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Dealing with Credit Booms and Busts: the Case for Prudential Taxation

Economists and policymakers do not seem to have a good paradigm to think about the optimal policy responses to credit booms and busts. In this note I talk about the foundations that such a paradigm could build on, and speculate on its policy implications. The focus will be mainly about preventive policies (in the boom) rather than crisis management policies (in the bust).

Good and bad booms

First of all, the rationale for policy intervention in a credit boom is not obvious. Many credit booms reflect a healthy process of financial development and do not lead to busts.[1] Even the credit booms that turn into busts may not be inefficient from an ex ante perspective. The countries that have experienced occasional financial crises have, on average, grown faster than countries with stable financial conditions (Rancière et al, 2008). So what is the ground for intervention?

The main rationale for intervention, it seems to me, is the presence of externalities associated with financial contagion.[2] In a credit crunch or a credit crisis, lenders and borrowers take actions that make sense from an individual point of view but do not take into account the impact on the financial system in aggregate. This is something that we understand well---in theory, at least. For example, contagion results from a domino effect on the cross-holdings of debt across borrowers (Allen and Gale, 2000), or from a vicious circle in which deleveraging and the fire sale of assets reinforce each other (Jeanne, 2008a; Korinek, 2008; Lorenzoni, 2008).

The key point is that those externalities exist not only ex post (in the crisis), but also ex ante, during the boom. Individual borrowers do not internalize the impact of their borrowing on systemic risk, defined as the probability of a credit crisis and its severity (if it occurs). Thus, the levels of debt accumulation and systemic risk are excessive during the boom.

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[1] For example, Barajas, Dell’Ariccia and Levchenko (2008) find that in a large sample of advanced and emerging market economies only a minority of credit booms (16 to 23 percent, depending on the definitions) has led to episodes of financial distress.

[2] Another rationale could be the “irrational exuberance “of investors in a boom, but we do not understand this concept (or its policy implications) very well, so I will not consider it further in the following.

How strong is the case for public intervention in a credit boom? This depends, in practice, on the probability that the boom will turn into a bust. The negative externalities associated with financial contagion express themselves in the crisis so that ex ante, the expected cost of the externality is increasing with the probability of a bust. A "bad boom", from that point of view, is simply one that is likely to turn into a severe bust.

Can we recognize the booms that are bad? One could look for early warning signals. For example, Barajas et al (2008) identify several macroeconomic variables that help to predict whether a boom is heading for some form of financial distress. They find that larger and more prolonged booms and those coinciding with higher inflation and lower growth, are more likely to end in a crisis. I think we can learn a lot more from pursuing this kind of analysis of cross-country experience.[3]

The question is often cast as whether the boom involves a "bubble" in credit and asset prices. I think that this is not a very useful way of putting the question. First, people disagree on the exact definition of a bubble. Under rational expectations, bubbles tend not to exist.[4] If a bubble is due to irrationally optimistic expectations, then the case for public intervention must rest on the not very appealing assumption that the government is generally wiser than private investors.

But there is no need to make theoretically ambiguous claims about bubbles: the case for public intervention can be based on a purely statistical assessment of the systemic risk. For example, in a prolonged boom with low growth it will be increasingly hard to justify the price asset in terms of the fundamentals. However, I do not need to declare the boom a bubble to argue in favor of public intervention. I simply need to know that under those circumstances, the boom is more likely to result in a bust.

Policy responses

The optimal ex ante and ex post policy responses can be analyzed from the point of view of the externalities mentioned above. There is little doubt that macroeconomic policies should provide stimulus in a credit bust.[5] But those policies do not eliminate all the economic damage ex post, which leaves a potentially large role of ex ante preventive policies.

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[3] See also the work of BIS economists, e.g., Borio and Lowe (2002). Much of the work on early warning indicators has been on currency, sovereign debt or banking crises. To my knowledge there is no work on indicators for the risk of a credit crisis in the corporate or household sector.

[4] See Tirole (1982), although rational bubbles may exist under some refinements, such as lack of common knowledge (see Abreu and Brunnermeier, 2003).

[5] Although I would put more emphasis on monetary stimulus than most commentators, see Jeanne 2008c.

First, there is the question of the extent to which monetary policy should lean against the wind in a credit and asset price boom. My answer is that it should, but that this is not a very good way of containing the externalities created by excessive debt (Bordo and Jeanne, 2002). The interest rate is too blunt an instrument to deal with booms that might be limited to certain sectors of the economy. And restricting monetary will come at some cost in terms of other objectives, especially inflation.

Another policy tool is the prudential regulation of banks. I find the arguments for introducing a counter-cyclical element into bank regulation quite compelling. But the problem is that banking regulation deals with only one part of the problem, the part that involves the balance sheet of banks. An increasing share of domestic credit is generated outside---or does not stay in---the banking sector.

If standard policy tools do not get at the heart of the problem, what would be a better form of policy intervention? Thinking about the right policy intervention may be made easier by going back to first principles. It goes with debt as with other sources of negative externality: if it pollutes, it should be taxed. And it should be taxed more in credit booms, when the systemic risk is higher. Put in very general terms, the solution would be a counter-cyclical tax on debt.[6]

I am calling this approach "prudential taxation" because it borrows elements from both prudential regulation and tax policy. It is prudential because it aims at reducing the risk of financial disruption ex ante, in the same way as the prudential regulation of banks. But it pertains to tax policy rather than regulation to the extent that it covers all debts in the economy, not only those generated or held by banks or regulated financial institutions.

More concretely, what forms could prudential taxation take? One could imagine a new tax levied on the debt principal at issuance, or on interest payments.[7] But a new tax may not be necessary. In the corporate sector one may also think of playing at the margin with the tax advantages of debt relative to equity.

The fiscal receipts from prudential taxation could be accumulated during credit booms in a fund that would be used to bail out some constrained or insolvent borrowers in credit busts. The expectation of bailouts may induce excessive risk-taking, but this can be mitigated by prudential taxation. Furthermore, if there are going to be bailouts anyway, it may be preferable to limit their size in the context of an explicit framework. The fund could also be used to subsidize equity, or foster the development of new forms of debt with equity-like features such as GDP-indexed debt (Shiller, 1993).

[6] This is indeed the kind of policy interventions that Jeanne (2008), Korinek (2008a) or Lorenzoni (2008) look at in their models. Korinek (2008b) also looks at the case for taxing international debt flows in a small open economy.

[7] Levying the tax on the principal at issuance would have the advantage of implying a higher effective tax rate on short-term debt.

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