

Comments on Kenneth M. Kletzer: “Sovereign Bond Restructuring: Collective Action Clauses and Official Crisis Intervention”

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This is an excellent paper. It brings rigorous economic theory to bear on an important practical policy issue and reaches conclusions that make sense. Because too much agreement between presenter and discussant is tedious for the reader, I will concentrate my remarks on the issues where Ken and I appear to be in less than complete agreement.

The formal model builds has a number of familiar features as well as a few non-standard ones. A single, infinite-lived, risk-averse borrower with time-additive preferences and a random, perishable endowment faces a large number (probably a continuum) of infinite-lived risk neutral lenders. The borrower’s objective is to maximise expected utility of lifetime consumption. There is no third party enforcement of contracts (contingent or simple). There is uncertainty, but no asymmetric information. The fallback position of the borrower and the lenders is financial autarky. It isn’t clear to me whether it might every be individually rational for the borrower to become a lender? Is it ever rational for him to build up a stock of financial assets which can then be run up or down to buffer endowment shocks?

The strict concavity of his period utility function implies that the borrower is interested in two kinds of consumption smoothing: (1) Consumption smoothing over time (intertemporal consumption smoothing), and (2) Consumption smoothing across states of nature (diversifying consumption risk). The borrower fails to achieve the command optimum because he labours under two handicaps (1) He cannot commit his future actions; and (2) he is restricted to simple (non-contingent) debt contracts.

Third party enforcement or some other ad-hoc commitment mechanism is required to solve the commitment problem. Simple multi-period debt contracts with third party enforcement permit full smoothing over time, but not across states of nature. *Renegotiation* can be used to mitigate the restriction on risk sharing caused by the assumption that only simple debt contracts can be used, but without third-party enforcement, it will not resolve inefficiencies due to lack of commitment.

My main disagreement with the paper (or rather the main reason why the conclusions of the paper cannot be applied directly to real-world renegotiation of sovereign debt

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contracts is that the set-up of the model, and therefore its conclusions, are too ‘Coasian’.

Ken takes as his *welfare benchmark* the efficient perfect (roughly time-consistent) equilibria of the (implied) infinitely repeated game in which any agent (borrower or lender) can make a non-negative transfer of resources less than or equal to the amount of his current endowment.¹ He shows that the efficient self-enforcing equilibrium can be implemented using one-period state-contingent contracts, with free entry and exit by lenders. He then restricts his welfare comparisons to the class of *self-enforcing* contingent contracts. That is, in his benchmark world, there is still no third party enforcement, but contracts can be made contingent on realisations of mutually observable random variables. Note that this welfare benchmark is a *restricted, second-best welfare benchmark*, as only the efficient equilibria among the class of perfect equilibria are considered. It is easily established that restricting contracts to be non-contingent, does not in general permit (constrained) efficient perfect equilibria to be supported. For simple (non-contingent) debt contracts to support any equilibrium, we must structure the support of the endowment distribution and the permissible contracts to rule out ‘bankruptcy’ or ‘default’ (when the amount due on the debt exceeds the full realisation of the borrower’s random endowment).

This restriction eliminates the scope for welfare improvements through third party enforcement. Third party enforcement is key to the viability of welfare enhancing contracts for which at some stage (at some point in time), the continuation value of the contract becomes negative for at least one of the parties. Third party enforcement is welfare enhancing primarily because it resolves intertemporal commitment problems, not because it is essential for dealing with risk and uncertainty.

Ken then considers a different kind of repeated game using the basic building blocks. Instead of single-period state-contingent contracts he considers simple (non-contingent) one-period debt contracts *plus* the possibility, each period, after the uncertain random endowment of that period *has been* revealed to all parties, of renegotiation. Since the possibility of renegotiation effectively introduces state-contingency into the contract, it is not too surprising that the combination of one-period non-contingent debt contract plus unrestricted and costless renegotiation each period supports the same (constrained) efficient perfect equilibrium as the single-period contingent contracts.

Ken then looks at how different kinds of restrictions on the ability to renegotiate incomplete contracts affect welfare. These restrictions can be interpreted as stylised versions of the bond covenants that bind creditors together and that are enforced by creditor country governments. They are (a) enforcement of seniority rights among creditors and (b) collective action clauses.

The first proposition established is that renegotiation with seniority rights of simple loan contracts supports a (constrained) efficient perfect equilibrium. It is not necessarily true that *any* (constrained) efficient perfect equilibrium can be attainable through renegotiation of simple loan contracts when seniority rights are enforced. This makes sense, since seniority rights are a restriction on the capacity to renegotiate.

¹ This will not in general be a command optimum, because a command optimum allocation will in general require commitment, that is, it will not be time-consistent or perfect.

If I understand it correctly, this means that seniority rights don't necessarily hurt, but they don't help either. Like the earlier result that renegotiation of simple contracts supports constrained efficient equilibria, this proposition requires some strong 'Coasian' assumptions, especially that of common knowledge in the repeated game. Every lender observes the obligations of the borrower to every other lender and the actions of each lender, and also knows the preferences and endowments of all participants. Negotiation does not require time or other scarce resources.

The second proposition established in the paper is that renegotiation under *unanimous consent* can be costly: holdouts or vulture funds (Elliott) can cause inefficient perfect equilibria to be supported.

The third result concerns the efficiency of renegotiation with *collective action clauses* (CACs), that is, renegotiation under qualified majority or supermajority consent. It is shown that CACs can eliminate the costly wars of attrition in restructuring that can occur under unanimous consent. The intuition offered for this result is that competition between creditors (bond holders) to be the pivotal voter can be used to eliminate the rent to holdouts. I do not understand this. What determines the size of the smallest qualified majority to support an efficient perfect equilibrium? Does any qualified majority rule *always* support an efficient perfect equilibrium? Does any qualified majority rule support only efficient perfect equilibria? Are all efficient perfect equilibria always supported by any qualified majority rule? It would be helpful to be given insight into these questions.

The final proposition is that aggregation (the requirement that all bond claims be renegotiated together (and presumably on the same terms)) may (or will) not increase efficiency over and beyond what can be achieved with just collective action clauses. Again the assumption of common knowledge is central to this result. This proposition is intriguing, because it suggests that the key reform of the international financial architecture that should be pursued is CACs rather than the setting up of a sovereign tribunal (a super-IMF to adjudicate disputes between a borrower and all lenders).

There is, however, some distance between the model and a reasonable simulacrum of contemporary interactions between sovereign borrowers and private creditors. The Coasian core of the model is recognised very clearly by the author: "*In the bare-bones institutional structure of the consumption-smoothing model of sovereign debt, any mutual beneficial renegotiation is possible after any history of the relationship between the borrower and lenders. Nothing impedes a mutually beneficial renegotiation.*" The model explicitly ignores all constraints on negotiation, let alone on period-by period renegotiation. Forcing all reluctant creditors into a single corral with the debtor may be easier than having a large number of simultaneous negotiations going on all of the time. Thus the model overstates what renegotiation is likely to be able to achieve in the real world. Third party enforcement probably has more going for it than the model can handle.

The model also ignores the gains from third party enforcement to the extent that third party enforcement resolves or mitigates the commitment problem. The efficient perfect equilibria are only *constrained* efficient, that is, they are inefficient relative to a model of contingent contracts (or renegotiation) with commitment. The command-optimum can only be supported by a credible commitment to contingent response

rules, rather like the optimal ‘innovation contingent’ but not time-consistent decision rules I analysed in a totally different context a long time ago (Buiters [1981]). Third party enforcement (or the incurable honesty of all players) is necessary to support fully efficient equilibria.

The paper represents a useful and interesting benchmark. Absorbing its message was for me rather like studying the First and Second Welfare Theorems: the real understanding I gained came from pondering what had been left out of the model, and what difference these simplifying features were likely to make.

I am not yet willing to give up on the importance of third party (exogenous) enforcement of contracts as a precondition for efficient economic arrangements. The state or its supranational substitute has no effective substitutes, be it the invisible hand or the inaudible negotiator.

References

Buiter, Willem H. [1981], “The superiority of contingent rules over fixed rules in models with rational expectations”, *Economic Journal*, 91, September, pp. 647-70.