Economic Impact of a Repeal of the Superfund Tax on Chemicals for U.S. Chemical Manufacturers

- Repeal of the Superfund excise tax on 22 chemicals could result in **$314 million in additional chemical output**.
- In addition, **$109 million in direct chemical industry value added** could be generated. The $109 million in value added is equivalent to 0.9% of chemical industry R&D spending or, alternatively, 0.3% of chemical industry capital expenditures.

Background

The Superfund excise tax on certain chemical products was reinstated in July 2022 as part of the Inflation Reduction Act. The tax is imposed on 42 chemicals (including some metals and hydrocarbons) listed in section 4661(b) that are manufactured or produced in the U.S. or entered into the U.S. for consumption, use or warehousing. The excise tax ranges from $0.58 to $9.74 per short ton depending on the chemical. In addition, excise taxes are levied on over 150 imported chemical substances.

In FY 2023, the Treasury Department collected $675 million in chemical excise taxes and $86 million in excise taxes on imported substances.

Analysis

To determine the economic impact of a repeal of the Superfund tax on chemicals on U.S. manufacturers, we looked at the impact of the change in price on demand for 22 chemicals[1].

Based on available data for prices and production quantities, $82 billion of Superfund listed chemicals were produced in 2023. To answer the question of how much more would have been produced had the Superfund tax not been in place, we look at 1) how much higher prices were due to the Superfund tax and 2) the price elasticity of demand for basic chemicals.

[1] Of the 42 chemicals listed in section 4661(b), seven are metals or other mineral products and another three are hydrocarbon feedstocks. For the 32 remaining chemicals, 10 of them are produced in comparatively small quantities (or not produced at all) in the U.S. and there was insufficient data on production or prices for these chemicals. Thus, that leaves 22 chemicals in the analysis set.

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Price increase from Superfund excise tax on chemicals
Based on 2023 prices for the chemical products considered, the excise taxes represented a price increase of less than 1% for the 22 chemicals in the analysis set.

Price elasticity
An econometric analysis of the relationship between prices and demand for basic chemicals reveals that demand for basic chemicals is relatively inelastic. That is, change in demand is relatively less sensitive to changes in price. ACC estimates the price elasticity for basic chemicals is 0.36. In other words, for every 1% change in price, demand for chemicals changes by 0.36%.

Combining these, we estimate that production of these 22 chemicals could have been $314 million higher in 2023.

Using the IMPLAN model, $314 million in additional chemical output could generate $109 million in direct chemical industry value added[2]. The $109 million in value added is equivalent to 0.9% of chemical industry R&D spending or, alternatively, 0.3% of chemical industry capital expenditures.

Downstream Impacts on Customer Industries

As with many excise taxes, the cost of the tax is passed along to customers, increasing their costs of production. Removal of the tax burden felt by customer industries would likely stimulate additional economic activity, though it is difficult to quantify.

Conclusion

Repeal of the Superfund tax could increase chemical industry output by more than $300 million and support jobs, not only in the chemical industry, but upstream through the supply chain. In addition, the higher value added could be used to fund industry investments in R&D and capital projects. Additionally, removing the cost burden on customer industries could induce higher demand for those products and generate higher economic activity in those industries.

(January 2025)

[2] Value added is the measure of economic activity added to the cost of intermediate inputs used in the production of a good or service. The sum of all value added in the economy is also known as Gross Domestic Product (GDP).