Effects of International Taxation on Firm Valuation: Evidence from Japan's 2009 Tax Reform

Sebastien Bradley and Estelle Dauchy, Drexel University and New Economic School
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This brief highlights the results of a study of Japan's 2009 adoption of a territorial tax regime exempting corporations' foreign earnings from domestic taxation. We examine stock market reactions to events leading to the adoption of a dividend exemption system. We use an event study methodology leveraging firm characteristics and accounting for confounding effects from recent financial market developments. We find that relative to other Japanese multinationals, firms facing lower effective tax rates on their foreign operations benefit disproportionately from the reform. Surprisingly, firms with less foreign exposure and fewer opportunities for tax avoidance experience relatively larger abnormal returns overall. We attribute these gains to a combination of enhanced opportunities for international expansion among smaller domestic firms, direct tax savings on undistributed foreign earnings, and general cultural biases against tax planning.

As firms' operations have expanded their global reach, corporate taxation has become inextricably tied to the taxation of multinational firms' (MNCs') foreign earnings. Correspondingly, international tax issues including tax avoidance, tax competition, and multinational competitiveness have dominated discussions on corporate tax reform. Much of the debate focuses on the choice over worldwide (residence-based) versus territorial (source-based) taxation. This brief summarizes a study by Bradley, Dauchy, and Hasegawa (2014) in which we aim to capture the full range of possible effects of Japan's 2009 adoption of a 95 percent foreign dividend exemption system on firm after-tax profitability by examining stock market reactions around key events leading to the reform. More specifically, our study looks into abnormal stock returns (ARs) defined as extra-normal firms' returns below or beyond what the market would have predicted, absent the event. ARs surrounding key event dates leading to the reform are used to quantify current and future tax savings on repatriated earnings as well as benefits flowing from firms' enhanced ability to compete in foreign markets.

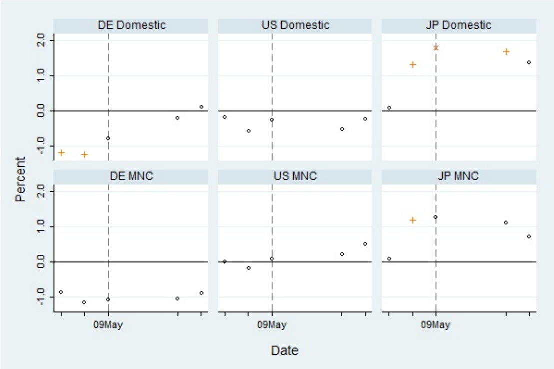
Japan's 2009 Tax Reform

From 2003 to 2009, 10 OECD countries switched from worldwide to territorial tax regimes; the latest and most consequential among these being Japan and the United Kingdom. Motivated by a desire to encourage domestic reinvestment of accumulated foreign earnings, and to enhance Japanese firm competitiveness in foreign markets through reduced tax and compliance costs, the Japanese dividend exemption system arose from a short succession of tax policy discussions. Given the tightly structured nature of Japan's annual tax reform process, the most informative and authoritative events in the sequence that we consider, are thus the initial May 9, 2008 announcement. The Ministry of Economy, Trade, and Industry (METI) was then instructed to analyze the consequences of adopting a territorial tax regime. This announcement was followed by two subsequent Cabinet meetings, in which details of the proposed reform were refined and ultimately endorsed on June 27, 2008 and January 23, 2009, respectively.

Our data and identification strategy

For our analysis, we use data from Datastream, which consist of daily stock market returns for the largest quartile (by market capitalization) of publicly listed Japanese, U.S., and German firms. These data are combined with annual financial statement information from Orbis on each publicly listed Parent Corporation and all of their foreign subsidiaries. Adapting the standard market model event study methodology, returns on U.S. and German market portfolios are incorporated in our determination of abnormal Japanese stock returns. This is to control for potential confounding events associated with the global financial crisis. Conversely, we also study possible spillover effects of the reform in the U.S. and German markets. The idea is to identify whether the Japanese reform may have affected the prospects for adoption of a territorial tax regime in the U.S.—which now accounts for around 80 percent of GDP among the remaining OECD worldwide regimes – or how this may have affected U.S. and German firm competitiveness, the latter being subject to a dividend exemption system very similar to Japan's under Germany's long-standing territorial tax system. Significant differences in investor reactions across the Japanese, U.S., and German markets around our event dates are hence informative about the different channels by which the Japanese reform was perceived to impact firm after-tax profitability.

Figure 1. Cumulative Abnormal Returns on May 9, 2008, by Firm Nationality and Multinational Status.



Notes: This figure plots cumulative abnormal returns (CARs) within a 5 trading-day window centered around the May 9, 2008 event, defined as the sum of daily ARs. ARs are the mean cross-sectional prediction errors derived from estimation of the standard market model including market portfolio returns drawn from the Japanese, U.S., and German exchanges over the last 250 trading days ending 20 days before the first event. Tests of statistical significance (in red) follow Kolari and Pynnönen's (2010) "adjusted BMP" methodology.

Moreover, we leverage the location of foreign subsidiaries and financial statement characteristics of both parents and subsidiaries to estimate in a single step the contribution to ARs from particular firm attributes. Among these, we emphasize simple distinctions between domestic and multinational firms, or the ownership of at least a single subsidiary in a tax haven, as a proxy for tax planning sophistication. A direct measure of tax savings on the repatriation of accumulated foreign earnings is calculated as the difference between the average effective tax rate on domestic and foreign operations. Further interactions of this potential tax savings rate with measures of intangible intensity are intended to distinguish prospects for future tax savings on intangibles-facilitated income reallocation.

Unexpected Winners

A striking point that emerge from Figure 1 is that Japanese market reactions generally appear larger in magnitude among domestic firms than MNCs. Statistically-significant 1-2 percent cumulated abnormal returns (CARs) observed among the former group appear to validate one of the Japanese reform's objectives of facilitating expansion of smaller firms into overseas markets (Toder, 2014).

It is also noteworthy that the positive effect on Japanese firms is unmet by comparable reactions in either German or U.S. markets, such that the observed effect in Japan is more credibly attributable to the METI announcement — itself evidently either ignored or perceived as unimportant for U.S. and German firm profitability.

Table 1. Cumulated Event Date AAR Effects by Nationality and MNC Status

Firm		May 9, 2008 ($d=1$)		Jun. 27, 2008 ($d=2$)		Jan. 23, 2009 ($d=3$)	
Type	Country	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
Domestic	*DE*	0.716	0.490	-1.192**	0.534	-1.685**	0.707
	US	0.046	0.109	0.191	0.181	1.01***	0.220
	JP	0.593***	0.079	0.772***	0.106	1.017***	0.160
MNC	*DE*	-0.102	0.136	-1.506***	0.237	-1.993***	0.392
	US	0.185***	0.046	0.069	0.085	0.170	0.125
	JP	0.050	0.069	-0.026	0.102	-0.236	0.146

Notes: Significance levels are designated as *** (1 percent), ** (5 percent), and * (10 percent). Cumulated marginal effects measure ARs averaged over each three-day event window (AARs) and summed across Cabinet meeting dates.

These results appear to be reinforced after accounting for key firm characteristics, albeit in a nuanced way. Over the course of the full sequence of three Cabinet meeting dates, Japanese MNCs experienced significantly worse cumulated average abnormal returns (AARs) than their domestic counterparts, equal to a difference of 3.8 percent of market capitalization through the end of the January 23, 2009 event window (see Table 1).

As Predicted, Firms with Larger Tax Savings Potential Are Net Winners

Underlying these differences by multinational status, the rate of anticipated tax savings resulting from the reform is nevertheless associated with substantial positive effects on Japanese MNC valuations, with the largest such contributions arising around the last Cabinet meeting date. Over the course of all three events, a 10-percentage point increase in the tax savings rate was associated with AARs of 0.31 percent (top panel of Table 2). Applied to the set of Japanese firms in our sample with an observed average tax savings rate of 21.5 percent, this implies aggregate savings just slightly in excess of predicted tax savings on the repatriation of ¥17 trillion in undistributed earnings held by foreign subsidiaries of Japanese firms in fiscal 2006 according to the best available estimates prior to reform (METI, 2008).

Table 2. Cumulated Event Date AAR Effects among MNCs, by Nationality

Firm		May 9, 2008 ($d=1$)		Jun. 27, 2008 ($d=2$)		Jan. 23, 2009 ($d=3$)	
Type	Country	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
Marginal Effect of Potential Tax Savings Rate							
MNC	*DE*	1.981	2.261	5.481	3.401	-1.256	2.989
	US	-0.006	0.267	0.373	0.494	0.934	0.682
	JP	0.356	0.346	1.958***	0.542	3.076***	0.766
Marginal Effect of Presence in Tax Haven							
MNC	*DE*[a]	0.806***	0.266	0.397	0.472	-0.916	0.864
	US[a]	0.381**	0.155	-0.030	0.267	-0.804**	0.387
	JP	-0.105	0.066	-0.161*	0.097	-0.254*	0.136

Notes: See notes for Table 1.

More sophisticated or tax aggressive firms with subsidiaries located in tax havens performed relatively worse than other Japanese MNCs, while firms in industries characterized by heavier reliance on intangibles likewise saw no additional gains in relation to potential tax savings on future shifted earnings.

Conclusion

Our study reveals that the Japanese adoption of a territorial regime was, at least initially, perceived as being disproportionately valuable for firms that might previously have been deterred from expanding overseas due to international tax compliance issues and lack of competitiveness under the previous worldwide regime, consistent with one of the motives for the reform. More tax savvy Japanese MNCs may have benefited disproportionately less, in part, because the previous regime was not limiting their ability to borrow from their affiliates, or simply because of a lack of interest in tax planning, as is widely reported among tax practitioners.

Our study confirms the importance of the most direct source of gains from adoption of a territorial tax regime – namely, the tax savings on immediate repatriations. At the same time, it highlights the perceived benefits among aspiring entrants into foreign markets of reductions in tax compliance costs and enhanced competitiveness in foreign markets.

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Sebastien Bradley

Drexel University (LeBow College of Business)

sbradley@drexel.edu

http://www.lebow.drexel.edu/

Sebastien holds a Ph.D. in economics from the University of Michigan. He joined Drexel University as an assistant professor in 2011. His research examines the nature and scope of tax-induced distortions to consumer and firm behavior in environments distinguished by the degree of market salience of particular tax policy features. His work ranges from local tax policy issues such as the consequences of limited attention on the part of consumers for property tax capitalization and delinquency, real estate transaction timing, and air travel demand patterns to international tax issues including consideration of tax-motivated profit reallocation by multinational corporations.

Estelle Dauchy

New Economic School (NES)

edauchy@nes.ru

http://www.nes.ru/en

Estelle holds a Ph.D. in economics from University of Michigan. She joined the New Economic School as an assistant professor in 2012. Her research examines the impact of federal and international tax reforms – or features of tax systems – on various margins of firm's behavior, such as investment choices, organizational forms, or R&D spending. Some of this research investigates interactions between intangible assets and the effectiveness of investment tax incentives. In recent years she has become increasingly interested in redistribution aspects of tax systems. She teaches graduate public finance and public economics, macroeconomics, and applied micro-econometrics.