Discussion on Latent Liquidity

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Overview of Talk

- Latent liquidity
- My interpretation of latent liquidity
- Cross-sectional properties
- Other liquidity measures applicable to bonds
- Conclusion
Problem: Liquidity hard to measure for illiquid securities
Solution in this paper: look at the characteristics of the owners
Definition of latent liquidity

\[ L^i_t = \sum_j \pi_t^{ij} \text{Turnover}^j_t \]  (1)

\[ \pi_t^{ij} = \frac{\text{BondHolding}^{ij}_t}{\sum_j \text{BondHolding}^{ij}_t} \]  (2)

Very interesting measure!
Recall

\[ L_t^i = \sum_j \pi_t^{ij} \text{Turnover}_t^j \]  

- Good measure of the ease of *buying*
- Also, good measure of the ease of *selling*?
- Alternative interpretation: “hot money” indicator
Overall, latent liquidity seems to have the “right” properties:
- larger issues have higher $L$
- newly issued bonds have higher $L$ (“on-the-run” effect)

Some properties opposite other liquidity measures (trade days, trade count):
- Convertible bonds have higher $L$
- Putable bonds have higher $L$
- Not semi-annual coupon bonds have higher $L$

Harder to interpret:
- Higher rating have higher $L$, weak evidence
- larger coupon rate have higher $L$, weak evidence (alternative: par/discount/premium bonds)

T-stats should be corrected for correlation, e.g. use Fama-MacBeth
Other measures considered in the paper:
- Trade dates: # days with trade per year
- Trade count: # trades per year
- Trading volume: $ value of trades per year

Alternative measures:
- Bid-ask spread
- No of days with zero return
- Spread over CDS: Longstaff, Mithal, and Neis (JF, forthc.)
- Chen, Lesmond and Wei (JF, forthc.) use measure of Lesmond, Ogden and Trizcinka (RFS 1999)
- Liquidity risk
Liquidity Risk

- Acharya and Pedersen (JFE, 2005):

\[ E_t(r^i_{t+1}) = r^f + E_t(c^i_{t+1}) + \lambda_t(\beta^M_t + \beta^{L1} - \beta^{L2} - \beta^{L3}) \]

where

\[
\begin{align*}
\beta^M_t &= \frac{\text{cov}_t(r^i_{t+1}, r^M_{t+1})}{\text{var}_t(r^M_{t+1} - c^M_{t+1})} \\
\beta^{L1} &= \frac{\text{cov}_t(c^i_{t+1}, c^M_{t+1})}{\text{var}_t(r^M_{t+1} - c^M_{t+1})} \\
\beta^{L2} &= \frac{\text{cov}_t(r^i_{t+1}, c^M_{t+1})}{\text{var}_t(r^M_{t+1} - c^M_{t+1})} \\
\beta^{L3} &= \frac{\text{cov}_t(c^i_{t+1}, r^M_{t+1})}{\text{var}_t(r^M_{t+1} - c^M_{t+1})}
\end{align*}
\]

- \( c^i \) is hard to measure for bonds, but we can estimate \( c^M \).
- Hence, if we know \( r^i \), we can estimate \( \beta^{L2} \).
- deJong and Driessen (2005)
Liquidity is important for bonds
Hard to measure
Many applications of latent liquidity, e.g.:
1. predicting transactions cost
2. risk management
3. trading strategies