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I am currently a PhD candidate in Finance at Rutgers Business School, Rutgers University-Newark and New Brunswick, and I am expected to complete my degree in May 2025. My journey in academia began with my passion for economics and applied mathematics, which led me to pursue a dual degree in these fields at the University of California, Los Angeles (UCLA), where I earned a Bachelor of Science in Applied Mathematics and a Bachelor of Arts in Economics in 2017 . Following this, I continued to deepen my understanding of economic theory by obtaining a Master of Arts in Economics from Vanderbilt University in May 2019 .

I enrolled in Rutgers University in the fall of 2019 to pursue my doctoral degree in Finance, driven by a keen interest in the intersection of financial regulation, banking, and emerging financial technologies. My academic experience at Rutgers has been rigorous and enriching, with coursework that spans across advanced finance, econometrics, and accounting. Key courses that have shaped my academic foundation include Microeconomic Theory, Macroeconomic Theory, Advanced Econometrics, and Financial Theory. I have maintained a strong academic record, consistently earning high grades in my coursework, and I completed my qualifying exams with distinction.

During my time in the PhD program, I have had the opportunity to teach several courses as an adjunct instructor and teaching assistant. These experiences have not only honed my teaching skills but have also allowed me to engage with students in the fields of financial management, banking, and FinTech. My role as a teaching assistant for various finance courses, such as Fixed Income Analysis and Corporate Finance, has helped reinforce my practical knowledge of financial theories while facilitating discussions on real-world applications.

In addition to teaching, I have been actively involved in research, collaborating with faculty members on cutting-edge financial topics. My work at Rutgers has provided me with the analytical tools necessary to conduct independent research, culminating in my dissertation and several working papers on topics like bank diversification, cost of capital for financial institutions, and the regulatory impacts on the FinTech sector.

My research interests are primarily centered around banking, financial regulation, and FinTech. These fields are crucial as they address some of the most pressing challenges in today's financial landscape, including risk management, regulatory compliance, and the integration of innovative technologies in traditional banking models. Specifically, my research seeks to bridge theoretical frameworks with practical applications to better understand the stability of financial institutions, the risk-return tradeoffs in banking, and how regulatory policies influence financial systems.

My primary area of research focuses on the role of diversification in banks and how it influences their stability, profitability, and risk management. Traditional banking literature suggests that banks that diversify their business lines should be able to reduce idiosyncratic risk through portfolio theory, but the effectiveness of various diversification measures has been debated. My research aims to reconcile these conflicting findings by examining new measures of diversification and their impact on bank performance.

I am also deeply interested in the role of FinTech in modern financial systems. FinTech innovations such as blockchain, AI-driven financial services, and decentralized finance (DeFi) are transforming traditional banking and financial services, posing new regulatory challenges. My research explores the regulatory implications of these technological advancements and how financial institutions can adopt these innovations while ensuring compliance with regulatory frameworks .

My dissertation, titled Bank Diversification and Tail Risk, examines the critical relationship between diversification across business lines and tail risk in the banking sector. The premise of my work is grounded in portfolio theory, which posits that banks that diversify their operations across different business segments—such as retail banking, investment banking, asset management, and insurance—can reduce their exposure to firm-specific risks. My research, however, takes this theory a step further by developing a more nuanced and accurate measure of diversification based on an entropy-based approach, which accounts for both the number of business lines a bank operates in and the distribution of income across these segments.

The core of my dissertation explores the following key questions:

How does diversification across different business segments affect bank tail risk?
I use a unique entropy-based measure of diversification to assess the impact of diversification on tail risk, a critical measure of extreme downside risk in the banking sector. My results show that banks that engage in core business line diversification (e.g., lending, retail banking) tend to experience a significant reduction in tail risk compared to those that diversify into unrelated areas (e.g., venture capital, trading). Specifically, a one standard deviation increase in diversification leads to a 2.5% reduction in tail risk, which persists over the subsequent quarters.

What are the implications of diversification for bank performance during financial crises?
I find that banks that diversified their core business lines exhibited higher stock returns, lower default risk, and greater lending resilience during the 2008 financial crisis. This highlights the importance of strategic, related diversification in enhancing a bank's overall stability and ability to weather economic downturns.

Does unrelated diversification benefit banks?
My findings suggest that unrelated diversification—such as banks venturing into non-traditional lines of business—does not yield the same risk-reducing benefits as core business line diversification. In fact, unrelated diversification is not associated with tail risk, indicating that it does not offer the same protective benefits during periods of financial instability.

Through these findings, my dissertation contributes to the broader discussion on bank regulation and risk management by providing empirical evidence that can guide both policymakers and financial institutions in making more informed decisions about business line expansions and risk mitigation strategies.

Working Papers and Research in Progress

Do "MEASURES" of Bank Diversification Measure Up?
In this collaborative paper with Professors Priyank Gandhi and Darius Palia, we critically examine the widely-used measures of bank diversification and propose an entropy-based alternative that more accurately captures the diversification effect. We find that traditional measures often fail to account

for the true extent of business line diversification, leading to misleading conclusions about the relationship between diversification and idiosyncratic risk. Our entropy measure consistently outperforms existing measures, providing a clearer understanding of the diversification effect on bank performance.

Measuring the Cost of Capital for Banks:
This ongoing research project explores the optimal metric for assessing a bank's cost of capital, particularly in light of the limitations of the Capital Asset Pricing Model (CAPM) in explaining variations in bank returns. We aim to provide a more accurate framework for measuring banks' cost of capital, which will have significant implications for financial regulation and the evaluation of bank performance in the context of the Dodd-Frank Act's Volcker Rule .

Dissertation Committee Members:

My dissertation committee comprises distinguished faculty members from Rutgers University's Finance Department:

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These faculty members have provided invaluable guidance and support throughout my doctoral journey, helping me to develop a robust and innovative research agenda that has practical implications for both academia and the financial industry .