Do Information Acquisition Costs Matter?  
The Effect of SEC EDGAR on Stock Anomalies  
Yong Hyuck Kim  
Michigan State University  
kimyon32@msu.edu  
https://sites.google.com/view/yonghkim/home

Abstract

I estimate the costs of information acquisition and the extent to which they explain stock anomaly returns. The SEC’s staggered implementation of EDGAR from 1993 to 1996 greatly lowered the costs of acquiring accounting information. I study how this quasi-exogenous and staggered shock affects the alphas of 234 stock market anomaly portfolios. 

Methodology

• To estimate the costs of acquiring information: 1. I examine the SEC’s staggered implementation of EDGAR. 2. I study how this shock affects the alphas of 234 stock market anomaly portfolios. 

• Three reasons to study the SEC’s staggered implementation of EDGAR (1993 - 1996) 1. A shock that truly lowered the info acquisition costs for the investors 2. The SEC assigned all the public firms to one of 10 implementation phases in a highly randomized fashion. 3. This allows me to harness a staggered difference-in-difference framework. 

• In every implementation phase, there are treated (EDGAR filers: the firms that start filing electronically) vs controlled (non-EDGAR filers: the firms that start filing via EDGAR hence still filing with paper) stocks. ⇒ The EDGAR’s introduction serves as an excellent natural experiment to study the causal effect of costly information constraints. 

• Why study how the EDGAR introduction affects the alphas of 234 anomaly portfolios?  

- Investors need to collect a complete set of financial information for the entire cross-section of stocks because investors need to first sort all the stocks to be able to identify which stocks to buy or sell. 

- Anomaly returns will reflect the entirety of investors’ info acquisition costs. 

⇒ Studying a comprehensive set of anomalies captures the entire gamut of EDGAR’s information cost-saving effect. 

• Given an implementation phase: 

- The treated stocks consist of EDGAR filers (the firms that start filing electronically) assigned to the given implementation phase. 

- The controlled stocks consist of the non-EDGAR filers (the firms still waiting their turn to start filing via EDGAR). 

- I construct treated (controlled) anomaly portfolios using the treated (controlled) stocks for each implementation phase. 

Data

• Where do the data come from? The data source is very standard. 

- CRSP for daily stock returns 

- CRSP/CompStat/IBES for creating the signals for individual anomalies 

- The historical SEC documents for the EDGAR implementation process 

• Following Chen and Zimmermann (2020), I study over 234 anomalies discovered so far: 

- I start with 320 anomalies: only 234 pass the filters I apply. 

- 126 accounting-based anomalies 

- 108 non-accounting-based anomalies 

• I compute the alphas for 234 core anomalies over the sample period to generate a panel data of anomaly alphas by month by EDGAR Phase for both the treated and controlled group. 


- Alphas are computed following the Jensen’s approach. 

Results

• I run the staggered Difference-in-Difference regression using the panel data I created: 

\[ \text{\( \alpha_{t,x} = \beta_0 + \beta_1 \cdot \text{EDGAR}_t + \beta_2 \cdot \text{Post}_{t,x} + \beta_3 \cdot \text{EDGAR}_t \cdot \text{Post}_{t,x} + \varepsilon_{t,x} \)} \]

- The Fama-French 3 Factor alpha of the anomaly portfolio in month \( t \) for phase \( x \) 

- For each date \( t \) I build a quintile (5) portfolio based on the FF5 factor model

- The alpha is in percentage 

- EDGAR_t, Post_t,x: Indicator variables 

- If the portfolio is constructed with the EDGAR filers (the treated group) 

- If the portfolio is constructed with the non-EDGAR filers (the controlled group) 

- This attenuation explains over one-half of their pre-EDGAR alphas. 

Main hypothesis

• This attenuation explains over one-half of their pre-EDGAR alphas. 

• This shows that the estimated 4% information acquisition costs can be as important as transaction or short-sale costs! 

• The non-accounting anomalies do NOT weaken. 

• The accounting anomalies weaken more in the first month following the EDGAR implementation. 

• Accounting anomalies that rely more on recent information show greater attenuation of alphas. 

• Accounting anomalies with less information available prior to the EDGAR introduction also experience greater attenuation. 

References
