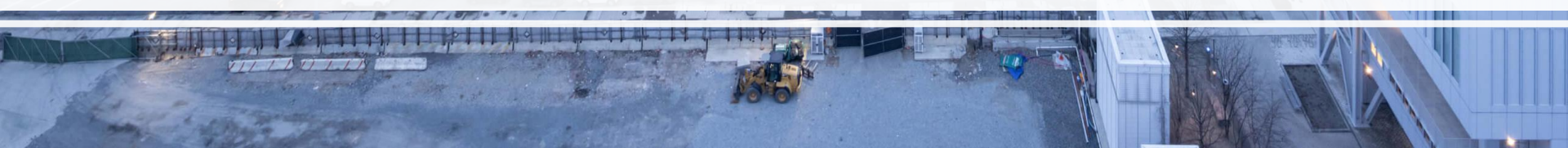




Pre-Thesis Seminar: [Simon Oh](#) (Finance Division)
November 18th, 2024



Some (potentially useful) advice

On the Statistics of Individual Variations of Productivity in Research Laboratories*

WILLIAM SHOCKLEY†, FELLOW, IRE

In the following pages a co-winner of the 1956 Nobel Prize in Physics presents a novel study of one of today's most precious commodities—scientific productivity. The author not only measures the variations that exist between different research workers, he also explains these differences and draws some specific conclusions about the relationship of salary to productivity. PROCEEDINGS readers will find this an especially timely and significant discussion, particularly in view of the present widespread concern about manpower shortages and proper utilization of scientific personnel.—*The Editor*

Shockley (1957)

Still another way of rationalizing the log-normal distribution may be based upon the hypothesis that the interacting mental factors are of several different kinds rather than several of one kind, as in the case of several ideas as discussed above. For example, consider the factors that may be involved in publishing a scientific paper. A partial listing, not in order of importance, might be: 1) ability to think of a good problem, 2) ability to work on it, 3) ability to recognize a worthwhile result, 4) ability to make a decision as to when to stop and write up the results, 5) ability to write adequately, 6) ability to profit constructively from criticism, 7) determination to submit the paper to a journal, 8) persistence in making changes (if necessary as a result of journal action). To some approximation, the probability that a worker will produce a paper in a given period of time will be the product of a set of factors F_1 , F_2 , etc. related to the personal attributes discussed above. The productivity of the individual would then be given by a formula such as

$$P = F_1 F_2 F_3 F_4 F_5 F_6 F_7 F_8. \quad (1)$$

Now if one man exceeds another by 50 per cent in each one of the eight factors, his productivity will be larger by a factor of 25. On the basis of this reasoning we see that relatively small variation of specific attributes can again produce the large variation in productivity.

A Useful Checklist (1/6)

- Ability to **think of a good problem**

A Useful Checklist (1/6)

- Ability to **think of a good problem**

1a. Read! There needs to be **input** in order to generate **output**.

- Media Articles
- Books
- Industry Reports
- Academic Papers (cast a wide net!)
- There is no shortcut!

A Useful Checklist (1/6)

- Ability to **think of a good problem**

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- Media Articles
- Books
- Industry Reports
- Academic Papers (cast a wide net!)
- There is no shortcut!

1b. **Repetition** is more important than perfection

- If you want to write a great job market paper, you could spend years polishing one perfect idea in isolation.
- Or, you could present your research early and often, learn from feedback and rejection, and iterate on your work until it stands out.
- This is **incentive compatible**! Schools increasingly want evidence of sustained output, so a portfolio of research helps build your case.

A Useful Checklist (2/6)

- **Ability to work on the problem**

A Useful Checklist (2/6)

- Ability to **work on the problem**

2a. Courses are the **foundation**.

- Common methodologies: diff-in-diff, IV, regression discontinuity
- Common theoretical frameworks
- You never know which course will be useful – embrace a learning mindset and stay open to unexpected connections

A Useful Checklist (2/6)

- Ability to **work on the problem**

2a. Courses are the **foundation**.

- Common methodologies: diff-in-diff, IV, regression discontinuity
- Common theoretical frameworks
- You never know which course will be useful – embrace a learning mindset and stay open to unexpected connections

2b. Tools are your **leverage**.

- Master relevant software for empirical work.
- Explore advanced computational tools (e.g. cloud computing) for complex projects

A Useful Checklist (3/6)

- Ability to **recognize a worthwhile result**

A Useful Checklist (3/6)

- Ability to **recognize a worthwhile result**

3a. Stay in touch with the **literature**

- Attend seminars regularly – it's the easiest way to learn.
- Browse through conference programs.
- Read beyond your immediate area of interest – don't stay too narrow.

A Useful Checklist (3/6)

- Ability to **recognize a worthwhile result**

3a. Stay in touch with the **literature**

- Attend seminars regularly – it's the easiest way to learn.
- Browse through conference programs.
- Read beyond your immediate area of interest – don't stay too narrow.

3b. Analyze how papers are **structured** and evaluate their **contribution**.

- Every (successful) paper has a contribution.
- When reading the papers, try to pay attention to how a paper carves out its contribution.

A Useful Checklist (4/6)

- Ability to **profit constructively for criticisms**

A Useful Checklist (4/6)

- Ability to **profit constructively for criticisms**

4a. Ask for **feedback** proactively

- Don't wait – reach out to advisors and peers
- Be explicit about your needs
- Frame your questions clearly

A Useful Checklist (4/6)

- Ability to **profit constructively for criticisms**

4a. Ask for **feedback** proactively

- Don't wait – reach out to advisors and peers
- Be explicit about your needs
- Frame your questions clearly

4b. Find the **advising style** that fits you best

- Some advisors excel at high-level strategy, others at line-by-line edits
- Do you want detailed feedback, big-picture guidance, or just encouragement?

A Useful Checklist (5/6)

- **Ability to write adequately**

A Useful Checklist (5/6)

- Ability to **write adequately**

5a. **Practice writing**

- If you have a result, try writing it in paragraph form instead of bullets—writing clarifies your thinking.
- Make it a habit to write regularly, even if it's just notes or reflections.

A Useful Checklist (5/6)

- Ability to **write adequately**

5a. Practice writing

- If you have a result, try writing it in paragraph form instead of bullets—writing clarifies your thinking.
- Make it a habit to write regularly, even if it's just notes or reflections.

5b. Read and emulate good writing

- Aspects: transitions, argument flow, contextualizing results
- Clarity over complexity

Model Writing in Economics

☰ Date	September 2020
☰ Keywords	Exposition
⦿ Status	Published
☰ Author	Sangmin S. Oh

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A Useful Checklist (6/6)

- Ability to **present adequately**

A Useful Checklist (6/6)

- Ability to **present adequately**

6a. **Practice** presenting

- Take every opportunity to present—conferences, PhD workshops, internal reading groups.
- Record yourself to identify areas for improvement (e.g., pacing, tone, or clarity).

A Useful Checklist (6/6)

- Ability to **present adequately**

6a. Practice presenting

- Take every opportunity to present—conferences, PhD workshops, internal reading groups.
- Record yourself to identify areas for improvement (e.g., pacing, tone, or clarity).

6b. Watch and emulate good presenters

- Watch seminars and conference talks—analyze what makes them engaging.
- Pay attention to slide design, storytelling, and how presenters handle questions.

What's in a good (academic) seminar presentation?

Date	August 2024
Keywords	Academia
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Author	Sangmin S. Oh

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While it is widely acknowledged that delivering a compelling seminar presentation can go a long way in finance and economics academia, concrete suggestions for improvement are surprisingly rare. In this post, I seek to fill this gap by exploring the key elements of an effective academic presentation in finance, drawing insights from some of the field's best presenters.

The Checklist: Shockley (1957) + Oh (2024)

1. Ability to **think of a good problem**
 - Read! There needs to be input in order to generate output.
 - Repetition is more important than perfection
2. Ability to **work on the problem**
 - Courses are the foundation.
 - Tools are the leverage.
3. Ability to **recognize a worthwhile result**
 - Stay in touch with the literature.
 - Analyze how papers are structured and evaluate their contribution.
4. Ability to **profit constructively from criticisms**
 - Ask for feedback proactively
 - Find the advising style that fits you best
5. Ability to **write adequately**
 - Practice writing
 - Read and emulate good writing
6. Ability to **present adequately**
 - Practice presenting
 - Read and emulate good presentations

Crafting Academic Narratives

The (Finance) Academic as a Storyteller

1. Why do I care?

"This is so boring"

"Why do I care about this?"

"I don't get why this is an important topic"

The (Finance) Academic as a Storyteller

1. Why do I care?

"This is so boring"

"Why do I care about this?"

"I don't get why this is an important topic"

2. Isn't this obvious?

"Is this new? I thought we knew this already"

"Is this supposed to be surprising?"

"I don't think I learned anything new"

The 5 Archetypes

Paradigm Lost

Provides new facts that prompt a re-evaluation of current paradigms

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Measure for Measure

Measures what was once thought immeasurable

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Uncovers the underlying causes and consequences of significant events

Let's Practice! (1/3)

Intangible Capital, Firm Scope, and Growth*

Nicolas Crouzet

Kellogg School of Management

Janice Eberly

Kellogg School of Management and NBER

Andrea Eisfeldt

UCLA Anderson School of Management and NBER

Dimitris Papanikolaou

Kellogg School of Management and NBER

Abstract

Intangible assets capture information that is embodied, or stored, and used in production. This embodied information can be replicated, even if imperfectly, allowing the intangible to be deployed simultaneously in multiple uses, expanding the firm's scope. At the same time, replication creates a risk that a firm's intangibles will be copied or appropriated by competitors. We embed these properties, replicability and excludability, into an otherwise standard endogenous growth model, and show how improvements in the technology to replicate intangibles can lead to larger firms, with higher concentration, valuation ratios, and profit share, but lower growth.

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Let's Practice! (2/3)

Common Risk Factors in the Returns on Stocks, Bonds (and Options), Redux [†]

Zhongtian Chen [‡] Nikolai Roussanov [§] Xiaoliang Wang [¶] Dongchen Zou ^{||}

First Version: September 9, 2022

This Version: October 6, 2024

Abstract

Are there risk factors that are pervasive across major classes of corporate securities: stocks, bonds, and options? We employ a novel econometric procedure that relies on asset characteristics to estimate a conditional latent factor model. A common risk factor structure prominently emerges across asset classes. Several common factors explain a substantial amount of time-series variation of individual asset returns across all three asset classes, and have sizable Sharpe ratios. Several of our factors are highly correlated with some of asset-class-specific factors as well as macroeconomic and financial variables. While a small set of common factors does not fully capture the cross-section of average returns, imposing the factor structure is useful in practice, especially in out-of-sample analysis. A mean-variance efficient portfolio that utilizes asset characteristics achieves a high Sharpe ratio as different asset classes hedge each other's exposures to the common factors.

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Let's Practice! (3/3)

Asset Purchase Rules: How QE Transformed the Bond Market

Valentin Haddad, Alan Moreira, and Tyler Muir*

September 17, 2024

Abstract

We argue that quantitative easing (QE) and tightening policies constitute a dynamic state-contingent plan instead of a succession of independent interventions. This view changes the main reason QE is effective by adding an insurance channel to the static effect of absorbing bond supply in a given period. QE purchases occur in bad economic states (e.g., 2008-2009 or 2020) when the supply of government debt increases. Increasing long-term bond prices in bad economic states increases their safety, driving up their value and thus lowering ex-ante yields. We estimate that this insurance channel alone lowers long-term bond yields by 75-100 bps. This channel explains the prevalence of low long-term yields, low term premia, and low yield volatility since the introduction of QE, despite the sharp increase in net government debt supply. Consistent with a state-contingent channel, implied volatilities of long-duration risk-free securities fall substantially on QE announcements, even for options with maturities out to 10 years. We calibrate a policy rule for asset purchases to their historical path and include it in a quantitative term structure model. In the model, state-contingent QE offsets term premia fluctuations in long-term bonds. The insurance effect from this channel lowers long-term Treasury yields by 75bps ex-ante, which explains about 75% of the total effect of QE on yields. The calibrated model matches both broad patterns in bond yields and the response to QE announcements.

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