Discussion:
Are Ratings the Worst Form of Credit Assessment Apart from All the Others?

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Seventh Annual Risk Management Conference
12 July 2013
Contributions

- **Big question**: Is a combination of Merton’s DD and Altman’s accounting-based models an improvement over the existing credit ratings?

- Why is it *interesting*:
  1. *Transparent*, easy to *replicate* and based on public information alternative for credit ratings.
  2. First study to *test the calibration* of PDs over multiple time periods. The sequence of predictions is calibrated if both: the forecasts and actual outcomes are close to some distribution $p$.
The authors compare S&P ratings with PIT and TTC.

- S&P gives relative credit risk of issuers.
- PIT gives point in time PD.
- TTC gives through the cycle PD.

In order to bring the three measures on one scale the authors estimate PD for each S&P rating class (Fig4).

The crucial analysis of calibration is then based on those estimates.
1) **Comparison with S&P** - cont.

- **Caution**: If the PD estimates for S&P rating classes are *not time varying*, is the S&P and PIT comparison reasonable?

- To compare S&P and TTC *adjust the PDs* in the manner of TTC.
  - For example subtract $\alpha_t$ at each point in time so that the population has the same PD.

- Alternatively use *ordinal scale*. Show superiority of PIT and TTC over S&P on an ordinal scale as well.
2) Are the PIT *forecasting* abilities a desirable feature?

- 6 months *delay* in PIT forecast in predicting defaults.
- The model correctly identifies the increase (or decrease) in credit risk, but does it with a delay.

⇒ Although during normal times it performs best among all the models, is it possible that during recession it becomes *unsustainable*?
2) PIT forecasting – cont.

- PIT does **not** yield a better result for every possible state of nature.

- It is **not** state-by-state dominant. In particular, in a recession it has lower accuracy than S&P credit ratings.

→ Is this something to worry about? Would stress testing of a portfolio based on your measure address this issue?

<table>
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<th>obs.</th>
<th>def.</th>
<th>exp. PD</th>
<th>real. PD</th>
<th>exp. area</th>
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<td>3.21%</td>
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</table>
3) From regulator’s point of view it should be transparent, easy and universal.

- we know it is a transparent and easy credit risk model.
- but is it *universal* as well?

  ➔ Coverage: non-financial corporations rated by S&P
    (U.S., Europe, Asia-Pacific, Japan, Australia, New Zealand)
  ➔ So far results robust in a well diversified portfolio.

  Could a *local bias* affect your results?

  In particular, are credit ratings better than PIT/TTC in ranking the corporations i.e. Asia?

4) First step towards a uniform credit risk assessment that deals with non-fin corporate bonds. Hopefully more to follow in *other asset classes*:

- structured products, financial corporations, sovereign.
Conclusions

- Interesting paper with detailed derivation, analysis and validation of Merton+Altman credit risk model.

- **Message**: the combined Merton+Altman model are a valid and robust alternative to credit ratings.

- Contributions to:
  - *regulatory* framework of credit risk assessment.
  - a healthy critical look at the *reliability* of credit ratings and simple credit risk models.

- Policy relevant:
  - accurate, calibrated and transparent alternative for credit ratings. Easy to implement by financial institutions.
Appendix

LaTeX code to set counter of equations in Appendix correctly:

\begin{appendices}
\section{Estimating the Distance to Default}\label{Ap1}
\renewcommand{\theequation}{\thesection\arabic{equation}}
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