

Comments on:
“Missing Import Price Changes and Low Exchange Rate Pass-Through”
by Etienne Gagnon, Benjamin Mandel, and Robert J. Vigfusson

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In our paper “Lost in Transit: Product Replacement Bias and Pricing to Market” (Nakamura and Steinsson, 2012), we argue that conventional measures of long-run pass-through based on regressing changes in the U.S. import price index on lags of changes in the exchange rate are substantially downward biased due to product replacement bias. Our “corrected” measure of long-run import price pass-through is 0.64. Gagnon, Mandel and Vigfusson (2013, GMV henceforth) question this conclusion. They argue that the bias due to product replacement bias is much smaller and that long-run import price pass-through is only 0.28.

GMV’s analysis differs from ours in several ways and it is therefore somewhat involved to understand exactly what explains the difference in conclusions. To aid interested readers, here is a guide to where the main differences arise:

1. GMV’s baseline unadjusted pass-through estimate is 0.24, while ours is 0.43. This difference arises largely because they study pass-through for finished goods, while we study pass-through for all goods excluding oil. Product replacement bias results in some *fraction* of pass-through being “lost in transit.” Therefore, the smaller the unadjusted number is, the smaller the adjusted number will be (and the smaller the absolute size of the adjustment will be).
2. GMV’s adjustment factor is smaller at 1.1-1.3 compared to our adjustment factor of 1.5. This arises mainly for two reasons:
 - a. GMV consider only heterogeneity in the frequency of price change across product categories, while we consider heterogeneity both across and within product categories. As we emphasize, the magnitude of product replacement bias is highly non-linear in the frequency of price change. It becomes very large at low frequencies of price change. It is therefore very important to accurately account for the products with low frequencies of price change. We do this by allowing the frequency of price change of products within a product category to vary according to a beta distribution and estimate the parameters of this beta distribution. We emphasize that roughly 40% of products in the micro-data underlying the U.S. import price index exit the dataset before they experience a single price change. Allowing for heterogeneity in the frequency of price change within product categories is important in being able to match this feature of the data. GMV assume there is no heterogeneity in the frequency of price change within product categories, which lowers their adjustment factor compared to ours.
 - b. GMV argue that the frequency of price change observed for a product in the dataset is an accurate estimate of the frequency of price adjustment for products in the world. This is what they call “no selective exit”. We argue however that the introduction of new products adds an additional dimension of price flexibility beyond the observed frequency of price change. To support this, we provide evidence that products enter the dataset with “fresh” prices. This implies that the true frequency of price change in the world is equal to the frequency of price change observed in the dataset plus the frequency of product replacements. In other words, we present evidence showing that the observed frequency of price change is a downward biased estimate of true price flexibility. In the language of GMV, this means that there is selective exit. An important reason for this downward bias, in our view, is that for continuing products, prices are collected using a pre-filled form providing the last reported price—implying that the easiest response is “no change.” BLS internal studies suggest that “satisficing bias” – reporting no change simply because it is the easiest thing to do – is important. GMV argue based on the BLS sampling procedure that product entry and exit are unlikely to add additional price flexibility. But they do not address the issue of “satisficing bias” we emphasize.

To sum up, while we find the analysis in GMV to be interesting and useful (it certainly helps quantify the sensitivity of our conclusions to certain features of the data such as the amount of heterogeneity in the frequency of price change), we are not convinced by their arguments that product replacement bias is small.