Rebalancing the U.S. Economy in a Post-Crisis World

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The Problem: Major Global Imbalances

- Large, persistent US external deficits
- Matched by surpluses in Asia and OPEC
- Gradual adjustment underway in 2007-08
- Financial Crisis erupted in late 2008
  - Severe global recession
  - Trade collapse temporarily reduced US external deficit
- Prognosis for rebalancing in recovery?
## Current Account Balances as Share of World GDP

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<thead>
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<tbody>
<tr>
<td>United States</td>
<td>-0.50</td>
<td>-0.43</td>
<td>-1.41</td>
<td>-1.37</td>
<td>-0.65</td>
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<tr>
<td>Japan</td>
<td>0.26</td>
<td>0.36</td>
<td>0.35</td>
<td>0.33</td>
<td>0.17</td>
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<tr>
<td>Europe</td>
<td>-0.01</td>
<td>0.09</td>
<td>0.23</td>
<td>0.15</td>
<td>-0.02</td>
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<tr>
<td>Emerging Asia</td>
<td>-0.01</td>
<td>0.06</td>
<td>0.38</td>
<td><strong>0.86</strong></td>
<td>0.86</td>
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<tr>
<td>Emerging Latin America</td>
<td>-0.11</td>
<td>-0.14</td>
<td>-0.02</td>
<td>0.04</td>
<td>-0.03</td>
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<td>Middle East</td>
<td>0.12</td>
<td>-0.04</td>
<td>0.21</td>
<td><strong>0.51</strong></td>
<td>0.11</td>
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<tr>
<td>Other countries</td>
<td>-0.31</td>
<td>-0.21</td>
<td>0.00</td>
<td>-0.11</td>
<td>-0.24</td>
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<tr>
<td>Discrepancy</td>
<td>0.54</td>
<td><strong>0.30</strong></td>
<td>0.27</td>
<td>-0.41</td>
<td>-0.20</td>
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Outline

- Basic Identity
  - $S - I = CA \approx X - M$
  - Domestic Balance = External Balance

Rebalancing will require:
- Expenditure Switching (External balance)
- Expenditure Reduction (Internal balance)

- Progress to-date
- Post-crisis Outlook
Two Perspectives

- **Expenditure Switching** - RER Depreciation
  - CA ≈ X-M = f(Y_f, Y_d, RER)

- **External Balance** - Focus on trade, exchange rates, openness

- **Expenditure Reduction** - Raise Nat’l Saving
  - X-M = (S_{private} + S_{gov}) – I

- **Internal Balance** - Focus on national income vs. spending, saving vs investment
External Balance Perspective

- Large, persistent U.S. external deficits
  - Rapid increase after Asian financial crisis.
  - Current account deficit averaged 5% of national income after 2000.
- Net international investment position
  - Shifted from large surplus in 1980 to large deficit in 2008
  - +15% of national income in 1980
  - -27% of national income in 2008
The U.S. External Balance, 1980-2009

Current Account, percent of GDP

% of National Income

Year
Net International Investment Position

![Graph showing net international investment position over time. The graph plots the percentage of national income against the cumulative of the current account. The years 1980 to 2005 are marked on the x-axis, and the y-axis represents the percentage of national income. The graph shows a decline in net international investment position over the years, with two lines representing official and cumulative of current account.]
Expenditure Switching

- RER and trade balance inversely correlated
  - Long lags in response
- Large swings in real exchange rate (RER)
  - Appreciation in periods of growing trade deficits
  - Depreciation recently – exports rising
- Traditional ‘elasticity pessimism’:
  - Low price elasticity: 10-20% real depreciation for 1pp of GDP deficit decline
  - Houthakker-Magee: imports more sensitive to US income growth than exports to ROW
- GOOD NEWS more recently:
  - Price Elasticities of trade increased (need 8-15%)
  - Income Asymmetry disappeared
Alternative Measures of the Real Exchange Rate
1975-2009
Figure 3. Correlation of the Non-oil Trade Balance and Real Exchange Rate, 1980-2008
US Trade Deficit - Why So Persistent?
(External Balance Perspective)

- US Openness – Mainly \( \uparrow \) Imports
- While Trade Does Respond to \( \uparrow \) RER, the relationship seems to have shifted in early 90s
  - Primarily related to exports
  - Emerging Market growth and increased international competitiveness?
- ‘Export Pessimism’?
  - Given trade balance now requires a weaker $
  - US ‘under-performs’ as an exporter
- Main reason for TB deterioration was strong $
- Exports began to rise (05-08) pre-crisis
### US an Export Under-Performer?

Gravity Trade Models for US Japan & EU

<table>
<thead>
<tr>
<th></th>
<th>Exports/GDP</th>
<th>Imports /GDP</th>
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<tbody>
<tr>
<td><strong>Weighted Distance</strong></td>
<td>-1.123 (-63.4)</td>
<td>-1.007 (-38.6)</td>
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<tr>
<td><strong>United States</strong></td>
<td>-0.609 (-25.1)</td>
<td>0.012 (0.3)</td>
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<tr>
<td><strong>Log Avg. RER</strong></td>
<td>-1.119 (-8.7)</td>
<td>0.586 (3.1)</td>
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<tr>
<td><strong>adj_R2</strong></td>
<td>0.849</td>
<td>0.762</td>
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<tr>
<td><strong># Observations</strong></td>
<td>10570</td>
<td>10433</td>
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Regressions also control for population, GDP per Capita, etc.
Internal Balance Perspective

- Strong US performance pre-crisis
  - Job growth, productivity, low inflation
- CA deficits reflect: \( AD > Y ; S < I \)
  - Driven by large increase in private consumption (%GDP)
  - Recent decline in CA deficit is the result of collapse of investment
## Composition of U.S. Aggregate Demand, 1980-2009

### Percent of GDP

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<tr>
<td><strong>Consumption</strong></td>
<td>80.4</td>
<td>82.2</td>
<td>83.1</td>
<td>82.0</td>
<td>84.8</td>
<td>85.4</td>
<td>86.7</td>
<td>87.6</td>
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<tr>
<td><strong>Private</strong></td>
<td><strong>63.4</strong></td>
<td><strong>65.2</strong></td>
<td><strong>66.7</strong></td>
<td><strong>67.3</strong></td>
<td><strong>69.6</strong></td>
<td><strong>69.7</strong></td>
<td><strong>70.1</strong></td>
<td><strong>70.7</strong></td>
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<tr>
<td><strong>Government</strong></td>
<td>17.0</td>
<td>16.9</td>
<td>16.4</td>
<td>14.7</td>
<td>15.2</td>
<td>15.7</td>
<td>16.5</td>
<td>16.9</td>
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<tr>
<td><strong>Investment</strong></td>
<td>20.7</td>
<td><strong>20.3</strong></td>
<td><strong>17.8</strong></td>
<td>19.6</td>
<td>19.5</td>
<td><strong>20.1</strong></td>
<td><strong>18.2</strong></td>
<td><strong>14.9</strong></td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td>17.2</td>
<td>16.6</td>
<td>14.3</td>
<td>16.5</td>
<td>16.3</td>
<td>16.9</td>
<td>14.8</td>
<td><strong>11.3</strong></td>
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<tr>
<td><strong>Government</strong></td>
<td>3.5</td>
<td>3.8</td>
<td>3.4</td>
<td>3.1</td>
<td>3.2</td>
<td>3.2</td>
<td>3.4</td>
<td>3.6</td>
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<tr>
<td><strong>Net Exports</strong></td>
<td><strong>-1.1</strong></td>
<td><strong>-2.5</strong></td>
<td><strong>-0.9</strong></td>
<td><strong>-1.7</strong></td>
<td><strong>-4.2</strong></td>
<td><strong>-5.5</strong></td>
<td><strong>-4.9</strong></td>
<td><strong>-2.6</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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Consumption boom is reflected in large decline in household saving

Very little evidence of “twin deficits” linkage of government and external deficits

Investment was stable, but collapsed during financial crisis

Government deficit has increased recently as offset to investment decline

Note significant variation in statistical discrepancy
# U.S. Net Saving and Investment by Sector
## Percent of National Income

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<tbody>
<tr>
<td>Saving</td>
<td>10.9</td>
<td>6.5</td>
<td>5.4</td>
<td>3.6</td>
<td>-0.2</td>
<td>-3.4</td>
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<tr>
<td>Private</td>
<td>10.9</td>
<td>10.0</td>
<td>6.9</td>
<td>5.3</td>
<td>5.3</td>
<td>7.4</td>
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<tr>
<td>Government</td>
<td>0.0</td>
<td>-3.6</td>
<td>-2.4</td>
<td>-1.7</td>
<td>-5.4</td>
<td>-10.8</td>
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<tr>
<td>Investment</td>
<td>11.1</td>
<td>9.4</td>
<td>7.9</td>
<td>8.4</td>
<td>6.2</td>
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<tr>
<td>S-I</td>
<td>-0.2</td>
<td>-2.9</td>
<td>-2.5</td>
<td>-4.8</td>
<td>-6.4</td>
<td>-5.4</td>
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<tr>
<td>Current Account</td>
<td>0.4</td>
<td>-1.8</td>
<td>-1.7</td>
<td>-5.5</td>
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<td>Statistical Discrepancy</td>
<td>0.7</td>
<td>1.1</td>
<td>0.8</td>
<td>-0.7</td>
<td>0.8</td>
<td>1.8</td>
</tr>
</tbody>
</table>
From Soft Landing To CRISIS

- A gradual CA decline underway 2006-07
  - Lagged response to RER depreciation
  - Some US export growth
  - But little or no Internal rebalancing

- Crisis Hit in 2008:
  - Financial crisis centered in the United States
  - NOT capital inflow reversal (as feared)
  - Global trade collapse – US deficit cut in half
  - Focus on reviving growth & employment
  - Surge in fiscal deficits; monetary expansion
Why Did Private Saving Fall?

- Secular decline in saving is primary factor behind external imbalance
  - Extends over quarter century from mid-1980s
  - Concentrated in household sector
- Wealth-income ratio rose despite fall in saving.
  - Major surge in capital gains
  - Corporate equities and residential real estate
Private and Personal Saving, 1950-2009

Percent of National Income

- **Private saving**
- **Personal saving**
Household Wealth as a Ratio to Income, 1970-2008

Ratio to Disposable Income

- Valuation Changes
- Cumulated Investment/Saving
Private Saving Decline (2)

- Rise in wealth may have contributed to consumption boom
  - Wealth-income ratio rose from 4.5 in 1980s to 6 by 2000s.
  - Wealth effect \( \approx 0.05 \)
  - Saving rate would have declined by 5-7 percentage points
- Innovations in housing market made it easier to refinance and withdraw home equity
Demographic factors

- Large baby-boom generation should have raised saving in prior decades
- Will be a depressing factor in future years as baby boomers begin to retire

2 Earner families + ability to borrow may have reduced perceived need to save (precautionary)

Retirement accounts

*Prognosis Uncertain*: Significant reversal in private saving decline appears unlikely
US Fiscal Balance

- Financial crisis has had a dramatic effect on fiscal outlook
  - Prior deficits were small, but
  - Baseline budget assumes repeal of Bush tax cuts (politically unlikely)
  - Growing future costs of health care for elderly
- Huge fiscal stimulus assumed to be temporary
  - Obama initiatives are comparable to second stimulus
Federal Debt, Held by Public

Percent of GDP

- 2008 outlook
- 2009 outlook
- actual
Federal Revenues and Expenditures, 1980-2019

Percent of GDP

Revenue

Expenditures

Extend tax cuts
Post Crisis Outlook

- Expectations of a slow recovery
  - Financial crises tend to last longer than normal recessions
    - Damage to financial system
    - Limited lending capacity
  - Weak investment outlook
  - Employment expected to lag recovery
Figure 9. Projected Levels of U.S. GDP, 2004-2011

Billions of Dollars

Potential GDP
Historical Average
CBO
Real GDP
Post-Crisis Outlook

- Crisis Distorted Internal & External Balance
  - Little S & I rebalance: Fiscal Deficits Exploded; HH Saving revival unclear; Weak Investment
- Trade Likely to rebound quickly with recovery
- Prospect for CA Deficits of 3-4% BUT
  - Inconsistent with domestic S-I balance
  - Weak US growth containing imports
  - Need $ Depreciation for Export Growth
- Risks:
  - Global competition for markets – trade frictions
  - Challenging US fiscal transition
- End of Era: Strong US Markets, Strong $??