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Comment C. Fritz Foley

Understanding the functioning of the U.S. and global economy increasingly requires understanding how intellectual property (IP) is developed and deployed. Industries that intensively use intangible assets make up a large and growing share of U.S. industrial activity. These types of assets also play a significant role in determining the productivity of U.S. firms and

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their international competitiveness. However, measuring the value of intellectual property and how it flows throughout the economy is fraught with difficulties. Existing studies attempt to track investments in intangible assets by studying R&D or advertising expenses, but it is difficult to determine if these expenditures are effective. Researchers have attempted to value the stock of intangibles by subtracting the value of tangible assets from the market capitalization of public firms, but these residuals could capture many sources of value. Patent citations and patterns in productivity changes provide only some traces of the path of flows of intellectual property. As a consequence, there is plenty of room for improvement in measuring the value and use of intangible assets.

This paper takes a valuable step in providing a framework for measuring payments for the supply and use of intellectual property. This framework distinguishes between four types of payments for the use of intangible assets, or “service commodities.” These are (a) licensing of rights to use IP protected as industrial property, (b) licensing of rights to use IP protected by trademarks, (c) licensing of rights to use IP protected by copyright, and (d) licensing of rights to use a business format under a franchise agreement. One advantage of the taxonomy of service commodities is that it ties to an academic literature that examines what types of intellectual property protections are used to protect intangibles in different industries. Cohen, Nelson, and Walsh (2000), and Cockburn and Henderson (2004) present results of surveys of the relative use of different types of IP protections.

With this categorization in hand, Robbins exploits existing data sources to estimate the value of payments for these different service commodities, by industry, for the United States. Developing estimates illustrates how data collected by distinct parts of the U.S. Department of Commerce can be combined to provide a new look at important issues. First, the results of the 2002 Annual Survey of Royalties, License Fees, and Other Receipts and Payments for Intangible Rights between the U.S. and Unaffiliated Foreign Persons provides a breakout of payments from unaffiliated persons to U.S. firms for each type of service commodity. This breakout is valuable because the most extensive source of data on payments for the use of intangible assets by U.S. firms is the Internal Revenue Service’s Statistics of Income, and these data only capture aggregate payments. The distribution of payments provides a way of splitting aggregate payments into distinct service commodities by industry. These figures are augmented with data captured in the 2002 Economic Census covering franchise licensing fees and licensing fees collected for a few other segments of the economy.

Table 4.9 of the paper displays the author’s estimates of the value of payments for intangibles, classified by type of service commodity and industry. A few patterns emerge from these estimates. About half of licensing fees are licensing fees for intangibles that are protected as industrial property. Receipts of licensing fees are largest in the manufacturing sector.

While IP protected as industrial property receives the largest share of receipts in manufacturing, IP protected by trademarks earns substantial receipts in the distributive services and information industries, and franchise fees are a source of significant receipts in the distributive services and finance and insurance industries.

Two limitations of this paper are worth noting. First, as duly noted by the author, it may not be appropriate to use the distribution of international licensing payments made by unaffiliated foreign persons to U.S. persons to determine the distribution of domestic licensing payments. Antràs, Desai, and Foley (forthcoming) show that flows of intangible assets to unaffiliated foreign persons are determined by many characteristics of the foreign country, including the development of the foreign country's capital markets. As a consequence, patterns in the international payments for intangibles may not reflect patterns in domestic payments.

Second, the measures developed in the paper are best suited to capture the licensing of intangible assets between firms, but this is only one aspect of intellectual property that one would like to measure. More generally, one would like to have estimates for the value of intangible assets held by firms, the value of flows within different parts of the firm, the value of flows between firms, and the value of flows between industries.

The data sources described in the paper do not capture the development and deployment of intellectual property that takes place within firms. The IRS data do not include measurements of the value of IP employed within firms, and the Census data would only capture the use of IP employed within firms if it triggered payments between establishments of the same firm. Table 4.1 of the paper provides some indication of the relative importance of IP that is deployed within firms. International licensing payments made by affiliated foreign persons to U.S. persons are about three times as large as those payments made by unaffiliated foreign persons.¹

Because the estimates in the paper only capture one type of income generated by IP, they cannot be used to value intangibles in aggregate or to inform how effective investments in intangibles are. They also probably are not sufficient to measure the flow of intangibles across industries, given that cross-industry flows could occur within firms. For example, IP probably flows across industries within General Electric, but these flows are probably not completely captured by the data sources the paper uses.

In conclusion, this paper makes a valuable contribution to our understanding of the extent and nature of licensing of intellectual property across firms in the U.S. economy. It develops a framework for classifying types of licensing payments that is clearly defined and relates to academic work. It makes extensive use of existing data sources to develop estimates that provide a new look at the receipts of licensing payments by U.S. firms.

1. Branstetter, Fisman, and Foley (2006) analyze affiliated royalty payments in detail.

These estimates confirm that receipts of licensing fees are most pronounced in the manufacturing sector, and that these receipts mostly relate to intellectual property that is protected by patents and trade secrets.

Future work that aims at improving estimates of the value of intellectual property and the value of flows of intellectual property other than flows between firms must address a number of significant challenges. In many situations, intangible assets do not trade in an efficient marketplace, making them very hard to value. In addition, even if these types of assets could be valued, it would be difficult to collect data on their value. Identifying which person within a firm would be best positioned to respond to a survey on the value of IP by service commodity and industry would be hard. Intangible assets and intellectual property clearly play an essential and increasing role in the U.S. economy, but much more work is required to obtain precise measurements of how much value they have and how they flow throughout the economy.

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