

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

$$L_t^i = \sum_j \pi_t^{ij} \text{Turnover}_t^j \quad (1)$$

$$\pi_t^{ij} = \frac{\text{BondHolding}_t^{ij}}{\sum_j \text{BondHolding}_t^{ij}} \quad (2)$$

- Very interesting measure!

- Recall

$$L_t^i = \sum_j \pi_t^{ij} \text{Turnover}_t^j \quad (3)$$

- Good measure of the ease of *buying*
- Also, good measure of the ease of *selling*?
- Alternative interpretation: “hot money” indicator

Cross-Sectional Properties

- 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 Liquidity Measures Applicable to Bonds

- 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, forthcoming.)
 - Chen, Lesmond and Wei (JF, forthcoming.) use measure of Lesmond, Ogden and Trzcinka (RFS 1999)
 - Liquidity risk

- Acharya and Pedersen (JFE, 2005):

$$E_t(r_{t+1}^i) = r^f + E_t(c_{t+1}^i) + \lambda_t(\beta_t^M + \beta^{L1} - \beta^{L2} - \beta^{L3})$$

where

$$\beta_t^M = \frac{\text{cov}_t(r_{t+1}^i, r_{t+1}^M)}{\text{var}_t(r_{t+1}^M - c_{t+1}^M)} \quad \beta^{L1} = \frac{\text{cov}_t(c_{t+1}^i, c_{t+1}^M)}{\text{var}_t(r_{t+1}^M - c_{t+1}^M)}$$
$$\beta^{L2} = \frac{\text{cov}_t(r_{t+1}^i, c_{t+1}^M)}{\text{var}_t(r_{t+1}^M - c_{t+1}^M)} \quad \beta^{L3} = \frac{\text{cov}_t(c_{t+1}^i, r_{t+1}^M)}{\text{var}_t(r_{t+1}^M - c_{t+1}^M)}$$

- c^i is hard to measure for bonds, but we can estimate c^M .
- Hence, if we know r^i , we can estimate β^{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