Analysis of Reinstating Superfund Taxes on Chemicals

Economics & Statistics Department
American Chemistry Council
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Executive Summary

The U.S. Senate Bipartisan Infrastructure Framework and the Administration's Fiscal Year (FY) 2022 Revenue Proposals **would reinstate Superfund excise taxes at twice their prior levels.** Reinstating the Superfund chemical excise taxes at these new levels would impose a **$1.211 billion per year cost on American chemistry**. For specific chemicals and specific plant operations, the added costs from the taxes could exceed profit margins. As a result, reinstating the Superfund chemical excise taxes **could create conditions conducive to shutdowns for plants producing certain industrial chemicals**. The loss of productive activity would also result in **lower tax collections**.

This analysis builds upon existing partial equilibrium analyses by examining the cost structure of chemicals production to establish possible negative effects on productive activity and jobs. The results were robust. **Reinstating the Superfund excise taxes would engender conditions conducive to shutdowns for 44 plants producing chemicals, minerals, metals, or other materials subject to those taxes.** These plants have a combined capacity of 4.3 million metric tons, about 3% of the capacity to produce the 15 chemicals examined. In addition, six plants that are captive and other associated facilities would also be at risk.

Reimposing Superfund excise taxes **would unduly harm American chemistry and foster further supply-chain challenges for these chemistries that are the basic building blocks for American manufacturing.** Adding a new tax on American manufacturing adds to the cost of consumer goods and **makes the components of infrastructure more expensive including clean energy building blocks** such as renewable energy, advanced coatings, energy efficiency solutions, and electric vehicle (EV) infrastructure.

Reimposing the Superfund chemical excise taxes would **create an unfair advantage to foreign producers not affected by the tax**. As a result, imports would rise, U.S. exports would fall, and production in the United States would fall as well. **This includes not only the taxed commodities, but also downstream products derived from these chemicals as well as intermediate goods (e.g., plastic automotive parts) and final goods (e.g., light vehicle).**

Most basic petrochemical production in the United States is concentrated on the Gulf Coast in Texas and Louisiana. Downstream production and most downstream petrochemical derivative markets are located on the East Coast and in the Midwest. All things being equal, the price for downstream derivatives in export markets will be determined by the costs (including transportation and distribution) of the highest cost domestic producer whose production is required to meet demand. That is, the marginal producer. **If these proposed tax provisions are imposed in the United States, the cost of US-produced chemicals would rise, but those of competing foreign producers would not, and foreign producers' products will become more competitive, especially in U.S. East Coast markets.**

Chemical industry jobs at risk total nearly 1,020 and, using standard jobs multipliers, **another 6,450 jobs in other sectors**, for a total of over **7,465 jobs**. Texas would be the state most affected.

Introduction

This analysis examines the effects of reinstating Superfund taxes on the chemical industry. Specifically, it examines the Senate Bipartisan Infrastructure Framework and the Administration's FY 2022 Revenue Proposals, which would reinstate Superfund excise taxes at two times their prior levels. This report builds upon earlier analyses estimating the tax revenues. The current analysis uses a traditional economics approach to examine the effects that these taxes would have on operations and focuses on potential plant shutdowns and employment.

Background

Superfund is the common name for the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), a federal law to clean up abandoned hazardous waste sites. Superfund provides broad federal authority to clean up releases or threatened releases of hazardous substances that may endanger public health or the environment. The law authorized the Environmental Protection Agency (EPA) to identify parties responsible for contamination of sites and compel the parties to clean up the sites. Where responsible parties cannot be found, the Agency is authorized to clean up sites itself, using a special trust fund. CERCLA authorizes two kinds of response actions: 1) removal actions; and 2) remedial actions.

As of second quarter of 2021, there are currently 1,327 sites listed on the National Priority List. An additional 438 have been delisted, and 43 new sites have been proposed. Less than 2% of the nation's 1,327 sites on the Superfund National Priorities List are associated with ACC member companies, and those firms are paying for cleanup of their sites.

Historically, about 70% of Superfund clean-up activities have been paid for by the potentially responsible parties (PRPs). When the PRP either cannot be found or is unable to pay for the cleanup, the Superfund law originally paid for hazardous waste cleanups through an excise tax on certain petroleum and chemical products. The chemical and petroleum taxes were intended to provide incentives to use fewer toxic substances. The tax revenue went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites.

Earlier Superfund excise taxes were 9.7 cents per barrel of crude oil or refined oil products, and a variety of excise taxes, ranging from $0.22 to $4.87 per ton on some 42 chemicals and metal compounds. Certain non-fuel and agricultural uses of some of these chemicals were exempted from the excise tax. Taxes on certain imported chemicals were also part of Superfund. In subsequent years, a corporate environmental tax (CET) was added. This was a corporate income tax of 0.12% on the amount of a corporation's modified alternative minimum taxable income that exceeds $2 million.

The last full fiscal year in which the Department of the Treasury collected the tax was FY 1996. At the end of FY 1996, the invested trust fund balance was $6.0 billion but this fund was exhausted by the end of FY 2003. Since then, funding for these orphan sites has been appropriated by Congress out of general revenues.

The Bipartisan Infrastructure Framework and the Administration's Fiscal Year 2022 Revenue Proposals would reinstate Superfund excise taxes at two times their prior levels. The new proposal would impose a petroleum excise tax of 19.4 cents per barrel, up from the previous 9.7 cents per barrel. The bill would become effective after 31 December 2021 and would raise chemical excise taxes to a range of

$0.44 to $9.74 per ton. The schedule of levies of the excise tax (in dollars per ton) for key chemical products proposed under the Administration's FY 2022 Revenue Proposals compared to that with the prior tax rate are presented in Table 1.

Table 1: Superfund Excise Taxes
($ per ton)

	Prior	Proposed
Chemicals:		
Benzene	$4.87	$9.74
Toluene	$4.87	$9.74
Xylene	$4.87	$9.74
Ethylene	$4.87	$9.74
Propylene	$4.87	$9.74
Butadiene	$4.87	$9.74
Chlorine	$2.70	$5.40
Sodium Hydroxide (Caustic Soda)	$0.28	$0.56
Potassium Hydroxide (Caustic Potash)	$0.22	$0.44
Acetylene	$4.87	$9.74
Naphthalene	$4.87	$9.74
Ammonia	$2.64	$5.28
Antimony Trioxide	$3.41	$6.82
Bromine	$4.45	$8.90
Hydrochloric Acid	$0.29	$0.58
Hydrogen Fluoride (Hydrofluoric Acid)	$4.23	$8.46
Nitric Acid	$0.24	$0.48
Phosphorus	$4.45	$8.90
Sulfuric Acid	$0.26	$0.52
Zinc Chloride	$2.22	$4.44
Zinc Sulfate	$1.90	$3.80
Metals & Other:	$4.45	$8.90
Antimony	$4.45	$8.90
Arsenic	$4.45	$8.90
Cadmium	$4.45	$8.90
Chromium	$4.45	$8.90
Cobalt	$4.45	$8.90
Mercury	$4.45	$8.90
Nickel	$4.45	$8.90
Butane	$4.87	$9.74
Butylene	$4.87	$9.74

The burden of the re-instated Superfund chemical excise tax would primarily fall on ethylene, propylene, benzene, chlorine, and xylene. These chemicals are basic building blocks for chemistries used in light vehicles, building and construction, business equipment and myriad other final products for business and consumers. Moreover, these products face intense foreign competition, and slim margins. As a result, the reinstated taxes could offset any economic return on sales to current producers, making those segments non-competitive in the global market.

In addition, because these petrochemicals are derived from liquid refinery gases and other hydrocarbons, **re-imposing the petroleum excise tax** would create an additional burden on their downstream derivatives. Simplified ethylene and propylene chains are presented in the Appendix to illustrate the industry's complexity and inter-connectedness.

Reinstating the Superfund chemical excise taxes at the levels proposed under the Bipartisan Infrastructure Framework and the Administrations' FY 2022 Revenue Proposals would impose a $1.211 billion per year cost on American chemistry. The costs would be entirely borne by industrial chemical companies because cost pass-through are unlikely in a globally competitive environment.

Economic Theory & Methodology

The public finance literature dealing with the effects of excise taxes is extensive. The proposed Superfund excise taxes are an example of a specific indirect tax. It is usually easiest to analyze excise taxes as raising the cost of production. Partial equilibrium models are generally used. If passed through to consumers, imposing a tax leads to a higher market price, and thus, a smaller quantity bought. It is possible to estimate the tax revenue caused by the tax. This was calculated using the ACC Superfund Tax Model, which indicates that re-instating the Superfund chemical excise taxes at these new levels, would impose a $1.211 billion per year cost on American chemistry. It is also possible to identify the excess burden caused by the tax. The excess burden measures the efficiency cost imposed when the tax is introduced.

An excise tax shifts the supply curve upwards, pushing up the price paid by consumers and reducing the price received by producers, depending on the degree of tax incidence. Tax incidence gives the share of the tax borne by consumers. It is the allocation of the burden of the tax among economic agents, usually consumers and producers. This is determined by elasticities of supply and demand. If demand is completely price inelastic or supply is infinitely elastic, for example, then all the tax is borne by consumers. To measure incidence effects of an excise tax on consumers and producers, data are required on the elasticities of supply and demand.

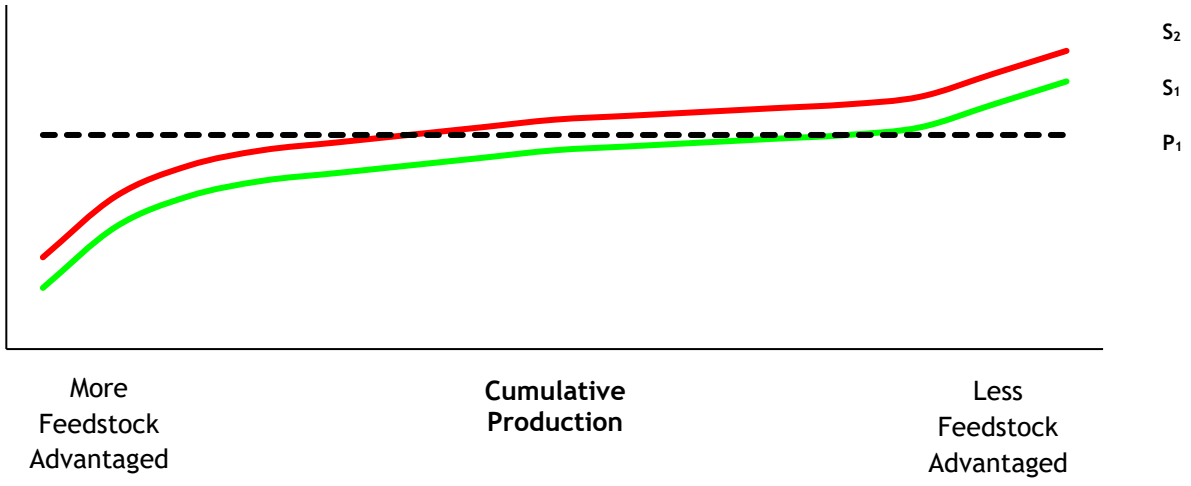
This approach works well for near perfectly competitive markets with many buyers and within reasonable ranges, but not as well for markets (such as chemicals) in which barriers to entry and exit exist, capital-intensity is present, and few suppliers exist. Most chemicals, minerals, metals, and other materials subject to Superfund taxes are distinct markets that are sometimes oligopolistic in nature. Moreover, there is paucity of literature on price elasticities for both supply and demand of these materials. Virtually nothing exists on supply elasticities. Even statistics on production or sales volume are not widely available. As a result, traditional approaches to analyzing taxes are problematic in the case of Superfund excise taxes.

In most industries and markets, a distinction is made between the short-run and the long-run. In the short-run, many factors are fixed that in the long-run can vary. In the short-run, for example, producers can continue to produce if prices exceed variable costs. While capital presently employed in some industries (e.g., chemicals) cannot be easily converted for use to produce other goods, in the long-run new investment can be diverted elsewhere. A tax that affects the return to capital will be borne by the owners of capital until that capital wears out. But in the long-run, new investment does not occur and output falls. In the long run, a firm must generate a rate of return to capital to attract and retain investors. That is, a firm must earn its cost of capital (or opportunity cost). The ability to pass through the costs of an excise tax varies depending upon previously discussed factors. In many situations, this is impossible, and an excise tax can lead to conditions conducive to a plant (or operation) shut-down decision should the return to capital fall below its opportunity cost, or cost of capital.

These potential effects on plant operations can be illustrated using a standard cost (i.e., supply) curve, in which cumulative capacity is arrayed from lowest cost to the highest cost producer left to right on the horizontal axis. The cost curve presented in Figure 1 is typical for most chemical products, particularly products such as ethylene, chlorine, ammonia, and others subject to the proposed re-imposition of Superfund excise taxes. In general, most cost curves are of an elongated S-shape, with the most efficient producers in feedstock-advantaged locations. Most U.S. operations are in the middle of the spine of the S-curve, with laggards at the high end of the cost curve. This cost curve is labeled as S_1 in Figure 1.

Virtually all markets for chemicals and chemical products are global in nature, with prices determined by global supply and demand. This global price is illustrated by the line P_1 in Figure 1. Domestic producers cannot raise prices above this level. Otherwise, imports would increase.

Figure 1: Typical Global Chemical Product Cost Curve
Cost of Production - $ per ton



The reimposition of Superfund tax on certain chemical products would create additional costs for US producers. These onerous provisions would place considerable burdens and competitive disadvantages

on the U.S. manufacturing sector and on American chemistry. These additional costs would raise the cost (including an adequate economic profit) of producing these products in the United States and would shift the cost curve upward, as illustrated by the curve S_2 in Figure 1. This shift would place domestic producers in a cost position above the price set in global markets and would result in the loss of competitiveness and in the long-term and the loss of production (domestic supply). That is, lower production and plant closures. Thus, higher taxes adversely affect economic activity.

Most basic petrochemical production in the United States is concentrated on the Gulf Coast in Texas and Louisiana. On the other hand, downstream production and most downstream petrochemical derivative markets are located on the East Coast and in the Midwest. As a result, U.S. producers of petrochemicals incur transportation costs to each of the major U.S. markets. These proposed tax provisions will increase domestic costs. Foreign producers can reap the scale economies available in ocean transport and they may already have more competitive costs to some important East Coast markets than do some domestic Gulf Coast producers. In general, it is the most efficient domestic operations that produce for export. All things being equal, the price for downstream derivatives in export markets will be determined by the costs (including transportation and distribution) of the highest cost domestic producer whose production is required to meet demand. That is, the marginal producer. Should these proposed tax provisions be imposed in the United States, the cost of US-produced chemicals would rise, but not those of competing foreign producers, whose products will become more competitive, especially in U.S. East Coast markets.

U.S. producers could attempt to raise prices in response to increased production costs. However, this would open the domestic market to increased penetration by foreign producers whose costs are not affected by these tax provisions. Imports would increase, and some higher cost domestic operations would be forced to close. The need to recoup added costs by raising prices will cause some operations to become non-competitive in a global market with a resulting loss of exports as well as domestic sales.

Higher taxes engender lower demand for capital investment, particularly in the United States. Coupled with considerable uncertainty, it is likely that these growth-adverse provisions would negatively affect the chemical industry as well as economic growth. Research on the macroeconomic effects of taxes on economic growth is extensive. These effects, however, are not included in this analysis. In addition, this analysis does not consider anti-competitive effects on the industry's operations. These would likely result in plant closures and loss of production. These are difficult to quantify.

Information Sources, Methodology & Assumptions

The Economics & Statistics The analysis builds upon existing analyses to include possible impacts on productive activity and jobs. The analysis utilizes micro-level cost data and features assumptions concerning methodology and decision criteria.

Economic analysis can be used to examine the effects of excise taxes on plant operations. It is possible to estimate total (and marginal) cost functions (or equations) and then by adding the cost of the excise tax, assess the economic consequences. In the chemical industry, most cost curve calculations take the general form:

$$TC = a + bQ,$$

where TC is equal to total cost, Q is quantity produced, *a* is fixed costs and *b* is marginal costs. Quadratic and other functional forms are also possible.

In estimating cost functions, a preferred approach is to analyze changes in costs of different size plants at the same point in time. This allows a constancy of such dynamic forces as technology and product line. For individual chemical products there is sufficient homogeneity although different feedstocks/raw materials, differences in accounting methods, management, and process technology must be considered. Research tends to support an "L-shaped" pattern of the long-run average cost curve rather than the more familiar "U-shaped" curve. This implies constant or slightly increasing returns to scale.

The methodology involved constructing cost models and examining over 500 plants in the United States producing acetylene, ammonia, BTX (benzene, toluene, and xylene collectively known as aromatics), butadiene, chlorine and co-produced caustic soda, ethylene, hydrochloric acid, hydrogen fluoride, naphthalene, nitric acid, propylene, and sulfuric acid. The analysis was limited to these 15 chemicals as they would account (because of volumes produced) for most of the Superfund taxes collected and because of the availability of cost data. The other 27 taxable Super-fund chemicals were not analyzed due to a lack of cost data.

Cost data on the economics of these chemicals were obtained from IHS Markit and Nexant, and were used to construct models, or cost functions. Cost data includes variable costs (raw materials, utilities, by-product credits, etc.) and other direct costs (maintenance, operating supplies, operating labor, maintenance labor, control laboratory, etc.) as well as fixed costs (plant overhead, taxes and insurance, capital, etc.) for processes used to manufacture these products. Costs are scaled for different levels of production.

For this analysis, costs were measured as a function of capacity, process, and other factors. Total costs were calculated for all plants. The costs of the reinstated Superfund taxes were then added to the existing cost base and the economic return was reexamined. If the added excise taxes were enough to place a facility in a position where it is not earning its long-run cost of capital, this suggests conditions for a shut-down. In the long-term, companies need to earn their cost of capital to attract and retain investors. If a plant was not able to earn an adequate profit, it was deemed at risk.

Several adjustments and assumptions were made in the analysis. Adjustments were made to reflect the economic concept of costs, which includes opportunity costs such as the cost of capital. Adjustments to fixed costs were also made to reflect the age of a plant.

The chemical industry is a complex industry, featuring several products that are co-produced (chlorine and caustic soda, benzene, and toluene) or products that are by-products of production (propylene produced in the manufacture of ethylene). Co-production and the profits associated with co-produced activity were considered in this analysis.

The chemical industry is complex in another manner as it features a high degree of vertical integration. The shut-down of an ethylene steam cracker, for example, could necessitate the shut-down of "captive" battery unit plants located at the site and producing chemicals derived from that ethylene. This could involve plants producing ethylbenzene, styrene, ethylene oxide and ethylene glycol, vinyl

acetate, ethylene dichloride, vinyl chloride monomer, polyvinyl chloride resin, low density polyethylene resin, high density polyethylene resin, linear low density polyethylene resin, and ethylene-propylene elastomers, among other ethylene derivatives. (See the ethylene chain and propylene chain charts presented in the Appendix.) Conversely, if these derivative products were to shut down, it could have adverse effects on other upstream chemicals. For example, a chlor-alkali unit situated in such a complex would likely need to shut-down as well. As a result, the analysis of operational shutdowns is inherently complex.

The assessment of effect of potential shut-downs was examined on a case-by-case basis. In general, if the chemical is relatively easy to transport, it was assumed that the shut-down of a plant would have minimal effect on downstream operations. It was assumed that the product could be supplied by company operations at other sites, merchant suppliers of the product, or imports. Thus, the assessment focused on chemicals that are difficult to transport, including ethylene and chlorine.

The vertical integration of the industry plays a role in the analysis. It is generally not the taxed product that is sold but rather downstream derivatives that are sold. In the case of ethylene, for example, the economics and feasibility of a steam cracker may depend upon the economics of the downstream derivatives (polyethylene resins, ethylene dichloride, etc.) that are sold. This co-dependency (and downstream profitability) was considered in this analysis.

The ability to pass through higher costs is also taken into consideration. This ability is generally measured by examining consumer and producer surpluses and is dependent upon demand and supply elasticities. In some cases, these elasticities are known (and used) but a default value of being able to pass through only 60% of the cost increase was assumed in those cases where there is a paucity of data. This is typical for non-durable goods. Offsetting this to a certain extent is the higher cost of petroleum-based feedstocks and energy. The Administration's FY 2022 Revenue Proposals would impose a petroleum excise tax of 19.4 cents per barrel, up from the previous 9.7 cents per barrel. To a certain degree these costs are passed on-to the chemical industry.

The analysis was two-step in nature. First, operation-specific economic cost data were identified for all plants in the United States producing chemicals, minerals, metals, and other materials that would be subject to the Superfund taxes. Secondly, the cost of the reinstated Superfund taxes was incorporated (subject of course to the above assumptions and conventions). The economic return was then examined for each plant after adding in the cost of the tax. If this pushed the return to that below an adequate return, the plant was deemed at risk, in a position conducive to shut down. The capacity of each plant at risk and associated employment was then tabulated.

Potential job losses are based on operation-specific operating labor as well as other industry-specific employment related jobs dependent upon plant operations. For each operation-specific assessment of potential job losses, the job multiplier for that specific segment of the chemical industry was used to estimate job losses among suppliers and from induced expenditures in addition to direct employment. These job multipliers were developed by the ACC Economics & Statistics department and are available in their annual *Guide to the Business of Chemistry*.

In addition to the direct effects on these chemical operations, the indirect and induced effects on other sectors of the economy can also be quantified. The economic impact of an industry is generally manifested through four channels:

- Direct impacts - such as the employment, output and fiscal contributions generated by the sector itself.
- Indirect impacts - employment and output supported by the sector via purchases from its supply chain.
- Induced impacts - employment and output supported by the spending of those employed directly or indirectly by the sector.
- Spillover (or catalytic) impacts - the extent to which the activities of the relevant sector contribute to improved productivity and performance in other sectors of the economy.

This report presents the economic contributions related to the first three channels of this supply chain. Spillover (or catalytic) effects do occur from the production, but these positive externalities are difficult to quantify and thus were not examined in the analysis.

To estimate the economic impacts from reimposed taxes on the chemical industry, the IMPLAN model was used. The IMPLAN model is an input-output model based on a social accounting matrix that incorporates all flows within an economy. The IMPLAN model includes detailed flow information for 440 industries. As a result, it is possible to estimate the economic impact of a change in final demand for an industry at a relatively fine level of granularity. For a single change in final demand (i.e., change in industry spending), IMPLAN can generate estimates of the direct, indirect, and induced economic impacts. Direct impacts refer to the response of the economy to the change in the final demand of a given industry to those directly involved in the activity. Indirect impacts (or supplier impacts) refer to the response of the economy to the change in the final demand of the industries that are dependent on the direct spending industries for their input. Induced impacts refer to the response of the economy to changes in household expenditure because of labor income generated by the direct and indirect effects.

Findings

The results of the analysis are robust and indicate that reimposing the Superfund chemical excise taxes at rates higher than their previous levels would have adverse effects on the industry and would pose significant risks to competitiveness. This would result in the loss of economic profits and shutdown of production of many of the chemicals and their downstream products. This would result in lower tax revenues. Reinstating the Superfund excise taxes would increase costs to the chemical industry and in some cases negate profit margins or reduce returns to below the cost of capital. This would engender conditions conducive to shutdowns.

Because most of these chemicals are derived from liquid refinery gases and other hydrocarbons, re-imposing the petroleum excise tax would create additional burden on petrochemicals such as ethylene, propylene, and butadiene. These are the olefins. In addition, the aromatics (benzene, toluene, and xylene) as well as their downstream derivatives would also be affected. With foreign competition and slim margins, producers of these products simply cannot absorb these taxes, further eroding competitiveness.

It is evident from examining the cost data that adverse conditions would be met for nearly 45 plants producing materials that would be subject to the Superfund tax. These plants would be in a position where they are not earning the long-run cost of capital. This suggests conditions for a shut-down. Thus, these plants would be deemed at risk. These plants have a combined capacity of 4.3 million metric tons, about 3% of the 150.9 million tons capacity to produce these 15 chemicals. The share of capacity at risk varies from chemical to chemical, from less than 1% to 31%. Table 2 provides a summary of these plants by major chemical category: olefins, aromatics, acids and other. Other includes plants producing acetylene, ammonia, chlor-alkali, hydrogen fluoride, and naphthalene (plant data is aggregated due to disclosure concerns). The results, moreover, are robust an align with expected loss of output associated with typical partial equilibrium models. The latter would indicate a decrease in output of nearly 2.1% in the long-term.

Table 2: Chemical Industry Capacity and Jobs at Risk from Reimposing Superfund Excise Taxes

	Number of Plants	Capacity at Risk (000 MT)	Direct Chemical Plant Jobs	Other Chemical Industry Jobs	Other Jobs*	Total Jobs
Olefins	7	2,273	125	69	1,308	1,502
Aromatics	14	710	60	37	588	685
Acids	4	323	39	21	435	495
Other	19	1.085	435	233	4,120	4,788
Total	**44**	**4,391**	**659**	**360**	**6,450**	**7,469**

* Includes indirect and induced job losses.

In addition, another six plants that were captive or associated with a plant in Table 2 were deemed at risk. Included were plants designed to manufacture cumene, ethylene dichloride, polyethylene resin, and other downstream products.

Chemical industry jobs at risk total nearly 1,020, including plant operators and maintenance personnel at the plant site as well as other employees. (The industry is a capital-intensive industry.) Using standard jobs multipliers, another 6,450 jobs in other sectors would be at risk as well, for a total of over 7,465 jobs. Table 2 provides a summary of potential job losses by Superfund chemical. Note that chemical industry job losses include captive and affiliated plants.

Reimposing the Superfund chemical excise taxes would create an unfair advantage to foreign producers not affected by the tax and, as a result, imports would rise, U.S. exports would fall, and production (and associated economic activity) in the United States would fall as well. This includes not only the taxed commodities, but also downstream products derived from these chemicals as well as intermediate (e.g., plastic automotive parts) and final goods (e.g., light vehicle).

The administrative costs for the IRS to re-instate collection procedures may very well be quite high. Compliance and reporting costs for chemical companies may be high as well. This may not meet the criteria for good tax design.

Implications for Businesses and Consumers

The reimposed Superfund excise tax on chemicals is a new tax on consumers. The 42 chemicals, minerals, metals, and other materials identified for taxation are the basic building blocks for a limitless number of goods, including steel, plastics, wood products, copper, cement, glass, pesticides, fungicides, pharmaceuticals, rubber, paint and coatings, batteries, solar panels, soap and detergents, ceramics, textiles, semiconductors, water treatment, light bulbs, refrigerants, dental fillings, fireworks, and consumer electronics. Reimposing Superfund taxes would foster additional supply chain challenges at a time when government is encouraging reshoring of manufacturing to the United States.

This is a particularly bad time to be adding a new tax. Consumers will pay inflated prices on everything from groceries and cars to lumber and bleaches. The Superfund chemical excise tax will make these items more expensive for consumers.

The Superfund chemical excise tax will also impede the goals of the Bipartisan Infrastructure Framework by making the components of infrastructure more expensive including clean energy building blocks such as renewable energy, advanced coatings, energy efficiency solutions and electric vehicle (EV) infrastructure. And finally, the Superfund Tax on chemicals will also make U.S. manufacturers less competitive by incentivizing consumers to purchase less-expensive goods produced overseas.

Economics and Statistics Department

The Economics & Statistics Department provides a full range of statistical and economic advice and services for ACC and its members and other partners. The group works to improve overall ACC advocacy impact by providing statistics on American Chemistry as well as preparing information about the economic value and contributions of American Chemistry to our economy and society. They function as an in-house consultant, providing survey, economic analysis, and other statistical expertise, as well as monitoring business conditions and changing industry dynamics. The group also offers extensive industry knowledge, a network of leading academic organizations and think tanks, and a dedication to making analysis relevant and comprehensible to a wide audience.

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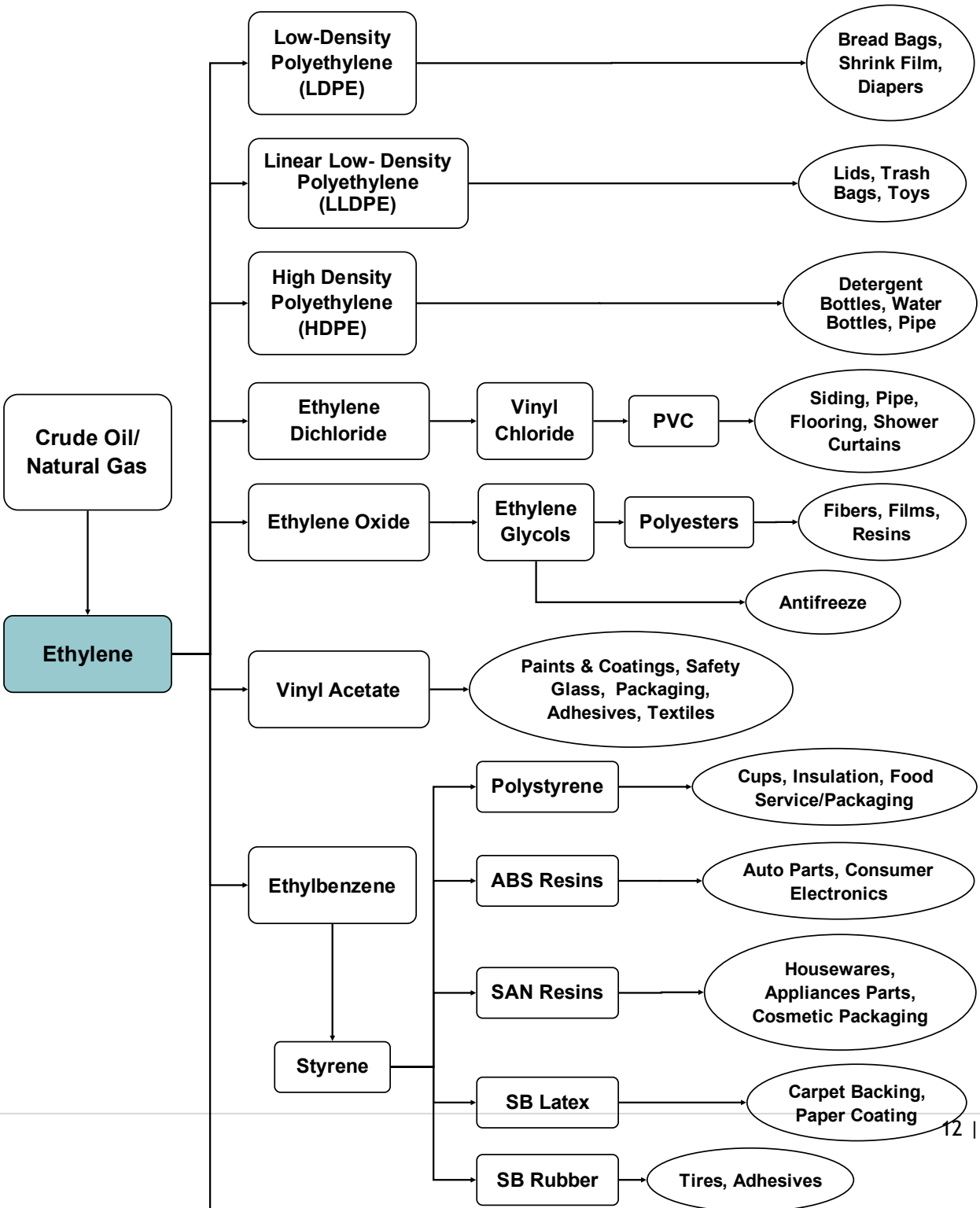
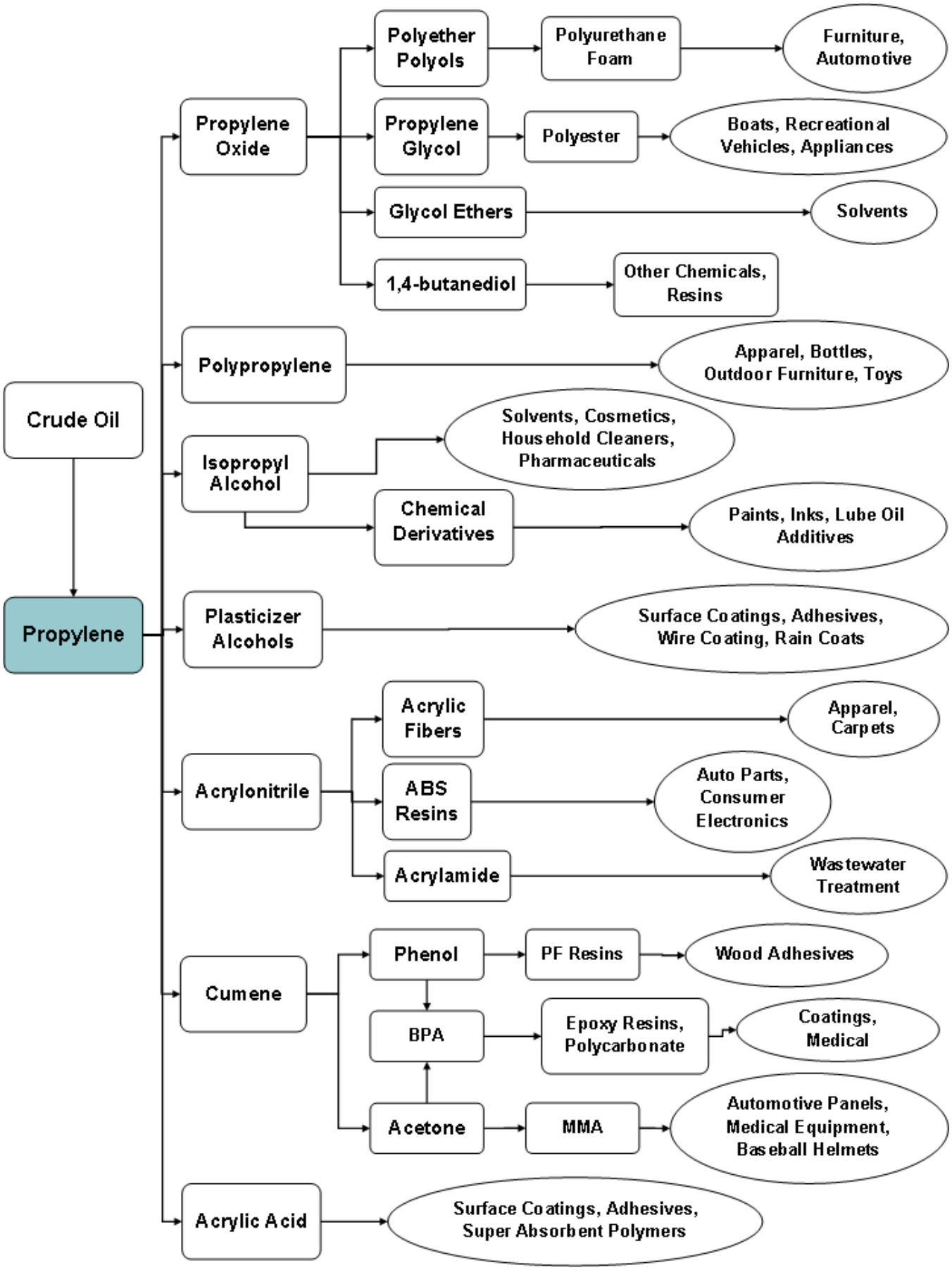
Appendix: Chemical Derivative Chains for Ethylene and Propylene




Crude Oil
Propylene
Propylene Oxide
Polyether Polyols
Polyurethane Foam
Furniture, Automotive
Propylene Glycol
Polyester
Boats, Recreational Vehicles, Appliances
Glycol Ethers
Solvents
1,4-butanediol
Other Chemicals, Resins
Polypropylene
Apparel, Bottles, Outdoor Furniture, Toys
Isopropyl Alcohol
Solvents, Cosmetics, Household Cleaners, Pharmaceuticals
Chemical Derivatives
Paints, Inks, Lube Oil Additives
Plasticizer Alcohols
Surface Coatings, Adhesives, Wire Coating, Rain Coats
Acrylonitrile
Acrylic Fibers
Apparel, Carpets
ABS Resins
Auto Parts, Consumer Electronics
Acrylamide
Wastewater Treatment
Cumene
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PF Resins
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