

Interview to Professor Benjamin Liebman

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This interview is part of a recurring series of interviews where the PhD students at The Graduate Center talk with economists and other social scientists about their work and research experience. With these interviews the students are exploring the challenges of formulating good research questions and establishing a research agenda. Hopefully, other early career researchers will find this series a helpful tool.

In this first installment, Emanuel Agú and Dragos Ailoae, PhD students in Economics at The Graduate Center, interview [Benjamin Liebman](#), Professor of Economics at Saint Joseph's University who visited the department on September 1st, speaking to a paper called "[Chinese Steel Response to Tariffs](#)" that he co-authored with Prof. Yochanan Shachmurove.

The three discuss Liebman's recent work on the trade policy and look back to Liebman's experience as a PhD student and young scholar.

Read their conversation below.

Emanuel Agú: Thank you for presenting in our seminar series. We are eager to listen to a summary of the paper you presented in the seminar. What are the major messages of the impact of the trade protection on Chinese steel prices? Why are they important?

Benjamin Liebman: The major finding is that the price of steel futures, specifically the reinforcing steel bar (rebar) futures contract, has a stronger response to trade protections than the spot price — the prices that are currently being paid for by users of steel. The fact that purchasers of steel futures react more to protection could be due to the speculators in the market that are more concerned about the impact of protection. Traders in the spot market are more focused on current and future domestic needs of steel users, such as the construction industry.

EA: Diving into the peculiar commodity market of the steel, and taking into account the negligible reaction of spot prices in China to trade protection measures, which are, then, the main determinants of the rising trend in spot prices since 2015?

BL: The most important thing seems to be a combination of two factors: input prices, especially iron ore, coke, and coking coke (which is used to make coke), and downstream demand, which is essentially determined by the needs of the construction industry in the Chinese economy. We discuss in our paper that we want to spend more time trying to get better controls for downstream demand, since we know that there is a positive response on prices to the Chinese government announcements when they have plans to expand construction. These two things are important, input prices and when there is some sort of increased construction spending either through the government or the private sector. If we were looking at other steel commodities, such as hot-rolled coil, which is another steel product that is also traded in the future market, then we would

look more at the use of cars. But rebar is more used in construction and that is why construction growth is more important for rebar steel prices.

EA: Then, based on your extensive research on the impact of the U.S. trade policy on the steel industry, how would you evaluate the impact of the U.S. tariff increases during the recent years in the domestic market?

BL: When President Trump implemented Section 232 tariffs, that caused prices to rise quickly, especially in hot-rolled coil, but interestingly not as much in the imported rebar. Steel prices dramatically rose, from \$500 to \$900 a ton in six months, and companies made record profits. However, prices remained high for less than a year due to a couple of reasons. First, there was a slowdown in manufacturing in the United States. Furthermore, there was an increase in supply in response to tariffs, since some companies restarted some facilities that were idle. Then, the decrease in demand and the increase in production caused prices to return to much lower levels. The lesson is that tariffs cannot completely isolate a market from the market forces. Of course, this does not mean that tariffs did not do anything. One of their important effects that they had, besides causing some idled facilities to come back online, is that tariffs encouraged the industry as a whole, and that caused not only to return to production in idle facilities but also to restart discontinued constructions and to make plans for new facilities. Optimism surged because of the tariffs. But this all happened before the Corona, because once that happened, companies took offline some of their production facilities quickly, and that prevented prices from falling as much. Prices did fall, but not as dramatically as we might have thought.

EA: During the past months, we were reading in the newspapers about plans to raise tariffs even to imported nails and other products made of aluminum. This is meant to protect the domestic market...

BL: Right. One logic behind doing that is that if you are a nail producer, you are getting hurt by the steel tariffs, because you have to buy steel. So, the government is going to protect these producers as well. The choice is either to take away the tariffs, to not hurt the nail producers by pushing down steel prices, or to insulate nail producers of imports as well, even if they have to face higher prices from protection.

EA: In your paper, you disentangle impacts that nobody seems to have addressed! We understand that these discoveries are related to your deep knowledge of the topic. Which ideas and intuitions did you have when you started the research? How was the process of writing this paper?

BL: If you are interested in steel, you always keep an eye on what is happening in China because it produces about 1 billion tons of steel per year, which is a little more than half of the global steel industry. Additionally, I was fascinated by the fact that in a short period of time, the Chinese rebar futures market completely dwarfed other futures markets. In a few years, it became the most heavily traded futures market in the world. I tried to combine all of this with trade protection, which is the focus of my research. I was thinking whether this market in China, which is focused on domestic needs, cares about the foreign duties. It would be interesting to see whether investors are responding to protection policies, even if from an economic perspective it

should not make that much of a difference. So, in my paper with Yochanan, we were trying to connect the behavior of this market with the research that has been done.

One reason that I explore this in my research is that I have a personal interest in the matter with regard to American workers... I think about the many Midwestern “rust belt” towns that had declining steel factories and the numerous communities that were hurt during this process. So, at some level, I think there is a place for trade protection, especially if it is confronting unfair foreign government subsidization. In this sense, protection is justified, even if American companies and consumers benefit from the foreign subsidization in the form of lower import prices.

EA: What are the next steps or major important questions in your field that you consider that require further research?

BL: There are many interesting issues. Watching the evolution of the Chinese steel market in terms of the increase of industry concentration in order to make the industry more profitable. Its biggest firms are becoming larger and larger, and that could impact the global steel market. This could actually be beneficial because it can mean that Chinese steel companies can be more profitable domestically. On the other hand, in general, the biggest issue with the steel industry is pollution. The question is how we are going to have this industry that is generating 10 percent of world’s carbon dioxide reduce its carbon footprint. The industry is really working towards being much cleaner, for example, finding ways of producing liquid iron without involving carbon-rich coke. But, one of the reasons that there is a lot of pollution in the Chinese steel industry is that there are many small firms using older, less efficient equipment. Thus, the Chinese government has been shutting down these facilities, but that process has increased industry concentration. The question is when we will have a more profitable and cleaner industry.

Another question, regarding the US industry, which seems to have reached a steady state of production between 80 to 90 millions tons of steel, is whether productive gains will continue to reduce the need for labor. On average, it used to take 10 hours of labor to make a ton of steel, and now it’s 2 or even less; so, productivity increased enormously. In addition, the industry in the US shifted away from the traditional form of production involving the smelting of iron ore, to the electric arc furnace production, which basically consists of steel recycling. It has been very interesting to see how this process has developed over the last 15-20 years.

There is a whole other side of my research that involves trade retaliation. I am working on a paper with Kara Reynolds, of American University, that looks at retaliation from Canada, Mexico, the European Union, Russia, and China in response to the Section 232 tariffs. This particular paper is looking at what countries do when they face trade protection, which products do they target. This is a political economy question.

EA: Related to the world of ideas, we would like to listen to your advice to graduate students engaged with the process of writing their theses. Would you like to tell us about the context in which you thought about your PhD thesis? What was it about? And how did you get to a question that you knew you could answer?

BL: Early on in graduate school, I was interested in why Latin America did not seem to have the same, large positive experience from the international trade and globalization that East Asia did.

East Asian countries that opened their markets enjoyed an increase not only in income but also in income equality. There were some studies that showed that the impact of international economic integration was not very beneficial in Latin America, that income inequality was increasing, and perhaps the impact of international trade will not generally be as beneficial for developing countries as was previously thought. That was the topic I was interested in: why was equality not improving in Latin America in response to increasing international trade as it had in East Asia some decades before? I had difficulty trying to find data from Latin American countries. But, at that point, I discovered very good anti-dumping data, and my PhD advisor, Bruce Blonigen, was a fantastic advisor and did a lot of work on anti-dumping. So, I decided to switch to anti-dumping because it is an interesting topic: the idea of dumping and anti-dumping is that there is an unfair price that is being charged to domestic consumers, which is an interesting question in itself. And more generally, trade protection is generally interesting because it creates winners and losers, and the overall gains tend to be smaller than the overall losses in terms of who get harmed by trade protections. This is an asymmetric impact of trade, because the winners from trade protection are concentrated, and the losers are much broader, so the individual harm is much more widely spread and not so deep. In comparison, industries that are protected are usually going to benefit very heavily in the short run, your job can be saved, your plant can be saved, etc. That was interesting to me and that is how I got into steel, because at least a third to a half of dumping protections involved the industry, either steel primary products or downstream steel products, such as nails, steel tubes, and fabricated steel products. So, I started studying trade protection, and then anti-dumping, and then I got to steel.

EA: Regarding the challenges you faced when doing your thesis and how you did overcome them, would you encourage students to work on one thing and try to look at it from different angles (something we can refer to as a unifying dissertation approach), or to write separated papers and then make a unified composition?

BL: My general advice is: be practical. I would say that usually I think there are economies of scale in doing research, so the more you dig into something, the more you are going to know where the data can be found. Then, the more you know the literature, the more you are going to know how to model, whatever you are trying to model. And I did that. In terms of the anti-dumping and bringing in steel, they were all kinds of relations. On the one hand, if you have written one chapter of your dissertation, and you find a really good topic and it is tractable, then that is definitely worth looking into. But I think you have to be careful; you want to make sure that you can graduate in a reasonable period of time. The time as graduate students is a wonderful time to be able to just focus on your research. You are not worrying about tenure, and you do not have much teaching demands. On the other hand, you have to make sure that you are not getting drawn into projects that are going to be hard to complete. I would add that to have a good advisor will help. I had a great advisor, who had a very practical approach about how to do projects that were tractable and that could be completed. This is my advice.

EA: From your experience and time devoted to conducting research projects, which suggestions would you like to share about the research process? How do you work? Do you create hotkeys and develop workflows? What is your procedure to do literature review?

BL: Usually, we start with a general question in the topic that we are interested in. Then you see if there is literature on that. With the topic of the paper I presented, I saw that this market was just enormous, and then I started looking around to see what was written about it. When Yochanan and I started working on this paper, we could find only one paper that explored the topic... it was unbelievable! It turned out that these are most highly traded futures contracts and we can only find one paper on it. Thus, first find something that you think is interesting. Find an interesting question. Then, see if there is any research on it. And if there exists previous literature, then, see if there is some particular angle that has not been covered and dig more into that. In general, all this process depends on where you are (a research institution, teaching institution, or government) and how much time you have to do research.

I have noticed that what has helped very productive people is their focus on a particular topic. I think that they benefit from economies of scale from dealing with the same overall topic but exploring different angles and particulars. I think that can definitely lead to a high productivity as a scholar. Additionally, I like working with co-authors, to have someone to bounce ideas off. Certainly, if you are in a research institution, you will have more experience with that. In general, I like collaborative work and the pressure that comes once they have done their part, and then the ball is in your court, so you have to finish your little chunk of the project and bounce the ball back. My co-author and I go back and forth, producing different parts of the empirical analysis, data gathering, or the writing. I think that that has made me more productive, because it provides an external pressure as well as a lot of creativity when you bounce ideas off colleagues. Certainly, you get that time in graduate school, and that is another of the fantastic things about being a graduate student.

EA: We are grateful for your insights. Is there another piece of advice you would like to give to currently graduate students?

BL: I would say: keep moving forward. You can keep working on the data and keep trying 1,000 different specifications, but at some point, it makes sense to wrap it up and send it off to a journal. There is no end to how much you can continue to refine a paper. There has to be a balance in what you are doing. At the same time, while you do the best job you can, it is worth understanding that you will probably leave some stones unturned. Do a competent job and do not be overburdened about not having the paper be perfect.

Of course, all of this depends on where you are. In order to publish in a top journal, you will have to spend more time, refining the lyrical work and so forth. But, overall, it is best to not overindulge. Sometimes, many great researchers make assumptions that are pretty large, and yet the paper is still a top journal. This happens because, at some point, people admit that is the best they can do: "I am using this variable, because it seems to be the best thing out there, and even if I could spend a year or two trying to try to put together the data to have a better way to cover that particular variable, it is now reasonable to just do what is practical." Even if it is not a perfect control variable, if it is pretty good, then move forward, write up the results, and send the paper off, whether it is to a journal, your advisor, or your colleagues. Because, at the end of the day, you have to be productive, especially for tenure, or if you want to work in the private sector.

There has to be some balance between doing things accurately and at the same time completing the result.

Another piece of advice is: do not let yourself get bogged down just because something that you are doing in the paper is not perfect, is not ideal. Economics is a social science, and from the very start, we are trying to explain human behavior, which is, as we all know, very difficult. In addition, getting the right data is also a challenge quite often. So do the best you can and not worry excessively about not having the perfect control variable for some particular part of your paper.

EA: Thank you very much. We enjoyed our conversation and are sure our readers will do so too.

BL: Thank you both very much.