

**Comment on Desai and Hines:
"Excess Capital Flows and
the Burden of Inflation in Open Economies"**

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The paper by Mihir Desai and Jim Hines is a welcome contribution to knowledge at the intersection of international finance and tax analysis, an under-studied area that we international economists have largely left to the public finance people by default. One might suppose that the major lessons here have to do with international differences in tax rates. But as I read this literature, the public finance economists have concluded, correctly, that interaction of the tax parameters with international differences in inflation rates and interest rates can dwarf the effects of the simple tax differences. The Desai-Hines paper concludes that inflation in open economies reallocates capital internationally, with large adverse implications for efficiency. The result that inflation might be more harmful in an open economy than a closed economy would be an example of the "theory of the second best:" eliminating one distortion (capital controls) is not necessarily good, if there exist other distortions (taxes and inflation). The surprising aspect of the model is that capital can flow into the inflating country.

The approach follows Hartman (1979), an open-economy version of the analysis of the effect of inflation on nominal interest rates. The Feldstein-Darby (closed-economy) answer to that question was the nominal interest rate rises more than the increase in the inflation rate, a non-neutrality. The reason is that savers demand no less: otherwise they would suffer a loss in the after-tax real rate of return. But what does it mean that savers demand no loss? What would they substitute into, if the after-tax real rate of return were to fall? In closed economies, the answer is that they would save less or else shift into real assets. But these are not perfect substitutes. For example, in the 1970s, the after-tax real return was in fact negative. Savers were simply not able to protect themselves.

In an open economy, there is another, potentially more complete, escape: savers can take their money abroad. Does this then give us the Feldstein-Darby result (the "modified" or tax-adjusted" Fisher effect)? Not necessarily. Savers are also taxed on their foreign earnings, and the foreign inflation rate is not directly relevant to the domestic resident's purchasing power. The effect, rather, comes indirectly, via the foreign interest rate and exchange rate. In Hartman's open-economy model, the Feldstein-Darby effect

apparently vanishes because world capital markets apparently tie down the real interest rate. We are back to neutrality (the "traditional" Fisher effect).

Desai and Hines advance the analysis substantially, by working out the inflation interactions of three kinds of non-neutralities: capital gains on exchange rate changes, the tax-deductibility of nominal interest payments, and nominal depreciation allowances. This analysis is more complete than the earlier approaches.

I would like to raise a question about the fundamental framework, in which real interest rates would be equalized in the absence of tax factors.

We know that real interest rates are not in fact equalized internationally. (Mishkin, 1984, is one among many references cited in Frankel, 1991.) U.S. real interest rates were above Japanese real rates in the 1980s, for example, and the same is probably again true now. Consider two possible explanations: imperfect capital mobility, defined as an observed discrepancy between the nominal interest differential and the expected rate of depreciation of the domestic currency, and a failure of purchasing power parity (PPP), defined as a discrepancy between the expected rate of depreciation of the domestic currency and the expected inflation differential.

Desai and Hines consider the imperfect mobility case in Section 5, so let us begin there. They cite evidence of home bias in equity holdings, though I would rather cite the Feldstein-Horioka evidence on correlations between national saving and investment, and other evidence on the failure to equalize rates of returns. They have the Feldstein-Darby effect re-emerging, presumably because savers can take money their abroad. The nominal interest rate rises by more than the inflation rate, with the difference denoted by μ . But μ is simply assumed; I would rather it be derived. This could be done by modeling the international flow of capital (or the stock of foreign holdings, in a portfolio-balance model) as a function of the differential in expected returns. One must be careful to recognize that the decision of a resident what assets to hold depends on how he or she is taxed on domestic versus foreign assets (not on the tax rate paid by domestic residents versus foreign residents). This means that under certain circumstances, tax rates can drop out, as can inflation rates. Desai and Hines do it right for the case of perfect capital mobility. But the analysis is not shown for the case of imperfect capital mobility, so one cannot judge.

The authors do not consider the implications of the possible failure of PPP. Not surprising for public finance economists, but I as a macroeconomist tend to think in such terms. Some examples can illustrate why I think this macroeconomic dimension could be important. Consider a monetary expansion. The idea behind the Desai-Hines approach is that the inflation rate rises, leading to a large increase in the nominal interest rate and a capital inflow. But in monetary expansions I can recall (Japan in the late 1980s), interest rates fell, and capital flowed out, not in. In monetary contractions I can recall (the United Kingdom in 1979, the U.S. in 1980-82, Germany in 1991), interest rates rose, and capital flowed in, not out.

The interaction of the tax and macroeconomic effects could be modeled. Equation (1) is still right; but the expected rate of change of the exchange rate could be specified in either of two ways. It could be given by the change in the relative price of traded goods versus non-traded, as in the long-term post-war

trend in the yen brought about by rapid Japanese productivity growth. Alternatively, the exchange rate could be expected to move in the direction of a long-term real equilibrium from which it has temporarily overshot, as in the Dornbusch overshooting model. The outcome would likely be that monetary expansion is associated with a low real interest rate, real depreciation of the currency, and net capital outflow, rather than a high real interest rate and net capital inflow.

The ready defense of the Desai-Hines model (and the other internationalized work of public finance economists) is that they are talking about the long run, and that deviations from PPP disappear in the long run. It should be noted, however, that the short run can last longer than one thinks. The period over which a country's real interest rates can be high or low for pure monetary reasons can easily be as long as the period over which its tax parameters remain at a particular setting.

I agree with the paper's bottom line, that inflation can have bigger effects in an open economy than a close one. But I am inclined to think it is because savers can take their money out of the country, rather than in.

References

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