The Impact of B2B Dynamic Pricing Models on Project Finance

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Project finance practitioners have always demonstrated a creative ability to apply new, sophisticated financial technology in order to finance increasingly difficult project transactions. The adaptation and application of e-commerce technology to structure project financings should greatly enhance these financial capabilities. This article shows how the use of dynamic pricing technology to create on-line markets may change the way project finance practitioners evaluate, develop, and structure transactions.

The application of online auctions to project financing structures may enable financing of a new class of projects. Online auctions have the potential to lower the financial risk profile of some difficult-to-finance projects by creating efficient forward markets for those projects' end products where none previously existed. By efficiently accessing many market participants, online auctions can aggregate smaller off-take or supply commitments from numerous market participants to create a diversified portfolio of forward contracts. Such a portfolio of contract commitments can increase the certainty of the project's revenues or costs just as an off-take or supply commitment from a large, single creditworthy sponsor can. This online auction approach also has many other benefits over the existing, conventional approach, which are explained below.

E-commerce, and particularly online auctions with dynamic pricing, could play an ever-increasing role in the way project finance opportunities are evaluated, developed, and structured. The application of online markets to project development will, always be determined by characteristics of the products, the sophistication of the developers, and the level and timing of acceptance by lenders. Listed below are some of the benefits that could potentially be realized from the successful adaptation and application of e-commerce and online auctions:

- Improve project credit quality
- Improve market transparency
- Validate marketing, distribution, and other project assumptions
- Reduce market entry time for start-up ventures
- Reduce project revenue volatility
- Increase certainty and reduce price volatility of feedstock supply
- Increase debt leverage by reducing project risk profile
- Reduce overall project capital costs, including soft costs
- Reduce overall project operations and maintenance costs
- Create opportunities for previously marginal projects through improved market data
- Create expanded supply options

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CURRENT FOCUS AND EVOLUTION OF E-COMMERCE MARKETPLACE

The initial focus of e-commerce has been on helping industry facilitate commercial transactions among businesses—B2B commerce—and not on helping project companies structure deals. The potential for the application of e-commerce to project finance is not yet fully recognized, and therefore leading companies in the field have not yet turned their attention to adopting its technology. Despite what looks like an excellent market opportunity, e-commerce will not attract the full attention of project finance professionals until its technology is validated by a few successful project finance transactions.

Some of the leading e-commerce companies with auction technology that potentially could play a role in project finance include Ariba, Commerce One, Oracle, and FreeMarkets. Based on volume and experience, FreeMarkets is the world's leading B2B e-marketplace and e-sourcing solutions provider. FreeMarkets is a six-year-old company headquartered in Pittsburgh, Pennsylvania that has conducted over 9,200 online, competitive bidding events comprising over $14 billion worth of goods and services. From these competitive bidding events, the company's clients have estimated savings of more than $2.7 billion, compared with their historical pricing for comparable items. Those savings range from 2% on straightforward commodities to over 25% on highly engineered products, representing an overall average of about 17%. FreeMarkets has been working with the authors to adapt and apply its online auction technology to project finance transactions.

A FIVE-PHASE APPROACH

FreeMarkets has developed a five-step, integrated approach to e-procurement that changes the way its clients conduct supply chain management.

1. *Identify savings opportunities.* The first phase begins with identifying savings opportunities through an analysis of client spending patterns and buying needs.
2. *Prepare RFQ.* Next, a detailed RFQ (request for quote) is developed. This is a comprehensive document that closely defines all elements of total cost.
3. *Find and screen suppliers*. Phase three involves identifying and screening a broad group of qualified suppliers, narrowing the field to focus on those best suited to the specific opportunity, and explaining the bidding process to the remaining candidates. This is a key step in helping the company to be sure it is evaluating a full spectrum of suppliers.
4. *Conduct online bid*. Next, those suppliers *selected by the client* use FreeMarkets' proprietary software to submit real-time bids. The online auction is conduced on a secure global network. Clients can watch the process from their own offices.
5. *Implement results.* In this phase, FreeMarkets works with its clients after competitive bidding by collecting cost breakdowns to validate quotes and support the client's final supplier selection. *The final decision on who qualifies to bid and the selection of the winner always rests with the client.*

Let's examine how this e-marketplace process can be adapted to support project financing transactions.

VALIDATION OF MARKET ASSUMPTIONS

The first step begins with identifying savings opportunities, confirming with third parties that those savings are available, and reviewing market assumptions that underlie project revenue and cost forecasts. Such analysis helps project developers and lenders refine their financial projections and validate a project's creditworthiness and debt capacity. This market perspective can be of critical value in the project decision process. Nothing is more painful to a project finance professional than to pursue a project to failure when some market shortfall could have been identified much earlier.

As a test case to explore the application of e-commerce technology to project finance, the authors chose an ethanol project whose developers were trying to structure a straightforward project financing. The ethanol was to be used as an octane enhancement to meet EPA-mandated gasoline emission requirements. FreeMarkets was eager to show how it could facilitate placement of the project's off-take commitments through its deep vertical knowledge in specific types of goods and services and its sophisticated staff of commodity specialists. These experts, called "market makers," are focused on locating qualified buyers and sellers. They work with clients on all aspects of RFQs for over 165 different types of goods and services using an array of proprietary software to conduct various types of online competitive bidding events.

A quick, accurate assessment of the ethanol market resulted in a decision to terminate the project rather than sending good money after bad in a development effort that had a low probability of success.

The ethanol project lacked a long-term, fixed-price commitment from a creditworthy buyer, which was essential to satisfy lenders. Within weeks, the commodity experts at FreeMarkets had completed an exhaustive survey of the available marketplace for ethanol. They identified 52 potential off-takers and then narrowed the bid criteria to isolate those that could satisfy senior lenders' credit standards and handle the necessary volume. Finally, they solicited the targeted buyers to participate in an auction process that would allow firm commitments to be presented to the lenders. Surprisingly, not one solicited party was willing to participate. It became apparent that no significant buyer was interested in long-term, fixed-price commitments on ethanol, not even with large discounts from the prevailing market! It turns out that the market was not convinced the EPA standards could be met only by using an oxygenate additive. This fatal flaw was overlooked, or taken far too lightly, by the marketing side of the project development team.

The clear value provided here by the integrated approach of FreeMarkets was a quick, accurate assessment of the ethanol market conducted on an objective basis. This allowed members of the development team not directly involved in the marketing side of the off-take to make a more educated decision to terminate the project before sending additional good money after bad in a development effort that had a very low probability of success.

MARKET PENETRATION

Steps 2 through 4 of the integrated e-procurement approach described above involve intense interaction with market participants in which a detailed RFQ is developed and qualified bidders are identified, screened, and selected to participate in online auctions. These steps can be applied directly to project financing as a way of confirming the project's basic market and revenue assumptions. There are many projects that developers have failed to get off the ground because established companies in the same market posed just too strong a barrier to entry for a new participant.

Even with robust *pro forma* projections for their projects, new entrants often cannot arrange suitable off-take commitments. Without a large creditworthy off-take contract acceptable to lenders, a new entrant project may have too high a risk profile to be successfully project financed. The barrier to market penetration is formidable because existing market participants don't want to risk alienating traditional suppliers with which they have established relationships. A creditworthy company will not commit in sufficient volume by itself to support a new entrant because, if the project is delayed or canceled, the risk of disruption to its business is too great.

Using online auctions, project sponsors can identify and target multiple buyers, including many new buyers, and lock them in with modest-sized contracts that would not jeopardize their traditional supply relationships. The risk of supply disruption from a yet-to-be-built facility would be relatively low in an online auction approach because each buyer could limit contractual commitments to its own risk tolerance, perhaps not more than 5% to 10% of its total requirements. The efficiency of the online process and the expanded market it taps allows the risk to be spread, minimizing the impact of any project delay while at the same time giving existing market participants the benefit of greater competition for their established long-term suppliers.

In aggregate, smaller off-take commitments from numerous market participants create a diversified portfolio of forward contracts that may be more acceptable to lenders than a single large, off-take contract. Equally important to the project developer, no single, large off-take contract can exert control over the project's economics. Large companies that offer to support projects through single off-take contracts are well aware that their preconstruction commitments substitute for project equity. These companies often demand project equity and/or a significant discount from prevailing market prices for preconstruction commitments that allow the project to proceed. By spreading off-take commitments over numerous market participants, project companies and their sponsors should be able to retain more control and improve project economics.

Product specialists who validate and place product from a proposed facility add to its credibility. Lenders and investors have more confidence in the reliability of projected revenues, operating costs, and net cash flow with the knowledge that an objective third party has validated the project's financial assumptions.

ONLINE AUCTIONS IMPROVE PROJECT ECONOMICS

The culmination of the five-step e-procurement process is the competitive bidding event. The major benefit of the online auction marketplace is its competitive pricing dynamics, which generates savings through the efficiency of markets. To support project financing, market participants compete in real-time to purchase a project's future production or supply its feedstock. These smaller off-take or supply commitments in aggregate should result in higher revenue to the project because of the reduced pricing power that any one market participant can exercise in a competitive, online auction. The application of online auctions to project financing structures should result in higher net cash flow and greater financial strength for the project company.

Efficiencies and cost savings can be realized in other areas as well. Online markets can be applied to the procurement of financing, operations and maintenance, packaging, insurance, transportation, and even lump-sum, turnkey EPC contracts. The process can be used in practically all areas where negotiating with competitive suppliers can improve project economics. Any cost reductions that can be achieved improve the financial performance of the project and, hence, its ability to be financed.

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The direct impact on project costs actually might be only a small part of the economic value that the new marketplace and B2B dynamic pricing offer to developers. What if project developers had the view that future market prices for a project could be substantially higher and did not want to fully commit their future production at today's prices? The improved market information provided through an online auction may enable the project developers to presell a higher percentage of output in the earlier years of the project's operation. Because the presale is spread over a large segment of the marketplace, current spot prices should remain stable. A higher percentage of preselling in the early years could assure the project's short-term cash flow, allowing a higher debt load, which could be retired more quickly. Beyond that, the project could be a merchant plant selling at then-prevailing market prices. If the project developer's view was correct and future prices did rise, then, the overall returns to equity could be much higher than the more traditional project financing structure would have allowed.

FACILITATOR'S ROLE

Intermediaries such as FreeMarkets act only as a facilitator and do not take title to goods or services. Key decisions on who bids; who is awarded a contract; the terms and conditions of underlying supply contracts, including take-or-pay provisions; and liability for liquidated damages all depend on negotiations between traditional buyers and sellers. A competitive bidding event to buy or sell products changes neither client relationships nor face-to-face contract negotiations. Most of these issues take on the same importance as in any project finance deal with the possible exception of liquidated damages. When a project's output is presold, the risk of completion delay is magnified. The EPC contractor may have to commit to greater delay damages, and off-take commitments may need to allow some latitude on first delivery and possibly a dead band on the start of liquidated damages. This will affect the level of cash flow in lenders' worst-case scenarios but the savings to the project should far outweigh this impact.

The use of a wide base of suppliers for feedstock or multiple off-take contracts is not problem-free. Because multiple parties are involved, loan documentation initially may become more complex. New documentation norms should be established after the first few successful projects. These documentation changes would not directly involve FreeMarkets or whoever is running the competitive bidding event.

SUMMARY

This article can only serve as a starting point for the potential benefits that e-commerce and online auctions may produce for project finance practitioners. To our knowledge, no project finance transactions have yet utilized an online auction to create off-take agreements for a project's end products where no efficient forward markets previously existed. However, we are working with FreeMarkets on just such an opportunity. The advantages of adapting this new financial technology to project finance structures are sufficiently compelling that we believe other opportunities will quickly follow.

A competitive bidding event to buy or sell products changes neither client relationships nor face-to-face contract negotiations.

The adaptation and application of e-commerce's dynamic pricing technology and online auctions to project financing structures may dramatically change the way project finance practitioners evaluate, develop, and structure projects. The role of e-commerce in project financing is just beginning to develop. The specifics of individual projects, the sophistication of developers, and the acceptance by lenders will ultimately determine the ease with which the potential of this new financial technology is adopted.

The real bottom-line for this new technology is its impact on industry competitiveness. Companies that are quick to embrace, adapt, and apply this new technology may enjoy a competitive advantage over those that don't. If a project is truly competitive but lacks in sales and marketing, then, the online auction technology of e-commerce can provide major benefits. Alternatively, the improved market information available through online auction technology will more readily expose the market shortfalls of uncompetitive projects. Developers, lenders, and all project finance practitioners should take a close look at what this technology has to offer.

ENDNOTES

With over 25 years of finance experience, the Finance Specialists Group specializes in developing innovative solutions to project and trade finance opportunities. The Washington Group is the fourth largest engineering and construction firm in the U.S., formed from the merger of Morrison Knudsen and Raytheon Engineers and Constructors.

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