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Special Comment

Contact	Phone
New York	
David T. Hamilton Richard Cantor	1.212.553.1653
London	
Michael West Kerryn Fowlie	

Default & Recovery Rates of European Corporate Bond Issuers, 1985-2001

Summary

This report analyses the credit experience of corporate bond issuers in Europe since 1985. The broad conclusions of this study are:

- The rated universe of European corporate issuers has expanded rapidly. Since 1985, the number of rated corporates in Europe has grown at a 26% annualised rate. The distribution of ratings of European issuers has widened to include riskier credits over this period, but speculative-grade issuers still account for only 14% of debt issuers in Europe, compared with 43% in the US.
- Rating transition rates have been similar for European and US issuers. Slightly less than 90% of European issuers retain their broad letter ratings each year, compared to more than 88% for US issuers, and the frequencies of letter rating upgrades and downgrades have been similar in the two regions.
- The number of rated defaults in Europe has recently increased dramatically. Between 1985 and 2001, 34 Moody's rated issuers and 35 unrated European bond issuers have defaulted on roughly €22 billion of bonds. The telecom sector accounted for the largest share of defaults by industry sector, with 54% of rated defaults by euro volume. By domicile, the UK saw the greatest proportion (60%) of defaults.
- The annual default rate for speculative-grade European issuers has averaged 6.1%, slightly higher than the 5.5% rate observed for US issuers over the same time period. The large number of recent defaults has heavily influenced the average statistics. In 2001 alone, 16 rated and 8 unrated European bond issuers defaulted on a total of €11 billion. Multi-year default rates have, however, been lower in Europe than in the US, largely because the growth of the European speculative-grade sector has occurred quite recently.
- The annual average default rate for investment-grade European issuers is 0.2%, much lower than the 0.7% rate observed for US issuers over the same time period. Swissair is the only European issuer to default within one year of being rated investment-grade.
- Recoveries rates on European defaulted bonds have averaged just 22% of face value, compared to 43% in the US. Recovery rates are also lower by position in the capital structure, although the priority of relative recovery rates holds. The European statistics are, however, based on a relatively small sample of 34 issues.
- Credit ratings have effectively discriminated relative default risk in Europe. Even though European corporate ratings are generally quite high (median rating = A2), the typical European issuer that subsequently defaulted carried a very low, B3 rating even three years prior to default. European ratings have, in fact, been more correlated with subsequent default experience than have US ratings, as indicated by their respective one-year-ahead cumulative accuracy profiles.
- The pace of defaults in Europe continues to be high in 2002. Through May, fourteen rated issuers have defaulted on a total of €24 billion of bonds, exceeding the total default volume from 1985-2001. The default rate for speculative grade issuers as of May 2002 is unchanged from its 12% year-end 2001 level.

Appendices (Memorex Extracts Only)

APPENDIX I — TABLES OF DEFAULTS & RECOVERIES

Exhibit 21 — Chronological List of European Corporate Long Term Debt Defaults, January 1985 — May 2002

Defaulter Name	Default Date	Domicile	Defaulted Debt (MM Euros)	Rated
Memorex Telex Corporation	7/15/91	Netherlands	1,084	Yes
Memorex Telex Corporation	2/14/94	Netherlands	554	Yes

Exhibit 23 — Recovery Rate Data Set

Issuer Name	Coupon	Debt Description	Maturity	Recovery*
Memorex Telex Corporation	13.25	Senior Guaranteed Notes	8/	1/96 \$55.00
Memorex Telex Corporation	14.5	Senior Subordinated Guaranteed Notes	7/1	5/98 \$21.00
Memorex Telex Corporation	15	Subordinated Guaranteed Debentures	7/1	5/99 \$13.00
Memorex Telex Corporation	NA	Senior Secured Bank Loan		NA \$60.00
Memorex Telex Corporation	NA	Senior Secured Bank Loan		NA \$20.00

^{*} Secondary market price taken 30 days after default date.

Memorex Telex Corporation

\$418.9 million 13.25% Senior Guaranteed Notes due 8/1/96 \$155.0 million VR% Senior Variable Rate Guaranteed Notes due 8/1/96 \$200.0 million 14.5% Senior Subordinated Guaranteed Notes due 7/15/98 \$225.0 million 15.0% Subordinated Guaranteed Debentures due 7/15/99

The leveraged buyout of Memorex Corporation from Unisys Corporation in late 1986 was followed by a leveraged merger of Memorex with Telex Corporation in early 1988. During the fiscal year ended Mar 1989, the first full year of operations and the only year in which the combined entity reported a net profit, Memorex Telex reported operating income of \$237.2 million on total revenues of \$2.1 billion. Although interest expense on the company's debt outstanding totaled \$185.3 million, the company operated profitably and reported net income of \$38.6 million. However, Memorex Telex breached the financial covenants of its bank agreement and, to remedy the situation, agreed to accelerate repayment of its bank debt by \$200 million by early 1991, a repayment schedule that exhausted the company's unused credit lines. As the global business climate for the computer industry deteriorated, Memorex Telex was unable to expand its margins significantly and achieve comfortable coverage levels in spite of continued cost-cutting measures. Sales volumes declined and inventory and overhead costs increased, bringing total revenues to slightly less than \$2 billion in 1990 and operating income to \$166.3 million. In addition, the company posted an additional \$14.5 million in interest expense and recorded a \$15.9 million extraordinary expense associated with the issuance of senior notes and refinancing of its bank debt The final result was a net loss of \$76 million for the year. During the fiscal year ended Mar 1991, Memorex Telex's financial condition continued to deteriorate. Total revenues fell to \$1.9 billion, due in part to the deconsolidation of Memorex Telex Japan, Ltd. (which occurred after the company's ownership of MTJL fell to less than 50% after a stock sale; MTJL reported revenues of \$195 million and net income of \$1.2 million for fiscal 1991), and Memorex Telex posted \$M.2 million in interest expense. The combined result of fiscal 1991's operations was a net loss of \$270.1 million. Unable to complete asset sales to cushion its liquidity position, the company fell out of compliance with certain net worth requirements and missed a \$70 million commitment reduction on its bank debt in June 1991. In addition to omitting the payments due on bank debt, Memorex Telex omitted the July 15 and August 1 payments in an effort to conserve cash. Management stated in its Mar 31, 1991, 10-K that "continuation of the Company is dependent on the Company's ability to reduce its high level of indebtedness and the related cash burden, to improve liquidity, and to attain profitability" and proposed a restructuring plan that would reduce its interest expenses by half and a Chapter 11 filing if the restructuring plan were unsuccessful.

Suspended interest payments on its senior bank debt
Missed interest payments on 14-1/2% and 15% Debentures; announced that interest
payments due August 1 on 13-1/4% notes and on variable rate notes would be omitted
Reached agreement in principle with majority of bondholders to exchange and restructure
debt
Missed interest payments on 13-1/4% notes and on variable rate notes
Filed prepackaged plan of reorganisation in Wilmington, Delaware
Reorganisation plan confirmed
Reorganisation plan effective
-

\$510.0 million 10% Guaranteed Senior Notes due 2/15/98

02/14/1994 Prepackaged Chapter 11 03/14/1994 Reorganisation plan confirmed 03/24/1994 Reorganisation plan effective