

## FEATURE

# AN ACCIDENTAL PHYSICIST

## How I changed my career from Nuclear Physics to Wall Street

By Richard King

**O**n a sultry summer afternoon in 1972 while returning from a vacation in Europe I was stopped by a customs officer who politely asked to see my custom declaration form. He looked at me with some suspicion and asked: Are you sure you have declared everything? It did look odd that I was wearing a safari jacket on a hot day. I answered a firm yes. But frankly I was a bit worried since we did exceed our purchase limit which was the reason why I wore that jacket. He then asked: What do you do? I said I was a securities analyst. His manner immediately changed. CIA, FBI? He waved me on with a knowing smile. Apparently that agent did not know the difference between a securities and a security analyst. Two years earlier, neither did I. But I am getting way ahead of my story.

My parents first came to this country when I was only 9 months old when father went to Michigan to study for his master's degree in political science. Both my younger brother and sister were born in New York. Mother returned to China after WWII. I came with her to join father in 1953. I was 14.

When it came time to think about colleges, father's comment to us was: Too bad, my father was richer than your father. If I have the money, I would send you all to Harvard. So don't talk to me about colleges. I wanted to go to Cornell. But as hard as I worked in the summer I was only able to save \$ 1,000, which was not an insignificant sum in the 50's but still fell short of \$4,000 needed.

If I knew then what I know now, I probably could have worked in a frat house for my room and board and borrowed or get a scholarship for the remainder. But I did not.

Ironically my son one day would attend Cornell and one of Roger's sons Harvard. I guess it just was not our turn. Both Roger and I had a burning desire to succeed. We were proud of our heritage and wanted to restore our family's reputation and fortune. Father did give us one advice. With his own experience of not being able to find gainful employment, he told us we would be better off even if we graduate at the bottom of class in science or engineering than at the top of class in business. He was absolutely right. Jobs outside science or engineering were just not available to Chinese. I am sure many other Chinese parents said the same to their children.

The one college that I could go to was City College of New York (CCNY). It was then known as poor man's Harvard and it was free. I majored initially in Civil Engineering. At that time I was still thinking that one day I would return to and help build China, the land of my birth. China had so few roads, bridges, etc. Today China has one of the largest networks of highways and high speed rail systems in the world. Years later I did return and tried to help China but this time as an investor. I still own 2/3 of a gypsum mine which employs many workers.

During my freshman year the Soviet Union launched its Sputnik. That changed the whole picture. I was so excited and decided to switch to physics. While physics was relatively easy for me, something was missing. I was just not that fired up. My first job was a junior physicist at Sloan Kettering Cancer Research Institute.

My job took no more than two hours a day. It gave me plenty of time to study and I decided to try my luck in business and enrolled at



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New York University (NYU)'s business school. It did not have a name (Stern) nor was it famous then as it is now. However when an opportunity came from IBM, I took the job and commuted daily from New York to Poughkeepsie, a round trip of 160 miles and 4 hours each day. I was young then.

One day it dawned on me, with only a bachelor's degree in physics, I was not going to go far. I decided to go back to physics. I decided to look for one closer. I went to the American Physical Society's office and found an ad by General Precision Lab looking for someone with a Ph. D. with a background in Optical Pumping. What's that? By then I had almost enough credits for a master's degree but not Ph. D. However I

was able to buy a book on Optical Pumping and studied it on my own before my interview. Ivan Greenwood, the Associate Director of Research was impressed and he hired me.

The moral of the story is never go to an interview unprepared.

General Precision was much closer to our new home. My commute was now only half an hour away instead of two hours. I enrolled at NYU and began to study full time while working full time. It meant four nights a week but progress from then on was swift.

When it came time for me to find a thesis advisor it was a no brainer. Professor Henry Stroke is one of those genuinely nice guys. Many professors would keep their graduate students for years, Henry was different. He was only interested in results. Besides he was an expert in optical pumping, a field I already knew something about. One could ask why I would want to pursue a field I already was familiar with. Why not study and learn something different? With my ambivalence

towards physics, I was only interested in getting my ‘union’ card, my Ph. D.

Progress was indeed swift. I managed to finish my thesis in record time, less than a year. Through Professor Stroke’s connections, I had an opportunity to do post doctor study at Princeton. I knew then as I know today, I was never going to be a world class physicist neither did I have the passion. Now what?

I wanted to make a change. My ex-wife Angela was very supportive. Even though our marriage would ultimately fail due to no one’s fault, I owe her everything. She had so much confidence in me. She was the one who encouraged me to get my Ph.D. and go get an MBA from Harvard if that is what I wanted to do. It may seem presumptuous. But in 1970 there probably were not many candidates with a Ph.D. in nuclear physics applying to business schools.

It just so happened that a Chinese-American friend Peter Lieu, who has an MBA from Chicago, called me and asked me what is 1K? I was puzzled? You mean 1,024 bits? Peter told me that he was a securities analyst. His description of the job really intrigued me. I thought it was odd. How could one follow the computer industry not know a simple term like 1K? He asked if I would be interested in exploring it further and I said yes.

In those days analysts were often assigned to different industries at random with no relationship of their industry background or knowledge. Most of them had MBA’s from leading business schools. Very quickly, Peter graciously arranged for me to be interviewed by several Wall Street firms. Most people were polite but still no offer. The prospects were grim. Perhaps like Don Quixote, I was chasing after an impossible dream.

A break finally came through my father no less. He was a Vice President of Frank B. Hall, an insurance firm, which had just gone public. Its vice president of finance was in a car pool with the director of research at Paine Webber. Thus I

began a career of almost 30 years on Wall Street. I moved from being an analyst to an investment banker and finally a venture capitalist.

I was one of the first Asian-Americans to have his own venture firm. Interestingly one of my investors was IBM. It was a fun ride. I was fortunate to arrive on the scene at the dawn of the micro-electronics revolution.

Soon after joining Paine Webber, I had second thoughts. I was remorseful. After all I was a highly trained physicist. I received not only a fine education but was aided by financial support by various government agencies that funded my research. Was I wasting my skills for some selfish reasons? I wanted to find some way to combine my interest in finance with my formal training in physics. But first I had to find my bearing.

I realized fairly early on that there were not many analysts who focused on the technical aspect of analyzing companies. They usually ask, to me, mundane questions such as what your capital budget is for next year or tax rate, etc. I wanted to find a differentiation based on each company’s technology and strategy.

Even though my specialty was in Optical Pumping and Nuclear Physics, I was however, able to read and understand some of the new technical developments in micro-electronics. Thus I was able to carve out a niche for myself and was quickly “chosen” by Institutional Investor Magazine as an All American Electronics analyst. This gave me an edge.

One of the companies I followed was National Semiconductor. It did not take a rocket scientist to realize based on their cash flow and capital budget that the company needed a new round of financing. I asked the CEO, if I could be their investment banker. The answer was yes. Thus I began a second career on Wall Street working full time as an analyst and part time an investment banker. I was on cloud nine.

Before long, Donaldson Lufkin & Jerenrette (DLJ) offered me a position in their investment banking department. I focused solely



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on electronics companies. One of the companies I attracted to was De Anza Systems. It was a small company but a pioneer in image processing. Before I pitch for the assignment, I made sure I learn as much about their business as possible. Once again, I bought a book on image processing. When I showed up at the company, the two founders were astonished that an investment banker could talk their language.

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Not only did I manage to sell the company, we got the highest fees at DLJ at that time. At the closing, the two founders were jumping up and down with joy as the selling price was more than twice what they had hoped for. In turn the two founders lifted me off the floor, they were big guys, and said to me: Why do you work for others? Why don't you start your own venture capital partnership? Is it because of your Chinese heritage? As one of them said to me, De Anza was the third company he started and the first two were failures. They further encourage me by promising to be my first investors and they were.

That was how I became one of the first Asian-Americans to manage his own venture capital partnership. By today's standards it may not be much. But I did manage three partnerships totaling more than \$ 130 million. As an aside, one of our investors was none other than IBM.

One of the most satisfying investments we made was in Dallas Semiconductor. It was founded by many people from Mostek, one of my investment banking clients. I was privileged to help write its initial business plan as well as its initial public offering. It was a huge success. Not only we made a lot of money for our investors but we also created jobs for more than a thousand employees. One of the proudest moments was when the company paid its \$ 100 million tax to our national treasury. That is the essence of what venture capital is and should be.

Now that I am in the last quarter of my life, before I sail off and fade into the sunset, if asked what advice I have for young people, my answer is:

*follow your passion, think out of the box, seize the moment, work hard and don't be too modest or shy especially if you have something to offer. You may be surprised what life has in store for you.*

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*Originally from Shanghai, Dr King is a grandson, on both sides of his family, of two of the founders of the Bank of China.*