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Macroeconomic Consequences of Tariffs

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More than any other issue, there is agreement among economists that international trade should be free. This view dates back to Adam Smith or earlier and is supported by much reasoning. In general, economists believe that freely functioning markets are the best at allocating resources absent some distortion, externality, or other market failure; competitive markets tend to maximize output by directing resources to their most productive uses. Of course, there are market imperfections, but tariffs—taxes on imports—are almost never the optimal solution to such problems. Tariffs encourage the deflection of trade to inefficient producers and the smuggling of goods to evade those tariffs; such distortions reduce welfare. Furthermore, consumers lose more from tariffs than producers gain, so there is deadweight loss. The redistributions associated with tariffs tend to create vested interests, so harms tend to persist. Broad-based protectionism can also provoke retaliation, which adds further costs in other markets. All these losses to output are exacerbated if inputs are protected, since this adds to production costs.

Discussions of market imperfections and the like are naturally microeconomic in nature. Accordingly, most analyses of trade barriers are microeconomic in nature, focusing on individual industries. This makes sense. Artificial barriers to international trade have gradually fallen for most countries over the decades since the end of World War II. The exceptions to this trend tend to be concentrated in individual industries, often associated with agriculture or apparel. International commercial policy does not tend to be used as a macroeconomic tool, probably because of the availability of superior alternatives such as monetary and fiscal policy. In addition, there are strong theoretical reasons that economists abhor the use of protectionism as a macroeconomic policy; for instance, the broad imposition of tariffs may lead to offsetting changes in exchange rates. And while the imposition of a tariff can reduce the flow of imports, it is unlikely to change the trade balance unless it fundamentally alters the balance of saving and investment. Furthermore, economists believe that protectionist policies helped precipitate the collapse of international trade in the early 1930s and that this trade shrinkage was a plausible seed of World War II. Although protectionism has not been often used in practice as a macroeconomic policy (especially in advanced countries), most economists also agree that it should not be used as a macroeconomic policy.

But times change, and some economies have recently begun to use commercial policy seemingly for macroeconomic objectives, so it seems to be an appropriate time to study what the macroeconomic consequences of tariffs have actually been in practice (if there have been any). Most of the predisposition against protectionism within the economics

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profession is based on evidence that is theoretical, micro, or aggregate and dated. Accordingly, we study empirically the macroeconomic effects of tariffs using recent aggregate data.

Our strategy is to use straightforward methodology that tackles the key issues head-on. We use a transparent approach to allow the data to speak in a straightforward way, allowing us to focus attention on results rather than the estimation technique. Our panel of annual data is long if unbalanced, covering 1963 through 2014; more recent data are of greater relevance, but older data contain more protectionism. Since little protectionism remains in rich countries, we use a broad span of 151 countries including 34 advanced and 117 developing countries.

We ask what the effects of changes in tariffs have been on a number of key variables of interest, including output, productivity, unemployment, inequality, the real exchange rate, and the trade balance. Our chief data set is aggregate in nature, but we also use sectoral data both to probe more deeply and to check the sensitivity of our results. We also explore whether the effects of tariffs depend upon the stage of the business cycle, whether there are asymmetric effects of tariff rises and falls, whether tariff consequences are similar for countries at different stages of development, and so forth.

We study tariffs rather than other types of protectionism for three reasons. First, tariffs are the preferred protectionist policy of rich governments, past and present. Second, tariffs are easier to measure in the aggregate than are nontariff barriers. Third, we try to be conservative when possible, and the costs of tariffs are a lower bound for the costs of protectionism, since nontariff barriers typically have more costly consequences than tariffs. This conservative strategy also drives our domestic focus. For example, though we are cognizant that Canadian protectionism clearly has effects outside Canada, we are more interested in the consequences of Canadian tariffs for Canadian output, productivity, and so forth.

Our results suggest that tariff increases have adverse domestic macroeconomic and distributional consequences. We find empirically that tariff increases lead to declines of output and productivity in the medium term as well as increases in unemployment and inequality. In contrast, we do not find an improvement in the trade balance after tariffs rise, plausibly reflecting our finding that the real exchange rate tends to appreciate as a result of higher tariffs. The longer-term consequences of tariffs are likely higher than the medium-term effects that we estimate, but we truncate our analysis at the five-year horizon to be conservative. Furthermore, we perform considerable sensitivity analysis to demonstrate the robustness of our results.

The extensive time and country coverage of our data set has a cost; we cannot control for concomitant structural policies due to an absence of data. However, the length and breadth of our data set have a benefit; they allow us to conduct a battery of robustness checks that provide comfort about the general validity of the results. In particular, we conduct a number of robustness checks, which include (a) controlling for contemporaneous shocks in the trade balance and real exchange rates, (b) controlling for expected future growth, and (c) employing a model where tariffs are ordered last—that is, assuming that changes in tariffs react to contemporaneous changes in economic activity. To the extent that structural policies affect output and other key macroeconomic variables, the concerns related to concomitant structural policies should be mitigated by these alternative specifications.

We also take advantage of our panel data set to check the uniformity of our results, and we find interesting differences. The medium-term decline in output following a tariff increase tends to be more pronounced if the tariff increase is undertaken during an economic expansion. Alternatively, the tariff-induced output increase is smaller following a tariff decrease in a recession, consistent with the view that trade liberalization leads to output losses during periods of weak economic activity, since it induces intersectoral shifts. We also find evidence suggesting asymmetric effects of trade protectionism and liberalization; the medium-term output effects associated with a tariff increase are not symmetric to those that follow tariff reduction. Tariff increases also have more adverse effects for advanced economies than for poor countries.

NOTE:

The views expressed herein are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

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