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How Does Trade Policy Get Decided?

By Santiago Pinto

The interests of districts play a crucial role in trade policymaking. Districts with heterogeneous political and economic preferences form coalitions and bargain in the legislature to reach an acceptable trade policy. Such complicated process has been overlooked in canonical political economy models of trade. Our work brings to focus the role districts play in the political process by proposing a model that aggregates heterogeneous district preferences into a national trade policy. The approach uncovers districts and sectors that are more influential in the political process and identifies regional political winners and losers created by the policy.

National trade policies have different effects across geographical areas. For example, a reduction in import tariffs may hurt some regions as the goods they produce will be substituted for less expensive imports from other countries. But lower tariffs may also benefit exporting regions by increasing trade opportunities with the rest of the world.

Representatives from all regions help determine trade policy. So, in light of observed policies, which regions played a more significant role in shaping them, and which regions were less influential or even left out of the political bargaining process? My recent working paper "Heterogeneous Districts, Interests and Trade Policy (PDF)" — co-authored with Kishore Gawande and Pablo Pinto — addresses these questions.

Modeling Trade Policy Negotiations

Our work is within the vast literature on the political determinants of trade protection. A strand of literature in international trade focuses on the endogenous determination of trade policy, particularly tariffs. The 1994 paper "Protection for Sale" was among the first to develop a model of endogenous tariff formation that included interest groups who can influence policy outcomes. In this model, some sectors organize into lobbies to influence
the government and bend trade policy in their favor. The amount of distortion generated by
the policy is determined by balancing the cost (welfare losses to its citizens) and benefits
(contributions the government receives from lobbies).

A strong assumption of this model is that the government is a unitary agency that can
determine trade policy on its own. But who or what is "government"? Most of the work in
this area does not fully consider the actual process of political preference aggregation in
trade policymaking. This leaves out important institutional aspects that are relevant when
deciding tariffs, such as the negotiations between district representatives in the legislature
and the negotiations with the executive.

Some empirical work has tested the "Protection for Sale" model and finds that import-
competing interests do exert influence, but the amount of protection they are able to "buy"
is lower than what one might expect, as seen in the 1999 paper "Protection for Sale: An
Empirical Investigation" and the 2000 paper "Is Protection for Sale? Evidence on the
Grossman-Helpman Theory of Endogenous Protection." One drawback of this work is that it
mostly relies on reduced-form estimates of formal (or informal) models.

In our paper, we address what appears to be a strong empirical regularity: the mismatch
between legislative voting patterns on trade policy and district-level predictors of trade
policy stance. Part of this is reflected in political backlash against trade and globalization,
such as the local political effects generated by the increased participation of China in
international trade after its accession to the World Trade Organization in 2001, a
phenomenon typically referred to as the "China shock."

Our Trade Policy Model

Overall, the goal of our paper is to understand how trade policy (particularly tariffs and non-
tariff measures, or NTMs) has been decided in the U.S. We focus on trade policy in the early
2000s, and we develop a political economy model of trade protection that intends to more
closely capture the institutional process of determining U.S. trade policy. A difference
between our paper and previous literature is that our approach assumes that trade policy is
actually enacted by politically motivated representatives of local districts. Districts are
heterogeneous in terms of their economic structure, and district representatives would
presumably push for tariffs that would benefit local residents. In turn, these district-level
preferences must be aggregated into a national policy. Even though the paper assumes a
very simple process of preference aggregation in trade policymaking at the national level,
such an approach is novel in the literature.

Additionally, our work intends to build a tighter link between theory and empirics. We use
the model to estimate what we call implicit welfare weights using data on tariffs and NTMs.
The rationale is that trade policy is determined through a political process that aggregates
the preferences of local districts. The welfare weights are parameters of the structural
model that rationalize the observed level of tariffs and NTMs and capture the relative political influence of districts and sectors in the policy determination process. The weights fall into two camps:

- Owners of sector-specific capital, who benefit from higher tariffs because they make imported goods more expensive and, thus, less competitive with the products they make
- Labor, or consumers who benefit from lower tariffs through imported goods being cheaper

We also construct a measure that captures the mismatch between demand for protection by districts (and sectors) and observed level of protection enacted by Congress, a measure we call "unmet demand for protection."

There are three reasons why this kind of analysis is relevant:

- The estimates allow us to identify winners and losers of trade policy.
- The approach explains why U.S. trade protection has remained low despite public backlash against globalization.
- By measuring the level of local unmet demand for protection, we can reconcile discrepancies between district-level demands and policy outcomes, and we explain (among other things) the political consequences of the China shock.

**How Regions Were Aggregated**

We estimate weights for three different regional groupings, which are consistent with real-world legislative coalitions.

*Geography*

We distinguish nine geographic subdivisions from the U.S. census: New England, Mid-Atlantic, South Atlantic, East North Central, West North Central, East South Central, West South Central, Mountain and Pacific.

*Political Geography*

We then expand our analysis by looking at 18 regions: the nine geographic subdivisions further divided into Democratic or Republican (that is, whether the district elected a Democratic or a Republican representative).

*Competitiveness of Congressional Districts*

We also look at the nine regions by purely political coalitions (based on battleground states in 2000 presidential election and competitiveness of congressional seats).

**Findings From Our Model**
Some of the main results of our analysis can be summarized as follows.

*Weights by Geography*

Table 1 shows the weights on the specific factor in each of the nine regions.

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of CDs</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England</td>
<td>23</td>
<td>0.019</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>65</td>
<td>0.047</td>
</tr>
<tr>
<td>East North Central</td>
<td>73</td>
<td>0.098</td>
</tr>
<tr>
<td>West North Central</td>
<td>31</td>
<td>0.000</td>
</tr>
<tr>
<td>South Atlantic</td>
<td>75</td>
<td>0.068</td>
</tr>
<tr>
<td>East South Central</td>
<td>26</td>
<td>0.000</td>
</tr>
<tr>
<td>West South Central</td>
<td>47</td>
<td>0.052</td>
</tr>
<tr>
<td>Mountain</td>
<td>24</td>
<td>0.011</td>
</tr>
<tr>
<td>Pacific</td>
<td>69</td>
<td>0.080</td>
</tr>
<tr>
<td>Total</td>
<td>433</td>
<td>0.375</td>
</tr>
</tbody>
</table>

*Source*: The 2022 working paper “Heterogeneous Districts, Interests and Trade Policy” by Kishore Gawande, Pablo Pinto and Santiago Pinto.

Overall, protectionist interests of owners of sector-specific capital get 37.5 percent of aggregate trade policy welfare, while labor (consumer) interests get 62.5 percent. A major reason why U.S. tariffs are low on average is precisely because the consumption side tends to dominate.

How is the 37.5 percent shared among districts? The East North Central region (Illinois, Indiana, Michigan, Ohio and Wisconsin) is the "winner," receiving 9.8 percent of aggregate welfare. Other regions that receive high weights are the Pacific (8.0 percent of aggregate welfare), South Atlantic (6.8) West South Central (5.2) and Mid-Atlantic (4.7) regions.

The West North Central and East South Central regions received no weight. This could be because they are largely rural regions, export-oriented regions, or both. Alternatively, these regions could have been part of losing coalitions, or they could have voted along with the winning coalition to pass a bill that may go against their trade interest but buys them a winning coalition on other issues that matter more to them.

*Weights by Geography and Party*

When districts are grouped by geography and party, consumers ("labor") again receive most of the weight on aggregate: 62.9 percent compared to 37.1 percent for region-specific factors. The overall distribution of the 37.1 percent favors Democratic-held districts (26.0 to 11.1 percent). While Republican districts in the New England, Mid-Atlantic and West South
Central regions receive a zero weight, Democratic districts in those regions receive positive weights. The smaller weights to Republican-held districts may be due to being rural districts or industrial districts that turned Republican.

Weights by Electoral Outcomes

The final stylized case aggregates districts into purely political coalitions. In this case, the weights are higher for specific factors in districts in states where the Republican party won the presidential election by more than 52 percent (weight equal to 15.7 percent) and in districts in states where the Republican candidate to the House won by more than 52 percent (weight equal to 20.2 percent).

Weights on Non-Tariff Measures

The incentives driving the decision to choose different levels of protection varies depending on the trade policy instrument under consideration. While tariffs are constrained by international agreements, there is greater flexibility with NTMs. NTMs are enacted by the president by delegated authority, and participation by Congress is somewhat more limited. In other words, the weights associated with NTMs more likely reflect the weights placed by the president on different sectors and regions.

We recalculate weights using NTMs for the regional groupings previously considered. The results are summarized below.

<table>
<thead>
<tr>
<th>Region</th>
<th>Republican</th>
<th>Democrat</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England</td>
<td>0.000</td>
<td>0.017</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>East North Central</td>
<td>0.000</td>
<td>0.023</td>
</tr>
<tr>
<td>West North Central</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>South Atlantic</td>
<td>0.061</td>
<td>0.000</td>
</tr>
<tr>
<td>East South Central</td>
<td>0.048</td>
<td>0.005</td>
</tr>
<tr>
<td>West South Central</td>
<td>0.142</td>
<td>0.027</td>
</tr>
<tr>
<td>Mountain</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Pacific</td>
<td>0.000</td>
<td>0.021</td>
</tr>
<tr>
<td>Total</td>
<td>0.252</td>
<td>0.094</td>
</tr>
</tbody>
</table>

Source: The 2022 working paper “Heterogeneous Districts, Interests and Trade Policy” by Kishore Gawande, Pablo Pinto and Santiago Pinto.

The results show, as expected, that the choice of NTMs across sectors follows a different political logic than the one that determines tariffs. In contrast to tariff weights, specific capital in Republican-controlled districts get higher weight:
For tariffs, the aggregate weight for Republican (Democratic) districts is 11.1 (26.0) percent.

For NTMs, the aggregate weight for Republican (Democratic) districts is 25.2 (9.4) percent.

The weights for Republican districts were concentrated entirely in the South Atlantic, East South Central and West South Central regions. For Democratic districts in these regions, the weight is 3.2 percent, with no weight in the South Atlantic region. Overall, in the NTM case, the Republican president seemed to place more weight on Republican districts, rewarding co-partisans through NTMs.

**District-Preferred Tariffs and Unmet Demand for Protection**

The last part of the paper constructs a measure of local unmet demand for protection. To do this, we first derive district-preferred tariffs (tariffs that would have been demanded by a representative from specific districts), which are of course unobserved.

Next, we use the estimated weights from the previous model to calculate "predicted" tariffs and compare them to observed national tariffs and equivalent NTMs. The graph shows predicted and observed mean tariffs and equivalent NTMs calculated for the findings in the previous section.

![Figure 1: Mean Sectoral Tariff Protection](image)

**Sources:** The 2022 working paper "Heterogeneous Districts, Interests and Trade Policy" by Kishore Gawande, Pablo Pinto and Santiago Pinto.

**Notes:** The sizes of the actual tariffs and the core non-trade measures are stacked to show total protection effectively granted to each sector versus the protection predicted by the working paper model.
The results show that in most sectors, the predicted means are an order of magnitude greater than total protection effectively granted to the sector (actual tariffs plus NTMs). In the Apparel, Textiles and Leather Goods sectors, tariffs plus NTMs actually exceed demand for protection. The high U.S. output (relative to imports) in these industries in the 1970s (when protections were first afforded to them) has gradually declined since then, resulting in lower demand for protection.

The averages, however, hide a strong protectionist demand from region-sectors with high levels of employment and output. We therefore show the same graph but for four selected regions defined by our political-geography coalition of districts.

Figure 2a: Mean Sectoral Tariff Protection
East North Central, Republican Districts

[Bar chart showing sectoral tariff protection with different colors for predicted tariffs, actual tariffs, and core NTMs.]

Sources: The 2022 working paper "Heterogeneous Districts, Interests and Trade Policy" by Kishore Gawande, Pablo Pinto and Santiago Pinto.
Notes: The sizes of the actual tariffs and the core nontrade measures are stacked to show total protection effectively granted to each sector versus the protection predicted by the working paper model.
Figure 2b: Mean Sectoral Tariff Protection
East North Central, Democratic Districts

Wood Products
Transport Equipment
Textile Production
Textile Mills
Primary Metals
Plastic and Rubber
Petroleum and Coal
Paper Manufacturing
Nonmetal Manufacturing
Misc. Manufacturing
Machinery
Leather Manufacturing
Furniture
Fabricated Metal
Electric Equipment
Computer
Chemical Manufacturing
Apparel

Sources: The 2022 working paper "Heterogeneous Districts, Interests and Trade Policy" by Kishore Gawande, Pablo Pinto and Santiago Pinto.
Notes: The sizes of the actual tariffs and the core nontrade measures are stacked to show total protection effectively granted to each sector versus the protection predicted by the working paper model.
Figure 3a: Mean Sectoral Tariff Protection
South Atlantic, Republican Districts

- Wood Products
- Transport Equipment
- Textile Production
- Textile Mills
- Primary Metals
- Plastic and Rubber
- Petroleum and Coal
- Paper Manufacturing
- Nonmetal Manufacturing
- Misc. Manufacturing
- Machinery
- Leather Manufacturing
- Furniture
- Fabricated Metal
- Electric Equipment
- Computer
- Chemical Manufacturing
- Apparel

Sources: The 2022 working paper "Heterogeneous Districts, Interests and Trade Policy" by Kishore Gawande, Pablo Pinto and Santiago Pinto.
Notes: The sizes of the actual tariffs and the core nontrade measures are stacked to show total protection effectively granted to each sector versus the protection predicted by the working paper model.
The values indicate that sectoral demand for protection is concentrated in a few districts. East North Central districts that elected Republican representatives to the House in 2000 have strong unmet demand for protection in the Fabricated Metals, Machinery, Paper, Plastics and Primary Metals sectors. Their regional counterparts with Democratic representation demand protection in the same sectors, but their demand is even stronger in the Fabricated Metals and Plastics sectors. South Atlantic districts — regardless of political representation — had strong unmet demand for protection in the Chemicals, Furniture, Nonmetal Manufacturing, Paper, Textiles and Wood Products sectors.

Conclusion

In this paper, we estimate a general version of a political economy of trade model. We derive the implied weights on districts and sectors of the economy retrieved from the observed pattern of protection, and we use these estimates to derive district-level demands for tariffs, NTMs and a measure of unmet demand for protection.

The results show that the interests of labor (as consumers) matter most in determining tariffs and NTMs. The structure of protection reveals an aggregate weight on special interests that is one-third of the aggregate welfare weight. Also, industrial areas in the
Midwest are weighted more heavily, but latent demand for protection is not satisfied. (This pattern could explain, for instance, the effects of the China shock and party switching.)

We also highlight that the weights on districts depend on whether tariffs or NTMs are used as the protection instrument. This conclusion is consistent with the existing institutional structure for enacting trade policies. Specifically, NTMs reflect higher weights on Republican congressional districts.

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