The effects of US recession on major remittances recipients

Julio Guzman

Nhi Tran
Simulation set up

Fact: US GDP falls by 2.6% in 2009
- under-utilisation of factors of production
- Technological deterioration

Shock calculation:
- Swap avareg("USA") = qgdp("USA");
- Shock qgdp("USA") = -2.6;
- Result: avareg("USA") = -2.6; (used as shock in the main sim)

Closure:
- Fixed quantities of endownments
- Fixed number of migrants

\[ y = a + S_L \bar{l} + S_K \bar{k} + S_T \bar{t} \]
The USA

\[ \text{GDP} = C + G + I + X + M \]

- Remittances: -1.95%
- Tech: -2.6%
- Employment: 0%
- Capital Stocks: 0%
- Land: 0%
- Real wage: -2.6%
- Rate of return on capital: -2.6%
- Rate of return on land: 1.1%
- \( Y \): -2.27%

\( \% \text{ change} \) Contribution:
- C: -2.15% (-1.97)
- G: -2.3% (-0.45)
- I: -2.7% (-0.68)
- X: +2.0% (0.11)
- M: -2.05% (0.38)
The effects of technological deterioration on returns to primary factors
Rate of return on land

- Land is used mainly in crops (76%)
- Crops: both supply and demand are less elastic than economy-wide average
- Land share in costs: 82%; EY: 0.14 vs. rest 0.9;

Crop price increases -> returns to land also increases
US Recession
(According to the Model)

\[ \Delta X = \Delta X_{USA} + \Delta X_e \]

GDP = (REM, TB, C)
World-wide effects on remittances and exports

Effects on countries outside the US depend on:

1. The importance of remittances as a source of income
2. The magnitude of the trade linkages with the USA (given a relative equal exchange rate appreciation across countries)

Guess who?
World-wide effects on remittances and exports

% change in GDP

Change in BOT/GDP

% change in real exchange rate
In fact, in Mexico:

\[
S - I = (X - M) + R
\]

Global Bank: Return of capital in Mexico decreases, but less than world average.
Comparisons between scenarios

<table>
<thead>
<tr>
<th>USA</th>
<th>Sim 1 Fixed Labour</th>
<th>Sim 2* Endo labour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP</td>
<td>-2.60</td>
<td>-2.66</td>
</tr>
<tr>
<td>Labour</td>
<td>0.00</td>
<td>-0.08</td>
</tr>
<tr>
<td>Capital</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Land</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Real wage</td>
<td>-2.60</td>
<td>-1.90</td>
</tr>
<tr>
<td>Return to capital</td>
<td>-2.60</td>
<td>-1.95</td>
</tr>
<tr>
<td>Return to land</td>
<td>1.10</td>
<td>1.70</td>
</tr>
</tbody>
</table>

* Same shocks: avareg(“USA”) = -2.6%. Endogenous migration: allow migration flows to adjust to changes in relative wages.