The International Role of the Dollar and Trade Balance Adjustment

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The views in this paper are those of the authors and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.
U.S. Exports and Imports of Goods and Services are large
SA, billions of dollars

Apr. Imports 179.1
Apr. Exports 115.7
Trade Balance
Apr. -63.4
The U.S. current account deficit keeps growing

(Annual, Billions of Dollars)

Share of GDP

(right axis)
The large U.S. trade deficit is a concern

• The rising deficit forces the U.S. to borrow from abroad at an increasing pace, with rising overall net indebtedness year after year
• Will the rest of the world continue lending such massive amounts, and at what price?
• Today will consider: What role might the value of the dollar play in closing U.S. imbalances with the rest of the world?
Over recent years, the dollar has depreciated and has helped contain our trade deficits. But, even the scale of depreciation so far won’t close the imbalances.
What needs to happen before exchange rate changes alter a country’s trade balance?

- First, the exchange rate must alter the border prices of goods imported and exported by countries.
- Second, the change in the prices of imported goods at the border prices must lead to altered prices paid by consumers.
- Third, the consumer must react to the changed relative price of imported goods, and substitute away from imports if they have become more expensive, or increase demand for imports if they have become relatively cheap.
- Any exchange rate movement is associated with a pattern of real quantity adjustments in exports and imports, and terms-of-trade adjustments that alter the unit revenues received by counterparties engaged in international trade.
The current debate over global imbalances

- Differing viewpoints on
  - sustainability
  - the roles of changing growth of global aggregate demand versus through relative prices in achieving sustainability.
  - Numerous conferences and related volumes

- Our position
  - exchange rates can influence the relative prices of domestic and foreign goods, and alter the current account
  - However, the special role of the dollar in international markets makes for asymmetric effects of exchange rates across the US and its trading partners.
Paper stresses three main points

1. The U. S. dollar has a special role as a vehicle currency and as a unit of account in international trade transactions.

2. The transmission of exchange rates into the prices of goods imported by the United States is low. By contrast, the pass through of exchange rate changes into import prices of other countries is quite high.
Paper stresses three main points

3. With this asymmetry in exchange-rate pass through

– U.S. $ depreciation does not lead to large increases in the prices of goods imported and consumed in the United States.

– Expenditure-switching away from imports is then relatively weak. US expenditures on imports are largely unchanged.
Paper stresses three main points

3. With this asymmetry in exchange-rate pass through
     – U.S. exporters keep their prices largely fixed in dollar terms.
     – A U.S. dollar depreciation makes U.S. goods become relatively cheap in the local currency of the foreign markets
     – Foreigners switch expenditure toward US goods, leading to a real expansion of the quantities exported by the United States.
US dollars are important for invoicing international trade, with continuing vehicle currency role

Table 1: U.S. Dollar and Euro Use in the Export and Import Invoicing of 24 Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Date</th>
<th>Export Invoicing</th>
<th>Import Invoicing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Dollar Share</td>
<td>Euro Share</td>
</tr>
<tr>
<td>United States</td>
<td>2003</td>
<td>99.8</td>
<td>92.8</td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>2003</td>
<td>48.0</td>
<td>9.6</td>
</tr>
<tr>
<td>Korea</td>
<td>2004</td>
<td>83.2</td>
<td>7.4</td>
</tr>
<tr>
<td>Australia</td>
<td>2004</td>
<td>69.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Euro-Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>2003</td>
<td>24.1</td>
<td>63.0</td>
</tr>
<tr>
<td>Spain</td>
<td>2003</td>
<td>30.3</td>
<td>60.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2002</td>
<td>26</td>
<td>21</td>
</tr>
<tr>
<td>EU-Accession</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>2003</td>
<td>25.9</td>
<td>63.6</td>
</tr>
</tbody>
</table>
Asymmetry in Exchange-Rate Pass-Through into Import Prices

The United States
- Recent estimates range from 25 to 40%, or lower.
- Local distribution expenditure at 50% of final prices.
- Pass through into consumption prices of imports < 15%.

Euro Area Countries
- Exchange-rate pass-through into import prices approx 80%.
- Distribution expenditure smaller than in US, around 30%.
- Pass through into consumption prices of imports > 60%

Other Regions
- Pass through into import prices is high, closer to complete.
Interesting implications for U.S. Trade Balance Adjustment

- The general principle behind trade balance responsiveness to exchange rate movements is that these movements induce a combination of expenditure-switching and valuation effects.
- Existing studies outline two polar cases:
  - Complete exchange-rate pass-through: import prices move one-for-one with the exchange rate.
  - Zero exchange rate pass-through: import prices are unaffected.
  - U.S. reality is more asymmetric, an outcome considered by Gust and Sheets (2006)
Impact on the trade balance

Suppose there is some pass through into traded goods prices of all trading partners,

• Expenditure switching would affect real trade balances.
  – U.S. export quantities increase, U.S. import quantities decline.

• The term-of-trade are affected:
  – U.S. imports are more expensive (worsening of the terms-of-trade). Foreign terms-of-trade improve

• The nominal trade balance combines both effects:
  – The higher real surplus boosts the nominal surplus,
  – The worsening of the terms-of-trade reduces the nominal surplus.
Interesting implications for U.S. Trade Balance Adjustment

• The asymmetry in pass-through potentially means a dollar depreciation leads to
  – Very little expenditure switching in the US (not much reduction in US quantities imported, not much change in nominal import spending)
  – US export expansion. (U.S. goods prices are stable in dollar terms, but become substantially lower in foreign markets, in local currency terms. Real quantities exported increase, and nominal revenues from US exports rise.)
Interesting implications for U.S. Trade Balance Adjustment

Implication?

If a part of US trade deficit reduction were to be accomplished via dollar depreciation, this might end up being achieved by U.S. export expansion, more so than through reduced US demand for imports.
Interesting implications for U.S. Trade Balance Adjustment


For every 10 percent dollar depreciation

- U.S. real exports increase 9 percent.
- With exports approximately 12 percent of U.S. GDP, this knocks 1 percent of GDP off the trade deficit.
- In the current context, the deficit could go from 7 to 6 percent of GDP, all else equal.
The most trade exposed industries of the U.S. are in Manufacturing

- Leather: 2.4%
- Chemicals: 6.2%
- Machinery: 8.0%
- Computers and Electronics: 9.2%
- Electrical Equipment: 3.1%
- Transportation Equipment: 12.3%
- Miscellaneous Manufactures: 4.7%

Share of U.S. Manufacturing Employment

- Exports (in shipments)
- Imports (in Consumption)
- Imported Inputs
The five largest manufacturing industries in New York State account for almost half of New York manufacturing employment.

Breakdown of New York Manufacturing sector by number of jobs
Conclusions

• The US dollar retains a strong role as an international currency

• Exchange-rate pass-through into traded goods prices is asymmetric: low for US, high for other countries

• Expenditure-switching takes place to differing degrees across countries. US trade balance improvements from dollar depreciation may be strongest on the export side.

• For Buffalo region – producers facing import competition might not get much relief, but those looking for export opportunities might stay poised!
Who buys US exports?

US Exports by Destination in 2004

- Canada: 24%
- China: 4%
- Korea: 3%
- UK: 4%
- Japan: 7%
- Mexico: 14%
- Rest of World: 10%
- Asia NICS: 10%
- South America: 8%
- Euro Area: 16%
- Canada: 24%
- Korea: 3%
- UK: 4%
- Japan: 7%
- Mexico: 14%
- Rest of World: 10%
- Asia NICS: 10%
- South America: 8%
- Euro Area: 16%