

Gradual Portfolio Adjustment: Implications for Global Equity Portfolios and Returns

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Summary

Even though there is a growing body of evidence consistent with gradual portfolio adjustment, modern open economy macro models assume the exact opposite: the continuous adjustment of international portfolio allocation by all investors. This implies extreme sensitivity of portfolios to short run expected returns. As a result, in equilibrium expected excess returns are very small. These models also imply that financial shocks, such as portfolio shifts associated with changes in risk, risk-aversion, liquidity trade, hedging or FX intervention, have very little effect on capital flows and asset prices. There exists a variety of evidence that this is not a good description of the world.

This paper introduces gradual portfolio adjustment to an open economy model of the equity market and confronts it with data on international portfolio shares and relative equity returns. Apart from a focus on open economy aspects, we contribute along two dimensions to the literature on gradual portfolio adjustment. First, we develop a theory of infrequent portfolio

adjustment where the timing of portfolio changes is stochastic, following a Poisson distribution instead of taking place at predictable intervals of constant length. This leads to a smoother response of endogenous variables to shocks than in models where the length of time between portfolio decisions is fixed. Portfolios become less responsive to expected returns both because at any point in time only a small fraction of agents chooses a new portfolio and because those that do choose a new portfolio have a long horizons and therefore do not respond much to expected excess returns in the near future. The second important difference relative to the broader literature on gradual portfolio adjustment is that we use both asset price data and portfolio data to evaluate the implications of the model empirically. Work to date that has focused on data features involving asset prices only. It is natural to consider evidence on portfolios since after all this is a theory of gradual portfolio adjustment.

Our findings can be summarized with two key results. Conditional on a reasonable rate of risk aversion, we find that the data is consistent with infrequent portfolio decisions, with an average frequency of at most once in 15 months. We find that the model where all agents adjust portfolios continuously, when combined with plausible rates of risk aversion, leads to an excessive response of portfolios to expected returns that generates inconsistencies with the data. At the same time we are unable to distinguish the model with infrequent portfolio decisions from one where all agents choose an optimal portfolio at all times and the rate of risk aversion is extremely large, well above what is plausible. The latter also leads to a weak portfolio response to expected returns. While these models imply different dynamics with different predictability of excess returns and portfolios shares, the relatively large role of unobserved financial shocks makes it hard to separate them empirically.