

JATA
Vol. 21, Supplement
1999
pp. 24-27

DISCUSSION OF Demand for Services: Determinants of Tax Preparation Fees

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Frischmann and Frees (1999) study the demand for income tax preparation services. The main contribution of the paper is examining the factors that affect fees; they find that fees increase in expected tax savings and opportunity costs. Before examining fees, the authors provide incremental contributions at intermediate stages, namely, predicting tax liability and explaining the choice of using a paid preparer or not.

The authors motivate their study in part as relevant to the practitioner community in understanding and designing a competitive fee structure. I find the study of fees more interesting from a policy perspective concerning the deadweight cost of tax services or understanding the behavior of taxpayers. Understanding the determinants of tax preparation fees may inform legislators and enforcers regarding the compliance costs of the individual tax system.

The panel data research design provides a potentially powerful improvement over prior work to date in this area. Although Christian et al. (1993) used panel data to study preparer choice, their study did not investigate fees. While Lin (1993) has studied preparation fees, Frischmann and Frees (1999) propose a more reliable maximum likelihood method of addressing the censoring of fee data, whereas Lin (1993) imputed fees for missing observations. I offer some comments below about interpreting the results under this research design.

TEST 1: TAX LIABILITY

I agree with the authors that using panel data with fixed-effects estimation controls for individual-specific omitted variables. Estimation (and interpretation of the results), however, requires variation within individuals of both the dependent variable (use of preparer) and explanatory characteristics across time. The authors could expand their discussion of within-taxpayer variation to assist the reader throughout the paper.

I first review a skeleton of the tests conducted:

- 1) Estimate tax liability [$\text{tax}_{it} = f(\text{PREP}_{it}, Z_s)$] 1982-1985, 1986, 1987.
 - Aggregate coefficient(s) on PREP and interaction terms are used to estimate tax "savings" (TAXSAVE) based on 1988 taxpayer characteristics.
 - Standard deviation of individual-specific residuals = estimate of tax "uncertainty" (UNCERTAIN).
- 2) Predict preparer use [$\text{PREP}_{88} = f(\text{TAXSAVE}_{88}, \text{UNCERTAIN}_{t82-t87}, Z_s)$] in 1988.
- 3) Explain preparer \$ fee [$\text{FEE}_{88} = f(\text{TAXSAVE}_{88}, \text{UNCERTAIN}_{t82-t87}, Z_s)$] in 1988.

In test (1), the fixed effects panel estimation, the authors note that "an individual intercept 'sweeps-out' the time-series mean, so we are comparing differences of only the response from its

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mean, $y_{it} - \text{mean}(y_i)$, to the corresponding differences for the explanatory variable." However, Yankelovich, Skelly, and White, Inc. (1984), whom the authors cite, note that taxpayers say they use a paid preparer because they are in the habit of using one, and those who self-prepared their returns say they always did it themselves.

I can only conservatively estimate how many individuals changed preparer status during 1982 through 1988. Table 1 notes that PREP increased from 46.7 percent to 53.2 percent from 1982 to 1988. With 5,933 taxpayers per year, the increased preparer usage of 6.5 percent represents 385 taxpayers if the only changes are taxpayers initiating use of preparers (rather than beginning to self-prepare returns). While this is still a sufficient number of observations to fit the tax liability model to the PREP decision, the results must be interpreted with respect to how the tax liability changed for those taxpayers who adopted a paid preparer.¹

Interpreting PREP

Frischmann and Frees (1999) find (Table 3) that PREP has a positive coefficient, indicating that "the presence of a preparer, controlling for other items, is associated with a higher tax liability." They conjecture that it indicates the enforcement function of tax preparers. I suggest a different interpretation when you consider that PREP is estimated from individuals who changed (likely adopted) preparer status. When an individual expects to pay more tax, because income has increased or (following TRA86) deductions are limited, that may be the year the individual hires a tax preparer. Table 1 suggests that tax preparer use increased following TRA86. The 1986 and 1987 dummies control only for the average increased tax liability through the intercept.² The difficulty in interpreting PREP in the presence of the actual tax liability is similar to the difficulty financial accounting researchers have with respect to earnings management. Ideally, Frischmann and Frees (1999) could measure what the tax liability would have been in the absence of hiring a preparer, and what the revised tax the preparer computed was. I believe that Frischmann and Frees (1999) have already chosen the best design, which is to include TPI (positive taxable income) as the best control for exogenous taxable income.

In short, I believe that many of the variable interpretations can be made more salient if the discussion is recast in terms of what story it tells for taxpayers changing preparer status.³

Since so much of the paper depends on the TAXSAVE variable, Frischmann and Frees (1999) could help the reader better understand the magnitude of the interaction terms. For example, if a married person ($MS = 1$) with 4 dependents ($DEPEND = 4$), age 65 ($AGE = 1$), self-employed ($EMP = 1$), with a marginal tax rate of 39.6 ($MR = 39.6$) used a preparer, the aggregate coefficient would be 0.544.⁴ The natural log of 1988 mean income reported in Table 1 is 10.43 ($= \ln(33,891)$). The coefficient on $LNTPI*PREP$ is -0.052 . At the mean income, using a preparer lowers tax liability by 0.542 ($= -0.052 * 10.43$), which doesn't quite negate the positive net effect of all other

¹ The author stated in conference discussion that more individuals switch preparer status from one year to the next than is obvious in the descriptive statistics. This information would be a helpful addition to the paper.

² The 1986 and 1987 dummies might be more useful if they were interacted with TPI, rather than introduced as intercept terms. MTR controls for the lowering of the tax rate in TRA86. TRA86 also introduced changes such as limits on passive losses and increasing capital gains taxes, both of which affect high-income taxpayers more than low-income taxpayers.

³ Self-employment status is another variable that deserves more discussion. Table 3 shows that EMP is significantly negatively related to tax liabilities, both alone and interacted with PREP, but only in the cross-sectional model. Again, Table 1 (Frischmann and Frees 1999) provides an estimate of the change in self-employment status of 3.3 percent. It might be that this is insufficient variation within individuals to learn much about EMP in the fixed-effects model. This is an example of an important regularity (that is, self-employed persons have more opportunities for tax savings and avoidance) that cannot be captured by this estimation technique.

⁴ Using the coefficients on the PREP terms (excluding LNTPI) in the paper's Table 3, $0.544 = 0.843 (PREP) + 0.217 (MS*PREP) - 0.04 (DEPEND*4) - 0.314 (AGE*PREP) - 0.009 (MR*PREP = 39.6* - 0.023) - 0.153 (EMP*PREP)$.

interaction terms. Thus, it appears that self-employed taxpayers who earn above the mean income can save money by hiring a paid preparer. For an individual who is *not* self-employed (80 percent of the sample), preparers are not associated with tax savings until income is much higher.

Tax "Uncertainty"

I found the UNCERTAIN variable quite interesting. This is the residual standard deviation of unexplained tax liability for each individual. The tax liability model includes positive taxable income, filing status, dependents, age, marginal tax rate (which is based on TPI and has a correlation of .84 with LNTPI), self-employment status, and 1986 and 1987 time dummies, as well as sole and interaction effects for preparer status (PREP). The included variables would seem sufficient to estimate tax liability with little error if taxpayers used the standard deduction and had no losses. Thus, UNCERTAIN is by construction high when the taxpayer's deductions and losses vary.

However, both the mean and the median value of UNCERTAIN are lower in Table 4 of Frischmann and Frees (1999) for the taxpayers who report the tax preparation fee. Since itemizing deductions is a necessary condition to observing FEE, I expected uncertainty was higher for this group. Thus, it appears that uncertainty arises from other sources.

By choosing to put TPI in the tax liability model, but no deductions, the authors implicitly categorize revenues as exogenous, but deductions and losses as endogenous and unpredictable. Granted, the individual fixed-effect intercepts control for average fixed deductions, such as regular charitable contributions each year. Further examples of what sources of UNCERTAIN (e.g., passive losses) might require preparer assistance would be useful. In contrast, by including all positive income items in the model the authors imply that salary and self-employment income have the same "certainty."

TEST 2: PREPARER CHOICE MODEL

The cross-sectional preparer choice model is parsimonious, taking advantage of findings from the first-stage tax liability estimation. Frischmann and Frees (1999) find that taxpayers are more likely to use a preparer when the unexplained component of the tax liability is high (UNCERTAIN), and when opportunity costs are high (OPCOST). Tax savings (TAXSAVE) are negatively associated with preparer choice, although the interaction of tax savings and opportunity cost is positive. The most confusing result of the preparer choice model is that preparer choice is *negatively* associated with tax savings. Further, the authors need to explain the reason for including the interaction term TSAVCOST; I would like to know what the model reveals without this interaction term.

As noted above, however, the panel estimation helps explain the negative association of preparer use with tax savings. Taxpayers likely adopt a preparer for the first time when they expect taxes to increase. The model is unable to capture what taxes would have been in the absence of a preparer for that year. In the 1988 cross-section, most of the taxpayers have not changed preparer status from 1987. There is a 0.7 percent decline in preparer use from 1987 to 1988. Perhaps a supplemental analysis of the taxpayers who changed status from 1987 to 1988 would yield results more in line with expectations.

A minor point concerns OPCOST. Christian et al. (1993) control separately for the complexity of the return with various variables representing the types of forms filed, as well as OPCOST. In their models, the specific forms filed were more closely related to the preparer choice than the OPCOST variable. OPCOST is a function of TPI and the forms filed. I recommend the authors consider including controls for the forms component of OPCOST in the model, since complexity alone predicts preparer use in addition to the cost of self-preparing a complex return.

TEST 3: PREPARER FEE MODEL

In the final model, the censoring of the fee data becomes important. The initial discussion notes that the first screen is whether the taxpayer files a Schedule A for itemized deductions. However, the econometric modeling and discussion appears to focus on the second (joint) screen: does the sum of FEE and other miscellaneous deductions exceed 2 percent of AGI.

The censoring due to itemizing deductions is not directly addressed in Appendix B. The authors should show the sequential censoring as follows:

- Number of taxpayers reporting they used a preparer in 1987
- Number of taxpayers itemizing in 1988
- Number of taxpayers reporting fees in 1988 where miscellaneous deductions >2 percent AGI.
- Number of taxpayers reporting fees in 1988 without cause.

Frischmann and Frees (1999) note that preparer fees are reported for a significant portion of the data even where the total miscellaneous deductions do not exceed 2 percent of AGI. They conjecture that this is "due to a marketing practice of some tax preparation firms recording their fees on a taxpayer's form to symbolize their attention to detail." My practice experience suggests a more plausible administrative explanation. By 1988, many preparers used tax software. Each deduction would be entered in the software as a routine data-gathering step. Even if the sum of miscellaneous deductions were less than 2 percent of AGI, there would be no reason to take the additional step of deleting the information from the software. As a result, I expect that the censoring for the 2 percent limit may be more a function of computer-prepared vs. hand-prepared returns than any other explanation.

The focus of the paper is to predict FEE. This is a fairly difficult task when the TAXSAVE (*ex ante*) is estimated from the binary variable PREP. However, Mills et al. (1998) used the amount of tax compliance costs (including fees paid to CPA firms and law firms) to *predict (ex post)* corporate tax savings. The authors might consider expanding the test in another paper to understand whether taxpayers that spend more on preparers save additional taxes. None of the present tests answer this exact question. One approach might be a differences-in-differences measure where the authors compare the change in fees from 1987 to 1988 with the change in tax from 1986 to 1987.

CONCLUSION

Frischmann and Frees (1999) have made some interesting contributions to the existing literature on the use of tax preparers by individuals. The fixed-effect model of tax liability produces new variables to predict future preparer use: potential tax savings and tax uncertainty. While further exposition is required about the within-taxpayer interpretation of the tax savings results (TAXSAVE) and the choice of exogenous variables leading to the residual tax uncertainty (UNCERTAIN), I think both of these variables contribute to our understanding of preparer choice and demand for fees.

The authors and other researchers in this area might consider the implications for tax policy and administration. One use of the fee model might be an estimate of the additional deadweight (accounting fee) cost associated with a new tax law and/or form. For example, the compliance cost of the new tax education credit might be estimated using the results of this study with the IRS estimates of time to complete the form(s) to compute the additional tax preparer fees charged.

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