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Paper of Prof. Shin on

Implications of marking-to-market for market/system behaviour

Discussant: Mauro Grande

Many thanks to the BIS for inviting me to this very interesting event to discuss the paper of Prof. Shin. I am expected to comment the paper mainly from a policy angle. I intend to do so by focusing on the financial stability perspective for two reasons: (i) financial stability is my area of work at the ECB; (ii) financial stability is the main angle under which central banks, which do not have a supervisory responsibility, have an institutional interest in accounting standards. Another possible interest is linked to the possible implications of accounting standards on information which is collected by central banks for monetary policy decisions.

I enjoyed very much reading the paper of Prof. Shin, though it was not an easy one since it is characterized by a high level of abstraction and some degree of complexity. The paper, looking also at past production of Prof. Shin, confirms his ability to combine theoretical analysis with policy relevance. In comparison with the other papers presented in the workshop, this one is less about accounting and more about finance.

There are *three* elements of the paper that I would single out in view of developing my comments. The first is that the paper is about possible implications of marking-to-market on the financial system as a whole and not on individual financial institutions. Second, the model used in the paper relies on many factors but there are basically three key parameters, notably: (i) level and seniority of debt; (ii) structure of balance-sheet interconnections; and (iii) the value of the fundamental asset (the net value of the financial system once all claims and obligations have been netted out). Third, the key concept in the paper is that the type of accounting standards determines the volatility of the valuation of the fundamental asset and in turn the volatility in balance sheets.

I went through the paper with the main objective of extracting all possible elements concerning the basic question as to whether full fair value accounting - FFVA (in the paper all claims and obligations are marked-to-market) can affect the stability of the financial system. I did so under the assumption that the basic question can be further specified as whether and how FFVA affects on the one hand the overall risk profile of the financial system and on the other its degree of resilience.

Concerning the first issue, the possible impact on the risk profile of the financial system, the key element of the paper is that FFVA is used to transmit changes in leverage and asset prices to balance sheets. The paper also underlines that changes in leverage and asset prices can interact with balance sheets and reinforce each other (for instance, strong balance sheets induce banks to increase their lending which in turn further amplifies balance sheets). Against this backdrop, the main claim in the paper is that FFVA plays a crucial role in determining the *speed of transmission* and the *level* of changes in leverage and asset prices. Therefore, when making a comparison with a historical cost based accounting standards, FFVA would modify the overall risk profile of the financial system by amplifying the potential for financial instability. In a nutshell, FFVA has the potential to increase systemic risk.

This is an important conclusion which provides further underpinning to the camp of those who have doubts about the introduction of FFVA on the grounds of financial stability considerations. In this respect, the paper has the merit of bringing to this camp system-wide considerations, while, to the best of my knowledge, so far financial stability analyses of FFVA have focused on the possible impact on the risk profile and behaviour of individual financial institutions, the latter being a clear concern of supervisors.

It should be highlighted that the conclusion of the paper relies on a number of assumptions. Two of them deserve particular attention. The first is that in the paper the notion of financial system is not seen in the traditional sense of combination of and interaction between institutions, markets and infrastructure. It is rather considered in an abstract way as limited to a 'chain' in which claims in assets are used as obligations in future transactions. The second is that the paper draws its conclusions relying on one of the key parameters only, notably by looking at the effect of FFVA on the volatility of the marginal evaluation of fundamental assets. Nothing is said about the possible implications of FFVA when taking into consideration the other two key parameters, notably the features of debts and the structure of balance sheet interconnections. It is not clear whether, by extending the analysis to the other two parameters, the overall effect of FFVA would go in the direction of amplifying or, by contrast, of adjustments to maintain the overall level of risk in the financial system.

Coming to the second aspect, notably the possible impact of FFVA on the degree of resilience of the financial sector and bearing in mind the main elements of the model, the key factor is the linkage between accounting measurement and correlation of assets. This would tend to suggest that, ceteris paribus, the adoption of FFVA would entail higher volatility of values which in turn would result in higher correlations of assets. The final result would be a *lower diversification of risks* that would affect negatively the overall resilience of the financial system. The model however also implies a strong counterargument in this respect. Changes in values (and not in their volatility) are likely to be less severe in case they can adjust freely. Said in other words, severe adjustments to shocks under

unsustainable historical evaluations would not be present under FFVA and therefore, from this point of view, the financial system would turn out to be more resilient. Therefore, the conclusion with regard to the second question is less straightforward than the first case mentioned above.

Overall the paper is certainly very relevant in the context on the debate on the possible financial stability implications of FFVA by bringing new and powerful arguments about the potential for financial instability inherent in the FFVA model. The key policy issue surrounding this conclusion is, in case a FFVA model is eventually adopted, what appropriate public action could be undertaken to reduce its undesired financial instability effects. This boils down to the question of whether accounting standards setters or the authorities responsible for financial stability should take care of the issue.

A last point relates to the potential use of the model of Prof. Shin to explain specific sectors of the financial system characterized by high complexity and innovation. In particular, the model could apply, among other things, to an area which is currently under discussion in all forums dealing with financial stability. This is the area of the interplay between hedge funds and structured finance. The public concern in this field relates to the fact that hedge funds have recently expanded rapidly in more risky segments of structured finance products. These include credit default swaps indices and collateralized debt obligations index tranches. The expansion of hedge funds in these sectors is due to the arbitrage opportunities still existing in these markets and the increased liquidity that is caused by increasing standardization of the CDO market.

In principle, this expansion could lead to developments which would be described and explained well by the approach suggested by Prof. Shin. Just as an example, one could mention the following sequence of events: (i) pooling of leverage in CDO tranches; (ii) hedge funds adding to leverage by buying risky CDO tranches; (iii) further increase of leverage with the involvement of funds of funds; but (iv) the underlying claims would remain the same. The overall result would be a potential for financial instability.

In reality, the financial system has demonstrated so far a high degree of resilience as shown by the limited effects triggered by the recent downgrade of Ford and General Motors. There are two main factors which are mentioned as explaining such degree of resilience. The first is that the overall level of leverage in the financial system maybe be not so high. The common sense is indeed that the current leverage level is lower than the one prevailing before the LTCM case. The second is the undeniable progress in risk management of financial institutions which occurred in the recent past.

This latter aspect leads to the question of how risk management could be included in the analysis of Prof. Shin.