Impact of Tariff Announcements on Stock Returns: Evidence from Chinese Steel and Aluminum

Introduction
Recent political developments in the United States offer a unique opportunity to examine the role of news media on stock returns. An efficient market captures all price-relevant information, thereby reaching market equilibrium. Stockholder reactions to the information release are one way to determine if the financial community believes a policy will positively or negatively impact a firm’s future earnings. We analyze, by testing for cumulative abnormal returns (CAR), the effects of three news articles from the Wall Street Journal (WSJ) concerning tariffs for imported steel and aluminum on China.

Methods
By estimating cumulative abnormal returns (CAR), we analyze the effect of three events:

2. “U.S. Weighs Tariffs, Quotas on Metal Imports” – WSJ (February 16th, 2018)

We conducted an event study around each of the key dates using Eventus® with the following parameters:

- A sample set of 35 different companies from various industries traded on the NYSE or NASDAQ that use imported aluminum and/or steel from China in their supply chain
- A three-day event window around each event (-1,1)
- 255 day estimation period up to 45 days before any event occurred to set our standard of normal market returns

Sample Set

<table>
<thead>
<tr>
<th>CATERPILLAR INC</th>
<th>O'REILLY AUTOMOTIVE INC NEW</th>
<th>JH CO</th>
<th>COLUMBIA SPORTSWEAR COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMPBELL’S SOUP CO</td>
<td>LENNOX INTERNATIONAL INC</td>
<td>WHIRLPOOL CORP</td>
<td>INSTEEL INDUSTRIES INC</td>
</tr>
<tr>
<td>FORD MOTOR CO DEL</td>
<td>KONINKLIJKE PHILIPS N.V.</td>
<td>BROWN FORMAN CORP</td>
<td>FLORIDA CORP NEW</td>
</tr>
<tr>
<td>GEOMETRY CORP</td>
<td>ADVANCE AUTO PARTS INC</td>
<td>CUMMINS INC</td>
<td>SUNPOWER CORP</td>
</tr>
<tr>
<td>V F CORP</td>
<td>ANHEUSER BUSCH INBEV SA NV</td>
<td>UNION PACIFIC CORP</td>
<td>HONEYWELL INTERNATIONAL INC</td>
</tr>
<tr>
<td>WINNERAGO INDUSTRIES INC</td>
<td>BRUNSWICK CORP</td>
<td>MCKINNON COORS BREWING CO B</td>
<td>COCA COLA CO</td>
</tr>
<tr>
<td>HARLEY-DAVIDSON INC</td>
<td>JOHNSON OUTDOORS INC</td>
<td>POLARIS INDUSTRIES INC</td>
<td>GENERAL ELECTRIC CO</td>
</tr>
<tr>
<td>TOYOTA MOTOR CORP</td>
<td>GENERAL MOTORS CO</td>
<td>TYSON FOODS INC A</td>
<td>MALIBU BOATS INC A</td>
</tr>
<tr>
<td>PROCTOR &amp; GAMBLE CO</td>
<td>PSA GRAND CHRYSLER AUTOMOBILES NV</td>
<td>DOW/DUPONT INC</td>
<td></td>
</tr>
</tbody>
</table>

255 trading day est. period up to 45 days before first event
(-1,1) event window
Feb 12th
Feb 16th
Mar 8th

“U.S. Weighs Tariffs, Quotas on Metal Imports” – Wall Street Journal

Events and Timeline

Results

<table>
<thead>
<tr>
<th>Date</th>
<th>Days</th>
<th>Mean Compound Abnormal Return</th>
<th>Precision Weighted CAAR</th>
<th>Patell Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 12th</td>
<td>(-1,1)</td>
<td>-0.95%</td>
<td>-0.70%</td>
<td>-1.913*</td>
</tr>
<tr>
<td>Feb 16th</td>
<td>(-1,1)</td>
<td>-1.52%</td>
<td>-1.14%</td>
<td>-3.235***</td>
</tr>
<tr>
<td>Mar 18th</td>
<td>(-1,1)</td>
<td>-0.96%</td>
<td>-0.51%</td>
<td>-1.405</td>
</tr>
</tbody>
</table>

The symbols *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test.

Conclusion
While the first and last event in our study showed little to no statistical significance, the event on 2-16-18 composed a high level of significance. We can deduct the following from our results:

- The first event had little significance to stockholders’ perception of the market value in our sample
- The market reacted negatively to the specific announcement of tariffs on Chinese goods, which suggest that the average stockholder believes that tariffs are not beneficial for U.S. companies according to our sample
- The third event had no statistical significance, this suggest that the market already reacted to the news released on February 16th, and had no need to adjust market equilibrium

References
Bloomberg L.P. Supply Chain. Bloomberg Terminal. 
Eventus: www.eventu.com/solutions/supply-chain

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Bryce Hammer-bhhammer42@tntech.edu
Cole Harris-cbharris42@tntech.edu