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Absorption of tariff impact by trading blocs: The case of Thai exports to the US

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Abstract: The impact of US tariffs imposed by the Trump administration on Thailand raises concerns about the strategies the government and corporations should follow to mitigate the negative effects on Thai exports. This paper analyzes the mathematical and statistical certainties of US tariff impact absorption by the RCEP countries, considering the worst-case scenario of a 36% US tariff on Thai exports. Two independent analyses are applied here: the first relates to the certainties that RCEP countries could fully rescue Thai exports, and the second considers that these exports could be rescued by just 95%. Both scenarios use a Monte Carlo simulation method of analysis, assuming in all cases that export sales increase by 5% in all RCEP member countries where Thai exports already take place. The research focuses on the top 50 Thai exports, considering a 4-digit HS code, which accounts for a total of 65.2% of Thai exports. The results vary depending on product categories, industry, the concentration of exports in different countries, and the relative weight of the US and RCEP countries in the analysis. Nonetheless, the findings suggest that the likelihood of RCEP fully rescuing Thai exports is low, although the chances increase significantly when the rescue covers 95% of the potential damage.

Keywords: *International economics, International trade, Monte Carlo simulation, RCEP, Tariff, Trading bloc, Thai exports, Trade retaliation.*

1. Introduction

The Trump administration's threat to increase tariffs on a significant number of countries represents a shift in the dynamics of international relations. Major exporting nations consider the American market one of their key destinations; therefore, it becomes critically important to assess the extent to which these tariffs imposed by the United States may affect sales and exports.

When a country raises its tariffs, it increases the price of goods, which in turn has consequences for sales, exports, imports, and broader economic outcomes such as inflation. As one of the world's leading importers, and in light of the Trump Administration's strategy to encourage domestic firms to relocate operations to the United States, it is necessary to examine the extent to which this policy may succeed. Certain industries may indeed relocate to the United States due to favourable domestic production factors. However, others may find it unviable to do so, as manufacturing those goods on American soil would be excessively expensive; in such cases, imports would remain necessary. Tariffs will therefore play a crucial role in determining the final price of goods and will depend on whether the demand for such goods is elastic or inelastic.

The natural response of exporting countries will be to seek alternative markets to the United States, especially for highly price-elastic export goods. The U.S. will likely increase imports from countries where tariff rates are lower.

This research focuses on Thai exports to the rest of the world. In 2024, Thailand exported goods worth USD 299 billion, accounting for 71% of its GDP (World Bank, 2024). Of these exports, 18.3%

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were destined for the United States in 2024, followed by China (11.7%), Japan (7.8%), Malaysia (4.1%), and Australia (4.1%) (International Trade Centre (ITC), 2025).

Thailand's exports represent 1.3% of global exports, placing it 27th in the global ranking of exporting countries. As suggested by International Trade Centre (2025) the average distance to its importing partners is 6,322 km, and its export concentration index is 0.07, meaning that Thai exports are relatively well diversified. That is, the average importing country accounts for 7% of Thailand's total exports. This suggests that the goods Thailand typically exports tend to be relatively "mid-value-added" with a Terms of Trade of 96.97 points in May 2025, Bank of Thailand (2025) expressed evolution of TOT appears in Chart 1. Some of these products are capable of absorbing transportation costs, such as technological goods. Furthermore, the relatively low export concentration indicates a globally diversified export strategy rather than a dependence on a few key markets.

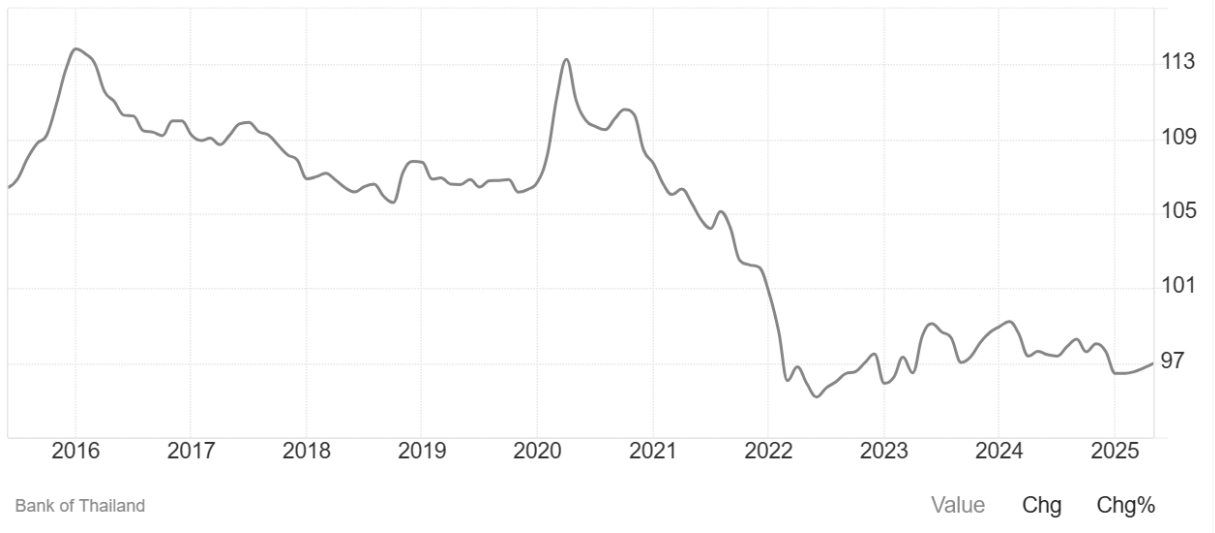

Figure 1.
Evolution of Terms of Trade in Thailand since 2016.
Source: Bank of Thailand (2025).

The core question this study seeks to answer is: Could RCEP countries mitigate or rescue losses in Thai exports due to a dramatic increase in US tariffs?

For instance, a 36% hike, as has been previously threatened by the Trump administration. In case a potential 36% tariff should be imposed on Thai exports to the US, would it be possible for Thailand to redirect its exports towards other countries within the RCEP group of countries, considering them as nations that apply minimal or no tariffs on Thailand?

Undoubtedly, these countries are members of ASEAN and the broader Regional Comprehensive Economic Partnership (RCEP). The RCEP comprises the ten ASEAN economies plus Australia, New Zealand, Japan, South Korea, and China, leading to a group of fifteen economies in total.

Could Thailand increase its exports to RCEP members sufficiently to mitigate the effects of Trump's potential aggressive tariff policy?

First, it must be noted that U.S. tariffs would not affect Thailand alone; most RCEP members currently exporting to the United States would also be impacted. Take China, for instance: as a net exporter of similar goods to the U.S., China too would be affected. In response, China's domestic demand would need to absorb part of its production not exported to the US, and China would also seek to reorient its exports to other markets, including RCEP members. At the same time, U.S. tariffs on Chinese imports could create a void in the Chinese domestic market—an opportunity that could be filled

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either by Chinese firms or by companies from other RCEP countries, potentially creating new openings that did not previously exist.

This study collects and classifies data by four-digit HS tariff codes for the fifty most important products exported from Thailand globally. These fifty products represent 65.2% of total Thai exports according to International Trade Centre (2025) making the model highly representative of the Thai exports. For each product category, the total USD amount exported in 2024 is recorded, along with the percentage exported to each partner country. With this information, several Monte Carlo simulation models can be constructed to account for uncertainties and to predict similar export outcomes in the future.

As will be shown, not all products are equally affected by tariffs. In some cases, even modest increases in exports to RCEP countries could offset the negative impact of higher U.S. tariffs. However, in other sectors or product categories, such compensation may not be feasible.

2. Literature Review on Tariffs and Retaliation

The study of international trade centres on the connections between tariffs, trading blocs and retaliation, which are fundamental to global economics. For a long time, tariffs have been the driving force behind trade policy, serving as revenue and protectionist mechanisms that prompt responses from both domestic and foreign governments. To grasp the intricacies of tariff policy' impact on trade relations, particularly in the context of trading blocs, one must conduct empirical research. The literature presented in this volume combines contemporary research on tariffs and territorial trade policies, with a focus on their impact on global trade patterns and counter-measures by trading partners.

2.1. Tariffs: Definition and Economic Implications.

The importation of goods is subject to tariffs imposed by governments, which have non-monetary effects beyond revenue generation. In general, tariffs are used for protecting local industries against international rivalries and to generate government revenue while also maintaining a good balance of trade (Irwin, 2019). Increasing import product prices through tariffs leads to lower consumer demand, which in turn reduces the volume of trade. Studies indicate that high tariffs can lead to reduced global trade flows and the ensuing reaction from trade partners in the form of counter-arrival tariff, impacting supply chains worldwide, technology transfers among workers globally, and generally having a detrimental effect on developing economies (Khoso, Baseer, & Rehman, 2025).

2.2. Classical trade theories serve as the foundation for the argument and implementation of tariffs.

In the context of economics, a more efficient distribution of resources leads to higher welfare by eliminating tariffs and thus creating greater social welfare. Trade wars are a common outcome of strategic tariffs, where countries adjust barriers to counter predatory behaviour that trade partners perceive, often to reduce market efficiency (Khoso et al., 2025).

2.3. Tariff Structures and Trade Agreements.

Tariff schedules in various countries differ significantly based on their national policy objectives and international arrangements. According to Ludema and Mayda (2010) the member nations' average tariffs were reduced due to WTO negotiations, which was an internalization of terms-of-trade consequences.

Trade liberalization and market access are achieved through trade concessions between economies that have both reduced tariffs bilaterally (Ludema & Mayda, 2010).

Additionally, the interactions between multilateral and regional trade treaties are crucial factors in shaping tariff policy. According to Dastagiri and Naga Sindhuja (2021) regional trading blocs tend to implement non-tariff barriers and tariffs to achieve competitiveness in specific markets, particularly in the agricultural sector. Regional trade liberalization is given more weight than global norms by these

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agreements, as evidenced by the impact of tariff controls on trade volume and sectoral performance in the EU-Ukraine relationship (Oleinyk & Р о ш к о , 2023).

2.4. Non-Tariff Barriers and Retaliatory Measures

Trade liberalization efforts entail reducing tariffs, and as a result, many countries use non-tariff barriers (NTBs) to manage trade. The implementation of NTBs may involve import restrictions, licensing, and safety measures that may be protected by protectionist principles. Alazzam and Sabbagh (2021) argue that NTB regulation can enhance product safety while also preserving local market competitiveness (Alazzam & Sabbagh, 2021). However, they may also entice countries that are negatively impacted by such policies to respond with force, leading to intricate trade tensions (Baylis, Wirtz, & Johnson, 2022).

When a country introduces tariff cuts, another country responds by introducing NTBs, and the two factors interact. The significance of import notifications and bans on specific products has been found to have increased significantly following tariff cuts (Baylis et al., 2022). The implication is that even though conventional barriers may be reduced, countries tend to utilize other means to protect their domestic industries, perpetuating trade tensions.

2.5. The Political Structure of Tariff Determinations

Tariffs play a crucial role in the political economy of industries, as they typically force governments to impose tariffs to protect them from global competition. Empirical studies of U.S, trade policy indicate that tariff policy is strongly influenced by domestic political environments in which import-competing industries seek increased taxes to preserve market share (Irwin, 2019). Using tariffs as political tools to gain support from certain voting groups can lead to the development of overall trade policy. Hoekman and Kostecki (2001) that trade negotiations in countries like GATT and WTO require a balance between political and economic interests, while also prioritizing the pursuit of trade liberalization and international cooperation. During tariff negotiations, where the focus is on certain sectors, there is a chance of countries that provoke them to take action, which can lead to protectionism and trade barriers (Stender & Vogel, 2023).

3.6. The Impact of Trading Blocs on Global Trade Dynamics?

The establishment of trade standards and competitive edge in specific industries is largely dependent on trading blocs, which are agreements between countries to reduce tariff and non-tariff barriers among themselves but not with outsiders. Evidence from studies has shown that in areas of economic integration, such as the EU or targeted deals across ASEAN member states (ad hoc agreements), trade between member countries has increased, suggesting an opportunity for greater economic cooperation.

Cheng and Chen (2025) have found that the effects of agreements like these can be highly diverse, taking into account the impact of tariff and non-tariff measures across agricultural sectors within different trading blocs (Cheng & Chen, 2025) which can result in tension in multilateral trade situations. Such obstacles may create additional challenges and counter-employers as countries strive to safeguard their domestic industries from competition imposed by trading bloc allies.

2.7. Conclusion of the Literature Review

Today's international trade is a complex web of interconnected interactions between tariffs, trading blocs and countermeasures. Efficiently studying both the economic side of tariffs and its political ramifications on trade patterns, industrial performance, and geopolitical relationships is necessary to gain an understanding. In the face of a growing global economy, countries' efforts to understand trade relationships are likely to continue to dominate tariff actions and retaliatory actions as part of their own trade policy agenda. However, even though tariffs have a direct impact on trade interactions, their extended effects, such as the consequences of retaliation and the central role of trading blocs, highlight

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the importance of careful control of trade policy to avoid confrontation. Further studies are needed to examine these interactions and provide information that can help alleviate tensions and promote fair trade practices.

2.7. Materials and Methods

The top 50 products exported by Thailand will be analysed and are grouped in the following table. These 50 products accounts for 65.2% of Thailand's total exports.

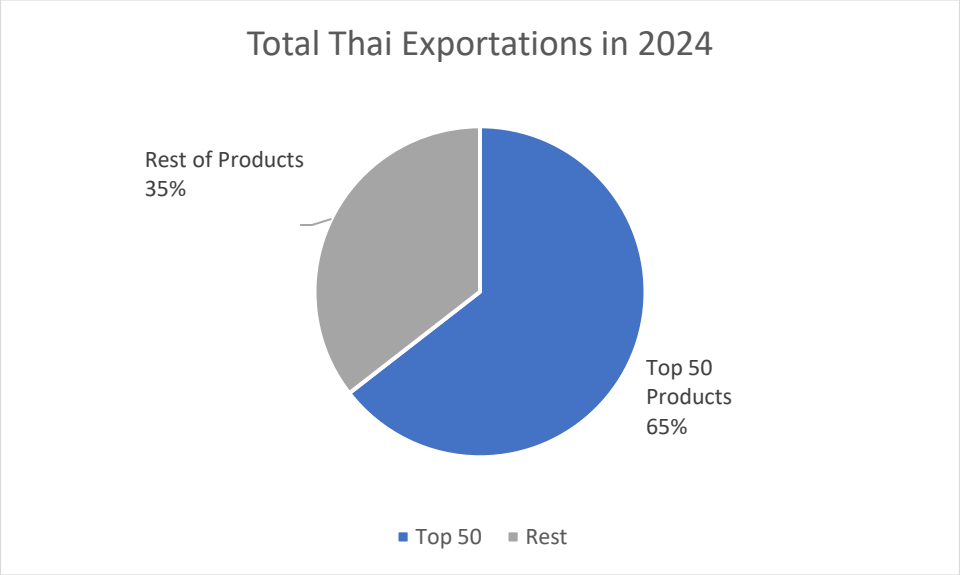

Figure 2.
Total Thai Exports to the World in 2024.

As we can see, each product that belongs to the top 50 list has been listed in the following table, making reference to its 2 and 4-digit HS code.
As an example, we can use the first three products that appear in the table,

- HS Code 0207 refers to meat and edible offal of poultry, fresh, chilled, or frozen. This includes poultry such as chickens, ducks, geese, turkeys, and guinea fowl. It specifically covers the meat and edible parts of these birds that are not further processed beyond chilling or freezing.
- HS Code 0810 refers to "Other fruit, fresh". This category encompasses various fruits that are not specifically listed in other chapters of the Harmonized System (HS) code for fruits, such as strawberries, raspberries, blackberries, mulberries, loganberries, currants, gooseberries, cranberries, bilberries, kiwi fruit, durians, persimmons, pomegranates, and tamarind.
- HS Code 1006 is the Harmonized System code for Rice. This code is used for classifying and identifying rice in international trade. It encompasses various types of rice, including paddy rice, husked rice, semi-milled or wholly milled rice, and broken rice. Breakdown of the main categories within HS code 1006 can be:100610: Rice in the husk (paddy or rough), 100620: Husked (brown) rice, 100630: Semi-milled or wholly milled rice, whether or not polished or glazed, and 100640: Broken rice.

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Table 1.
Classification of Thai exports, Top 50, 65% of total exports.

Hs Code Industry 2 Digits	**4 Digit Classification**
02 Meat and edible meat offal	0207
08 Edible fruit and nuts; peel of citrus fruit or melons	0810
10 Cereals	1006
11. 1 Products of the milling industry; malt; starches; inulin; wheat gluten	1108
16, Preparations of meat, of fish, of crustaceans, molluscs or other aquatic invertebrates, or of insects	1602, 1604
17. 17 Sugars and sugar confectionery	1701, 1702
21, Miscellaneous edible preparations	2106
22. 22 Beverages, spirits, and vinegar	2202
23. Residues and waste from the food industries; prepared animal fodder	2309
27. 27 Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	2710
39. 39 Plastics and articles thereof	3901, 3907, 3923
40. 40 Rubber and articles thereof	4001, 4002,4011, 4015
44. 44 Wood and articles of wood; wood charcoal	4407
71. 71 Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewelry	7102, 7103, 7108, 7113
73. Articles of iron or steel	7326
74. Copper and articles thereof	7404
84. 84 Nuclear reactors, boilers, machinery, and mechanical appliances; parts thereof	8408, 8411, 8414, 8415, 8418, 8443, 8450, 8473, 8471, 8452,
85. 85 Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	8504,8525, 8528, 8534, 8536,8537,8541,8543, 8544,8519
87. 87 Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	8711, 8703, 8708, 8704

The export behaviour of each 4-digit HS code has been analyzed, considering the total exports from Thailand to the world in 2024. The analysis is based on a fragmentation of the total share exported to different countries, expressed in percentages, as we can see in HS code 8471 in the following table:

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Table 2.
Example of export market share analysis of Thai exports for product HS 8471. Source Intracen Calculations 2025.

HS code 8741	USD in Thousands	Share of Exports
United States of America	6,090,378	40.70%
China	2,052,583	13.70%
Hong Kong, China	1,197,602	8.00%
Germany	804,470	5.40%
Netherlands	583,763	3.90%
Singapore	565,327	3.80%
Malaysia	415,283	2.80%
Australia	320,678	2.10%
Mexico	312,289	2.10%
Ireland	310,689	2.10%
Taipei, Chinese	302,380	2.00%
Czech Republic	289,399	1.90%
United Arab Emirates	231,558	1.50%
Panama	157,721	1.10%
Japan	151,225	1.00%
Greece	146,129	1.00%
France	123,093	0.80%
India	114,412	0.80%
Viet Nam	104,928	0.70%
Korea, Republic of	93,811	0.60%
Canada	87,731	0.60%
Poland	83,544	0.60%
Russian Federation	78,879	0.50%
Spain		0.40%
Total Covered		98.10%

In this case, HS code 8417, Thailand exports to the Top 24 nations cover up to 98.10% of its total exports.

Research Scenario 1. Monte Carlo simulation and sensitivity analysis on the RCEP total absorption of tariff impact in a 2024 level of exports to the US.

In case the US appears in the list of export destinations for each 4-digit HS code, a Monte Carlo uncertainty simulation using 10.000 iterations is applied. Initially, we consider a worst possible scenario where Thailand faces a 36% tariff from the US, so a uniform distribution is applied to the values of % potential share exported to the US.

This value fluctuates between a maximum of what was exported in the year 2024 and a reduction of 36%. In this case, the simulation will apply two different types of assumptions:

a) The assumption of values for exports to the US between 40.70% maximum, as it was in 2024, and 26.048% of the Thai share of exports in product HS 8471, in case of a reduction of 36% of the original value *(notice that elasticity-price and its impact in demand is calculated under a unit-elasticity scenario).*

b) The assumption that the member countries of RCEP will absorb or rescue totally or partially the impact of exports from Thailand to the US affected by the tariff. In this case, the simulation will increase by 5% the expected exports stated in the year 2024 to the RCEP countries only. This assumption is based on the principle that Thai exports could be increased a bit to the RCEP countries in each sector or industry analysed, covering 65.2% of the total Thai exports.
It is important to state that the principle of export reduction applied will depend on each product's price elasticity, which at this stage is unknown, so an assumption of "unit elasticity" has been applied, where elasticity:

E = % Change in Quantity Demanded (or supplied) / % Change in Price.

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The scenario that will be tested mathematically relates to the probabilities of achieving the same result as in the year 2024 by increasing a Thai market share by 5 % in all RCEP countries while the US applies a tariff of 36%.

It is also important to mention that this 5% increase will depend on issues like: financial aid, Thai Government subsidies on Thai exportations, etc. The fact that the importing countries of RCEP are or are not exporting the same product to the US could change the scenario. In case it does, the internal supply could will become more aggressive and might absorb the lack of exports of the RCEP nation at the detriment of actual imports from 3rd countries like Thailand.

It's also crucial to understand up to what extent the tariff on products in the same HS code imported by RCEP members from the US will increase or not, and up to what extent this will appear as possible opportunities that could be covered by Thai export companies.

When applying the simulation to the Top 50 Thai categories of products exported, we obtain results as expressed in the following charts *(note that only a few examples have been added to illustrate the research):*

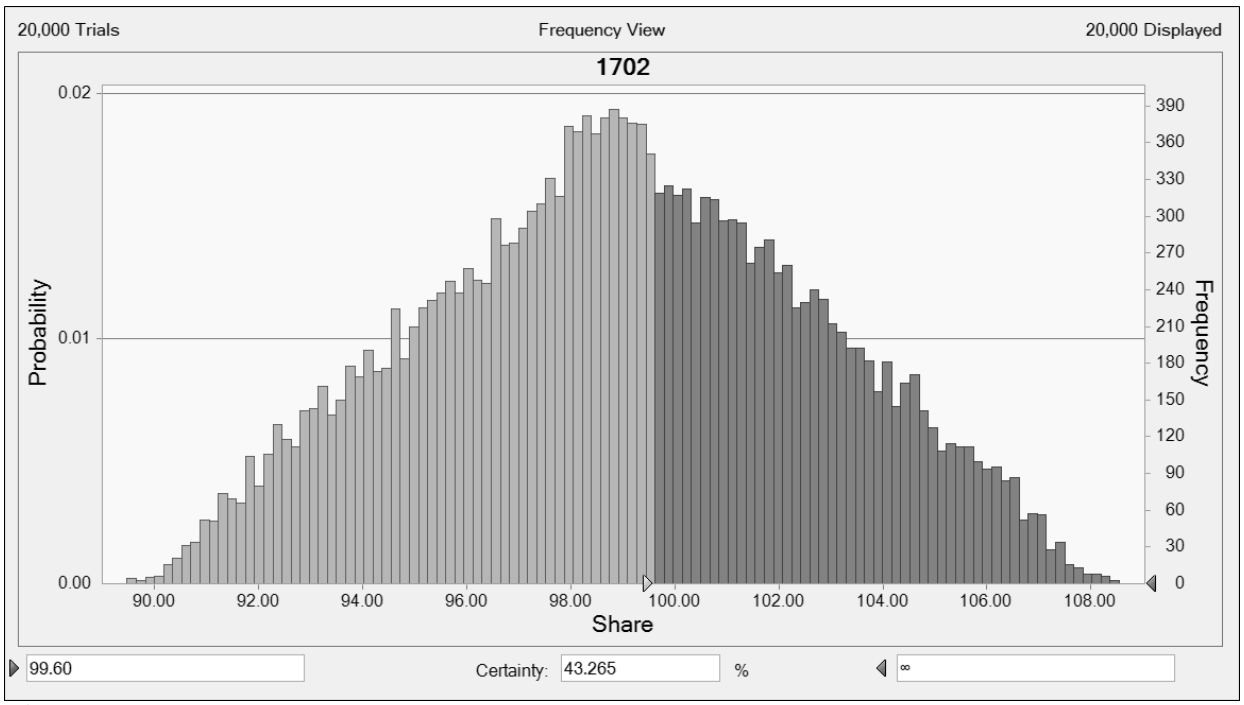

Figure 3.
Example of simulation applied to HS code 1702. Probabilities and certainties of obtaining the same export results in HS code 1702 as it was in 2024 before the increase of the US tariffs. The scenario applied is under the case that the US applies a 36% tariff on this industry and Thailand increases its exports to the RCEP members 5%.

As we can see in the former chart, there is are 43% certainty that Thailand recovers losses derived from the US tariff by increasing sales in the RCEP members by 5% of what was exported in 2024.

Also, a sensitivity analysis has been applied in order to understand the most important variables to negotiate and pay attention to from a country and industry analysis.

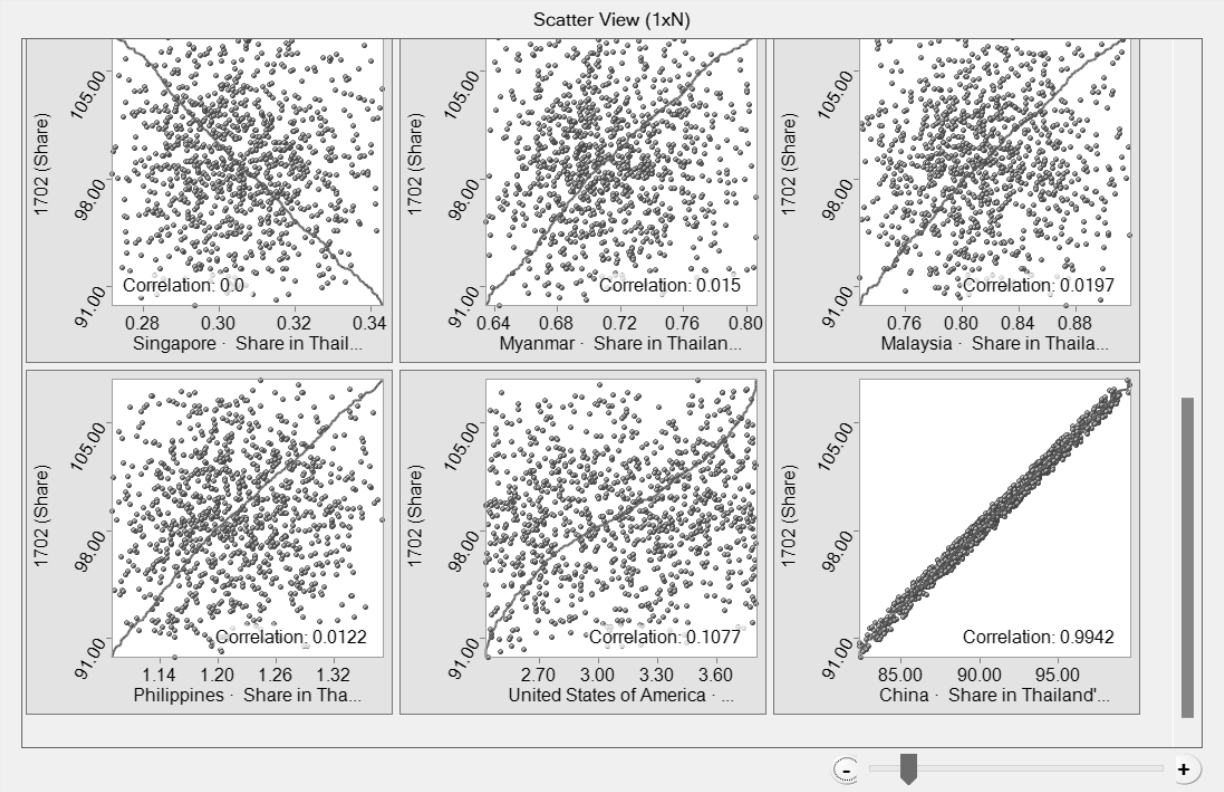

Figure 4.
Example of sensitivity analysis in HS code 1702.

As we can see in the former chart which is an example of the sensitivity analysis applied, only one variable contributes significantly to the variation of the final results, which is in this example case, the importance of China's imports from Thailand in this particular product. Others like the US reduction present less importance.

Both analyses, Monte Carlo simulation and the sensitivity analysis, will be crucial to understand the strategies to follow by the Thai Government and its exporting companies, aside from other factors such as the adjustment of prices in specific products within the industry.

Research Scenario 2. Monte Carlo simulation and sensitivity analysis on the RCEP 95% absorption of tariff impact in a 2024 level of exports to the US.

The scenario, as before, is considered in new simulations of 10.000 trials, but reducing the expected results for total Thai exports by 5%. See in the next Table #3 the research results under Scenario #1 using Monte Carlo simulations and sensitivity analysis, and in Table 4 a Comparison of the results of scenarios #1 and #2 in certainties related to the tariff absorption impact.

Table 3.
Results of the Monte Carlo simulation in Scenario 1. Total (100%) absorption of US tariff impact by RCEP countries.

2-Digit Hs Code	4-Digit Hs Code	Rcep Absorption Certainty	Sensitivity Analysis
84	8452	42.68%	US 28.6%, Singapore 20.11%, Malaysia 16.9%, China 13.1%
87	8708	15.54%	US 77.3%, Malaysia 8.1%, Japan 7.9%
85	8517	2.19%	US 98.5%
87	8703	61.88%	Australia 70.7%, Philippines 13.6%
84	8471	35.93%	US 99.4%
17	1702	43.88%	China 91%
02	0207	Not exports to the US	
08	0810	59.66%	China 99.8%
10	1006	13.54%	US 78.1%
11	1108	56.68%	China 94.8%
16	1602	Not exports to the US	
16	1604	9.86%	US 91.7%
17	1701	78.91%	Indonesia 40.6%, Cambodia 32.9%
17	1702	43.58%	China 98.8%
21	2106	19.30%	US 75%
22	2202	83.13%	Vietnam 43.2%, Cambodia 33.5%, US 94.2%
23	2309		
27	2710	Not exports to the US	
39	3901	74.73%	China 77.8%, Indonesia 8.6%
39	3907	41.26%	China 45.7%, US 27.4%, Japan 15.8%
39	3923	13.52%	US 79.9%, Japan 16/9%
40	4001	35.42%	China 57.8%, US 27.3%
40	4002	60.11%	China 99.9%
40	4011	2.58%	US 99.1%
40	4015	2.75%	US 99.2%
44	4407	Not exports to the US	
71	7102	6.32%	US 982.8%
71	7103	2.04%	
71	7108	67.08%	Cambodia 76.7%, Singapore 22.9%
71	7113	2.18%	US 99%
73	7326	22.66%	US 64%, Japan 21.5%
74	7404	Not exports to the US	
84	8408	58.09%	Indonesia 70.4%, Malaysia 11.6%
84	8411	31.69%	China 67.2%, US 26%
84	8414	14.51%	US 78.5%
84	8415	11.74%	US 86.3%
84	8418	5.96%	US 95.5%
84	8443	5.72%	US 94%
84	8450	9.74%	US 90.6%
84	8473	5.13%	US 95.5%
87	8711	12.07%	US 84.9%
87	8704	Not exports to the US	
85	8504	1.99%	US 99.6%
85	8525	5.02%	US 94.3%
85	8528	5.45%	US 94.4%
85	8534	24.75%	US 56.6%, Japan 17.2%
85	8536	18.85%	US 71.9%, China 10.6%
85	8537	8.98%	US 91.4%
85	8541	1.31%	US 99.6%
85	8543	6.34%	US 9.4%
85	8544	20.18%	US 56.3%, Japan 39.2%

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Also, for explanatory reasons, here you can see the obtained charts from the Monte Carlo simulation applied to three Thai exports in a 4-digit HS code. The chart contains 10.000 iterations modelling process. The rest of the certainty results can be seen in the former table.

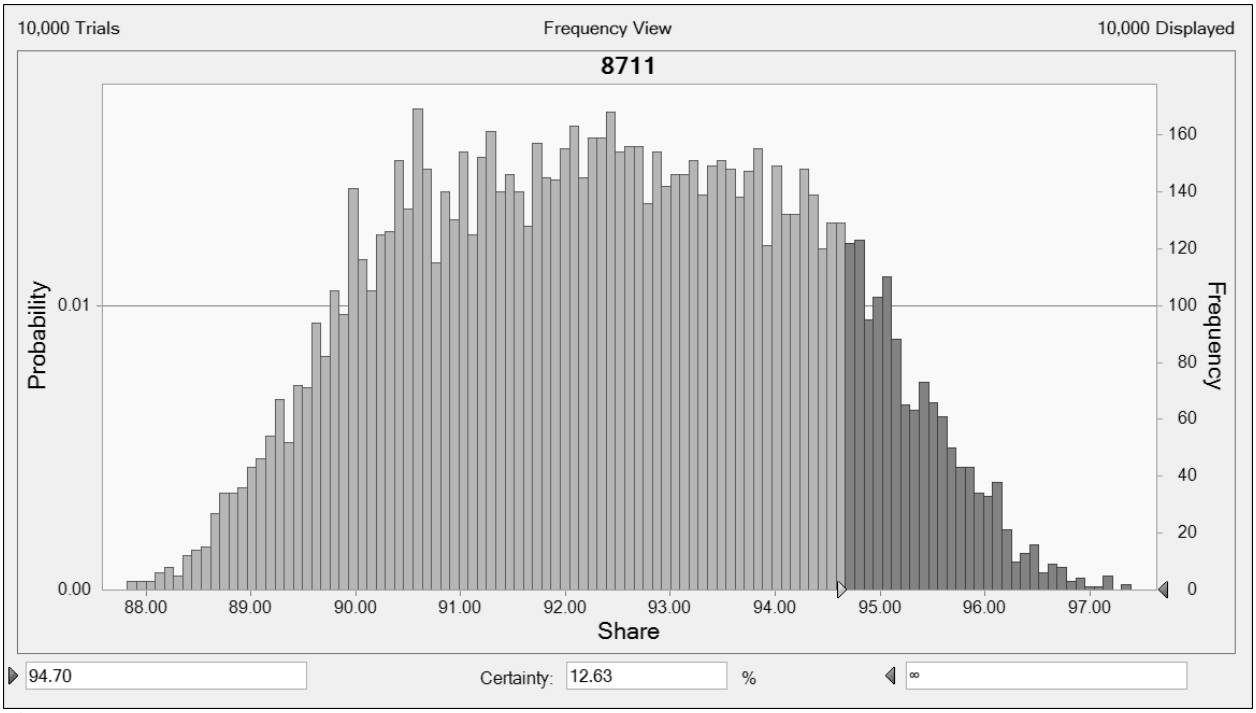

Figure 5.
Example of Monte Carlo simulation results for product HS 8711. Note that minimum differences could appear in the result in this chart and the one in Table 3 due to random volatility in the executed simulation.

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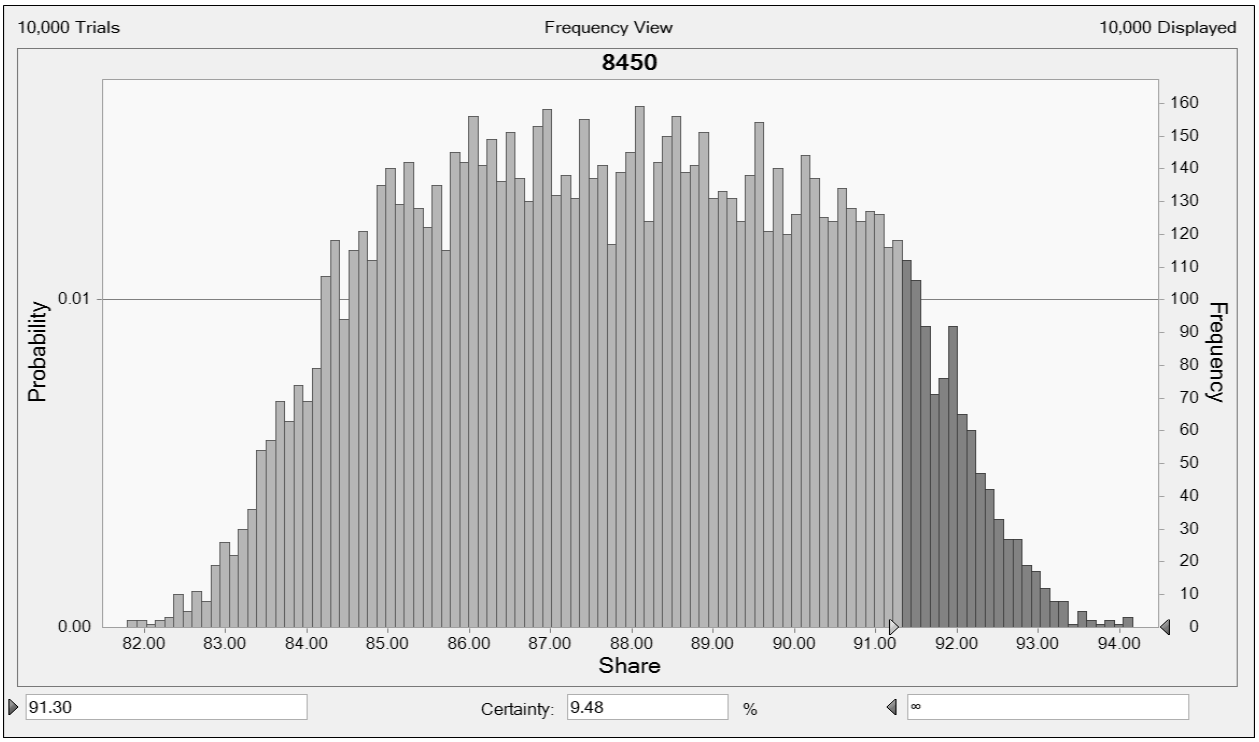

Figure 6.
Example of Monte Carlo simulation results for product HS 8450. Note that minimum differences could appear in the result in this chart and the one in Table 3 due to random volatility in the executed simulation.

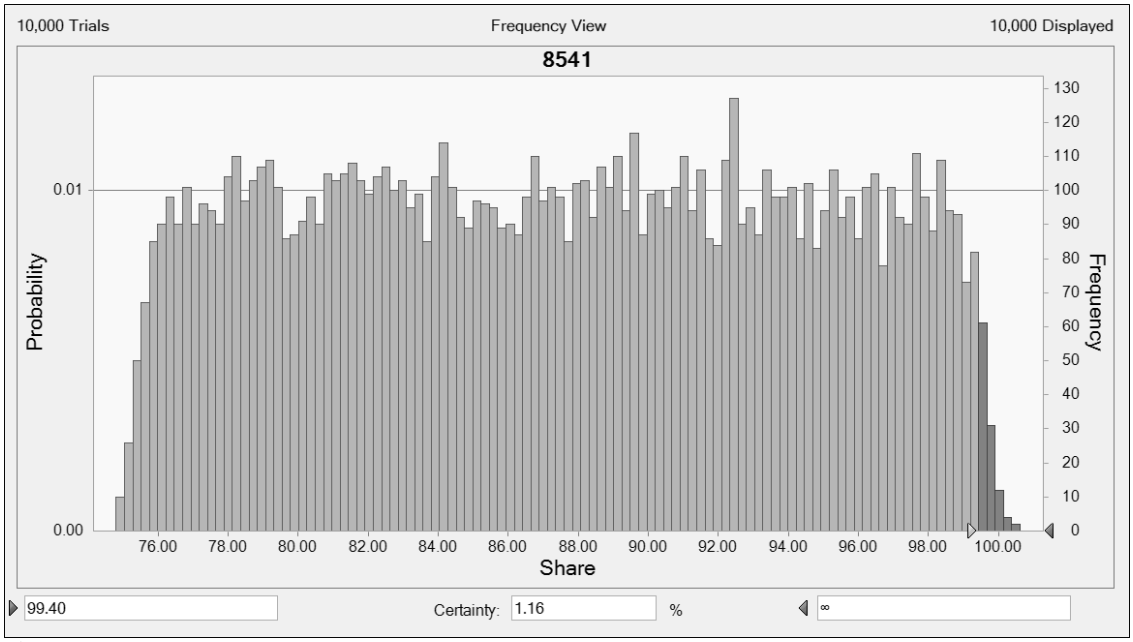

Figure 7.
Example of Monte Carlo simulation results for product HS 8450. Note that minimum differences could appear in the result in this chart and the one in Table 3 due to random volatility in the executed simulation.

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The results presented in Table 3 show the mathematical and statistical probabilities or certainties to mitigate or to absorb a 100% impact of the US tariff on the Thai exports. The total analysis has been applied to the Top 50 Thai exports using their 4-digit HS code, representing a total of 65% of Thai exports to the world.

3. Results and Discussion

In the Monte Carlo simulation, only the US and the RCEP countries have been considered variables to apply uniform or triangular distributions to obtain statistical results. A total of 10.000 iterations at a 99% confidence level have been executed on a one-by-one 4-digit HS code process. The results presented in Table 4 compare scenarios #1 and #2.

Scenario #1 identifies the certainties associated with the fact that increasing 5% exports versus the year 2024 in each RCEP country that Thailand is already exporting might absorb the impact of the US tariff in 100%.

Scenario #2 identifies the certainties associated with the fact that increasing 5% exports versus the year 2024 in each RCEP country that Thailand is already exporting might absorb the impact of the US tariff by 95%.

Out of the Top 50 products analysed, 4-digit HS codes do not appear in the research, as Thailand does not export to the US so consequently, those 4-digit HS codes are not affected by the US tariff.

The approach of the simulation has been quite conservative to reinforce the validation of the results, due to triangular assumptions have been placed on the variables' exports to each country, considering that exports could increase or decrease. In case that exports increase a 5% of the expected result has been added. At the same time, it is important to state that the Thai exports to the US have been determined in the model by a uniform distribution (highly conservative) where the best case is the maximum amount of exports achieved in 2024 (the model does not expect any increase in 2025) but is expects a potential reduction of 36% in sales volumes to the US.

Table 4.
Comparison of the results of scenarios #1 and #2 in certainties related to the tariff absorption impact.

2-DIGIT HS CODE	4-DIGIT HS CODE	INITIAL RCEP ABSORPTION CERTAINTY	RCEP ABSORPTION CERTAINTY REDUCING	2-DIGIT HS CODE	4-DIGIT HS CODE	INITIAL RCEP ABSORPTION CERTAINTY	RCEP ABSORPTION CERTAINTY REDUCING
84	8452	42.68%	93.10%	40	4011	2.58%	27.38%
87	8708	15.54%	90.00%	40	4015	2.75%	38.97%
85	8517	2.19%	25.18%	44	4407	*Not exports to the US*	
87	8703	61.88%	94.25%	71	7102	6.32%	99.00%
84	8471	4.91%	38.01%	71	7103	2.04%	93.54%
17	1702	43.88%	86.65%	71	7108	67.08%	100.00%
02	0207	*Not exports to the US*		71	7113	2.18%	48.34%
08	0810	59.66%	91.66%	73	7326	22.66%	96.81%
10	1006	13.54%	95.26%	74	7404	*Not exports to the US*	
11	1108	56.68%	98.63%	84	8408	58.09%	100.00%
16	1602	*Not exports to the US*		84	8411	31.69%	100.00%
16	1604	9.86%	60.97%	84	8414	14.51%	79.91%
17	1701	78.91%	79.21%	84	8415	11.74%	77.78%
17	1702	43.58%	85.84%	84	8418	5.96%	94.14%
21	2106	19.30%	93.22%	84	8443	5.72%	48.31%
22	2202	83.13%	100.00%	84	8450	9.74%	64.50%
23	2309		43.40%	84	8473	5.13%	26.75%
27	2710	*Not exports to the US*		87	8711	12.07%	89.48%
39	3901	74.73%	100.00%	87	8704	*Not exports to the US*	
39	3907	41.26%	99.81%	85	8504	1.99%	33.16%
39	3923	13.52%	62.66%	85	8525	5.02%	38.88%
40	4001	35.42%	97.45%	85	8528	5.45%	41.24%
40	4002	60.11%	92.89%	85	8534	24.75%	97.25%
				85	8536	18.85%	99.53%
				85	8537	8.98%	42.81%
				85	8541	1.31%	21.72%
				85	8543	6.34%	44.29%
				85	8544	20.18%	82.56%

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4. Limitations of the Research

This research does not focus on understanding the total complexity of the topic due to the difficulties in finding the specific behaviour of each of the Top-50, 4-digit HS codes exported to the US. This research project does not provide data about specific real elasticities of each product, assuming a generic unit elasticity model only.

For example, when examining a single 4-digit HS code exported from Thailand to the US, we should also identify which other countries export the same product to the US and assess whether they were similarly penalized by the Trump Administration.

Possible strategic factors should be oriented to evaluate and compare the tariff applied by the US to the Thai economy and the final tariffs to other countries.

Also, non-tariff barriers (NTB) and other protectionist measures are not included in this research.

It would also be important to consider, from a strategic perspective, the following issues:

- In case that the tariffs applied to other exporting countries are higher than the ones applied to Thailand, it could open new possibilities for Thai exporters because Thai exports could absorb part of the US demand uncovered. For example, if the tariff placed on China represents finally a 54% and the one applied to Thailand is 36% then Thai exports could gain an advantage in front of Chinese exports in the US market. Notice that this research operates under a "ceteris paribus" approach, not considering possible movements of other variables as price reductions, qualities, or specific elasticities for each 4-digit HS code analysed. This generic model uses an assumption of unit elasticity for all industries and products.
- The application of tariffs in the US could be followed by retaliation and an increase in tariffs in the rest of the countries. So, it makes sense to think that the higher the tariffs for the US are, the more difficult it will be for US manufacturers to export their products to other countries, so the potential demand in the US might be partially fulfilled by local American companies, which could focus on the domestic market instead of exporting their products. This factor could be crucial for determining the use of the potential of retaliatory tariffs.

5. Conclusions and Managerial Implications

This research demonstrates that the statistical certainties of achieving the same level of exports as before the new US tariff, while increasing 5% sales in the RCEP countries, are low. Still, if the scenario is oriented to maintain only 95% of the Thai exports, then the probabilities dramatically increase, making it possible the fact that RCEP countries could absorb almost everything exported despite a US aggressive tariff.

In certain industries, this is not possible because the weight of the US exports is too significant in the Monte Carlo equation, and the rest of the exports to RCEP countries are still not too relevant.

Consider that many countries in Asia are net exporters, but not the US. Also, Thai exports do not finally end up in all RCEP countries and each industry presents its own idiosyncrasy.

Recommendations for governments and industries should be based on:

1. Understanding the importance of diversifying industries and markets instead of depending on one country, especially if the country in question has the potential to act unilaterally, as the US is doing.
2. Potential government subsidies for exporters should differ because not all industries and products will be affected in the same way by the US tariff impact. A one-size-fits-all policy of subsidies could end in ineffective government resource allocation.
3. The strategies of industries and governments should be addressed equally to negotiate the reduction of tariffs with the US while fostering strong and stable relationships with RCEP members. An example of this is the fact that Thailand has as #1 partner China instead the US.
4. This paper demonstrates the vital importance in today's global economy of maintaining strong links with trading blocs, not only with individual countries.

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Transparency:

The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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