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Tax

Multinationals Derive Huge Benefits From Shifting R&D Abroad

Savings from moving R&D to take advantage of lower wages drives foreign profits about as much as lower tax rates.

When the [Tax Cut and Jobs Act](#) (TCJA) was signed into law by President Trump in December 2017, its steep reduction of the U.S. corporate tax rate from 35% to 21% addressed what was widely considered the principal factor in companies' shifting investments and profits abroad — namely, the disparity between the U.S. tax rate and the much lower rates prevailing in some other countries. In a range of public forums, American multinationals had earlier been strongly upbraided for accounting maneuvers that shifted to low-tax foreign venues income derived from research and development ([R&D](#)) at home.

New research in a leading accounting journal calls into question just how effective the TCJA tax cut may turn out to be in stemming the outflow.

A study in the current issue of [The Accounting Review](#) finds that even before the law's enactment foreign profits of U.S.-based multinationals were not boosted significantly more by tax maneuvers than by wage savings from R&D that was conducted abroad. Put simply: Savings on moving R&D abroad drives foreign profits about as much as lower tax rates.

In the words of the paper, by Lisa De Simone of Stanford University, Jing Huang of Virginia Polytechnic Institute and State University, and Linda Krull of the University of Oregon: “Most income-shifting studies in accounting and economics focus on tax incentives. In contrast, we distinguish between two motivations for increasing foreign profitability attributable to R&D activities.” And in doing so, “we find that tax-motivated income-shifting [pre-TCJA] has a larger, but not significantly different, positive effect on foreign profit margins [in comparison with] wage-related income shifting.”

The professors explain their particular interest in R&D in observing that it “creates new knowledge that spurs economic productivity and growth that are important to both the country’s and the firm’s long-term success.”

Moreover, “due to the labor-intensive nature of R&D, wage-related income-shifting incentives can be substantial. ... Although the U.S. leads the world in technological advancement, the U.S. R&D labor supply in science and technology declined in recent years as demand rose. The widening gap between supply and demand increases the cost of domestic R&D labor. As firms aim to reduce costs while maintaining innovation, low-wage countries attract foreign R&D investments by offering highly skilled workers, especially in science and technology.”

The study’s tabular summary of comparative R&D wages in 49 countries amplifies the potential risk from this development. It reveals wide gaps between domestic and foreign R&D labor costs (as estimated from the average wage of electrical engineers in major metropolitan areas of countries) — for example, savings of as much as 91% in India, 80% in the Czech Republic, and 43% in Spain, Italy, and Israel.

Since a whole variety of factors (such as countries’ different levels of economic growth or of research activity or of intellectual property rights protection) can enter into corporate decisions to shift R&D activities abroad, the authors demur from concluding that desire for wage savings will either accelerate R&D shifting or have a predominant role in driving it. But, given their findings of the importance of R&D wage savings, the research inevitably introduces doubt about the effectiveness of TCJA’s much-ballyhooed tax reduction in stemming R&D outflow abroad.

Furthering this doubt is the skepticism the professors express about the effect of two key provisions of TCJA that seek to constrain investment outflow motivated by the territorial tax system enacted by the law.

Where formerly multinationals paid U.S. taxes on income earned by foreign subsidiaries when the parent company brought those profits home, a territorial system ends that taxation in principle, a change that, the study notes, “increases tax incentives for outbound income shifting, potentially offsetting the impact of lower domestic rates.”

To counter this temptation, TCJA contains two key measures, the Global Intangible Low-Taxed Income provision ([GILTI](#)) and the Foreign Derived Intangible Income provision (FDII), which jointly govern U.S. taxation on profits that foreign subsidiaries earn on intangibles like patents, trademarks, or other kinds of intellectual property, assets that are particularly amenable to income shifting. The problem, the professors say, is that GILTI and FDII are calculated in such a way as to enable corporate managers to simultaneously lower the tax imposed by the former and increase the deduction permitted by the latter through a strategy Congress seems not to have anticipated — reducing tangible investments in R&D at home while increasing them abroad.

The new study's findings are based on data involving 648 US-based multinational corporations that registered patents with the U.S. Patent and Trademark Office during two decades preceding the enactment of the TCJA. Whether R&D was conducted at home or abroad is determined by the location of the inventors that the companies listed on patents. The heart of the research consists in analyzing the relationship among these key variables: 1) companies' profit margins abroad; 2) those margins at home; 3) intensity of company domestic and foreign R&D (number of inventors in each category compared to amount of worldwide sales); 4) wage savings through foreign R&D (the difference between wages of US electrical engineers and those in inventor countries); and 5) the difference between US corporate tax rate and rates in inventor countries.

As indicated, the professors find that "tax-motivated income-shifting has a larger but not significantly different positive effect on foreign profit margins [compared with] wage-related income shifting," the former being estimated to increase those margins by 0.48% and the latter by 0.34%. Wage savings tend to be more important in cases where technologies require comparatively little capital investment and for subsidiaries located in countries relatively abundant in research talent; tax incentives tend to predominate when the risk of transfer pricing is low — that is, when regulators are not likely to question the price a foreign subsidiary pays to a multinational for a technology the parent transfers to it.

The study, "R&D and the Rising Foreign Profitability of U.S. Multinational Corporations," is in the May/June issue of *The Accounting Review*, a peer-reviewed journal published six times yearly by the American Accounting Association.