The Largest Sin Taxes Have Smaller than Average Pass-Through

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Introduction

• Tax Incidence (pass-through)
  • Who bears the actual burden of taxes

• Sin Taxes
  • Excise tax on specific goods and services
  • Tobacco, alcohol, carbonated drinks

• Gulf Countries
  • 50% to 100% excise taxes
  • Decision made collectively by Gulf Co-operation Council...
  • ...to diversify the economy, generate revenue, and discourage use
Why is this important?

• Very large tax introduction
  • Represent bold idea
  • But they are rare
  • Usually, taxes are increased in small increments (1% to 25%)

• The prediction that taxes discourage consumption
  • Depends on how much it increases the final price
  • Large tax increases can significantly increase the final price
  • But limited evidence of their actual impact
## Tax Introduction Dates

<table>
<thead>
<tr>
<th>Type</th>
<th>Saudi Arabia</th>
<th>UAE</th>
<th>Bahrain</th>
<th>Qatar</th>
<th>Oman</th>
<th>Kuwait</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol (100%)</td>
<td>Jun-17</td>
<td>Oct-17</td>
<td>Jan-18</td>
<td>Jan-19</td>
<td>Jun-19</td>
<td>None</td>
</tr>
<tr>
<td>Carbonated Drinks (50%)</td>
<td>Jun-17</td>
<td>Oct-17</td>
<td>Jan-18</td>
<td>Jan-19</td>
<td>Jun-19</td>
<td>None</td>
</tr>
<tr>
<td>Energy Drinks (100%)</td>
<td>Jun-17</td>
<td>Oct-17</td>
<td>Jan-18</td>
<td>Jan-19</td>
<td>Jun-19</td>
<td>None</td>
</tr>
<tr>
<td>Tobacco Products (100%)</td>
<td>Jun-17</td>
<td>Oct-17</td>
<td>Jan-18</td>
<td>Jan-19</td>
<td>Jun-19</td>
<td>None</td>
</tr>
<tr>
<td>VAT (5%)</td>
<td>Jan-18</td>
<td>Jan-18</td>
<td>Jan-19</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>High Import Duty on Tobacco</td>
<td>Mar-16</td>
<td>None</td>
<td>Jan-16</td>
<td>None</td>
<td>Oct-16</td>
<td>None</td>
</tr>
</tbody>
</table>
Data and Research Design

• Monthly data on price index
  • Aggregate 12 categories – today
  • Up to 70 categories – in progress

• Only Tobacco Products – today
  • Other taxed product – in progress

• Difference-in-Differences Event Study
  • Compare prices of tobacco vs. other products within the country
  • Compare prices of tobacco in treated vs control countries
Price Index of Tobacco (Connected lines) vs. Other Products (Gray Smooth lines)
Using Data on All Products, All Countries: 100% Tobacco Tax

62 to 70 percent pass-through
Using data on Tobacco Products Only, All Countries: 100% Tobacco Tax

48 to 70 percent pass-through
Using Data on Tobacco Products Only, All Countries – 5% VAT

All GCC Countries: Pass-through of 5% VAT

more than 100 percent pass-through
Conclusion

• Very preliminary research
• Consistent with previous literature
  • 5% VAT has more than 100% pass-through
• But large tax increases
  • That hasn’t been studied yet
  • Only show at most 70% pass-through