Evaluating Business Risks in the Commercial Lending Decision
By Noah P. Barsky and Anthony H. Catanach, Jr.

Understanding how borrowers manage their business risks can provide lenders with significant insight into their customers’ credit quality.

Understanding the many risks associated with a commercial lending customer has never been more important. While bankers are quite familiar with the hazards of credit risk, and the related tools and techniques needed to assess and manage it in their portfolios, many are less prepared to deal with the myriad of new loan customer challenges that today’s dynamic operating environment brings. Potential perils extend far beyond simply the risk of debt repayment and often can lead to the impairment of the lender’s reputation and, in some cases, legal liability or criminal culpability.

The recent financial reporting failures and related corporate collapses of firms such as Enron, National Century Financial and WorldCom clearly illustrate the type of noncredit risks that commercial lenders are now confronting. Enron’s primary bankers, Citigroup Inc. and JP Morgan Chase, continue to be plagued by investigations from regulators and civil actions from shareholders for their role in allegedly enabling the concealment of Enron debt through complex off-balance-sheet transactions in special-purpose entities. Investors in asset-backed securities sold by National Century Financial Enterprises, a health care financier, have sued Bank One, Credit Suisse First Boston and JP Morgan Chase in connection with the firm’s financial collapse. WorldCom shareholders have sued Citigroup, JP Morgan and other debt underwriters of the company in connection with its financial fraud as well. These lawsuits illustrate how failing to manage a loan customer’s relationship properly can have detrimental consequences far beyond loan losses.

Bankers long have recognized that understanding the client’s business is key in identifying and managing the credit risks in commercial lending relationships. In fact, lenders routinely require business plans of borrowers as a means of assessing the risks inherent in a loan request. In addition, commercial bankers increasingly are incorporating more dynamic frameworks such as life cycle analysis to assist them in evaluating a borrower’s products, business and industry when evaluating the creditworthiness of loan customers. However, bankers should consider extending their use of such business-focused tools beyond credit analysis to include a more comprehensive review of just how a company’s business processes contribute to its risks, which ultimately may be shared with those that finance its operations. This article provides a business process framework that bankers can use in analyzing and evaluating potential risks associated with planned commercial lending relationships.

Understanding the Borrower’s Value Chain
Assessing the business risk of loan customers begins with gaining a basic understanding of how they operate. As most bankers recognize, managing even the “simplest” of businesses properly is a complex proposition. Complexity results from the numerous tasks or processes that companies must

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carry out to attain their business strategies. The set of the interrelated tasks or processes that companies execute to achieve their business strategy is known as the value chain (Exhibit 1). Since long-term business success depends on a company’s ability to satisfy or create value for its customers, the chain of operations used to meet these customer needs is the fundamental critical success factor for any firm. The value chain starts with an entity acquiring the basic resources that allows it to function and ends with customer satisfaction. The intervening internal business processes focus on the business operations needed to make customer satisfaction a reality. Since satisfied customers pay their bills and provide repeat business, it is important for lenders to think about how their borrowers’ operating processes will satisfy their customers.

For any firm, the value chain can be described in terms of six core business processes:
- Resource acquisition
- Research and development (R&D)
- Production
- Market analysis and sales
- Distribution
- Customer service

**Resource acquisition** refers to the use of financial capital such as loans or equity issuance proceeds to acquire the human and/or physical capital required to deliver a particular product or service. For manufacturers and retailers, this involves purchasing raw materials and finished goods for resale, respectively. For service firms (for example, accounting, law, hospitals, etc.), resource acquisition also plays an important role, since these firms must have the appropriate people and supplies in place to deliver the services requested by their clients.

During the **R&D** value chain process, a firm considers how to develop and design a product or service to meet the needs of customers. Companies also evaluate the feasibility of actually creating a successful product or service during this phase. Feasibility depends not only on the ability to create the appropriate product or service but also on whether it can be delivered at a cost that is consistent with a company’s profit target.

In the value chain’s **production** phase, a business converts human (labor) and physical capital (materials) into a finished product or service. In a traditional manufacturing setting, production is the central process in the firm’s value chain. Professional service and consulting firms rely on employees to produce finished products such as legal documents or financial reports.

Once a company develops its product or service, the **marketing and sales** function begins promoting the product and securing sales commitments. A market analysis identifies customers’ preferences and needs, as well as what existing businesses are doing to meet customer demand. This information is crucial to deciding which markets to enter because satisfying customer needs is fundamental to business strategy, revenue generation and, ultimately, profitability. Customer awareness is vital to a company’s success. Even if a firm correctly identifies a market opportunity and develops a solution, without customer awareness and commitments to buy, the best ideas will not translate into sales, revenues and financial success.

**Distribution** refers to the physical means that a company uses to deliver its product or service to its customers: bringing the goods to market. Companies must develop reliable plans to bring the customer and the product or service together. In cases such as retail operations or restaurants, customers come to a business location to acquire the good or partake in the service. Alternatively, firms

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**Exhibit 1 The Value Chain**

![Exhibit 1 The Value Chain](image-url)
may choose to deliver the goods or services to the customer. Many firms rely on third-party carriers (for example, UPS or Federal Express) to distribute products to customers.

The relationship with the customer does not end once the product or service has been delivered. In fact, after the sale, customer service is paramount if a company is to retain its customers. Companies rely on customers’ repeat business to provide the foundation for long-term sales growth and to enhance the company’s reputation. Operational excellence in after-sale customer service activities reduces the possibility that in the future customers replace the firm with a competitor.

Finally, each of these six value chain operating stages generally is supported by shared administrative functions that provide information technology, human resource and other infrastructure services to the entity.

### A Process-Focused Business Risk Model

Understanding a loan client’s value chain is critical to identifying and evaluating the myriad of business risks that may arise in a lending relationship. A process-focused business-risk model based on the value chain framework provides an efficient, practical and thorough way for bankers to view business risks that may not regularly be captured in traditional loan underwriting procedures. By exploring the risk categories set forth in the model, lenders can gain much richer insights into both the credit risk in their loan portfolios and the possible indirect risks associated with the lending relationship.

The value chain risk model is comprised of five major risk categories: environment, business processes, information technology, human resources and infrastructure. A specific risk in any of these five classes can potentially undermine a firm’s viability and its ultimate repayment of a debt. However, since the value chain represents the set of interrelated tasks or processes on which managers rely to achieve their business strategy, business processes are the focal point of this business-risk model and give it its process orientation (Exhibit 2). The four additional business-risk areas (environment, information technology, human resources and infrastructure) can potentially affect any business process or function. Failure to address weaknesses in any of these areas may present significant risks that a company may not easily overcome. Each risk category will now be discussed in more detail and specific examples provided.
Environment Risk

Environment risk represents the broad set of risks that arise in the firm’s operating environment and can affect any or all of its business processes. These risks can be natural, economic or political in nature. Natural risks often are the most unpredictable and can include catastrophic losses arising from fire, floods, hurricanes, tornadoes, etc. Economic risks capture a firm’s sensitivity or ability to weather uncertainties associated with labor, financial and product markets and include such factors as commodity prices, employment rates and wages, inflation and interest rates. These risks can be particularly problematic if a company has overcommitted its resources to the extent that its ability to react to a changing environment is reduced. Economic risks also can include industry issues such as the degree of competition. Political risks arise from changing societal values or events and can occur on local, national or international levels. Examples include the enactment of restrictive government legislation that negatively affects operations or international events such as war or terrorism. Stakeholder interests also fall into this category. Although external to the firm and often beyond the direct control of managers, environment risks can affect strategy, related business processes and, ultimately, cash flow, and can be very hard for both loan customers and their bankers to manage. As this discussion suggests, a loan client’s environment risks should clearly concern a lender and raise questions about what actions management has taken to mitigate such risks.

Business Process Risk

Not surprisingly, the processes that a company uses to bring its products or services to market create a variety of risks that potentially can affect cash flow. As noted earlier, the value chain begins with a company acquiring the resources it needs to conduct business. Several important risks are embedded in this process. First is pricing and contract commitment risk. This risk refers to a company’s lack of relevant and/or reliable information concerning price and contract commitments that may result in decisions that are not in the best interest of the organization. Sourcing risk also may play a role in the resource acquisition process. This is the risk that limited sources of key materials will threaten the organization’s ability to produce quality services at competitive prices on a timely basis. Once the company has acquired its physical resources, the risk of obsolescence and shrinkage becomes a possibility, particularly in today’s operating environment, one characterized by rapid technological innovation and change. Finally, resource allocation risks due to an inadequate resource allocation process and the information supporting it may preclude an organization from establishing and sustaining competitive advantage (that is, channeling scarce resources toward opportunities that provide the best prospects for balancing risk and reward).

A loan customer’s R&D process also presents a number of risks that should concern bankers. At the top of the list is product development risk: Will the products and services offered by a company meet the needs of the customer over the long term? If the product or service appears to be accepted by the market, how long will it continue to be? What is its life cycle? The manner in which a firm conducts its R&D also is important. Increasingly, many firms are partnering with other companies to design and develop new products. Have lenders adequately considered the partnership risk that such arrangements can introduce? For example, if a lender denies or restricts credit to one partner in the agreement, does this action raise the potential for legal action by the other partner? Clearly, bankers must explore the terms and conditions under which their customers conduct R&D for both themselves and others. Finally, lenders must be alert to the possible trademark or brand-name erosion that could threaten the demand for the company’s goods or services in the future.

Production risks arise from complexities associated with creating a product or service that meets consumer needs. In today’s highly competitive environment, a company’s inability to produce reasonably priced, quality products in an efficient manner will threaten the demand for its products and services. Consequently, bankers must seriously consider the capacity and performance gap risks inherent in their customers’ production processes. Capacity risks can manifest themselves in several ways: A company maintains insufficient capacity to meet customer demands or it maintains so much excess capacity that its ability to generate competi-
tive profit margins is in jeopardy. Performance gap risks refer to a company’s inability to perform at world-class levels in terms of quality, costs or cycle time due to inferior operating practices. Ultimately, effectively and efficiently delivering products and services that the market demands is the cornerstone to a firm’s ongoing financial viability.

Managing the risks in the market analysis and selling processes also can be a challenge. How sensitive is a borrower to customer demand? Does the company accurately and routinely assess customer demand and develop strategies to successfully market and sell products to target customers, or does it rely on the product to “sell itself”? Does the loan customer engage in responsible marketing practices? If not, a borrower’s marketing behavior may tarnish the image of those with whom it conducts business. Take the case of clothing retailer Abercrombie & Fitch, who recently gained much unwanted notoriety from culturally insensitive clothing logos. Bankers also should develop an understanding of their customers’ sales channels to assess the risks that may lurk therein. For example, some retailers have lost considerable market share and revenue during the past decade because they failed to adapt quickly to the growing demand for online sales channels. Since the strength and credibility of a firm’s sales and marketing process directly affect the bottom line, its risks clearly warrant scrutiny.

The next major stage of the value chain is distribution. It too has its own share of risks related to a firm’s getting its product or service to market. While many firms rely on point-of-sale transactions (for example, retailers, restaurants, etc.), the growth of online sales channels finds more companies outsourcing distribution to common carriers and specialists such as UPS and Federal Express. Consequently, alliances and partnerships within the distribution network are now becoming critical components in the distribution process, whose risks need to be continuously assessed and monitored. When distribution responsibilities are shared, the risks that coordination and communication breakdowns will occur also increase. The outsourcing of distribution activities to third parties also may result in the third parties not acting within the intended limits of their authority or not performing in a manner consistent with the company’s strategies and objectives. Another potential concern in a company’s distribution process involves the presence of unnecessary activities that can threaten its cycle time, that is, its capacity to deliver products or services on a timely basis. Finally, many businesses have failed simply because they were unable to find reliable distribution channels to get products or services to customers in a timely manner and reliable condition.

Once a product or service has been delivered to the consumer, companies generally provide after-sale service activities. These usually are designed to address customer complaints, questions, returns and after-sale service. Such procedures are intended to prevent companies from developing a lack of focus on customers that threatens their capacity to meet or exceed customer expectations: customer satisfaction risk. Customer service also can provide significant feedback on the adequacy of other business processes, such as production and distribution. High return rates, contract cancellations or warranty requests are often indicators of weaknesses and risks elsewhere in the value chain. Since product or service failure can expose the firm to customer complaints, litigation and loss of revenues, market share and business reputation, understanding how a borrower manages customer service risk is important.

Information Technology Risk

As information technology becomes more and more ubiquitous in business, so do its associated risks. Companies today regularly invest millions of dollars in hardware and software to address system security risks that include user access, data integrity and data backup and recovery. While security is a fundamental expectation, as business processes are reliant on embedded technologies (that is, ATM networks, automated manufacturing, self-service customer kiosks, etc.), companies also must combat obsolescence risks to ensure that their technology is functioning properly, is providing relevant and timely data and is routinely maintained and updated. One need only refer to the recent Co-mair scheduling system catastrophe, which halted operations for several days during a busy holiday season, to appreciate the severe economic impact of information technology collapses. Therefore, to really feel secure about an entity’s future earnings and cash flow prospects, a banker must understand
the extent of a borrower’s technology integration, as well as the established policies and procedures to manage related risks.

Human Resources Risk

All firms must properly attract, retain and develop the right people to execute their business strategies. Management’s integrity, leadership ability and commitment to employee empowerment provide good metrics for evaluating human resources risk. Companies assume integrity risk when they fail to provide or ignore value chain process controls that can minimize fraud or illegal acts or that can prevent their reputation from being damaged. Leadership risk arises when an organization’s people are not being effectively led, resulting in a lack of direction, customer focus, motivation to perform, management credibility and trust. The extent to which a borrower empowers its employees also can create potential problems for a banker. Empowerment risk occurs when managers and employees do not understand their job functions,

### Exhibit 3  Risk Analysis of a Domestic Discount Airline

<table>
<thead>
<tr>
<th>Business-Risk Categories</th>
<th>Examples of Business Risk</th>
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<tbody>
<tr>
<td><strong>Environment Risk</strong></td>
<td>- Natural risks such as extreme weather events that affect flights or aircraft</td>
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<tr>
<td></td>
<td>- Economic risks such as uncertainties associated with fuel prices, demand for travel, employment rates inflation and interest rates</td>
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<td></td>
<td>- Political risks can be both national (for example, potential enactment of restrictive legislation or elimination of financial subsidies) and international (for example, war or terrorism).</td>
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<td></td>
<td>- The airline industry is subject to heavy competition.</td>
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<tr>
<td><strong>Business Process Risk</strong></td>
<td>- Sourcing risks facing airlines include the timely and adequate acquisition of fuel, equipment and other necessary resources from a limited number of capital suppliers and manufacturers.</td>
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<td></td>
<td>- Airlines must carefully select routes that meet customer demand and maximize aircraft use.</td>
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<td>- Daily on-time departures, aircraft maintenance, baggage handling, ticket issuance and security oversight pose challenges in the delivery of services.</td>
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<td></td>
<td>- Customer safety and satisfaction are critical to an airline’s business success and fiscal viability.</td>
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<tr>
<td><strong>Information Technology Risk</strong></td>
<td>- Airlines rely heavily on automated systems to operate their business, and any failure of these systems could harm their business.</td>
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<td>- Increased use of electronic ticketing and Internet-based customer tracking introduces new security and efficiency risks.</td>
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<td>- Liability could arise from claims or other actions relating to handling of customer data.</td>
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<tr>
<td><strong>Human Resources Risk</strong></td>
<td>- Airlines must attract and retain qualified personnel at reasonable costs.</td>
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<td>- Airlines are subject to unionization, work stoppages, slowdowns or increased labor costs.</td>
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<td>- Employment agreements with licensed personnel make it difficult to reduce labor costs during an economic downturn.</td>
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<tr>
<td><strong>Infrastructure Risk</strong></td>
<td>- Failure to plan and accurately project future performance and resource allocations can lead to significant strategic blunders.</td>
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<tr>
<td></td>
<td>- Airlines face considerable financial risks, including uncertainties associated with commodity prices, liquidity, industry bankruptcy rates and fixed-debt payments.</td>
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exceed the boundaries of their assigned authorities or are given incentives to do the wrong thing.

Often overlooked, this risk has filled the financial press recently with cases in which a handful of employees in key positions ruined the financial prospects of once prosperous firms.

Infrastructure Risk

A final broad set of risks relate to a company’s infrastructure. A solid operating infrastructure provides the basis for well-executed and efficient business operations. However, when an organization fails to develop the information that it needs to manage its value chain efficiently and effectively, or honor its stakeholder reporting responsibilities, infrastructure risk arises. Firms that have effective systems of internal control and reporting systems that provide timely, relevant and reliable information for stakeholders generally are able to address the uncertainties they encounter in pursuing their business strategies. The recent Sarbanes-Oxley legislation has reaffirmed the importance of managing infrastructure risk.

Using the Process-Focused Business-Risk Model

The robust nature of the process-focused business risk model allows it to be applied to any business or industry. Exhibit 3 illustrates how this model can be used to view the many business risks that face domestic discount airlines in the United States today. Airlines such as Southwest, Jet Blue and Frontier provide particularly appealing examples because of their highly competitive industry, their heavy reliance on debt to finance capital-intensive business processes and the high bankruptcy rate of their industry.

In each category, several examples of business risk from each of the model’s five major categories are presented. Any of these risks (as well as others) can potentially affect cash flow or the airlines’ future prospects. Recent headlines about rising fuel costs, labor disputes and baggage handling fiascoes raise questions as to the viability of many of these airlines.

As Exhibit 3 indicates, environment risks quite familiar to many of us figure prominently and include natural risks related to weather; political risks such as terrorism, war and legislative actions; and chang-
to mitigate credit risk in general through the use of collateral, loan agreements and guarantees. However, the process-focused business risk model allows lenders to manage specific borrower risks that will ultimately affect repayment rather than simply credit risk in general.

Acceptance, or accepting a risk because the potential rewards exceed the consequences of the risks when they are properly controlled. This is the lender’s decision when the business risks associated with a loan relationship have been transferred to another party or mitigated by some strategy or when the bank determines that its pricing policies adequately compensate the institution for the risk.

Regardless of which risk management strategy or combination of strategies is pursued, a process-focused view of business risk can help commercial lending officers manage credit risk, as well as any other hidden business risks associated with a lending relationship.

Conclusion

Managing business risk effectively is crucial in today’s dynamic global marketplace. For lenders, this means supplementing traditional credit underwriting practices with a critical review of the business risks borne by their loan customers. Lenders must be aware of how their clients manage business process risk. Inquiring about these risks can provide much insight into a client’s business operations and its preparedness to handle critical business risk. Such analysis can provide bankers with a more complete assessment of a client’s total risk position, clearly beyond what any single financial metric can immediately provide. Such an approach is critical if bankers are to understand fully and manage all the risks associated with a lending arrangement, not just credit risk. A process-focused business risk model can provide a practical and useful starting point for better lending decisions.

Endnotes