ABSTRACT

Investable bank loans are floating-rate loans made to speculative-grade issuers that theoretically constitute a safer alternative to high yield bonds. Because bank loans pay a floating interest rate, they provide a hedge against rising short-term interest rates and—potentially—inflation. In addition to potentially hedging these risks, bank loans offer broader portfolio diversification benefits. We believe that most plan sponsors would benefit by investing between 2% and 7% of plan assets in bank loans, which, when combined with an allocation to traditional high yield bonds and other lower quality debt issues, would constitute a fraction of perhaps a 5% to 15% allocation to speculative credit generally. There is no investable bank loan index, so plans would be required to hire an active manager.

BANK LOANS

Bank loans, also generally known as syndicated loans, are senior floating-rate corporate loans that are used by businesses to fund everything from working capital needs to acquisitions. Bank loans emerged in their relatively modern syndicated form in the 1980s, but it was not until 1995 that the industry established a trade association—the Loan Syndications and Trading Association (LSTA)—to develop and govern market standards.[1] This organization and its standardization work increased the credibility of the asset class (Taylor, 2007). As investors became more comfortable with bank loans, the secondary market flourished, and the par amount of representative issuance rose from $200 billion in 1990 to over $1 trillion as of the mid-2000s (Vaky, 2007). Many buyout investors took advantage of the burgeoning bank loan market during this period by shifting to bank loans (as opposed to high yield bonds) as their preferred source for debt financing. For example, from 2004 through 2008, bank loans constituted between 56% and 62% of debt financing for buyouts greater than $500 million in size[2].

There are three subsectors to the bank loan market: investment grade, middle market, and leveraged loans. Roughly 45% of the bank loan market is composed of investment grade loans, which are usually—but not always—used to backstop an investment grade firm's commercial paper issuance. Another 5% of bank loans are middle market loans, which are small amounts (less than $150 million) extended to small companies. Finally, about 50% of the bank loan market—and almost 100% of the investable market—are leveraged loans, which are loans made to speculative-grade (e.g., highly leveraged) firms. (Hereafter, we use the terms leveraged loans and bank loans interchangeably.) These firms often find the leveraged loan market their best option for financing, as issuance in the corporate bond markets would be significantly more expensive than the terms attached to most leveraged loans. It is the leveraged loan subsector, with about $600 billion in loans outstanding,[3] that is particularly attractive to institutional investors as higher yielding, floating rate instruments.

[1] However, bank loans are *not* securities—they are not traded on a regulated market. The LSTA issues guidelines and recommendations only.
[2] Standard & Poor's M&A Review.
[3] S&P/LSTA Leveraged Loan Index, December 2008 Review.

BANK LOANS V. HIGH YIELD BONDS

Although both bank loans and high yield bonds represent debt issued by speculative-grade companies, investors should consider some important general differences (see Table 1).

	Bank Loans	High Yield Bonds
Coupon	Floating Rate	Fixed Rate
Ranking	Senior	Senior Subordinated
Credit Security	Secured	Unsecured
Covenants	Maintenance and Incurrence[4]	Incurrence
Callability	Callable	Not Callable
Historical Spread	LIBOR + 2.5%	5.0-10.0%

Table 1. General characteristics of speculative-grade debt. Note that the reported spreads are typical and not reflective of extreme market conditions.

Since bank loans usually are (a) secured by company assets, (b) possess additional maintenance covenants, and (c) have a more senior position, they are theoretically considered less risky than high yield bonds. Indeed, this appears to be the case: in default, bank loans have historically recovered about 80 cents on the dollar, while high yield bonds have recovered about 40 cents.[5] On the other hand, since bank loans are callable, investors bear some call risk, that is, the chance that in times of narrowing credit spreads, they will be forced to reinvest at a lower interest rate. As the market climate shifts, so does the relative importance of seniority versus callability: in boom times, when there are few defaults and spreads are narrowing, callability weighs heavily while seniority is discounted. However, in bust times, when defaults increase and spreads widen, seniority handily beats callability. Therefore, an investor should expect that—relative to high yield bonds—bank loans will underperform in boom times and outperform in bust times.

Up until 2008, this had been the case. During the credit downturn of 2000 through 2002, bank loans outperformed high yield by 4.5% per annum on average. And, during the boom years of 1997 to 1999 and 2003 to 2007, bank loans underperformed high yield bonds by 3.6% per annum on average.[6] But in 2008—a bust year—bank loans underperformed high yield bonds by 2.7%. Standard and Poor's claims that the underperformance was the result of forced sales by levered financial vehicles (so-called Collateralized Loan Obligations, or CLOs) in the bank loan market needing to liquidate amid broad deleveraging.

It is also worth considering that, unlike high yield bonds, bank loans are floating rate instruments. The rate is usually quoted as a spread over 3- or 6-month LIBOR[7], and has

[4] Maintenance covenants require that the issuer maintain financial metrics (such as total debt to EBITDA) on a periodic basis. Incurrence covenants require that the issuer make timely debt and principal payments.

[5] Note that recovery rates could be much lower during extreme credit cycles. See "Recovery Rates Sink for Loans Tied to Defaults," *http://online.wsj.com/article/SB123561585107778441.html*.

[6] S&P/LSTA Leveraged Loan Index, December 2008 Review

[7] LIBOR is the London Inter-Bank Offer Rate. It is the rate that banks charge each other to lend money over short time periods.

historically been on the order of LIBOR + 2.5%. Therefore, bank loans are not directly exposed to interest rate risk as are high yield bonds. This floating rate structure provides protection against rising interest rates. Indeed, bank loans should benefit from rising short term interest rates. Moreover, as increasing interest rates are often linked to inflation, bank loans may offer investors a partial hedge against inflation.

BANK LOANS PERFORMANCE

The history of bank loans is relatively short and serves as a lesson in the perils of extrapolating a short-term data series to predict future return behavior (see Figure 1 below). After having performed well throughout the 1990s and most of the 2000s, the broad bank loan market suffered a significant decline in 2008. Over the whole 1992 to 2008 period, the annualized return to bank loans was 3.9%, accompanied by a 4.9% annualized standard deviation. This has resulted in a paltry Sharpe ratio of 0.05. However, the returns are anything but normally distributed. Thanks to a disastrous 2008, the skewness is -5.5 and kurtosis is 43, indicating a narrowly peaked distribution with an extremely long and negative tail.[8]

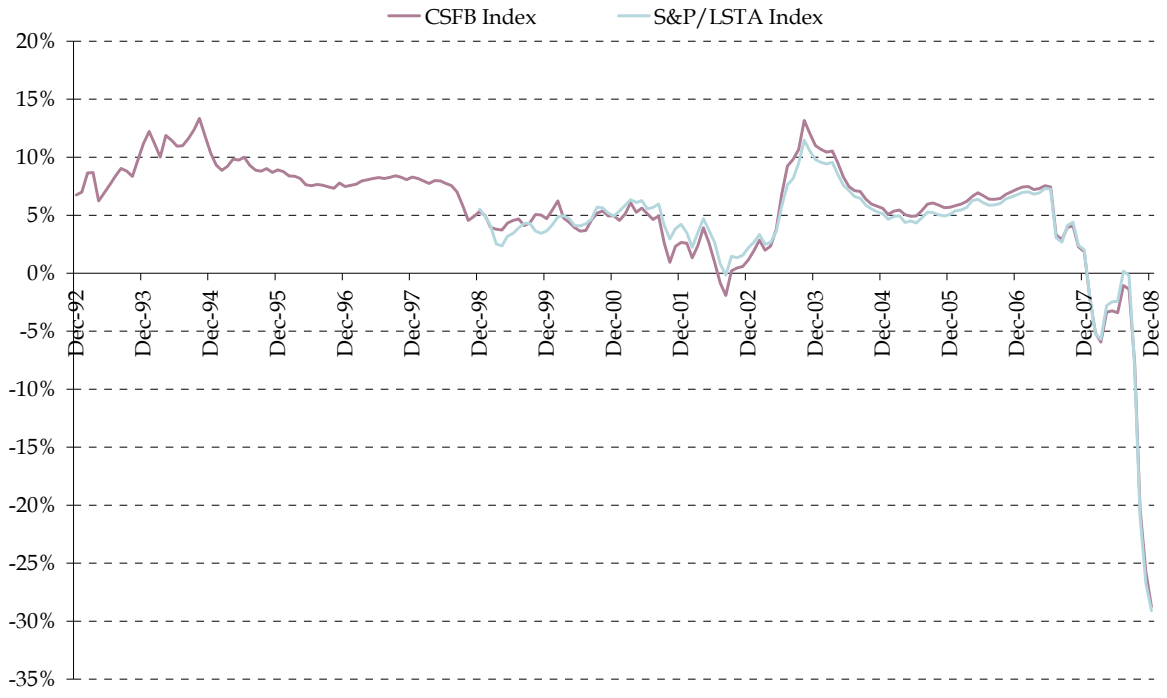

Figure 1. 12-month lagging total returns to bank loans, 1992-2008; Source: CSFB Leveraged Loan Index; S&P/LSTA Leveraged Loan Index. Note the similarity between the two indices' return series.

[8] A Shapiro-Wilk *W* test indicates that we may safely reject ($p < 0.0001$) the hypothesis that the monthly returns to bank loans are normally distributed.

There was some performance variation within the bank loan universe. Second-lien bank loans, which are junior to the so-called first-lien loans and represent just 5% of loans outstanding, underperformed first-liens on an annualized basis by 5.4% since 2004, before which second-liens were essentially non-existent. And covenant-lite loans[9], which are first-lien loans without the maintenance covenant and represent about 15% of loans outstanding, underperformed all first-lien loans on an annualized basis by 2.4% since 2006, before which covenant-lite loans were essentially non-existent (see Figure 2).

Figure 2. Monthly returns to first-lien, second-lien, and covenant-lite bank loans, 2004-2008; Source: S&P/LSTA Leveraged Loan Index.

The relative performance of bank loans is revealing (see Figure 3). Up until 2008, bank loans' annualized returns were essentially the same as *investment grade* bonds, but with considerably less volatility.[10] Clearly, this changed in 2008: bank loans' revealed themselves to be much riskier assets than investment grade bonds, with losses closer to those of riskier assets such as high yield bonds and equities.

[9] Covenant-lite loans also became a feature of the last credit cycle, with their increased issuance coinciding with narrower spreads and greater loan issuance for leverage buyouts.

[10] From 1992-2007, bank loans' annualized standard deviation was 2.3% versus 3.7% for investment grade bonds.

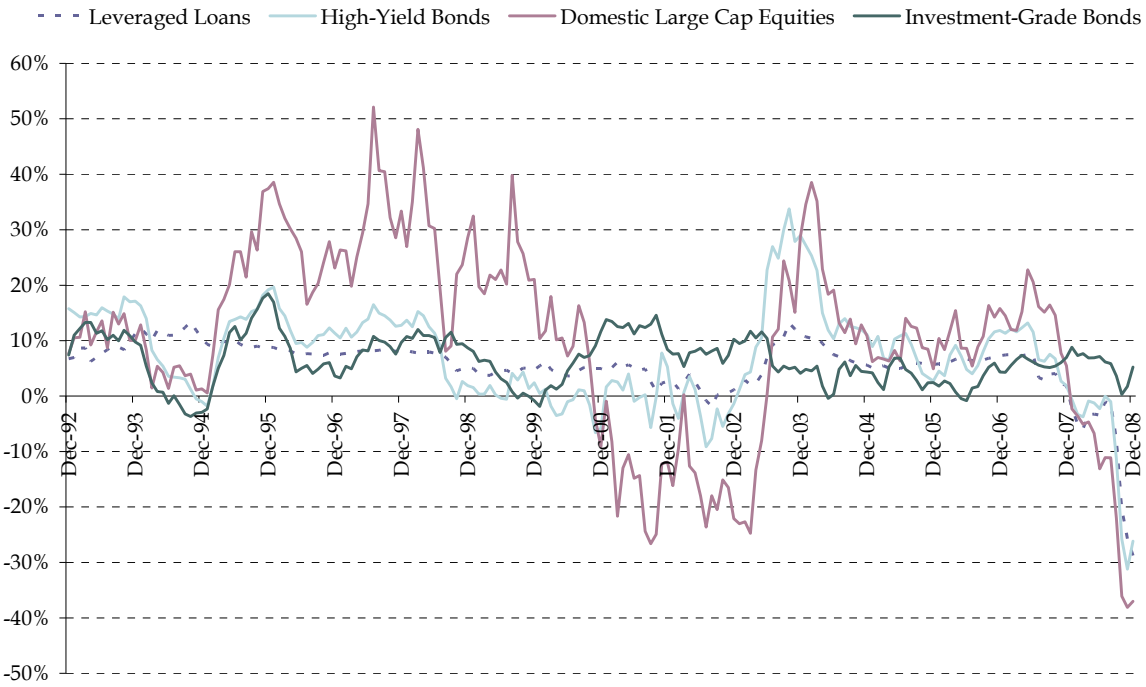

Figure 3. 12-month lagging total returns to leveraged loans, high yield bonds, domestic large cap equities, and investment grade bonds, 1992-2008; Sources: CSFB Leveraged Loan Index; Barclays High yield Index; Barclays Aggregate Index; and S&P 500 index.

The correlation of monthly returns between bank loans and other major asset classes prior to and including 2008 is shown in Table 2. Note that although bank loans' performance in 2008 did not fundamentally alter their relationship with investment grade bonds, it did notably alter their then-current historical relationship with high yield bonds and domestic large-cap equities. What was once an asset class that appeared to be a great diversifier is now—with the benefit of hindsight—decidedly less so. That said, bank loans still appear to offer diversification benefits from a mean-variance optimization standpoint, though the strength of this argument is weakened by their decidedly non-normally distributed returns.

Since 1992	Investment Grade Bonds	High Yield Bonds	Domestic Large Cap Equities
Bank Loans *(prior to 2008)*	-0.07	0.52	0.18
Bank Loans *(including 2008)*	0.00	**0.67**	**0.41**

Table 2. Correlation of monthly returns; bank loans, high yield bonds, domestic large cap equities, and investment grade bonds, 1992-2008; Source: CSFB Leveraged Loan Index; Barclays High Yield Index; Barclays Aggregate Index, and the S&P 500 Index.

Several explanations have been put forward to explain bank loans' difficult 2008. First, 60% of institutional loan purchases between 2002 and 2007 were in the form of CLOs.[11] Since CLOs are highly leveraged investment vehicles, the broad deleveraging of the global financial system forced these CLOs to sell their loans at extreme discounts. This explanation naturally suggests that the loans themselves are worth substantially more than they were trading for in late 2008. Another explanation contends that bank loans have become increasingly risky due to (a) relaxed covenants and issuer standards, (b) less subordinated debt[12], and (c) a generally deteriorating economic environment. This explanation suggests that bank loans were worth more or less what their market value at year-end implied.

While there are elements of truth to both explanations, only time will tell which is more correct. During the last challenging business cycle, 1999-2002, default rates and recovery rates on bank loans were about 6% and 80%, respectively. Based on prices at the end of 2008 (with yields at LIBOR + 13.0%), default rates would need to rise to around 22% and recovery rates drop to 50% in order for bank loans to return their historic LIBOR + 2.5% (Egan and Olsen, 2009). Any less adverse economic outcome would substantially increase bank loans' return over an intermediate-term horizon. Hence, equity-like returns would be entirely possible, even with annualized default rates hovering around 10%. In sum, there are probably elements of truth in both explanations: bank loans appear to be priced for extremely difficult economic conditions, which could be the result of forced selling rather than fundamental considerations. On the other hand, the historical performance of bank loans during downturns may not fully reflect the evolution of the asset class (Schweitzer and Keisman, 2007). Nevertheless, Meketa Investment Group believes that bank loans currently represent an attractive tactical opportunity to take speculative-grade credit risk.

STRATEGIC ALLOCATION

Bank loans belong in an investor's speculative-grade credit allocation, where they may offer benefits over, or provide some diversification benefits to, standard high yield bonds because they (a) are senior and secured, (b) carry a floating rate, and (c) are callable. Nevertheless, 2008 made abundantly clear that bank loans are risky—and that this risk has probably been underpriced historically. To compensate investors for the additional riskiness of these loans, we expect that the historical 2.5% spread to LIBOR will need to increase in the future; if spreads do not increase, we expect that this market will be significantly smaller. Although market spreads significantly increased in 2008, we expect that LIBOR + 13% is too *much* of a premium. We would not be surprised to see the spread over LIBOR range from 3% to 6% under normal credit conditions in the future.

As the bank loan asset class has evolved, it has become heterogeneous with regard to credit quality: the asset class is currently composed of first- and second-lien loans, non- and covenant-lite loans, from a variety of issuers—private equity firms to fallen angels. Thus, an investor must consider how an investment in bank loans fits within a speculative-grade

[11] S&P/LSTA Leveraged Loan Index, December 2008 Review

[12] That is, there was little-to-no junior debt in the capital structure as well as less equity to absorb any losses.

allocation. For example, an investor who currently maintains an allocation to high yield bonds and who wants to diversify his speculative-grade credit exposure should arguably seek investments in (a) first-lien and (b) non-covenant-lite loans with some subordinated debt (whether they be second-liens or unsecured subordinated debt, like high yield bonds).

Depending on the plan sponsor, Meketa Investment Group would recommend as much as a 15% allocation to speculative-grade credit, with no more than half coming from bank loans.[13] Table 3 shows the expected impact of adding bank loans to a standard portfolio. Without a prior speculative-grade credit allocation, increasing a bank loan allocation from 0% to 15% increases the expected return/expected standard deviation ratio from 0.71 to 0.78. The essence of the result is unchanged even with a prior high yield investment: the expected return/expected standard deviation ratio increases from 0.74 to 0.78 as the allocation to bank loans increases from 0% to 7%.

	Bank Loan Allocation		
0% High yield	**0%**	**7%**	**15%**
Domestic Equities	60%	56%	51%
Inv. Grade Bonds	40%	37%	34%
High Yield Bonds	0%	0%	0%
Bank Loans	0%	7%	15%
Expected Return	7.42%	7.50%	7.57%
Expected Std. Dev.	10.46%	10.13%	9.73%
Return/Std. Dev.	0.71	0.74	0.78

	Bank Loan Allocation		
7% High yield	**0%**	**3%**	**7%**
Domestic Equities	56%	54%	52%
Inv. Grade Bonds	37%	35%	33%
High Yield Bonds	7%	7%	7%
Bank Loans	0%	4%	8%
Expected Return	7.65%	7.71%	7.77%
Expected Std. Dev.	10.29%	10.15%	10.01%
Return/Std. Dev.	0.74	0.76	0.78

Table 3. Standard portfolio parameters with an increasing bank loan allocation, both without and with a prior high yield bond allocation. Results generated using MIG's 2009 Annual Asset Study parameters; assets taken from equities and bonds so as not to change the relative weightings of the two asset classes.

This efficiency gain is partly the result of the attractive pricing of bank loans when this analysis was conducted (at the start of 2009). In a more staid environment, where bank loans may be expected to yield 5% annually, an allocation to bank loans is still attractive from an

[13] A speculative-grade portfolio with a higher (lower) allocation to high yield would be expected to be more (less) risky in terms of credit and interest rate risk.

efficiency perspective (see Table 4). The diversification benefit stems primarily from bank loans relatively low expected correlation with investment grade bonds (0.10) and moderate expected correlation with U.S. equities (0.60).[14]

	Bank Loans		
	0%	**7%**	**15%**
Domestic Equities	60%	56%	51%
Domestic Inv. Bonds	40%	37%	34%
Bank Loans	0%	7%	15%
Expected Return	7.42%	7.26%	7.06%
Expected Std. Dev.	10.46%	10.13%	9.73%
Return/Std. Dev.	0.71	0.74	0.78

Table 4. Standard portfolio parameters with an increasing bank loan allocation. Results generated using MIG's 2009 Annual Asset Study parameters except for the expected annualized return of bank loans, which we set to 5.0% for this example; assets taken from equities and bonds so as not to change the relative weightings of the two asset classes.

IMPLEMENTATION

If there is one thing investors learned in 2008, it was that the type of investment vehicles in an asset class can substantially alter the asset's riskiness. CLOs (and Collateralized Debt Obligations, or CDOs), which themselves are highly leveraged entities which invest in the bank loan market, are a case in point. These vehicles were a double-edged sword: while they expanded the opportunities for institutional investors to access the bank loan market, they introduced an element of riskiness to the entire asset class that may have had little to do with the theoretical worth of a broad basket of loans. Fortunately, we expect that CLOs will be of diminished importance in the future market for bank loans.[15] Regardless of their prevalence, Meketa Investment Group recommends that bank loan investors avoid CLOs, CDOs, or any similar highly leveraged structured vehicles. Instead, we recommend that plan sponsors engage specialist loan managers who employ little to no leverage.

Bank loan managers may choose either a "public" or "private" approach. Public managers rely on publicly available documents filed with the Securities and Exchange Commission or other public information. In contrast, private managers may also use confidential—but not material nonpublic—information. For example, private managers at a bank may have information regarding the context of the original issue, as their bank and the issuing firm may have a longstanding relationship. Because of the subtlety between private information and materially nonpublic information, private managers abstain from investing in similar publicly-traded securities (i.e., high yield bonds) lest they run afoul of securities regulations.

[14] We feel that these—in addition to our expectation that bank loans correlation with high yield bonds at 0.75--are conservative estimates of correlation given the historical evidence.

[15] CLOs impact on the market underscores the importance of considering not only the inherent risk in the asset class, but the "co-party" risk among fellow participants. This applies more broadly than the market for bank loans; generally, it applies to asset classes that have modest return potential and exceptionally low historic volatility. Such asset classes invite leverage, which could be their very undoing.

There is no obvious reason to prefer one type of manager over another. Private managers will generally be more expensive since they (a) cannot exploit economies of scope by trading other securities and (b) believe they can add value using this confidential information.[16] Also private managers tend to use more leverage, which may not be appealing in any given situation. On the other hand, public managers may be easier to evaluate for a bank loan allocation on the basis of their experience in other credit markets.

Regardless of which type of manager is employed, it is essential that the manager have (a) a legal staff with experience in bank loan bankruptcy ("workout") proceedings and (b) a skilled operations group who can handle over-the-counter trading of large notional value investments. Because the size of positions is large, the manager should have enough resources to access a reasonably diverse set of loans. It is for precisely this reason that commingled funds are recommended for most investors: a modest allocation to bank loans will be too small to build a diversified set of loans.

The fees for most public manager strategies start at 50 basis points, but are generally high--and include a performance fee—for private managers. As of 2009, there were forty-one (41) public managers of bank loan strategies in the eVestment Alliance universe. Finally, note that passive bank loan investments are difficult (if not impossible) because of the large sizes of the loans that make up the common indices. They are not a viable option as of 2009; instead, investors hoping to access the bank loan market must employ active managers.

SUMMARY AND RECOMMENDATION

Bank loans represent an alternative to high yield bonds, both from an investor's and an issuer's standpoint. The key difference between the two are that bank loans pay a floating interest rate and occupy a more senior position in the capital structure. Because bank loans pay a floating interest rate, they provide a hedge against rising short-term interest rates and—potentially—inflation.

The secondary bank loan market has grown rapidly in the last decade, due primarily to the establishment of governance standards and their popularity as a source for financing mergers and acquisitions. Bank loans have had a difficult performance history, culminating in a sharp sell-off at the end of 2008. With so short a history, it is difficult to draw firm conclusions about performance going forward.

Nonetheless, we believe that bank loans represent an attractive area for diversification and to attain a reasonable risk-adjusted return. We believe that most plan sponsors would benefit by investing between 2% and 7% of plan assets in bank loans, which, when combined with an allocation to traditional high yield bonds and other lower quality debt issues, would constitute a fraction of perhaps a 5% to 15% allocation to speculative credit generally. As there is no investable bank loan index, plans would be required to hire an active manager.

[16] However, there is no conclusive evidence that private managers add value relative to public managers.

REFERENCES

Egan, Kevin and Gregory Olson. "Finding Opportunities in Senior Loans Amid Increased Volatility." Morgan Stanley InvestmentFocus Newsletter, March 2009.

Krase, Scott D. "Interplay with Other Capital Markets." *The Handbook of Loan Syndications and Trading*. Allison Taylor and Alicia Sansone, editors. New York: McGraw-Hill, 2007.

Schweitzer, Neal and David Keisman. "Loan Loss Given Default: Trends to Consider." *The Handbook of Loan Syndications and Trading*. Allison Taylor and Alicia Sansone, editors. New York: McGraw-Hill, 2007.

Taylor, Allison A. "The LSTA and Its Role in the Promotion of the Corporate Loan Asset Class." *The Handbook of Loan Syndications and Trading*. Allison Taylor and Alicia Sansone, editors. New York: McGraw-Hill, 2007.

Vaky, Peter C. "Introduction to the Syndicated Loan Market." *The Handbook of Loan Syndications and Trading*. Allison Taylor and Alicia Sansone, editors. New York: McGraw-Hill, 2007.