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Referee Report on PhD. Thesis by Zuzana Fungáčová

“Privatization and Stock Market Creation: Evidence from Transition Economies”

The dissertation addresses important issue of privatization, with a special focus on mass privatization in the Czech Republic and Slovakia, and financial market developments. This topic is clearly important as there is a strong relationship between the financial sector and economic growth in general. Therefore, privatization and financial sector have received a lot of attention by policy makers during the economic reforms in Eastern Europe. Despite the strong focus of transition economics on privatization, we can see that the reforms were not fully successful. Especially the mass (voucher) privatization is often criticized because it failed to create efficient ownership relationships. Moreover, financial sector developments are hampered by plenty of unclear shares with weak liquidity and performance, which repels small and foreign investors from capital market in Eastern Europe.

These topics are analyzed consistently in the PhD. thesis presented by Zuzana Fungáčová. The dissertation consists of three papers. The first paper looks at the privatization and the performance of financial markets in all Eastern European transition economies. At the same time, it provides a critique of the mass privatization, which despite of early expectations lasted later development of stock exchanges in the region. The analysis is continued in the next two papers, which look at the delisting of non-traded shares from stock exchanges in the Czech Republic (chapter 2) and in Slovakia (chapter 3). The dissertation is introduced by a short introduction, which includes also some common conclusions of the volume.

The first paper of the PhD. thesis is titled "Building a castle on sand: The effects of mass privatization on stock market creation in transition economies." The paper starts with a long literature review which proves the good knowledge of the literature by the author. The discussion presented in this chapter could be extended by growth accounting papers (see e.g. literature survey in Campos and Coricelli, 2002, and Wagner and Hlouskova, 2005).[1] However, the survey should be more focused. The presentation of the literature makes the impression of a balanced review which presents both the positive and negative arguments for the link between mass privatization and financial sector developments. Hence, it is slightly surprising for the reader when Section 1.6 states that the starting hypothesis is no relationship between stock market developments and privatization, albeit this orientation of the paper is indicated already in the title of the chapter. The hypothesis should be more carefully derived from the literature survey

The starting hypothesis is tested for 27 Eastern European countries between 1990 and 2003. The tests are based on panel regressions where selected stock market indicators are the dependent variable and two privatization-related variables (mass privatization dummy and a trend starting after the mass privatization) are on the left-hand side. The most important drawback of this approach is that it does not include any standard determinants of stock market developments (e.g. GDP growth, inflation, stock market development in world financial markets), or cross-sectional time effects. Thus the found statistically significant relationships could be possibly caused by other factors. The linear trend is maybe also too strong assumption, as the privatization should not cause a permanent positive or negative trend. Logarithmic trend (that is, log(trend)) or even parabolic trend (1/trend) would provide alternative specification possibilities. Nevertheless, the paper provides pretty strong evidence that the mass privatization was associated with largely negative stock market developments in the new member states.

The conclusions of chapter 1 imply that the mass privatization has created unsuitable environment for stock markets. The next two papers continue on this topic with the discussion of

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[1] Wagner, M, Hlouskova, J. (2005). 'CEEC growth projections: Certainly necessary and necessarily uncertain,' *Economics of Transition* 13(2), 341-372, 04.
Campos N.F., Coricelli, F. (2002). 'Growth in Transition: What We Know, What We Don't, and What We Should,' Journal of Economic Literature, 40(3), 793-836.

delisting of non-performing shares from stock exchanges. In my view, this is the most important part of the thesis. The topic is very novel and it was not analyzed in the literature so far.

Chapter 2 is titled 'Can market fix a wrong administrative decision? Massive delisting on the Prague stock exchange.' However, the chapter shows that it was mainly the decision of the Czech authorities to delist a high number of shares from the Prague stock exchange. So it is a question whether the title should include 'market' when delisting was done actually by the Czech institutions (see e.g. Table 2.2). The alternative title could be e.g. 'Can a wrong administrative decision be fixed again? Massive delisting on the Prague stock exchange.'

The core part of this empirical paper presents linear probability models for delisting with Heckman's selection bias treatment, logit estimations without selection bias treatment are partially presented in chapter 3. The explanatory variables include selected pre-privatization, privatization and post-privatization factors. The data structure corresponds to a panel with a cross-sectional and time dimension. However, the data set is reduced to a cross section for the estimations, and time dimension is not used at all, which is the major drawback of this approach. One possibility would be to estimate panel models. This would allow inclusion also some standard factors for delisting (e.g. GDP growth, decline of share prices). Was the massive delisting caused partially also by the currency crisis in the Czech Republic in 1997? Another possibility would be to include also time effects to the cross-sectional estimation. One would expect that pre-privatization and post-privatization factor will loose the importance continuously. It could be seen for example on time specific coefficients.

Table 2.2 shows that the delisting was caused by several reasons. It is hard to believe that for example bankruptcies depend also strongly on privatization factors (see Fidrmuc and Hainz, 2009).[2] More sensitivity analysis would be interesting here.

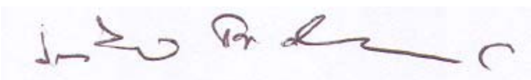
The last chapter, chapter 3 titled 'Delisting in the Slovak and Czech Republic: Gradual versus big bang approach', continues the previous chapter. It uses the similar institutional framework (1. wave of voucher privatization) and different national policies after 1993. In particular, the Czech institutions tried to delist inactive shares from the Prague Stock Exchange while the Slovak

[2] Fidrmuc, J. and C. Hainz (2009), Default Rates in the Loan Market for SMEs: Evidence from Slovakia, Mimeo.

institutions tried to improve the old system in direct contact with listed companies. The national variation of the policies make the discussion of the previous paper much more interesting. In some way, the question from the previous chapter whether the market can fix a wrong decision is (negatively?) answered in this chapter. My comments from the previous chapter are clearly related also to this paper. In addition, the paper could use the national variation between the countries, which is not done sufficiently in the current version. The estimations could use also the difference-in-difference approach. The estimation in common data sample with both countries (e.g. Table 3.4) should test whether the coefficients for both republics are equal. It means that the estimation should include also data (multiplicative term with the Slovak dummy) for e.g. Slovak privatization (not only the Slovak dummy) in addition to common explanatory variables.

While the motivation of the chapter 3 is very clear, the conclusions are rather weak. It seems that the factors of delisting were surprisingly similar between the countries. The paper does not answer the question whether the massive delisting in the Czech Republic was better for the development of stock markets than the wait-and-see policy in the Slovak Republic. It would be simple to estimate a short model where stock market indicators are regressed on some standard explanatory variables (growth and inflation) and lagged delisting. If there is a sufficient number of observations (e.g. quarterly data) for a small VAR model, one could test the Granger causality test whether stock markets developments are influenced by the delisting.

The dissertation of Zuzana Fungáčová presents an interesting collection of papers on financial markets in CEECs. The selected topics are analyzed by appropriate empirical approaches including probability models with selection bias. The author devotes also sufficient space to comparison with economic developments in Eastern European countries, although the focus especially in the last two chapters is clearly put on the Czech Republic and Slovakia. In sum, the dissertation of Zuzana Fungáčová presents a suitable thesis which fulfills clearly all requirements for an independent dissertation.



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