Comments on
"Courts and banks: effects of judicial enforcement on credit markets"

by Magda Bianco, Tullio Jappelli, Marco Pagano

The paper by Messrs. Bianco, Japelli and Pagano (hereafter BJP) belongs to a long tradition in the area of "law and economics"which stresses that the quality of the legal system matters for the functioning of the financial system. There is an issue of financial stability, which is the theme of the current session: in the absence of a properly designed legal system, the financial system breaks down. La Porta et al. (1997) showed that legal rules and the quality of legal enforcement have a significant effect on the size of equity and debt markets. In addition, La Porta et al. (1998) provided evidence that creditor rights and the efficiency of the judicial system differ quite a lot across countries and richer countries have higher quality of law enforcement.

But these papers suffered from two weaknesses. First, the indicators used to measure legal enforcement were not clearly defined. Second, the issue of the interactions between legal system and finance lacked micro-foundations. BJP attempt to address both questions by proposing a theoretical model and confronting it to the data in a thorough fashion.

It is useful to present briefly the model, although Tullio did not cover it in his oral presentation. In the model, contrary to many other models in modern banking theory, there is no asymmetric information. The representative borrower invests into a risky project which yields a positive return if it succeeds, and nothing otherwise, but the borrower always disputes the claim. He needs to receive the right incentives to pay, so that depending on the legal system the lender must be able to seize the proceeds of the project, or a share of collateral.

In the case of competition, there is a maximum that banks can charge above the cost of their funds. One can show that there exists a minimum level of collateral under which credit rationing exists and a level above which the bank is fully protected (the bank seizes the collateral and charges the equivalent of the opportunity cost of funds). The paper studies the comparative statics of an exogenous improvement in judicial efficiency in the form of an increase in *(i)* the share of collateral or *(ii)* the proceeds that can be seized by the lender. In case *(i)*, there is a composition effect, so that an increasing number of borrowers pay lower rates, while credit rationing decreases so that additional borrower enter the credit markets at higher rates. The net effect on interest rate is indeterminate at the macro level.

In the case of monopoly, the model leads to more straightforward results since banks charge more to borrowers with more collateral : they extract all the borrower's surplus. An increase in judicial efficiency increases interest rates, i.e. the ability to extract the surplus.

One suggestion would be to introduce less extreme forms of competition in the credit market, like monopolistic competition. One question : is the model limited to judicial efficiency or could it be extended to changes in the whole legal system (which may also lead to an increase in Φ_p or Φ_c)?

Regarding empirical applications, the most interesting result, in my view, is the one based on a comparison of judicial efficiency across Italian regions.

My first remark is that the analysis is quite **challenging** to most people who are used to a national justice system where there should not be differences across regions. Although, one may suspect that there are indeed differences across regions, this is nowhere documented. We should therefore be grateful to BJP for having done so in the case of Italy.

On the other hand, and this is my second comment, one would like to know a little bit more about the data and in particular whether the regional level really matters. In other words, one would like to know **what the competence rules for courts are**: from a geographic perspective, which court is competent for solving a conflict between a bank and a lender ? In France, this is codified : it is the court of the defence, i. e. the lender since by definition the bank would sue the borrower), but the loan contract may decide otherwise. In Italy, it could be the headquarters of the bank, Milan or Rome, since Italy belongs to the same legal tradition as France (Roman law as opposed to the common law as indicated in La Porta et al., op. cit.). Here comes my remark: if banks really knew that the judicial system is much worse in some regions than in others, they would have an incentive to add some exceptions to the general rules into the loan contract, thereby dampening the effect of judicial inefficiency on credit markets. The fact that the authors do provide evidence in favour of their thesis implies that there exist some obstacles against arbitrage across regions. It would be interesting to know what these obstacles are.

Third, there may be an **identification issue**. One may wonder whether the empirical strategy really controls for the correlation between growth and financial structure. As it is well known, the development of the financial system depends on income per capita (Goldsmith, 1969, Townsend, 1983), while enforcement also depends on income per capita (La Porta, 1998, op. cit.). This may explain the authors' findings. BJP are well aware of that and use therefore fixed effects and introduce lagged value of real GDP. However, one may wonder whether cycles are properly taken into account (a recession leads to more legal actions hence increases the length of trials). This would imply introducing GDP growth instead of the levels.

The second empirical application, relates to the development of **mortgage markets.** The initial model can be extended to housing finance since what matters is the bank's ability to seize the collateral. Here again, there is a problem of identification. However, more fundamentally, one should also control for the institutional or legal environment in general. For instance, in the case of mortgage markets, the US is clearly an outlier since the existence of a mortgage backed securities market explains the development of the mortgage market, independently of enforcement. As a consequence, if the effects of enforcement are to be tested, one needs to restrict the analysis to countries with similar institutional settings, but this reduces the size of the sample which is already small.

As a conclusion, the paper by BJP opens new avenues for research, provided data become available. More broadly, the question is whether the law protects financial institutions and whether judges protect the competitiveness of financial institutions? We welcome BJP model which provides a first step towards a general equilibrium answer to that question.

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