Editorial

by Gurumurthy Kalyanaram

What is the unknown and unpredictable parameter in the global economy today? More than anything, it is the tariffs and trade disputes.

The United States' economy has always challenged the conventional thinking, and it is doing so again. The US economy grew at about 2 percent in 2017. In the first quarter of this year, the economy grew at 2.3 percent. The second quarter growth has been 4.1 percent. That is stunning. The unemployment rate is at a historical low – about 4.1 percent. The optimism index of the National Federation of Independent Business is in the 99th percentile. Steep tax cuts for corporations and other enterprises have heaped plump windfalls on many investors and chief executives. After-tax corporate profits account for 9.6 percent of the nation's total domestic output.

Sure, there are potential perils: unpredictable tariff battle, soaring deficits and budget disagreements. But the American economy has a way of battling these. Deficits and budget disagreements are not new – and it is not clear that they have hurt the economy. The strength and innovativeness of American economy is exemplary.

The unknown variable in the US economy is: Trade and tariff battles.

What about the global economy? The forecasts the global growth in 2018 are about 3.5 percent. But the synchronized growth that the global economy saw through 2017 for the first time in a decade is dissipating. Why? Pressures over global trade. For instance, German exports plunged unexpectedly in February, posting their biggest monthly drop in more than two years. Or for instance, China and India retaliating by imposing new tariffs on US goods.

So, tariffs and trade disputes are the most challenging threat to the US and Global economy[1].

How can we analyze, understand and describe the trade disputes? Prospect Theory and Loss Aversion provide a useful framework.

Introduction

"In 1979, two Israeli psychologists, Daniel Kahneman and Amos Tversky, already famous for their work on judgment heuristics, published a paper in the journal *Econometrica* titled "Prospect Theory: An Analysis of Decision under Risk." The paper accomplished two things. It collected in one place a series of simple but compelling demonstrations that, in laboratory settings, people systematically violate the predictions of expected utility theory, economists' workhorse model of decision-making under risk. It also presented a new model of risk attitudes called "prospect theory," which elegantly captured the experimental evidence on risk taking, including the documented violations of expected utility. Kahneman and Tversky's papers on prospect theory have been cited tens of thousands of times and were decisive in awarding Kahneman the Nobel Prize in economic sciences in 2002. (Tversky would surely have shared the prize had he not passed away in 1996 at the age of 59.)" [See: http://faculty.som.yale.edu/nicholasbarberis/jep_2013.pdf]

That's when people feel the pain of losing something more intensely than they do the pleasure of an equivalent gain. Losing $100 feels more distressing than winning $100 feels great. That is, "consumers have been found to be more sensitive to "losses," i.e. observed prices higher than reference prices, than "gains.""
[See: https://pubsonline.informs.org/doi/10.1287/mksc.14.3.G161
https://www.jstor.org/stable/2489682?seq=1#page_scan_tab_contents]

Application of Prospect Theory Framework to Trade Disputes
See here for motivation and presentation of the application of Prospect Theory framework.
https://openknowledge.worldbank.org/bitstream/handle/10986/14152/wps3385aversion.pdf?sequence=1&isAllowed=y
"In order to test to what extent loss aversion carries over to peoples' perception of trade policy, we conducted a simple survey.

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[1] As we present this Editorial, the news reports suggest that the United States and European Union have reached an agreement on trade matters. See: https://www.nytimes.com/2018/07/25/us/politics/trump-europe-trade.html

The following three questions were asked with each person answering only one of the questions:

1. A manufacturing industry faces competition from imports. Its losses are expected to be $20 million this year and firms are expected to reduce salaries by 10%. If a tariff is placed on imports of competing goods then losses will be avoided and salaries will be maintained. The tariff will cause the price of the good, which everyone consumes, to rise from $30 to $40. Do you support the tariff?
N= 102 Yes: 60 percent No: 40 percent

2. A manufacturing industry faces competition from imports. If a tariff is placed on imports of competing goods then profits will increase by $20 million and firms in the industry will increase salaries by 10%. The tariff will cause the price of the good, which everyone consumes, to rise from $30 to $40. Do you support the tariff?
N= 100 Yes: 37 percent No: 63 percent

3. A manufacturing industry faces competition from imports, which are subject to a tariff. Removal of the tariff will cause profits to decline by $20 million and salaries to fall by 10%. As a result of the tariff removal, the price of the good, which everyone consumes, will fall from $40 to $30. Do you support maintaining the tariff?
N= 101 Yes: 61 percent No: 39 percent

The first question proposes implementing a tariff to prevent losses and the second proposes using a tariff to promote gains of equal magnitude. The cost of the tariff to consumers is identical in both settings. The majority of people find it acceptable to use a tariff to prevent fall in profits and wage cuts, but do not find it acceptable to use a tariff to promote profits and raises. Using a two-tailed t-test and allowing for different variance across samples, the means of the two samples are different at the 1 percent level.

The third question highlights the importance of reference dependence and how loss aversion is different from risk aversion. Though the majority of people do not favor imposing a tariff in question 2, they would favor maintaining it if it were in place. This implies that tariffs, once implemented, are likely to be persistent. Note that if respondents were simply expressing risk aversion there should be no difference between the responses to questions 2 and 3 since the only difference is the reference point. Again, the means of the two samples are significantly different at the 1 percent level.

In sum, the results of this experiment imply that protection as a means of preventing losses is considered to be desirable by a majority of people, but similar protection to facilitate gains is perceived as undesirable. It also shows that once in place, a tariff that may not have been supported initially is difficult to eliminate."

See here for an empirical calibration and estimation of the effects of the application of the framework.
https://www.sciencedirect.com/science/article/pii/S0022199609000142

"We study the implications of loss aversion for trade policy determination and show how it allows us to explain a number of important and puzzling features of trade policy. Some important questions concerning trade policy are why a disproportionate share of protection goes to declining industries and why trade policy has an anti-trade bias. We show that if individual preferences exhibit sufficient loss aversion, higher protection will be given to sectors in which profitability is declining. We also show that if the coefficient of loss aversion is large enough, there will be an anti-trade bias in trade policy. Using a nonlinear regression procedure, we find support for the model and the estimates of the loss aversion parameters are very close to those obtained by Kahneman and Tversky (Kahneman, D., Tversky, A., 1992. Advances in Prospect Theory: Cumulative Representation of Uncertainty. Journal of Risk and Uncertainty 5, 297–323.) with experimental data. Protection is found to be more responsive to losses than to gains, and the estimates of the coefficient of loss aversion are about 2. We also find evidence of loss aversion in lobby formation."

References

1. Barberis, Nicholas (2013), "Thirty Years of Prospect Theory in Economics: A Review and Assessment". *Journal of Economic Perspectives*, 27(1), 2013, 173–196.

2. Freund, Caroline and Caglar Ozden (2004), "Loss Aversion and Trade Policy," World Bank Policy Research Working Paper 3385.

3. Kalyanaram, Gurumurthy and John D.C. Little (1994), "An Empirical Analysis of Latitude of Price Acceptance in Consumer Package Goods". *Journal of Consumer Research*. 21(3), 408-418.

4. Kalyanaram, Gurumurthy and Russell Winer (1996), "Empirical Generalizations from Reference Price Research". https://pubsonline.informs.org/doi/10.1287/mksc.14.3.G161

5. Tovar, Patricia (2009), "The effects of loss aversion on trade policy: Theory and evidence". *Journal of International Economics*, 78(1), 154-167.

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