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# Mixture of Distribution Hypothesis: Analyzing daily liquidity frictions and information flows<sup>\*</sup>

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## Abstract

The mixture of distribution hypothesis (MDH) model offers an appealing explanation for the positive relation between trading volume and volatility of returns. In this specification, the information flows constitute the only mixing variable responsible for all changes. However, this single static latent mixing variable cannot account for the observed short-run dynamics of volume and volatility. In this paper, we propose a dynamic extension of the MDH that specifies the impact of information arrival on market characteristics in the context of liquidity frictions. We distinguish between short-term and long-term liquidity frictions. Our results highlight the economic value and statistical accuracy of our specification. First, based on some goodness of fit tests, we show that our dynamic two-latent factor model outperforms all competing specifications. Second, the information flows latent variable can be used to propose a new momentum strategy. We show that this signal improves once we allow for a second signal – the liquidity frictions latent variable – as the momentum strategies based on our model present better performance than the strategies based on competing models.

*JEL classification:* C51, C52, G12, G14

**Key words:** Strategic liquidity trading, market efficiency, mixture of distribution hypothesis, information-based trading, extended Kalman Filter.

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