Special SFS Journal Paper Presentation The Review of Asset Pricing Studies Keynote Paper

Nimesh Patel and Ivo Welch

May 2017

Question

- To what extent are stock prices set by
  - corporate NPV?
  - investor-demand effects?
- A central and important question?

Design

- What would be the ideal laboratory?
  - You want zero NPV **changes**...
  - ...and large demand **changes**.

  or vice-versa.

  ...of course all evidence, is local!

Laboratory

- S&P 500 Index Changes.

  PS: index changes are a very good lab, but not perfect. Entry/exit could itself have cash-flow consequences.

- Harris-Gurel (1986), Shleifer (1986).

  Beneish-Whaley (1996), Lynch-Mendenhall (1997), Chen-Noronha-Siegel (2004), Petajisto (2011).

Audience Answer

- What is the answer?
  - What happens on the announcement?
  - Is the effect permanent?
- Do we/you know or care about answer?
- Or do we/you just care about having done it once?

Shleifer Answer

Shleifer (1986), still the most prominent:

- $\approx$ 30WoS cites/year, 1,500 google cites
- Stocks increase when added.
- Stocks stay that way.

$\Rightarrow$ Permanent demand effect.

Other Answers

- Shleifer: 1966-1983
- Harris-Gurel: **mistaken LR model.**
- Lynch-Mendenhall: 15 removals (-1995)
- Chen+: 235 removals (-2000).
  Ex-post criteria, used in Duffie's PA.
- Petajisto: 156 removals (-2005).
- No 2005- crisis evidence, many changes.

Today's Answer?

- Still Interesting?
- Still True?

What Do You Remember?

1. How long was the long-run period?
2. What was the long-run abnormal-return adjustment model?
3. Has the world changed?
4. Does the test fit the hypothesis?

1. Long-Run Period

- Maximum: 60 days.
- Is 60-day stability evidence of permanence?
- Reasonable window in this case.
  - Happens to be ok. Modest drift for 120 days.
  - Absence of evidence $\neq$ Evidence of absence.

1. Long-Run Period

- Maximum: 60 days.
- Is 60-day stability evidence of permanence?
- Reasonable window in this case.
  - Happens to be ok. Modest drift for 120 days.
  - Absence of evidence $\neq$ Evidence of absence.

2. Long-Run Adjustment Model

- Only event-time, never calendar time
- Only Net-of-market or 1-factor
- Only actual changers...
- ...never checked on (mid-cap) placebos

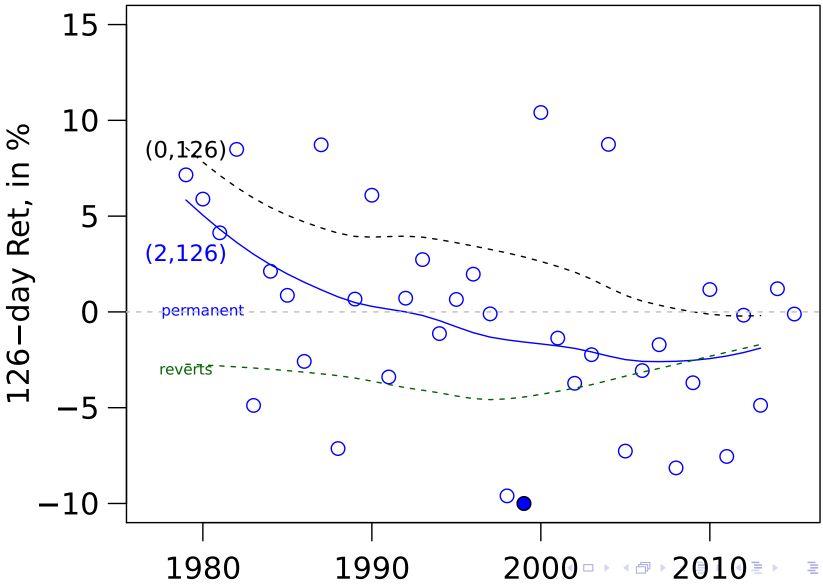
Patejisto uses a better model, but some odd results.

Placebos

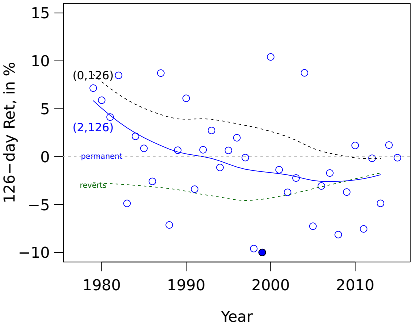
Days	ETN	ET1	ET5	CTN	CT1	CT5
42	0.5%	0.7%	0.5%	0.3%	0.3%	0.4%
126	1.1%	1.8%	1.9%	1.0%	1.0%	1.4%

- Mid-cap stocks happened to do well.
- Do not attribute this to Std&Poors!
- The placebo matters quantitatively.
- The question is quantitative!

3. Has the world changed?

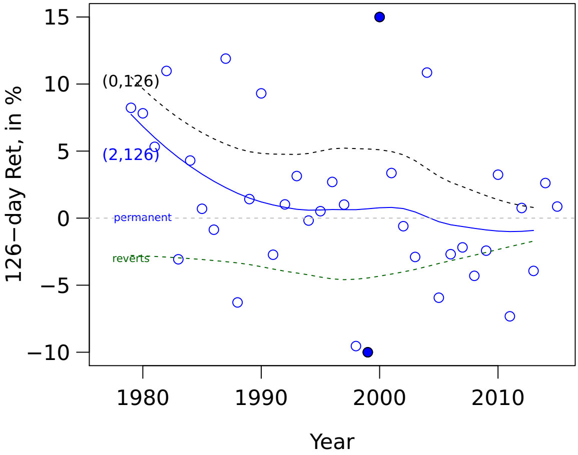


Has the world changed



- Earlier work ended before interesting relevant time.
- Shleifer pfio continuation evidence <1986 visible.
- Reversion: (2,126) reinforced until 1990, afterwards reversed.
- Total: as of 2010, about 0% : full reversion these days.
- 2-day smaller ⇒ takes less to reverse nowadays, too

OMIT: No Placebo



S&P 500 Removals

- –5% voluntary announcement response.
- –1% event-forced ann. response.
- Full reversal within 2 months.
- Even more for large anncmt effects.
- Most amazing 2-month effects:
  When 2-day is strongly negative, buy!

S&P 500 Removals

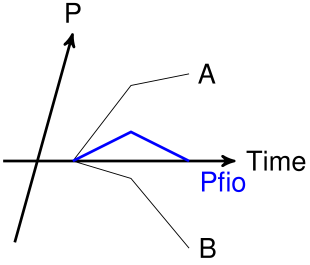
- –5% voluntary announcement response.
- –1% event-forced ann. response.
- Full reversal within 2 months.
- Even more for large anncmt effects.
- Most amazing 2-month effects:
  When 2-day is strongly negative, buy!

4. Test and Hypothesis

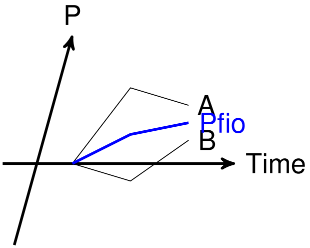
- Hypothesis
  = Stock Reversal
- Evidence
  = Portfolio Reversion

Test and Hypothesis

Portfolio Reversal



(Individual) Stock Reversal



- All past tests measured pfio effects.
- All hypothesis are about stock reversals.
- Pfio = 1st Moment. Stocks = 2nd Moment.
- Mean tests are harder on abn.ret. model.

- Shleifer 1986: Obvious reversal already!

Evidence As of 2016

- 2-day Announcement
  - +3% on addition;
  - –1% / –5% on removal, declining.
- 3-6-month inference is sensitive.
  - Always check placebos!
- As of 2016, expect full reversal.
  - ...incl dramatic removal reversal effects.
- The entire literature used the wrong tests.
- Empirics are rarely as clean as we wish.
  - There were many earlier warning signs and simple errors.
  - Not **our** fault that earlier papers "seemed" cleaner.

  The academic journal process encourages papers to be disingenous, discourages followup papers to be critical and negative (couched only.)

Our View

- Question remains first-order finance.
- Hypothesis is clear; not invented by us!
- Economics is clear.
- We show world is now different.
- Earlier empirical tests were not great.
- Earlier tests were wrong.

Our View

- Question remains first-order finance.
- Hypothesis is clear; not invented by us!
- Economics is clear.

\+ We show world is now different.

\+ Earlier empirical tests were not great.

\+ Earlier tests were wrong.

What else could a journal possibly want?

- JF:
  - Paper has good methodological points, but is not interested in economics.
  - Inferences largely consistent with literature.
- RFS:
  - Paper needs more economics.
  - no (novel) explanation **why** effect is gone now = This is not progress.

- JFE:
  - Reads like rough draft. Stopped after 8 pages.
  - Fama already told us that longer horizons measurement is difficult...this paper is just an illustration of this point.

W/o our paper, what remains as the null hypothesis in the literature?

- JFE:
  - Reads like rough draft. Stopped after 8 pages.
  - Fama already told us that longer horizons measurement is difficult...this paper is just an illustration of this point.

W/o our paper, what remains as the null hypothesis in the literature?

What Are We Doing?

- All my most-cited papers had many *very* negative referees.
  - Some of it is me / my taste.
- We need more top journals.
  - Finance has grown over last 30 years.
  - We need JFQA, RAPS, RCFS, CFR considered top.
  - We need broader professional acceptance
- We/I need more active editors!
  - How can negative papers draw friendly referees?
  - RAPS needs more great editors like Wayne (and Jeff).
  - Thanks, Wayne, on behalf of us.

- Can we please keep our most basic body of empirical evidence up-to-date and solid?
- ...and stop insisting on perfect and unbelievable empirical findings;
- ...and not just encourage replicability, but actual replication and critique;
- ...instead of focusing on the latest and sexy and unbelievable (novelty) finding;
- ...and/or the most clever or difficult technical analysis?

This is first-order importance to the relevance of our collective academic credibility.

Thank you.

PS: The 4th edition of my corporate-finance textbook is now **free** at `http://book.ivo-welch.info/`.