The Impact of the Falling Yen on U.S. Import Prices

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Historical Movement of the Yen
Historical Background of the Yen-Dollar Exchange Rate Movement

Prior to 1971, currencies were “fixed” in value based on the Bretton-Woods agreement in 1945.

In 1971, that all changed when currencies were allowed to “float” against one another based on the supply and demand of currencies in the exchange market.
Yen per Dollar Exchange Rate 1971-2012
Highlights 1971-2012

- Overall, the U.S. Dollar has consistently trended down versus the Japanese Yen
  - Relatively low inflation: Good store of value
  - High productivity relative to other countries
  - Strong trade surplus: Demand for Yen to pay for Japanese imports

- Notable periods of the Dollar’s decline:
  - Fell 25.4% from August 1971 to September 1973: Initially finding market value
  - Fell 39.9% from December 1975 to October 1978: Happened despite U.S. having a lower inflation rate at time
  - Fell 52.7% from February 1985 to November 1988: The result of the Plaza accord in 1985
Recent Highlights

- Between June 2007 and September 2012, U.S. Dollar fell 36.1%

- Much of this took place in 2008 when a bubble in commodity prices caused price levels to soar in the U.S.: PPI overall manufacturing prices up 9.6% over the first three quarters of 2008

- Eventually led to the 2008-09 recession
Notably in this period, Japan suffered a devastating natural disaster in March 2011.

More than 20,000 lives were lost.

Industrial production fell 6.4% in March.

By May, overall exports had fallen 10.3% from previous year.
Impact of the Earthquake on the Yen

- Initially the Yen fell 0.8% versus the Dollar between March and April
- Then from April to October, the Yen rose 8.5% against the Dollar
- Why the quick turnaround?
  - The Japanese were quick to rebuild
  - Investors anticipated that insurance companies would buy up Yen to pay for damages
Japanese Deflation Period: The Lost Decades
Deflation Period

- Major factor for rise in Yen is relatively low inflation rate compared to other countries
- Problem: Low inflation turned into deflation – Prices levels actually fell
- Period of Deflation started in early 90’s and persevered for 20 years despite the efforts of the Bank of Japan to raise price levels
Possible Reasons Why

- Tight Monetary Conditions
- Aging Population
- Collapsing Asset Prices
- Insolvent Companies
- Insolvent Banks: Both real perceived
- Imported Deflation
- Lower Price/Lower Demand Spiral
Impact on the Japanese Economy

- Shrinking Economy: By 2009, Japanese Nikkei was down 73% from the level 20 years ago
- Stagnant GDP: Fell 5.2% in 2009, leaving real GDP below the 1991 level
- Japanese dept-GDP-ratio soared to a catastrophic rate of 240% compared to 60% in 1991
- Unemployment doubled from the boom years of the 1980’s
- Falling wages: Average wage rates fell almost 15% from late 1990’s to 2009
Impact on the Japanese Economy

- Rising Yen: Yen soared in value against all major currencies, not just the Dollar
- Higher Export Prices: Exports became less profitable as companies had to lower prices to remain competitive in world market
- Exports had fueled economic boom in earlier years
- Good news: One bright spot was, despite currency rise Japan still retained a strong trade surplus
Emergence of “Abenomics”
New Economic Policies

- Starting in December 2012, Japan instituted Fiscal and Monetary policies meant to reach a 2% inflation rate within two years

- Monetary Policy: Bank of Japan began buying 7 trillion Yen worth of government bonds a month

- Fiscal Policy: Tax breaks for companies that increase wages
Impact on the Japanese Economy

- **Stock Market:** By May 2013, the Nikkei rose 55%.

- **GDP:** After falling in 2012, Japanese GDP grew 1.4% the 1st quarter of 2013.
  - Continued to rise throughout the year.
  - Up 1.6% 1st quarter of 2014.
  - Cautionary note: Down 1.7% in second quarter after a consumption tax hike in April.

- **Inflation Rate:** Has been meeting the 2% inflation goal.

- **Yen:** Most dramatic immediate impact.
Yen per Dollars Under the New Economic Policies

Yen per Dollar

Impact on Yen compared to the Dollar

- Dollar rose 29.5% from September 2012 to May 2013 in the immediate aftermath of the policy implementation.

- However, since then the Dollar and Yen have had very little movement:
  - Dollar only up 0.8% against Yen since last May.
  - Yen has continued to fall though against other major currencies such as Euro.
Impact of the Falling Yen on U.S. Import Prices from Japan
U.S. Import Prices from Japan

Import Prices From Japan Compared to All Import Prices: Overall

- Overall Import Prices Excluding Fuel
- Import Prices From Japan

[Graph showing the comparison of import prices from Japan to all import prices over time from September 2012 to July 2014.]
Import Price Movement

- From September 2012 to July 2014, overall U.S. import prices from Japan fell 4.2%

- Over the same period, overall import prices only declined 0.7%

- Other notable points:
  - Down 3.4% in 2013, and an additional 0.7% 2014
  - Prior to 2013, import prices from Japan rose 2.6 percent from the start of 2011 to September 2012
  - First calendar-year decline since a 1.2-percent drop in 2006
  - 2013 a larger decrease than 2.9-percent decline in 2001 when all prices fell sharply after 9/11
  - Largest drop since a 5.2-percent plunge in 1997
Impact by Industry

- Notable that import prices from Japan have held down price levels.

- Even more interesting when broken down by industry areas.

- Trade with Japan heavily concentrated in a few major industries.
## Import Trade with Japan by Industry

<table>
<thead>
<tr>
<th>Product Area</th>
<th>2013 Dollar Value of Trade in Billions</th>
<th>Percent of Total Imports From Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Commodities</td>
<td>$138.5</td>
<td></td>
</tr>
<tr>
<td>Transportation Equipment (NAICS 336)</td>
<td>$58.8</td>
<td>42.5%</td>
</tr>
<tr>
<td>Nonelectrical Machinery (NAICS 333)</td>
<td>$23.4</td>
<td>16.9%</td>
</tr>
<tr>
<td>Computers and Electrical Equipment (NAICS334)</td>
<td>$17.5</td>
<td>12.6%</td>
</tr>
<tr>
<td>Chemicals (NAICS 325)</td>
<td>$11.6</td>
<td>8.4%</td>
</tr>
<tr>
<td>All Other Imports From Japan</td>
<td>$27.2</td>
<td>19.6%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau
Import Trade with Japan by Industry

- Transportation equipment leads the way, mostly, automobiles and auto parts

- Other major industries include nonelectrical machinery, computers and other electronic machinery

- Starting in 2012, the BLS extended the Locality of Origin Indexes to include breakouts by product area

- Allows for analysis by industry area
Non-electrical Machinery

Import Prices From Japan Compared to All Import Prices: Non-electronic Machinery

Overall Import Prices

Import Prices from Japan

BLS

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Non-electrical Machinery

- Decline in import prices from Japan relative to all import prices even more profound in this industry

- Import prices have dropped 6.4% since September 2012

- In comparison, all import prices for non-electrical equipment were virtually unchanged

- Notable because imports from Japan represented 16.2 percent of all imports for the industry in 2013
Chemicals

Import Prices From Japan Compared to All Import Prices: Chemicals

Overall Import Prices

Import Prices from Japan

- Sep-12
- Oct-12
- Nov-12
- Dec-12
- Jan-13
- Feb-13
- Mar-13
- Apr-13
- May-13
- Jun-13
- Jul-13
- Aug-13
- Sep-13
- Oct-13
- Nov-13
- Dec-13
- Jan-14
- Feb-14
- Mar-14
- Apr-14
- May-14
- Jun-14
- Jul-14

Overall Import Prices

Import Prices from Japan
Chemicals

- Import prices from Japan were again down while other import prices up

- Overall, import chemical prices rose 1.9% largely resulting from a 1.4% jump in January

- Import prices from Japan during same period fell 4.0 percent

- In comparison, import chemical price from the European Union advanced 6.4 percent and chemical import prices from Canada increased 2.3 percent
Computers and Other Electronic Machinery

Import Prices From Japan Compared to All Import Prices: Computers & Electronic Equipment

Overall Import Prices
Import Prices from Japan

Computers and Other Electronic Machinery

- Impact on this industry less than the others mentioned

- Still, import prices from Japan fell 3.7 percent

- Overall import prices also declined, dropping 2.8 percent

- Tends to be a highly competitive industry with rapidly falling prices
The Automobile Industry
Automobile Industry

- Automobiles and auto parts are by far the largest export industry in Japan to the United States.

- Japan ranks third in imports to the U.S. trailing only Mexico and Canada.

- Prior to 2014, BLS did not produce a price index for any transportation goods from Japan.

- Can look at the overall import price index for automobiles for some insight.
## Top Auto Importers to the U.S.

### 2013 Import automotive Vehicles, Parts, and Engines by Country

<table>
<thead>
<tr>
<th>Product Area</th>
<th>2013 Dollar Value of Trade in Billions</th>
<th>Percent of Total Imports by Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Commodities</td>
<td>$311.2</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>$86.2</td>
<td>27.7%</td>
</tr>
<tr>
<td>Canada</td>
<td>$61.9</td>
<td>19.9%</td>
</tr>
<tr>
<td>Japan</td>
<td>$54.9</td>
<td>17.6%</td>
</tr>
<tr>
<td>Germany</td>
<td>$16.2</td>
<td>5.2%</td>
</tr>
<tr>
<td>All Other Imports</td>
<td>$92.0</td>
<td>29.6%</td>
</tr>
</tbody>
</table>

*Source: U.S. Census Bureau*
### Calendar-year Percent Change for Import Automobile Prices

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>0.4</td>
</tr>
<tr>
<td>2006</td>
<td>0.7</td>
</tr>
<tr>
<td>2007</td>
<td>2.4</td>
</tr>
<tr>
<td>2008</td>
<td>0.9</td>
</tr>
<tr>
<td>2009</td>
<td>0.9</td>
</tr>
<tr>
<td>2010</td>
<td>0.6</td>
</tr>
<tr>
<td>2011</td>
<td>3.3</td>
</tr>
<tr>
<td>2012</td>
<td>1.7</td>
</tr>
<tr>
<td>2013</td>
<td>-1.4</td>
</tr>
<tr>
<td>2014 (To Date)</td>
<td>-0.6</td>
</tr>
</tbody>
</table>
Decline in Import Automobile Prices

1.4-percent decline in 2013

- First decrease since index down since a 0.2-percent drop in 2001
- Largest decline since the index was first published in 1981
- 2001 the only other year where the index fell
- On track now to record second consecutive drop in 2014

Strength of Dollar versus Yen has resulted in falling prices for Japanese cars

An indirect impact is European and Canadian importers have started to drop prices in an effort to remain competitive
New Price Index

- Beginning in February, BLS began producing a price index for imported transportation goods from Japan.

- Since the starting point in December 2013, the index is down 0.5 percent.

- Overall import transportation goods down 0.4 percent, but automobiles down 0.6 percent.

- Will be interesting to track over time if Japanese policies continue.
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