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Economic Letter from Asia: Just Tariffic

HAVER ANALYTICS

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Written by [Tian Yong Woon](#)

This week, we focus on the sweeping "reciprocal" US tariffs announced by President Trump last week. As shown in chart 1, these tariffs are primarily based on US trade deficits with its trading partners. This is in contrast to earlier indications that suggested other factors, such as tariff and non-tariff barriers, would also be considered. Using the tariff formula provided by the US Trade Representative, we derive the announced tariff rates. We also highlight the factors contributing to Vietnam's relatively high "reciprocal" tariff rate, compared to other Asian economies such as Singapore (chart 2). However, we argue that focusing solely on trade deficits does not fully capture the trade dynamics between the US and its partners. The applied tariff rates of other economies should also be factored in (chart 3), especially in relation to trade with the US. Moreover, non-tariff trade barriers (chart 4) should also be considered, as tariffs and trade deficits alone may not provide a complete picture of trade dynamics. To present an alternate view, we introduce a "tariff scorecard", which incorporates these factors and offers a perspective on how US "reciprocal" tariffs could have been applied (chart 5). Looking ahead, with the "reciprocal" tariffs already in place, we also discuss the initial and varying responses from Asian economies, considering their significant exposure to these tariffs (chart 6).

US "reciprocal" tariffs

Last week, US President Trump's announcement of "reciprocal" tariffs caught many economists by surprise. While the tariffs themselves were anticipated, their scope and scale were far more severe than expected, contradicting much of the messaging leading up to the announcement. Prior statements—both before and

during the unveiling of the tariffs—suggested that the "reciprocal" measures would account for various factors, including trade barriers (both tariff and non-tariff) and currency manipulation. However, the formula revealed by the US Trade Representative's Office showed that the tariffs were simply based on the US trade deficit with other countries, as outlined in chart 1. This approach was far simpler than expected, relying solely on trade deficits without factoring in the other economic considerations. Also, many investors and observers were shocked by the announcement, as it contradicted earlier messaging that the tariffs would be "lenient." Some had also expected bilateral negotiations with trading partners to influence the final tariff structure. Instead, the formula was purely based on the US trade deficit. Furthermore, even countries with low or no tariffs on US imports—or those with which the US runs a trade surplus (such as Singapore)—were still subjected to a 10% tariff floor.

Chart 1: Analysis of the US' "reciprocal" tariff formula

The US' "reciprocal" tariff formula is as such:

$$\Delta\tau_i = \frac{x_i - m_i}{\varepsilon * \varphi * m_i}$$

Where:

- $\Delta\tau_i$ is the change in the US' tariff rate on economy i
- ε is the elasticity of imports with respect to import prices, set at -4
- φ is the pass through from tariffs to import prices, set at 0.25
- x_i is the US' total exports to economy i , taken from the US Census Bureau data for 2024
- m_i is the US' total imports from economy i , taken from the US Census Bureau data for 2024

Given the applied settings of $\varepsilon = -4$ and $\varphi = 0.25$, the tariff formula simplifies to:

$$\Delta\tau_i = \frac{m_i - x_i}{m_i}$$

Which is the US' trade deficit with economy i as a proportion of the US' imports from economy i . The calculated rate is halved, and then subjected to a floor of 10%:

$$\Delta\tau_i = \max\left(\frac{m_i - x_i}{m_i} * \frac{1}{2}, 10\%\right)$$

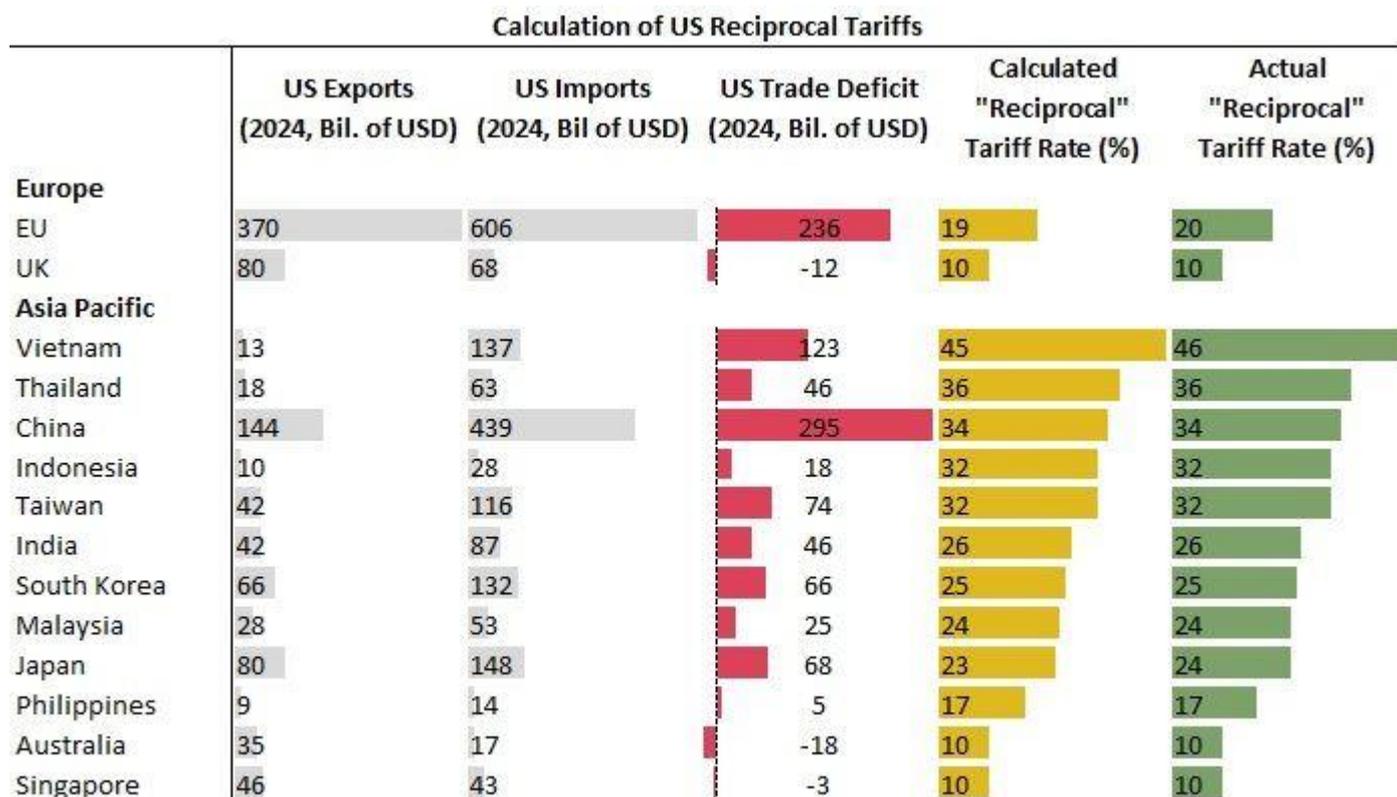
Source: Office of the United States Trade Representative, Haver Analytics

Calculation of US "reciprocal" tariffs

Delving deeper into the calculation of the US's latest "reciprocal" tariffs, chart 2 illustrates how the formula analysed in chart 1 results in the final tariff rates—though some calculated rates differ a little from the published figures. Among major Asia-Pacific economies, Vietnam faces the highest tariff rate, primarily due

to the disproportionate size of US imports from the country compared to US exports to it. In contrast, Australia and Singapore, which were net importers of US goods according to 2024 US Census data, were still subjected to a 10% tariff floor. Notably, only a small number of economies were excluded from the tariffs, including Russia. Interestingly, even territories such as Australia's Heard and McDonald Islands, which have no human inhabitants, were still subjected to the 10% tariff rate. Nonetheless, while the applied tariff formula is simple, it overlooks key aspects of trade beyond just trade deficits, failing to capture the full dynamics between the US and its trading partners. This will be explored in more detail in later sections.

Chart 2: Calculation of US reciprocal tariffs



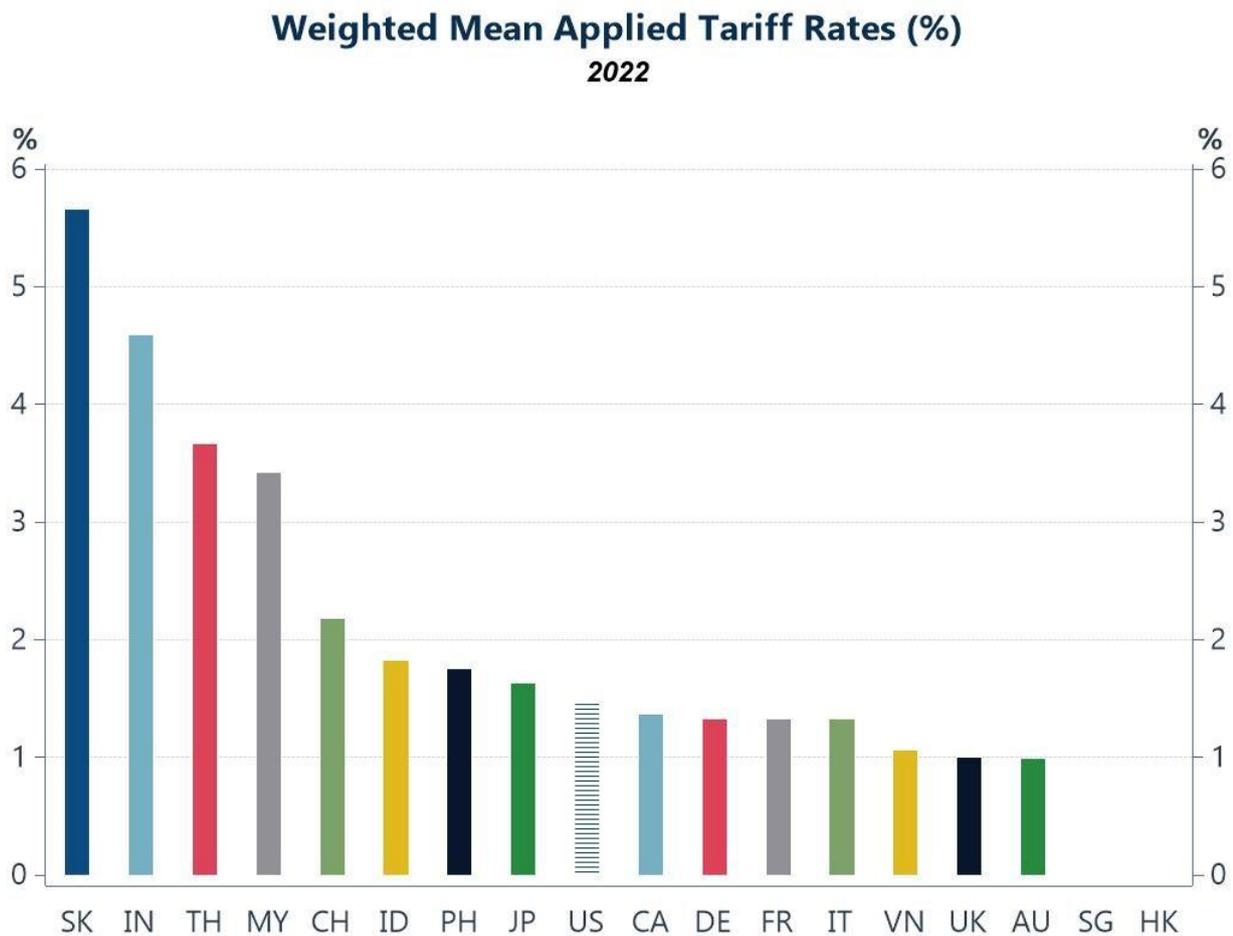
Source: US Census Bureau, USTR, Haver Analytics

Applied tariff rates

As mentioned earlier, focusing solely on trade deficits does not capture the full trade dynamics between the US and its trading partners. We must also consider the effective tariff rates these economies impose, though the data is slightly dated. Chart 3 illustrates that some Asian economies hit with high US "reciprocal" tariffs, like Vietnam, actually impose relatively low tariff rates. World Bank estimates for 2022 place Vietnam's weighted average tariff just above 1%, lower than the US rate of about 1.5%. In contrast, countries like South Korea and India have higher average tariffs. However, it is crucial to differentiate between overall tariff rates and the effective tariff rates applied specifically to US imports. For example, South Korea's trade agreement with the US (KORUS) has eliminated most tariffs on US imports, yet South Korea still faces a 25% "reciprocal" tariff. Meanwhile, India, which currently lacks a Free Trade Agreement (FTA) with the

US and imposes higher tariffs, received only a slightly higher "reciprocal" tariff rate than South Korea's. This discrepancy raises concerns that basing US tariffs solely on trade deficits and may seem unfair to certain economies. It is also important to note that the World Bank recently revised its methodology for calculating tariff rates, which have led to changes in historical data.

Chart 3: Weighted mean applied tariff rates



Source: World Bank/Haver Analytics

Non-tariff trade barriers

In addition to tariffs, non-tariff barriers could also be considered when assessing trade relationships between economies. As shown in chart 4, Asian economies vary significantly in this regard. Major economies like India and China, according to the Fraser Institute, are seen to have relatively high non-tariff barriers compared to their peers. On the other hand, countries like Singapore are characterized by very low, almost non-existent, non-tariff barriers, reflecting its stance as a highly trade-liberal economy. The extent to which economies use non-tariff barriers is crucial, as they also impact access to domestic markets for foreign goods. Ignoring non-tariff measures while focusing solely on trade deficits and tariff rates may overlook and under-penalise economies that rely more on non-tariff measures to regulate the inflow of foreign goods.

Chart 4: Non-tariff trade barriers

Non-Tariff Trade Barriers
(10=econ free/0=not free)
2022



Source: Fraser Institute/Haver Analytics

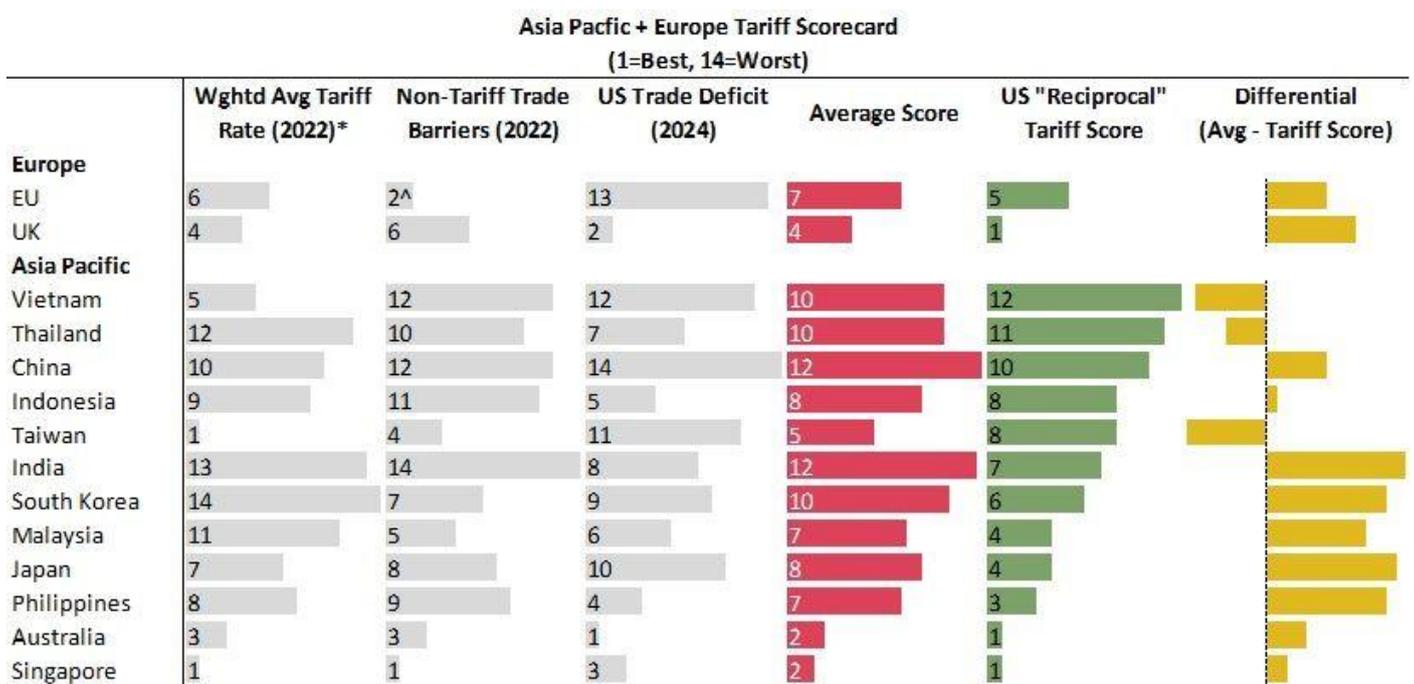
Shifting focus from trade to longer-term structural issues, while India continues to benefit from a relatively young and growing workforce, it is far from utilizing this potential to the fullest. As shown in chart 5, India suffers from extremely low employment rates, of under 40%, with rural unemployment being even worse than urban rates. This suggests that while the economy has a large pool of ready workers, a significant portion of them remain untapped for economic growth—at least officially. There are several reasons for India’s chronically low employment rate. One key factor is that the growth rate of India’s working-age population significantly outpaces the rate of domestic job creation. This issue is further exacerbated by the fact that most job creation in India is concentrated in the services sector, which is not labour-intensive. Another contributing factor is the severe skills mismatch within the workforce. Many educated working-age Indians find themselves in jobs unrelated to their training, reflecting deeper issues within India’s education system. Lastly, the informal sector poses another challenge. Working-age Indians employed there may not always be fully captured in labour statistics due to challenges with measurement and data collection.

US tariff scorecard

To bring everything together, chart 5 presents a scorecard that combines the three dimensions of trade we have discussed: the US trade deficit with Asian economies, their weighted average tariff rates, and their non-tariff barriers. By ranking economies in each of these three categories, we can calculate an average score. We then compare this score to the "reciprocal" tariffs imposed by the US. This comparison offers insight into how the tariffs might have been structured if the US administration had considered other factors beyond just trade deficits.

While this scorecard offers a more nuanced perspective, it still does not fully capture the complex trade dynamics between the US and its partners. It could be further refined by incorporating bilateral effective tariff data for US imports from these economies and a more precise assessment of trade barriers specifically affecting US goods. That said, the scorecard highlights some important trends. For example, Vietnam would likely have faced much lower tariffs if its own tariff rates had been considered. South Korea, benefiting from the KORUS agreement and a low effective tariff rate on US imports, would also have had a significantly better score. Conversely, India, with high tariff rates and non-tariff barriers, would have likely seen much higher "reciprocal" tariffs despite its moderately high trade deficit with the US.

Chart 5: US tariff scorecard



*Note: Effective tariff rate on US imports may be lower than overall weighted average tariff rates due to existing trade agreements

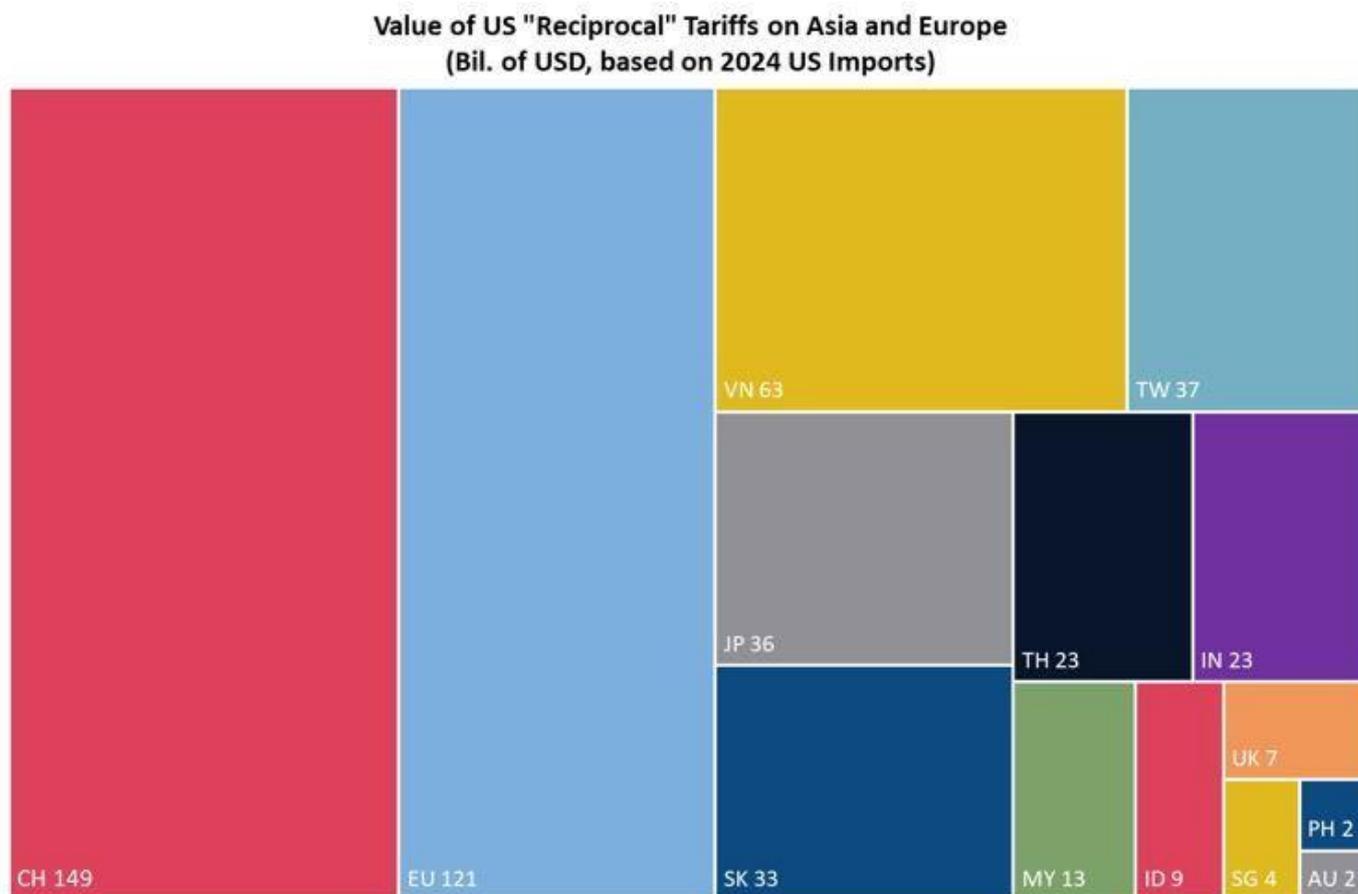
[^]Note: Based on the simple average of figures for Germany, France, Italy, Spain, and the Netherlands

Source: World Bank, Fraser Institute, US Census, USTR, Haver Analytics

Disruption, retaliation, and uncertainty ahead

Regardless, with the "reciprocal" tariffs already in place, affected economies now have only two possible responses (or both) to the US' latest actions: fight (retaliate) or flight (capitulate). At first glance, it appears that many Asian economies are leaning towards the latter, while China has already opted for the former. Specifically, China has announced a 34% tariff on all US imports, effective April 10 — a significant escalation from its more measured responses to previous rounds of US tariffs. In contrast, Vietnam, which received the steepest "reciprocal" tariffs in the region, has reportedly offered to remove all tariffs on US imports. Similarly, Taiwan is now offering zero tariffs to the US in response to the tariff fallout. These three economies — China, Vietnam, and Taiwan — have the highest exposure to the latest round of tariffs in Asia, as shown in chart 6. This is calculated by multiplying the US' 2024 imports from these economies by the respective "reciprocal" tariff rates imposed on them. While US importers bear the brunt of the tariffs, and these costs are often passed on to US consumers, the reduced demand for foreign goods due to tariffs will also negatively impact US trade partners, including those in Asia.

Chart 6: Value of US "reciprocal" tariffs



Source: US Census, USTR, Haver Analytics

About the author



Haver Analytics is pleased to bring [Tian Yong Woon's](#) commentaries on the state of the global economy to its clients.

Tian Yong joined Haver Analytics as an Economist in 2023. Previously, Tian Yong worked as an Economist with Deutsche Bank, covering Emerging Asian economies while also writing on thematic issues within the broader Asia region. Prior to his work with Deutsche Bank, he worked as an Economic Analyst with the International Monetary Fund, where he contributed to Article IV consultations with Singapore and Malaysia, and to the regular surveillance of financial stability issues in the Asia Pacific region. Tian Yong holds a Master of Science in Quantitative Finance from the Singapore Management University, and a Bachelor of Science in Banking and Finance from the University of London.

Series info:

Chart 1: Analysis of the US' "reciprocal" tariff formula

*Please refer to Excel file included in VG3 folder download

Chart 2: Calculation of US reciprocal tariffs

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Chart 3: Weighted mean applied tariff rates

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Chart 4: Non-tariff trade barriers

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Chart 5: US tariff scorecard

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Chart 6: Value of US “reciprocal” tariffs

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