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Comment Phillip McCalman

International trade studies the exchange of goods and services between countries. However, for the most part, empirical research has focused on the former—goods, and neglected the latter—services. While the historical reasons for this concentration are relatively clear—goods are generally thought of as traded, while services (haircuts, physician consultation) are naturally thought of as nontraded—the pronounced shift in the structure of most economies toward services, along with technological change, has dramatically changed this notion. Consequently, in contemporary discussions of globalization, reference is not only made to the integration of goods markets but also increasingly to the integration of services markets, with service outsourcing receiving particular attention. With this change

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in emphasis naturally comes the question of whether the standard theories need to be modified, and if so, in what way? To make any progress on these questions, evidence of the capacity of existing theories to provide answers is required. This is the challenge that Gordon and Chong take up in their paper with respect to arguably one of the most important service exports of the United States, motion pictures.

The analysis of motion picture trade provides a particularly neat template for the study of trade in other services. Like most services, it is very skill intensive and has a very high ratio of fixed costs to total costs. So on the cost side, it is generally relatively straightforward to measure the cost of factors used in the production process. However, the difficulty generally comes when measuring the amount and value of service that is exchanged in any transaction. This is especially the case in relation to motion pictures, since customs officials are typically interested in the value of the physical property that is either leaving or entering a country. If a canister of film is shipped from the United States to Europe, what is the value recorded by U.S. customs service? If the question is answered exclusively in terms of the replacement cost of the film in the canister, then this is of the order of a couple of thousand dollars. However, if the answer is based on the estimated revenue from the services that film generates in European cinemas, then the answer could well be millions of dollars. The key point is that the value of the physical asset that crosses the border is typically not a true reflection of the value of the service. This point is neatly illustrated by the difference between the European box office for foreign films and the official trade data, with the former approximately fifty times larger than the latter. The message here is clear—if we are to use official statistics to track the most dynamic sector of the economy, then the way in which these statistics are collected needs to be fundamentally reformed.

To overcome this handicap, Gordon and Chong turn to commercial sources to get an understanding of how well standard theories predict the pattern of trade in motion picture services. The key measurement issue they focus on is the relative performance of American movies in foreign markets. While aspects of this data are publicly available, since box office revenues are published, it is the compilation of this data for a large number of countries that is harder to come by. Somewhat surprisingly, this straightforward data collection exercise turns out to be extremely expensive to purchase, creating a major and essentially unnecessary barrier to research in this area. Having paid this cost, Hanson and Xiang ask a relatively standard goods trade style question; does domestic market size influence the scale of local production? In models of product differentiation and transport costs the answer to this question is yes—a larger local market is associated with a disproportionately larger share of varieties produced in the larger market. This result is known as the *home market effect*.

Since movies are differentiated products, the parallel to the analysis with

goods trade is relatively clear. However, the transport costs associated with shipping a movie from the United States to Europe at first seem trivial. Can a very small trade friction be responsible for Hollywood? Clearly not. To complete the analogy to trade in goods they employ the neat trick of thinking of things in terms of cultural distance rather than physical distance. Under this notion of distance the question is how much of a film's message/concept can be translated into another culture? This concept is clearly multidimensional, but to make it operational in an econometric sense they focus on measures of linguistic distance—how similar a language is to English. Here the idea is that languages that are more similar to English also reflect cultures that are also relatively similar. With this measure in hand, the notion of trade friction is well defined. To provide a point of contrast, the empirical analysis also includes physical distance along with more standard measures of barriers to market access, such as quotas.

The empirical analysis concentrates on U.S. penetration into nineteen European markets over the period 1992 through 2002. The dependent variable is the log of the box office for U.S. films relative to the log of a country's box office. In general, they find that relative size does matter, with the U.S. box office share being large in smaller markets. This result is consistent with the home market effect and the associated advantages of size. However, the home market effect depends critically on trade frictions, and this is the more innovative aspect of the paper. Here the standard measures of physical distance or trade barriers tended not to have a robust relationship, but the measures of cultural distance perform much better. While not confirming the theory, the results are certainly consistent with its main predictions. This suggests that standard models do have a role to play in analyzing the rapidly growing services trade. Nevertheless, it would be nice to get a sense of the relative size of the home market effect and whether it is more or less pronounced than in goods trade. While data limitations are a barrier to such analysis, it would provide a natural measure of how similar the determinants of services trade are to those of goods trade.