

Econ 4335 Seminar 7 Solution Proposal

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Give one or a few examples of the social costs due to moral hazard in banking. What measures can the government impose, if necessary, to alleviate the problems related to moral hazard?

1. About moral hazard in the banking sector

Moral hazard is present almost everywhere in the field of banking. Because of asymmetric information in combination with limited liability, agents might be induced to take on actions that are not socially beneficial. The easiest way to illustrate this is in a classic borrower lender-relationship. While the borrower has a convex return on capital, the lender has a concave return. This incentivizes borrowers to take on risky actions while the lender takes all costs of the risk.

The banks themselves might invest in too risky projects. If the banks have small amounts of their own capital invested they will not pay a large cost if their investments fail. As we have seen in the paper of Hellman, Murdock and Stiglitz, too much competition in the banking industry might induce banks to choose too risky portfolios.

2. Social costs due to moral hazard

Investments in bad projects is possibly the most important source to social costs from a micro-perspective. Because of the convex return on capital, agents might invest in risky projects that are bad from a social perspective. This could not only be a bad thing for the lenders, but potentially other borrowers as well. Because the banks might not be able to distinguish between “good” and “bad” borrowers, investments in many “good” projects might not occur. Also, the investments in “bad” projects could alternatively have been invested in “good” projects. In other words, a negative opportunity cost.

Opportunity costs of capital is another possible social cost. Although collateral and capital requirements might be necessary in order to prevent social losses because of moral hazard, these funds could alternatively have been invested in socially beneficial projects.

Monitoring costs are very relevant social costs in real-life. To prevent agents from investing in projects that are too risky, banks can in many cases gain information through monitoring. This can solve the problems of moral hazard and asymmetric information, but in turn it might be costly.

"Too big to fail" - bank bailouts. The costs of bank bailouts can be measured both in the direct cost of financing the bailouts as well as the opportunity cost of alternate uses of said financing. As bank bailout have historically happened in connection with financial crises the opportunity costs can, as an example, be measured as what projects the government have to discard in order to finance the bailout(s).

Bubbles and the financial crisis: The sum of all the social costs connected to bubbles and financial crisis are vast and affect all areas of the economy. In the last financial crisis, and in many before that, non-prudent behavior of banks has been one of the main "forces" behind the crisis.

3. Measures to implement

All historical and empiric evidence as well as economic theory shows that regulation of in some form is necessary. Here we go through some of the suggestions/measures that have been dealt with during the course so far.

Capital requirements are widely regarded as a powerful measure for reducing banks willingness to invest in risky assets. Capital requirements as they are to be implemented in Basel III are a requirement of having a certain percentage of capital in comparison with the banks risk-weighted assets. The easiest way to view capital requirements is to see it as the bank owners "own money". So by forcing higher capital requirements the banks will be less willing to gamble on risky investments/be more prudent managers, as they risk losing more of their own wealth. Basically: capital requirements implicitly force banks to care about the risks involved with investing and to, at least some degree, internalize the moral hazard problem.

What are the downsides? The biggest problem, at least according to the banking sector itself, is the fact that capital is costly. A higher capital requirement rate means that the banks will get reduced investment opportunities and therefore limit the banks franchise value/worth/profits. In theory this would mean that too high capital requirements could work somewhat counterintuitively: reduced franchise value will incentivize banks to gamble more, the opposite of what capital requirements are meant to do. This argument is presented formally in the model by Murdock, Stiglitz and Hellman.

The key assumption to the pro/con-arguments of capital requirements is whether capital is costly or not. If that is indeed the case capital requirements can still be a good measure, but it would be important to not set them too high so you "strangle" franchise value.

A question which we haven't dealt with in the course, but is interesting nonetheless is whether it is easy for banks to obtain capital or not. E.g. is it possible for banks in struggling economies to obtain capital through retained earnings?

Collateral could be an efficient measure to incentivize “good” behavior from the entrepreneurs. Collateral would be the same as removing the assumption of limited liability. To put it simple: the borrowers will not only gamble with the lender’s money, but also with their own money. This is a possible way to prevent risky behavior. Collateral could be required by the banks themselves, or the government could demand the banks to require it.

Monitoring can prevent agents from investing in “bad” projects. In most cases this will be beneficial for the banks as well for the society despite the costs.

Deposit rate ceilings are a measure proposed by Hellman, Stiglitz and Murdock in their paper. The ceiling is intended to counteract the reduced franchise value of the banks by a) capital requirements and b) competition in the banking sector, leading to banks increasing deposit rates to attract depositors. These two factors combined further reduce franchise value which again will lead to riskier behavior by the banks. Hence: implementing a deposit rate ceiling could reduce the franchise value loss induced by increasing deposit rates and in a combination with capital requirements incentivize banks to more prudent/efficient behavior.

Deposit rate ceilings are rarely used. But in China such ceilings has been in place for many years. It is however set to be removed, 2016 is the current set date for the reform to be put in place. Why remove it?

Deposit rate ceilings as they are implemented in China make it less attractive to deposit money in the banks. It skews the balance in favor of the borrowers and reduces the benefit for the lenders (depositors). With a very low deposit rate ceiling as it is in China it basically makes deposits “free” for the banks, and increases their return on investments. The removal of the ceiling is intended to mitigate this imbalance and stimulate household consumption. Whether this argument holds for every level of deposit rate ceiling I will leave up to discussion.

Refusing to bail out banks could also be a measure to consider. It would have high short-term and possible long-term costs as well. But it would also reduce the banks incentive to gamble, as they would know they would not be protected by “too-big-to-fail” arguments.

All the above measures have been widely discussed in economic literature. One interesting question, which we don’t have the answer to here, is the one asked above: Is capital as costly as many assumes? A lot of new literature on the subject says no, but the banking sector still says it is. If it turned out that capital requirements are nowhere near as costly the banking sector it says it is, there seems to be many good reasons for keeping a strong focus on capital requirements as the main tool for reducing the problem with moral hazards in banking and its negative effects.