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Compensation vouchers and equity markets: Evidence from Hungary

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Abstract

One of Hungary's policies during the transition from a centrally planned to a market economy was the issue of compensation vouchers – a unique security designed both as a privatization mechanism and as a form of restitution for Hungarian citizens who suffered property losses in post-war nationalizations. The coupons were actively traded on the Budapest Stock Exchange (BSE). This paper examines the intertemporal behavior of the Hungarian voucher and equity markets in an effort to assess the efficiency of these markets and to gauge the degree of interaction between the two different assets. Evidence from variance ratio tests indicates that stock and voucher trading are each individually weakly efficient. Furthermore, vector autoregressions and cointegration methods show that there is little detectable intermarket interaction: a result which is consistent with joint efficiency. Thus, although the Hungarian equity market is small, it appears to function remarkably well.

JEL classification: G14; L33; O16

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1. Introduction

Among the many reforms implemented in transitional economies, the slowest changes have occurred in the area of financial market development. The banking sectors in most of these countries are still dominated by state-owned institutions while equity and bond markets typically remain small and illiquid. On the other hand, dramatic progress has been made in the privatization of state-owned enterprises and property, frequently through programs that included some form of freely distributed vouchers which were designed to facilitate the transfer of state assets to private ownership. In some countries such as Hungary and Russia, these vouchers were legally tradable in official security markets. The novelty of these markets raises the obvious question of whether voucher trading was efficient and whether such trading had an impact on nascent equity markets. The contribution of this paper is to shed light on these issues using data from the Budapest Stock Exchange (BSE).

An analysis of the Hungarian voucher market is important for the design and formulation of policies in transitional economies that may be contemplating voucher privatization programs. For instance a fundamental question that has faced all of the economies using vouchers as part of a privatization scheme is the problem of coupon tradability. In particular, one would like to know whether unfettered voucher trade has occurred efficiently or whether informational asymmetries are so widespread in these countries that trading is perverse. Moreover, it is clear that the development of equity markets has been affected by choices regarding privatization methods (Blommestein, 1998; Nivet, 1997). Therefore, it is useful to use the Hungarian experience to examine potential interactions between voucher and equity trading.

The fundamental question is: What are vouchers? On one hand, one could argue that they represent a (risky) claim to productive assets in the future. Viewed in this way vouchers might be considered as a type of equity or government bond. [1] For example, after its aborted "second wave" voucher privatization attempt in 1995, the Slovak government explicitly converted outstanding vouchers to five-year bonds guaranteed by the Slovakian National Property Fund (NPF) (see EBRD, 1996). Since these bonds can be sold or used to buy shares of companies held by the NPF, they are functionally equivalent to tradable vouchers. On the other hand, it is possible that the public might perceive vouchers to be entirely divorced from fundamentals other than the

[1] There is a superficial similarity between vouchers and convertible bonds since vouchers can be converted into equity. However, there are some important distinctions. In the case of a standard convertible bond, the conversion option is held by the bondholder while in the case of a privatization voucher, the government has a significant amount of control over the timing of the conversion. Furthermore, the actual conversion rate is known for a convertible bond whereas the voucher-to-share exchange rate is primarily determined by the privatization auction price.