

Editorial: Taiwan Carbon Fee to be Levied in 2026,

Countering the Impact on Competitiveness is Crucial for Taiwanese Hand Tools

社論：2026台灣碳費開徵

台灣手工工具產業因應競爭力的衝擊至關重要



Taiwan Hand Tool Industry Stays Steady Amid Shocks

According to Taiwan Customs, the export value of Taiwanese fastening hand tools and their parts (including wrenches, screwdrivers, interchangeable tools, sockets, hereafter referred to as Taiwanese hand tools) has grown over the past five years (Figure 1), up 20.5% (2023 compared to 2019), generally showing an upward trend, though fell by 7.1% in the single year of 2023. Taiwanese hand tools grew by 34.5% during the pandemic (2020 to 2022), slowing down in 2023, but still higher than the 2019 level. It is worth noting that the export value exceeded USD 1 billion in 2021 and continued to 2023.

The export value in H1 2024 was USD 468,464,766, reaching 46.8% of the 2023 level, most of which went to the U.S. and European countries. If we calculate based on this value accumulation, the export value for the 12 months of 2024 may be around USD936 million, below the USD 1 billion mark but there is still a chance to cross the mark. Taiwan's Ministry of Economic Affairs stated this April that, especially in the field of power hand tools, its output value has turned from negative to positive growth since Q4 last year. The export value in Q1 this year was USD 171 million, an annual increase of 5.2%, ending two consecutive years of negative growth. As such, the Ministry is optimistic that this industry could regain growth momentum this year.

In terms of import value (Figure 2), it has fluctuated sharply in the past five years, peaking at USD85.66 million in 2021, an increase of 41.0% over 2019, but then has declined sharply for two consecutive years, down 28.9% over 2023, going back to the 2019 level. The import value in H1 2024 was USD34,352,111, reaching 56.4% of the 2023 level, most of which came from China and Vietnam. By this value accumulation, the import value in the 12 months of 2024 could reach around USD68.7 million. From here we can tell that **Taiwan's normal demand for overseas hand tools is at around USD60 million, and that a demand gap caused by extreme circumstances like the pandemic triggers a short-term large-scale imports.**

The import and export graphs signify that **Taiwanese hand tools are export-oriented. The central region of Taiwan has the most complete supplier cluster in the world, and therefore the export value can resist decline and even grow against it in extreme economic environments, returning to normal levels when extreme conditions subside. Taiwanese hand tool industry has proven its resilience with actual data which shows that it stays steady amid shocks.**

Despite sitting on solid ground, Taiwanese hand tool industry has sounded an alarm in the face of CBAM which will put another test on Taiwan hand tools in finding whether they have the resilience to hold steady.



Taiwan's Carbon Fee to Take Effect in 2026 ; Taiwanese Hand Tool and Fastener Prices Likely to Rise?

There are more than 2,000 hand tool manufacturers in Taiwan, more than 90% of which are exporters, making Taiwan the third largest exporter of hand tools in the world. The impact of CBAM has not reached the hand tool industry, but **since hand tools use a large number of steel materials with high carbon emissions, Taiwanese hand tool manufacturers have presumed they will be very likely to be levied carbon taxes in the future.** They are paying close attention to the latest developments of EU CBAM. (For details, read the article **【CBAM Frontline】Roundup: Countermeasures for the CBAM Adjustment Period** included in this magazine). Taiwan's Ministry of Environment stated in September that it will assign a dedicated person to be stationed in the EU early next year to keep abreast of the latest developments in CBAM and participate in negotiations. **On the other hand, Taiwanese government's regulations on levying carbon fees on domestic businesses will be demystified by the end of this year, and there is also a plan to launch cap and trade within four years.**

Taiwan's Ministry of Environment announced three sub-laws on carbon fees at the end of August, including "Carbon Fee Charging Measures", "Autonomous Reduction Plan Management Measures", and "Specified Greenhouse Gas Reduction Targets for Carbon Fee Collection Targets". The rate of the carbon fees will be reviewed and announced by yearend. The sub-laws will take effect on January 1, 2025,



Figure 1. Taiwan's Export of Hand Tools to the World

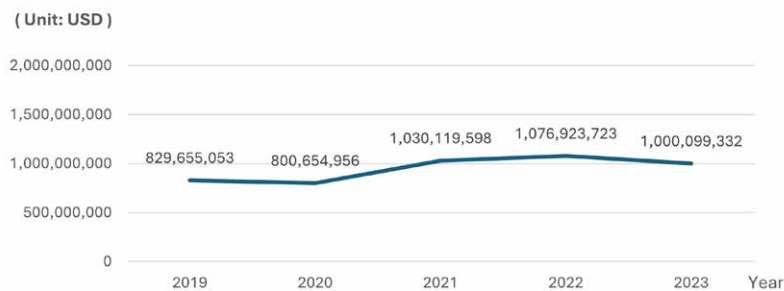
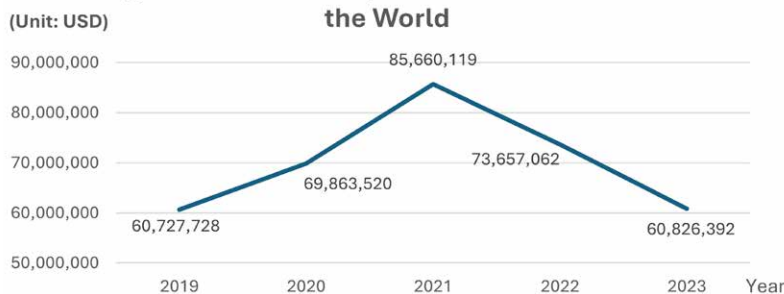


Figure 2. Taiwan's Import of Hand Tools from the World



country of origin, it can be deducted by submitting documents of proof. The detailed regulations for the deduction will not be known until mid-2025 when details on deducting carbon pricing paid by third countries as well as accommodating differences between EU ETS free allocation and CBAM are announced.

An industry research and market strategy analyst said the Ministry of Environment does not provide 100% exemption for Taiwanese companies from the beginning. Instead, it gradually increases carbon fees by letting companies use coefficient values (in other words, discounts) of 0.2, 0.4, and 0.6 in three respective phases, which gives companies a strong incentive to reduce carbon emissions. Judging from this, **Taiwan has formulated the most stringent and fraud-proof carbon pricing policy in the world, which puts the large pressure on companies.**

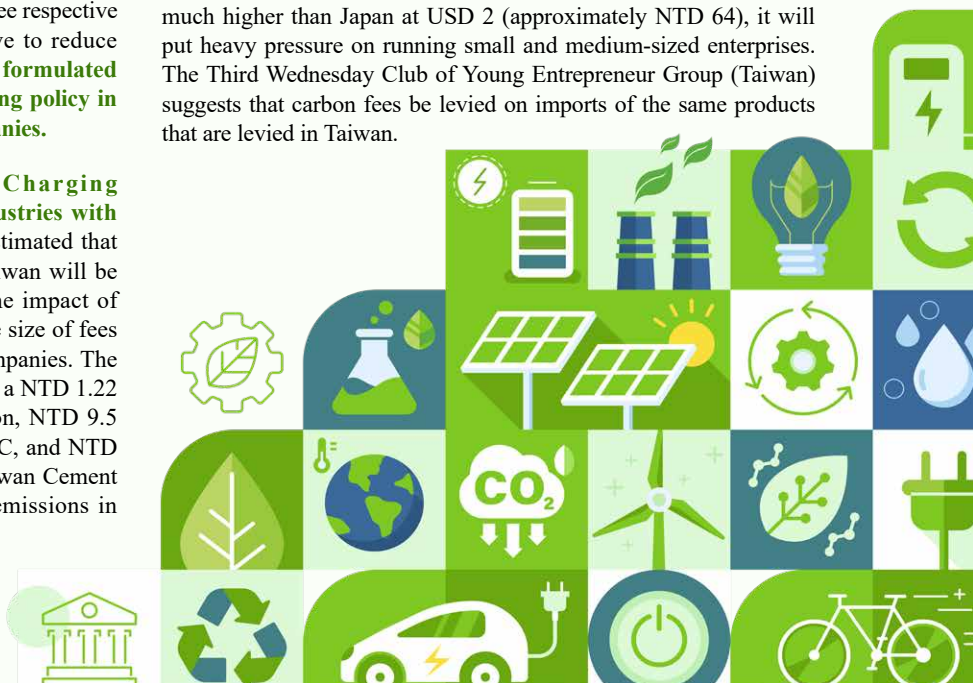
According to Taiwan's "Carbon Fee Charging Measures", the targets are manufacturing industries with carbon emissions exceeding 25,000 tons. It is estimated that about 150 million tons of carbon emissions in Taiwan will be charged carbon fees. We can take a glimpse at the impact of carbon fee costs on companies by checking out the size of fees that could be levied on some major Taiwanese companies. The National Federation of Industry (Taiwan) estimates a NTD 1.22 billion fee for Formosa Petrochemical Corporation, NTD 9.5 billion for Taiwan CSC, NTD 5.5 billion for TSMC, and NTD 2.2 billion for TCC Group Holdings (formerly Taiwan Cement Corporation), on a measure of their amount of emissions in

and companies will have to file reports in May 2025 and start paying carbon fees in May 2026. The Carbon Fee Rate Review Committee recommends a tax range of NTD 300 to 500 per ton of carbon which is expected to increase to NTD 1,200 to 1,800 by 2030. The Ministry of Environment has formulated supporting measures such as applicable preferential rates for those who submit independent reduction plans to achieve designated targets, and application for adjusting emission coefficients which is open for high carbon-leaking industries having submitted independent reduction plans. These measures are meant to reduce the impact of carbon fees on industries. **If all carbon fee payers can submit independent reduction plans, the Ministry of Environment estimates a reduction of 37 million metric tons of CO₂e by 2030, equivalent to 14% of 2005's emissions.**

In addition, the Ministry of Environment reiterated that according to the official text of CBAM announced by the EU on May 17, 2023, **Taiwan's carbon fee is included as one of the effective carbon price forms defined by EU CBAM and it can be deducted.** If a product regulated by CBAM is entitled to the free emission quota in the EU, the corresponding emissions will not bear carbon costs; if the carbon fee (including carbon tax, carbon fee, emissions trading) of the product has been paid for in its

2022 and on condition that the rate is NTD 500 per ton without applying preferential rates.

The National Federation of Industry says if the carbon fee exceeds NTD 300, and if a target company fails to meet the designated goals and cannot obtain the discounts regarding carbon leakage risk or preferential rates, it may turn from profit to loss. If the carbon fee exceeds NTD 500, many companies will be on the brink of bankruptcy. General Chamber of Commerce (Taiwan) says that if the carbon fee starts from NTD 300, which is much higher than Japan at USD 2 (approximately NTD 64), it will put heavy pressure on running small and medium-sized enterprises. The Third Wednesday Club of Young Entrepreneur Group (Taiwan) suggests that carbon fees be levied on imports of the same products that are levied in Taiwan.



The CEO of the Research Center for Taiwan Economic Development says carbon fee means an increase in production costs. In the future, the costs will reflect on product prices, pushing up inflation. A 2% to 2.5% annual growth rate of Taiwan Consumer Price Index could be the new normal. **An employee working in the steel industry did a math. On a calculation basis of NTD 500 per ton of carbon emission, the carbon fee could push up the price of billet steel by as much as 19.5%, which will significantly impact the competitiveness of fasteners and hand tool products made of billet steel.** Despite strong resilience of Taiwan's fastener and hand tool exports, owners must beware that the impact of carbon fees on competitiveness could be potentially large. They should explore sources of profit as early as possible to reserve operating and working capital, and start planning carbon-reducing practices.



Ways to Reduce Carbon Emissions, Tips from Major Hand Tool Manufacturers

The Strategic Planning and Promotion Unit of MIRDC (Taiwan) have rounded up and posted carbon-reducing practices of major Taiwanese and overseas hand tool manufacturers. The following section excerpts some of those practices.

◆ Start with equipment:

1. Change air compressors to a variable frequency model, saving up to 60% of electricity consumption.
2. Renew refractory bricks in furnaces to improve heat storage efficiency.
3. Set up solar power generation systems and solar charging stations for use by employees.
4. Install new-generation burners.

◆ Start with manufacturing process:

1. Improve surface coating and metal die-casting processes to reduce natural gas usage.

2. Improve process parameters.
3. 100% recycling of scrap steel, paper, plastic and waste heat.

◆ Start with materials:

1. Use low-carbon emission materials to replace magnesium and high greenhouse-effect gases such as sulfur hexafluoride.
2. Use packaging boxes made from 100% recycled materials.
3. Recycle scrap steel to produce low carbon steel.

◆ Start with supply chain:

1. Increase proportion of domestic procurement to above 95%.

It is only a matter of time before the scope of CBAM expands. The most effective solution is to carry out independent carbon reduction as early as possible to reduce the impact of future increases in carbon costs and product prices. ■

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