

**Internet Appendix A149: Earnings-Return Relation**  
**Illustrative Reverse Engineered Pitch Template Example**

Pitcher's Name	Bao Hoang Nguyen	FoR category	<b>Earnings-Return Relation</b>	Date Completed	11/01/2017
(A) Working Title	Isshaq, Z., & Faff, R. (2016). Stock Liquidity Risk And The Cross-Sectional Earnings>Returns Relation. <i>Journal of Business Finance &amp; Accounting</i> , Vol. 43, No. 9, pp. 1121-1141.				
(B) Basic Research Question	How does the stock liquidity risk influence the tendency for share price move towards fundamentals?				
(C) Key paper(s)	Sadka, G. and R. Sadka (2009), 'Predictability and the Earnings>Returns Relation', <i>Journal of Financial Economics</i> , Vol. 94, No. 1, pp. 87–106. Hecht, P. and T. Vuolteenaho (2006), 'Explaining Returns With Cash Flow Proxies', <i>Review of Financial Studies</i> , Vol. 19, No. 1, pp. 159–94. Acharya, V. V. and L. H. Pedersen (2005), 'Asset Pricing With Liquidity Risk', <i>Journal of Financial Economics</i> , Vol. 77, No. 2, pp. 375–410.				
(D) Motivation/Puzzle	Theoretically, stock liquidity is argued as an important state variable used to explain differences in cross-sectional stock returns. Moreover, previous empirical studies document that a positive market-wide liquidity shock reduces arbitrage costs and thereby move stock price toward fundamentals. As a result, we argue that the more sensitive to market-wide liquidity shocks, the more strongly stock returns associate with fundamentals.				
<b>THREE</b>	<b>Three</b> core aspects of any empirical research project i.e. the “ <b>IDioTs</b> ” guide				
(E) Idea?	<p>Given that the earnings-returns relationship represents the tendency for a stock's price to converge to fundamentals, the main hypothesis is:  <b>H1:</b> In the cross-section, stock liquidity risk has a positive effect on the returns association with expected change in earnings.</p> <p>To test this hypothesis while controlling for individual stock illiquidity, this study estimates regressions of annual returns on interaction terms between the change in earnings next period (scaled by either market price or book equity) and each of nine double-sorted dummy variables which are constructed based on the independent ranking of liquidity risk and illiquidity level by year (using tercile splits). Liquidity risk is defined here as systematic liquidity risk based on the Amihud (2002) metric and derived from the Acharya and Pedersen (2005) model.</p> <p>Moreover, the conditional influences of the market conditions (e.g. the aggregate illiquidity level) and firm characteristics (e.g. size, book-to-market, and positive/negative earning) on the cross-sectional liquidity risk implications for the earning-returns relationship are also captured by utilizing three-way interaction terms involving earnings proxy, dummy variable defined over stock-based liquidity risk and dummy variable defined over market conditions/firm characteristics.</p>				
(F) Data?	<p><b>Country:</b> US.  <b>Unit of Analysis:</b> Firms listed on NYSE/AMEX  <b>Sample period:</b> 1962-2009.  <b>Data Type:</b> Firm-specific.  <b>Data Sources:</b> CRSP, COMPUSTAT  <b>Data Issues:</b></p> <ul style="list-style-type: none"> <li>- Delisting returns are included if available and substituted by the average delisting return within the firm's delisting code when missing.</li> <li>- Earnings variable is income before extraordinary items.</li> <li>- Book equity is common equity and if not available we use common equity liquidation value.</li> <li>- The final dataset is truncated at the top and bottom 1% to avoid problems of outliers.</li> </ul>				
(G) Tools?	<p><b>Research Method:</b></p> <ul style="list-style-type: none"> <li>- Wald test</li> <li>- Two-way clustered standard errors</li> <li>- Fama-MacBeth regressions</li> </ul>				

<b>TWO</b>	<b>Two key questions</b>
<b>(H) What's New?</b>	It is the first time stock liquidity risk is explicitly studied in attempting to explain the tendency for stock returns to converge to fundamentals. Another novelty of this study is its research design in which interactive variables (both two-way and three-way interaction terms) are carefully constructed using dummy variables instead of continuous variables.
<b>(I) So What?</b>	The finding of this study gives insight into the economic forces embodied in liquidity risk which is less understood in previous studies.
<b>ONE</b>	<b>One bottom line</b>
<b>(J) Contribution?</b>	This study contributes to literature about arbitrage risk by using the proxy of liquidity risk. It also complements previous studies which attempt to use concepts relating to stock liquidity to understand anomalies persistence or price efficiency.
<b>(K) Three Key Findings</b>	<ol style="list-style-type: none"> <li>1. Stock liquidity risk has a positive moderating effect on the return relationship with expected change in earnings.</li> <li>2. The liquidity risk effect is evident (absent) during periods of neutral/low (high) aggregate market liquidity.</li> <li>3. The liquidity risk effect on the earnings-returns relationship is dominant for firms that: (a) are of intermediate size; (b) are of intermediate book-to-market; and (c) are profitable. In other words, the liquidity risk effect is negligible or non-existent in companies that: (a) are either small or big in size; (b) are either strongly growth or value stocks; or (c) are loss-making.</li> </ol>

**Mickey Mouse Diagram:**

