A little more than two semesters since joining the Wisconsin Economics department, Professor Stella Chan already has a reputation that precedes her. Her students have consistently praised her and have found her to be an extremely engaging and educational instructor.

Besides being a robust lecturer, Professor Chan is also a highly experienced macroeconomist. With a graduate degree from UCLA and research experience at the International Monetary Fund (IMF), Professor Chan’s interest in international finance has grown and developed in the best of settings. Here, she talks about her path to becoming an economist, her time at the IMF, her experience with economic research and lastly, her take on current events.

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At what point in your undergraduate career did you realize you wanted a career in economics?

When I was in high school, I always thought that I would become a Journalist sometime in the future, so I thought somewhere down the road I would study international affairs or international studies. I was on the science track in high school, so I had no prior exposure in economics, so when I came to the US--I went to UC Berkeley for my undergrad--I explored different subjects in social sciences. I thought I would stay in history or political science. Then, I took Intro to Micro and Macro, and I just fell in love with economics. I really liked the structure, discipline and logical way of thinking about how economic agents behave and interact with each other.

So your field is macroeconomics, and international finance specifically. When did you realize your interest in these areas?

I was interested in development issues, and realize that one contributing factor to economic growth is the development of financial markets and integration into global capital markets. So that’s a broad interest I always had. I remember the Asian financial crisis also occurred when I had to declare my major as an undergrad, and so that was one of the main reasons I became interested in currency crises and central bank policy.

After earning an undergraduate degree in economics, how did you come to the decision to pursue a career at the IMF instead of graduate school?

I actually did not think about studying economics at a graduate level. I thought work first, anyway, to find out what I’m interested in doing and learning in the future. I was fortunate enough that the IMF just started a new research assistant program targeting undergraduate students with an economics degree. They came to Berkeley to recruit, and I was fortunate enough to get the job. I’ve interviewed with many companies, most of them are in the private sector ... but the job at the IMF was one of the few jobs that really allowed me to directly apply my knowledge of economics to my job. Even though my work didn’t directly decide the policy of different countries, it still indirectly shaped macroeconomic policies at a national level, so it really is meaningful work.

How and when did you eventually decide to go to graduate school? Was this decision influenced by the time you worked at the IMF?

Originally, I wanted to come back to the IMF and work as an economist, and that’s why I started thinking about applying for a PhD program in economics. What’s also helpful about working at the IMF is that it gave me the hands on experience of working with data, analyzing data … there were also a lot of issues I was exposed to that actually gave me an idea of what I may want to do research-wise.

There were also a lot of professional development opportunities at the IMF. I took Portuguese classes when I was working there because I had to sometimes go to databases and read documents that were published by the Brazilian government. Another thing a is that there were a lot of in-house seminars and training sessions I could have attended if I had the time. So I highly recommend students interested in going to graduate school in the future, but also want to take a break, to go work for the Fed or the IMF are great opportunities.

After working at the IMF and attending grad school at UCLA, you started teaching at Grinnell College, before coming here. With regards to your time here so far, how has it been teaching Intro to Macroeconomics and International Trade and Finance?

I think it’s great that I’m teaching both an introductory course and an advanced course. I really want students to get the opportunity to be exposed to macroeconomic issues without getting into the details of more complicated, more mathematical models and techniques economists use. There are also lots of current issues that are relevant to the class… the trade war, federal reserve policy, and so on.

For the 400-level course, the class size is much smaller, and I really enjoy having that dialogue with students while teaching. I’m also able to talk more about issues in international trade and finance that I am particularly passionate about.

For those students still unsure about a major in econ, what do you have to say to them?

I think economics is definitely a great major. The methods that you learn are very useful, the analytical and theoretical framework that you learn you can apply to a broad set of issues ranging from consumer and firm behavior, to environmental issues, to development issues. The second thing is that I think economics gives students a really strong quantitative foundation, especially through the learning of statistics and econometrics. Especially these days when everything is becoming more data-driven… with the availability of Big Data, having these quantitative skills and having the experience of working with data and doing statistical analysis is all extremely important.

Going a step further, for those students starting considering to pursue economics and economic research as a life-long career, what does formal research in economics actually look like?

In econ we use the scientific method: we come up with a hypothesis and theory which, a lot of time, is grounded in mathematical models, which makes it more objective. Ultimately, economics is used to analyze real world issues and make predictions about them. So the discipline of using data to verify your claims is very important. So that’s kind of a pro of economic research. But I think the issue students need to be aware of when doing economic research, is that it is not the same thing as doing scientific research in the natural sciences. You cannot repeat experiments in a controlled environment. The assumptions that you make when analyzing economic issues are very important because they may change, and so will the conclusions of your research.

When you’re thinking about the recent financial crisis, for example. If you assume investors have rational expectations, the implications of the model will be different than if you used behavioral economics and assume that there are different psychological kind of… aspects that dictate how people behave. Especially in macroeconomics where there is a lot of disagreement in terms of how the market functions, or how the economy functions, and that’s why some people are saying that economists were not able to predict the most recent financial crisis. So although making assumptions is still really important, it is important to realize that different assumptions lead to different conclusions.

The second thing is because we cannot repeat experiments, and so the testing of hypothesis is based on historical data. So any structural changes in the economy… then the outcome of the economy may be different from what happened in the past. So I think that’s also something students need be aware of when they’re doing research.

Do you think there are any specific problems that you face when conducting research in your field (international finance and macro), that might not necessarily be faced by other economists doing research in other fields within economics?

Definitely. Macroeconomic data is usually time series data, so we have to take into account the properties of time series data. Another thing is that there are usually so many variables in macroeconomic data that are changing at the same time… and there is no way to control these other variables to ensure they stay constant. And if you’re looking at a developed economy versus a developing economy there may be different economic structures, and even different political and social structures that may be different, that would affect your outcomes in research.

Also for emerging markets… there are so many structural changes going on in the economy, these countries are going through long-term trade mobilization and their financial markets are currently being developed. You definitely have to take these things into account. They are usually also going through political transitions… one thing I was looking at in my research is whether central banks are independent from their governments, and it turns out those things really do affect economic outcomes.

Another thing your research touches upon is the allegations of china being a “currency manipulator.” To what extent are these allegations true?

The first thing people need to be aware of is the definition of currency manipulation, because China has a fixed exchange rate so by definition its central bank has to intervene in the foreign exchange market to maintain this fixed exchange rate. Some people call this manipulation… but what’s more important is whether the Chinese government is intervening in a way that artificially lowers the value of the Chinese Yuan in order to favor its exporting sectors.

The second thing is a lot of politicians are focusing on the bilateral exchange rate between the US and China, but the more important thing we should be focusing on is the real or effective exchange rate… basically the exchange rate between China and its major trading partners, not just the US. The real exchange rate takes into account the cost of producing exports, because it’s not just the currency value that affects the trade balance between China and its trading partners… it’s also the price level and the cost of production. So that’s very important to realize.

Some people have been claiming that China is manipulating its currency because it has been running a persistent current account surplus, experiencing private capital inflows, and also accumulating lots of foreign exchange reserve. Although these are evidence pointing to China manipulating its currency, my research shows that especially in the first decades of the century when China received a huge influx of foreign exchange but we did not see a huge real exchange rate appreciation, which is predicted by standard theory. So what I argue is that the lack of real exchange rate appreciation is mainly due to structural changes China experienced at the turn of the century. The first thing is… I call it sterilization by the people, which is when its population decides to save more and hold more monetary balances due to the deterioration of a social safety net in China, and a comparative lack of development in its insurance and financial markets. The second thing is because China entered the WTO in 2001, it experienced trade liberalization and relaxed lots of its import restrictions. These two factors actually contributed to the “moderate” response of the real exchange rate.

Another piece of news that has been making headlines are the tariffs recently imposed by the U.S. government. From a macroeconomic perspective, what are some implications of these tariffs?

We need to think about these effects in both a short term and long term perspective. With the steel tariffs… it’s trying to help domestic steel producers, and we have seen steel prices going up… so they actually have been benefitting from these tariffs. But we haven’t actually seen a drop in imports of steel, this may be because the US has such a high demand for steel. So it is benefitting certain producers… but turns out that these trade barriers are also hurting a lot of manufacturers. So when thinking about effects, we need to be aware of the nature of the global supply chain. A lot of manufacturers in the US actually rely on imported materials, and with the tariffs the cost of these have gone up, and eventually so will their costs of production. We haven’t actually seen consumer prices pick up yet, but eventually these costs will have to be passed onto the consumer. So in the long term, these consumers will end up suffering too.

Another thing President Trump has been saying is that these tariffs will bring jobs back to the US, but manufacturers still end up importing their materials--switching from China to other countries--they could go to Vietnam, Korea, Philippines to look for cheaper supplies. So it’s not really bringing jobs back to the US. Some economists even predict that, somewhere down the road, we may actually lose jobs because of these tariffs.

We also need to realize that foreign countries can also retaliate, which is exactly what we have been seeing. These also have its effects: Harley Davidson has decided to shift some of its production to Europe to avoid these retaliatory tariffs. Somewhere down the road, uncertainties about our trade policy, the trade policy of other countries and fear of an escalating trade war may cause investors and producers to delay their investment projects… which will affect the financial market and banking sectors. So if the situation is not controlled, it may actually affect more than the manufacturing sectors… I’m not necessarily saying that there will be a recession, but there are a lot of things we need to look out for, and be careful for.

What’s coming up next in your research?

Recently my research has switched over to looking at central bank policy… specifically, my main focus is central bank credibility and independence, and how this is related to the durability of an exchange rate regime. The method I’m using is survival analysis, which takes into account the amount of time a country has already stayed in an exchange rate regime, and how it affects the durability of the regime.

Are there any conclusions from your future research that you are already pretty sure about?

There are really two schools of thought in this matter. The first thinks that a higher degree of central bank independence will lead to a more durable an exchange rate regime is. The second… the more independent a central bank is, the less they need to rely on fixed exchange rate regime to anchor their inflation rate… so they can adopt a floating exchange rate regime. So the results can go either way… but in the short to medium run, having central bank independence will help a country maintain its exchange rate regime. But pass a certain threshold, if a country is able to maintain a regime and has demonstrated a commitment and resolve to maintain low inflation, then they can possibly switch to a floating exchange rate regime. So that’s the conjecture I kind of have with regards to this research.

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