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*Edited by Chiara Candelise, University of Turin and OEET*

### **COMMENTS ON JOSEPH STIGLITZ PROPOSAL OF JOINT EU-CHINA SANCTIONS AGAINST THE US ON CLIMATE CHANGE**

*by Chiara Candelise, Università di Torino e OEET*

For this issue of the Newsletter “Emerging Economies” we have asked to experts on China-US relationships, geopolitics and economics to comment on a recent and controversial proposal of the Noble Prize laureate Joseph Stiglitz for Europe and China to consider climate-related trade sanctions against the US, due to Trump’s administration refusal to support the Paris Agreement and related climate change mitigation strategies.

The Agreement had been adopted by 195 nations at the 21st Conference of the Parties to the UNFCCC (United Nations Framework Convention on Climate Change) in December 2015 and had highlighted the need of “*holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.*”

Moreover, in fall 2018 a Special Report on global warming produced by the IPCC (Intergovernmental Panel on Climate Change) as follow on to the Paris Agreement has further stressed the urgency of acting to mitigate global warming. The report argued that limiting global warming to 1.5°C would require “*rapid and far-reaching*” transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide (CO<sub>2</sub>) would need to fall by about 45 percent from 2010 levels by 2030, reaching ‘net zero’ around 2050.

“*Limiting warming to 1.5°C is possible within the laws of chemistry and physics but doing so would require unprecedented changes,*” said Jim Skea, Co-Chair of IPCC Working Group III.

In the 2017 the US President Donald Trump has indeed decided to withdraw from the Paris Agreement. And, since 2018, the US has become the world’s larger crude oil exporter, surpassing the likes of Russia and Saudi Arabia for the first time in more than two decades on the back of looser environmental regulations adopted under the Trump administration.

The Nobel Prize laureate Joseph Stiglitz has therefore called on Europe and China in March 2019 to join forces against the United States at the World Trade Organisation (WTO), while they have been emerging as the biggest supporters of the Paris accord. Stiglitz proposal has been for Europe and China to consider climate-related trade sanctions against the US, suggesting that there has been a legal precedent at the WTO to provide them with the legal grounds to do so.

The proposal comes in a context of heated geopolitical relationships and of an escalating trade war between US and China. Therefore we asked Professor Ignazio Musu, Professor Giovanni Graziani and Professor Alessia Amighini to comment on the feasibility and potential implications of such type of action from Europe and China against US.

## **COMMENTI ALLA PROPOSTA DI JOSEPH STIGLITZ DI RICHIESTA DA PARTE DI EUROPA E CINA DI SANZIONI A STATI UNITI IN RELAZIONE AI CAMBIAMENTI CLIMATICI**

*di Chiara Candelise, Università di Torino e OEET*

Per questa Newsletter “Emerging Economies” abbiamo chiesto a esperti di rapporti Cina-Stati Uniti, geopolitica e economia di commentare la recente e controversa proposta del Premio Nobel Joseph Stiglitz per cui Europa e Cina dovrebbero considerare di proporre sanzioni presso la World Trade Organization (WTO) contro gli Stati Uniti, in conseguenza del rifiuto dell’amministrazione del Presidente Donald Trump di aderire agli Accordi di Parigi.

Gli Accordi sono stati ratificati da 195 nazioni alla 21st Conference of the Parties al UNFCCC (United Nations Framework Convention on Climate Change) nel Dicembre 2015, sottolineando il bisogno di *“holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.”*

Come risultato degli Accordi di Parigi, in Autunno 2018, l’IPCC (Intergovernmental Panel on Climate Change) ha pubblicato uno Special Report sui cambiamenti climatici che ha ulteriormente sottolineato l’urgenza di agire per ridurre il riscaldamento globale. Il report ha concluso che per poter limitare il riscaldamento al di sotto di 1.5°C siano necessarie *“rapid and far-reaching”* trasformazioni nei settori dell’agricoltura, dell’energia, dell’industria, dell’edilizia, dei trasporti e nelle città. Le emissioni nette causate dall’uomo devono ridursi di 45% rispetto ai livelli del 2010 e raggiungere ‘net zero’ intorno al 2050.

Come afferma Jim Skea, Co-Chair of IPCC Working Group III: *“Limiting warming to 1.5°C is possible within the laws of chemistry and physics but doing so would require unprecedented changes”*.

Nel 2017 il Presidente degli Stati Uniti Donald Trump ha deciso di uscire dagli Accordi di Parigi. Dall’anno successivo gli Stati Uniti sono diventati i maggiori esportatori al mondo di petrolio, sorpassando Russia e Arabia Saudita per la prima volta in oltre vent’anni, grazie alla meno stringente regolamentazione ambientale adottata dalla amministrazione Trump.

In Marzo 2019, il Premio Nobel Joseph Stiglitz ha quindi chiesto a Europa e Cina di unire le forze contro gli Stati Uniti presso la WTO. Stiglitz propone che Europa e Cina considerino delle sanzioni legate ai cambiamenti climatici contro gli Stati Uniti, suggerendo come giustificazione legale il fatto che ci sia stato un precedente legale presso la WTO.

La proposta cade in un contesto di rapporti economici e geopolitici surriscaldati e di una intensificazione della guerra commerciale tra Stati Uniti e Cina. Abbiamo quindi chiesto al Professor Ignazio Musu, al Professor Giovanni Graziani e alla Professoressa Alessia Amighini di commentare la fattibilità e le possibili implicazioni di tale potenziale azione da parte di Europa e Cina contro gli Stati Uniti.

## **CONSIDERAZIONI SU RECENTE PROPOSTA DI JOSEPH STIGLITZ RIGUARDANTE I CAMBIAMENTI CLIMATICI**

*By Ignazio Musu, Professore emerito di Economia politica nell'Università di Venezia*

### **Synthesis**

*The proposal of the Nobel Prize Joseph Stiglitz sounds reasonable in principle, but difficult to implement in practice. The legal precedent referred to by the Nobel laureate is the “Shrimp-Turtle case”, when US won an appeal at WTO against Thailand in relation to a violation of the Convention on International Trade of Engendered Species (CITES). However, there are two major differences: firstly, in the case of the “Shrimp-Turtle case” both US and Thailand were members of the CITES, whereas US is not currently member of the Paris Agreement; second, in the case of the “Shrimp-Turtle case” there had been an explicit violation of CITES, whereas it is not fully clear which would be the formal violation in the case of the Trump administration (a free-riding on climate change? An increase in CO2emissions?). Overall, it would be advisable for China, Europe and US to find a collaborative solution to an important problem such as global climate change. It must also be reminded that even in the case of the “Shrimp-Turtle case” the WTO had asked for a collaborative solution to the protection of marine turtles.*

Il Premio Nobel per l'economia Joseph Stiglitz ha recentemente sostenuto che l'Europa e la Cina dovrebbero mettersi d'accordo per fare causa agli Stati Uniti presso la World Trade Organization (WTO) per il rifiuto dell'Amministrazione del Presidente Donald Trump di aderire all'Accordo di Parigi sul cambiamento climatico.

Le regole della WTO sono effettivamente caratterizzate da un equilibrio tra il diritto di singoli membri ad adottare misure di regolazione, incluse restrizioni al commercio, per conseguire obiettivi legittimi, quali la protezione della vita e della salute di uomini, animali e piante, e la protezione delle risorse naturali, e i diritti di altri membri al rispetto delle regole fondamentali dell'organizzazione sulla libertà del commercio internazionale.

In particolare l'articolo XX del GATT (General Agreement on Tariffs and Trade) prevede esplicitamente un certo numero di situazioni nelle quali misure di protezione ambientale quali quelle appena indicate possono essere adottate da singoli membri al di fuori dalle regole generali del GATT, purchè esse non vengano applicate in modo arbitrario e non vengano usate come forme nascoste di protezionismo.

L'operato della WTO conferma anche che il ricorso all'organizzazione da parte di alcuni membri può essere motivato dal non rispetto da parte di altri membri dei principi di protezione ambientale ai quali l'articolo XX del GATT fa riferimento.

Giustamente Stiglitz cita il caso degli inizi di questo secolo, noto come "Shrimp-Turtle case", nel quale gli Stati Uniti hanno vinto il ricorso alla WTO contro la Thailandia, motivato dall'accusa a quel paese di violazione della Convention on International Trade of Engendered Species (CITES) per aver permesso che per la pesca dei gamberi venissero usate reti che danneggiavano anche la specie in pericolo delle tartarughe marine.

Agli Stati Uniti la WTO ha riconosciuto il diritto di bloccare l'importazione di gamberi dalla Thailandia, sostenendo peraltro – ricorda Stiglitz - che le restrizioni alle importazioni vanno applicate in modo uniforme a tutti i paesi che violano la Convenzione sulle Specie Protette e non solo alla Thailandia

Andrebbe anche ricordato che in occasione di quella disputa la WTO ha sollecitato le parti in conflitto a rafforzare la collaborazione, cercando di arrivare a una soluzione cooperativa per la protezione delle tartarughe marine.

Ora non c'è dubbio che l'atmosfera, in quanto minacciata da eccessive emissioni di carbonio causa del danno costituito da un cambiamento climatico che sta assumendo dimensioni catastrofiche, possa essere considerata come una risorsa naturale esauribile; sotto questo profilo l'Accordo di Parigi potrebbe essere considerato una convenzione la cui violazione darebbe diritto a membri dell'accordo di agire presso la WTO contro altri membri dell'accordo stesso che fossero ritenuti responsabili della violazione.

Ma qui viene il primo problema. Nel caso "Shrimp-Turtle" sia la Thailandia sia gli Stati Uniti erano membri della CITES; ma gli Stati Uniti non sono oggi più membri dell'Accordo di Parigi. Sarebbe quindi necessaria da parte WTO una esplicita pronuncia che l'atmosfera a bassa concentrazione di carbonio è una risorsa naturale di tale rilevanza in sé che un suo sfruttamento eccessivo anche da parte di paesi che non aderiscono all'Accordo di Parigi può essere ritenuto motivo di restrizioni commerciali da parte di paesi membri della WTO contro altri paesi membri della stessa organizzazione.

C'è poi un altro problema. Nella controversia "Shrimp-Turtle" c'era uno specifico caso di violazione della CITES, l'uso di reti dannose per la tartarughe. Quale sarebbe il caso di violazione nella possibile accusa presso la WTO di "free-riding" sul cambiamento climatico? Un aumento delle emissioni di CO2?

Ma qui potrebbero aprirsi varie possibilità di reazione da parte degli Stati Uniti. Per esempio, l'Europa ha ridotto le emissioni per effetto di azioni appropriate di mitigazione oppure per effetto di un rallentamento economico? E poi non tutti i paesi dell'Europa sono impegnati nello stesso grado nelle politiche di mitigazione; in alcuni paesi le emissioni sono diminuite ma in altri sono aumentate. Per quanto riguarda la Cina, si potrebbe argomentare che la Cina ha promesso una riduzione delle emissioni ma non la registra ancora; oppure che la Cina, in accordo con la Russia, intende sfruttare proprio il riscaldamento globale per l'apertura di una Arctic Silk Road per il collegamento marittimo con l'Europa.

Le cose quindi non sembrano così semplici. Sembra che Stiglitz si sia anche riferito alla proposta fatta nel 2017 dal Presidente francese Macron di una “border carbon tax” a livello europeo come strumento per combattere il cambiamento climatico. Questa troverebbe giustificazione nella necessità di mettere le imprese europee nella condizione di fronteggiare, con regole comuni, la concorrenza di imprese straniere che operano in paesi con vincoli ambientali assenti o comunque meno stringenti di quelli in vigore in Europa.

La “border tax” è ammessa dalla WTO con la regola che un paese dovrebbe imporre sui beni importati una tassa allo stesso livello al quale la tassa viene imposta sui beni interni. Nel caso specifico di una “border carbon tax” l’Unione Europea dovrebbe imporre una tassa sulla base del contenuto di carbonio sui beni importati da paesi che non mettono un prezzo sull’uso del carbonio ma in modo tale che essi vengano tassati allo stesso modo con cui vengono tassati i beni interni.

Ma, almeno per il momento, in Cina non c’è una “carbon tax” interna e neanche in Europa è in vigore una “carbon tax”, ma un sistema di permessi negoziabili di emissione di carbonio, l’EUETS (European Union Emission Trading System) che però non copre tutte le fonti di emissione di carbonio, ma solo le più importanti (circo 12 mila che rappresentano poco meno della metà delle emissioni). Restano fuori le emissioni da settori importanti come imprese medio-piccole, gli edifici, i mezzi di trasporti e l’agricoltura.

Per i settori nei quali è in vigore l’EUETS, gli importatori dovrebbero acquistare un ammontare di permessi pari alla quantità di emissioni create dalla produzione dei beni importati; ma per tutti gli altri beni per i quali non è in vigore l’EUETS non c’è in Europa una “carbon tax”, e quindi non c’è un prezzo interno per le emissioni di carbonio. Sembra allora che, secondo le regole WTO, in Europa solo sui beni per i quali c’è un prezzo interno sulle emissioni di carbonio si potrebbe imporre una “border carbon tax”. Certo le cose sarebbero diverse se Europa e Cina decidessero di adottare una “carbon tax” anche al loro interno.

Insomma, la proposta di Stiglitz appare ragionevole sul piano di principio, ma piena di problemi sul piano della attuazione pratica.

Questo non significa che Cina e Europa dovrebbero rinunciare a riportare gli Stati Uniti in una logica di collaborazione su un problema di tale rilevanza globale come il cambiamento climatico.

Ma forse la logica potrebbe essere quella che oggi Cina e Stati Uniti sembrano voler seguire nel superamento di una guerra commerciale che non conviene a nessuno dei due paesi. Come sarebbe auspicabile che Cina e Stati Uniti da un lato e Cina e Europa dall’altro superassero le tensioni sul terreno della rivoluzione digitale e dell’intelligenza artificiale per concentrarsi su un approccio comune ai grandi problemi globali su questo terreno, dalle minacce all’occupazione, ai rischi di eccessivo potere monopolistico, alla disuguaglianza, così sarebbe auspicabile che Europa, Cina e Stati Uniti ritrovassero un impegno comune per riconoscere e superare i costi di un grave problema globale come quello del cambiamento climatico. Forse l’Europa potrebbe fare qualcosa in questo senso.

# THE COST OF TRADE WAR BETWEEN THE US AND CHINA

*By Giovanni Graziani, Professor of Economics of European Integration at the University of Parma*

## **Sintesi**

*Questo contributo pone l'accento sulle possibili conseguenze di una azione di Europa e Cina contro gli stati Uniti, sottolineando come i benefici di una trade war tra Stati Uniti e Cina siano di gran lunga minori dei costi. La trade war ha implicazioni negative per l'economia cinese, sia in termini di impatto sugli scambi commerciali che in termini di investimenti e occupazione per i settori target. Nel medio-lungo periodo le tariffe hanno effetti negativi anche sui paesi che le impongono, quindi sugli Stati Uniti stessi. Una trade war tra Stati Uniti e Cina ha implicazioni negative anche per le filiere e le economie globali: la Cina è il maggiore esportatore al mondo e gli Stati Uniti il maggiore consumatore, insieme contano per il 40% dell'economia mondiale. Infine le azioni della amministrazione Trump e le risposte della Cina, entrambe in parziale deroga alle regole della WTO, hanno un generale effetto negativo in termini di indebolimento dei trattati multilaterali internazionali. Si invita quindi uno sforzo da parte dell'Europa unita a giocare da terza parte in questa trade war e per riformare la WTO, anche al fine di garantire gli interessi dei paesi meno forti.*

Taken all together and including the recent threats by the Trump administration to extend new tariffs to almost all the American imports from China, the massive waves of US tariffs on China would raise them to levels comparable to those prevailing in the Great Depression years of the 1930s. The tit-for-tat retaliation on the part of China has increased the danger of an all out trade war.

President Trump has declared that trade wars are easy to win. In fact, at a closer inspection, the benefits of the present trade conflict are limited, short lived and uncertain, while most countries lose out, in a situation that appears to be far from a zero-sum game.

## ***The costs to the Chinese economy***

In the short term, American tariffs on Chinese exports and the bans on technology, as in the case of Huawei, obviously damage the targeted sectors - electronics, automobile, pharmaceuticals, aircraft, furniture, railway locomotives, iron and steel, rubber articles, ships, articles of base metal, chemicals, optical instruments and so on. In the medium-longer run, China might be able to re-direct part of those exports towards other markets, but that takes time.

Although the trade war might have contributed to the slowdown of Chinese export expansion and GDP growth rate, the macroeconomic impact on the Chinese economy should not be overemphasized, given that China's exports to the United States account for only 4 percent of its GDP.

However, another possible source of damage for the Chinese economy derives from its own retaliation, since imports of affected American products become more expensive. That is the reason why China has been avoiding to retaliate on some American products like aircraft, oil products and automotive products,

while at the same time trying to limit the damage by cutting tariffs on all other goods coming from competitors of US producers, thus being able to import at lower prices from the rest of the world. In principle, China could replace imports from the United States with imports from Brazil (soybeans, wood), Germany (aircraft, mechanical equipment, auto), Japan (electric and mechanical equip, auto, optical, plastics), France (aircraft), Canada (seeds, aircraft, wood), Germany (aircraft, mechanical equipment, auto), South Korea (electrical and mechanical equipment, auto, optical, plastics). Some of this substitution is already taking place.

Besides the direct impact on trade, if the trade war is long-lasting China could also face some second-round shocks. The reduction in investment and employment in the exporting sectors hit by the tariffs might become a permanent feature and make it more urgent the task of rebalancing the Chinese export-led development model.

Another, more important, source of shocks derives from the disruption caused to global value chains. More than 40% of the value added in electronics, and almost 30% of that in machinery, is created outside China. Japan, Korea and Taiwan, as well as some European countries (e.g. Germany and UK), and even the US itself, are large contributors to the value embedded in Chinese exports to the US. In other words, value added embodied in parts and components from other countries besides China represent a substantial amount of Chinese exports – particularly in sectors like electronics. Applying tariffs onto those intermediate products is like taxing other countries as well, including the US.

The implications of such disruption of the global value chains for China appear ambiguous. On the one hand the shock might be limited because, as China's exports to the US tend to decline, its imports of components and inputs from other countries will also decline, spreading in such a way the negative shock across the supply chains. Even the loss of profits might be limited, since many major exporting firms from China are foreign-owned.

On the other side and in the longer term, a protracted trade war might weaken China's position in the global value chains. With its products restricted by the world's largest market, China's competitiveness in global manufacturing, particularly in high-value-added and sophisticated technology products, could decline, making it more difficult its technology convergence over the medium-term.

### ***The downsides for the American economy***

Contrary to Trump's wishful thinking, tariffs are also costly to the country imposing them.

Broadly speaking, the Trump administration is imposing higher tariffs on two kinds of products - intermediate inputs and consumer goods. Certainly, in the short term, American steel and aluminium producers, the other protected industries and the US government (through the tariff revenues) could gain from the US tariff war since they face less import competition.

But these gains would be more than compensated by losses of millions of consumers plus the losses of producers who suffer from the price increase of their inputs.

Standard theory of protection shows that tariffs impose costs on consumers through the higher prices charged by retailers, by the lower volume of goods at their disposal and, finally, by a reduced access to foreign varieties of those products. The present case is no exception. If the last wave of tariffs threatened

by the Trump administration comes through, all the consumer products imported from China – including mobile phones, clothing, shoes, toys – will be hit, forcing retailers to raise prices. So, the American consumers will bear the brunt of higher prices both of the goods produced with more costly inputs and of more expensive Chinese final goods. The Footwear Distributors and Retailers of America have estimated that the last wave of US tariffs would amount to \$7 billion a year in additional costs for customers. It should be remembered that, in 2018, 69% of all the shoes sold in the US were of Chinese origin. That is also the reason why Walmart, America's largest retailer, which imports 26% of its merchandise from China, said it will raise prices on some products as a result of the Trump administration's tariffs on Chinese goods.

For consumer products such an import tax may also turn out to be regressive, if it reduces the purchasing power of lower-income Americans who spend a greater share of their household budget on consumer goods, including imports.

Moreover, in the medium-longer term, the new tariffs could lead to rising inflation expectations. Rising inflation expectations would force the Fed to raise the interest rate, which could lead to a decrease in stock and property prices.

However, US consumers would not be the only victims. First of all, China's retaliation is bound to inflict harm on American exporters, including some of those that the Trump administration intended to protect. Soybeans, fruits, pork and various other agricultural producers – together with wood, paper and metal, machinery and chemicals - are now facing higher barriers to sales in the Chinese market.

But, most importantly, American industrial producers are also bound to suffer damages deriving from the basic nature of global value chains. Around half of the tariffs are placed on intermediate inputs coming from China. A considerable part of this kind of trade happens between American producers and their affiliates in China. Taxes on inputs like steel, aluminum, or so-called “parts and accessories”, are embodied in US production, frequently through cross-border supply chains. There is thus a first damage to American exporters, since their production costs become higher. In the medium-longer term this would require to reorganize the global value chains away from China, a very costly process indeed. A generalized reshoring, that is taking production back in the US, would also be costly both in the short and in the longer run, since US innovation depends heavily upon global networks. In either case, firms might be tempted to raise prices in order to overcome such costs.

At the same time, these exporters will also be harmed in the Chinese market by higher tariffs erected by China as retaliation. For instance, US based auto-makers (including German and other EU producers) have been affected by a 40% Chinese retaliatory tariff; farm products like soybeans, fruits, pork and other agricultural products have encountered a similar fate. However, this is not the whole story. As seen previously, while retaliating against the US, China has been lowering its tariff rates on competing products (except autos and parts) from all other WTO members, including Japan, Canada and the EU, who started enjoying a better access to the Chinese market. In this way, American firms are damaged both on the side of costs and on the side of sales. Three examples: in 2018 American soybeans exports were largely replaced by imports from Brazil and Argentina; Canadian lobster exports to China almost doubled, while the American ones declined by 70%; US exports of Pacific salmon to China were substituted by Japanese exports.



The result has been a rather large decline of American exports to China, caused also by a slower growing Chinese domestic demand. In the longer term the US could replace China with Mexico (electrical equipment, furniture, toys, automobiles, plastics), Vietnam (garments, toys, shoes), Canada (auto, plastics), Malaysia (electrical equipment), Japan (electrical and mechanical equipment, furniture, auto). Provided that the Trump administration can restrain from imposing new tariffs onto some of those countries as well.

Finally, China could retaliate in ways that differ from tariffs, like reducing aircraft orders – roughly one third of the world orders for the Boeing 737 Max come from China - or the purchase of American agricultural products and energy or restricting the sale of strategic minerals like rare earths, that are vital inputs for mobile phones and electric cars.

The longer-term toll might even be heavier. Raising the cost of intermediate inputs for downstream US industries makes them less competitive both in the North American and in global markets. Their competitors in the rest of the world can access similar inputs at lower prices because they do not face tariffs. This cost will be increasingly difficult to reverse as other countries start to benefit from discriminatory access to the Chinese market.

Despite the government's wishful thinking, it is doubtful that there will be a substantial repatriation of jobs into the US. First, the goods imported from China show a much lower value than the goods that can be sold in the US at the American wage level. Second, quite a few developing countries - other than China - can produce these goods, so that American producers are very likely going to move or to source there.

Finally, the macroeconomic impact of the trade war might be even more devastating. Although US exports to China account for only 8.4% of its total exports and 0.6% of its GDP, an escalation of trade tensions could cause concerns among investors in the United States and trigger an equity market drop, which would then affect the US economy through wealth effects on consumption and investment. Firms might start looking for alternatives to locate their activities, eroding in this way the US tax base.

All in all the US trade policy appears to be a policy of self-inflicted wounds.

### ***Impact on the global economy***

The impact of a trade war on the global economy cannot be underestimated. China is the world's largest exporter and the United States the world's largest consumer; together the two countries account for 40 percent of the world economy.

Economies exporting intermediate products and raw materials to China, such as South Korea and Taiwan, could be hardest hit. Disrupting the global value chains will imply many other losses along the chain, threatening to drag the global economy into recession.

According to a study based on a multi-region dynamic general equilibrium model a global and generalized 10% increase in import tariffs could reduce global GDP by 1% after two years. This effect could be amplified by a fall in productivity, a rise in the financing cost of capital and a decline in investment demand. Taking all these factors into account could result in lowering global real GDP by up to 3% after two years.

### *The undermining of the rules-based system*

There are finally costs that are not easily quantifiable, but are not any lighter.

In all its actions the Trump administration has gone counter either WTO provisions –among others violating the MFN principle of the multilateral system - or established international behaviours of restraint, deliberately weakening the rules-based, multilateral trading system. In fact, it has even gone so far as to block the appointment of Appellate Body members for the Dispute Settlement Body, thus slowing the resolution of ongoing disputes and impeding the process of an important function of the rules-based system.

Until the recent past, most of the trade disputes were treated through the WTO and the vast majority of US tariffs were justified as countervailing and antidumping duties. On the contrary, Trump has invoked US trade laws that afford the Executive branch of the US government enormous discretion to impose new trade restrictions, in particular an extended use of safeguard protection, beyond the one allowed by the WTO, on products like solar panels and washing machines; a very broad definition of national security in applying tariffs on steel and aluminum, undermining a norm of restraint when applying the national security exception; finally the Trump administration went through a very different approach than his predecessors on some long standing critical issues like Chinese unfair trade practices related to forced technology transfer, intellectual property and innovation, the role of the Chinese state in economic activity and its ties with big private companies, the favourable terms allowed to state-owned firms, their policies on foreign investment discriminating against foreign-based companies, a policy of cyber-intrusion into the commercial operations of American companies.

Instead of applying tariffs, there could have been alternative ways to deal with these issues. For example, using the negotiations over a US-China bilateral investment treaty, which were launched by the Obama administration; or challenging the subsidies being given to Chinese domestic firms under the WTO subsidies code, which prohibits such subsidies; or else dealing with threats of stealing trade secrets through security actions rather than trade measures; last, but not least, always acting in cooperation with the EU, Japan and other countries, whose firms have often expressed concern about their discrimination on the Chinese market.

Moreover, in the recent past the United States had established a long-term strategy of writing new trading rules through mega-regional agreements like the Trans-Pacific Partnership (TPP) agreement, to address many of the limitations of current trade agreements. Countering this experience, President Trump withdrew the United States from the TPP agreement.

Two major effects of this US trade policy have been: first, that China has felt obliged to respond with threats of its own without obtaining permission from the WTO, and as a result the two largest members of the trading system are no longer respecting the rules; and, second, that the Trump administration has launched new tariffs also onto established allies like the EU, calling into question a long-standing cooperation.

Paradoxically, these new measures were born out of the side effects of the trade war with China. In fact, other countries have started to benefit from discriminatory access to the two markets affected by the trade conflict. A recent study on the consequences of the Sino-American trade war shows that firms in

other countries will capture 82% of the Chinese exports subject to US tariffs, 12% will be retained by Chinese firms and only 6% captured by US firms. Conversely, firms in other countries will capture 85% of the US exports subject to China's tariffs, leaving small portions for Chinese firms (5%) and for American companies (10%). As expected, the countries that are supposed to obtain the largest gains are the most competitive ones. EU exports would likely increase the most, capturing around \$70 billion exports (\$50 billion of Chinese exports to the US and \$20 billion of US exports to China). Other countries standing to benefit for lesser amounts are Japan, Mexico and Canada, each capturing about \$20 billion. Smaller amounts, although representing sometimes an important share of their exports, are captured by Australia, Brazil, India, Philippines, Pakistan and Viet Nam. As for the EU products involved, motor vehicles, aircraft, semiconductor, chemical, machinery, plus some consumer goods stand out as the most promising in this respect. Moreover, the EU could also attract a larger share of Chinese investment, as it did happen in 2018.

However, these effects might be uncertain given the fuzziness surrounding the extent and the duration of tariffs. Moreover the negative global effects will tend to dominate, especially because the trade conflict might turn into a domino-like spiral of retaliations and even currency wars. The Trump administration has already placed tariffs on steel and aluminum towards all the countries in the world and has threatened new tariffs on \$11 billion in EU products, in response to Airbus subsidies, and on EU car exports.

While the response of the EU cannot be of pure compliance – quite to the contrary it has announced retaliations on US exports - there should be a united effort of the EU member states to play as a third protagonist beside the two superpowers in order to reform the WTO towards a new rules-based system, which, in the end, is the sole guarantee that the interests of weaker countries will be taken into consideration alongside those of powerful countries and big trade blocs.

## **THE ROLE OF CHINA IN GLOBAL CLIMATE CHANGE POLICY**

*By Alessia Amighini, Professor Università del Piemonte Orientale, Co-Head of the Asia Centre at ISPI (Istituto per gli Studi di Politica Internazionale)*

### **Sintesi**

*Questo contributo propone una breve descrizione del ruolo della Cina nel contesto delle politiche e delle negoziazioni sui cambiamenti climatici. Sottolinea come negli ultimi 10 anni la Cina abbia cambiato la sua posizione, assumendo un ruolo di leadership nel contesto delle negoziazioni e della implementazione di politiche per la riduzione delle emissioni. Ciò è dovuto sia a motivazioni nazionali che internazionali. Sul piano nazionale la Cina sta implementando una rivoluzione green, diventando un leader mondiale in installazione di rinnovabili e mantenendo le emissioni di CO2 relativamente stabili. Sul piano internazionale la posizione di leadership della Cina è anch'è in parte dovuta alla uscita degli Stati Uniti dagli Accordi di Parigi.*

Since almost a decade, China has been a central player in global climate change policy. China's engagement to multilateral negotiations changed dramatically from her ambiguous position in the process that eventually led to the failure of the Copenhagen climate summit in 2009 to her fundamental role in

the success of the Paris Agreement in 2015, and to her current claim to become the major advocate of a global governance approach to climate change.

This shift is extremely welcome as China is the world's great polluter and therefore is essential to the future of the climate on the Earth. China's CO<sub>2</sub> emissions increased from 10.7% of global emissions in 1990 to 22.3% in 2008 and 28% in 2017. Therefore, China has bypassed the US as regards CO<sub>2</sub> emissions, which went from 46% of US emissions in 1990 to 117% in 2008 and 190% in 2017.

The Chinese shift to a leadership role in climate change policies and negotiations has both domestic and international motivations, and the two are intertwined. On the domestic side, China is undergoing a massive green revolution as a part of her economic and industrial transition to new growth model. On the international side, China has embraced a leading role in global negotiations, partly as a result of the US withdrawal from the Paris agreement. The two sides are intertwined. On the one hand, the country's international commitment to reduce CO<sub>2</sub> emissions reinforces the domestic commitment to respond to the people's pressure for policies towards a green revolution. The Chinese urban middle class is increasingly discontent not to say rather alarmed by climate change and have increasingly mobilised against air pollution. Therefore, public opinion is a major supporting factor for the urgency by Chinese officials to developed policies that have a positive effect on climate change. On the other hand, the domestic acceleration in the adoption of environment-friendly policies is leveraged internationally to demonstrate the country's effectiveness at reaching those goals.

The Chinese climate strategy has been substantially reinforced with the 12th and the 13th 5-year plans as long as the transition towards more sustainable growth has led to reconsider environmental sustainability as a key driver for the future. Investing in green sectors, technology and processes is a way to achieve a variety of goals, ranging from the massive reconversion of polluting industries, to the ambition to achieve significant industrial upgrading in the transport sector by leapfrogging other countries into the new electric mobility, to the willingness to decrease its energy dependence.

However, there is a little ambiguity and inconsistency between the way a domestic green revolution is pursued and the specific commitments signed in the Paris agreement. According to the International Energy Agency, China's CO<sub>2</sub> emissions has not increased since 2014 and that total CO<sub>2</sub> emissions in 2017 were just 1% above the 2014 level, a pace that is much lower than the overall growth rate of the economy. Moreover, the IEA reports that China represented 40% of the global increase in solar and wind energy production in 2017. "China overtook the United States to become the world leader for non-hydro renewables-based electricity generation. Global solar photovoltaic (PV) capacity approached 400 GW by the end of 2017. It was an extraordinary year for solar PV additions in China, with over 50 GW of new capacity, exceeding the combined capacity additions of coal, gas and nuclear, and up from 35 GW in 2016. The new solar PV capacity added in China in 2017 alone is equivalent to the total solar PV capacity of France and Germany combined".

However, the planned shift to renewable energy sources might not necessarily reduce coal dependency as much as one could expect. Despite China is very aggressive in stating she is cutting coal usage, the coal intensity of electricity production to fuel electric vehicles (EV) might be still high. Projections of coal intensity show that China is slowing down the growth of coal usage, not decreasing it. The new stringent fuel efficiency rules and the license plate lottery in Beijing is incentivising buyers to favour EV purchases, but this is much more intended to achieve blue skies in all of its major cities within three years, to please the urban middle class, and to allow Chinese automakers to sell larger numbers of electric vehicles than

to cut coal usage. These producers have been competing domestically with foreign invested firms (joint ventures between Chinese and foreign producers), but now they are acquiring a growing advantage in the EV market. It is not surprising that a drastic shift to EV has occurred exactly at a time when a Chinese industrial capacity has developed in renewables and in new EV, so that now China finds it all the more convenient to lead the global climate change policies, as it is perfectly consistent with her own domestic development objectives.

For a longer reading and coverage of the political factors behind China's turn toward climate leadership, see Yves Tiberghien (2018), *Chinese Global Climate Change Leadership and Its Impact*, in Amighini, A. (ed.), *China Champion of Which Globalisation?*, ISPI.