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EUROPEAN MARKET COMMENTARY

EUROPEAN CREDIT: AN ACCIDENT WAITING TO HAPPEN?

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European Credit: An Accident Waiting to Happen?

"I have never seen a market with this much liquidity and capital available."—Henry Kravis, cofounder, Kohlberg, Kravis, Roberts & Co., August 18, 2006.

Liquidity, it has been said, is a coward: it runs away at the first sign of trouble. Clearly, then, European credit markets spy nary a black cloud on the horizon, as credit has been and continues to be extremely well-bid. Indeed, European credit trades as if defaults are a historical relic to be found only in museums and musty, dust-filled libraries. As this is unlikely to be the case—in fact, conditions seem ripe for a significant uptick in defaults, although the timing is (as always) a bit uncertain—we recommend investors steer clear of the asset class until valuations improve significantly.

Rich Valuations

With less than a decade of history, it is difficult to draw conclusions about "normal" yields and spreads for European corporate debt. Still, we do have a relatively long history for U.S. debt markets, and drawing on those data indicate European debt offers little upside at current prices. European investment-grade bonds, for example, currently yield 4.2%, at the low end of the range for high-quality U.S. corporate bond yields from 1900 through 2005 (Table A).[1] While this is not strictly an apples-to-apples comparison, as the U.S. data are high-quality bonds only and the European data include all investment-grade bonds, the message is clear. Namely, the low yield of investment-grade European bonds (Table B) suggests future returns are likely to be subdued, as intermediate- to long-term returns tend to be highly correlated to beginning period yields.

Spreads over a "risk-free" rate often provide more information than absolute yields, particularly for high-yield bonds. Even without a long data series, it is apparent the skimpy yields offered by European debt are likely to disappoint investors over the medium to long term. High-yield corporates currently yield 6.1%, a mere 242 basis points (bps) over government bonds of comparable maturity, which are themselves barely positive in real terms. Investment-grade corporates, meanwhile, offer a scant 54 bps more yield than government debt. These credit spreads are close to their lowest levels since our European data began in 1998 (Table C). Again, while we have limited data on Europe, we can use U.S. data to get a feel for what historical returns have looked like following periods of relatively skinny yield spreads. The current spread between European high-yield bonds of 242 bps would place it in the most expensive quartile (i.e., narrowest spreads) in our U.S. data series, which dates from 1989 (Table D). As can be seen from the table, while narrow spreads have not precluded strong *short-term* gains in high-yield bonds, five-year average annual compound returns have been significantly lower for periods following narrow spreads than for those following wide spreads.

If corporate yields and spreads look optimistic, meanwhile, the corporate default swap market, which allows investors to hedge the risk of default, looks downright ebullient. It presently costs roughly €30,000 a

[1] These data come from our 2006 *U.S. Historical Capital Market Valuations*.

year to provide €10 million of protection against investment-grade default, and less than €300,000 to provide the same protection for high yield (Table E). The historical level of defaults over the first ten years of a corporate bond's life, meanwhile, is 4.3% for investment grade and 27.8% for high yield.[2]

While the Cat's Away…

Not surprisingly, these buoyant conditions have spurred an increase in lender risk appetite. The *Financial Times*, for example, recently noted that European lenders are "becoming more diverse and developing a taste for the exotic," citing a sharp increase in demand for payment-in-kind (PIK) and mezzanine notes. Indeed, despite the fact that PIK notes first appeared in Europe less than two years ago, PIK issuance totaled €3 billion in the second quarter, roughly 25% of total issuance for the period. Moreover, the recent leveraged buyout of NXP Semiconductors is the type of deal that smacks of a frothy market. In more rational times, chip companies such as NXP have generally not been viewed as good buyout candidates due to the highly cyclical nature of their industry. Indeed, with current economic conditions almost certainly nearer the top of the cycle than the bottom, it seems plausible the company will have trouble servicing its debt when the cycle eventually turns down. Nevertheless, NXP was able to raise €4.5 billion, the most *ever* for a European high-yield deal, and the second-largest global deal on record. Still, while such activities may be reckless, they are unlikely to cause a market reversal on their own; indeed, they may actually shore up markets for a period of time by convincing market participants that excessive optimism is justified and likely to be rewarded.

Part of the reason European credit remains so well bid, of course, is the trend toward securitization, which allows lenders to offload significant portions of their risk. Thus, banks that might have looked more closely at deals in the past now feel free to make more speculative loans, secure in the knowledge they will be able to package and sell much (if not all) of the paper to yield-hungry investors such as hedge funds. In a recent report, Standard & Poor's warned that some lenders "may undertake only cosmetic credit analysis of a new exposure since they do not expect to retain very much of it." Indeed, it is arguable that the current structure of the credit market *encourages* this rampant overlending. Bankers make ill-advised loans because they know they can package and sell them to hedge fund managers. Hedge fund managers, meanwhile (who mainly manage *other people's money*), have a compensation structure that rewards risk-taking without punishing losses. In short, managers who bet big and win reap huge rewards, while those who bet big and lose are free to simply fold the fund and walk away (likely raising a new fund before long). While such a structure is an enormous support to the market in the short run, it also causes misallocation of capital (and mispricing of risk) that must eventually come home to roost.

[2] Source: Moody's Special Comment: Default and Recovery Rates of Corporate Bond Issuers, 1920-2005, updated March 2006.

What Defaults?

Of course, it seems almost passé to discuss defaults today given how rarely companies have failed to make payments on their debt over the past few years (Table F). Indeed, while bond valuations have been extended for some time, investors have been well-compensated for taking on risk due to the extremely low level of defaults of late. European defaults in 2005 totaled a mere US$377 million, their lowest level since 1998 (there were no defaults from 1995-98), and down sharply from a peak of US$39.4 billion in 2002. For comparison, North American defaults (mainly U.S.) totaled US$28.5 billion in 2005, down from a 2002 peak of US$115.3 billion.

Still, lax lending standards and seemingly endless liquidity cannot last forever (although awaiting the end of the current cycle has thus far been the financial market equivalent of waiting for Godot). Indeed, speculative types of bonds such as PIKs are particularly likely to default at a high rate when the economy turns down and/or liquidity dries up. As always, however, the trick is in the timing. Historically, the majority of corporate bond defaults have tended to come in the first four years after issuance; thus, defaults typically rise sharply in the three to four years after issuance hits a new high. According to Moody's Investors Service, European high-yield issuance has already hit €30.7 billion in 2006, compared to €26 billion for all of 2005, and more than the previous full-year record of €29.4 billion set in 2004. Standard and Poor's, meanwhile, expects European high-yield and investment-grade issuance to rise 21% and 24%, respectively, for 2006 as a whole. Thus, it seems plausible that despite the excesses of the past few years, we are still several years away from a peak in defaults.

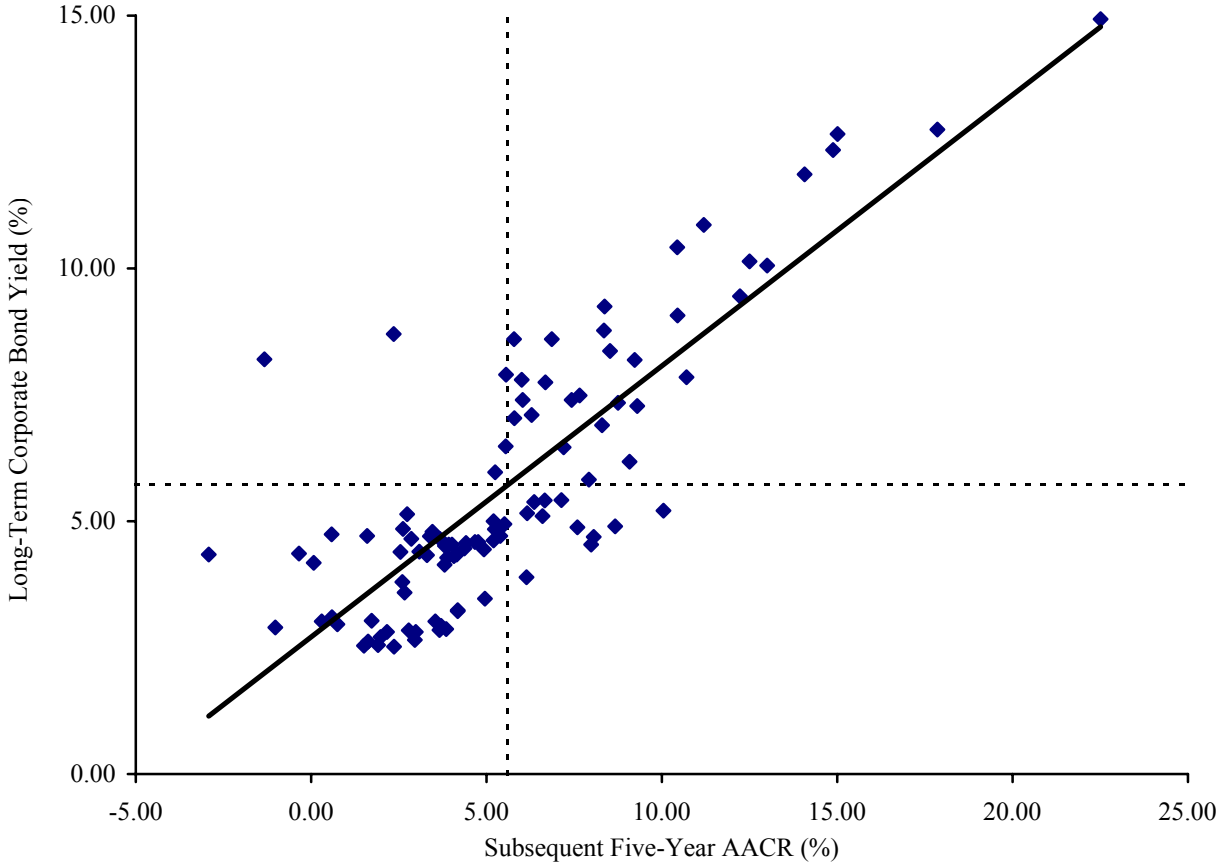
Conclusion

European credit looks prohibitively expensive at present, with absolute yields and spreads at levels that have historically presaged periods of sub-par returns. Further, market activity looks extremely frothy, with lending standards virtually nonexistent in some cases due to the ease of securitizing loans. Still, extreme valuations and frothy markets are generally not sufficient to cause a market reversal absent some additional catalyst (e.g., a dramatic economic downturn or sharp rise in oil and/or geopolitical tensions). Thus, given the abundant liquidity sloshing around the globe, and assuming the global economic environment remains stable (a big, but plausible assumption), it is conceivable, and perhaps even likely, that credit valuations will become even more extreme over the near term. Over the longer term (two+ years or so), however, current conditions are likely to lead not only to below-average returns for European credit, but also to more widespread defaults than most investors expect. Indeed, the next downturn is likely to create a wealth of opportunities for liquid investors; thus, prospective buyers of European credit would be better-served to conserve their capital than chase short-term performance.

Table A

RELATIONSHIP BETWEEN LONG-TERM U.S. HIGH-QUALITY CORPORATE BOND YIELDS AND SUBSEQUENT BOND FIVE-YEAR AACR

1900-2005

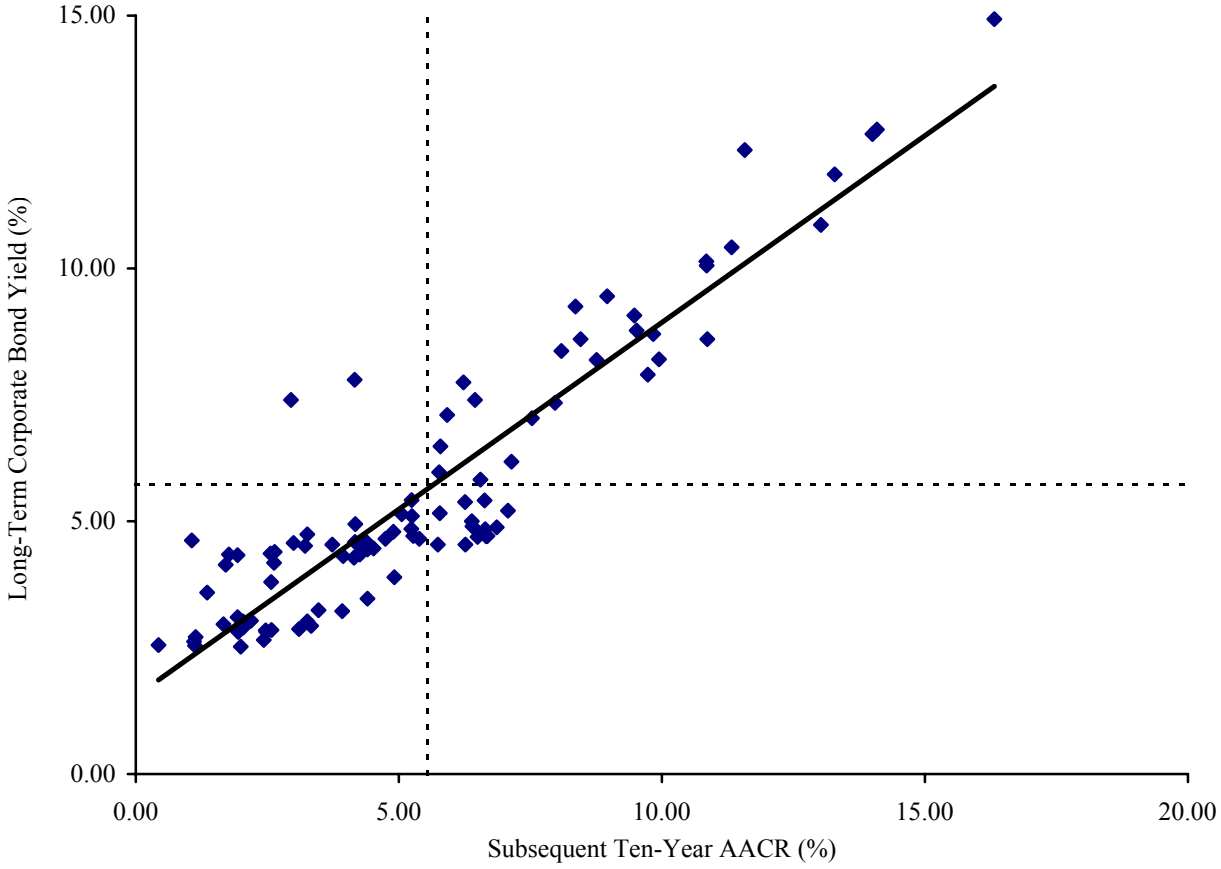


	Beginning Period Corporate Bond Yield (%)			Subsequent 5-Year AACR (%)			
Bond Yield Quartiles	Mean	High	Low	Mean	High	Low	Std Dev
First	3.09	4.18	2.52	2.54	6.14	-1.02	1.62
Second	4.54	4.84	4.28	3.71	8.06	-2.92	2.21
Third	5.78	7.28	4.85	6.66	10.04	2.62	1.92
Fourth	9.41	14.93	7.34	9.67	22.51	-1.33	4.81
Total	5.73	14.93	2.52	5.61	22.51	-2.92	4.10

Table A (continued)

RELATIONSHIP BETWEEN LONG-TERM U.S. HIGH-QUALITY CORPORATE BOND YIELDS AND SUBSEQUENT BOND TEN-YEAR AACR

1900-2005

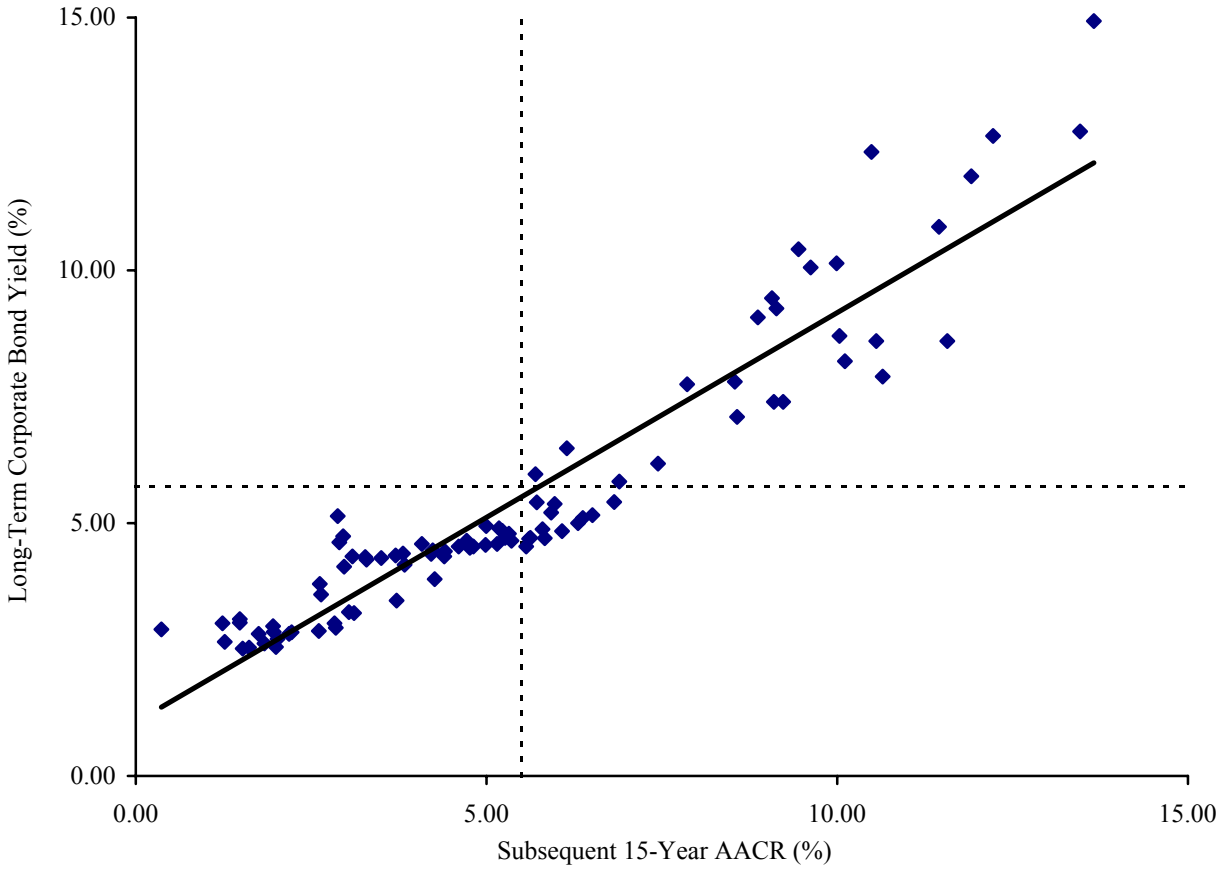


	Beginning Period Corporate Bond Yield (%)			Subsequent 10-Year AACR (%)			
Bond Yield Quartiles	Mean	High	Low	Mean	High	Low	Std Dev
First	3.09	4.18	2.52	2.39	4.91	0.43	1.05
Second	4.54	4.84	4.28	4.30	6.68	1.06	1.56
Third	5.78	7.28	4.85	6.06	7.53	4.17	0.86
Fourth	9.41	14.93	7.34	9.80	16.32	2.95	3.06
Total	5.73	14.93	2.52	5.55	16.32	0.43	3.38

Table A (continued)

RELATIONSHIP BETWEEN LONG-TERM U.S. HIGH-QUALITY CORPORATE BOND YIELDS AND SUBSEQUENT BOND 15-YEAR AACR

1900-2005



	Beginning Period Corporate Bond Yield (%)			Subsequent 15-Year AACR (%)			
Bond Yield Quartiles	Mean	High	Low	Mean	High	Low	Std Dev
First	3.09	4.18	2.52	2.28	4.26	0.36	0.90
Second	4.54	4.84	4.28	4.50	6.08	2.90	0.94
Third	5.78	7.28	4.85	6.03	8.57	2.88	1.20
Fourth	9.41	14.93	7.34	10.33	13.66	7.86	1.56
Total	5.73	14.93	2.52	5.50	13.66	0.36	3.17

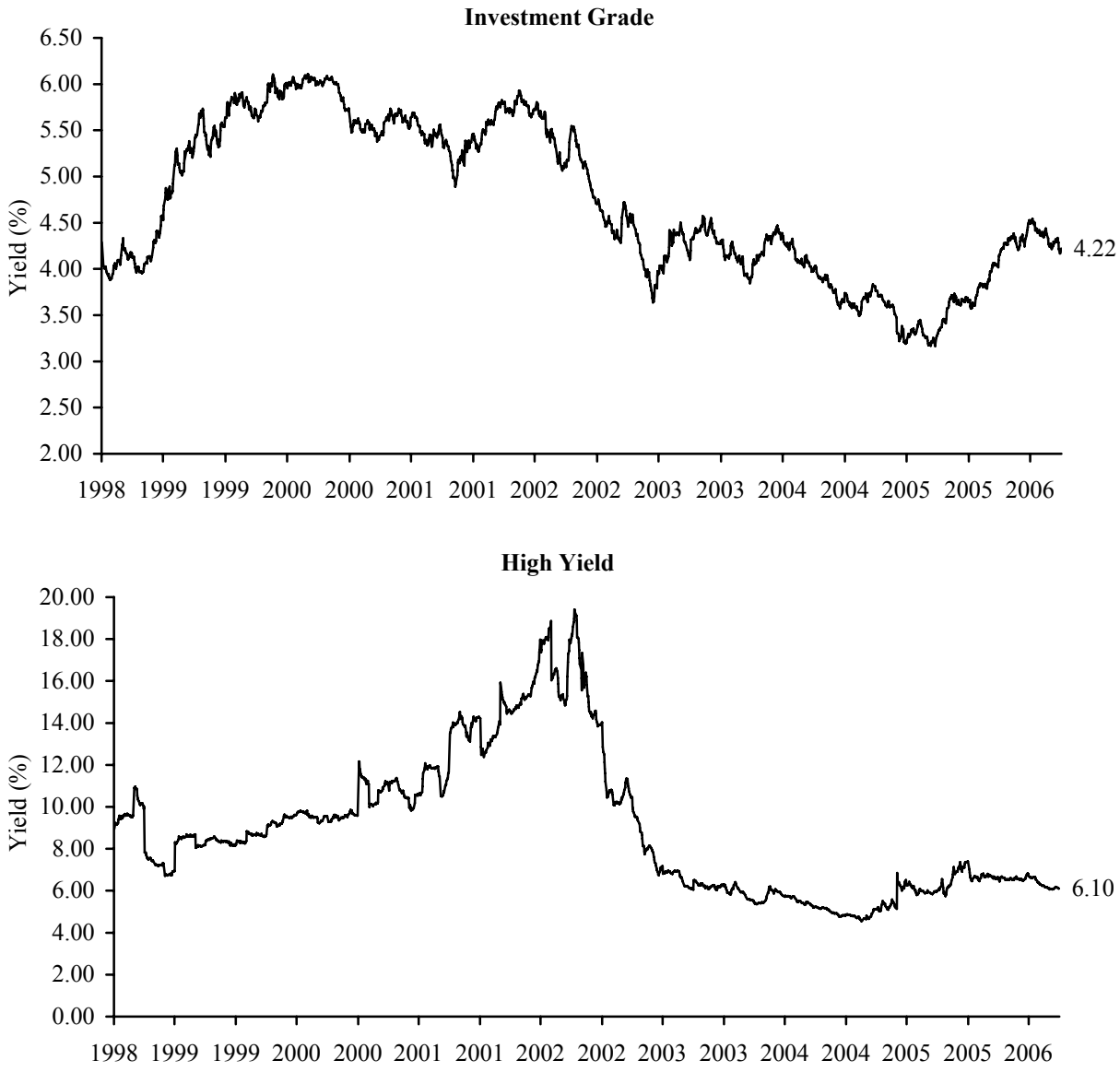
Sources: Citigroup Global Markets, Standard & Poor's, and Thomson Datastream.

Table B

HISTORICAL YIELDS FOR INVESTMENT-GRADE CREDIT AND HIGH-YIELD BONDS

J.P. Morgan Euro Credit Index

31 December 1998 - 30 September 2006



Source: Morgan Markets.

Note: Investment-grade bonds are bonds rated AAA to BBB.

Table C

EUROPEAN CORPORATE SPREADS

31 December 1998 - 30 September 2006

J.P. Morgan Corporate AAA - BBB All Yield vs Merrill Lynch EMU Direct Government 5-7 Years

J.P. Morgan Corporate High-Yield All Yield vs Merrill Lynch EMU Direct Government 5-7 Years

Sources: Merrill Lynch and Morgan Markets.

Notes: The J.P. Morgan Corporate AAA-BBB All Yield Index tracks the investible universe for investment-grade corporate bonds while the J.P. Morgan Corporate High-Yield Index represents the corporate high-yield universe. The Merrill Lynch EMU Direct Government Index benchmarks the performance of the outstanding euro-denominated public debt.

Table D

VALUATIONS OF HIGH-YIELD BONDS AND SUBSEQUENT RETURNS

January 1, 1989 - September 30, 2006

Spread Definitions	Spread Ranges	Average Subsequent AACRs 1 Yr	3 Yrs	5 Yrs	Number of Observations (1-5 years)	Ratio Ranges	Average Subsequent AACRs 1 Yr	3 Yrs	5 Yrs	Number of Observations (1-5 years)
	High-Yield Composite					**High-Yield Composite**				
< -1 Std Dev	283 and below	5.5	3.5	1.6	12-8	1.44 and below	11.0	7.4	4.7	16-16
0 to -1 Std Dev	284-508	9.2	8.3	7.2	99-76	1.45 - 1.88	8.4	8.5	8.0	105-85
0 to +1 Std Dev	509-734	4.8	6.9	8.6	50-42	1.89 - 2.33	6.1	9.2	9.8	42-32
> +1 Std Dev	735 and above	15.7	15.7	13.1	40-27	2.34 and above	13.8	12.4	10.4	38-20
	Ba					**Ba**				
< -1 Std Dev	191 and below	7.5	5.3	5.5	32-16	1.29 and below	11.2	7.4	6.8	15-14
0 to -1 Std Dev	192-318	9.3	9.6	8.8	77-65	1.30 - 1.55	9.1	9.7	9.3	114-96
0 to +1 Std Dev	319-445	6.9	8.6	9.2	57-47	1.56 - 1.81	6.3	8.4	8.9	44-31
> +1 Std Dev	446 and above	14.5	12.3	11.3	35-25	1.82 and above	13.2	10.8	10.0	28-12
	B					**B**				
< -1 Std Dev	324 and below	6.6	2.0	-0.7	23-6	1.49 and below	8.9	5.7	2.2	5-4
0 to -1 Std Dev	325-522	9.2	7.8	6.8	90-80	1.50 - 1.91	8.6	8.7	7.9	132-109
0 to +1 Std Dev	523-720	5.1	7.1	8.3	48-38	1.92 - 2.33	9.2	8.8	9.1	34-27
> +1 Std Dev	721 and above	13.4	14.6	12.2	40-29	2.34 and above	9.2	10.3	7.7	30-13
	Caa					**Caa**				
< -1 Std Dev	511 and below	1.0	7.7	7.2	9-5	1.77 and below	-7.5	8.2	8.9	8-8
0 to -1 Std Dev	512-1,013	7.9	6.4	3.9	108-82	1.78 - 2.77	9.3	7.5	5.1	118-94
0 to +1 Std Dev	1,014-1,514	7.4	4.6	7.9	47-42	2.78 - 3.76	6.0	4.6	8.0	40-35
> +1 Std Dev	1,515 and above	18.4	21.0	14.4	37-24	3.77 and above	17.4	18.2	12.2	35-16

Sources: Lehman Brothers High-Yield Bond Department and Thomson Datastream.

Note: Yield spreads and ratios are based on the difference between the weighted-average yield-to-worst (the lower of yield-to-maturity and yield-to-call) for each high-yield rating category and the yield-to-maturity for ten-year Treasury securities.

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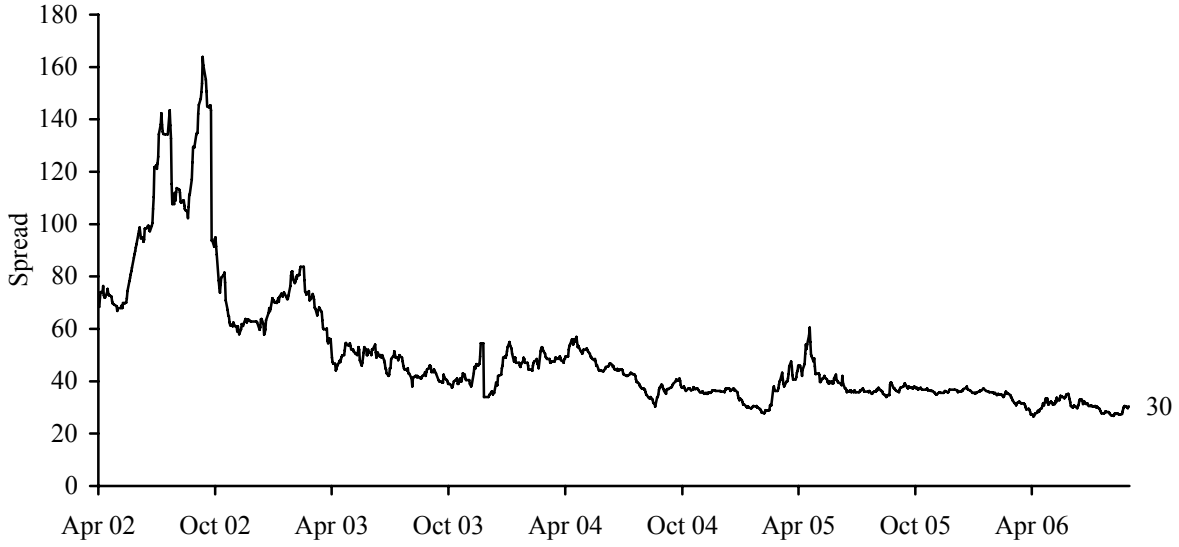
Table E

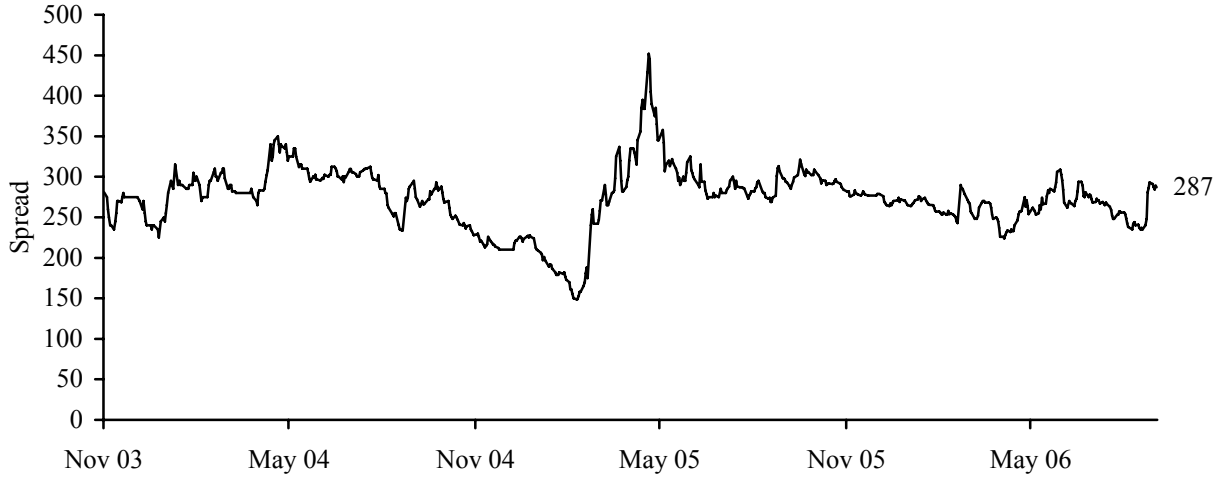
HISTORICAL CREDIT DEFAULT SWAP SPREADS OF THE iTRAXX EUROPE MAIN AND iTRAXX CROSSOVER INDICES

30 April 2002 - 30 September 2006

iTraxx Europe Main Index



iTraxx Europe Crossover Index



Source: Morgan Markets.

Notes: Both iTraxx indices represents on-the-run five-year unfunded JPMorgan CDS mid spreads. Each basis point represents €1,000 in annual cost to insure against €10 million of default.

Table F

ANNUAL DEFAULT VOLUME TOTALS FOR EUROPE AND NORTH AMERICA

1986-2005

	U.S. Dollar Volumes	
Year	Europe	North America
1986	$0	$3,937
1987	$0	$9,132
1988	$0	$5,425
1989	$0	$10,558
1990	$0	$19,948
1991	$999	$16,101
1992	$0	$6,275
1993	$0	$1,997
1994	$510	$1,560
1995	$0	$6,725
1996	$0	$4,042
1997	$0	$4,405
1998	$0	$8,742
1999	$1,587	$23,912
2000	$713	$27,157
2001	$8,110	$81,034
2002	$39,445	$115,251
2003	$3,909	$29,870
2004	$1,809	$14,475
2005	$377	$28,490

Source: Moody's Investors Service.

Note: Dollar volumes are in US$ millions.