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Economic analysis of advance tax rulings

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Markus Diller / Pia Vollert

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Economic Analysis of Advance Tax Rulings

Markus Diller*

Pia Vollert†

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*Universität Passau, Wirtschaftswissenschaftliche Fakultät, Innstr. 27, 94032 Passau; E-Mail: Markus.Diller@uni-passau.de; Phone: +49 851 5092440; Fax: +49 851 5092442

†Universität Paderborn, Wirtschaftswissenschaftliche Fakultät, Warburger Str. 100, 33098 Paderborn; E-Mail: Pia.Vollert@wiwi.upb.de; Phone: +49 5251 603293; Fax: +49 5251 603520

Abstract

This paper aims to analyze the impact of applying for an advance tax ruling and of examining complex tax issues with the help of an external consultant, on the investor‘s decision to invest when the environment is uncertain. Using decision theory, we first determine the maximum fee an investor is willing to pay for such a ruling or consultation in order to firm up the investment decision. We expand our analysis by assisting the potential investor in deciding on the maximum fee he is willing to pay for such a service when the fee for an advance tax ruling is set by law.

Keywords: Advance Tax Rulings, Decision Theory

JEL Classification: H25, K34

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1 Introduction

Due to the complexity of tax law the interpretation of certain tax issues is often ambiguous. Therefore, the taxpayer faces considerable legal uncertainty when it comes to tax planning. To avoid such risks, under certain circumstances many legal systems allow for the possibility of applying for an advance tax ruling to help estimate the fiscal consequences of a decision before it is taken. By requesting such a ruling the taxpayer is able to gain legal certainty regarding the fiscal consequences of an intended investment. In several countries these advance tax rulings are not free of charge. Rather, the taxpayer has to pay a set fee.

Another way for taxpayers to assess the fiscal consequences of an intended investment is to obtain more information with the help of e.g. an external consultant. This will (possibly) help the taxpayer to firm up the decision, but will not give him certainty. Employing an external consultant will also involve a fee.

The present paper uses decision theory in order to determine, first, the maximum fee that the taxpayer is willing to pay for an advance tax ruling or for the services of a consultant. Second, the fee for an in-depth consultation is determined using the known fee for an advance tax ruling, with the aim to assist the taxpayer in choosing one of the two described alternatives.

The paper is organized as follows. Advance tax rulings in different countries are presented in chapter 2. The model is introduced in chapter 3. After considering a risk neutral investor the request for advance tax rulings is analyzed for risk aversion. The advance tax ruling option is compared to the option of obtaining more detailed information through an external consultant. Finally, the option of obtaining more information through an external consultant is analyzed if the fee for an advance tax ruling is set by law. Chapter 4 concludes.

2 Advance Tax Rulings

Prior to taking an investment decision investors must forecast the prospective tax burden associated with the investment as it can be a significant cost factor.[2] To integrate taxes

[2]For the impact of taxes on investment decisions see Scholes et al. (2008); Schreiber (2005).

accurately into the decision calculus the taxpayer has to estimate the prospective tax burdens of available investment options in advance. The fiscal environment should enable a taxpayer to evaluate the fiscal outcome and impact of their impending investment project (Hey 2002; Voß 1992). However, not only in Germany is tax planning an uncertain exercise, with the consequence that it is virtually impossible to estimate the tax burden of a future investment accurately. This uncertainty is due to the complexity, indeterminacy and inconsistency of tax legislation (Hey 2002; Voß 1992). Even a detailed examination of the underlying legal norm cannot prevent a tax issue from being misinterpreted.

> "Tax law ambiguity implies that even if you could claim to have committed to memory the entire Internal Revenue Code, you would be able to resolve only a small degree of ambiguity in how a tax return should be prepared. As technically detailed as the Tax Code may seem to be, it still contains rules that are far too general to indicate clearly how particular transactions are to be taxed." (Scholes et al. 2008)

Uncertainties caused by ambiguities in the tax code include (Rose 1995; Voß 1992):

- Uncertainties caused by the tax issue, i.e., a taxpayer may overlook aspects of the project,
- Uncertainties regarding the evaluation of tax consequences, or
- Uncertainties caused by (retroactive) amendments to the tax code.

It is impossible to reduce the uncertainties caused by (retroactive) amendments to the tax code.[3] However, in order to reduce uncertainties due to complexity and interpretation, several countries allow for the possibility of an advance tax ruling. This enables investors to gain certainty on the tax consequences of a planned investment.[4] In other words, an investor can then enjoy legal certainty when factoring the tax consequences of a possible investment into his calculus.

In Germany taxpayers can apply to the tax authorities for an advance tax ruling in accordance with Section 89 para. 2 of the Tax Code (Abgabenordnung).[5] This ruling holds

[3] See e.g., Rätke (2009) on the annulment of advance tax rulings.
[4] For a detailed general definition, see Romano (2002).
[5] It is important to know that Section 89 para. 2 is considered an optional provision and therefore does not establish an absolute legal claim (Baum 2008; Reiser 2007).

for a precisely defined but not yet realized tax issue that is of special interest because of its considerable fiscal impacts (Rätke 2009).[6] The applicant is asked to explain his special fiscal interest and provide a detailed description of the legal problem (Baum 2008; Rätke 2009). The advance tax ruling has a binding effect if the project, once realized, does not differ significantly from the planned project described in the advance tax ruling and if the underlying legal circumstances have not been reversed or changed.[7] For an advance tax ruling the German tax authorities charge a fee that depends on the value of the project.[8]

In the US taxpayers can apply to the National Office of the Internal Revenue Service (IRS) for a private letter ruling. Like in Germany, the ruling has a binding effect as long as the issue has been accurately and fully explained and the project was later implemented as indicated (Zschiegner 2002). Each year the IRS publishes a Revenue Procedure that describes the types of private letter ruling, the required documentation and the specific issues that cannot be resolved with the help of a private letter ruling at that point in time (Givati 2009). Also the IRS charge a request fee for a private letter ruling (Givati 2009).

According to the OECD's Comparative Information Series, which provides an overview of the tax administrations in OECD and selected non-OECD countries, advance tax rulings are a popular and widespread instrument. 29 of the 30 OECD countries provide taxpayers with the possibility of requesting an advance tax ruling.[9] Estonia is the only country among the 13 non-OECD countries under review without this option. In 27 of the OECD countries and 11 of the non-OECD countries the rulings are binding for the tax administrations (the exceptions are Japan, Mexico, Poland and Bulgaria). In 17 OECD and nine non-OECD countries the rulings have to be issued within a certain period (ranging from 20 working days to three months). Only 11 OECD and five non-OECD countries charge a fee (OECD 2008).

The tax-based literature suggests that applying for a tax ruling is often not worthwhile because there are several disadvantages that outweigh the advantage of future legal certainty. The heaviest criticism is levied at the fees for this service (Blömer 2008; Keß and Zillmer 2008; Küffner and Zugmaier 2007; Simon 2007; Wienbracke 2007). In certain complicated situations, such as a corporate reorganization, the fee can be disproportionately high (Keß

[6] We can assume that the issue is of "special interest" if its implementation depends on the outcome of the advance tax ruling and if the associated legal issues are unresolved (Rätke 2009).

[7] For a legal classification and for the practical relevance of the binding effect see Franke and Cölln (2008).

[8] This amount corresponds to the difference between the tax consequences of the taxpayer's interpretation and those of the potentially contrary interpretation of the tax authorities.

[9] Luxembourg is the sole exception.

and Zillmer 2008). An examination of US investors' strategic considerations leads to the conclusion that US taxpayers hardly ever request an advance tax ruling (Givati 2009). Not only do taxpayers fear the higher probability of a subsequent audit, they are also concerned that the ruling will be issued by experts with comprehensive specialist fiscal knowledge (Givati 2009). Another argument against applying for an advance tax ruling is the amount of time and effort involved in preparing the application, along with the fact that the ruling is no longer binding if the project is not realized exactly as intended (Rätke 2009).

In the following we use decision theory to examine whether and if so, under what circumstances a taxpayer would be willing to apply for an advance tax ruling and what fee he would be willing to pay for achieving certainty.

3 Model

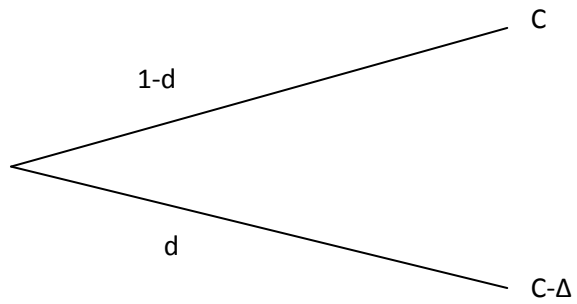
A taxpayer has to decide whether to carry out an investment or abandon the project. The decision is made more difficult by the fact that the tax consequences of the intended investment and in turn, of the future project are ambiguous.[10] The taxpayer may apply for an advance tax ruling to reduce that uncertainty or even achieve full certainty. However, the ruling is not free of charge. The fee may outweigh the utility of the intended investment. In order to examine this situation more closely, we use the model described below.

We consider an investor who has to decide to either realize a certain investment project or abandon it. He faces uncertainty in that owing to the complexity of the underlying legislation, he cannot know for sure what the eventual tax consequences of the project will be. We assume that the decision concerning the tax arrangement is a binary one. This assumption ought to be realistic since important fiscal decisions, such as the disclosure of hidden reserves, are normally all-or-nothing decisions. Decisions concerning amounts (for example transfer price levels) cannot normally be a subject of an advance tax ruling. The intended investment has a net present value of C as long as the tax consequences are interpreted as the taxpayer has anticipated. If the tax authorities interpret the consequences of the project any other way, the project's net present value C will be reduced by Δ. This value describes the impact of the different fiscal treatment. If, for instance,

[10] For a definition of ambiguous income see Klepper et al. (1991).

the tax authorities do not allow the (supposed) immediate deduction of the investment's acquisition cost as operating expenses, the investor's tax base and in turn his tax burden increases. The project's net present value C is reduced by this higher tax burden (Δ), which can also be seen as the present value of the disadvantageous tax treatment. Since the investor cannot much more than guess how the tax authorities will evaluate the situation, we consider a decision under uncertainty. The probability that the tax authorities interpret the situation to the disadvantage of the taxpayer is d. Figure 1 illustrates the decision situation:

Figure 1: Decision tree (Advance tax ruling)



The taxpayer can request an advance tax ruling from the tax authorities in order to firm up his decision and gain certainty concerning the tax consequences of the future investment. P_{ATR} is the fee that is payable for this service.

3.1 Risk neutral Investor

To begin with, the taxpayer is risk neutral, i.e. he strives for an improvement in the expected net present value of his investment ($\mu(C)$) and will therefore realize the project only if its expected net present value is positive.

Assuming a risk neutral investor, the expected net present value, without considering a request for an advance tax ruling, is:

$$\mu(C) = \text{Max}[(1-d)C + d(C-\Delta), 0] \tag{1}$$

$$= \begin{cases} C - d\Delta & C > d\Delta \\ 0 & \text{Otherwise} \end{cases}$$

Equation (1) shows that the investor will realize the project only if its expected value is positive.

The taxpayer may request an advance tax ruling. If he does so and the ruling turns out to be disadvantageous for him, he will be able to abandon the planned investment. He will do so if the investment generates a negative after-tax net present value and is hence not worth implementing. The investor includes in his calculus the possibility that the investment will not be carried out. He is able to do so while still at the decision stage, that is, before the tax authorities have issued the ruling. As the investor has to pay a fee for the advance tax ruling P_{ATR} he will include this fee, too, in his calculus. Assuming the investor requests an advance tax ruling (and assuming that the probability of a negative outcome of the advance tax ruling is the same as the probability of a negative interpretation of the tax code after the realization of the investment d), the expected net present value of the investment is:

$$\mu(C)_{ATR} = (1-d)C + d * \text{Max}[(C-\Delta), 0] \tag{2}$$

Equating the expected values with and without an advance tax ruling

$$\mu(C)_{ATR} - P_{ATR} = \mu(C)_{ATR} \tag{3}$$

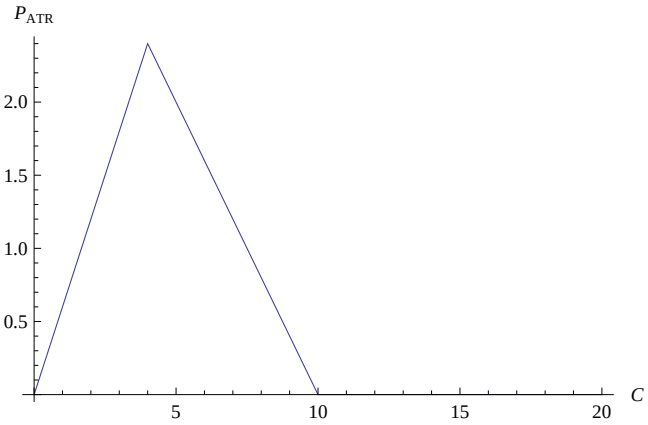
and solving the equation for the maximum fee P_{ATR} produces:

$$P_{ATR} = C - C * d + d * \text{Max}[(C-\Delta), 0] - \text{Max}[(C - d\Delta), 0] \tag{4}$$

$$= \begin{cases} C(1-d) & d\Delta \geq C \\ d(-C+\Delta) & \Delta \geq C > d\Delta \\ 0 & \text{Otherwise} \end{cases}$$

Figure 2 depicts the P_{ATR}-Function depending on the net present value C for $\Delta = 10$ and $d = 0.4$.

Figure 2: Maximum fee for advance tax rulings P_{ATR} depending on C



To interpret the results and to examine whether a risk neutral investor is willing to pay for an advance tax ruling we distinguish between two cases. In the first case the net present value C exceeds the value of the impact of a different fiscal treatment Δ, while in the second case, C equals or is less than Δ.

We first consider the case with $C > \Delta$. Here, in contrast to the authorities issuing an advantageous ruling, the authorities' divergent interpretation of the tax consequences results in a reduction in the expected present value $\mu(C)_{ATR}$ but not in a negative net present value. This implies that the investment is still worth undertaking in both states. Essentially, the risk neutral investor is unwilling to request an advance tax ruling for which a fee is payable in order to gain certainty concerning tax consequences that are not relevant to the decision ($P_{ATR} = 0$). Rather, he decides if the investment is worthwhile or not based on an analysis of possible outcomes. One example of this behavior is the decision to invest in a factory while not knowing whether the taxpayer will be allowed to use linear or declining depreciation. Even if one of these options is more worthwhile for the taxpayer than the other, investing in the factory is profitable either way, and the taxpayer is not willing to pay for knowing exactly what the fiscal consequences will be.

The option to apply for an advance tax ruling becomes relevant when the net present value C becomes negative ($C \leq \Delta$) because of the tax authorities' divergent interpretation of the fiscal consequences. As in this case the tax treatment influences the actions of the investor, he is willing to pay a fee for information on which state will occur, i.e., for an advance tax ruling. Regarding the determination of the maximum payable fee we again distinguish between two cases. In the first case the net present value C ranges between Δ and $d\Delta$, while in the second case, C equals or is less than $d\Delta$. This threshold expresses

whether the investor would realize the investment in the "laissez faire" case or not (cf. equation (1)). We first consider the latter case, where the taxpayer would abandon the investment project in the case of not applying for an advance tax ruling. He therefore would be willing to pay a fee up to these opportunity costs ($C(1-d)$).

Considering the second case, the maximum fee corresponds to the disadvantage that the taxpayer suffers due to the negative net present value caused by the divergent interpretation of the tax consequences ($-C+\Delta$), weighted with the probability d. Thus, the fee expresses the expected loss that the taxpayer would realize on the investment if the tax authorities were to interpret the tax issue disadvantageously. The fee can be interpreted as the price that is payable to prevent expected damage.

3.2 Risk averse Investor

In the following we assume a risk averse investor. His risk aversion is expressed by a quadratic utility function; in this case the $\mu - \sigma$ decision criterion leads to the same results compared to using real utility functions. The μ criterion that applies to risk neutrality is therefore extended by the variance σ^2. The risk preference function PF that describes the dependence of the risk utility on the expected present value and the risk (Perridon et al. 2009) produces:

$$PF = \mu(C) - w\sigma^2(C)$$

where the factor w expresses the investor's degree of risk aversion.

If no advance tax ruling is requested, the variance of the net present value $\sigma^2(C)$ results in:

$$\sigma^2(C) = (1-d)(C-\mu(C))^2 + d((C-\Delta)-\mu(C))^2 \tag{5}$$

$$= \begin{cases} C^2 - 2Cd\Delta + d\Delta^2 & C \leq d\Delta \\ (1-d)d\Delta^2 & \text{Otherwise} \end{cases}$$

If the investor decides to apply for an advance tax ruling the variance of the net present value $\sigma^2(C)_{ATR}$ is:

$$\sigma^2(C)_{ATR} = (1-d)(C-\mu(C)_{ATR})^2 + d(\text{Max}[(C-\Delta),0] - \mu(C)_{ATR})^2 \tag{6}$$

$$= \begin{cases} (1-d)dC^2 & C \leq \Delta \\ (1-d)d\Delta^2 & \text{Otherwise} \end{cases}$$

Then, forming the risk preference function with and without requesting an advance tax ruling and equating these functions analogously to the risk neutral case results in:

$$\mu(C) - w\sigma^2(C) = \mu(C)_{ATR} - w\sigma^2(C)_{ATR} - P_{ATR} \tag{7}$$

Again solving for the maximum fee P_{ATR} we achieve:

$$P_{ATR} = \begin{cases} C(1-d)(1-Cdw) & C \leq d\Delta(1+w(\Delta-d\Delta)) \\ d(-C+\Delta)(1+(1-d)w(C+\Delta)) & \Delta \geq C > d\Delta(1+w(\Delta-d\Delta)) \\ 0 & \text{Otherwise} \end{cases} \tag{8}$$

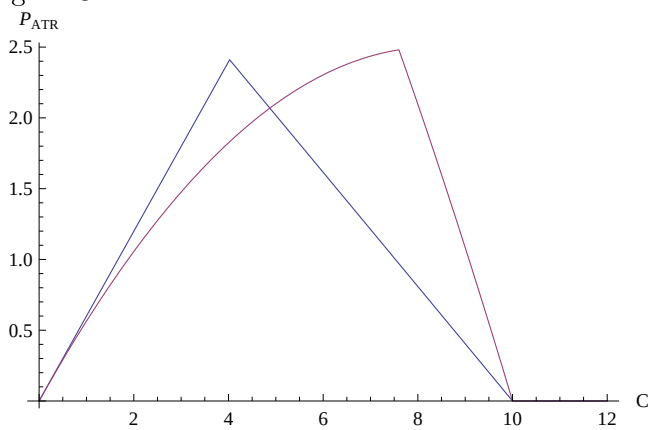
The decision behavior of a risk averse investor generally corresponds to that of a risk neutral investor. If the net present value of an investment remains positive ($C > \Delta$) despite the tax authorities issuing an unfavorable interpretation of the tax consequences, the risk averse investor will not be willing to pay a fee for an advance tax ruling ($P_{ATR} = 0$).

Again, as in the case of the risk neutral investor, the option to apply for an advance tax ruling only becomes relevant when the expected net present value C becomes negative in the case of an unfavorable interpretation of the tax code ($C \leq \Delta$). The threshold that separates the opportunity costs area from the area in which expected damage is prevented shifts from $d\Delta$ to $d\Delta(1+w(\Delta-d\Delta))$. The reason for the increase is that due to risk aversion, higher net present values are needed to realize the investment without applying for an advance tax ruling.

For expected net present values above this threshold, i.e., the investment would be realized with or without applying for an advance tax ruling, the risk averse investor is willing to pay a higher fee for an advance tax ruling than would a risk neutral investor. That is because the ruling decreases the variance and thus the uncertainty of the investment. The reduced risk is therefore valued as a part of the maximum fee in the case of a risk averse investor. The maximum fee increases by factor $1 + (1 - d)w(C - \Delta) > 1$. This can be interpreted as a typical case, where the advance tax ruling prevents expected damage and reduces the risk expressed by the variance.

For net present values below this threshold the maximum fee of the advance tax ruling decreases compared to the maximum fee a risk neutral investor is willing to pay by factor $1 - Cdw < 1$. This leads to the unexpected situation that the risk averse investor is not willing to pay as much for the advance ruling as the risk neutral investor. This is because the outcome of the advance tax ruling is uncertain and has therefore a lower value for the risk averse investor. The advance tax ruling is no longer an instrument to reduce risk, as the investment would not be realized without an advance tax ruling; instead it is in itself a risky investment. Figure 3 shows a comparison between the maximum fees payable for risk neutrality and risk aversion with $d = 0.4$, $\Delta = 10$ and $w = 0.15$.

Figure 3: Comparison of the maximum fees for advance tax rulings P_{ATR} for risk neutrality and risk aversion depending on C



3.3 Further Information Procurement

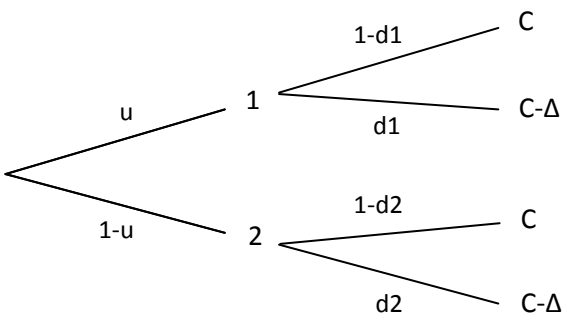
By requesting an advance tax ruling a taxpayer generally obtains absolute certainty regarding the tax consequences of an investment. Alternatively, the taxpayer may also explore the situation further, e.g., with the help of an external consultant or a represen-

tative of his own tax department. While this will not give him absolute certainty, under certain conditions it can improve the decision-making process as he can base his decision on the information delivered by the consultant.

Again, a risk neutral taxpayer has the possibility to make an investment that may generate two possible outcomes. Depending on the tax authorities' assessment of the tax consequences, the investment generates a net present value of C with a probability of $1-d$ or a net present value of $C-\Delta$ with a probability of d. The investor has to decide to either carry out or abandon the project based on the known probabilities (without the possibility of requesting an advance tax ruling), or he can further examine the tax issue in order to estimate the tax consequences more confidently. If the investor decides to obtain further information with the help of an external consultant or a representative of his tax department, he is given additional information concerning the tax issue and the probability d changes to the conditional probabilities $d1$ or $d2$ depending on the outcome of the examination (1 or 2).

The information at the consultant's disposal cannot create certainty. With a conditional probability of $d1$ the tax authorities issue an unfavorable interpretation even though the consultant anticipates a positive outcome (1). Also, if the consultant's interpretation of the tax consequences is unfavorable (2), there is a probability of $1-d2$ that the tax authorities will issue a favorable interpretation. Figure 4 summarizes this decision situation:

Figure 4: Decision tree (Further information procurement)



With the help of the total probability theorem[11] the probability u, which is the probability that the external consultant anticipates a positive assessment of the tax consequences, can

[11] Total probability theorem: If the probabilities of mutually exclusive events A_1, A_2,...,A_n sum to unity and if B is an arbitrary event it is considered that $W(B) = \sum_{i=1}^{n} W(A_i)W(B|A_i)$ (Bourier 2009).

be calculated as:

$$W(C) = u(1 - d1) + (1 - u)(1 - d2).$$

The total probability of the net present value C occurring corresponds to the probability of the initial case (see Figure 1). Therefore

$$u(1 - d1) + (1 - u)(1 - d2) = 1 - d$$

must hold. Solving for u we obtain:

$$u = \frac{d2 - d}{d2 - d1}$$

We again determine the expected net present value $\mu(C)_{procurement}$ of the investment. If the taxpayer was aware of the consultant's opinion regarding the future outcomes, he would decide to carry out or abandon the investment by using the expected value at that node of the decision tree. If the consultant anticipates state 1, the investor would decide based on the expected value $\mu 1 = (1-d1)C+d1(C-\Delta)$. If the expected value is positive, the investor will carry out the investment; if not, the project is abandoned. The taxpayer uses the expected value $\mu 2 = (1 - d2)C + d2(C - \Delta)$ to take his decision if the consultant anticipates state 2. Integrating this decision-making scenario in the investor‘s calculus we obtain the following expected value $\mu(C)_{procurement}$:

$$\mu(C)_{procurement} = u\text{Max}[(1-d1)C + d1(C-\Delta), 0] + (1-u)\text{Max}[(1-d2)C + d2(C-\Delta), 0]$$

In order to determine the maximum fee PI the taxpayer is willing to pay for further information procurement we equate the expected value $\mu(C)_{procurement}$ with the expected value of the initial case $\mu(C)$ (cf. equation (1)):

$$\text{Max}[(1 - d)C + d(C - \Delta), 0] = \frac{-d + d2}{-d1 + d2}\text{Max}[\mu 1, 0] + (1 - \frac{-d + d2}{-d1 + d2})\text{Max}[\mu 2, 0] - PI.$$

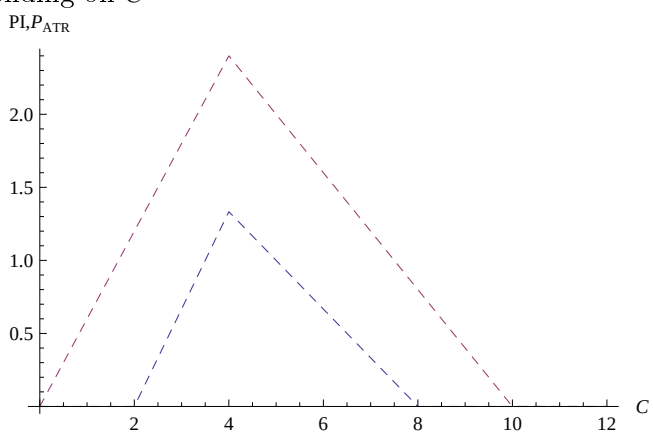
Thus, given that $d2 > d > d1$, the maximum fee PI is:

$$PI = \frac{d2-d}{d2-d1}\text{Max}[C - d1\Delta, 0] + \frac{d2-d}{d2-d1}\text{Max}[C - d2\Delta, 0] - \text{Max}[C - d\Delta, 0] \quad (9)$$

$$= \begin{cases} \frac{d2-d}{d2-d1} * (C - d1\Delta) = u * (C - d1\Delta) & d1\Delta < C \leq d\Delta \\ \frac{d-d1}{d2-d1} * (-C + d2\Delta) = (1-u) * (-C + d2\Delta) & d\Delta < C \leq d2\Delta \\ 0 & \text{Otherwise} \end{cases}$$

The maximum fee can be interpreted analogously to section 3.1 as opportunity costs or as prevented damage. For $d1\Delta < C \leq d\Delta$ the investor realizes the investment only with the help of an external consultant if the consultant anticipates a positive outcome (which happens with probability u). But there still remains the risk ($d1$) of a disadvantageous interpretation of the tax code by the tax authorities, which is considered in the expected value of formula (9). For $d\Delta < C \leq d2\Delta$ the fee can again be interpreted as expected prevented damage compared to the realization of the investment without further information procurement if the consultant's assessment is negative ($W = (1-u)$). In this case the (high) probability $d2$ of a negative outcome is valid. For the values of $\Delta = 10$, $d = 0.4$, $d1 = 0.2$ and $d2 = 1 - d1 = 0.8$ figure 5 illustrates a comparison of the maximum fees for further information procurement with requesting an advance tax ruling depending on the net present value C.

Figure 5: Comparison of the maximum fees for advance tax rulings P_{ATR} and further information procurement PI depending on C



The comparison shows that the maximum fee for the information procurement is lower as legal certainty cannot be achieved. However, the slope of the PI function shows a similar development as the slope of the P_{ATR}-Function.

3.4 Further Information Procurement given a fixed Fee for Advance Tax Rulings

Until now we have analyzed two cases, the advance tax ruling and the procurement of further information. We now know that the taxpayer is only willing to pay a fee in order to gain certainty about the tax consequences under certain conditions. Furthermore, the fee payable for further information is lower than the fee payable for an advance tax ruling. Next we analyze the relationship between these two cases. Specifically, we analyze what fee the taxpayer should be willing to pay for further information if the fee for an advance tax ruling is fixed by law. This will assist the taxpayer in choosing between requesting an advance tax ruling or examining the situation further.

To determine the maximum fee payable PI_{ATR} if the fee for an advance tax ruling is fixed P^f_{ATR} we contrast the expected net present value in the case of further information procurement with best of both alternatives, namely doing nothing and requesting an advance tax ruling, and we solve for the maximum fee the investor is willing to pay for employing an external consultant.

$$\mu(C)_{procurement} - PI_{ATR} > Max[\mu(C), \mu(C)_{ATR} - P^f_{ATR}] \tag{10}$$

$$\mu(C)_{procurement} - \mu(C) - PI_{ATR} > Max[0, \mu(C)_{ATR} - P^f_{ATR} - \mu(C)] \tag{11}$$

With $PI = \mu(C)_{procurement} - \mu(C)$ and $P_{ATR} = \mu(C)_{ATR} - \mu(C)$ one yields:

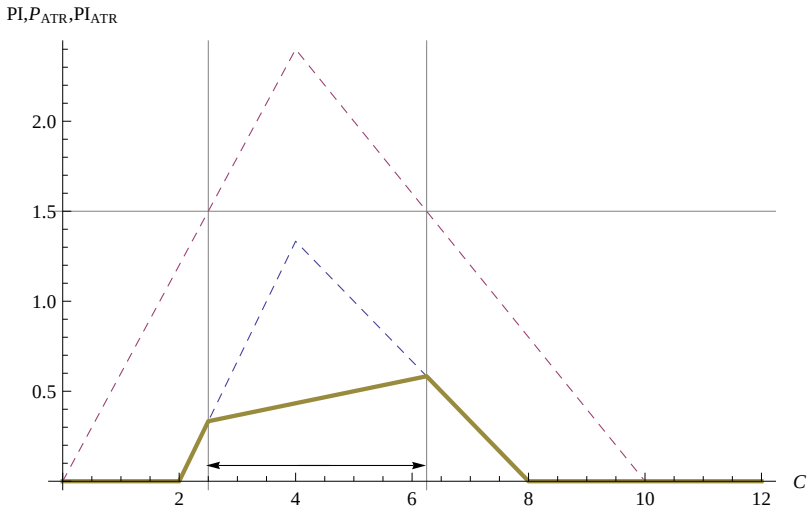
$$PI_{ATR} < PI - (P_{ATR} - P^f_{ATR}) \tag{12}$$

if $P_{ATR} - P^f_{ATR} > 0$.

Figure 6 shows the maximum fees payable depending on the net present value C for values of $d = 0.4, d1 = 0.2, d2 = 1 - 0.2 = 0.8, \Delta = 10$ and $P^f_{ATR} = 1.5$ in the cases of advance

tax rulings (P_{ATR}), of further examining (PI) as well as of further examining given a known fee for a ruling (PI_{ATR}).

Figure 6: Comparison of the maximum fees depending on C



It is worth considering the PI_{ATR} slope for net present values in the indicated area. Here, the taxpayer adjusts the fee he is willing to pay for further information procurement. The possibility of obtaining an advance tax ruling at a fixed fee that is lower than the maximum fee (a kind of consumer surplus) limits the maximum fee for further information procurement. These findings show that the investor should not only determine his maximum fee payable when further investigating but should also take into account the fixed fee for an advance tax ruling. Thus, he is able to maximize his expected value and to improve his decision making.

4 Conclusions

We show that there is a positive maximum fee for requesting an advance tax ruling only in the case of small net present values. The economic intuition of this surprising result is that for high net present values (compared to Δ), the taxpayer will not be willing to pay for information on the tax consequences as he will carry out the investment anyway.

Analogously we determine the maximum fee for a consultant who, although he cannot provide absolute certainty concerning the tax consequences, can improve the decision situation by producing new information and thus changing the probability of the outcome.

As the taxpayer cannot gain certainty by procuring further information, the fee he is willing to pay is lower than the one for requesting an advance tax ruling.

Finally, we combine these approaches and derive a fee for procuring additional information depending on the known fee fixed by law for the advance tax ruling.

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Kontaktadresse:
Prof. Dr. Caren Sureth, Universität Paderborn, Fakultät für Wirtschaftswissenschaften,
Warburger Str. 100, 33098 Paderborn,
www.arqus.info, Email: info@arqus.info

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