Evidence on Sovereign Debt

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Case Studies of Sanctions

Historically, sanctions were sometimes large: e.g. Mexico 1861, Egypt 1882, Haiti 1915, or even Newfoundland and Labrador 1934.

But some lending also occurred from Switzerland, which could not practice ‘gunboat diplomacy’. And Italian banks lent money to England in the 1300s. And many European banks lost money lending to Philip II of Spain in the 1500s.

Modern sanctions appear to be negligible: e.g. Argentina 2002–2016.

But Rose (2005) argues there is an effect of default or renegotiation of debt payments on trade.

Next, an indirect test of the sanctions theory ...
Evidence 1: GDP as a Constraint on Debt

Imagine lenders can apply the same $\eta$ to several borrowers. But borrowers differ by income.

Recall that we discovered the sanctions model predicts the payment is proportional to $\eta$ times income.

Prediction: Countries with higher GDP will be able to borrow more.
Lane (2004):

\[
\frac{B_{i,\text{gross}}}{Pop_i} = b_0 + b_1 \frac{Y_i}{Pop_i}
\]


\[R^2 = 0.70: \text{Obvious? Contrast with the idea that capital/loans flow to the most productive place.}\]

Add ‘openness’ as a regressor, and the fit improves. How can we interpret that?
To check on this in a panel, use gapminder.

On the x-axis: economy/incomes and growth/total GDP.

On the y-axis: for advanced users/advanced debt and trade/external debt total

Both in logs.
Evidence 2: Reputation in US State Debt

English (1996) studied US state debt in the 1840s. States borrowed in Britain to build canals or fund state banks.

These were sovereign debts, according to the 11th amendment to the US constitution. Lenders were not state residents.

Defaults occurred. No sanctions were applied. These would have been difficult because of trans-shipment.

But most states eventually repaid their debts. Support for the reputation model?
Bulow and Rogoff (1989) criticized the reputation model. A borrower can default and invest the money with some third party. Then even if it is cut off from borrowing forever, it can still use the interest proceeds.

Lenders know this, so they will not lend in the first place.

For these US states perhaps holding these external accounts was infeasible politically. Then paying off old debts may have been the best way for them to have access to finance again.
Evidence 3: Debt Overhang

Next we turn to the possible consequences of large, sovereign debt.

One possible effect is overhang: large debt forecasts future taxes (to meet payments) which in turn discourage investment today.

e.g. You might not want to set up a firm in Greece today.

This is an important rationale for debt relief (to be discussed in the next set of slides.)
Again let us check on this informally in gapminder.

On the x-axis: for advanced users/advanced debt and trade/debt servicing costs.

On the y-axis: economy/economic situation/investments

Use log on the x-axis and lin on the y-axis.

See if you think these measures can capture the idea.

Does running the historical animation provide support for the debt overhang hypothesis?
Evidence 4: Debt Buybacks

One method for debt relief is a debt buyback. Charitable donors (aid agencies and NGOs) give money to a sovereign borrower with which to buy back its debt.

The buyback occurs on the secondary market, where the debt has been trading at a discount to its face value.

Four actors: sovereign borrower, original lender, vulture funds, donors.

The donors spent $34 million and bought back/retired debt with a face value of $308 million.
Here are numbers from Bolivia’s 1988 Buyback

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face value of debt</td>
<td>$670 million</td>
<td>$362 million</td>
</tr>
<tr>
<td>Price</td>
<td>0.06</td>
<td>0.11</td>
</tr>
<tr>
<td>Market value of debt</td>
<td>$40.2 million</td>
<td>$39.8 million</td>
</tr>
</tbody>
</table>

Where did the $34 million go?

How can this problem be avoided?
Many bond issues now come with a collective action clause (CAC).

This coordinates the restructuring and may solve the problem of holdouts.

But do you think this clause might affect:
(a) the occurrence of a restructuring or
(b) the interest rate (usually a premium over LIBOR)?