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The efficiency consequence of a political compromise in the Japanese tax reform of 1989☆

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ABSTRACT

A political compromise left defects to the initial design of a value-added tax introduced to Japan in 1989. This paper assesses the efficiency consequence of that political decision. We estimate revenue drains arising from tax-motivated divestures to infer maximum possible efficiency losses from behavioral responses. The estimation utilizes variations in tax incentives arising from the new tax and its amendments. The sample is 7619 subsidiaries founded from January 1985 through December 1998. The results indicate that the tax influenced 10.7–12.7 percent of new subsidiaries incorporated during a high-tax-incentive regime. The behavioral response accounted for 3.4 percent of the overall revenue drain. The modest amount of revenue drain suggests that firms faced coordination problem in separating business segments, and that firms with low costs of reorganization responded.

1. Introduction

The leading Liberal Democratic Party (LDP) faced vigorous public opposition in its three attempts to introduce a value-added tax (VAT) to Japan. The party eventually succeeded in December 1988, but made a concession to gain political supports from small- and medium-sized enterprises (Ishi, 2001). The concession included allowing eligible firms to profit from the VAT by retaining taxes collected from customers. The leading scholars went so far as to condemn this political concession as a "degradation" (Homma and Atoda, 1989). Although subsequent amendments limited revenue drains arising from the concession, in the meantime, even large firms benefited from the small business concession, especially what is known as the simplified filing scheme, through owning subsidiaries eligible for the concession and even founding new small subsidiaries in a careful manner to fit eligibility requirements (Onji, 2009). The political concession clearly damaged the equity of the tax system (Homma and Atoda, 1989), but did the organizational form distortions induce large efficiency losses? Or, was the defect in the system small enough to justify passing the reform bill in a timely manner? After all, the government debt was mounting and the pre-existing indirect taxes were out of date.

This paper aims to assess the efficiency consequence of the political decision that left defects to the Japanese VAT of 1989. This paper is distinct from a number of previous studies that estimate the extent of revenue drains (*ekizei*) caused by the concession.[1] Essentially, the revenue drain arises from firms receiving too much tax credits through the small business concession. As such, these previous estimates lump together windfall gains accruing to pre-existing small corporations and those accruing to small corporations created out of the tax motive. The benefit accruing to pre-existing small corporations is undesirable in maintaining fairness. Nonetheless, those implicit transfers do not generate direct inefficiency losses. The tax-motivated divesture, on the other hand, may generate efficiency losses: Goolsbee and Maydew (2002) argue that a suboptimal form of organization will gives rise to coordination problems. No attempt has been made to distinguish these two sources of revenue drains, and the goal of this paper is to offer an initial estimate.

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[1] For a survey, see Homma (2013).

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The key challenge is in identifying divestures in which the tax motive played a role. A survey study is unlikely to reveal the true motive for reorganization since respondents may fear triggering unfavorable policy changes or even tax audit.[2] To make progress, one needs to estimate the influence of taxes on decisions to divest. Our approach is to estimate an empirical model that utilizes variations in the tax motive across periods to identify tax-motivated divestures. With this estimated model, we can predict for each observation the influence of the tax motive. We are ultimately interested in the possible proliferation of small subsidiaries, and so we examine a sample newly founded subsidiaries in this study. The data set draw from a directory of Japanese corporate groups. This sample contains 7619 subsidiaries founded from January 1985 through December 1998, which spans a period before the 1989 reform (''no motive regime''), a post-reform period (''high motive regime''), and a period containing two amendments of 1991 and 1997 (''small motive regime''). Importantly, the sample contains subsidiaries in which tax motive would have played little role, even if they were founded during the high motive regime. The estimate utilizes this group as a control to remove confounding influences. In short, we utilize a quasi-experiment arising from policy changes to predict subsidiaries founded to benefit from the small business concession under VAT. With the predicted influence, we compute tax revenue drain attributable to tax-motivated divestures.

The results indicate that the tax motive was influential in the founding of 10.7–12.7 percent of new subsidiaries incorporated over July 1988 through March 1991, a period when tax incentives were strong. This result corroborate the pervasiveness of tax avoidance reported in Onji (2009) that documents a bunching of corporations at an eligibility threshold. Much of the behavioral response occurred within a year and a half after the implementation of the law, but before the amendment in October 1991, suggesting that firms quickly adapted to the new tax system and that the amendment was implemented too late for preventing the behavioral response. Consistent with small annual revenue drain in order of USD10,000–25,000 per company (in 1990 US dollars[3]), the results suggest that smaller groups responded more strongly. A common strategy appears to involve separating a transportation division, which would be relatively independent from the rest of the production processes. The revenue loss due to tax-motivated divesture is JPY22 billion (USD152 million) in 1990, or 3.4 percent of the overall revenue drain.

There are two implications from the analysis. First, the estimated revenue drain helps us understand the coordination problem. In theory, a firm faces a decision to split a business segment and weighs the tax advantage with the costs of selecting an organizational form that would not have been chosen in the first place. The costs may involve the exacerbation of principle-agency problem (Goolsbee and Maydew, 2002) or the inconvenience of having separate organizational forms (e.g., having to duplicate a finance division). To the extent that the firm decides on the organizational form optimally, then, for those which chose to reorganize, the tax advantage is greater than the efficiency losses (Scholes et al., 2002). In other words, the estimate of revenue drain provides a rough guide on the upper-bound for the efficiency losses. To interpret our the modest estimates of the revenue drain from this perspective, our study suggests that there is a real costs in separating an organization and that if divesture is to take place, it is likely to be restricted to division at the margin of organization (e.g. a division responsible for physical transport of goods).[4]

Table 1
The main differences between the two VAT bills.

	1987	1988
Name	Sales tax	Consumption tax
Tax rate	5%	3%
Number of exempted items	51	8
Exemption threshold	100 million yen	30 million yen
Method of computation	Invoice-credit	Subtraction
Simplified filing	Not available	500 million yen threshold Presumred rates: Wholesales 10%; Others 20%
Tax year	Quarterly (Bi-annually for small businesses)	Annually (Option to file quarterly)

Notes: Phase out of exemption applies for 30–60 million yen under the 1988 bill. Information is based on Ishi (2001).

Second is a reassessment of the 1989 tax reform. The reform took place over two decades ago, but it would be worthwhile to revisit the topic given the magnitude of the policy that affected the economy of a nation. There seems little to dispute about the unfairness of the political concession that unduly benefited groups with political influence; ideally the tax reform should have proceeded under a national consensus, so that it would not have been necessary to distort the tax design. However, narrowly focusing on the behavioral response, our study indicates that, in terms of the efficiency loss, a serious harm was not done. Firms responded selectively, and the self-selection meant that those who responded divested a segment in a way that does not harm the overall efficiency of their business operation. VAT replaced numerous indirect taxes which were sources of efficiency losses. It even appears plausible to hypothesize that the overall efficiency of the Japanese tax system improved by expediting the replacement of inefficient indirect taxes.[5]

Section 1 gives an overview of the institutional background. Section 2 describes the approach to identify tax motivated divestures. Section 3 estimates an empirical model, and conducts a sensitivity analysis. Section 4 describes the computation of revenue drain, and presents the estimate of revenue drains. Section 5 concludes.

2. Background

2.1. Institution

The tax reform of 1989 has been discussed extensively so this section provides a brief summary, emphasizing the political aspect.[6] The government debt had been accumulating since the mid-1970s, and to secure a stable source of revenue, the leading

[2] A public financial institution have conducted a survey study in which one question asked about the relevance of the tax motive for divesture conducted in the late 1980s and early 1990s (People's Finance Corporation, 1994). There are several difficulties with the study design, including the fact that the surveyor is a lender to the respondents, making it difficult to interpret their study.

[3] The average dollar-yen exchange rate of 1990 is a US dollar for 150 yen.

[4] Two qualifications are in order. First, strictly speaking, the decision would be based on the firm's expected net benefits generated over a period of time. But due to the possibilities of amendments, the uncertainty in the tax treatment would result in a high discount rate. Second, the ''true'' tax advantage would require to account for the collateral effects from reorganization, such as on the corporate income tax. In the absence of detailed accounting information, the latter consideration is beyond the scope of this paper.

[5] To be sure, this is not to praise the way in which the government handled the VAT policy: since firms responded quickly, by implementing the VAT amendment earlier, it would have been possible to limit behavioral responses.

[6] See, for instance, Ishi (2001). Onji (2009) describes the small business concessions under the Japanese VAT in detail.