

# **Disconnect and Information Content of International Capital Flows: Evidence and Theory**

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## **Summary**

It is well known that asset prices are not closely connected to observed fundamentals. A natural explanation for this asset price disconnect puzzle is that traders make decisions to a large extent based on private information. This explanation is consistent with the wide dispersion in asset price forecasts across investors as well as the close connection between asset prices and order flow. It is also consistent with the predictability of future fundamentals by current asset prices after conditioning on current publicly observed fundamentals. Previous research has shown that models with dispersed information can account both for the disconnect of asset prices from current fundamentals and the information content of asset prices.

In this paper we show that these same features also apply to international capital flows, both for gross flows (capital outflows plus inflows) and net flows (capital outflows minus inflows). Based on data for 6 industrialized countries we show that, just like asset prices, capital flows are largely disconnected from observed macro variables such as GDP growth, inflation, interest rates and budget deficits. We also show that capital flows (particularly gross flows) contain information about future macro fundamentals. In particular, capital flows have information content about future aggregate profit rates.

We show that these stylized facts can be explained by introducing information dispersion into recently developed open economy dynamic general equilibrium models encompassing portfolio choice. The theory integrates key elements of two distinct literatures. The first is the market microstructure literature in finance. We adopt the two key features of noisy rational expectations (NRE) models from the market microstructure literature. First, agents have private information about future fundamentals. Second, there is “noise” in the form of unobserved portfolio shifts, which prevent asset prices from fully revealing the private information. The second is the dynamic stochastic general equilibrium (DSGE) macro literature. It is important to analyze capital flows in a general equilibrium framework. Portfolio shifts across countries affect relative asset prices, which affect expected returns, which in turn feed back to portfolio flows. In our model capital flows, expected returns, as well as the risk associated with asset returns, are all determined jointly within the context of a general equilibrium framework.

Capital flows in the model are driven by the same factors that drive portfolio allocation: changes in wealth, expected returns and risk. We show how through a variety of channels these factors are affected by two unobserved state variables: one related to private information about future fundamentals and one related to unobserved portfolio shifts (the “noise”). Both of these unobservables are critical as it is their interaction that drives the results. Either element alone is not sufficient. These unobserved fundamentals lead to a disconnect of capital flows from publicly observed macro fundamentals. Moreover, capital flows help forecast future fundamentals, even after controlling for their current values. This reflects the role of private information about future fundamentals. We show that the predictive content of capital flows is particularly strong for gross capital flows, which is consistent with the data. Moreover, we find that gross capital flows negatively predict future global assets payoffs, also consistent with the data.