

# What Is a Model Validation Analyst?

Working in Banking and How to get the Job  
(And Various Other Advice)

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# About Me

- Worked in Financial Industry Since 2007
  - Intern at Morgan Keegan & Co. (Acquired by Raymond James in 2012)
  - Financial Advisor at Morgan Keegan|Raymond James from 2009 to 2013
  - Brief Detour to FSU (more about this) PhD in Political Science
  - Hired as Mortgage-Backed Securities Trader and Analyst at Regions Bank (2014)
  - Transitioned to Commercial Real Estate Market Analyst (2017)
  - Model Risk/Model Validation (January 2021 – Present; Senior Analyst starting in December 2023)

# How Did I get from Point A to Point B?

- I networked, and I followed my interests OVER TIME – your interests can and will change. They won't diverge drastically, and even though my resume may make one think they changed; it's more of a shift as opposed to a total 180.

# Model Validation Analyst

- A Model Validation Analyst is a creation of a regulation from the Federal Reserve known as SR 11-7: Guidance on Model Risk Management
- Unfortunately, Model Risk Management is a necessity as a result of the 2008 Financial Crisis. The Dodd-Frank Act created what we now know of as Stress Testing (more formally CCAR – Comprehensive Capital Analysis and Review).

# 6 Components of a Model Validation

- Define the use of the model – is it used for fraud detection? Loss Forecasting? Compliance with Anti-Money Laundering? Treasury (Asset Liability Management)? This also includes understanding the users, processors, owners of the model.
- Developmental Evidence for the functional format; weaknesses, limitations, segmentation testing, variable selection
- Inputs – think TONS of Exploratory Data Analysis on the developmental data on which the model was built. What are the sources of the data? Is it complete? Is any proxy data used? How is missing data treated?
- Implementation – does the model provide accurate outputs?
- Outcomes Analysis and Ongoing Monitoring – Outcomes Analysis (What happened at development – did you stress it?) ; Ongoing Monitoring (How does the Model Continue to Perform?)
- Governance (any regulatory guidance that governs the model, internal guidance that governs the model; committees that use the model output and assess the model assumptions; controls) – this is the most boring. If you find this interesting, you'll end up a compliance analyst.

# Statistical Modeling in Banking

- We do not just use Excel Spreadsheets; we use Python, R, and SAS. My group uses a lot of SAS. It's not going away.
- Some groups focus more on econometric-style modeling with time series components; some groups focus more on machine learning.
- My group is more of econometrics and traditional statistics (we cover what you think of as traditional banking). My specialty has traditionally been capital markets and commercial score cards. I have evolved into an *immature* expert in Retail and Wholesale CECL (Current Expected Credit Losses) – we use a lot of Fractional Logit with Hazard Rates and Survival Curves.

# Where do you fit in?

- If you are a PhD – you do not need banking experience to be a Model Risk Analyst. You have what it takes, and the hiring manager knows it. You just need to have an open mind and be willing to learn banking. You will help your colleagues who are Masters level analysts get better at developmental evidence and understanding the mathematical components of models. We have PhDs in Statistics, Mathematics, and Economics. If you can show some understanding of time series or economics, you will have an advantage – this does not mean a PhD in Economics automatically has an advantage.
- If you have a Masters – you do not need banking experience, but it helps. It also helps to have an undergrad in Economics or Finance.
- My situation – you better have 10+ years of finance experience. I got hired, because I had a few masters classes and a lot of understanding of subjects. My time in a PhD program at FSU helped.



# Most Important Skills (Besides Statistics)

- Willing to learn all the time – new models, new tools, new subjects
- Conflict resolution – between model owner and developer; they might hate you. They might love you.
- Social skills – you can be an introvert, but just be nice. Also, asking the developer to help you understand something helps a lot.



# How to get a Job?

- Research the companies you are interested in
- Ask your professors or prior contacts at internships about jobs if you are looking into the private sector. Your professors and contacts at internships have friends other places (even if the internship company is not hiring).
- What if you are afraid you won't like finance (or any other subject), although there might be a job? Who cares!
  - Trajectory of one former colleague: Statistician at Property and Casualty Insurance Company -> Statistician at Advertising Company (a modern-day Mad Men Agency) -> Model Risk Analyst at My Company -> Manager of a Data Science Group at a Cigarette Company -> Back to Model Risk at Another Bank. The point - YOUR SKILLSET IS TRANSFERABLE!

# Questions?

- If you ever wish to contact me, my email is [adrian.thurstin@outlook.com](mailto:adrian.thurstin@outlook.com)