GRANT'S

INTEREST RATE OBSERVER

Vol. 24, No. 16d — Two Wall Street, New York, New York 10005 • www.grantspub.com — AUGUST 11, 2006

English majors' revenge

Collateralized debt obligations are only baffling most of the time. Gibberish, the technical literature may be, but a determined reader can make out the occasional familiar English word or phrase. One such word is "assumption." It turns out to be of critical importance to understanding how these complex structures are designed, priced and sold.

Now begins another voyage of discovery. The destination: The land of the CDOs. The mission: Understanding. We write on behalf of all who stand suspicious but mute before the mathematical guardians of this $1 trillion market. Do you, Mr. or Ms. Former English Major, suspect that there is a fly in the derivatives ointment but are afraid to express a doubt in the company of quants? We are going to arm you with facts.

By way of background, the housing market is only as strong as the mortgage market. And the mortgage market, these days, is only as strong as the CDOs into which are packed hundreds of billions of dollars of housing-related debt (prime and subprime, "cap corridor bonds," Alt-A pass-through hybrids and others you may not want to ask about just now). And the CDOs are only as viable as their equity base.

In previous issues, *Grant's* has described these securities and the risks that unsuspecting investors may run in holding them. This time out, the focus is on the junior-most portion of the CDO liability structure, i.e., the equity tranche. It's the equity that bears the first loss or, if all goes according to plan, earns the highest return. You can't sell a CDO without some sliver of equity—and sliver is the word. High-grade deals are leveraged at 100:1 on up. Buyers of this derivatives dynamite are said to include hedge funds as well as institutions in Japan, South Korea and Southeast Asia.

In March, Moody's performed the signal public service of compiling actual returns on equity portions of 66 "terminated" CDOs (i.e., entities that, for one reason or another, had reached the end of their useful lives). It found that returns ranged from a negative 82% to a positive 99% and that the median return was very close to zero. The Moody's analysts were not dogmatic, however, because they could not be sure what investors had paid for the securities they were examining: "Unfortunately, the pricing of equity is the result of a highly private, sometimes complex negotiation." In a follow-up study of the equity tranches of 10 terminated structured-finance CDOs, Moody's last month found that returns had ranged from a negative 59.1% to a positive 70.1%, with the average at a negative 8.4%.

A curious layman will now begin to appreciate the significance of the word "assumptions" in the context of expected CDO returns (especially when pricing is as transparent as a curtain of lead). With enough of the right kind of assumptions, the equity-tranche buyer can sleep the sleep of the confidently misinformed.

But such self-delusion will be a little harder to achieve since publication of a July 26 report by Deutsche Bank entitled, "High Grade ABS CDOs" (in which ABS stands for "asset-backed securities"). The analysis calls into question the premises on which such derivatives are built and sold. "Modeling assumptions that simplify actual cash flows are commonplace in the world of structured finance," the authors note. "However, while these adjustments are unlikely to significantly impact the debt, they can have significant consequences on equity returns—especially within a structure that is leveraged 100 to 200 times."

And what might these dubious assumptions be? Asset and liability cash-flow mismatch, is one. Something having to do with a five- to seven-day "trustee period" at the time of issuance is another, and "risk mismatch in 2004 CDOs" is a third. A fourth involves the universal impulse to reach for yield: "In the current relatively tight spread environment," the report says, "collateral managers have increasingly turned to higher yielding alternative prime mortgage products to add additional yield to the CDO portfolio."

These are, or have been, the best of

Realistic ABS CDO equity return*

Idealized equity return	19.0%
Adjust for qtrly/mnthly assumptions	-5.0
Cap corridor bonds	-0.9
Pass-through hybrid	-1.0
Five business-day trustee period	-1.9
Cumulative impact	-8.8
Equity return	10.2

*no loss scenario
source: Deutsche Bank

times for housing, the Deutsche Bank authors observe. Drawing comfort from past performance, investors have come to regard "the structures and the various modeling assumptions that are embedded within them" with unwarranted confidence. Especially is confidence unwarranted at a time of elevated leverage.

"I don't want to suggest that anything malicious and underhanded is going on here," Anthony Thompson, managing director and head of U.S. asset-backed security and CDO research for Deutsche Bank, tells colleague Dan Gertner. "I think the reality is that a lot of the CDO architecture and technology was created 10 to 15 years ago when spreads were wider, leverage was lower and where you didn't have to be so meticulous with your assumptions." Buyers of these equity pieces are not necessarily the world's most sophisticated modelers of structured finance securities, Thompson adds. "I would make the point that mortgages are complicated still to most of the world. Mortgages levered 200 times are even more complicated."

By tweaking some standard assumptions to make them conform with the 2006 marketplace, the Deutsche Bank study adjusts an "idealized" expected return of 19% to a more realistic 10.2% return. Note well, however, as the authors add, that CDOs are built on many assumptions. They acknowledge that they examined "but a few pieces of the complex CDO puzzle."

Come the next bear market in mortgage debt, many more assumptions will certainly come in for reappraisal. Knowing only this much, the detached and calculating English major might well be able to sweep up astonishing bargains.

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