

## Counterparty Risk Management for Corporate Treasury Functions

### Abstract

Experience has taught us that even seemingly strong counterparties can fail without warning. Counterparty risk management has become more challenging in recent decades due to concentrated exposures, complex financial instruments and deteriorating bank credit. Corporations should manage risk proactively, have an integrated risk policy across business lines, diversify risk by setting exposure limits according to risk criteria and seek out professional resources where available.

### Introduction

One of the great lessons we learned from the 2008 financial crisis was that the financial world we lived in was not as safe as we thought. This statement remains true today, despite recent industry and regulatory efforts aimed at bolstering counterparty strength.

In conversations with corporate cash investors, we found an increased awareness of counterparty risk management. As the topic remains a top priority among risk managers at financial institutions, it is an even bigger challenge to treasury practitioners who may have limited knowledge of the complex, interconnected and concentrated world of finance.

In this whitepaper, we attempt to explain counterparty risk from the corporate treasurer's perspective, why it has become more difficult to track and manage and the key principles of managing this risk. We should note that since this is an all-encompassing topic, our focus is on the credit aspect of counterparty risk, as opposed to collateral management, settlement risk or other operational and legal issues.

### Counterparty Risk – The Corporate Treasurer's Perspective

#### What is Counterparty Risk?

Counterparty risk refers to the risk that a party in a contract may not fulfill its contractual obligations. In essence, counterparty risk is a form of credit risk. It is an indirect risk as opposed to direct risk from unsecured borrowings, such as bonds and deposits.

For example, in an interest rate swap transaction with an investment bank, the investor may fail to profit from its winning contract if the bank becomes insolvent prior to the contractual date, rendering the agreement worthless. For some transactions,

June 3, 2013

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asset collateral, margin balances and third-party guarantees may protect against counterparty risk, although such support mechanisms also may introduce new dimensions of counterparty risk.

### **The Corporate Treasurer's Perspective**

Although the industry's concerns with counterparty risk are mainly centered on transactions between financial institutions, corporate treasury organizations also face significant challenges. In the last two decades, businesses increasingly have become more global, resource dependent and multifaceted. These new dynamics necessitate the need for various trade finance, support agreements and hedging activities with multiple financial intermediaries.

As financial instruments become more sophisticated and financial institutions become more complex, corporations feel particularly challenged to identify, track, manage and mitigate counterparty risk due to a lack of expertise and resources as compared to their financial counterparts.

For most small- to medium-sized corporations, avoiding default by a financial intermediary is the main focus of their risk management strategies, as more complex and expensive risk mitigation techniques are not financially feasible. We, thus, focus on risk prevention and diversification, which are more applicable to the resource-constrained treasury staff.

### **Types of Transactions Involving Counterparty Risk**

Listed below are some of the common transactions that may involve counterparty risk:

- Business and trade, including receivables and payables through financial intermediaries
- Trade guarantees and short-term lending, including letters of credit, banker's acceptances, unfunded commitments and revolving credit lines
- Repurchase agreements and reverse repurchase agreements, as well as securities lending arrangements
- Derivatives, including currency forwards, interest rate swaps, asset swaps, credit default swaps, total return swaps and options on swaps
- Insurance policies, including surety bonds, property and casualty, maritime, directors' and officers' liability, and errors and omissions insurance

**Consequences of Counterparty Failure**

Whenever a corporation fails to receive financial benefits as agreed, counterparty failure has occurred. Sometimes, pledged asset collateral or government intervention may lead to full or partial recovery of the losses, but only after significant delay. At other times, there may be no recovery due to the highly leveraged and high-risk nature of financial intermediations.

It should be noted that it does not always require a counterparty default for the investor to sustain a loss. Sometimes, the counterparty may fail to deliver on its promises for reasons not financially related, which may result in a time-consuming and costly legal process to recover the funds. Thus, corporations must assess both the counterparty's willingness to pay and its ability to pay.

**New Challenges in Counterparty Risk Management**

Corporate risk managers may feel that their tasks have become more challenging in recent years and those feelings are valid for several reasons: 1) Financial institutions have grown larger, more complex and have become more interconnected; 2) The 2008 financial crisis also resulted in significant credit deterioration from bad loans, trading losses and depleted capital; and 3) Government support assumptions for large banks also have been reduced in many jurisdictions.

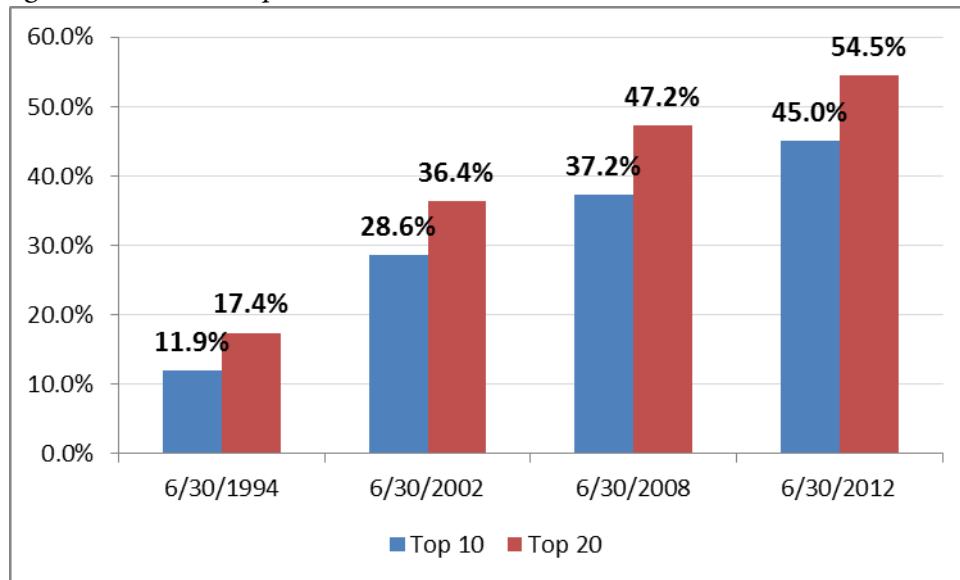
**What May Cause Financial Intermediaries to Fail?**

Understanding counterparty risk requires a sensible appreciation for the financial intermediaries' business model, operating conditions and financial health, as well as the prevailing economic cycle, current market conditions and the regulatory environment. The confidence-sensitive funding channels, high financial leverage, lack of visibility of underlying loans and engagement in capital market activities all contribute to the highly unpredictable nature of financial institutions' risk, but the problems do not stop there.

**The Increasingly Concentrated World of Banking**

Since the repeal of the restrictions on interstate banking by the Riegle-Neal Act in 1994, bank mergers in the U.S. have grown substantially, eventually resulting in an industry dominated by a few very large players. Industry consolidation brings new challenges to counterparty risk management because corporations are frequently forced to maintain multiple banking relationships with a shrinking pool of intermediaries.

*Figure 1: National Deposit Concentration*



Source: FDIC Top 50 Commercial Banks and Savings Institutions by Deposits

Figure 1 shows that, since 1994, the share of U.S. national deposits at the 10 largest banks almost quadrupled from 11.9% to 45.0% in 2012. Similarly, the share of the 20 largest banks tripled, from 17.4% to 54.5% in the same time period.

To further illustrate the effect of mergers on counterparty concentration, Figure 2 traces the lineage of surviving entities from the Top 20 banks in 1994. It shows that as many as six of those banks are now part of JPMorgan Chase, five became Wells Fargo and four became Bank of America.

To make matters worse, many corporations now have counterparty exposures to the same few large banks, which could become a systemic concern if one of the banks runs into problems.

*Figure 2: Effect of Bank Mergers since 1994*

Top 20 Banks in 1994	Surviving Banks in 2012
Chase Manhattan Bank	JPMorgan Chase
Chemical Bank	JPMorgan Chase
Great Western Bank	JPMorgan Chase
Home Savings of America	JPMorgan Chase
NBD Bank	JPMorgan Chase
Texas Commerce Bank	JPMorgan Chase
First Fidelity Bank	Wells Fargo
First Interstate Bank	Wells Fargo
First Union National Bank	Wells Fargo
Wells Fargo	Wells Fargo
World Savings and Loan	Wells Fargo
Bank of America	Bank of America
1st National Bank of Boston	Bank of America
NationsBank of Florida	Bank of America
NationsBank of Texas	Bank of America
The Bank of New York	Bank of New York Mellon
Mellon Bank	Bank of New York Mellon
Citibank	Citibank
Comerica Bank	Comerica
PNC Bank	PNC Bank

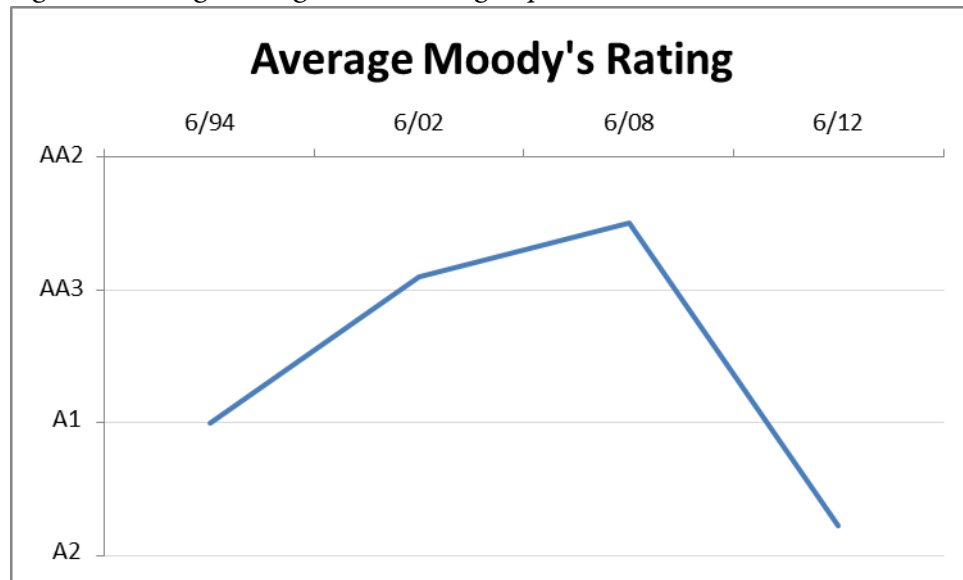
Source: FDIC Top 50 Commercial Banks and Savings Institutions by Deposits

### **Deterioration in Counterparty Credit Strength**

As discussed in a few of our recent whitepapers, underlying credit strength in the largest financial institutions has deteriorated dramatically in recent years, largely due to poor loan quality, volatile swings in the capital markets and lax risk management practices. Reduced government support assumption for the so-called “too big to fail” banks also has contributed to deteriorating credit quality at major banks.

Figure 3 lists the average Moody’s deposit credit ratings of the Top 20 U.S. banks since 1994. It shows that the average rating improved from A1 to close to Aa2 in 2008 before collapsing back to A2 by 2012. Suffice it to say that increased concentration and deteriorating credit quality present two distinct challenges for corporations in managing counterparty risk. We should note that these challenges are not unique to U.S. banks. As many practitioners are keenly aware, financial situations at Eurozone banks are perhaps more challenging than their stateside counterparts.

*Figure 3: Average Ratings Trend among Top 20 U.S. Banks*



Source: Moody's Investor Services

### **High Counterparty Correlation Due to Complex Derivatives**

The 2008 financial crisis exposed a major vulnerability among large financial intermediaries – their counterparty risk is highly correlated. In addition to having common capital markets activities, their use of derivatives as a risk mitigating technique was remarkably similar. For example, before 2008, AIG was the single largest counterparty for the majority of investment banks' collateralized debt obligations (CDOs). The near failure of AIG brought to light the catastrophic consequences that many large banks would have faced had AIG gone under. The “London Whale” trading losses at JPMorgan Chase in the spring of 2012 was another example of how a bank with a presumably strong risk management track record could fall victim to complex derivatives losses.

### **Counterparty Management Principles for Corporate Treasurers**

Given the importance and complexity of counterparty risk management, how should a treasury organization approach this subject? Individual practices may vary, but we believe the following principles should apply to all counterparty situations.

#### **Managing Counterparty Risk, not Reacting to It**

All too often, counterparty risk becomes a high priority only after the creditworthiness of a major counterparty is in question. Although well-disciplined risk management practices may seem arduous and time consuming, hoping that everything will be fine is not the right strategy. Likewise, simply picking banks deemed “systemically important”

and expecting the government to come to the rescue may not be the prudent course of action as the political environment has become less tolerant of bailing out big banks with taxpayers' funds. The time to start doing something about counterparty risk is now.

### **Developing a Detailed and Conservative Umbrella Risk Policy**

One of the reasons counterparty risk management may seem daunting is that a corporation may have multiple access points to the same financial institutions. Getting the overall picture is not always easy. We think that even though specific policies for deposits, cash sweeps, investments, credits and derivatives may be sufficient, the selection criteria and monitoring procedures governed by a common umbrella risk policy may minimize unforeseen counterparty risk. This umbrella risk policy may detail the steps through which counterparties are selected, how limits are calculated and tracked and the measures to take when counterparty performance deteriorates.

### **Diversifying Risk by Setting Limits According to Risk Profiles**

As with all credit risk management, a primary means of counterparty risk mitigation is through diversification. Although this principle is widely recognized and practiced at many places, additional measures used to fine tune exposure limits in accordance with predefined risk levels may enhance effectiveness. For example, counterparties with stronger credit profiles may have higher limits. Fundamental indicators, such as credit ratings, and market risk indicators, such as credit default swaps (CDS) or bond implied ratings, may be used for this purpose – though we caution investors to recognize the inherent shortcomings in credit ratings and CDS levels and use them with caution.

### **Looking to Professional Managers for Counterparty Expertise**

Overseeing counterparty risk management can be a daunting task. In addition to solvency risk, corporate treasurers often need to be concerned with other forms of risk such as asset collateral, asset service and operational risk. The technology required to track exposures and monitor limits may, by itself, necessitate the need to engage specialists in counterparty risk management. On the other hand, there may be external resources available to corporate treasurers such as the risk managers at their relationship banks, money market funds and separate account managers.

### **Counterparty Risk Management Best Practices**

For implementation of specific counterparty risk measures, corporate treasurers may do well by looking to some of the common best practices among financial intermediaries, and adapt them for their own use. The following are samples of these practices:

- Standardize contracts
- Use products with a central clearinghouse

- Consider requiring delivery versus payment (DVP)
- Match collateral and margin posting with counterparty risk assessment
- Use tri-party repurchase agreements and third-party custodians

### Conclusion – Managing Counterparty Risk as an Integrated Process

The 2008 financial crisis taught us that even seemingly strong counterparties can fail without warning. Despite recent attempts by financial intermediaries and regulators to improve counterparty strength, corporate treasurers continue to face mounting challenges due to deteriorating credit conditions, the complex nature of today's intermediaries and widespread use of derivatives.

Counterparty risk, at its very core, is the solvency risk of the financial intermediary. Corporate treasurers may improve risk management by being proactive and developing a detailed and integrated risk policy across business lines, diversifying risk by setting appropriate exposure limits and seeking out professional resources where available. By taking heed of the financial industry's own best practices and tackling the subject directly and systemically, corporations may find the task not as daunting as they had feared.

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