



**The Coalition
of Finance Ministers
for Climate Action**

Database on estimated elasticity values for use in quantitative analysis of climate and energy topics by agencies and economic modelers

Sweden—National Institute of Economic Research (NIER)

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Topic: Specific analytical tools and approaches relevant to Ministries of Finance

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Access the full Compendium at www.greenandresilienteconomics.org

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In Sweden, the National Institute of Economic Research (NIER) has compiled a database of available income and price elasticities for selected energy products (primarily gasoline, diesel, and electricity; see NIER, 2024a). Specifically, the elasticities measure how sensitive demands for these energy products are to income-, own-price and cross-price changes in both the short and long term. The NIER's focus has been on Sweden and countries that are comparable with Sweden. The database is publicly available and can serve as a valuable resource for economic modelers and policymakers in their own quantitative analyses of climate and energy topics. For example, policymakers can use the elasticities to quickly assess how tax bases change in response to changes in energy taxes and prices.

There is a large variation in the estimated elasticity values and care should be taken in their interpretation. The estimated elasticity values can vary across different dimensions such as time, countries, regions within the same country, different goods and services, and income groups. Consequently, the estimated values can change over time and are sensitive to the context. Also, different econometric methods can yield varying estimates for the same elasticity value so one must be aware of the inherent differences between the methods used. To assist users, the database is accompanied by a document that provides guidance on understanding and applying these elasticity values in their own work (NIER, 2024b). As an example of how the accompanying document can be used, it has recently supported the Swedish Energy Agency in updating the price elasticities for fuel consumption in the transportation sector as part of the Agency's work to report the effects of the energy and carbon taxes to the European Commission.

References

- National Institute of Economic Research (2024a) *Elasticiteter inom miljö-, klimat- och energiområdet*, Database, NIER, Stockholm, Sweden.
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