

## FEATURED ARTICLE

# The United States' power-based bargaining and the WTO: Has anything really been gained?

Ian M. Sheldon<sup>1,2</sup>

<sup>1</sup>Andersons Chair of Agricultural Marketing, Trade, and Policy, Columbus, Ohio, USA

<sup>2</sup>Department of Agricultural, Environmental, and Development Economics, Ohio State University, Columbus, Ohio, USA

## Correspondence

Ian M. Sheldon, Andersons Chair of Agricultural Marketing, Trade, and Policy, Columbus, Ohio 43210, USA.  
Email: sheldon.1@osu.edu

**Editor in charge:** Daniel Petrolia

## Abstract

In this article, adoption of “power-based” bargaining by the United States in trade negotiations is evaluated. A simple game-theoretic structure highlights use of “bargaining” tariffs by the United States elicited credible retaliation by China through a trigger strategy, bilateral tariffs returning to a Nash equilibrium. This has come at some cost to US consumers, taxpayers, and farmers, although the latter group has regained market share following implementation of the US–China Phase One Trade Agreement. Unfortunately, the Agreement fails to deal with a key reason for the trade war, the Chinese economic model, and China’s use of implicit subsidies.

## KEYWORDS

power-based bargaining, subsidies, tariffs, WTO

## JEL CLASSIFICATION

F13, Q17

The rules-based multilateral trading system established under the General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organization (WTO) is based on two pillars constraining exercise of bargaining power: reciprocity where member countries seek a balance of tariff concessions in trade negotiations, and nondiscrimination through the most-favored nation (MFN) principle (Jackson, 1989). These rules, along with the argument GATT/WTO has ensured resolution of a terms-of-trade prisoners’ dilemma (Bagwell & Staiger, 1999, 2002), have resulted in progressive reduction of tariffs in the post-war period

(Baldwin, 2016) and a substantial increase in the global volume of trade (Subramanian & Wei, 2007).

Recently, Mattoo and Staiger (2020) have interpreted the trade war between the United States and China as the former switching from a “rules-based” to a “power-based” approach to trade negotiations, targeting higher “bargaining” tariffs at a country with which it has consistently run a bilateral trade deficit. This switch in trade policy emphasis has been driven by several other well-documented concerns the United States has about its trade relations with China, including the latter’s higher average bound tariffs, manipulation of its exchange rate, and its violation of WTO rules (Morrison, 2018). A key component of this “power-based” approach is the United States has also disabled the dispute settlement system of the WTO by paralyzing its Appellate Body (AB) (Pauwelyn, 2019).

Superficially, “power-based” bargaining has worked: in signing the US–China Phase One Trade Agreement (USCTA) on January 15, 2020 (Office of the United States Trade Representative [USTR], 2020), China committed to a voluntary import expansion (VIE) over 2017 baseline levels, implying a combined \$200 billion worth of additional imports of US products (agricultural, manufactured, and energy) and services for the 2-year period, January 1, 2020, through December 31, 2021 (Bown, 2021c). China’s imports of US manufactured and agricultural products reached 60% and 64%, respectively, of their commitment for 2020, and through October 2021, they had reached 63% and 89% respectively of the year-to-date target(s) (Bown, 2021c).

However, the apparent success of “power-based” bargaining in bringing China to the trade negotiating table comes at considerable actual and potential cost and does not substantively contribute to resolution of a fundamental problem facing the WTO: how to deal with China’s current economic model. To paraphrase the prescient testimony of former AB member Jennifer Hillman to the US-China Economic and Review Security Commission in 2018, the United States has not avoided “...a narrow, deficit-focused bilateral deal...” (Hillman, 2018, 2). To develop this argument, the current article consists of three key parts.

First, in evaluating the shift by the United States to “power-based” bargaining, a dynamic game structure due to Zissimos (2007), combined with the canonical model of the GATT/WTO due to Bagwell and Staiger (1999), is used to describe the process by which the United States and China have pushed their bilateral tariffs toward the Nash equilibrium, which is significantly beyond the combination of their pre-2018 MFN bound tariffs and applied antidumping duties (Bown, 2019a, 2021a). Specifically, this draws on the idea the GATT/WTO dispute settlement system relies on two forms of punishment depending on the extent to which a country deviates from its tariff concessions: first, if deviation is “non-abusive,” an affected country can withdraw an equivalent amount of market access; and second, if deviation is “abusive,” an affected country can implement more substantial punishment. Essentially, the latter can be thought of as a standard trigger strategy where there is reversion to the Nash equilibrium, i.e., a country “plows over the final backstop (the panel ruling) in the GATT dispute settlement process” (Bagwell & Staiger, 2002, 99). Based on this game, the sequence of moves in the US–China trade war is examined, the conclusion being the two countries have got very close to the Nash equilibrium, which in principle could result in suspension of GATT/WTO obligations by both countries under GATT Article XXIII.

Second, the dynamic game outlined relies critically on the assumption the punishment mechanism described is sub-game perfect, i.e., the threat of substantial punishment for an “abusive” deviation is credible. Given this, it is argued the United States seemingly failed to recognize China would rationally retaliate with discriminatory and targeted tariffs at a range of imports from the United States. In the case of soybeans, with China being the world’s largest



importer, it was able to negatively affect US international terms-of-trade, the average US soybean export price falling significantly when tariffs were initially implemented by China, putting downward pressure on US farm incomes (Adjemian et al., 2019), with a significant amount of trade also being diverted to other exporting countries such as Brazil (Carter & Steinbach, 2020). The latter resulted in compensatory payments to US farmers through the Market Facilitation Program (MFP), pushing the United States close to violating its WTO commitments on farm subsidies in 2019 and 2020 (Glauber, 2020).

While a generous interpretation of “power-based” bargaining would point to the successful negotiation of a bilateral trade agreement, in the third part of the article, the focus is on showing the USCTA contains no disciplines on China's use of subsidies. Specifically, it fails to address a fundamental concern the United States and other members have with the WTO: the weakness of its subsidy rules in general and specifically in relation to China (Bown, 2019a; Bown & Hillman, 2019; Wu, 2016, 2019). The policy conclusion to be drawn is there are two options: either the United States might be better served working with a coalition of WTO members to address the Chinese economic model, or there needs to be a new modality at the WTO where members seek to negotiate changes in the rules, thereby relieving the burden on the AB to interpret and augment the existing rules.

## THE SHIFT TO “POWER-BASED” BARGAINING

### The economic logic of GATT/WTO

The economic logic of the GATT/WTO has been explained by trade economists in terms of the resolution to a terms-of-trade prisoner's dilemma (Bagwell & Staiger, 1999). Drawing on Zissimos (2007), assume a world where two countries produce and consume two final products, country  $i$  having a comparative advantage in producing  $i$ ,  $i \in \{1, 2\}$ , both countries being large enough to influence their terms-of-trade. With appropriate assumptions, the equilibrium welfare  $w^i$  of country  $i$  can be defined as a function of tariffs,  $w^i(\tau_i^i, \tau_t^j)$ , where  $\partial w^i / \partial \tau_t^i > 0$ ,  $i \in \{1, 2\}$ , the terms-of-trade gain to  $i$  outweighing any domestic deadweight loss due to the tariff. In the absence of a trade agreement, the equilibrium of the tariff game is defined as:  $w^i(\hat{\tau}^i, \hat{\tau}^j) \geq w^i(\tau^i, \hat{\tau}^j)$ , where  $\hat{\tau}^i$  are the Nash equilibrium tariffs, neither country being able to change their tariff strategy and be better off. The net result is each country loses market access to the other country's market: the reduction in the volume of international trade being economically inefficient.

The latter outcome suggests it is Pareto-improving for countries to agree to reduce their tariffs, and in the absence of a binding bilateral agreement between them, the GATT/WTO has essentially neutralized the terms-of-trade incentive for countries to raise tariffs (Bagwell & Staiger, 1999). In other words, if terms-of-trade effects have been removed from any country's social welfare function, it will set tariffs to satisfy domestic political objectives alone. These tariffs would be either zero if a country seeks to maximize its national income through free trade, or they would be positive to satisfy domestic political constraints, but importantly, they are lower than those at the Nash equilibrium (Bagwell & Staiger, 1999). Therefore, if countries enter into a trade agreement, they seek mutual reductions in tariffs generating an increase in domestic and global economic welfare.

The lower tariff equilibrium under GATT/WTO has also been supported by a credible enforcement mechanism embodied in the dispute settlement system. Standard game theory suggests countries would have an incentive to deviate from a low-tariff equilibrium. In a repeated game, the punishment for not adhering to a trade agreement is reversion to the Nash equilibrium of high tariffs, i.e., a trigger strategy (Dixit, 1987). In practice, the rules of GATT/WTO seek to maintain the balance of tariff concessions and avoid the use of punitive, and therefore economically destructive actions (Staiger, 1995).

If one country were to raise its tariff(s), this would imply a loss of previously negotiated market access for the other country. Assuming this action is not “abusive,” under GATT/WTO rules, specifically GATT Article XXIII, the other country can withdraw an equivalent amount of market access. However, if a country deviates in an “abusive” manner, there is reversion to the trigger strategy, i.e., under GATT Article XXIII, there can be an indefinite suspension of GATT/WTO obligations: both countries setting Nash equilibrium tariffs (Jackson, 1989).<sup>1</sup> In other words, the objective of GATT/WTO rules is to ensure retaliation by one country against the unilateral action of another is proportionate, thereby minimizing the chances of a trade war.

Assume payoffs to a country over an infinite time horizon are,  $(1 - \delta) \sum_{t=1}^{\infty} \delta^t w^i(\tau_t^i, \tau_t^j)$  where  $\delta$  is a common discount rate, and the equilibrium tariff reduction path is  $\{\tilde{\tau}\}_{t=1}^{\infty}$ , where for simplicity symmetry is assumed, i.e., both countries choose the same tariff in every time period,  $\tilde{\tau}_t$  being the agreed tariff in period  $t$ . Ignoring the possibility of a country choosing a tariff below the agreed level, there are two potential deviations,  $z_t$ , from the equilibrium tariff path:

$$\Delta(z_t, \{\tilde{\tau}_s\}_{s=t}^{\infty}) = \begin{cases} (1 - \delta)w^i(z_t, \tilde{\tau}_t) + \delta w^i(z_t, z_t) & \text{if } \hat{\tau} > z_t > \tilde{\tau}_t \\ (1 - \delta)w^i(z_t, \tilde{\tau}_t) + \delta w^i(\hat{\tau}, \hat{\tau}) & \text{if } z_t \geq \hat{\tau} > \tilde{\tau}_t \end{cases} \quad (1)$$

The intuition for this result is straightforward: first, if the deviation  $z_t$  from the agreed tariff  $\tilde{\tau}_t$  is less than the Nash equilibrium tariff  $\hat{\tau}$ , it is not considered “abusive”: the other country withdrawing an equivalent amount of access in all future periods through also setting  $z_t$ ; second, if the deviation  $z_t$  from the agreed tariff  $\tilde{\tau}_t$  is greater than or equal to the Nash equilibrium tariff  $\hat{\tau}$ , it is considered “abusive”: the other country setting  $\hat{\tau}$  in all future periods.

Importantly, where the deviation is not “abusive,” withdrawing an equivalent amount of market access is sub-game perfect, i.e., the punishing country knows if it instead chooses  $\hat{\tau}$  as opposed to  $z_t$ , this will result in a suspension of GATT/WTO obligations with indefinite imposition of  $\hat{\tau}$  by both countries. Necessarily, if the deviation is “abusive,” reversion to the Nash equilibrium will always be sub-game perfect, i.e., in this case the deviating country cannot expect withdrawal of an equivalent amount of market access by the punishing country. Therefore, if  $\tilde{\tau}_t$  does not generate a local price in country 1 satisfying its domestic political constraints, by the rules of renegotiation allowed under GATT Article XXVIII, it could request to raise its tariff to  $z_t$ , knowing country 2 will withdraw an equivalent tariff concession.

## “Rules-based” vs. “power-based” trade negotiations

To place the shift by the United States to “power-based” bargaining in context, it is key to see how a “rules-based” approach effectively neutralizes any imbalance in bargaining power between countries. In Figure 1,  $w^i$  are iso-welfare contours,  $N$  is the initial Nash equilibrium before any trade agreement is struck, and  $EE$  traces out tariff combinations  $\tau^i$  that are Pareto

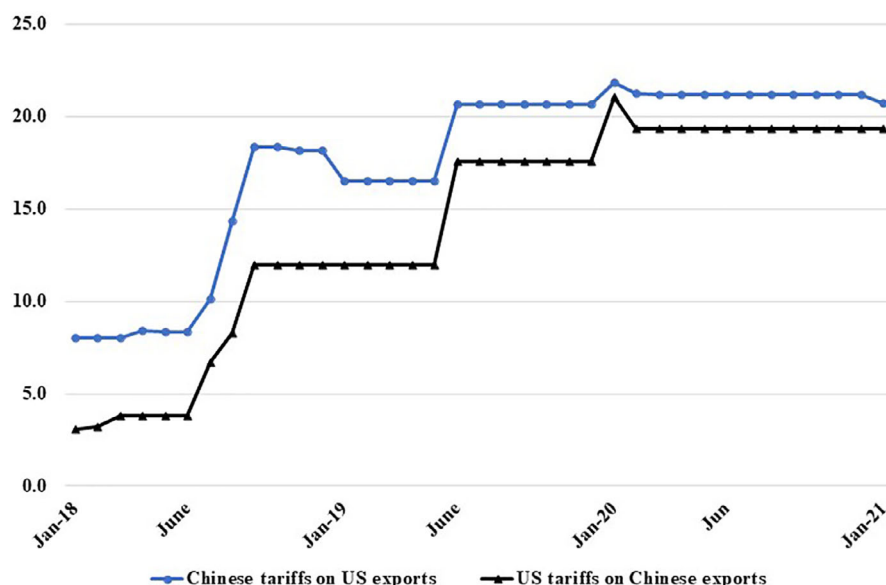


tariffs represent a strong US-threat point. This of course assumes China is unable to present a credible threat of their own by responding with a tariff increase to  $\tau^{C'}$ , moving the US–Chinese bilateral tariff equilibrium closer at  $C'$  to the pre-GATT/WTO equilibrium at  $N$ .

## Tariffs and the US–China trade war

The recent history of tariffs imposed by the United States and China on each other's imports is reported in detail by Bown (2021a) and summarized in Figure 2. Prior to 2018, US–China trade-weighted tariff rates toward each other averaged 3.1% and 8%, respectively. By the end of 2018, trade-weighted average US tariffs on 46.9% of its imports from China had been raised to 12%, matched by an increase in trade-weighted average Chinese tariffs to 16% on 56.3% of its imports from the United States. When the USCTA was signed in early 2020, trade-weighted average US tariffs on 58.3% of its imports from China had risen to 19.3% (26.7% including antidumping duties), while trade-weighted average Chinese tariffs on 66.4% of its imports from the United States had risen to 20.7% (21.2% including antidumping duties) (Bown, 2021a). Therefore, over this 2-year period, trade-weighted average US tariffs against China (including anti-dumping duties) more than tripled relative to their pre-2018 level of 8.4%, approaching the trade-weighted average tariff level of 28.1% imposed under the Smoot–Hawley tariff act of 1930 (Bown & Irwin, 2018).

This sequence of moves on tariffs bears out the analytical argument made earlier. First, the 2018 implementation of tariffs under Section 301 of the US 1974 Trade Act does not satisfy the criterion of being “non-abusive,” there being no attempt by the United States to seek



**FIGURE 2** US–China tariffs against each other, 2018–2021 (%). Trade-weighted average tariffs computed from product-level (6-digit Harmonized System) tariff and trade data, weighted by exporting country's exports to the world (see Bown, 2021a). Data sourced from Bown, (2021b) [Color figure can be viewed at [wileyonlinelibrary.com](https://wileyonlinelibrary.com)]



renegotiation of its existing tariff commitments to China under GATT/WTO rules. Second, a WTO panel ruled in China's favor on September 15, 2020 that the tariffs were "...*prima facie* inconsistent..." with both Articles I.1 and II of the GATT 1994, i.e., the tariffs are both discriminatory and in excess of the rates "...to which the United States bound itself in its Schedule of Concessions..." (WTO, November 26, 2020).<sup>2</sup> Third, even though China filed a complaint to the WTO in 2018, the fact it retaliated immediately with substantial tariffs of its own suggests it was willing to implement a trigger-type strategy well before the subsequent panel ruling in 2020. Fourth, the extent of escalation of tariffs by both countries through 2019 indicates both countries had moved to applying trigger strategies, pushing their bilateral relationship to a non-cooperative equilibrium. Finally, notwithstanding the USCTA, tariffs implemented by both countries remain in place (Bown, 2021a).

## AN EVALUATION OF THE IMPACT OF "POWER-BASED" BARGAINING

Both theory and casual empiricism indicate the United States underestimated the willingness of China to retaliate to its use of "bargaining" tariffs. As noted above, it is sub-game perfect for one country to punish another with reversion to a Nash trigger strategy if the latter is deemed to have committed an "abusive" trade action. This is precisely what happened in 2018–2019 as the US–China trade war escalated. In addition, the United States also reverted to a trigger strategy in response to China's retaliatory actions. What has been the cost of this substantive breach of the multilateral trading system?

### The economic costs of "power-based" bargaining

The United States–China trade war represents a natural experiment, such wide-ranging increases in tariffs having not been seen since the 1930s. In addition, other key trading US trading partners, including Canada, the European Union, Japan, and Mexico, were dragged into the conflict after the United States implemented tariffs against steel and aluminum imports in 2018. Fajgelbaum et al. (2020) record that during 2018, US tariffs were targeted at 12,043 specific products at the Harmonized Tariff Schedule of the United States (HTSUS)-10-digit level, where in 2017, these imports were valued at \$303 billion, accounting for 12.7% of total US imports. The average *ad valorem* tariff increased by from 2.6% to 16.6%. In terms of retaliatory tariffs on US exports by Canada, China, Mexico, Russia, Turkey, and the European Union, these accounted for \$127 billion of US exports, 8.2% of total exports, covering 8073 products.

US tariffs were mostly targeted at China, and Chinese retaliatory tariffs against the United States dominate, supporting the contention the trade war has essentially been between these two countries. In 2018, the United States targeted 11,207 products accounting for 49% of total imports from China, tariffs increasing on average from 3.0% to 15.5%, while China targeted 7474 products, tariffs increasing on average from 8.4% to 18.9%. The data also show the most protected US sectors were primary metals, machinery, computer products, and electrical equipment and appliances, while US trading partners targeted different products, most notably agricultural imports.

Fajgelbaum et al. (2020) initially conducted an event study comparing targeted and non-targeted US imports and exports. In the case of imports, the results indicate their value and quantity declined by 20% and 23%, respectively. They also find initial evidence that the

incidence of US import tariffs was borne entirely by US consumers, tariff-inclusive unit values of imports increasing significantly as compared with before-tariff unit values, which did not change. A similar pattern was found in the case of exports, where their value and quantity fell by 24% and 25%, respectively, with no change in their before-tariff unit values, i.e., there was complete pass-through of retaliatory tariffs to foreign consumers.

These authors also evaluated the impact of tariff increases on US import demand and foreign export supply. Their econometric results show both the value and quantity of US imports declined in response to the application of tariffs, Amiti et al. (2019) finding similar effects in their study. Fajgelbaum et al. (2020) also found there was no impact of US tariffs on before-tariff unit values. The latter result provides further evidence for complete pass-through of the tariffs to tariff-inclusive prices borne by US consumers. Similar results are reported for the impact of retaliatory tariffs on US exports: there were significant declines in both the value and quantity of exports, but there was no reduction in before-tariff unit values by US exporters.

The finding that incidence of US tariffs was almost entirely borne by US consumers is a surprising result given the growing empirical support for the terms-of-trade theory of trade agreements (Bagwell & Staiger, 2011). Over a longer time period, it might be expected exporters would eventually cut before-tariff prices, especially if there was resolution of exporter uncertainty about how long the tariffs will remain in place. Interestingly, a follow-up study with data for 2019 finds some variation across sectors, e.g., US tariffs led foreign steel exporters to lower their before-tariff prices (Amity et al., 2020).

Fajgelbaum et al. (2020) also quantified the effects of the trade war in 2018 using an applied general equilibrium model of the US economy. Their results were as follows: first, US consumers of imported goods in aggregate lost \$51 billion due to higher prices; second, US exporters saw an increase in their income of \$9.4 billion; and third, US tariff revenue totaled \$34.3 billion. Therefore, the net effect of the trade war was an aggregate loss of US real income of \$7.3 billion, which can be thought of as an approximation of the deadweight loss from tariffs. This compares to Amity et al.'s (2019) estimated net real income loss of \$8.2 billion.

In summary, the empirical evidence clearly shows the incidence of import tariffs implemented in 2018 was entirely borne by US consumers, any terms-of-trade effects on the import side being insignificant. Also, if there had been no retaliation by China and other countries, there would have been a modest US real income gain of \$0.5 billion in 2018 due to terms-of-trade effects on the export side. In other words, the logic of "power-based" bargaining only ever had the potential to work if China and other countries had not adopted a trigger strategy in response to the increase in US tariffs.

## The impact of retaliatory tariffs on US agriculture

Carter and Steinbach (2020) provide an initial detailed analysis of the effect of retaliatory tariffs against the US agricultural sector. Their data indicate average tariffs on US agricultural products increased from 8.3% to 28.6% on 908 products accounting for \$32 billion worth of US exports. Retaliatory tariffs disproportionately affected agricultural products compared with other sectors, and the tariff increases were also steeper. The most significant retaliation was by China, who imposed tariffs on \$25.5 billion of US imports.

These authors also used an event study to identify the impact of the retaliatory tariffs on US agricultural exports, based on exploiting differences in export quantities, values, and unit values between targeted and non-targeted products over time. Their results indicate retaliatory tariffs



had a significant impact on agricultural trade. First, the United States saw a 55% reduction in its exports to retaliating countries worth  $-\$15.6$  billion (trade destruction), which was only partially offset by a 0.8% increase in exports worth  $\$1.2$  billion to countries that did not implement tariffs (trade deflection), i.e., net destruction of US agricultural exports was  $-\$14.4$  billion. Second, non-retaliating countries experienced a 31% expansion of their exports to retaliating countries worth  $\$13.5$  billion (trade diversion). These effects were also very concentrated at the product level, with trade destruction and trade diversion being particularly significant for soybeans at  $-\$7.1$  and  $\$3.7$  billion, respectively: trade in pork products and coarse grains such as corn also being affected. Overall, US exporters appear to have had difficulty in adapting their supply chains to non-retaliating countries, while other exporting countries were able to increase their market share in retaliating countries at the expense of the United States.

These findings have been reinforced by Grant et al. (2021) who estimate a gravity equation designed to evaluate the impact on US agricultural exports of the retaliatory tariffs imposed by several of its trading partners. Importantly, this study controls for any pre-existing trade distortions that had little to do with the trade war. Their key results are: first, due to tariff retaliation, the US agricultural sector suffered annualized trade losses of  $\$13.5$ – $\$18.7$  billion, China accounting for the majority and severity of the retaliation; second, losses were larger for bulk commodities compared with differentiated products, damage to soybean exports being estimated at  $\$10.7$  billion.

## The US–China Phase One Trade Agreement (USCTA)

Key to USCTA was China's commitment to expand imports of covered products from the United States by a combined  $\$200$  billion over the 2-year period 2020–2021, above 2017 baseline levels, of which  $\$77.7$  and  $\$32$  billion would be additional imports of US manufactured and agricultural products, respectively. Translated into annual targets, this implied total product purchasing commitments by China of  $\$173.1$  billion (2020) and  $\$207.4$  billion (2021), manufactured import purchases of  $\$112.2$  billion (2020) and  $\$123.1$  billion (2021), and agricultural import purchases of  $\$36.6$  billion (2020) and  $\$43.6$  billion (2021) (Bown, 2021c).

At the time these commitments were made, they were characterized as VIEs (Feenstra & Hong, 2021), which would be difficult for Chinese state-owned enterprises (SOEs) to meet under a regime of managed trade (Bown & Lovely, 2020). Two interdependent factors were considered to militate against SOEs satisfying the import targets. First, private trading firms have been mostly responsible for Chinese imports, SOEs purchasing only 26% of Chinese imports in 2019 (Bown & Lovely, 2020). Second, despite the USCTA, China did not formally reduce its retaliatory tariffs. Instead, on February 17, 2020, the Chinese Ministry of Finance established a process by which tariff exemptions could be requested. At present, it is unclear how many exemptions have been made and subsequently accepted, by which firms in which industries, and firm-type (private vs. SOE) (Bown, 2021a). Essentially, imports would be based on choices made by the Chinese government.

In 2020, China fell short of its annual import target(s) by 42%, 40%, and 36% for total, manufactured, and agricultural products, respectively. In terms of its import commitments, China clearly underperformed relative to the target(s), although this should be placed in the context of how the COVID-19 pandemic affected global trade flows in 2020. Focusing specifically on agriculture, prior to the pandemic, some observers suggested that, based on its previous agricultural import growth rate, China would find it difficult to meet the USCTA targets (Bown, 2020).

Although the 2020 target was missed, year-to-date imports for 2021 are currently only 11% off target (Bown, 2021c).

Analysis of the pandemic indicates agricultural trade has been resilient compared with trade in manufactured products, China accounting for 95% of the observed \$20 billion increase in world agricultural trade in 2020 (Arita et al., 2022). The import demand shock, especially for grain and soybean use in animal feed, has been driven by China rebuilding its hog production capacity devastated by African Swine Fever in 2018. Critically, Chinese tariff exemptions on agricultural imports appear to be fundamentally market-driven, i.e., it is a stretch to claim US “power-based” bargaining has worked exclusively because of a trade agreement centered on VIEs.

The overall conclusion is the US–China trade war has come at a cost to US consumers, taxpayers, and exporters. In addition, under USCTA, neither country has committed to returning tariffs back to their pre-2018 bound levels. For all intents and purposes, the United States and China have suspended their GATT/WTO obligations under GATT Article XXIII. Mattoo and Staiger (2020) argue this has significant long-run implications for the “rules-based” multilateral trading system. First, any initial advantage the United States might have gained by applying bargaining tariffs has likely been lost as China and other countries such as the EU have retaliated. This has the potential to undermine the cooperation necessary for multilateral as opposed to bilateral trade negotiations, with implications for enforcement. Second, if the multilateral system is undermined when the United States is the dominant economic power, it may prove harder for China to make credible commitments to a “rules-based” mechanism when it eventually becomes the dominant economic power.

## **“POWER-BASED” BARGAINING: WHAT HAS IT MISSED?**

Despite the documented disruption and economic damage due to the US–China trade war, why has the United States put the multilateral trading system at risk through its “power-based” bargaining? Pronouncements by the previous administration on the USCTA indicate a prime goal of the Agreement was to reduce the trade deficit with China (Bown, 2021a), which squares with Mattoo and Staiger’s (2020) rationale for United States targeting of its “bargaining” tariffs. Extensive public and media focus on China’s progress in meeting its import commitments under USCTA also lead to a conclusion the Agreement was essentially about reducing the bilateral trade deficit with China: confirming the concerns of Jennifer Hillman noted earlier (Hillman, 2018).<sup>3</sup>

To be fair, while the official text of USCTA is remarkably short for a typical trade agreement, it does focus on more than expansion of trade, other chapters covering protection of intellectual property, technology transfer, nontariff barriers to agricultural trade, financial services, exchange rates, and dispute resolution (USTR, 2020). It is too early to evaluate the impact of these chapters of USCTA, but conspicuous by its absence is any mention of disciplines on SOEs and China’s use of subsidies. Many observers have argued China’s economic model, combined with weakness in existing WTO disciplines on subsidies, has been and remains the fundamental reason for US concerns with the multilateral trading system and functioning of the WTO’s Dispute Settlement Body (DSB) – see inter alia: Wu (2016, 2019), Bown and Hillman (2019).

## US trade policy Post-2001

Although the United States reduced its bound MFN tariffs on imports from China after the latter's accession to the WTO in 2001, it then switched to using other WTO-consistent border instruments, i.e., antidumping duties (ADs) targeted at Chinese firms selling at “unfairly” low prices in the US market, complemented after 2006 with countervailing duties targeted at Chinese firms receiving subsidies (CVDs). Over the period 2001–2017, the United States imposed 103 AD and 69 CVD trade restrictions on imports from China, the average duties being 151.5% and 72.4%, respectively. By 2017, the combination of MFN tariffs and ADs resulted in an average US tariff of 8.4% being applied against imports from China, with the steel and aluminum industries being the most covered industries (Bown, 2021a).

Application of “special” protection by the United States was then significantly ratcheted up in 2018 based on US trade law(s): first, tariffs were applied to all imports of solar panels and washing machines under Section 201 of the US Trade Act of 1974 (import surges); second, tariffs were applied on all imports of steel and aluminum under Section 232 of the Trade Expansion Act of 1962 (national security); and third, tariffs were specifically targeted at \$250 billion of imports from China under Section 301 of the US Trade Act of 1974.<sup>4</sup> In the case of steel and aluminum, growth in US imports from China had been slowed down through the use of AD and CVD restrictions, but due to trade deflection of exports from China to third countries, and trade diversion of exports from third countries to the United States, imports from third countries had continued (Bown, 2019a). Not surprisingly, other countries retaliated by implementing their own tariffs on steel imports from countries such as Brazil and India to prevent trade deflection into their own markets.

## China's economic model and use of subsidies

Imposition of tariffs by the United States reflects its and other countries' concerns about the Chinese economic model that has evolved since 2001. Key to this is that, while Chinese firms compete with one another, they may be subsidized relative to their foreign competition. First, SOEs in some industries face soft budget constraints (Lardy, 2019). Second, some Chinese firms are influenced either directly or indirectly by the Chinese Communist Party (CCP). Wu (2016, 2019) characterizes this phenomenon as “China Inc.,” where intervention in the Chinese economy does not always flow through the state, the CCP functioning as a separate actor. In combination with an emphasis on market forces, the Party-state can influence economic outcomes through: controlling key sectors of the Chinese economy (aerospace, aviation, energy, transport, communications, etc.); directing financial resources via large Chinese banks; guiding and coordinating government agencies and firms via Party entities such as the Central Financial and Economic Affairs Commission; facilitating coordination through informal networks in specific sectors; setting performance metrics and controlling hiring within government, SOEs, banks, etc.; and, developing formal and informal linkages between the Party and private firms. The net result of “China Inc.” is subsidies are often targeted through informal channels and not directly via the state (Wu, 2019). Third, use of export taxes, and the discriminatory rebate of value-added taxes on exports act as implicit export subsidies, e.g., export taxes on raw materials drive down their domestic price(s), providing a competitive advantage to downstream users (Garred, 2018).

US concerns about the Chinese economic model have also informed debate about the impact of the China import shock prior to the financial crisis and the subsequent shift in US politics to overt nationalism. Autor et al. (2013) document the negative impact of increased import competition from China on the US labor market. Autor et al. (2020) also find the China import shock affected polarization of voting patterns in the United States, especially districts most exposed to competition from Chinese imports. This has been rationalized by Grossman and Helpman (2021), who argue a rise in populism can be driven by a significant external event such as an import shock, which then leads to a substantive shift in a country's trade policy toward protectionism.

## **Subsidies and the GATT/WTO**

From the standpoint of economic theory, production subsidies are not necessarily a distorting policy instrument if used to target some type of market failure such as under-provision of research and development (R&D) (Bown & Hillman, 2019). They are also a first-best instrument by the targeting principle, i.e., the market failure should be directly targeted at source (Bhagwati & Ramaswami, 1963). Therefore, there is the potential that proscription of subsidies will lead to a second-best outcome if governments then use import tariffs and other policies instead (Bagwell & Staiger, 2006).

Notwithstanding economic theory, the original GATT rules provided two routes by which a country could target other countries' use of subsidies. First, if a subsidy were offered to exporters, which then affected a country's import-competing producers, under GATT Article XVI, a CVD could be targeted unilaterally against the subsidized exports. Second, if the subsidy were offered to import-competing firms, under Article XXIII, a country would have recourse to filing a non-violation nullification or impairment (NVNI) complaint on the grounds the subsidy negated previous concessions on market access. These latter disciplines were tightened in the Tokyo Round of GATT through the plurilateral Agreement on Interpretation and Application of Articles VI, XVI, and XXIII of the GATT (the "Subsidies Code") with export subsidies (excluding those in agriculture) deemed a *per se* violation of the rules (Bown & Hillman, 2019). Finally, the Uruguay Round of GATT led to the WTO Agreement on Subsidies and Countervailing Measures (ASCM). Importantly, the Agreement defined a subsidy as a "financial contribution" from a "government or public body" that confers a "benefit" on the firm receiving it (ASCM Article 1).

Analytically, Bagwell and Staiger (2006) argue the ASCM is too restrictive relative to the first-best rationale for production subsidies, providing an incentive for governments to use more indirect and nontransparent second-best policies. Bown and Hillman (2019) also provide detailed assessment of why the ASCM is practically ineffective, pointing out both definitional and evidentiary problems. First, China challenged United States use of CVDs against exports involving SOE support, on the grounds these were not subsidies from a "public body." The AB subsequently ruled a "public body" means governments or government entities, thereby removing SOEs from the WTO definition of a subsidy (WTO, March 11, 2011). Second, there is a heavy burden of proof on complaining countries to show there is governmental control over an entity, and that the latter is providing a subsidy. Therefore, applying ASCM disciplines in the context of "China Inc." is likely to prove difficult. In addition, even if a challenge can be proven, the WTO is unable to issue retrospective remedies for past harm, i.e., China gets a "free pass" for breach of the ASCM before any dispute is ruled on (Wu, 2019).

## Subsidies and the WTO's Appellate Body

As of December 10, 2019, the WTO's AB ceased to function after the terms of two of the remaining AB members ended, the AB requiring at least three members to hear appeals (Pauwelyn, 2019). While the current legal stalemate over the future of the AB should be seen as a symptom rather than the cause of the breakdown in the dispute settlement process, the United States' dissatisfaction with the AB is certainly a function of how it believes it has been constrained by the latter in using trade remedies against China (Bown & Keynes, 2020). US concerns with the AB have been well documented, the emphasis being on it what it considers to be judicial "overreach" (Payasova et al., 2018). For example, at a meeting of the WTO's DSB in 2019, the United States argued AB rulings have,

...gone far beyond the text setting out WTO rules in varied areas, such as subsidies, antidumping duties, anti-subsidy duties, ..., and safeguards, restricting the ability of the United States to regulate in the public interest or protect US workers and business against unfair trading practices... (WTO DSB, June 24, 2019, 14–15).

## What can be done about China's economic model?

Given US concerns about China's economic model, and how it feels constrained by the WTO from using what it regards as legitimate trade remedies against China, it is surprising the issue is totally invisible in the USCTA. Essentially, "power-based" bargaining in this respect has been a failure, even though it brought China to the bilateral bargaining table. Are there any alternatives?

Hillman, 2018 has argued the United States should form a coalition with other WTO members to put together a comprehensive case against China. She lays out the legal reasoning for filing a case that China's trade and other measures "nullify or impair" the benefits of the United States and other WTO members (GATT Article XXIII: 1[a]); she also argues an NVNI complaint can be filed (GATT Article XXIII: 1[b]). Wu (2019) is considerably less optimistic about the merits of such an approach, dismissing an NVNI complaint as having too high a burden of proof to be successful. In addition, he regards the current WTO rules as being incomplete, and not well-designed to deal with "China Inc." The solution he offers is for WTO members to seek a new modality for updating the rules of the multilateral trading system. Such updating should also include reform of AB procedures whereby issues of legal uncertainty are sent back to WTO members for further discussion and negotiation, i.e., a process of "legislative remand" (Payasova et al., 2018).

## SUMMARY AND CONCLUSIONS

The motivation for this article is Mattoo and Staiger's (2020) argument US trade policy has shifted from a "rules-based" to a "power-based" approach, with a focus on the use of "bargaining" tariffs targeted at countries such as China. Superficially this strategy appears to have worked following implementation of the USCTA in early 2020. However, this is misleading: a conclusion traced out in three key sections in the article.

First, a simple game-theoretic model is used to describe “power-based” bargaining, the analysis indicating China’s response to US “bargaining” tariffs, was both predictable and credible. The data on escalation of tariffs by the United States and China clearly indicate they have moved toward the Nash equilibrium: average bilateral tariffs approaching levels not seen since the 1930s.

Second, given the United States underestimated China’s willingness to retaliate against its unilateral increase in tariffs, the economic impact on the US economy is evaluated. The empirical research shows tariffs were fully passed through to US consumers: little evidence being found for any terms-of-trade effects. In addition, US farmers lost significant market share in China and suffered negative terms-of-trade effects due to their retaliatory tariffs: the US taxpayer bearing the cost of compensating farmers through the MFP scheme. Negotiation of the USCTA appears to have provided relief for US agricultural exports, although rebuilding of Chinese hog production capacity probably accounts for much of this growth.

Third, the discussion focuses on China’s use of subsidies not being covered by USCTA. In the context of US–China trade relations post-2001, this is surprising given the United States clearly feels its use of trade remedies on imports from China has been proscribed by dispute resolution decisions at the WTO. The failure of USCTA to address subsidies also reflects a key question facing the multilateral trading system: how to deal with the Chinese economic model, given the current trade rules were written in 1994. The only viable path to resolving this problem appears to be WTO members seeking a new modality for negotiating and updating the trade rules.

The overall conclusion is the United States adopted a suboptimal strategy in switching to “power-based” bargaining. Although it resulted in the USCTA, there are multiple nontrivial *caveats*: China has credibly punished US “bargaining” tariffs with its own retaliatory tariffs, negatively affecting US farmers and taxpayers; US tariffs against China remain above their bound levels with the likelihood of continued deadweight losses to the US economy; the longstanding US trade deficit has not been solved through “bargaining” tariffs against China; no progress has been made on disciplining China’s use of subsidies either bilaterally or multilaterally; and the continued functioning of the multilateral trading system has been placed at risk by US actions.

## ENDNOTES

- <sup>1</sup> While GATT/WTO rules contain no formal definition of an “abusive” deviation, a reasonable interpretation would be a “sufficiently deep” breakage of tariff commitments honored for some time (Zissimos, 2007).
- <sup>2</sup> The United States subsequently appealed the Panel’s findings on October 26, 2020.
- <sup>3</sup> See the news summaries reported by *Farm Policy News*, <https://farmpolicynews.illinois.edu/>.
- <sup>4</sup> The US government chose to implement tariffs on the grounds of national security in the case of steel and aluminum, as opposed to applying safeguard measures under Article XIX of GATT/WTO, because the former would be “non-justiciable”. This was most likely due to a series of negative rulings by the AB against US use of safeguard tariffs over the period 1995–2003 (Bown, 2019b).

## REFERENCES

- Adjemian, Michael K., Shawn Arita, Vince Breneman, Rob Johansson, and Ryan Williams. 2019. “Tariff Retaliation Weakened the U.S. Soybean Basis.” *Choices* 34(1): 1–9.
- Amiti, Mary, Stephen J. Redding, and David E. Weinstein. 2019. “The Impact of the 2018 Tariffs on Prices and Welfare.” *Journal of Economic Perspectives* 33(4): 187–210.



- Amiti, Mary, Stephen J. Redding, and David E. Weinstein. 2020. "Who's Paying for the U.S. Tariffs? A Longer-Term Perspective." *AEA Papers and Proceedings* 110(May): 541–6.
- Arita, Shawn, Jason Grant, Sharon Sydow, and Jayson Beckman. 2022. "Has Global Agricultural Trade Been Resilient under Covid-19? Findings from an Econometric Assessment of 2020." *Food Policy* 107: 102204.
- Autor, David H., David Dorn, and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103(6): 2121–68.
- Autor, David, David Dorn, Gordon Hanson, and Kaveh Majlesi. 2020. "Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure." *American Economic Review* 110(10): 3139–83.
- Bagwell, Kyle, and Robert W. Staiger. 1999. "An Economic Theory of GATT." *American Economic Review* 89(1): 215–48.
- Bagwell, Kyle, and Robert W. Staiger. 2002. *The Economics of the World Trading System*. Cambridge, MA: MIT Press.
- Bagwell, Kyle, and Robert W. Staiger. 2006. "Will International Rules on Subsidies Disrupt the World Trading System?" *American Economic Review* 96(3): 877–95.
- Bagwell, Kyle, and Robert W. Staiger. 2011. "What Do Trade Negotiators Negotiate about? Empirical Evidence from the World Trade Organization." *American Economic Review* 101(4): 1238–73.
- Baldwin, Richard. 2016. "The World Trade Organization and the Future of Multilateralism." *Journal of Economic Perspectives* 30(1): 95–116.
- Bhagwati, Jagdish, and V.K. Ramaswami. 1963. "Domestic Distortions, Tariffs and the Theory of Optimum Subsidy." *Journal of Political Economy* 71(1): 44–50.
- Bown, Chad P. 2019a. "The 2018 US-China Trade Conflict after Forty Years of Special Protection." *China Economic Journal* 12(2): 109–36.
- Bown, Chad P. 2019b. "The 2018 Trade War and the End of Dispute Settlement as we Knew it." In *Trade War: The Clash of Economic Systems Endangering Global Prosperity*. VoxEU.org Book, edited by Meredith A. Crowley, 21–30. London: CEPR Press.
- Bown, Chad P. January 21, 2020. Unappreciated Hazards of the U.S.-China Phase One Deal. Trade and Investment Policy Watch, Peterson Institute for International Economics.
- Bown, Chad P. 2021a. "The US-China Trade War and Phase One Agreement." *Journal of Policy Modeling* 43(4): 805–43.
- Bown, Chad P. March 16, 2021b. US-China Trade War Tariffs: An up-to-Date Chart. PIIE Charts, Peterson Institute for International Economics.
- Bown, Chad P. November 24, 2021c. US-China Phase One Tracker: China's Purchases of US Goods. PIIE Charts, Peterson Institute for International Economics.
- Bown, Chad P., and Jennifer A. Hillman. 2019. "WTO'ing a Resolution to the China Subsidy Problem." *Journal of International Economic Law* 22(4): 557–8.
- Bown, Chad P. & Douglas A. Irwin 2018. What Might a Trump Withdrawal from the World Trade Organization Mean for US Tariffs? Policy Brief 18–23, Peterson Institute for International Economics.
- Bown, Chad P., and Soumaya Keynes. 2020. "Why Trump Shot the Sheriffs: The End of WTO Dispute Settlement 1.0." *Journal of Policy Modeling* 42(4): 799–819.
- Bown, Chad P. & Mary E. Lovely March 3, 2020. Trump's Phase One Deal Relies on Chinese State-Owned Enterprises. Trade and Investment Policy Watch, Peterson Institute for International Economics.
- Carter, Colin A. & Sandro Steinbach 2020. The Impact of Retaliatory Tariffs on Agricultural and Food Trade. Working Paper 27147, NBER.
- Chow, Daniel C.K., and Ian M. Sheldon. 2019. "Is Strict Reciprocity Required for Fair Trade?" *Vanderbilt Journal of Transnational Law* 52(1): 1–42.
- Dixit, Avinash 1987. "Strategic Aspects of Trade Policy." In *Advances in Economic Theory: Fifth World Congress*, edited by Truman F. Bewley, 329–62. Cambridge, MA: Cambridge University Press.
- Fajgelbaum, Pablo D., Pinelopi L. Goldberg, Patrick J. Kennedy, and Amit K. Khandelwal. 2020. "The Return to Protectionism." *Quarterly Journal of Economics* 135(1): 1–55.
- Feenstra, Robert, and Chang Hong. 2021. "China's Import Demand for Agricultural Products: The Impact of the Phase One Trade Agreement." *Review of International Economics* 1–24.
- Garred, Jason 2018. "The Persistence of Trade Policy in China after WTO Accession." *Journal of International Economics* 114(3): 130–42.

- Glauber, Joseph W. September 16, 2020. Is it Time for the United States to Again Show Leadership at the WTO? American Enterprise Institute, Center for Strategic and International Studies. <https://www.aei.org/articles/it-is-time-for-the-united-states-to-again-show-leadership-at-the-wto/> (Accessed: May 15, 2021)
- Grant, Jason H., Shawn Arita, Charlotte Emlinger, Robert Johansson, and Chaoping Xie. 2021. "Agricultural Exports and Retaliatory Trade Actions: An Empirical Assessment of the 2018/2019 Trade Conflict." *Applied Economic Perspectives and Policy* 43(2): 619–40.
- Grossman, Gene M., and Elhanan Helpman. 2021. "Identity Politics and Trade Policy." *Review of Economic Studies* 88(3): 1101–26.
- Hillman, Jennifer June 8, 2018. Testimony before the U.S.-China Economic and Review Security Commission. Washington, DC.
- Jackson, John H. 1989. *The World Trading System*. Cambridge, MA: MIT Press.
- Lardy, Nicholas R. 2019. *The State Strikes Back: The End of Economic Reform in China?*. Washington, DC: Peterson Institute for International Economics.
- Mattoo, Aaditya, and Robert W. Staiger. 2020. "Trade Wars: What Do they Mean? Why Are they Happening Now? What Are the Costs?" *Economic Policy* 35(103): 561–84.
- Morrison, Wayne M. 2018. China-U.S. Trade Issues. Congressional Research Service Report RL33536.
- Office of the United States Trade Representative (USTR). 2020. *Economic and Trade Agreement between the Government of The United States of America and the Government of the People's Republic of China*. Washington, DC: USTR.
- Pauwelyn, Joost. 2019. "WTO Dispute Settlement Post 2019: What to Expect?" *Journal of International Economic Law* 22(3): 297–321.
- Payasova, Tetyana, Gary C. Hufbauer & Jeffrey J. Schott. 2018. The Dispute Settlement Crisis in the World Trade Organization: Causes and Cures. Brief 18-5, Peterson Institute for International Economics Policy.
- Staiger, Robert W. 1995. "International Rules and Institutions for Trade Policy." In *Handbook of International Economics*, Vol 3, edited by Gene Grossman and Kenneth Rogoff, 1495–551. Amsterdam: Elsevier, North Holland.
- Subramanian, Arvind, and Shang-Jin Wei. 2007. "The WTO Promotes Trade, Strongly but Evenly." *Journal of International Economics* 72(1): 151–75.
- World Trade Organization (WTO). March 11, 2011. United States – Definitive Anti-Dumping and Countervailing Duties on Certain Products from China. Report of the Appellate Board, WT/DS379/AB/R.
- World Trade Organization (WTO). November 26, 2020. United States-Tariff Measures on Certain Goods from China. Report of the Panel, WT/DSS543/R.
- World Trade Organization Dispute Settlement Body (WTO DSB). June 25, 2019. Statements by the United States at the Meeting of the WTO Dispute Settlement Body.
- Wu, Mark. 2016. "The 'China, Inc.' Challenge to Global Trade Governance." *Harvard International Law Journal* 57(2): 261–324.
- Wu, Mark. 2019. "China's Rise and the Growing Doubts over Trade Multilateralism." In *Trade War: The Clash of Economic Systems Endangering Global Prosperity*. VoxEU.org Book, edited by Meredith A. Crowley, 101–10. London: CEPR Press.
- Zissimos, Ben. 2007. "The GATT and Gradualism." *Journal of International Economics* 71(2): 410–33.

**How to cite this article:** Sheldon, Ian M. 2022. "The United States' power-based bargaining and the WTO: Has anything really been gained?" *Applied Economic Perspectives and Policy* 1–16. <https://doi.org/10.1002/aepp.13224>