

# **D i s s e r t a t i o n   D e f e n s e**

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## **Understanding International Price Dispersion**

Data on international relative prices show that changes in producer prices are not fully passed on to export prices. Standard trade models have so far failed to explain this observation. In the first chapter, I introduce a model of international trade with heterogeneous firms and incomplete information. I show that when firms have incomplete information on their rivals' costs and face international trade frictions, they optimally choose to price to market. The model successfully reproduces main features of international relative price fluctuations once calibrated to fit the US trade data. Moreover, it provides two testable predictions on pricing to market behavior at the firm level: 1. There is less pricing to market and higher pass-through in differentiated good prices, 2. Pass-through is higher for high productivity firms than low productivity firms.

The 1990s were a time of substantially declining international trade costs for the U.S. and its trading partners. In the second chapter, we use this time period to test the basic prediction of the trade cost model that price dispersion should decline alongside trade costs. We conduct this test by harmonizing two existing panel datasets on microeconomic trade costs and prices. We construct trade-weighted averages for price dispersion and trade costs. We show that the trade cost model's prediction is broadly consistent with the data over the period 1990-1997. Our measure of average trade costs and average price dispersion both fell substantially during this period. During 1997-2005, however, average price dispersion increased while trade costs were unchanged.

The third chapter tries to account for the increase in average price dispersion over the second half of the 1990s that is documented in the previous chapter. Here, I build on the observation that in the second half of the 1990s, total factor productivity growth accelerated in the U.S. as a result of investments in information and communication technologies, while it decelerated in Europe. This productivity difference was especially high in the retail sector. I show that a trade model that includes a retail sector calibrated to fit the productivity data can reproduce the divergence observed in international prices of tradable goods.