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Capital Trading, Stock Trading, and the Inflation Tax on Equity[1]

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A market for used capital goods, or financial instruments that represent the ownership of the used capital goods, induces inflation taxes on wealth and on the nominal income flows that they provide. This paper explicitly introduces trading in either used capital goods or financial instruments into the standard stochastic growth model with money and production. These two monetary economies are equivalent. The value of the firm is equal to the firm's capital stock divided

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by inflation. The resulting asset-pricing conditions indicate that the effect of inflation on asset returns differs from the effects found in the literature by the addition of a significant wealth tax. *Journal of Economic Literature* Classification Numbers: E0, E4, E5.

Key Words: inflation tax; asset returns; used capital; stock market.

1. INTRODUCTION

It is well known that whenever a transaction is subject to a cash-in-advance constraint, the government can capture part of the real value of the goods or services being exchanged by imposing an inflation tax. Inflation taxes create real distortions that establish a link between monetary policy and real economic activity. The inflation taxes modeled in this way include taxes on consumption and on dividend (capital rental) payments. Up to now, the inflation taxes introduced into models have had only limited success in matching the impact of monetary policy on real activity that is present in the data.

Part of the reason for the poor performance of cash-in-advance models is that they have overlooked a significant source of transactions associated with the trade in used capital. A right associated with ownership of an asset is the right to sell it at a market price. In early monetary models, however, individuals were not given this right, because a capital goods market was not present. Once a market for the asset is established, owners can exercise their rights to exchange assets at a market price, creating the possibility of an inflation tax on this wealth. Since the total value of capital goods used by business is quite large, it is likely that the inflation tax on capital trading has a significant effect on aggregate economic activity.

Of course, most capital trading is accomplished through the exchange of equity shares. The stock market can also be thought of as a cash-in-advance market for trading existing capital goods. In this market, certificates representing ownership claims on particular sets of capital goods are exchanged among households for cash payments. Therefore, an economy with a stock market should be subject to an inflation tax on traded capital identical to the one described earlier, with the accompanying effects on real quantities. Well-specified stock markets, however, have likewise been omitted from previous monetary growth models.

In this paper, we introduce a cash-in-advance market for existing capital to a standard growth model with money. Giving the households the right to trade existing capital complicates their wealth allocation decision and introduces richer dynamics than are present in earlier cash-in-advance models. An inflation tax on existing capital goods affects both the household's demand for existing capital and its investment in new capital goods. We show in simulations that these effects are significant.