

# Selection of Forum For Litigated Tax Issues

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## Abstract

*The adjudication of federal income tax disputes between the Internal Revenue Service (IRS) and taxpayers takes place in one of three mutually-exclusive trial courts. The courts have several features in common but they differ with respect to a number of important requirements (aspects). This study models taxpayers' choice of litigation forum as a function of requirements and constraints of the courts within the purview of the Elimination by Aspects Model (EBAM). The choice of forum is regressed on the contested deficiency using dichotomous and multinomial logit models. For increasing amounts of tax deficiency, the U.S. Tax Court appears to be the court of choice compared to the U.S. Claims Court. However, the magnitude of the contested deficiency does not meaningfully discriminate between the U.S. Tax Court and the U.S. district court. A possible explanation is that both courts afford approximately equal probabilities of winning/losing and that taxpayers choose based on that understanding. The results have implications regarding the prepayment requirement in the U.S. Claims Court and U.S. district courts.*

## Selection of Forum For Litigated Tax Issues

In litigating tax disputes with the Internal Revenue Service (IRS or Service), taxpayers are allowed to choose one of three trial courts. Each court possesses unique requirements and restrictions that make the selection process a multi-dimensional decision problem.<sup>1</sup> For example, alternative forums such as the U.S. Tax Court (X), U.S. district court (Y), and U.S. Claims Court (Z) have some constraints or requirements (used interchangeably with aspects) in common while other aspects are unique to specific courts. Taxpayers are expected to choose among alternative forums to maximize the probability of winning in a cost efficient manner.<sup>2</sup> The probability of winning is maximized when the incidence of legal or factual bias against the taxpayer's litigating position is minimized.<sup>3</sup>

Little is known about how the various constraints and differences among the courts affect choice among alternative litigation forums. This study advances a particular diagnostic inference strategy called the Elimination by Aspects Model (EBAM) for evaluating how taxpayers choose among alternative litigation forums given the various requirements and differences among the courts. In particular, the Elimination By Aspects Model (EBAM) is used as an organizing principle in modeling the relationship between the choice of forum and aspects of the courts (Tversky 1972a and 1972b).

The purpose of this study is to examine the effect of the contested tax deficiency on the taxpayer's selection of litigation forum. Although forum recommendation is commonly made by the

taxpayer's attorney, responsibility for the final choice of court forum rests with the taxpayer. This study adds to the knowledge base of taxpayers, attorneys and policy makers involved in the tax litigation arena. Future policy changes can be enriched by understanding the taxpayer's choice and the factors that effect their choice.

Prior research has been limited to studying decision making in the courts (Englebrecht and Jamison 1979; Goldsmith 1980; Madeo 1979; Goldstein 1985 and to the possibility of legal and factual biases in the U.S. Tax Court (Billings, Crumbley, and Smith 1992). Other researchers have modeled trial court decisions for identifying important factors in the outcome of litigation in functional areas of the federal income tax laws (Englebrecht and Jamison 1979; Kramer 1982). This study adds to existing literature by providing a fuller understanding of the factors that affect the outcome of litigated disputes. This study focuses on constraints imposed on taxpayers by differences among the courts. In addition, the EBAM is introduced as a useful tool in the study of choice involving multi-dimensional business alternatives.

### Litigation of IRS/Taxpayers' Disagreements

The United States employs a voluntary tax system. Taxpayers, therefore, are responsible for determining and paying their taxes. The IRS is empowered by the United States Treasury to administer the tax laws. The IRS periodically audits taxpayers' compliance with the tax laws. Where the IRS disagrees with a taxpayer's compliance, both the IRS and the taxpayer typically take a number of steps to resolve the disagreement within the hierarchy of the Service. Absent an agreement, the Service may decide to litigate, suggest a compromise, or agree with the taxpayer. Figure 1 illustrates the steps involved in litigating tax disputes between the IRS and taxpayers.

#### *Tax Returns*

The uses of a tax return include: (1) summarization of taxable transactions for the Service, (2) assessment of tax liability, and (3) compliance

with the revenue laws of the United States. As a part of its administrative function, the Service employs a number of techniques to insure compliance. If, on a cursory examination of the return, a disagreement arises with a taxpayer's position, an audit is usually performed. The audit typically requires that the taxpayer provide detailed records and explanations to sustain the position taken. The explanations and detailed records are used to resolve the conflict within the hierarchy of the Service and become part of the evidence for any subsequent litigation. The records also become the basis of choosing subsequent courses of action, both for the Service and the taxpayer, such as the choice of litigation forum.

Figure 1 shows that taxpayers have a choice among three mutually exclusive trial courts. Because the IRS is allowed the first move, taxpayers respond to the litigation decision by choosing either the U.S. Tax Court, a U.S. district court, or the U.S. Claims Court. Taxpayers' choices are assumed to be based on the significance they place on the aspects (x, y, and z) affecting alternative litigation forums (Tax, district and Claims Court). For example, an attribute of the U.S. Tax Court is that the amount in dispute does not have to be paid beforehand (but interest, nevertheless, continues to accrue).<sup>4</sup>

### Prior Research

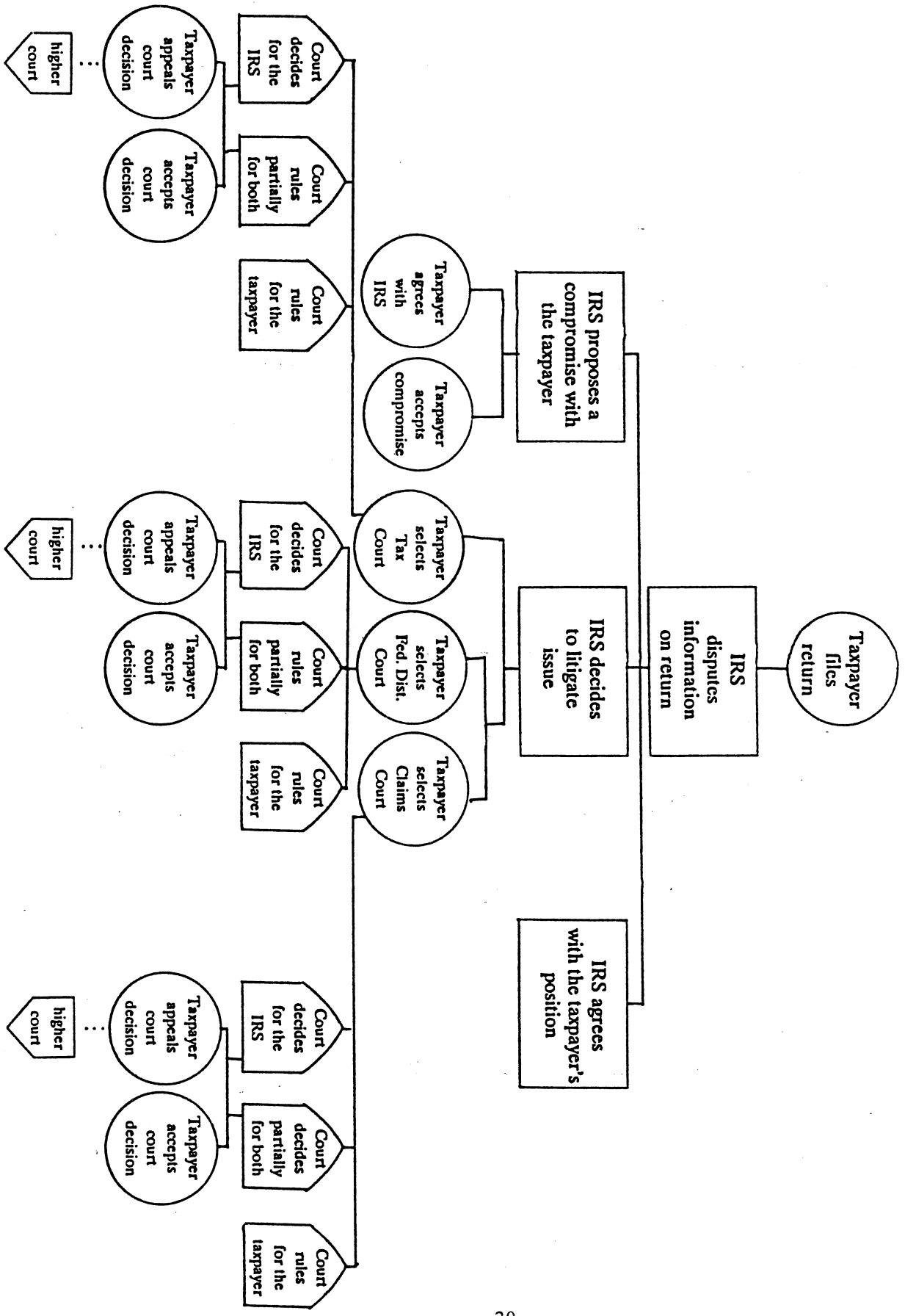
Prior works on decision making by the judiciary have focused primarily on predicting the outcome of litigation and identifying the importance of individual pieces of evidence in the decision of the court (Kort 1963a; Danelski 1966; Kramer 1982; Madeo 1979). Other works outside the domain of judicial decision making have focused on the decision making process involving multi-dimensional alternatives (Payne 1976; Tversky 1972a and 1972b; Lichtenstein and Slovic 1971).

#### *Decision Making by the Judiciary*

Kort (1957) used a weighted mathematical model to predict decisions for U.S. Supreme Court

### A GRAPHICAL REPRESENTATION OF THE LITIGATION PROCESS FOR TAX-RELATED DISAGREEMENTS

Figure 1



cases. He derived weights for the explanatory variables using a trial and error approach. The sample was restricted to issues involving the right to counsel. Kort concluded that mathematical models can be used to predict the acceptance or rejection of facts by appellate courts and that the accepted facts can be used to predict the appellate court's decision. In a later study, Kort (1963b) improved on the earlier study by using Boolean Algebra to address logical relationships among the independent variables. The Boolean Algebra approach avoided the imprecision in the weighting of the independent variables in the earlier study. The author also used factor analysis to derive orthogonal factors for the model building phase. The enhancements in research design improved on the predictive accuracy of the earlier study.

Grunbaum (1966) employed simulation techniques to model for decision-making in the United States Supreme Court. Using the judges' votes on civil liberty cases, estimates were derived for the expected consensus of the judges for a series of court decisions. Conditional probabilities were calculated for voting records to provide information on the frequency of unanimous decisions and on each judge's voting block membership. Independent probabilities were also determined to provide evidence that the judges vote with little regard for the votes of other judges. The evidence indicates that judges' voting records conform to predictable attitudinal and ideological patterns.

Danelski (1966) used a value analysis approach to identifying the critical ideological values for a number of U.S. Supreme Court judges. He analyzed individual judges' speeches, before and after bench appointment, to determine their ideological value system. The ideological values of interest included individual freedom, practicality, social justice, and laissez-faire attitudes. Factor analysis was used to distinguish value groups, and the judges' membership in the resulting groups.

Accounting researchers later conducted a number of studies to predict the outcome of litigation in the various courts charged with adjudicating federal income tax disputes (Madeo 1979; Kramer 1982; Englebrecht and Jamison 1979). For the

most part, the accounting studies have sought to identify the significance of certain explanatory variables in the court's decision.

#### *Decision-Making Involving Multi-dimensional Alternatives*

Prior works indicate that one way to simplify the decision process is to emphasize only a single aspect at a time (Lichtenstein and Slovic 1971; 1973). That is, when an individual is confronted with a choice situation involving well specified alternatives, a diagnostic inference strategy may be used to aid the choice. In addition, Einhorn and Hogarth (1981) have argued that the process of representation and the situational factors that affect it are of major importance in judgment and choice. Also, the effects of problem representation on behavior are well-documented in the literature (e.g., Fischhoff, Slovic and Lichtenstein, 1978; Grether and Plott, 1979; Tversky and Kahneman, 1981), which shows how situational factors can lead to the violation of the most intuitively appealing normative principles such as transitivity.

Payne (1976) sought to identify task characteristics which may guide individuals toward various decision strategies. Unlike prior studies, Payne focused on the decision making process rather than on the decision of the judiciary. Payne compared four models of decision making taking into consideration the complexity of the decision task. Complexity was a function of two characteristics, the number of alternatives and the number of aspects per alternative.

The first model, a linear model of choice among alternatives (Lichtenstein and Slovic 1971), appears to be one of the earliest proposed decision models. This model evaluates each alternative in isolation by assigning a value to each aspect of each alternative. The values for each aspect are summed by alternative and compared on an inter-dimensional basis. The additive nature of the linear model assumes that the decision maker will select the alternative with the highest value.

The second model, conjunction model (Simon 1957), is based on rational choice or satis-

ficing. A decision maker is assumed to determine a predetermined minimum aspiration level to be satisfied for an alternative to be acceptable. On an inter-dimensional basis, each alternative value is compared to the minimum aspiration benchmark. The decision making process ceases when an alternative is found which has a value that exceeds the pre-set minimum aspiration. The amount of information that is considered for each alternative may vary significantly because the decision process may end before all alternatives are considered.

A third model, the additive difference model (Tversky 1969), collects the same amount of information on all alternatives. Each alternative is matched on an aspect by aspect or intra-dimensional basis. The value of the summed differences between like aspects are then compared to select an optimal alternative. However, Payne questions the success of the model under a multi-alternative scenario.

The fourth model, EBAM, assumes that choice in a multi-alternative situation is based on an elimination process (Tversky 1972a and 1972b). The elimination of an alternative before all aspects are examined is indicative of a variable search pattern. The elimination process examines each alternative, on an intra-dimensional basis, based on the ranking of the aspects. If an alternative does not possess the chosen aspect it is eliminated as a plausible choice. Tversky (1972a) offers support for this model over the earlier three by illustrating why a decision maker would follow EBAM in a multi-alternative situation.

Payne sought to test for differences in the search process of the subjects for various levels of complexity of the decision task. The subjects were presented with decision tasks and were required to search for information about alternative courses of action. Other questions focused on whether the same amount of information was used to evaluate alternatives and whether decision makers compared alternatives on an inter-dimensional or an intra-dimensional basis.

Payne reported several trends. First, as the number of alternatives increased, the quantity

of information examined per alternative tended to vary significantly among alternatives. Second, as the number of alternatives and aspects per alternative increased, the subjects used fewer aspects. For complex tasks, the subjects used both variable and intra-dimensional search strategies to reduce the amount of information processed.

The decision strategies employed by the subjects are consistent with the EBAM. The current study utilizes the EBAM as an organizing principle for examining choice among the alternative Tax, district and Claims Court forums (X, Y and Z).

#### *Elimination by Aspects Model*

EBAM emulates an individual faced with a choice among several alternatives, who evaluates each alternative using a set of aspects. Each aspect is weighted with respect to the individual's utility. If aspect "x" has the greatest weight, given alternatives X, Y and Z, and Z does not contain aspect "x"; then alternative Z is eliminated as a plausible choice. The remaining alternatives, X and Y, are then examined using the aspect of second greatest importance. The process continues until a single alternative remains, becoming the most plausible choice.

Tversky (1972a and 1972b) proposed this model to explain choice among alternatives. For a finite set  $T = \{X, Y, Z\}$  containing the associated aspects  $x, y,$  and  $z,$  choice among the alternatives involves elimination of any two of X, Y, and Z. Choice of X, for example, is accomplished in a number of steps in which Y and Z are eventually eliminated. Choice of aspect  $x$  as the most important factor to the taxpayer can be expressed as  $P(x,T),$  where P is the probability of choosing one of T finite non-empty sets of alternatives (X,Y,Z), given the associated aspects (x,y,z). A necessary assumption is that T is a non-empty set.

Set T contains alternatives (X, Y, Z), each consisting of a subset of aspects, (x, y, z) that are covertly assigned weights by the decision maker. The selection process involves a sequence of steps in which alternative courts are eliminated until a

single one remains. At each step of the elimination process, the decision maker chooses a single aspect, and all alternatives not possessing the chosen aspect are eliminated.

Aspects are chosen with probability proportional to the weight covertly assigned to each aspect. Aspects that are common to remaining alternatives at each step of the process are not critical to the elimination process, since such aspects do not significantly discriminate among alternatives. Consequently, significant aspects that eliminate alternatives are assumed to be increasing functions of alternatives remaining at each state of the elimination process and, therefore, should exhibit statistical significance. Tversky (1972a and 1972b) suggests that the probabilistic nature of the selection process implies that the criteria for selection vary from one occasion to another.

Tversky (1972a and 1972b) also states two general assumptions for the EBAM: (1) general scalability, and (2) sequential selection of aspects as a basis for eliminating alternatives. General scalability refers to choice among alternatives that are expressed as subsets of a non-empty set (Tversky 1972a and 1972b). General scalability, in essence, takes into consideration dependencies among subsets of a non-empty set. Sequential selection of aspects gives recognition to risky decision making and to decision makers' solution to multiple attributes of the choice alternatives. Within a set of aspects, this assumption acts as a basis for the elimination of any one alternative as a possible choice.

#### *Applicability of EBAM to Choice of Litigation Forum*

The EBAM may be used for explaining taxpayer choice among the attributes of the different courts within set  $C(C = (X,Y,Z))$ ;  $X =$  U.S. Tax Court;  $Y =$  U.S. district court;  $Z =$  U.S. Claims Court; and  $x,y,$  and  $z =$  the aspects which favor the specific court  $X, Y,$  or  $Z,$  respectively). Courts are assumed to be eliminated at each step of the sequential process until a single court remains. Elimination of courts takes place by a sequence of steps conditional upon the aspect selected at each

step. Because weights are assigned to the aspects in a covert manner, the aspect chosen at each stage of the elimination process determines the number of iterations needed to arrive at the desired court. In addition, the order in which the aspects are selected is probabilistic and is proportional to weights assigned to the variables.

Aspects that are critical in eliminating courts at each step are assumed to be increasing functions of those courts remaining after each iteration of the elimination process. For example, if the contested tax deficiency is chosen at the first step of the process and is used to eliminate the U.S. district court and the U.S. Claims Court because of their mandatory prepayment condition, liquidity would be assumed to be positively related to the U.S. Tax Court and negatively related to the U.S. district court and U.S. Claims Court. As such, the deficiency aspect should exhibit statistical significance. If, however, the type of tax issue is considered first, the model may not eliminate any of the courts and it would be nonsignificant because all three courts adjudicate tax disputes. The type of tax issue could, however, be decisive where taxpayers perceive that the courts are more sympathetic to some issues than others.

The EBAM can be used to illustrate taxpayer choice of  $X$  among  $C$  as follows (Tversky 1972a, p. 351):

$$P(x,C) = \frac{U(x) + U(x,y)P(x,y) + U(x,z)P(x,z)}{U(x) + U(y) + U(z) + U(x,y) + U(x,z) + U(y,z)}$$

#### Legend

$U =$  Random vector of values

$P =$  Probability

$x =$  aspects of the case favoring U.S. Tax Court

$y =$  aspects of the case favoring U.S. district court

$z =$  aspects of the case favoring U.S. Claims Court

$C =$  Court

The Venn diagram in Figure 2 shows the EBAM's applicability to the choice of tax-related trial courts (Tversky 1972a, p. 355). The figure illustrates the relationship of aspects in tax litiga-

tion cases which may influence a taxpayer's choice among the U.S. Tax, Claims or district courts. Examples of differentiating aspects include: (1) lack of prepayment (x) for the U.S. Tax Court, (2) trial by jury (y) for the U.S. district courts, and (3) amount of dispute (z) for the U.S. Claims Court. If an individual is concerned with all three aspects (xyz), then a choice between courts should be based on the relative weights of each aspect. An individual concerned with two of the three aspects (xy, xz, or zy) would require a choice between only two of the courts. Finally, an individual concerned with only one aspect (x, y, or z) would reduce his/her selection to a mathematical tautology.

Two courts may be eliminated in a single step of the elimination process if the dependent variable chosen is common to both courts. For example, if the selected aspect falls in section xyz, it should not exhibit significant discriminating ability among the courts because it is common to all three courts. If, however, the selected aspect falls in sections xy, zy, or xz, one court would be eliminated, thereby leaving two courts. As a result, the aspect selected should then exhibit statistical significance. The elimination process would then continue until a single court remains.

The EBAM implies certain conventions of the decision-making process. In particular, aspects that are unique to alternatives are hypothesized to have statistical significance. Conversely, aspects that are common to the alternatives are expected to lack statistical significance. Choice of forum is hypothesized to proceed in sequential process wherein weights are covertly assigned to the independent variables. The weights are assigned based on how critical the aspects are to each taxpayer.

### Research Questions

EBAM implies that aspects that are unique to alternatives significantly affect the choice among alternative forums.  $H_1$ - $H_3$  test the significance of an aspect that is not common among alternative litigation forums X, Y, and Z. Stated in alternative form,  $HA_1$ - $HA_3$  are as follows:

**HA<sub>1</sub>:** The magnitude of the tax deficiency and

negatively affects the choice of the U.S. Tax Court as compared to the U.S. district court (xy in Figure 2).

**HA<sub>2</sub>:** The magnitude of the tax deficiency and negatively affects the choice of the U.S. Tax Court as compared to the U.S. Claims Court (xz in Figure 2).

**HA<sub>3</sub>:** The magnitude of the deficiency does not affect the choice of the U.S. Claims Court as compared to the U.S. district court (yz in Figure 2).

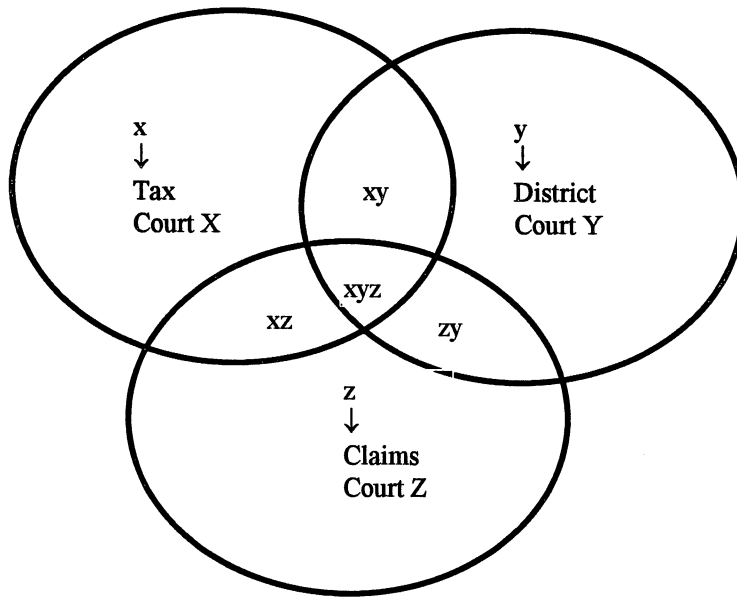
$HA_1$ - $HA_3$  are predicated on the understanding that the deficiency constraint imposed by the prepayment condition is critical only in those courts requiring prepayment before trial. The U.S. district courts and the U.S. Claims Court require mandatory prepayment, and the U.S. Tax Court does not require prepayment. The contested deficiency amount should, thus, be critical in the elimination process between the U.S. Tax Court and U.S. district court and the U.S. Tax Court and the U.S. Claims Court. Figure 2 shows that the deficiency aspect falls in sections y, z and yz, but not xz or zy. As such, the deficiency amount should be a decisive aspect when choosing between X and Z (U.S. Tax Court and U.S. Claims Court) and between X and Y (U.S. Tax Court and U.S. district court).

### Research Design

Choice of alternative litigation forums (X, Y, Z) is regressed on the deficiency aspect using a combination of dichotomous and multinomial logit models. The statistical significance/non-significance of the parameter estimates for the deficiency aspect is used to represent the weights assigned to the aspects along with their roles in the elimination of alternative forums. Data on the contested deficiency are obtained from published court decisions. In addition to the contested deficiency, data on the taxable entity and on the taxable nature of the disputed claim were included as control variables. Other relevant independent variables include the availability of a jury trial in the U.S. district court and the specialization aspect of the U.S. Tax Court judges. However, such data can be obtained only

Figure 2

A GRAPHICAL REPRESENTATION OF  
THE GROUPING OF ASPECTS OF TAX CASES  
WHICH INFLUENCE THE TAXPAYER'S SELECTION  
AMONG THREE ALTERNATIVE COURTS



- |   |  |
|---|--|
| <p>x = Aspect(s) of the case which favors selection of the Tax Court (X).<br/>[Example: This court doesn't require prepayment; it specializes in tax cases.]</p>  | <p>xyz = Case has at least three aspects, each a different court. Therefore a choice must be made between the three courts based on the relative importance of the aspects of taxpayer.</p>  |
| <p>y = Aspect(s) of the case which favors selection of the Federal District Court (Y). [Example: This court offers trial by jury; it has local scope.]</p>  | <p>xy = Case has some aspect which favors the Tax Court and another, the District Court. Therefore the choice is between x and y aspects.</p>  |
| <p>z = Aspect(s) of the case which favors choice of the Claims Court (Z).<br/>[One z aspect may be related to the amount disputed, because taxpayers appear to choose the claims court over the District Court when the amount disputed is high.]</p> | <p>xz = Case has some aspect which favors the Tax Court and another, the Claims Court. Therefore the choice is between x and z aspects.</p> <p>zy = Case has some aspect which favors the Claims Court and another, the District Court. Therefore the choice is between z and y aspects.</p> |



by sampling litigants and are not included as part of the data base used herein. This section is divided into three major subsections: (1) data selection, (2) definition of variables, and (3) quantitative method.

#### *Data Selection*

The data consist of information relevant to litigated tax disputes between the Service and taxpayers. The text of court decisions is the primary source for such information. Court decisions, from 1987 and earlier, were selected from a number of IRC Code sections using LEXIS (Mead Data Central). Court decisions were selected from Internal Revenue Code (IRC) Sections 269, 381, 382, 383, 384, 1235 and 1253. IRC Sections 269 and 382 deal with carryovers of net operating losses for corporate combinations.<sup>5</sup> Sections 383 and 384 deal with the ability to use pre-combination tax credits and losses. Sections 1235 and 1253 cover the eligibility for capital gains on transfers of intangible property rights, patents, trademarks, and franchises. The decisions were first identified on LEXIS (Mead Data Central). Selected decisions were then taken from *The American Federal Tax Reports* (Prentice Hall) and *United States Tax Court Reports* (U.S. Government Printing Office).

#### *Definition of Variables*

**Dependent Variable.** The dependent variable represents the type of court selected by the taxpayer X, Y, Z and is measured on the nominal scale (X=1; Y=2; and Z=3). Court selection was identified from the citations provided by LEXIS and from the text of the court decisions.

**Independent and Control Variables.** Data were collected on one independent variable which is the contested deficiency (DEF) and one control variable which is the type of tax issue in litigation (TI). Each of these variables and their definitions are discussed in the remainder of this subsection.

**Deficiency.** The amount of tax deficiency (DEF) represents the amount of contested claim. Deficiency amounts were obtained from the fact determination section of each decision and were

rounded to the nearest dollar. In all cases, interest and penalties were excluded.

**Tax Issue.** TI measures whether the court decision addressed eligibility for capital gain under IRC Sections 1235 and 1253 or the ability to use pre-combination tax credits and losses and other tax attributes under IRC Sections 269, 381, 382, 383, and 384. These types of tax issues involve varying amounts of tax benefits for equivalent transactions.<sup>6</sup> TI has two levels and is represented by a binary variable (0 for decisions involving capital gains; 1 for decisions involving tax credits and deductions under IRC Sections 269, 381, 382, 383 and 384). Information on TI is obtained from the fact determination section of each court decision.

#### *Quantitative Method*

A number of dichotomous and multinomial logit models (Lo 1986; Maddala 1991; Heckman 1978) were used to model the relationship between alternative forums (X, Y, Z) and the associated aspects. Logit analysis involves the distribution of a  $y$  (dependent variable) conditional on the  $X$ 's (independent variables) which is assumed to be logistic (Maddala 1991; Theil 1979; Nerlove 1973). If  $y$  is a discrete variable and  $X$  is a vector of "explanatory" discrete and/or continuous variables, logit is an alternate means of characterizing the joint distribution of  $(y, X)$ .

An important reason to use logit analysis is for situations in which the dependent variable is measured on the ordinal or nominal scale (Lo 1986; Cragg 1971). Logit transforms the discrete values of the dependent variable into probabilities between 0 and 1 (Lo 1986; Maddala 1991; Amemiya 1981). The logit estimator maintains its consistency under a wide class of alternative distributions of  $(y, X)$ . The use of a linear probability model (the assumption of linearity), rather than logit, could result in inferences with questionable statistical validity (Maddala 1991; Lo 1986; Nerlove 1973; Swafford 1980).

#### **Results**

Table 1 shows the number of decisions

adjudicated in each of the three trial courts and the mean values of DEF for these decisions. The U.S. Claims Court had the highest mean value for the deficiency amount followed by the U.S. Tax Court and U.S. district court, respectively. The expectation was that the Tax Court, because it does not have a prepayment condition, would be chosen with increasing frequency as the magnitude of the contested deficiency increased. Conversely, the U.S. district court and the U.S. Claims Court require prepayment of the tax deficiency prior to litigation, and therefore litigants were expected to choose these courts with decreasing frequency as the magnitude of the contested deficiency increased.

Consistent with expectations, the U.S. Tax Court's mean value for DEF (\$80,357) was greater than mean DEF for the U.S. district court (\$74,213). Table 2 shows the Kruskal-Wallis results for differences in the DEF among alternative forums. As disclosed, DEF differs significantly among the courts at the .01 level ( $p=0.0037$ ). That is, taxpayers appear to consider DEF to be an important factor in the choice of forum. The direction of their behavior partially conforms with prior expectations.

### *Models of Court Selection*

Panel A of Table 3 shows the results for the multinomial logit model for all three show the results based on dichotomous logit models for pairwise selection of courts.<sup>7</sup> The multinomial logit results in Panel A of Table 3 are meant to represent the first step in the EBAM wherein all three courts are considered simultaneously. The dichotomous models in Panels B through D are meant to portray subsequent steps in the EBAM wherein courts are eliminated until a single one remains as the court of choice. The results in Panel A show that DEF attains statistical significance at the .01 level ( $p=0.0086$ ;  $p=0.0007$ ). DEF achieves statistical significance at the 0.01 level in all except for the model of the U.S. Tax Court and U.S. district court in Panel C.

### *Tests of Hypotheses*

**Table 1**  
Mean Values of DEF For All Three Courts\*

Court	Sample Size	Mean values
X	67	\$80,357
Y	57	\$74,213
Z	37	\$185,648

\*The mean values presented in Table 1 vary from those presented for tax cases pending for 1988. For instance in 1988 the average amount of deficiency for litigated tax issues was \$269,973 for the Tax Court, \$196,191 for the U.S. district Courts and \$1,067,265 for the U.S. Claims Court (Internal Revenue Service, *Annual Report* 1990). A possible reason for the differences in the magnitude of the mean values is that cases with deficiency amounts in excess of \$1,000,000 (outliers) were eliminated because of their potential to bias the results. In addition, the sampled cases do not cover all areas of the tax laws. The sampled areas of the tax laws may likely have smaller deficiency amounts than the average litigated tax issue.

HA<sub>1</sub> suggests that the magnitude of the tax deficiency significantly and negatively influences the choice of the U.S. Tax Court compared to the U.S. district court. Panel C of Table 3 shows that DEF failed to achieve statistical significance at the 0.01 level ( $p=.7960$ ) for the model of the U.S. Tax Court and U.S. district court in the dichotomous logit model. Conversely, Panel A shows that DEF achieved statistical significance at the 0.01 level ( $p=.0086$ ). Considered together, HA<sub>1</sub> is supported in step 1 of the elimination process (multinomial logit model) but is not supported in the second step of the elimination process.

HA<sub>2</sub> suggests that the magnitude of the tax deficiency significantly and negatively influences the choice of the U.S. Tax Court compared to the U.S. Claims Court. Panel B of Table 3 (dichotomous model) shows that DEF has a significant and negative coefficient using the .01 cutoff ( $p=.006$ ).

**Table 2**  
**Wilcoxon Rank-Sum Test For Tax Deficiency\***

Group	Count	Rank-Sum	Mean-Scores
X	67	5,335	79.63
Y	57	3,937	69.07
Z	37	3,769	101.86

\*The dependent variable is the amount of tax deficiency (DEF) and the Group variable is Court. Kruskal-Wallis Statistic = 11.20 (p-value is 0.0037 using Chi-Square distribution with 2 degrees of freedom).

Panel A of Table 3 (multinomial model) shows that DEF also achieves statistical significance and has a negative sign when the choice involves the U.S. Tax Court and U.S. Claims Court. Therefore,  $HA_2$  is supported both with respect to statistical significance and directional effect.

$HA_3$  posits that the magnitude of the tax deficiency does not significantly influence the choice of the U.S. Claims Court compared to the U.S. district court. Panel D of Table 3 shows that DEF achieves statistical significance at the .01 level ( $p=0.0009$ ) and has a negative sign. Consequently,  $HA_3$  cannot be supported which represents an anomaly regarding court selection (see Figure 2).

#### *Discussion of Hypotheses*

The finding that the contested deficiency (DEF) is a significant aspect in the choice between the U.S. Tax Court and the U.S. district court only when all three courts are considered simultaneously provides partial support for  $HA_1$ . A possible explanation is that the selection process is completed before the deficiency aspect is used to discriminate between the U.S. Tax Court and the U.S. district court. Alternatively, the choice between the U.S. Tax Court and U.S. district court may be based on aspects other than the contested deficiency. Other aspects such as the possibility of a jury trial in the U.S. district court, different prob-

abilities of winning, and the local scope of the U.S. district court's decisions may also affect the choice between the two courts. These aspects were not included because of data limitations.

The finding that the U.S. Tax Court is more likely to be selected than the U.S. Claims Court as the magnitude of the contested deficiency increases is consistent with EBAM. The EBAM implies that aspects that are unique to individual alternatives should have a significant influence on the choice between such alternatives.

The finding that the magnitude of the contested deficiency is an important aspect in choosing between the U.S. district court and the U.S. Claims Court is an anomaly with respect to EBAM. EBAM implies that aspects that are common among alternatives do not significantly influence the choice process. A possible explanation is that the magnitude of the contested deficiency proxies for other omitted aspects. The omitted aspects may include a taxpayer perception of favorable treatment by the U.S. Claims Court with regard to certain tax issues.

Peyser (1988) observed that precedence in the Claims Court are generally favorable for the taxpayer on issues such as business losses, timing of income and deductions, bad debt and tax penalties. According to Peyser (1988), the Claims Court appears to look at the equity of the decision as well as the letter of the tax law in its opinions. The Claims Court judge may also view a refund case as a normal court case and not necessarily a tax case because Claims Court judges generally do not possess the tax expertise of U.S. Tax Courts and district courts (Peyser 1988). The findings regarding the influence of DEF in the court selection process do not fully support Payne's (1976) findings that decision-making involving multi-dimensional alternatives are consistent with EBAM.

**Table 3**  
**Logistic Regression Results**

**Panel A: Multinomial Logit Model of All Three Courts**

Variables	Parameter Estimates	Standard Error	Chi-square	p-values
Constant	-0.197892	0.0183381	1.16	0.2085
DEF	-2.5E -06	0.9 6E -06	6.91	0.0086
Constant	0.359619	0.160125	5.04	0.0247
DEF	-2.9E -06	0.84E -06	11.53	0.0007

**Panel B: Dichotomous Logit Model of the Tax Court and Claims Court**

Variables	Parameter Estimates	Standard Error	Chi-square	p-values
Constant	-0.134586	0.191297	0.49	0.4817
DEF	-3.1E -06	1.1E -06	7.71	0.0055

**Panel C: Dichotomous Logit Model of the Tax Court and District Courts**

Variables	Parameter Estimates	Standard Error	Chi-square	p-values
Constant	-0.551126	0.171942	10.27*	0.0013
DEF	0.25E -06	9.8E -06	0.07	0.7960

**Panel D: Dichotomous Logit Model of the District and Claims Courts**

Variables	Parameter Estimates	Standard Error	Chi-square	p-values
Constant	0.351134	0.159927	4.82	0.0281
DEF	-2.8E -06	0.84E -06	10.99	0.0009

All models in Table 3 were significant at  $p < .01$  except Model 3c.

#### *An Alternative Explanation*

The anomalies with respect to the influence of DEF in the choice among alternative litigation forums may partly be due to taxpayers' perceptions of differing probabilities of winning in each court. Taxpayers are also expected to choose among the courts based on the probability of win-

ning. The results in Table 4 explore whether the probability of winning/losing varies significantly among the courts.

The outcome of litigation (a win for the taxpayer=0; and a win for the IRS=1) is regressed on two indicator variables representing alternative litigation forums. Table 4 shows that the logit model is significant at the .001 level. The use of indicator variables to represent the three alternative litigation forums results in N-1 variables (Heckman 1978). The U.S. district court and the U.S. Claims Court are compared with the U.S. Tax Court and, as such, indicator variables are presented for the U.S. district court and the U.S. Claims Court.

Table 4 shows that only the U.S. Claims Court has a significant p-value ( $p=.0007$ ). The U.S. Claims Court also exhibits a negative sign for the associated parameter estimate (-1.157020). The Table 4 results also show that the probability of a taxpayer/IRS win in the U.S. district court does not vary significantly from the U.S. Tax Court and the U.S. Claims Court. The implication is that compared to the U.S. Tax Court, taxpayers have a lower probability of a win in the U.S. Claims Court or that the IRS is more likely to prevail in the U.S. Claims Court than in the U.S. Tax Court.

**Table 4**  
**Multinomial Logit Model of All Three Courts**

Variables	Parameter Estimates	Standard Error	p-values
Intercept	0.905709	0.271861	0.0009
Y	-0.366712	0.334076	0.2723
Z	-1.157020	0.340934	0.0007

\* Significant at  $p < .01$ . All models were significant at  $p < .01$  except Model 5c which is significant at the .05 level.

The Table 4 results show that the U.S. Tax Court offers a significantly higher probability of ruling in favor of taxpayers compared to the U.S. Claims Court and U.S. district court. This finding is consistent with the results refuting  $HA_3$ . The reported results regarding  $HA_3$  show that the magnitude of the tax deficiency does not sway the choice between the U.S. Tax Court and the U.S. district court. A possible explanation is that in choosing among the courts, taxpayers choose based on the understanding that the U.S. Tax Court and the U.S. district court do not differ from each other with respect to rulings in favor of taxpayers/IRS.

To further explore the reasons for the perverse effect of DEF in choice between the U.S. Tax Court and U.S. district court, TI (type of tax issue) is included as a control variable in the models presented in Table 3. Table 5 shows that TI failed to achieve statistical significance using the .01 cutoff. Closer examination of Table 5 shows that the level of statistical significance and sign of the parameter estimate for DEF did not change because of the inclusion of TI in the models.

### Conclusions

The results reported herein do not fully support taxpayers' choice of litigation forum within the purview of EBAM. As expected, taxpayers

appear to consider the magnitude of the contested tax deficiency as an important aspect in choosing among the alternative forums. Compared to the U.S. Claims Court, the U.S. Tax Court seems to be the court of choice as the magnitude of the contested deficiency increases. Surprisingly, the choice between the U.S. district court and the U.S. Claims Court is significantly influenced by the magnitude of the contested deficiency. Such a result is contrary to the expectation that aspects common to alternatives are not decisive factors in choosing among those alternative litigation forums.

Taxpayers appear to heed the fact that the U.S. Tax Court offers a significantly higher probability of ruling in favor of taxpayers than in the U.S. Claims Court when choosing between the two courts. The reported results indicate that the magnitude of the tax deficiency does not sway the choice between the U.S. Tax Court and the U.S. district court. A possible explanation is that taxpayers perceive that both courts do not differ meaningfully from each other with respect to rulings in favor of taxpayers/IRS.

### Limitations and Suggestions For Future Research

The reported results must be considered in light of three potentially important limitations: (1) the questionable ability of the deficiency amount to proxy for a liquidity constraint and (2) the possibility that the deficiency amount also proxies for other omitted variables. To capture adequately the effect of the deficiency amount on the choice process, the deficiency amount should be deflated by cash resources of litigating taxpayers. No such data were available, however. As a consequence, DEF may be a questionable proxy for the liquidity constraint imposed by the prepayment condition of the U.S. district court and the U.S. Claims Court. The contested deficiency may also proxy for other omitted aspects. The Kruskal-Wallis results reported in the descriptive analysis section show that the magnitude of the contested deficiency differs significantly among the three courts. Future research may identify more effective surrogates for

**Table 5**  
**Logistic Regression Results**

**Panel A: Multinomial Logit Model of All Three Courts**

Variables	Parameter Estimates	Standard Error	Chi-square	p-values
Constant	-0.721154	0.398426	3.28	0.0703
DEF	-2.5E -06	9.6E -07	6.98	0.0082
TI	0.146827	0.160357	0.84	0.3599
Constant	0.037069	0.0099547	0.01	0.9131
DEF	-2.9E -06	0.84E -06	11.62	0.0007
TI	0.176232	0.164433	1.15	0.2833

**Panel B: Dichotomous Logit Model of the Tax Court and Claims Court**

Variables	Parameter Estimates	Standard Error	Chi-square	p-values
Constant	-0.666165	0.403218	2.73	0.0985
DEF	-3.1E -06	1.1E -06	7.69	0.0055
DEF	0.286634	0.189997	2.28	0.1314

**Panel C: Dichotomous Logit Model of the Tax Court and District Courts**


Variables	Parameter Estimates	Standard Error	Chi-square	p-values
Constant	-0.746753	0.388464	3.70	0.0546
DEF	2.3E -06	9.8E -07	0.05	0.8165
TI	0.102261	0.181147	0.32	0.5724

**Panel D: Dichotomous Logit Model of the District and Claims Courts**

Variables	Parameter Estimates	Standard Error	Chi-square	p-values
Constant	0.47482	0.34124	0.02	0.8893
DEF	-2.8E -06	0.84E -06	11.00	0.0009
TI	0.165002	0.164521	1.01	0.3159

\*Significant at  $p < 0.01$ . All models were significant at  $p < 0.01$  except Model 5c which is significant at the 0.05 level.

the liquidity constraints. It is possible that each court attracts a unique population of litigated transactions and the deficiency amount is a determinant of such an occurrence.

Additional research should sample taxpayer/attorney representations regarding the selection process. Results of this research, along with such data, would serve as a multi-method approach in understanding the court selection process. 

**Footnotes**

1. Differences among the courts include the accrual of interest and penalties on the contested tax deficiency, the applicable precedent in the court, the rules on the use of expert witnesses, and the procedural rules for trial. Generally, the rules and procedures of the U.S. Claims Court are amenable to a quick trial at a low cost compared to the U.S. Tax Court.
2. Winning means rebutting the IRS' presumption that the taxpayer took an incorrect tax position. Recent statistics

[United States Tax Court Monthly Summary Report, September 30, 1987] show that approximately 96 percent of all tax-related litigation take place in the U.S. Tax court.

3. Two types of biases are possible in the litigation process: a legal bias or a factual bias. A legal bias arises when the judge misapplies the law while a factual bias arises when the judge disregards relevant facts or classifies the facts in such a way so as to arrive at an erroneous conclusion.
4. Under Rev. Proc. 84-58, 1984-2 C.B. 501, a taxpayer going to the U.S. Tax Court may deposit a cash bond in order to stop the running of interest. The taxpayer must deposit both the amount of the tax and any accrued interest. If the taxpayer wins and the deposit is returned, no interest will be paid by the government.
5. The IRC Sections were selected by the authors' to create a representative sample that includes both corporate and non-corporate taxpayers. The decisions consist of regular decisions of the U.S. Tax Court, Federal district court, and U.S. Claims Court.
6. The data predate the Tax Reform Act of 1986. Prior to the Tax Reform Act of 1986, long term capital gains were taxed at a maximum rate of 28 percent for corporate taxpayers and at a maximum rate of 20 percent for non-corporate taxpayers. Tax deductions had a top marginal effect of 50 percent of tax liability for non-corporate taxpayers and 46 percent for corporate taxpayers. Tax credits, on the other hand, have a 100 percent marginal effect on tax liability.
7. Two sets of parameter estimates are presented for the multinomial logit model in Panel A because the U.S. Claims Court and the U.S. district court are compared to the U.S. Tax Court. As such, N-1 models are presented.

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