

STATEMENT OF PURPOSE

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How can I live my life to the fullest? I have never had an answer to this question until recently. I am concerned about what contributes to humankind. I also need to be passionate about what I do to make the best results; making a difference and doing something that I enjoy would be a great combination. Over time, my life events and experiences enhanced my perspective, clarified my path toward my goals, and made me take a risk to change my life plans.

In high school, I concentrated on the field I liked the best - physics at that time- since it made me the happiest in my life. The more I learned about Force and Motion, the more I became passionate about physics. My rank in the university entrance exam allowed me to pick just about any major I liked. So, I went with a major that included many physics: engineering, to be more specific, civil engineering. The field I chose seemed like the perfect fit for me, and for the second concern, I figured that civil engineering could be very beneficial as its impact, the construction, was tangible for me.

As a freshman at the university, I passed my first two bachelors semesters with excellent grades (GPA:3.9), but I decided to change my major to economics for my masters because of some reasons that will be explained here. The courses we studied in bachelors first semesters were abundant in the mathematical basics of engineering. My excellent mathematical skills led me to achieve the most satisfactory marks. Before university, I did well with trigonometry, probabilities, functions, limit and continuity, differentiation, integral, algebra, discrete mathematics, geometry, and analytic geometry. And I continued learning more about these subjects in the university, like their applications in engineering. I was fascinated by most of the math I learned at university, including statistics and probabilities, numerical calculations, linear algebra, and differential equations. Considering my mathematical high school background, I had no problem mastering these subjects at university. Additionally, the many challenging projects we had in various subjects enabled me to develop problem-solving, time-management, and under-uncertainty decision-making skills. Furthermore, I had the opportunity to participate in some extra-curricular activities up to fourteen hours a week. Working as an activist, a students' magazine's chief manager, and participating in study sessions helped me to gain a broader understanding of different subjects, especially social sciences like philosophy, history, sociology, and psychology. It also allowed me to improve my communication, teamwork, time management, presentation, and writing skills. We worked in teams of six to ten, editing passages for a students' journal for three years. These experiences made me interested in social sciences. I had so many deadlines to meet at the university, but I was so interested in attending study sessions that I never stopped following them. It taught me how to simultaneously handle my assignments, projects, and exams, as well as attend these sessions, although some of my grades declined due to not being interested in some of the more technical civil engineering special topics taught in the following semesters.

One of the books we studied in these sessions was *Principles of Economics* by Mankiw and Gregory that introduced me to economics. I realized that Economics could be the connection between my two goals, which allowed me to clarify the vague vision of my future. Moreover, I became increasingly interested in economics as I saw its effects in my everyday life in Iran. The Iranian people are suffering from some remarkable economic problems such as hyperinflation, high unemployment rates, controlled prices, and a centralized economy that inspire me to learn why these things happen and how they can be stopped. I was eventually able to find a combination of enjoying my life and easing people's lives simultaneously. Since economics applies mathematics to human-related concepts that can help resolve societies' problems.

At the end of my bachelors, I decided to take the risk of changing my major from civil engineering to economics. As I was aware of my enthusiasm I took the university entrance exam in economics, and I placed seventh among 60,000 participants. I chose to attend [Tehran Institute for Advanced Studies \(TeIAS\)](#) at Khatam University. Our school is a newly established school that is intended to prepare students who have a strong mathematical background, especially engineers, for the Ph.D. program in Economics and Finance. I started my master's with studying various courses, but financial economics and risk management entirely

directed my career goals. Studying financial economics provided me with the concepts of fair value, relation of risk and return, time value of money, and interest rates opened up a whole new world. Taking the risk management course has made me even more determined to succeed in finance. During this course, I learned a fascinating concept called the 'Financial Ecosystem' that allowed me to see how small elements of this environment affect the entire economy. My interest in economics and finance aroused as a result. In addition, I was pretty intrigued by the link between asset prices in financial markets and economic fluctuations. I understand that the market can discover the price for everything better than anything else. By the end of this course, when I encountered the US 2007 financial crisis, I realized that by making a mistake in that ecosystem, many people could lose their homes, jobs, and pensions.

During the second year of my masters, I began my research experience as a research assistant under the supervision of Dr. Mahdi Heidari. I conducted a literature review on the creation and detection of bubbles as my first experience. I gained firsthand experience about how to get deep into a specific question and devote a long time to understand it. I experienced lots of joy examining the previous studies of the researchers that I decided to pursue reading more and more papers. It was so interesting to spend so much time answering a specific question. I dealt with a wide variety of topics¹ like common ownership and its effect on companies' return co-movement. The results imply an empirically and statistically significant effect of undirect common ownership on firms' co-movement. I examined investors' behavior after the hit of price to its limit in the next project and showed that return deviates after the limit hit. Based on Hong's paper², I studied the more risk and less return puzzle in Iran, and there was no evidence for this puzzle. As part of another project, I evaluated price reactions following capital raise news for firms and found a positive abnormal return. As a result of these experiences, I have gained valuable skills, including the ability to crawl, clean, and preprocess data and infer economic facts in a short amount of time, calculate the abnormal return using event study methodology, and estimate by Fama-Macbeth method.

Furthermore, I am a teaching assistant, which provides me with valuable experiences. I am able to explain complex concepts to students and make sure they understood them. This experience helps me to see familiar concepts in a new light and understand them more thoroughly. The teaching profession is very challenging: teachers must be patient, understanding, sympathetic, and nurturing, all at the same time. By working as a teaching assistant, I am able to pay my own previous TAs forward by helping other students. I find teaching to be a fascinating activity, so I like getting certified and getting the education and training needed to teach a subject I am passionate about.

I decided continuing my studies for a Ph.D. in finance would be the best career choice. The financial system is where people leave their savings (such as pensions, homes, and retirement funds), so a relatively small improvement or optimization could result in a more efficient system that benefits these people. I enjoy making a contribution to the financial sector and exploring my interests in this area. Ph.D. program is an ideal challenge for me to develop my individual skills and help me meet my expectations after I complete the program. However, I believe I am capable of conducting independent research and making the strong commitment required of Ph.D. students.

Wharton School offers the best programs in this fascinating area of study along with the most distinguished faculty in both Economics and Finance who work on cutting-edge research using the most advanced facilities. One of the world's premier research universities, **university of Pennsylvania**, can provide me with the support I need to achieve my goal of making a lasting impression on the world. While at the same time, I am sure that I can contribute a distinctive perspective to the **Wharton Ph.D. program** given my cultural and educational background. In the end, **Spruce Street** is not my last destination. This is the starting point for me to become a great financial economist who will be remembered for generations.

¹You can access projects from my [GitHub profile](#).

²HONG, H. and SRAER, D.A. (2016), Speculative Betas. The Journal of Finance, 71: 2095-2144.