

“IS IT PUNISHMENT?” REVISITED A RESPONSE TO PROF. ANDREW ROSE

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Prof. Rose argues that our paper is just a critique of his paper “One Reason countries pay their debts: Renegotiation and International Trade”, and that our basic ideas are, in his own words, “highly similar (if not identical)” to those already included in the Trade Diversion subsection of his paper. He also suggests that our results may not be robust to the inclusion of longer lags.¹ We disagree and will explain why.

The main question that the sovereign borrowing literature tries to answer is: why do sovereign governments repay their debts with foreign creditors? This question arises as sovereign debt contracts are usually not collateralized and their legal enforceability is very limited. Two main explanations are traditionally presented: reputation and sanctions (usually trade related). The influential paper of Bulow and Rogoff (1989) cast doubts on the reputation argument, leaving trade sanctions as the workhorse argument to explain why governments repay their debts. However, in the aftermath of the many sovereign defaults of the last decades, it is hard to point to a single case in which substantial, overt bilateral creditor-debtor trade sanctions have actually been imposed. It is possible, however, that creditor countries have found a *sub rosa* approach to impose trade sanctions (through covert actions that disrupt or harass the defaulting country’s trade).

DIFFERENCES FROM ROSE: NEW QUESTION, NEW STRATEGY, (SOME) NEW DATA

Rose’s paper makes some progress towards understanding the costs of defaults. In his paper, **he presents a measure of the costs of sovereign defaults for the defaulting country in terms of reduced international trade**. He examines this in a gravity equation framework by estimating the negative effect of defaults on bilateral trade between the defaulting country and the creditor countries affected by the default. In order to assess whether these declines represented a true “cost” of defaulting, Rose also looks for evidence of “trade diversion”. That is, Rose checks whether the decline in trade bilaterally was offset by increased trade with all other countries not directly affected by the default.

In our paper we ask a different question. **We focus on the cause of the declines in trade following sovereign defaults**. In particular, we analyze the empirical plausibility of a central cause suggested by the literature for these declines: namely, sanctions (whether overt or covert).

While Rose’s paper presents evidence indicating that bilateral trade between a defaulting country and the creditors affected by the default declines following a default, and that so does trade with other countries over the short horizon, **he is ambivalent about the cause of these declines. At one point he says that it is beyond the purpose of his paper to explain why trade declines.**² **However, later, when he discusses the trade diversion issue, he suggests that his results might support a trade sanctions view.**³

¹ He also makes some smaller comments and suggestions that have been useful.

² On p. 2 after describing some possible explanations for the declines in trade Rose states: “In practice, it is difficult and, for my purposes, unimportant, to differentiate between these explanations (and others), so long as sovereigns fear the trade effects of debt renegotiations.” That is, explaining the causes of the decline is not the purpose of his paper.

³ On p. 17 he concludes the subsection on Trade Diversion stating: “But it is clear that trade between debtors and non-creditors is not as dramatically affected by renegotiation as trade between debtors and creditors. This pushes one towards the hypothesis that creditor countries are seeking to punish default, since trade credit might be expected

Our paper devises an empirical strategy to explicitly deal with the plausibility of sanctions being the cause for the declines in trade. In order to discuss what is novel about our approach, it is important to distinguish, as we do in our paper, between three types of trade declines that a defaulting country can suffer: (1) A decline in trade that is stronger with respect to the affected creditor countries than all other countries. This we think of as a “bilateral” decline (or “bilateral” effect). (2) A decline that is stronger with respect to all creditor countries relative to non-creditor or debtor countries. This we think of as a “multilateral” decline (or “multilateral” effect). (3) Finally, we consider the case of a general decline in trade volumes with all countries.⁴

Having done this we are ready to tackle **an important question that Rose’s paper did not answer: Are the trade declines the result of trade sanctions (whether overt or covert)?** In our paper we look for evidence of two types of sanctions, which may be termed bilateral or multilateral sanctions. First consider bilateral sanctions. We take as a maintained assumption of our paper that if in the aftermath of default, the specific creditor countries that suffered the default impose trade sanctions, then the “bilateral” effect should prevail (i.e.: bilateral trade with the affected creditor countries will suffer a significantly larger decline than trade with other countries). In the case of multilateral sanctions, we consider the possibility of punishment by a collection of all major creditor countries. In this case, our maintained assumption is that if in the aftermath of defaults all creditors coordinate to impose trade sanctions, then the “multilateral” effect should prevail. If we find the first effect (the “bilateral” one), then we will view this as evidence consistent with bilateral sanctions. In order to conclude that the evidence is consistent with multilateral sanctions there are two things that we would like to see: the “multilateral” effect should prevail and the decline should be at least as severe with the affected creditors as with the non-affected ones. Finally, if we cannot find that, in the aftermath of default, the defaulting country's trade declines either “bilaterally” or “multilaterally” (plus the “relative severity condition”) relative to trade with other countries, then we will view this as evidence that sanctions are playing no substantive role in the evolution of that country's trade.

The regressions we run in our paper are systematically trying to disentangle the “general”, the “bilateral” and the “multilateral” effects to assess the relevance of the sanctions argument under our maintained assumptions. In order to disentangle the “general” from the “bilateral” effect we impose on a gravity equation of trade flows a default dummy that captures the “bilateral” effect and another one that captures the effects on overall trade. So, this would be equivalent to looking for the existence of a “bilateral” effect once we control for a potential “general” effect. We proceed likewise to disentangle the “general” from the “multilateral” one. Note that in order to run these specifications we need to build two new default dummy variables (different from those used by Rose), the “multilateral” and the “general” ones.

THE EMPIRICAL EVIDENCE

We find that sovereign defaults are often associated with a broad decline in trade for the defaulting country with *all* its trade partners. This decline lasts between two and five years depending on the exact specification and it is statistically and economically significant. Furthermore, **once this general negative relation between defaults and trade is accounted for, there seems to be no significant effect of defaults on bilateral trade with the affected creditors for a period of between nine and eleven years following the default** (again depending on the specification). The “multilateral” effect tends to

to dry up uniformly.” This should make clear that he evaluates some of the evidence he presents as supporting the sanctions argument.

⁴ As an aside, we would like to mention that the fact that we contemplate the possibility of “general” effects of defaults is neither casual nor arbitrary. It is the direct result of seeing the effects of sovereign defaults on defaulting countries economic variables (including trade) as pure market phenomena not related to any kind of punishment, and, therefore, “general” (as opposed to “bilateral”) in their nature. See Sandleris (2003) for a theoretical model presenting this idea.

appear earlier than the “bilateral” one and seems stronger for some specifications, but it is mostly due to a decline in trade with those creditors *not* affected by the default.

Note that a difference between Rose’s benchmark results (see Table 1 and 2 of his paper) and our own is that in our regressions the “bilateral” effect is never significant in the aftermath of defaults while he finds it significant in most of his specifications (not always individually significant though). The reason for this difference is that in our regression we control for the effect of defaults on overall trade and then look for the “bilateral” effect on top of it. Rose does not control for the “general” effect, and as a result his “bilateral” default variable is capturing part of the “general” effect.

The results we obtain in the “bilateral” section of our paper and those that Rose obtains in his Trade Diversion subsection are not inconsistent. The basic reason is that the regressions we run there and those he runs in the subsection do not differ significantly. He finds that not only does trade with the remaining countries not increase (i.e. no trade diversion), but it actually falls in the short-term. Although he states that the “bilateral” effect is more persistent, he does not comment or report on the relative importance of the two effects in the short-term. Rose notes (see footnote 30 of his paper) that these results imply a negative effect of defaults on overall trade in the short-term, which is what we find. Furthermore, they would imply no significant “bilateral” effect on top of the general one for several years following the default, also consistent with what we find.⁵

INTERPRETATION MATTERS

Let’s briefly recap. Despite the facts that the regressions in Rose’s Trade Diversion subsection and our “bilateral” regressions differ (but not significantly) and that they are run with substantially different purposes, their results are not inconsistent. The consistent results are:

1. Rose finds that in the aftermath of defaults and for a number of years there is a negative effect of defaults on trade with other countries not affected by the default.
2. Rose finds that the “bilateral” effect is more persistent.
3. We find that there is a “general” effect (i.e. decline in overall trade) that lasts between 2 and 5 years depending on the specification.
4. We find that there is no “bilateral” effect for a period of between 9 to 11 years following a default once we control for the “general” effect, and, after that period, the “bilateral” effect becomes significant for one or two years.

The essential difference between Rose’s Trade Diversion subsection and our “bilateral” section is in the interpretation of these results.

One way to think about them is, as Rose does, to emphasize the long term “bilateral” effect, and disregard the fact that it appears only more than five years after the default. And, based on this, to conclude, as he does at the end of the cited subsection, that (p17):⁶

“But it is clear that trade between debtors and non-creditors is not as dramatically affected by renegotiation as trade between debtors and creditors. This pushes one towards the hypothesis that creditor countries are seeking to punish default, since trade credit might be expected to dry up uniformly.”

⁵ As explained, Rose reports the results of his regression incompletely. So, this last statement is based on the results we obtain running the regression he specifies in the subsection.

⁶ As mentioned above, during most of his paper Rose seems agnostic regarding the causes of the declines in trade following defaults. However, in his Trade Diversion subsection, where his results are consistent with ours, he takes a stance.

We think that this is misguided. Interpreting the empirical evidence as the consequence of bilateral sanctions as Rose does would require a very special story regarding the type of sanctions imposed and their implications. In effect, in such a story sanctions should be such that bilateral trade with the defaulted creditors is not particularly affected for a period of at least nine years following a default, and the effect increases after that with the largest effect occurring more than ten years after the default. Although in our paper we speculate about some sanctions-based stories that could yield these predictions, we find these stories hard to believe.⁷

We believe that the existence of a negative effect on overall trade in the short-term and the absence of any “bilateral” effect for many years following a default (after we control for the “general” effect) are illuminating in order to assess the relevance of the sanctions argument. Contrary to Rose’s interpretation, **we consider that this short-term pattern of trade declines provides relevant evidence against the sanctions argument.** The basic reason is that one would tend to believe that the effects of sanctions on trade should appear not too long after the event that triggered them.

As a result, because in the aftermath of defaults we observe a decline in overall trade and no decline in bilateral trade with the affected creditors once the “general” effect is accounted for, **we conclude that the declines in trade do not seem consistent with bilateral punishment. So, we reject the hypothesis of bilateral trade sanctions being the enforcement mechanism for debt repayments.** Likewise, the analysis of the effects of default on trade with broader groups of creditor countries (not just those affected by the default) does not seem consistent with broader punishment strategies in which all creditors coordinate their actions.⁸

CONCLUSION

Summarizing, we believe that **our paper makes two main contributions:**

- Building on Rose’s work, **it devises a clear strategy to test the relevance of trade sanctions (overt or covert) in explaining the declines in trade associated with defaults.** This strategy is based on the distinction between “general” declines in trade associated with defaults, from “bilateral” or “multilateral” ones.
- **We present empirical evidence showing that the “general” decline is the dominant one in the aftermath of defaults. Under our maintained assumptions this amounts to a rejection of the sanctions argument.** This is extremely important, as it could lead to an empirical rejection of one of the main workhorse arguments used in the sovereign borrowing literature to explain why governments repay.

Finally, there are two questions that one can ask regarding the cause of the declines in trade. The first one, positive in its nature, is: why is trade declining following defaults? A narrower but very important one given its role in the sovereign debt literature is: Is it punishment? To the question, “Is it Punishment?”, we provide strong evidence against the punishment hypothesis. This is something that Rose’s paper did not do. Rose documented that trade declines for debtor countries in the aftermath of default, and we have demonstrated that neither bilateral nor multilateral sanctions provide a plausible account of this decline. Exactly *why* the decline occurs remains an important and open question.

⁷ Rose expresses concern about our failure to report results with more than 10 lags. We have run the regressions with as many as 20 lags. We would like to make two points. First of all, the inclusion of longer lags does not affect our basic results as reported above. Second, while results with longer lags show that “bilateral” effects appear even later than in the results we report, we find hard to see an economic mechanism that makes sense of it, thus our focus on shorter lags.

⁸ For the “multilateral” conclusion, we also draw on the fact that the decline is mostly in trade with those creditors not affected by the default.