currency. The project benefits from foreign exchange hedging arrangements designed to mitigate foreign currency fluctuations during the construction period and a flexible and non-mandatory interest rate hedging policy. The project's innovative equity funding arrangements are discussed below.

Completion risk

A unique feature of the Roy Hill project is that the lenders did not require sponsors to provide a completion guarantee. Completion risk is of particular concern to lenders for large-scale, capital-intensive projects that typically do not benefit from a fixed price turnkey EPC contract. Many of these projects have a track record of significant cost-overruns and construction delays attributable to a wide range of causes.

Completion risk is elevated for integrated mining projects. This is largely due to the multiple and separate components comprising the project, from the mine (and related infrastructure including the mine and mine processing plant) through to the railway and finally the port, with numerous other specialised infrastructure pieces, including accommodation villages and an airport.

Accordingly, construction arrangements for integrated mining projects typically involve a package of numerous separate construction contracts managed by the owner or by a project/construction manager and other consultants on the owner's behalf. By its nature, this structure shifts many construction risks (including, depending on the structure, design risk and interface risk) to the owner (and therefore lenders) and also will typically result in a reduced amount of delay liquidated damages that would otherwise be available to the owner under a turnkey EPC contract, due to the "disaggregation" effect of having multiple contractors.

For these reasons, project financiers typically require sponsors of projects that do not benefit from a fixed price turnkey EPC contract to provide some form of completion guarantee, usually in the form of a debt service undertaking in accordance with which sponsors agree to fund the project's debt service obligations until such time as the project satisfies the lenders' completion requirements, which typically include construction, operation, shipping (if appropriate), legal and other requirements, at which point the completion guarantee is released.

The Roy Hill sponsors were able to successfully structure a bankable project financing debt package without a full sponsor completion guarantee/debt service undertaking due to a number of factors that in combination provided a comprehensive completion risk mitigation package acceptable to lenders. The key factors are highlighted below.

* Experienced sponsors and project team – The Roy Hill sponsors comprise a group of large, creditworthy and experienced sponsors, all of which are strategically aligned and collectively are recognised globally for their expertise in mining, steel production and trading. Hancock, as the original developer and cornerstone sponsor, brought to the project its experience in successfully financing its 50% share of the Hope Downs joint venture project in the Pilbara, in addition to its discovery and delineation of the Roy Hill iron ore deposit and completion of a definitive bankable feasibility study.

Marubeni, as one of Japan's leading general trading companies, has extensive experience in directly investing in various mining projects throughout the globe and is a foundation buyer of a significant proportion of product produced from the Roy Hill project.

Posco is the third largest company in South Korea, the world's sixth largest steel maker, operates numerous plants including integrated plants, and is a foundation buyer of a significant proportion of product produced from the Roy Hill project.

CSC is the largest integrated steel maker in Taiwan, controlling over 50% of that market, producing an extensive range of steel-based products, and is a foundation buyer of product to be produced from the Roy Hill project.

The Roy Hill team comprises an experienced and capable mining, financing and in-house legal team, well supported by its financial advisers, National Australia Bank Ltd and BNP Paribas, and legal advisers, Latham & Watkins and Herbert Smith Freehills. The combined experience and strength of the Roy Hill sponsors, and the experience and expertise of its management and advisory team, has provided a critically important underpinning to the project, which has enhanced the attractiveness to lenders of the other structural and contractual completion risk mitigants, described further below.

* *Proven technology*– The Roy Hill project uses proven and conventional open pit mining, crushing, screening and beneficiation processes that have been successfully employed in the Pilbara region of Western Australia for many years. The technologies used for the railway and port facilities are also tried and proven in the Pilbara.

The Roy Hill sponsors and their advisers were able to demonstrate to the lenders that construction risk in the context of the Roy Hill project is essentially limited to delay risk, cost-overrun risk, and the risk that, once construction and ramp-up is completed, actual production is less than the targeted 55 mtpa.

This risk profile can be contrasted with other, more technologically complex projects, such as LNG and petrochemical projects, which often feature an additional risk that technical failure may result in production being substantially reduced or uneconomic. Unlike these projects, the Roy Hill project, once completed, will almost certainly produce significant quantities of high quality iron ore at comparable grades to product produced by Rio Tinto and BHP Billiton.

* *EPC structure, construction programme and equity*– A key completion risk mitigant is the implementation of a construction contract package, comprising a single performance based, fixed price and fixed time Head EPC Contract with Samsung C&T, an internationally recognised contractor for the successful delivery of large and complex projects. The head EPC Contract covers the processing plant, port facilities and railway facilities, accounts for over 60% of the project's forecast total capital cost, and also includes a number of unique risk allocation features, including with respect to performance and liability, all of which enhanced the bankability of the contract.

The balance of the construction works are spread across a number of separate construction contracts with different contractors, the management of which is subcontracted to a proven project management consultant firm, Parsons Brinckerhoff.

This EPC structure significantly de-risks the project for both the sponsors and lenders. In addition, under the construction programme the bulk of core construction-related work outside the scope of the Head EPC Contract was completed before first drawdown of the core debt facilities.

This significant capital expenditure was funded wholly by the sponsors by contributing the full amount of their agreed equity commitments to advance the project to past the 40% completion stage by the time of first drawdown of the loan facilities. This is an innovative departure from the more conventional project financing approach (where equity and debt are funded on a pro rata basis according to an agreed debt to equity ratio) and gives considerable additional comfort to the lenders in terms of demonstrating the sponsors' commitment to the project while reducing lenders' exposure to construction risk.

* *Construction and ramp-up phase support and mitigants*– Even with a fixed price turnkey EPC contract, project finance lenders to mining projects will almost always require some form of sponsor support to mitigate completion risk, whether in the form of a full completion guarantee, standby equity to fund cost overruns or other forms of sponsor support. Accordingly, and as one of the key mitigants that persuaded the Roy Hill lenders not to require a completion guarantee from sponsors, the Roy Hill sponsors agreed collectively to provide a limited standby loan facility until the completion date to fund any cost overruns not already covered by the construction budget contingencies.

Given that the project was at a relatively advanced stage of construction and was tracking ahead of the construction programme (and budget) at the time when these equity commitments (and the first drawdown of the construction loans) were provided, the sponsors were able confidently to commit this additional equity funding on a standby basis with a

reasonable expectation that it would unlikely be drawn, while providing sufficient comfort to the lenders that there would be committed funding available to fund any unexpected cost overruns not covered by the construction budget contingencies.

The standby loan facility was further enhanced to mitigate the lack of a full completion guarantee by being sized and structured so that a portion of the project's debt service obligations until the completion date would also be covered. This feature was further supported by additional capital expenditure controls in the project finance documentation, which were designed to provide the project with some flexibility to utilise the standby loan facility to fund any unexpected cost overruns while at the same time preserving an appropriate level of headroom within the standby loan facility cap to fund debt service obligations that potentially could remain unpaid in various circumstances including a cost-overrun scenario.

A unique feature of the Roy Hill project due to its vast scale is the relatively long ramp-up phase to full production, commencing from practical completion of the core project infrastructure and facilities. During this period, production is expected to ramp-up to a consistent rate of 55mtpa and the resulting iron ore product will be sold and shipped to buyers through the project's port facilities in Port Hedland.

The financing structure was developed to include a comprehensive set of mechanisms to apportion project cashflow generated during this period between maintaining sufficient liquidity up until the lenders' completion date, funding certain reserve accounts, funding the project's minimum debt amortisation obligations and, subject to passing certain specified dividend hurdles (including amortisation of the loans to an agreed target amount), with surplus funds being allocated towards the payment of dividends and additional loan repayments.

These ramp-up phase cashflow sharing arrangements, coupled with the cost-overrun support and capital expenditure controls described above, gave the Roy Hill lenders considerable comfort that the project had sufficient committed funds, and would have access to sufficient amounts of cashflow generated during this period, to finance any cost-overruns, whilst both de-risking the project through the structured amortisation profile and incentivising sponsors by allowing dividends to be paid from surplus cashflow generated before lenders' completion.

Conclusion

The successful financial close of the Roy Hill project sets a new benchmark in structuring limited-recourse project financing for large-scale integrated mining projects with multi-ECA involvement. It is now no longer the case that the bankability of such projects will hinge on sponsors taking full completion risk. Instead, with appropriate structuring so long as a robust completion support package is structured to appropriately mitigate construction risk, it is now possible to successfully finance such projects on a limited-recourse project finance basis without a full sponsor completion guarantee.

Roll of honour

● Global

Bank of the Year: **SMBC**
 Bond House of the Year: **Credit Agricole**
 Adviser of the Year: **HSBC Multilateral**
 of the Year: **IFC Institutional Investor** of
 the Year: **Aviva** Sponsor of the Year:
GDF Suez
 Financial Sponsor of the Year: **John Laing**
 Law Firm of the Year: **Latham & Watkins**

● Americas

Bank of the Year: **Societe Generale**
 Deal of the Year: **Freeport LNG**
 Transportation Deal of the Year: **I-4**
 Petrochemical Deal of the Year: **Sasol**
 Bond Deal of the Year: **ATS**
 O&G Deal of the Year: **Los Ramones Sur**
 NA Power Deal of the Year: **CPV**
 Latam Power Deal of the Year: **Kelar**

● Asia-Pacific

Bank of the Year: **BTMU**
 Deal of the Year: **Roy Hill**
 Power Deal of the Year: **Sarulla**
 Renewables Deal of the Year: **Burgos**
 Petrochemical Deal of the Year: **PAU**
 PPP Deal of the Year: **Transmission Gully**

Infra Deal of the Year: **Port of Newcastle**

Transport Deal of the Year: **NW Rail**

● Europe

Bank of the Year: **BNP Paribas** Power Deal
 of the Year: **Gemini** Refinancing of the
 Year: **Budapest Airport** Infra Deal of the
 Year: **Mersey Gateway** PPP Deal of the
 Year: **N17/N18**
 Renewables Deal of the Year: **Edens**
 Road Deal of the Year: **A7**
 Industry Deal of the Year: **Georges Besse**

● Middle East and Africa

Bank of the Year: **Standard Bank**
 Refinery Deal of the Year: **Star Rafineri**
 Industry Deal: **Wa'ad Al Shamal**
 Bond Deal of the Year: **Tamar**
 Power Deal of the Year: **Kirik kale**
 North African Power Deal: **Safi**
 African Renewables Deal: **Lake Turkana**
 African Power Deal of the Year: **Cenpower**



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