

Predicting the unpredictable

Project finance deals involving commodities require constant risk mitigation and management. Good structuring from the outset is key

If there is one thing most participants in the commodities sector should be able to agree on is that high prices will fall and that lower prices may (but not necessarily will) recover. Although there are many who believe that they can predict market trends, foreseeing commodity cycles based on analysis of demand and supply curves and a sophisticated understanding of Monte Carlo simulations remains challenging.

Natural resource prices fluctuate over time, as has been seen over multiple commodity price cycles. There have been boom periods, when optimism ruled and new financings for oil, gas and metals deals had no end in sight. New investors have come out of the woodwork, banks line up to participate in the hottest deal of the year, and the consultants and other advisors to the sector relentlessly chase the next ‘big one’. Times are good, and sponsors and bankers appear to believe that the market will forever move upward.

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And then comes the inevitable bust. New sources of production (such as shale) come onto the market, disrupting the supply projections that had underpinned numerous financings. Or the wave of nationalisations that could never happen again happens. Or the Chinese economy slows down. Or there’s a housing crisis that destroys the global economy. Or general circulation newspapers start referring to new terms such as Brexit or President Trump. Or sanctions on Iran are lifted (or sanctions on Russia are imposed). And just like that the words ‘cash shortfall’ start passing through the lips of tried and tested market participants as project companies start re-assessing their projections and the lenders to such projects blow the dust off their desk copies of the principal financing

documents that so ignominiously had been placed behind the deal toy that had joyfully been handed out at elegant closing dinners. And somehow, as if linked by some kind of supernatural force, lawyers’ phones all start to ring simultaneously.

Structuring

While it is hard to bring dramatic flair to the subject of risk allocation and mitigation in natural resource project financings, it is not hard to emphasise the importance of having a well-structured project when markets go down. This holds true both for sponsors as well as lenders. For the former, it is not just about figuring out how to avoid short-term payment defaults on their debt or finding the cash to undertake required maintenance, but in the bigger picture is a question of the flexibility they will ultimately have to work through difficult times and address the long-term reputational risk of having a project

completely tank (which is particularly important for sponsors who may wish to develop other projects down the road). For lenders, the main concern is ensuring repayment; although some lenders may be willing to defer some amortisations for some time, ensuring full repayment by the originally envisaged final maturity date remains a nearly universal objective. At the end of the day, striking a balance between borrower flexibility to work through issues and lender protections to ensure sufficient means and incentives for owners to keep a project afloat is what lawyers are there for. Put differently, the key risks in any natural resource project – construction risk, operating risk, resource risk, environmental/social compliance risk,

political risk and market risk – all need to be properly allocated to ensure that when challenging markets return, each of the participants at the table will be properly motivated to achieve the best possible result.

Your risk or mine

Natural resource prices have taken quite a hit over the past few years, and many of the projects that we collectively worked on that were planned, structured, developed and financed over periods of multiple years when prices were higher are experiencing some level (and in some cases, great levels) of financial distress. Where projects are experiencing non-price related issues as well – for example, technical, resource or political difficulties – the challenges created by down prices has been compounded, resulting in a perfect storm of troubles. In many cases these projects are now seeking to re-engage with lenders to develop workout or restructuring plans that will ensure the viability of the projects for the longer term. Many lenders have had to remind themselves that enforcing security over complex facilities in remote locations, which frequently do not have judicial procedures that enable lenders to assert creditor rights, is perhaps only a last resort. As might be expected, during the course of these discussions, many lenders are finding themselves re-assessing the original risk allocation of these deals to understand how they have gotten to where they are. The following key risks are traditionally allocated in natural resources projects:

Completion risk

It is generally hard to mitigate completion risk through the types of EPC contracts that are used in, for example, power generation deals. Oil and gas and mining projects generally involve multiple technologies and are exposed to geotechnical risks, so there are few (if any) EPC contractors that will provide a fully wrapped completion undertaking, at least at an acceptable price. Fortunately, many project sponsors believe that they can manage these risks through sound engineering and construction oversight, and those sponsors are, therefore, usually willing to offer some form of completion support, either in the nature of a straightforward pre-completion debt service undertaking (DSU) or guarantee or, more rarely acceptable to lenders, in the nature of significant contingent equity support. Release of this type of DSU, guarantee or contingent support at the end of construction generally requires that the project has attained specific technical criteria designed to demonstrate that it can achieve,

with adequate levels of stability, projected levels of efficiency and production. It is also not unusual to include such requirements as the attainment of all permits and licences, the funding of reserves and the absence of defaults. Reaching agreement on the nature of the completion testing regime requires the best thinking available by a broad range of technical, market and legal experts.

Operating risk/resource risk

Operating risk and resource risk are both generally resolved through technical due diligence (addressed by the independent technical advisor opining on the capability of the borrower to operate the mine or other facility and the reserves expert opining on the level of proven or probable reserves). Operating risk may also be mitigated through a combination of operation and maintenance contracts (when available) and funded maintenance reserves, and reserve risk may be mitigated through cash sweeps designed to ensure that the borrower does not deplete proven and probable reserves before the final maturity of the debt. However, absent unusual circumstances, neither of these risks is customarily the subject of specific direct sponsor guarantees.

Political risk

The one risk that cannot be contracted or even wished away is the location of the project. Adverse relations with the host state can damage the performance of any project, and civil war and expropriation remain the most extreme forms of risk that can simply bring a project to ruin. Although some of these risks can be mitigated somewhat through treaties or agreements with the host state, it is difficult to insulate the project entirely from political risk. This type of risk is frequently absorbed by export credit or multilateral agencies through political risk carve outs in whatever completion support is offered by the sponsors, and lender protections in the finance documents are generally limited to specific draw and distribution stops and events of default. Again, political risk is not customarily the subject of direct sponsor guarantees.

Market/pricing risk

The negotiation of market risk mitigation in natural resource deals is framed by the base case product price projections. These are generally the topic of a market report, and the 'lender base case' is frequently run on the basis of a discount to the projections advocated by the sponsors. There are perhaps two categories of market risk that should be considered in the market report. The first is the risk arising from market price cyclicity,

where the primary question is one of timing: will the project be able to repay scheduled debt when prices are at a low point in the normal economic cycle. There is also a risk of long-term market collapse, which may arise where (for example) technology advancements displace demand for a specific product. The more basic a commodity, the more likely that the risk assessment is limited to cyclicity and not collapse, as there should always be at least a significant level of demand for basic commodities, although that level of demand will vary across economic cycles. As most of the large-scale mining deals have involved basic commodities (copper, iron ore or nickel) – and as LNG and most refined petroleum products are also essentially basic commodities – the primary risk that lenders seek to address is cyclicity. However, most sponsors consider the risk of low cyclical prices for their output to be beyond their control to manage, as the market for most commodities is dictated by broad macro-economic conditions (for instance, demand in China) that they cannot pass on to others over the life of a financing. Few commodity markets feature long-term, off-take contracts with a fixed or floor price mechanism that can insulate projects from price risk, and the market for long-term commodity price hedges is also quite limited. Which all leads back the question of how commodity price fluctuations affect projects, and more importantly, how well-structured projects have found ways to mitigate this risk.

Structuring (part 2)

Understanding how financings of natural resource projects have traditionally addressed the issue of market risk – and importantly, why lenders and sponsors have accepted exposure to it – is critical for understanding how the current low price environment has impacted existing deals and what is to be expected in the future.

Natural resource deals are generally structured with projected base case average and minimum debt service coverage ratios (DSCRs) and a loan life coverage ratio (LLCR) at the time of closing that are robust at conservatively projected market prices. In order to restrict the amount of debt in the deal (thereby giving rise to adequate DSCRs and LLCRs), the debt-to-equity ratio in these deals is frequently in the range of 60:40 (or lower), and there is substantial focus on ensuring that there are meaningful restrictions on the incurrence of additional senior debt (for example, additional debt covenants are frequently structured to include forward-looking ratio testing, including the principal amount of the new debt in the denominator and,

notably, using updated commodity price assumptions). By contrast, power deals (with fixed price PPAs that insulate the borrower from market risk), for example, often have lower average DSCRs and a higher debt-to-equity ratio closer to 80:20. There have been some hybrid natural resource deals, such as LNG export deals in the US and Egypt that have been financed on the basis of tolling contracts, where the toller has taken most or all of the market price risk. The consequent debt-to-equity ratio and DSCR/LLCRs in those deals have fallen somewhere between those in the traditional natural resource and power deals.

Some deals have featured sculpted amortisations. These are typically designed to account for things such as ramp-up periods, scheduled maintenance, or other events that are expected to impact the consistency of production levels. In the mining sector, for example, this approach may be used to address production and ore grade variances in the mine plan arising from the geological features of the mine. While not directly tied to market prices, sculpted amortisations are primarily used to ensure sufficient cash flow during periods when revenues are expected to be lower.

The cash flow waterfall is frequently used to address cyclicity in market prices by requiring funded debt service reserves, cash sweeps in high price (or excess production) scenarios, and distribution blocks in low price scenarios (natural resource deals tend to have distribution blocks at higher ratios than do power deals). Some deals feature additional reserves, so-called major maintenance or volatility reserves, that may need to be funded to help address specific periods where DSCRs may be projected to be low because of planned outages or the like.

Some deals have addressed cyclicity through pre-agreed principal deferrals, together with agreement on the terms on which a cash sweep would apply to repay them. When a financing involves an export credit agency, any pre-agreed deferral may not extend the average life of the debt beyond those stipulated by OECD guidelines, even if the effect of cash sweeps may be to bring that average life back in line with the guidelines. Other lenders prefer not to pre-agree such terms, leaving them open so as to be able to extract at the time when problems arise additional equity contributions from the sponsors or enhanced pricing on the loans in exchange for deferral. Whether or not a successful outcome of this sort can be negotiated at the

time will depend on the identity of the participants and the circumstances, and thus some lenders prefer to pre-agree a deferral solution rather than be faced with the prospect of a payment default.

As noted above, the principal off-take agreements in the sector do not customarily insulate the borrower from market risk, and as a result the borrower is generally afforded significant flexibility in the finance documents to change or replace the

resources being exploited by major, first-rank (deep-pocket) sponsors using relatively low leverage to finance transactions that in most cases they could arguably bring to production without borrowing. These factors obviously colour the negotiations and are reflected in the outcomes, and also perhaps point to the rationale behind lenders finding these risk allocations to be acceptable.

Once parties have reached individual

transactions with smaller sponsors and higher leverage, but almost universally in large transactions with large sponsors and low leverage. We have seen projects face not only low output prices, but even war, civil disturbance and significant production shortfalls, but still achieve workable solutions, even if some are only temporary in nature in the hopes that circumstances will improve in the interim.

Assuming commodity prices remain low for an extended period of time, these structuring features in natural resource deals will continue to be reviewed and their effectiveness challenged, but in most cases thus far these structures appear to have worked as planned as the implementation of this incentive-balancing approach and the structure of the transactions (e.g., significant equity up-front; significant residual equity value during the reserve tail period) appear to have helped contribute to the satisfactory resolution of the problem – in other words, the structural alignment of interests between sponsors and lenders has typically encouraged strong sponsors to protect their investments and help fix problems, and lenders to afford the sponsors time and flexibility, to achieve the best outcome possible.

As for the question of whether lenders will continue to be willing to rely on these structuring features to permit market price risk to be shared as it traditionally has been remains to be seen, but if the current slate of restructurings are any indication it seems that such structuring features have served their projects well and have provided both sponsors and lenders the right set of tools to work through these troubled times. While labelling these structures as the perfect approach may be a stretch, when put to the test they have tended to function as designed. Going forward it would seem that these structures do indeed offer a sound option to ensure that new deals can continue to be closed, and remain the best way for lenders to protect themselves from their short memories and inevitable view that once prices begin to rise again that they will forever continue their upward trend.

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Most sponsors consider the risk of low cyclical prices for their output to be beyond their control as the market is dictated by macro-economic conditions

agreements in order to allow it to manage evolving market conditions. Amendments or modifications to a PPA, for example, in a power deal are generally much more tightly regulated.

Finally, lenders will generally wish to ensure that there is a prudent reserve tail (for instance, measured by reference to proven or probable reserves remaining in the ground at the scheduled final maturity date), so that if deferral is required beyond the scheduled final maturity date, there remain sufficient reserves with which to generate additional revenues to repay deferred debt. The reserve tail also serves as an incentive for sponsors to retain ownership of the mine or other facility, even in periods of financial distress occasioned by low prices, as it affords them the prospect of a period of attractive equity returns once the debt has been repaid.

Approach adopted in natural resource deals

Lenders to mining and, to some extent, other natural resource projects, have traditionally been willing to accept the types of market price and operating risks that are not typically a feature of project financings in the power and industrial sectors. In the mining sector in particular, this risk allocation has become prevalent primarily in large projects characterised by long-life

satisfaction levels on the reserves and the base case economics of the transaction, discussions regarding things that could go wrong (low prices, operating difficulties, problems with suppliers/off-takers) tend to focus on rational ways to address such occurrences. In the first instance, the very high equity component of these financings and the size and expected long life of the resources are thought to provide a very strong structural incentive to the sponsors to help solve the problem, if it is soluble, by bringing additional money or additional talent to address the problem, and continuing incentives (for example, restrictions on cash use, no dividends) are built in to induce the rational sponsor to go beyond its contractual commitments and do what it can to rescue the project for its own economic and reputational benefit.

Does it work?

Ultimately, with the potential for so much to go wrong when prices are (and, as is the case in the current environment, remain) low, this is the question all project participants in the natural resources sector worth their salt are now asking themselves. By and large, in recent years this design had become expected and accepted by a wide range of lenders in the cross-border natural resource project financing arena – less so in smaller

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