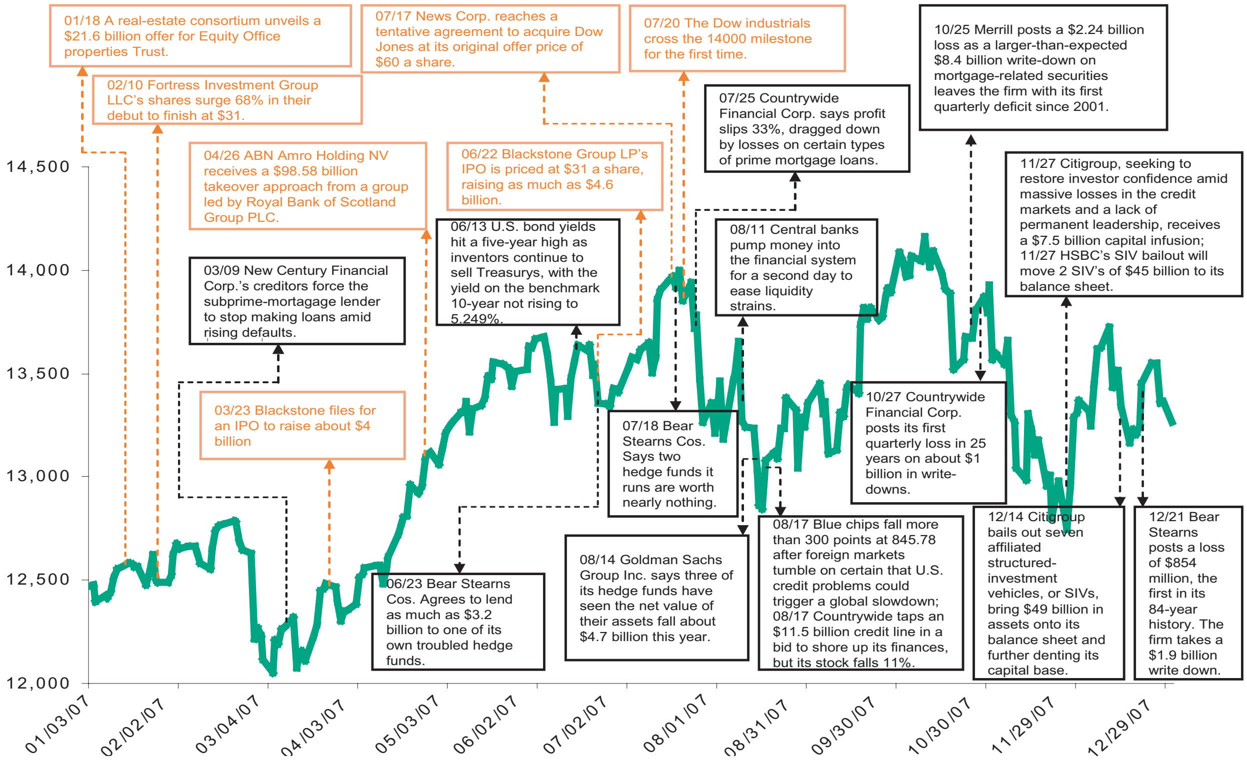
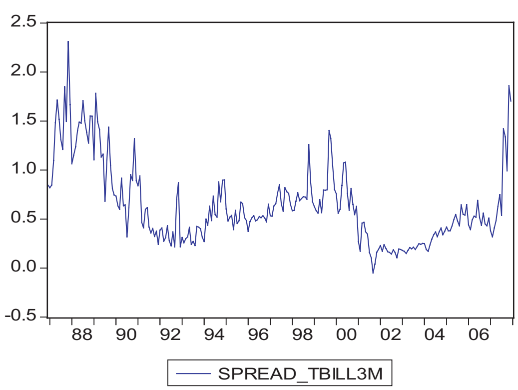
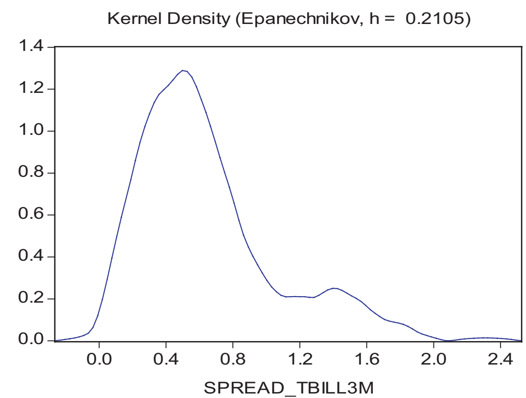
Overview

- The meltdown of the US subprime mortgage market in 2007 rippled through the financial markets impacting all securities backed by subprime mortgages and structured products.
- The resulting subprime crisis triggered a series of credit crunches, pushed the U.S. economy to the edge of recession, and is jeopardizing the stability of global financial markets.







- The TED Spread dramatically widened after August 2007 which was a re-occurrence of the late eighties market environment. Over the past 20 years, traditional calibration models that only focused on shorter time frames have missed the downside "fat-tail". The improbable is indeed plausible!

Subprime Loss Modeling: Dynamic Econometric Loss Model (DEL)

A robust default and prepayment model is required to make accurate relative value decisions in the subprime mortgage space. However, traditional models that try to quantify consumer behavior via loan characteristics and macro-economic variables have suffered from a series of fundamental flaws. During the mathematical exercise of fitting historical data to an econometric model, traditional modelers usually miss critical details:

1. Traditional models focus on fitting in-sample data with a unique parameter set for each vintage. It creates a disconnect amongst vintages and can not be simply applied to new loans.
2. Consumer behavior underlying LTV, FICO, and DTI were implicit, but not fully quantified in dynamic form by traditional models.
3. Out-of-sample projections may produce counter-intuitive results, since future macro-economic scenarios, such as HPA, Unemployment, Personal Gross Income etc. may not have occurred historically.
4. Traditional models focus at the national level rather than drilling down to local housing markets.
5. Traditional models treat prepayment and default independently, ignoring the complexity and interaction between put and call options.
6. Traditional models do not dynamically quantify feedback from other leading indicators such as delinquency rates.

Competitive Edge

Innovations	Advantages
A consistent parameter set for all vintages via the addition of explicit consumer behavior factors.	Multiplicative and additive factors for each non-linear function via boot-strapping techniques (MLE).
Dynamic consumer behavior factors to reflect the real estate cycle and housing affordability.	Comprehensive consumer behavioral economic theory in practice.
A complete study of HPA index prior to model-fitting.	A full utilization of HPA time-series information.
A CBSA detailed level HPA model that allows us to not only better understand local housing markets, but also generate more precise projections.	Multiple built-in time-series fitting models at the national, state, and CBSA level that dynamically estimate parameters and generate forecasts on the fly.
Recursive calculations along seasoning patterns while estimating/projecting prepayments and defaults.	Built-in recursive calculator along seasoning for projecting prepayments and defaults.
An error correction model that systematically builds the linkage between delinquency and defaults, aiding our default forecast by 15%.	A set of error correction fitting models that estimate parameters between the spectrum of delinquencies and defaults are generated on the fly.

What We Can Do

- Immediate "Plug and Play" Analytic Solutions
  - Whole loan pricing/bidding systems for loan pricing and risk analysis
  - At the ready, wing to wing fixed income analytic implementation to
    - Improve business flow transparency
    - Integrate information and models vertically
    - Real-time response
    - Large-scale engineering
- Fixed Income consultation and analytics
  - Default & prepayment modeling (Dynamic Econometric Loss Model)
  - Structured Finance Deal structuring
  - Bond/CUSIP relative value and cash flow analytics
- Additional business and technology advisory
  - Real time data connectivity via the internet.
  - Parallel process implementation
  - FIX protocol
  - End-to-end J2EE server/client business applications
  - Customized White-labeled interface with clients

About Us

Beyondbond, Inc. is a leading financial services and technology provider. We provide comprehensive financial business and technology solutions for clients, specializing in the fixed income securities and structured finance markets.

Beyondbond has a proven history of achievement. Founded in 1999, our core members were pioneers in developing the US commercial mortgage securitization market in the 90's at Nomura Asset Capital Corp. and were instrumental in "jump-starting the national real estate market" according to Fortune magazine.

To keep pace with the evolving fixed income Asian market, we have expanded our Asian presence via our Taipei and Shanghai offices and have been building solid relationships with local clients. In addition, we have established a Shanghai based investment management and consulting arm, Capital Key Investment Ltd.

Today, Beyondbond's proprietary research and analytics are heavily employed by large hedge funds, major banks, and broker dealers. We provide customized white-label plug and play platforms for buy-side clients.

What Distinguishes Us

- An experienced team of leading mortgage and structured product experts.
- A market proven risk management and trading platform that facilitates more than $30 billion of fixed income transactions, and monitors more than $10 billion in positions on a daily basis.
- A full suite of advanced risk management and pricing tools.
- Market proven fundamental research including default and prepayment modeling.
- Experienced outsourcing and offshoring of fixed income technology and analytics

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Sample Screenshots