

## **Influential Article Review - Clashes Between Corporate Owners and Administrators on Taxation Matters**

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*This paper examines taxation. We present insights from a highly influential paper. Here are the highlights from this paper: When analyzing the influence of taxation on agency conflicts between firm owners and managers, one can draw on theoretical principal–agent literature from various research fields. In recent years, this interdisciplinary research has grown significantly covering research with regards to optimal compensation, investment decisions, tax avoidance and transfer pricing while analyzing the effects of corporate income taxes, wage taxes, bonus taxes and shareholder taxes. Our paper provides a comprehensive review of analytical literature that studies the influence of taxation on agency conflicts between firm owners and managers. Above and beyond summarizing research findings, we discuss how taxes are commonly implemented in agency models, derive empirical predictions, and identify research gaps for future tax research. For our overseas readers, we then present the insights from this paper in Spanish, French, Portuguese, and German.*

*Keywords:* Analytical tax research, Principal–agent conflict, Corporate income tax, Wage tax, Bonus tax, Shareholder tax

### **SUMMARY**

- This paper provides a state of the art review of the tax effects on agency conflicts between firm owners and managers. Beyond summarizing the research findings by tax types and research area , we also discuss how taxes are commonly implemented into agency models, derive empirical predictions, and identify research gaps for future tax research.
- Previous tax reviews document that the existing tax literature is rather disjointed. In line with this observation, we find that papers, even within the four identified main research areas, are rather loosely connected to each other and show little or no cross-reference to one another. As our analysis indicates, there are many cases in which taxes influence the behavior of all contracting parties. For instance, corporate taxes do not only reduce a firm's profit but can also alter the manager's optimal compensation contract. We list three common simplifications: First, tax schemes are mostly assumed to be proportional. Assuming proportional tax rates alleviates the creation of tractable models that allow for explicit solutions. For instance, including a non-proportional tax into the frequently used LEN model would violate the assumption of linearity and therefore preclude the

use of this model type. However, many wage tax schemes around the world are progressive and investigating the effects of such a progressive tax scheme is important in some cases. For example, a progressive wage tax could motivate the manager to undertake undesirable actions such as shifting earnings between periods to minimize his or her personal tax burden if the manager is subject to a tax rate below the top marginal tax rate. Second, most researchers assume that the reservation utility is unaffected by taxation. To our surprise, we find that certain tax types have not yet been investigated within agency models. We believe that there are numerous opportunities for future research to fill this gap. An example for such a gap is the value added tax, which exists in most countries all over the world. An area where the consideration of this tax may render new insights is in the transfer pricing literature. As the transfer price is a determining factor for the distribution of revenues within a firm, a value added tax can influence the firm's transfer pricing decisions. This of course is only an issue in the absence of tax harmonization between tax jurisdictions. Another example is environmental taxes such as pollution or energy taxes which are applied in many countries within the European Union.

## HIGHLY INFLUENTIAL ARTICLE

We used the following article as a basis of our evaluation:

Bauer, T., Kourouxous, T., & Krenn, P. (2017). Taxation and agency conflicts between firm owners and managers: a review. *Business Research*, 11(1), 33–76.

This is the link to the publisher's website:

<https://link.springer.com/article/10.1007/s40685-017-0054-y>

## INTRODUCTION

Conflicts of interest between firm owners and firm management caused by the separation of ownership and control are among the most important and well explored issues within business economics. However, despite the fact that contracting parties, both shareholders and managers, are subject to taxation, tax considerations have been notably absent from the theoretical principal–agent literature. This is surprising given the many instances in which taxes influence decision making. Taxation reduces the benefit that shareholders and managers receive from their contractual relationship. A contractual agreement may even be prevented due to the presence of taxation, for instance, if the manager's expected utility drops below his reservation utility. Furthermore, taxes change the information content and incentive effect of managerial performance measures. An after-tax performance measure motivates the manager to engage in tax avoidance activities but is also noisier than pre-tax compensation as it is influenced by tax legislation such as tax rate changes. Transfer prices, used for the purpose of internal coordination and control, are affected by taxation as well as they are a determining factor for the allocation of taxable income in multinational firms.

Recently, maybe as a response to a call for more theoretical guidance (e.g., Shackelford and Shevlin 2001; Hanlon and Heitzman 2010), the role of taxation in relation to agency conflicts between firm owners and managers has received increasing attention. Footnote1 Due to the interdisciplinary nature of taxation and diverse backgrounds of researchers, the investigated research questions are manifold and the approaches on how to implement taxation are heterogeneous.

We provide a comprehensive review of the analytical principal–agent literature that analyzes the effects of taxation on agency conflicts between firm owners and managers. More precisely, we discuss literature that studies the influence of taxation on corporate and managerial decision making in a principal–agent framework where the principal can be interpreted as the firm owner(s) and the agent(s) can be interpreted as the manager(s) who act(s) on behalf of the firm owner(s). In doing so, we explicitly abstract from discussing papers in which the incentives between firm owners and managers are perfectly aligned. We do

not discuss literature that focuses on optimal public spending, welfare effects, or on the social implications of taxation. While we do not restrict our attention to any specific research field, we find that most articles satisfying our criteria are related to (managerial) accounting and finance. A common theme that runs throughout this review is the question of how taxation affects risk-sharing between firm owners and managers.

Our study provides valuable information for adopting a multilateral tax planning perspective as proposed by Scholes et al. (2009), according to which effective tax planning requires an understanding of the tax implications on all contracting parties (here firm owners and managers). We show that there are various motivations for studying the effects of taxation on the agency relationship between firm owners and managers. We provide the reader with an overview of tax-related research questions that have been analyzed by the use of principal–agent models and summarize the associated results organized by tax type and research area. Furthermore, we present an illustrative tax modeling example using the LEN model framework, derive empirical predictions, identify research gaps and offer many avenues for future research. In doing so, we formulate predictions only for those analytical results that we find particularly promising for future empirical research. When deriving empirical predictions, we also discuss selective empirical literature as it relates to each prediction.

Throughout this review, the following themes recur. First, scholars use two distinct modeling approaches: Some scholars implement and study the effects of only one tax type. This is particularly the case when consequences of tax law changes are analyzed. Other scholars implement several tax types to analyze whether and how those tax types distort the agency conflict. Second, taxation is modeled in a simplified manner. For instance, tax rates of all types are usually implemented as proportional tax rates and the manager's reservation utility is assumed to be independent of taxation. Third, we find that the statement by Shackelford and Shevlin (2001) regarding empirical tax research: "Instead of a trunk with major branches, the tax literature grew like a wild bush, springing in many directions [...]" (p.324) also applies to the set of papers analyzed in this review. In this set of papers, scholars elaborate on the effects of four distinct tax types: corporate income taxes, wage taxes, bonus taxes, and shareholder taxes. With regard to corporate income taxation, the investigated topics include the consequences on compensation contracts, tax avoidance (and tax evasion), investment and capital structure, and transfer pricing. For all other tax types, we find studies with respect to compensation as well as investment and capital structure issues.

To the best of our knowledge, this is the first literature review that discusses the implementation and consequences of taxation in principal–agent models. Most prior tax literature reviews focus upon empirical research. To mention just a few: Shackelford and Shevlin (2001) review tax and non-tax trade-offs, asset prices, and multi-jurisdictional commerce. Graham (2003) surveys tax research related to capital structure, payout policy, compensation strategy, risk management, and the form of organizations. Expanding on the results of Shackelford and Shevlin (2001) while shifting the focus on the interdisciplinary nature of tax research, Hanlon and Heitzman (2010) review four areas of inquiry: corporate income tax avoidance, investor-level taxes and asset prices, the informational role of accounting for income taxes, and investment and capital structure decisions. Looking at previous theoretical literature reviews discussing principal–agent models, we find that authors mention taxation issues only in passing, if at all. The center of attention usually lies in illustrating how agency theory can be applied to different research areas such as managerial accounting (Baiman 1982, 1990), accounting (Lambert 2001), or supply chain management (Fayezzi et al. 2012).

The paper proceeds as follows. Section 2 describes the methodology used to identify the relevant studies for our review. A table at the end of Sect. 2 depicts the number of studies grouped by tax type, broad research topic, and publication period. Section 3 illustrates how taxes are typically implemented in principal–agent models by the use of a LEN model. In Sects. 4 to 7, we present and discuss the results for each of the four identified tax types: corporate income taxes (Sect. 4), wage taxes (Sect. 5), bonus taxes (Sect. 6), and shareholder taxes (Sect. 7). Sections are split into the thematic subsections: compensation, investment and capital structure, tax avoidance, transfer pricing, and future research.<sup>Footnote2</sup> For convenience, tables at the end of each subsection provide a summary of the reviewed papers and include a brief description of the model, the tax-related research question(s), and the associated result(s). The paper

is organized such that readers interested only in the empirical predictions derived from the analytical results can skip straight to them as they are numbered and highlighted throughout the text. Section 8 concludes with a discussion of further unanswered research questions and an outlook into future tax research.

## CONCLUSION

This paper provides a state of the art review of the tax effects on agency conflicts between firm owners and managers. Beyond summarizing the research findings by tax types (corporate income, wage, bonus, and shareholder taxes) and research area (compensation, investments, tax avoidance, and transfer pricing), we also discuss how taxes are commonly implemented into agency models, derive empirical predictions, and identify research gaps for future tax research.

Previous tax reviews (e.g., Shackelford and Shevlin 2001; Hanlon and Heitzman 2010) document that the existing (empirical) tax literature is rather disjointed. In line with this observation, we find that papers, even within the four identified main research areas, are rather loosely connected to each other and show little or no cross-reference to one another. As our analysis indicates, there are many cases in which taxes influence the behavior of all contracting parties. For instance, corporate taxes do not only reduce a firm's profit but can also alter the manager's optimal compensation contract. We find two distinct tax modeling approaches. On one hand, most papers focus upon the analysis of a single form of taxation. This unilateral approach is mostly motivated by the researchers' interest in the effect of a particular tax rate or legislation act such as the placement of tax deductibility limitations on managerial compensation (see, e.g., Göx 2008) or the introduction of a bonus tax (see, e.g., Radulescu 2012). On the other hand, there are only a few papers that try to incorporate several taxes and as a result present the overall effects of taxation (see, e.g., Niemann 2008).

Frequently, taxes are implemented in a simplified way. We list three common simplifications: First, tax schemes are mostly assumed to be proportional. Assuming proportional tax rates alleviates the creation of tractable models that allow for explicit solutions. For instance, including a non-proportional tax into the frequently used LEN model would violate the assumption of linearity and therefore preclude the use of this model type. However, many wage tax schemes around the world are progressive and investigating the effects of such a progressive tax scheme is important in some cases. For example, a progressive wage tax could motivate the manager to undertake undesirable actions such as shifting earnings between periods to minimize his or her personal tax burden if the manager is subject to a tax rate below the top marginal tax rate. Second, most researchers assume that the reservation utility is unaffected by taxation. Relaxing this assumption may improve the understanding of the overall effects of taxes on compensation contracts or hiring decisions. Finally, there exist only a few multi-period studies. A possible explanation for this might be model parsimony and simplification. However, many tax issues such as depreciation schedules or tax loss carryforwards can only be analyzed by the use of a multi-period model. We think that these unexplored areas of tax research are highly relevant for firm decision making and regard them as promising avenues for future research.

To our surprise, we find that certain tax types have not yet been investigated within agency models. We believe that there are numerous opportunities for future research to fill this gap. An example for such a gap is the value added tax, which exists in most countries all over the world. An area where the consideration of this tax may render new insights is in the transfer pricing literature. As the transfer price is a determining factor for the distribution of revenues within a firm, a value added tax can influence the firm's transfer pricing decisions. This of course is only an issue in the absence of tax harmonization between tax jurisdictions. Another example is environmental taxes (eco-taxes) such as pollution or energy taxes which are applied in many countries within the European Union. An interesting issue to investigate in this context could be the impact of pollution taxes on the manager's investment behavior in green replacement technologies that help to avoid or reduce such taxes. Consider that firms normally have to bear the full costs of pollution taxes while emissions adjust only if you provide incentives to the responsible managers. Moreover, we find that taxes on wealth such as property taxes have not as yet received much attention. Last but not least, we encourage future research with focus on tax legislative issues to support ongoing

international tax policy debates such as the current discussion regarding base erosion and profit shifting (BEPS).

## APPENDIX

**TABLE 1**  
**PUBLICATIONS OVER TIME**

	Before 2001	2001 to 2010	After 2010	Total
<i>A. Corporate income taxes</i>				
Compensation	—	4	4	8
Investment decisions and capital structure	4	5	3	12
Corporate tax avoidance	—	3	2	5
Transfer pricing	3	1	—	4
Total	7	13	9	29
<i>B. Wage taxes</i>				
Compensation	—	3	8	11
Investment decisions and capital structure	—	—	2	2
Corporate tax avoidance	—	—	—	—
Transfer pricing	—	—	—	—
Total	—	3	10	13
<i>C. Bonus taxes</i>				
Compensation	—	—	4	4
Investment decisions and capital structure	—	—	1	1
Corporate tax avoidance	—	—	—	—
Transfer pricing	—	—	—	—
Total	—	—	5	5
<i>D. Shareholder taxes</i>				
Compensation	—	2	—	2
Investment decisions and capital structure	2	2	1	5
Corporate tax avoidance	—	—	—	—

Transfer pricing	–	–	–	–
Total	2	4	1	7
<i>E. Aggregate development</i>				
Sum of A to D	9	20	25	54
–Papers with multiple tax types	–0	–4	–5	–9
Total	9	16	20	45

Panels A to D show the numbers of reviewed publications for each tax type over three time periods. Papers that analyze a certain tax type and fit to more than a single topic have been assigned according to their main focus. Panel E shows the aggregate development. Papers that discuss multiple tax types, and thus belong to more than one of the panels A to D are subtracted to avoid double counting

**TABLE 2**  
**CORPORATE TAXES AND THE DESIGN OF COMPENSATION SCHEMES**

References	Model	Research question	Tax-related effects
Bauer and Kourouxous (2017)	Continuous moral hazard model with delegated investment decision using the mean–variance criterion	What is the effect of corporate taxation in a delegated investment setting when a capital charge rate is used to calibrate managerial investment incentives?	Corporate taxes do not influence the optimal performance as long as the manager's remuneration is fully tax-deductible. Otherwise, corporate taxes reduce equilibrium effort and pay-performance sensitivity.
Ewert and Niemann (2012)	LEN model, single- and multi-period	What are the effects of taxation on optimal incentive schemes in different scenarios?	The performance measure (after- vs. pre-tax) influences the effort level and the pay-performance sensitivity.
Göx (2008)	LEN model, cash flow comprises two uncontrollable random factors	How do tax deductibility limits on fixed managerial compensation influence the design of incentive contracts?	Corporate tax deductibility limits on managerial compensation induce incentive schemes that reward managers for luck.
Halperin et al. (2001)	Binary moral hazard model with continuous effort	How do tax deductibility limits on fixed compensation affect managerial incentives and decisions?	Corporate tax deductibility limits on fixed compensation components induce a shift to variable compensation while raising the manager's expected total compensation.
Katuscak (2004)	Continuous moral hazard model	How do corporate taxes and wage taxes on executive compensation impact the design of incentive contracts?	Corporate taxes do not distort incentives.

Martini et al. <u>(2016)</u>	LEN model with two agents (subsidiary managers)	How does formulary apportionment influence managerial incentives?	Firms increase compensation expenditures in low-tax countries while reducing them in high-tax countries.
Niemann and Simons <u>(2003)</u>	Continuous stock options model	How does taxation affect the decision to implement stock option plans?	Depending on the relation to the capital gains tax level, corporate tax can favor the implementation of stock option plans.
Niemann <u>(2011)</u>	Binary moral hazard model	How does asymmetric corporate taxation (of profits and losses) impact the demand for and the design of remuneration contracts?	Under asymmetric corporate tax, the principal offers contracts to the agent less frequently than under symmetric taxation.
Voßmerbäumer <u>(2012)</u>	LEN model	How do tax deductibility limits on total compensation affect managerial compensation packages?	Deductiblity limits reduce pay-performance sensitivity and managerial compensation.

**TABLE 3**  
**CORPORATE TAXES, INVESTMENT DECISIONS AND CAPITAL STRUCTURE**

References	Model	Research question	Tax-related effects
Bauer and Kourouxous <u>(2017)</u>	Continuous moral hazard model with delegated investment decision using the mean–variance criterion	What is the effect of corporate taxation in a delegated investment setting when a capital charge rate is used to calibrate managerial investment incentives?	Corporate taxes do not influence the investment decision as long as the manager's remuneration is fully tax-deductible. Otherwise, corporate taxes increase investment expenditures and raise the capital charge rate.
Berk et al. <u>(2010)</u>	Continuous model with finite time horizon	What is the interrelation between human capital, bankruptcy threats and capital structure?	Bankruptcy costs borne by employees can first-order counterbalance the tax benefits of debt.
Bhagat et al. <u>(2011)</u>	Continuous moral hazard model with infinite time horizon	How do manager characteristics influence capital structure?	Highly skilled CEOs exploit the tax advantage of debt to a lesser extent.
Carlson and Lazrak <u>(2010)</u>	Continuous moral hazard	How do compensation structure and credit spreads influence capital structure?	There is a trade-off between the tax-debt shield and the utility cost of ex-post asset substitution.

	model with finite time horizon		
Cheong (1998)	Single-period adverse selection model	How do corporate taxes influence the equity market in the presence of information asymmetry?	Corporate taxes affect signaling costs and project profitability.
Cheong (1999)	Single-period adverse selection model	How do corporate taxes influence capital and ownership structures in the presence of information asymmetry?	When the difference between high and low quality firms is large enough, then the high quality firms raise their debt to equity ratio as a response to rising tax rates.
Jaggia and Thakor (1994)	Two-period moral hazard model	What are the capital structure ramifications of managers undersupplying imperfectly marketable firm-specific human capital in the presence of bankruptcy risk?	The bankruptcy threat associated with increasing leverage ratios counterbalances the tax advantage of debt by weakening the force of contractual commitments.
Kale and Noe (1991)	Two-period model with information asymmetry regarding the investment quality	Does the pecking order theory hold under asymmetric information regarding the quality of investment opportunities and a tax advantage to debt?	The pecking order theory can break down when debt financing enjoys a tax advantage.
Koethenbuerger and Stimmelmayr (2014)	LEN model	Should investment costs be tax exempt?	Deductibility allowances for the cost of investment may reduce total welfare when managers engage in empire building.
Morellec (2004)	Continuous moral hazard model with finite time horizon	What is the impact of managerial discretion and corporate control mechanisms on leverage ratios when the manager derives private benefits from investments?	High tax rates incentivize managers to set high leverage ratios. At low tax levels, managers set leverage at the lowest possible level that precludes control challenges.
Niemann (2008)	LEN model	What is the effect of taxation on managerial effort and risk-taking when investment projects are taxed based on their riskiness?	A preferential tax base for high risk projects induces higher managerial effort, while a preferential tax rate has no such effect.
Seetharaman et al. (2001)	Binary moral hazard model	What is the impact of taxation on the trade-off	For high marginal corporate tax rates, the tax-debt shield benefit

		between debt level and managerial ownership?	dominates the use of managerial ownership as a mechanism to control for agency costs.
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**TABLE 4**  
**CORPORATE TAXES AND TAX AVOIDANCE**

References	Model	Research question	Tax-related effects
Biswas et al. (2013)	Continuous moral hazard model	What is the effect of liability changes on the effort decision of a manager who camouflages tax evasion?	Tax evasion is reduced, if a liability shift to the manager coincides with decreasing compensation.
Chen and Chu (2005)	Continuous moral hazard model	What is the interrelation between tax evasion, internal control and managerial effort?	Effort declines if the manager is partially liable for tax evasion and has increasing absolute risk aversion.
Crocker and Slemrod (2005)	Adverse selection model with information asymmetry regarding the permissible amount of tax deductions	How do different liability regimes affect corporate tax evasion?	Penalties imposed on the manager can be more effective in preventing corporate tax evasion than penalties imposed on shareholders.
Desai and Dharmapala (2006)	Adverse selection model with information asymmetry regarding earnings	What is the connection between rent diversion and tax sheltering through incentive compensation under different levels of corporate governance?	Under strong corporate governance, incentive compensation has a stronger effect on tax sheltering activities than under weak corporate governance.
Ewert and Niemann (2014)	LEN model with multiple tasks	How do corporate income tax rate changes influence corporate tax avoidance behavior?	Tax avoidance and productive effort react ambiguously to tax rate changes.

**TABLE 5**  
**CORPORATE TAXES AND TRANSFER PRICING DECISIONS**

References	Model	Research question	Tax-related effects
Choi and Day (1998)	LEN model	How are transfer prices and management compensation	The tax rate differential not only influences transfer pricing but also affects optimal managerial effort.

		set under different incentive schemes?	
Elitzur and Mintz (1996)	Continuous moral hazard model	How does taxation affect transfer prices that are only used for internal coordination?	Transfer prices increase with the tax rate of the production division and do not depend on the tax rate of the distribution division.
Li and Balachandran (1996)	Adverse selection model with information asymmetry regarding costs	What is the effect of tax rate differentials on transfer pricing, if the firm has asymmetric information about the subsidiaries' cost functions?	Asymmetric information weakens tax incentives for profit shifting.
Smith (2002)	LEN model with multiple tasks	How do independent transfer prices and/or a non-profit based performance evaluation influence the trade-offs in the transfer pricing decision?	Corporate tax rate differentials induce the highest (the lowest) possible transfer price for tax purposes. Changes in corporate tax rates have ambiguous effects on the transfer price for incentive alignment.

**TABLE 6**  
**WAGE TAXES AND THE DESIGN OF COMPENSATION SCHEMES**

References	Model	Research question	Tax-related effects
Bénabou and Tirole (2016)	Continuous multi-task moral hazard model with screening and imperfect competition	How do wage taxes and the level of labor market competition affect the structure of managerial incentives?	A minor tax on total earnings improves the sum of the agents' and the principals' payoffs.
Brunello et al. (2011)	Continuous moral hazard model using the mean-variance criterion	How do changes in the average and marginal wage tax rate affect the optimal composition of pay?	An increase in the average tax rate reduces performance-based pay. Changes to the marginal tax rate have an ambiguous effect on performance-based pay.
Ewert and Niemann (2012)	LEN model, single- and multi-period	How do wage taxes affect the optimal pay-performance sensitivity in a multi-period setting?	Wage taxes do not influence pay-performance sensitivity in this multi-period setting.
Ewert and Niemann (2014)	LEN model with multiple tasks	How do wage taxes influence effort levels in a multi-task setting?	Wage taxes decrease the equilibrium effort levels supplied to all tasks.

Gupta and Viauroux (2009)	Continuous moral hazard model	What are the effects of a statutory wage tax sharing rule on wages, effort, profits and aggregate welfare?	Sharing wage taxes does not optimize any of the outcomes (wages, effort, profits or welfare).
Halperin et al. (2001)	Binary moral hazard model with continuous effort	How do tax deductibility limits affect managerial incentives and decisions?	Fixed and variable salaries increase with the level of wage taxation.
Katuscak (2004)	Continuous moral hazard model	How do corporate taxes and wage taxes on executive compensation impact the design of incentive contracts?	A higher marginal wage tax rate decreases the equilibrium effort level and has ambiguous effects on the slope of the compensation schedule.
Krenn (2017)	LEN model with two principals	How do cross-border wage tax differences impact the firm's ability to attract and hire highly skilled executives?	Sufficiently large wage tax differentials can change a pre-tax competition outcome and prevent the firm from hiring a highly skilled executive.
Martini and Niemann (2015)	LEN model with two agents	How does double taxation of wages affect human resource assignment decisions?	Assignment decisions depend on whether the credit or the exemption method is applied to eliminate double taxation.
Niemann (2011)	Binary moral hazard model	How does (asymmetric corporate) taxation impact the demand for and the design of remuneration contracts?	Wage taxes penalize performance-based contracts more heavily than fixed compensation.
Voßmerbäumer (2013)	LEN model, cost function decreases in work-related fringe benefits	How should employer-provided fringe benefits be treated for tax purposes?	The agent provides more effort if the true cost of workplace benefits is used to determine the tax base instead of the agent's willingness to pay.

**TABLE 7**  
**WAGE TAXES, INVESTMENT DECISIONS AND CAPITAL STRUCTURE**

References	Model	Research question	Tax-related effects
Bauer and Kourouxous (2017)	Continuous moral hazard model with delegated investment decision using the mean-variance criterion	How does taxation affect optimal investment decisions and optimal capital charge rates in residual-income compensation schemes?	The optimal investment level and the optimal capital charge increase with wage taxation.

Egger and Radulescu (2011)	LEN model	What are the effects of wage taxation on corporate profits and on decisions concerning the location of corporate headquarters of multinational corporations?	Wage taxation reduces corporate profits. Corporations have an incentive to move their headquarters to countries with low wage tax rates.
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**TABLE 8**  
**BONUS TAXES AND THE DESIGN OF COMPENSATION SCHEMES**

References	Model	Research question	Tax-related effects
Dicken and Duerr (2014)	LEN model with multiple tasks	How do bonus taxes influence managerial incentives and the firm's exposure to risk?	Bonus taxes have an ambiguous effect on the agent's effort level and can increase the firm's risk exposure.
Dietl et al. (2013)	LEN model	How does a bonus tax on variable compensation affect managerial incentives and the manager's total compensation?	The manager reduces effort. The introduction of a bonus tax does not necessarily imply a substitution effect between fixed salary and variable compensation.
Meißner et al. (2014)	Binary moral hazard model	Does a bonus tax on the manager's variable salary trigger different effects than a penalty tax that is borne by the principal?	Variable compensation increases if the manager bears the bonus tax but does not increase if the principal bears it.
Radulescu (2012)	LEN model	How do bonus taxes affect managerial compensation and firm profits?	Bonus taxes reduce effort levels. The variable compensation decreases (increases) and the fixed salary increases (decreases) depending on the relevance of risk.

**TABLE 9**  
**BONUS TAXES, INVESTMENT DECISIONS AND CAPITAL STRUCTURE**

References	Model	Research question	Tax-related effects
Inderst and Pfeil (2013)	Binary multi-task model with moral hazard	What is the relationship between loan quality, management compensation and securitization in financial institutions in the presence of a bonus tax on short-term compensation?	Bonus tax can increase loan quality if the tax rate is sufficiently large.

**TABLE 10**

## SHAREHOLDER TAXES AND THE DESIGN OF COMPENSATION SCHEMES

References	Model	Research question	Tax-related effects
Halperin et al. (2001)	Binary moral hazard model with continuous effort	How do tax deductibility limits affect managerial incentives and decisions?	Dividend taxes exhibit the same effects on the design of compensation schemes as wage taxes.
Koethenbuerger and Stimmelmayr (2014)	Continuous investment model using mean-variance criterion	Should investment costs be tax exempt?	Under asymmetric information an increase in the dividend tax rate leads to higher agency costs.
Niemann and Simons (2003)	Continuous stock options model	How does taxation affect the decision to implement stock option plans?	An asymmetric capital gains tax favors the introduction of stock option plans.

**TABLE 11**  
**SHAREHOLDER TAXES, INVESTMENT DECISIONS AND CAPITAL STRUCTURE**

References	Model	Research question	Tax-related effects
Chemmanur and Ravid (1999)	Discrete two-period moral hazard model	How does dividend taxation influence corporate investment myopia?	Dividend tax cuts for long-term investments induce efficient investment spending.
Chetty and Saez (2010)	Binary two-period moral hazard model	What is the impact of dividend taxation on managerial empire building incentives?	Dividend taxes discourage majority shareholder investments in monitoring. As a consequence managers are more likely to invest in empire building projects.
Kanniainen (1999)	Continuous investment model with exogenously given contract	What are the effects of dividend taxation on corporate investment decisions?	Under imperfect corporate governance dividend taxation creates incentives to overinvest.
Kind et al. (2007)	Two- and multi-period adverse selection model	What is the relation between dividend taxation, inefficient investments and equity finance?	A decline in the dividend tax rate improves corporate governance by increasing dividends and limiting inefficient overinvestment.
Koethenbuerger and Stimmelmayr (2014)	LEN Model	How do dividend taxes interact with investments when managers have a propensity to engage in pet projects?	Dividend taxes have the same effect on delegated investment decisions as the manager's pay-performance sensitivity.

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## **TRANSLATED VERSION: SPANISH**

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

## **VERSION TRADUCIDA: ESPAÑOL**

A continuación se muestra una traducción aproximada de las ideas presentadas anteriormente. Esto se hizo para dar una comprensión general de las ideas presentadas en el documento. Por favor, disculpe cualquier error gramatical y no responsabilite a los autores originales de estos errores.

## **INTRODUCCIÓN**

Los conflictos de intereses entre los propietarios de las empresas y la gestión de las empresas causados por la separación de la propiedad y el control se encuentran entre los temas más importantes y bien explorados dentro de la economía empresarial. Sin embargo, a pesar de que las partes contratantes, tanto los accionistas como los gestores, están sujetos a impuestos, las consideraciones fiscales han estado notablemente ausentes de la literatura teórica de agentes principales. Esto es sorprendente dados los muchos casos en los que los impuestos influyen en la toma de decisiones. La fiscalidad reduce el beneficio que los accionistas y directivos reciben de su relación contractual. Incluso se puede evitar un acuerdo contractual debido a la presencia de impuestos, por ejemplo, si la utilidad esperada del gerente cae por debajo de su utilidad de reserva. Además, los impuestos cambian el contenido de la información y el efecto incentivador de las medidas de rendimiento gerencial. Una medida de desempeño después de impuestos motiva al gerente a participar en actividades de evasión fiscal, pero también es más ruidosa que la compensación antes de impuestos, ya que está influenciada por la legislación fiscal, como los cambios en los tipos impositivos. Los precios de transferencia, utilizados con fines de coordinación y control interno, se ven afectados por la fiscalidad, así como son un factor determinante para la asignación de ingresos imponibles en las empresas multinacionales.

Recientemente, tal vez como respuesta a una convocatoria de orientación más teórica (por ejemplo, Shackelford y Shevlin 2001; Hanlon y Heitzman 2010), el papel de la fiscalidad en relación con los conflictos de agencia entre propietarios y gerentes de empresas ha recibido una atención cada vez mayor. Nota al pie de página1 Debido a la naturaleza interdisciplinaria de la fiscalidad y los diversos antecedentes de los investigadores, las preguntas de investigación investigadas son múltiples y los enfoques sobre cómo implementar la fiscalidad son heterogéneos.

Proporcionamos una revisión exhaustiva de la literatura analítica de principal agente que analiza los efectos de la fiscalidad en los conflictos de agencia entre propietarios y gerentes de empresas. Más precisamente, discutimos literatura que estudia la influencia de la fiscalidad en la toma de decisiones corporativas y gerenciales en un marco de agente principal donde el principal puede ser interpretado como el propietario o propietarios de la firma y los agentes pueden interpretarse como los gerentes que actúan en nombre del propietario o propietarios de la empresa. Al hacerlo, nos abstraen explícitamente de la discusión de documentos en los que los incentivos entre los propietarios de las empresas y los gerentes están perfectamente alineados. No discutimos literatura que se centre en el gasto público óptimo, los efectos del bienestar o las implicaciones sociales de la fiscalidad. Aunque no limitamos nuestra atención a ningún campo de investigación específico, encontramos que la mayoría de los artículos que satisfacen nuestros

criterios están relacionados con la contabilidad y las finanzas (de gestión). Un tema común que se extiende a lo largo de esta revisión es la cuestión de cómo la fiscalidad afecta el riesgo compartido entre los propietarios y gerentes de las empresas.

Nuestro estudio proporciona información valiosa para adoptar una perspectiva multilateral de planificación fiscal propuesta por Scholes et al. (2009), según la cual una planificación fiscal efectiva requiere una comprensión de las implicaciones fiscales en todas las partes contratantes (aquí propietarios y gerentes de empresas). Demostramos que existen diversas motivaciones para estudiar los efectos de la fiscalidad en la relación de agencia entre propietarios y gerentes de empresas. Proporcionamos al lector una visión general de las preguntas de investigación relacionadas con los impuestos que han sido analizadas por el uso de modelos de agente principal y resumimos los resultados asociados organizados por tipo de impuestos y área de investigación. Además, presentamos un ejemplo ilustrativo de modelado tributario utilizando el marco modelo LEN, obtenemos predicciones empíricas, identificamos lagunas de investigación y ofrecemos muchas vías para futuras investigaciones. Al hacerlo, formulamos predicciones sólo para aquellos resultados analíticos que nos resulten particularmente prometedores para futuras investigaciones empíricas. Al derivar predicciones empíricas, también discutimos la literatura empírica selectiva en lo que se refiere a cada predicción.

A lo largo de esta revisión, los siguientes temas se repiten. En primer lugar, los eruditos utilizan dos enfoques de modelado distintos: Algunos estudiosos implementan y estudian los efectos de un solo tipo de impuesto. Este es particularmente el caso cuando se analizan las consecuencias de los cambios en la legislación fiscal. Otros estudiosos implementan varios tipos de impuestos para analizar si esos tipos de impuestos distorsionan el conflicto de la agencia y cómo lo tienen. En segundo lugar, la fiscalidad se modela de manera simplificada. Por ejemplo, los tipos impositivos de todos los tipos se suelen aplicar como tipos impositivos proporcionales y se supone que la utilidad de reserva del administrador es independiente de la tributación. En tercer lugar, encontramos que la declaración de Shackelford y Shevlin (2001) sobre la investigación fiscal empírica: "En lugar de un tronco con grandes ramas, la literatura fiscal creció como un arbusto salvaje, que brotó en muchas direcciones [...]" (p.324) también se aplica al conjunto de documentos analizados en esta revisión. En este conjunto de documentos, los académicos explican los efectos de cuatro tipos impositivo distintos: impuestos sobre la renta de las sociedades, impuestos salariales, impuestos sobre bonificaciones e impuestos a los accionistas. Con respecto a la fiscalidad de la renta de las sociedades, los temas investigados incluyen las consecuencias sobre los contratos de compensación, la evasión fiscal (y la evasión fiscal), la inversión y la estructura de capital, y la fijación de precios de transferencia. Para todos los demás tipos de impuestos, encontramos estudios con respecto a la compensación, así como cuestiones de inversión y estructura de capital.

Hasta bien según sabemos, esta es la primera revisión bibliográfica que analiza la implementación y las consecuencias de la fiscalidad en los modelos de agente principal. La mayoría de las revisiones previas de la literatura tributaria se centran en la investigación empírica. Por mencionar sólo algunos: Shackelford y Shevlin (2001) revisan las compensaciones fiscales y no fiscales, los precios de los activos y el comercio multidirecete. Graham (2003) encuesta la investigación fiscal relacionada con la estructura de capital, la política de pagos, la estrategia de compensación, la gestión de riesgos y la forma de organizaciones. Al ampliar los resultados de Shackelford y Shevlin (2001) al tiempo que se centran en el carácter interdisciplinario de la investigación fiscal, Hanlon y Heitzman (2010) examinan cuatro áreas de investigación: evasión del impuesto sobre la renta de las sociedades, impuestos a nivel de inversionistas y precios de activos, el papel informativo de la contabilidad de los impuestos sobre la renta y las decisiones sobre la inversión y la estructura de capital. Al examinar las revisiones previas de la literatura teórica que discuten los modelos principal-agente, encontramos que los autores mencionan cuestiones fiscales sólo de pasada, si es que lo hacen. El centro de atención generalmente radica en ilustrar cómo la teoría de la agencia se puede aplicar a diferentes áreas de investigación como la contabilidad gerencial (Baiman 1982, 1990), contabilidad (Lambert 2001) o gestión de la cadena de suministro (Fayezi et al. 2012).

El documento procede de la siguiente manera. La Sección 2 describe la metodología utilizada para identificar los estudios pertinentes para nuestra revisión. Una tabla al final de la sección 2 describe el número de estudios agrupados por tipo de impuesto, tema de investigación amplio y período de publicación. La

Sección 3 ilustra cómo los impuestos se implementan normalmente en los modelos de agente principal mediante el uso de un modelo LEN. En Sectas. 4 a 7, presentamos y discutimos los resultados para cada uno de los cuatro tipos impositivo identificados: impuestos sobre la renta de las sociedades (Sect. 4), impuestos salariales (Sect. 5), impuestos de bonificación (Sect. 6) e impuestos a los accionistas (Sect. 7). Las secciones se dividen en las subsecciones temáticas: compensación, inversión y estructura de capital, evasión fiscal, precios de transferencia e investigación futura. Nota al pie de página<sup>2</sup> Para mayor comodidad, las tablas al final de cada subsección proporcionan un resumen de los documentos revisados e incluyen una breve descripción del modelo, las preguntas de investigación relacionadas con los impuestos y los resultados asociados. El documento está organizado de tal manera que los lectores interesados sólo en las predicciones empíricas derivadas de los resultados analíticos pueden saltar directamente a ellos a medida que se numeran y resaltan a lo largo del texto. La sección 8 concluye con un debate sobre otras preguntas de investigación sin respuesta y una perspectiva de futuras investigaciones fiscales.

## CONCLUSIÓN

Este documento proporciona una revisión de última generación de los efectos fiscales sobre los conflictos de agencia entre los propietarios y gerentes de las empresas. Además de resumir los resultados de la investigación por tipos de impuestos (ingresos corporativos, salarios, bonos e impuestos para los accionistas) y el área de investigación (compensación, inversiones, evasión fiscal y precios de transferencia), también discutimos cómo los impuestos se implementan comúnmente en modelos de agencias, derivan predicciones empíricas e identifican brechas de investigación para futuras investigaciones fiscales.

Exámenes fiscales anteriores (por ejemplo, Shackelford y Shevlin 2001; Hanlon y Heitzman 2010) documentan que la literatura fiscal existente (empírica) es bastante desarticulada. En consonancia con esta observación, encontramos que los documentos, incluso dentro de las cuatro áreas principales de investigación identificadas, están bastante poco conectados entre sí y muestran poca o ninguna referencia cruzada entre sí. Como indica nuestro análisis, hay muchos casos en los que los impuestos influyen en el comportamiento de todas las partes contratantes. Por ejemplo, los impuestos corporativos no sólo reducen el beneficio de una empresa, sino que también pueden alterar el contrato de compensación óptima del gerente. Encontramos dos enfoques distintos de modelado tributario. Por un lado, la mayoría de los documentos se centran en el análisis de una única forma de imposición. Este enfoque unilateral está motivado principalmente por los intereses de los investigadores en el efecto de un determinado tipo impositivo o de una legislación, como la colocación de limitaciones de deducibilidad fiscal en la compensación de gestión (véase, por ejemplo, el documento de gestión de 2008) o la introducción de un impuesto sobre bonificación (véase, por ejemplo, Radulescu 2012). Por otra parte, sólo hay unos pocos documentos que tratan de incorporar varios impuestos y, como resultado, presentan los efectos globales de la fiscalidad (véase, por ejemplo, Niemann 2008).

Con frecuencia, los impuestos se implementan de manera simplificada. Enumeramos tres simplificaciones comunes: en primer lugar, se supone que los regímenes fiscales son proporcionales en su mayoría. Suponiendo que los tipos impositivos proporcionales aléemeen la creación de modelos manejables que permitan soluciones explícitas. Por ejemplo, incluir un impuesto no proporcional en el modelo LEN utilizado con frecuencia violaría la asunción de linealidad y, por lo tanto, impediría el uso de este tipo de modelo. Sin embargo, muchos esquemas de impuestos salariales en todo el mundo son progresivos y investigar los efectos de un esquema tributario tan progresista es importante en algunos casos. Por ejemplo, un impuesto salarial progresivo podría motivar al gerente a emprender acciones indeseables, como el desplazamiento de las ganancias entre períodos para minimizar su carga fiscal personal si el gerente está sujeto a una tasa impositiva por debajo de la tasa impositiva marginal superior. En segundo lugar, la mayoría de los investigadores asumen que la utilidad de reserva no se ve afectada por los impuestos. Relajar esta suposición puede mejorar la comprensión de los efectos generales de los impuestos sobre los contratos de compensación o las decisiones de contratación. Por último, sólo existen unos pocos estudios de varios períodos. Una posible explicación para esto podría ser la parsimonia del modelo y la simplificación. Sin

embargo, muchas cuestiones fiscales, como las programaciones de amortización o el arrastre de pérdidas fiscales, solo se pueden analizar mediante el uso de un modelo de varios períodos. Creemos que estas áreas inexploradas de la investigación fiscal son muy relevantes para la toma de decisiones firmes y las consideramos como vías prometedoras para futuras investigaciones.

Para nuestra sorpresa, encontramos que ciertos tipos de impuestos aún no han sido investigados dentro de los modelos de agencia. Creemos que hay numerosas oportunidades para futuras investigaciones para llenar este vacío. Un ejemplo de esa brecha es el impuesto sobre el valor añadido, que existe en la mayoría de los países de todo el mundo. Un área donde la consideración de este impuesto puede hacer nuevos conocimientos está en la literatura de precios de transferencia. Dado que el precio de transferencia es un factor determinante para la distribución de los ingresos dentro de una empresa, un impuesto sobre el valor añadido puede influir en las decisiones de fijación de precios de transferencia de la empresa. Naturalmente, esto no es más que una cuestión en ausencia de armonización fiscal entre jurisdicciones fiscales. Otro ejemplo son los impuestos medioambientales (impuestos ecológicos) como la contaminación o los impuestos sobre la energía que se aplican en muchos países de la Unión Europea. Un tema interesante a investigar en este contexto podría ser el impacto de los impuestos sobre la contaminación en el comportamiento de inversión del gerente en tecnologías de reemplazo verde que ayudan a evitar o reducir dichos impuestos. Tenga en cuenta que las empresas normalmente tienen que asumir todos los costos de los impuestos sobre la contaminación, mientras que las emisiones se ajustan sólo si usted proporciona incentivos a los gerentes responsables. Además, constatamos que los impuestos sobre la riqueza, como los impuestos sobre la propiedad, aún no han recibido mucha atención. Por último, pero no menos importante, alentamos la investigación futura, centrándose en cuestiones legislativas fiscales, para apoyar los debates en curso sobre la política fiscal internacional, como el debate actual sobre la erosión de la base y el cambio de beneficios (BEPS).

#### **TRANSLATED VERSION: FRENCH**

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

#### **VERSION TRADUITE: FRANÇAIS**

Voici une traduction approximative des idées présentées ci-dessus. Cela a été fait pour donner une compréhension générale des idées présentées dans le document. Veuillez excuser toutes les erreurs grammaticales et ne pas tenir les auteurs originaux responsables de ces erreurs.

#### **INTRODUCTION**

Les conflits d'intérêts entre les propriétaires d'entreprise et la gestion de l'entreprise causés par la séparation de la propriété et du contrôle sont parmi les questions les plus importantes et les plus explorées dans le domaine de l'économie des affaires. Toutefois, malgré le fait que les parties contractantes, tant les actionnaires que les gestionnaires, sont assujetties à l'impôt, les considérations fiscales ont été particulièrement absentes de la documentation théorique du principal-agent. C'est surprenant étant donné les nombreux cas où les impôts influencent la prise de décision. L'imposition réduit les avantages que les actionnaires et les gestionnaires reçoivent de leur relation contractuelle. Un accord contractuel peut même être empêché en raison de la présence d'impôts, par exemple, si l'utilité prévue du gestionnaire tombe en dessous de son service de réservation. En outre, les taxes modifient le contenu de l'information et l'effet incitatif des mesures de rendement des gestionnaires. Une mesure de rendement après impôt motive le gestionnaire à s'engager dans des activités d'évitement fiscal, mais elle est également plus bruyante que la rémunération avant impôt, car elle est influencée par la législation fiscale comme les changements de taux

d'imposition. Les prix de transfert, utilisés aux fins de la coordination et du contrôle internes, sont affectés par l'imposition et sont un facteur déterminant pour l'allocation du revenu imposable dans les entreprises multinationales.

Récemment, peut-être en réponse à un appel pour des conseils plus théoriques (p. Ex., Shackelford et Shevlin, 2001; Hanlon et Heitzman 2010), le rôle de la fiscalité en relation avec les conflits d'agences entre les propriétaires d'entreprises et les gestionnaires a reçu une attention croissante. Note de bas de page1 En raison de la nature interdisciplinaire de la fiscalité et des divers antécédents des chercheurs, les questions de recherche étudiées sont multiples et les approches sur la façon de mettre en œuvre la fiscalité sont hétérogènes.

Nous fournissons un examen complet de la documentation analytique du principal-agent qui analyse les effets de la fiscalité sur les conflits d'agence entre les propriétaires d'entreprises et les gestionnaires. Plus précisément, nous discutons de la littérature qui étudie l'influence de l'imposition sur la prise de décisions des sociétés et des gestionnaires dans un cadre principal-agent où le principal peut être interprété comme le ou les propriétaires de l'entreprise et l'ou les agents peuvent être interprétés comme le ou les gestionnaires qui agissent au nom du ou des propriétaires de l'entreprise. Ce faisant, nous nous abstractons explicitement de discuter de documents dans lesquels les incitations entre les propriétaires d'entreprises et les gestionnaires sont parfaitement alignées. Nous ne discutons pas de littérature qui met l'accent sur les dépenses publiques optimales, les effets de l'aide sociale, ou sur les implications sociales de la fiscalité. Bien que nous ne restreindons pas notre attention à un domaine de recherche spécifique, nous constatons que la plupart des articles répondant à nos critères sont liés à la comptabilité et aux finances (managériales). Un thème commun qui se déroule tout au long de cet examen est la question de savoir comment la fiscalité affecte le partage des risques entre les propriétaires d'entreprise et les gestionnaires.

Notre étude fournit des renseignements précieux pour l'adoption d'une perspective multilatérale de planification fiscale proposée par Scholes et coll. (2009), selon laquelle une planification fiscale efficace exige une compréhension des répercussions fiscales sur toutes les parties contractantes (ici les propriétaires et les gestionnaires d'entreprises). Nous montrons qu'il existe diverses motivations pour étudier les effets de la fiscalité sur la relation d'agence entre les propriétaires d'entreprises et les gestionnaires. Nous donnons au lecteur un aperçu des questions de recherche fiscale qui ont été analysées par l'utilisation de modèles principal-agent et résommons les résultats associés organisés par type d'impôt et par domaine de recherche. En outre, nous présentons un exemple de modélisation fiscale illustrative à l'aide du cadre du modèle LEN, tisons des prédictions empiriques, identifions les lacunes de recherche et offrons de nombreuses avenues pour la recherche future. Ce faisant, nous ne formulons des prédictions que pour les résultats analytiques que nous trouvons particulièrement prometteurs pour la recherche empirique future. Lorsque nous dérivations des prédictions empiriques, nous discutons également de la littérature empirique sélective en ce qui concerne chaque prédition.

Tout au long de cette revue, les thèmes suivants se reproduisent. Tout d'abord, les chercheurs utilisent deux approches de modélisation distinctes : certains chercheurs mettent en œuvre et étudient les effets d'un seul type d'impôt. C'est particulièrement le cas lorsque les conséquences des modifications apportées au droit fiscal sont analysées. D'autres chercheurs mettent en œuvre plusieurs types d'impôts pour analyser si et comment ces types d'impôt faussent le conflit des agences. Deuxièmement, la fiscalité est modélisée de manière simplifiée. Par exemple, les taux d'imposition de tous types sont habituellement appliqués à titre de taux d'imposition proportionnels et le service public de réservation du gestionnaire est supposé être indépendant de l'impôt. Troisièmement, nous constatons que la déclaration de Shackelford et Shevlin (2001) concernant la recherche fiscale empirique: « Au lieu d'un tronc avec des branches importantes, la littérature fiscale a grandi comme un buisson sauvage, jaillissant dans de nombreuses directions [...] » (p.324) s'applique également à l'ensemble des documents analysés dans le présent examen. Dans cet ensemble de documents, les chercheurs détaillent les effets de quatre types d'impôts distincts : l'impôt sur le revenu des sociétés, l'impôt sur les salaires, les impôts sur les primes et l'impôt sur les actionnaires. En ce qui concerne l'impôt sur le revenu des sociétés, les sujets étudiés comprennent les conséquences sur les contrats de rémunération, l'évitement fiscal (et l'évasion fiscale), la structure des investissements et du

capital, et les prix de transfert. Pour tous les autres types d'imposition, nous trouvons des études sur la rémunération ainsi que les questions d'investissement et de structure du capital.

À notre connaissance, il s'agit de la première revue de la littérature qui traite de la mise en œuvre et des conséquences de la fiscalité dans les modèles principaux-agents. La plupart des examens antérieurs de la littérature fiscale se concentrent sur la recherche empirique. Pour n'en citer que quelques-uns : Shackelford et Shevlin (2001) examinent les compromis fiscaux et non fiscaux, les prix des actifs et le commerce multijuridictionnel. Graham (2003) étudie la recherche fiscale sur la structure du capital, la politique de paiement, la stratégie de rémunération, la gestion des risques et la forme d'organisations. En approfondissant les résultats de Shackelford et Shevlin (2001) tout en mettant l'accent sur la nature interdisciplinaire de la recherche fiscale, Hanlon et Heitzman (2010) examinent quatre domaines d'enquête : l'évitement de l'impôt sur le revenu des sociétés, les impôts au niveau des investisseurs et les prix des actifs, le rôle informationnel de la comptabilisation de l'impôt sur le revenu et les décisions relatives à l'investissement et à la structure du capital. En examinant les revues théoriques antérieures sur les modèles principaux-agents, nous constatons que les auteurs ne mentionnent les questions fiscales qu'au passage, voire pas du tout. Le centre d'attention réside généralement dans l'illustration de la façon dont la théorie des agences peut être appliquée à différents domaines de recherche tels que la comptabilité managériale (Baiman, 1982, 1990), la comptabilité (Lambert, 2001) ou la gestion de la chaîne d'approvisionnement (Fayezi et al., 2012).

Le document procède comme suit. La section 2 décrit la méthodologie utilisée pour identifier les études pertinentes pour notre examen. Un tableau à la fin de la section 2 décrit le nombre d'études regroupées selon le type d'impôt, le vaste sujet de recherche et la période de publication. La section 3 illustre comment les taxes sont généralement mises en œuvre dans les modèles principal-agent par l'utilisation d'un modèle LEN. Dans les sectes. 4 à 7, nous présentons et discutons des résultats pour chacun des quatre types d'impôt identifiés : l'impôt sur le revenu des sociétés (sect. 4), l'impôt sur les salaires (sect. 5), l'impôt sur les primes (sect. 6) et l'impôt sur les actionnaires (sect. 7). Les sections sont divisées en sous-sections thématiques : rémunération, structure des investissements et du capital, évitement fiscal, prix de transfert et recherche future. Note de bas de page2 Pour plus de commodité, les tableaux à la fin de chaque paragraphe fournissent un résumé des documents examinés et comprennent une brève description du modèle, des questions de recherche liées à la fiscalité et des résultats connexes. L'article est organisé de telle sorte que les lecteurs intéressés uniquement par les prédictions empiriques dérivées des résultats analytiques peuvent sauter directement à eux car ils sont numérotés et mis en évidence tout au long du texte. L'article 8 se termine par une discussion sur d'autres questions de recherche sans réponse et sur les perspectives de la recherche fiscale future.

## CONCLUSION

Ce document fournit un examen de l'état de l'art des effets fiscaux sur les conflits d'agence entre les propriétaires d'entreprise et les gestionnaires. Au-delà de la synthèse des résultats de la recherche par types d'impôts (revenu des sociétés, salaires, primes et impôts des actionnaires) et dans le domaine de la recherche (rémunération, investissements, évasion fiscale et prix de transfert), nous discutons également de la façon dont les impôts sont couramment mis en œuvre dans les modèles d'agences, de faire des prédictions empiriques et d'identifier les lacunes de recherche pour la recherche future.

Examens fiscaux antérieurs (p. Ex., Shackelford et Shevlin, 2001; Hanlon et Heitzman 2010) documentent que la littérature fiscale existante (empirique) est plutôt disjointe. Conformément à cette observation, nous constatons que les documents, même dans les quatre principaux domaines de recherche identifiés, sont assez vaguement reliés les uns aux autres et montrent peu ou pas de référence croisée les uns aux autres. Comme notre analyse l'indique, il existe de nombreux cas où les impôts influencent le comportement de toutes les parties contractantes. Par exemple, l'impôt sur les sociétés non seulement réduit le bénéfice d'une entreprise, mais peut également modifier le contrat de rémunération optimal du

gestionnaire. Nous trouvons deux approches distinctes de modélisation fiscale. D'une part, la plupart des articles se concentrent sur l'analyse d'une seule forme d'imposition. Cette approche unilatérale est principalement motivée par l'intérêt des chercheurs pour l'effet d'un taux d'imposition ou d'une loi particulière, comme le placement de limitations de déductibilité fiscale sur la rémunération des gestionnaires (voir g. Ex., Göx 2008) ou l'introduction d'une taxe sur les primes (voir, par exemple, Radulescu 2012). D'autre part, il n'y a que quelques documents qui tentent d'incorporer plusieurs impôts et qui, par conséquent, présentent les effets globaux de la fiscalité (voir, par exemple, Niemann 2008).

Souvent, les taxes sont mises en œuvre de manière simplifiée. Nous énumérons trois simplifications communes : premièrement, les régimes fiscaux sont surtout considérés comme proportionnels. En supposant que les taux d'imposition proportionnels atténue la création de modèles traitables qui permettent des solutions explicites. Par exemple, l'inclusion d'une taxe non proportionnelle dans le modèle LEN fréquemment utilisé violerait l'hypothèse de la linéarité et empêcherait donc l'utilisation de ce type de modèle. Cependant, de nombreux régimes d'impôt sur les salaires dans le monde sont progressifs et il est important dans certains cas d'étudier les effets d'un régime fiscal aussi progressif. Par exemple, un impôt progressif sur les salaires pourrait motiver le gestionnaire à entreprendre des mesures indésirables, comme le transfert des gains d'une période à l'autre afin de réduire au minimum son fardeau fiscal personnel si le gestionnaire est assujetti à un taux d'imposition inférieur au taux marginal d'imposition supérieur. Deuxièmement, la plupart des chercheurs supposent que l'utilité de réservation n'est pas affectée par l'imposition. L'assouplissement de cette hypothèse peut améliorer la compréhension des effets globaux des impôts sur les contrats de rémunération ou les décisions d'embauche. Enfin, il n'existe que quelques études multi-périodes. Une explication possible à cela pourrait être la parcimonie et la simplification du modèle. Toutefois, de nombreuses questions fiscales, comme les calendriers d'amortissement ou les reports de pertes fiscales, ne peuvent être analysées que par l'utilisation d'un modèle à plusieurs périodes. Nous pensons que ces domaines inexplorés de la recherche fiscale sont très pertinents pour la prise de décisions fermes et les considérons comme des pistes prometteuses pour la recherche future.

À notre grande surprise, nous constatons que certains types d'imposition n'ont pas encore fait l'objet d'une enquête au sein des modèles d'agences. Nous croyons qu'il existe de nombreuses possibilités de recherche future pour combler cette lacune. Un exemple pour un tel écart est la taxe sur la valeur ajoutée, qui existe dans la plupart des pays du monde entier. Un domaine où l'examen de cette taxe peut donner de nouvelles perspectives se trouve dans la documentation sur les prix de transfert. Étant dit que le prix de transfert est un facteur déterminant pour la répartition des revenus au sein d'une entreprise, une taxe sur la valeur ajoutée peut influer sur les décisions de l'entreprise en matière de prix de transfert. Ce n'est évidemment qu'une question en l'absence d'harmonisation fiscale entre les juridictions fiscales. Un autre exemple est celui des taxes environnementales (écotaxe) telles que la pollution ou les taxes sur l'énergie qui sont appliquées dans de nombreux pays de l'Union européenne. Une question intéressante à étudier dans ce contexte pourrait être l'impact des taxes sur la pollution sur le comportement d'investissement du gestionnaire dans les technologies de remplacement vert qui aident à éviter ou à réduire ces taxes. Considérez que les entreprises doivent normalement assumer la totalité des coûts des taxes sur la pollution, tandis que les émissions ne s'ajustent que si vous offrez des incitatifs aux gestionnaires responsables. En outre, nous constatons que les impôts sur la fortune tels que les impôts fonciers n'ont pas encore reçu beaucoup d'attention. Enfin, nous encourageons la recherche future en mettant l'accent sur les questions législatives fiscales afin d'appuyer les débats en cours sur la politique fiscale internationale, comme la discussion actuelle sur l'érosion des bases et le transfert des bénéfices (BEPS).

#### **TRANSLATED VERSION: GERMAN**

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

#### **ÜBERSETZTE VERSION: DEUTSCH**

Hier ist eine ungefähre Übersetzung der oben vorgestellten Ideen. Dies wurde getan, um ein allgemeines Verständnis der in dem Dokument vorgestellten Ideen zu vermitteln. Bitte entschuldigen Sie alle grammatischen Fehler und machen Sie die ursprünglichen Autoren nicht für diese Fehler verantwortlich.

## EINLEITUNG

Interessenkonflikte zwischen Firmeninhabern und Unternehmensleitung, die durch die Trennung von Eigentum und Kontrolle verursacht werden, gehören zu den wichtigsten und gut erforschten Fragen der Betriebswirtschaft. Trotz der Tatsache, dass die Vertragsparteien, sowohl die Anteilseigner als auch die Verwalter, steuerpflichtig sind, fehlten in der theoretischen Hauptagentenliteratur insbesondere steuerliche Erwägungen. Angesichts der vielen Fälle, in denen Steuern die Entscheidungsfindung beeinflussen, ist dies überraschend. Die Besteuerung verringert den Nutzen, den Aktionäre und Manager aus ihrem Vertragsverhältnis erhalten. Eine vertragliche Vereinbarung kann sogar durch das Vorhandensein von Steuern verhindert werden, z. B. Wenn der erwartete Nutzen des Managers unter seinen Reservierungsnutzen fällt. Darüber hinaus verändern Steuern den Informationsgehalt und die Anreizwirkung von Managementleistungsmaßstäben. Eine Leistungskennzahl nach Steuern motiviert den Verwalter zu Steuervermeidungsaktivitäten, ist aber auch lauter als der Ausgleich vor Steuern, da er durch Steuergesetze wie Steuersatzänderungen beeinflusst wird. Die Verrechnungspreise, die für die interne Koordinierung und Kontrolle verwendet werden, werden von der Besteuerung beeinflusst und sind ein entscheidender Faktor für die Aufteilung der zu versteuernden Einkünfte in multinationalen Unternehmen.

Kürzlich vielleicht als Antwort auf eine Forderung nach mehr theoretischer Beratung (z. B. Shackelford und Shevlin 2001; Hanlon und Heitzman 2010), die Rolle der Besteuerung in Bezug auf Agenturkonflikte zwischen Firmeninhabern und Managern hat immer mehr Aufmerksamkeit erhalten. Fußnote 1 Aufgrund des interdisziplinären Charakters der Besteuerung und der unterschiedlichen Hintergründe von Forschern sind die untersuchten Forschungsfragen vielfältig und die Ansätze zur Umsetzung der Besteuerung heterogen.

Wir bieten einen umfassenden Überblick über die analytische Haupt-Agent-Literatur, die die Auswirkungen der Besteuerung auf Agenturkonflikte zwischen Firmeninhabern und Managern analysiert. More precisely, we discuss literature that studies the influence of taxation on corporate and managerial decision making in a principal–agent framework where the principal can be interpreted as the firm owner(s) and the agent(s) can be interpreted as the manager(s) who act(s) on behalf of the firm owner(s). Dabei halten wir ausdrücklich ab, über Papiere zu diskutieren, in denen die Anreize zwischen Firmeninhabern und Managern perfekt aufeinander abgestimmt sind. Wir diskutieren nicht über Literatur, die sich auf optimale öffentliche Ausgaben, Wohlfahrtseffekte oder die sozialen Auswirkungen der Besteuerung konzentriert. Obwohl wir unsere Aufmerksamkeit nicht auf ein bestimmtes Forschungsgebiet beschränken, stellen wir fest, dass die meisten Artikel, die unsere Kriterien erfüllen, sich auf (Management-)Buchhaltung und Finanzen beziehen. Ein gemeinsames Thema, das sich während dieser Überprüfung zieht, ist die Frage, wie sich die Besteuerung auf die Risikoteilung zwischen Firmeninhabern und Managern auswirkt.

Unsere Studie liefert wertvolle Informationen für die Annahme einer multilateralen Steuerplanungsperspektive, wie von Scholes et al. (2009) vorgeschlagen, wonach eine effektive Steuerplanung ein Verständnis der steuerlichen Auswirkungen auf alle Vertragsparteien (hier Firmeninhaber und Manager) erfordert. Wir zeigen, dass es verschiedene Beweggründe gibt, die Auswirkungen der Besteuerung auf das Agenturverhältnis zwischen Firmeninhabern und Managern zu untersuchen. Wir geben dem Leser einen Überblick über steuerbezogene Forschungsfragen, die durch den Einsatz von Prinzipal-Agentenmodellen analysiert wurden, und fassen die zugehörigen Ergebnisse nach Steuerart und Forschungsbereich zusammen. Darüber hinaus stellen wir anhand des LEN-Modellrahmens ein anschauliches Beispiel für die Steuermodellierung vor, leiten empirische Vorhersagen ab, identifizieren Forschungslücken und bieten viele Möglichkeiten für zukünftige Forschung. Dabei formulieren wir Vorhersagen nur für jene analytischen Ergebnisse, die wir für zukünftige empirische Forschung besonders

vielversprechend finden. Bei der Ableitung empirischer Vorhersagen diskutieren wir auch selektive empirische Literatur, wie sie sich auf jede Vorhersage bezieht.

Während dieser Rezension werden die folgenden Themen wiederholt. Erstens verwenden Wissenschaftler zwei unterschiedliche Modellierungsansätze: Einige Wissenschaftler implementieren und untersuchen die Auswirkungen nur eines Steuertyps. Dies ist insbesondere dann der Fall, wenn die Folgen steuerrechtlicher Änderungen analysiert werden. Andere Wissenschaftler implementieren verschiedene Steuertypen, um zu analysieren, ob und wie diese Steuertypen den Agenturkonflikt verzerren. Zweitens wird die Besteuerung vereinfacht modelliert. Beispielsweise werden Steuersätze aller Art in der Regel als proportionale Steuersätze eingeführt, und es wird davon ausgegangen, dass das Reservierungsdienstprogramm des Verwalters steuerunabhängig ist. Drittens stellt die Aussage von Shackelford und Shevlin (2001) zur empirischen Steuerforschung fest: "Statt eines Stammes mit großen Zweigen wuchs die Steuerliteratur wie ein wilder Busch, der in viele Richtungen spriete [...] " (S.324) gilt auch für die in dieser Überprüfung analysierten Papiere. In diesem Satz von Papieren, Wissenschaftler auf die Auswirkungen von vier verschiedenen Steuertypen: Körperschaftssteuer, Lohnsteuern, Bonussteuern und Aktionärssteuern. Im Hinblick auf die Körperschaftsteuer umfassen die untersuchten Themen die Folgen für Entschädigungsverträge, Steuervermeidung (und Steuerhinterziehung), Investitions- und Kapitalstruktur sowie Verrechnungspreise. Für alle anderen Steuerarten finden wir Studien zu Vergütungen sowie Investitions- und Kapitalstrukturfragen.

Nach bestem Wissen und Gewissen ist dies die erste Literaturrezension, in der die Umsetzung und die Folgen der Besteuerung in Denseer-Modellen erörtert werden. Die meisten früheren Steuerliteratur-Rezensionen konzentrieren sich auf empirische Forschung. Um nur einige zu nennen: Shackelford und Shevlin (2001) überprüfen Steuer- und Nichtsteuer-Kompromisse, Vermögenspreise und multi-jurisdictional Commerce. Graham (2003) untersucht Steuerforschung im Zusammenhang mit Kapitalstruktur, Auszahlungspolitik, Vergütungsstrategie, Risikomanagement und der Form von Organisationen. Hanlon und Heitzman (2010) erweitern die Ergebnisse von Shackelford und Shevlin (2001) und konzentrieren sich dabei auf den interdisziplinären Charakter der Steuerforschung, und überprüfen vier Untersuchungsbereiche: Steuervermeidung bei Unternehmenserträgen, Steuern und Vermögenspreise auf Investorenebene, die informationsbezogene Rolle der Bilanzierung von Ertragsteuern sowie Investitions- und Kapitalstrukturentscheidungen. Wenn wir uns frühere theoretische Literaturrezensionen ansehen, in denen die Modelle von Hauptagenten diskutiert werden, stellen wir fest, dass Autoren Steuerfragen nur am Rande erwähnen, wenn überhaupt. Im Mittelpunkt steht in der Regel die Veranschaulichung, wie die Agenturtheorie auf verschiedene Forschungsbereiche wie Management Accounting (Baiman 1982, 1990), Rechnungswesen (Lambert 2001) oder Supply Chain Management (Fayez et al. 2012) angewendet werden kann.

Das Papier geht wie folgt vor. Abschnitt 2 beschreibt die Methodik, die verwendet wird, um die relevanten Studien für unsere Überprüfung zu identifizieren. Eine Tabelle am Ende von Abschnitt 2 zeigt die Anzahl der Studien, gruppiert nach Steuertyp, breitem Forschungsthema und Veröffentlichungszeitraum. Abschnitt 3 zeigt, wie Steuern in der Regel in Prinzipal-Agent-Modellen mithilfe eines LEN-Modells implementiert werden. In Sektionen 4 bis 7, präsentieren und diskutieren wir die Ergebnisse für jede der vier identifizierten Steuerarten: Körperschaftssteuer (Abschnitt 4), Lohnsteuern (Abschnitt 5), Bonussteuern (Abschnitt 6) und Aktionärssteuern (Abschnitt 7). Die Abschnitte sind in die thematischen Unterabschnitte unterteilt: Vergütung, Investitions- und Kapitalstruktur, Steuervermeidung, Verrechnungspreise und zukünftige Forschung. Fußnote 2 Zur Vereinfachung enthalten die Tabellen am Ende jedes Unterabschnitts eine Zusammenfassung der überprüften Papiere und eine kurze Beschreibung des Modells, der steuerbezogenen Forschungsfragen und der zugehörigen Ergebnisse./e). Das Papier ist so organisiert, dass Leser, die sich nur für die empirischen Vorhersagen interessieren, die aus den analytischen Ergebnissen abgeleitet sind, direkt zu ihnen springen können, da sie im gesamten Text nummeriert und hervorgehoben werden. Abschnitt 8 schließt mit einer Diskussion weiterer unbeantworteter Forschungsfragen und einem Ausblick auf die künftige Steuerforschung.

## SCHLUSSFOLGERUNG

Dieses Papier bietet einen Stand der Technik Überprüfung der steuerlichen Auswirkungen auf Agenturkonflikte zwischen Firmeninhabern und Managern. Neben der Zusammenfassung der Forschungsergebnisse nach Steuerarten (Unternehmenseinkommen, Lohn-, Bonus- und Aktionärssteuern) und Forschungsbereich (Ausgleich, Investitionen, Steuervermeidung und Verrechnungspreise) diskutieren wir auch, wie Steuern häufig in Agenturmodelle umgesetzt werden, leiten empirische Vorhersagen ab und identifizieren Forschungslücken für zukünftige Steuerforschung.

Frühere Steuerprüfungen (z. B. Shackelford und Shevlin 2001; Hanlon und Heitzman 2010) dokumentieren, dass die bestehende (empirische) Steuerliteratur eher unzusammenhängend ist. Im Einklang mit dieser Feststellung stellen wir fest, dass Papiere, selbst innerhalb der vier identifizierten Hauptforschungsbereiche, eher lose miteinander verbunden sind und wenig oder gar keinen Querverweis zueinander aufweisen. Wie unsere Analyse zeigt, gibt es viele Fälle, in denen Steuern das Verhalten aller Vertragsparteien beeinflussen. Zum Beispiel reduzieren Unternehmenssteuern nicht nur den Gewinn eines Unternehmens, sondern können auch den optimalen Vergütungsvertrag des Managers verändern. Wir finden zwei unterschiedliche Ansätze zur Steuermodellierung. Einerseits konzentrieren sich die meisten Papiere auf die Analyse einer einzigen Form der Besteuerung. Dieser einseitige Ansatz beruht vor allem auf dem Interesse der Forscher an der Wirkung eines bestimmten Steuersatzes oder Gesetzesgesetzes wie der Verankerung steuerlicher Abzugsbeschränkungen für Managervergütungen (siehe z. B. Göx 2008) oder der Einführung einer Bonussteuer (siehe z. B. Radulescu 2012). Auf der anderen Seite gibt es nur wenige Papiere, die versuchen, mehrere Steuern zu integrieren und als Ergebnis die Gesamteffekte der Besteuerung darzustellen (siehe z. B. Niemann 2008).

Häufig werden Steuern vereinfacht eingeführt. Wir führen drei gemeinsame Vereinfachungen auf: Erstens werden Steuersysteme meist als verhältnismäßig angenommen. Die Annahme, dass proportionale Steuersätze die Schaffung von traktionsfähigen Modellen ermöglichen, die explizite Lösungen ermöglichen. Beispielsweise würde die Einbeziehung einer nicht proportionalen Steuer in das häufig verwendete LEN-Modell gegen die Annahme der Linearität verstößen und somit die Verwendung dieses Modelltyps ausschließen. Viele Lohnsteuersysteme auf der ganzen Welt sind jedoch progressiv, und die Untersuchung der Auswirkungen eines solchen progressiven Steuersystems ist in einigen Fällen wichtig. Beispielsweise könnte eine progressive Lohnsteuer den Manager zu unerwünschten Maßnahmen motivieren, wie z. B. Die Verschiebung von Einkommen zwischen denzeiten, um seine persönliche Steuerlast zu minimieren, wenn der Verwalter einem Steuersatz unter dem Spitzensteuersatz unterliegt. Zweitens gehen die meisten Forscher davon aus, dass der Reservierungsnutzen von der Besteuerung nicht betroffen ist. Eine Lockerung dieser Annahme kann das Verständnis der Gesamtauswirkungen von Steuern auf Vergütungsverträge oder Einstellungentscheidungen verbessern. Schließlich gibt es nur wenige mehrjährige Studien. Eine mögliche Erklärung dafür könnte Modellparsimonie und Vereinfachung sein. Viele Steuerprobleme wie Abschreibungspläne oder Steuerverlustvorträge können jedoch nur mithilfe eines mehrperiodigen Modells analysiert werden. Wir sind der Meinung, dass diese unerforschten Bereiche der Steuerforschung für die Entscheidungsfindung von großer Bedeutung sind, und betrachten sie als vielversprechende Wege für die zukünftige Forschung.

Zu unserer Überraschung stellen wir fest, dass bestimmte Steuerarten noch nicht innerhalb von Agenturmodellen untersucht wurden. Wir glauben, dass es zahlreiche Möglichkeiten für zukünftige Forschung gibt, diese Lücke zu schließen. Ein Beispiel für eine solche Lücke ist die Mehrwertsteuer, die es in den meisten Ländern der Welt gibt. Ein Bereich, in dem die Berücksichtigung dieser Steuer neue Erkenntnisse liefern kann, ist in der Verrechnungspreisliteratur zu finden. Da der Verrechnungspreis ein bestimmender Faktor für die Verteilung der Erträge innerhalb eines Unternehmens ist, kann eine Mehrwertsteuer die Verrechnungspreisentscheidungen des Unternehmens beeinflussen. Dies ist natürlich nur ein Thema, wenn es keine Steuerharmonisierung zwischen den Steuergaben gibt. Ein weiteres Beispiel sind Umweltsteuern (Ökosteuern) wie Umweltverschmutzung oder Energiesteuern, die in vielen Ländern der Europäischen Union erhoben werden. Ein interessantes Thema, das in diesem Zusammenhang untersucht werden könnte, könnten die Auswirkungen von Verschmutzungssteuern auf das Investitionsverhalten des Managers in grüne Ersatztechnologien sein, die dazu beitragen, solche Steuern zu

vermeiden oder zu senken. Man bedenke, dass Unternehmen in der Regel die vollen Kosten der Verschmutzungssteuern tragen müssen, während sich die Emissionen nur anpassen, wenn Sie den verantwortlichen Managern Anreize bieten. Darüber hinaus stellen wir fest, dass Vermögenssteuern wie Vermögenssteuern noch nicht viel Beachtung gefunden haben. Nicht zuletzt fördern wir zukünftige Forschung mit Schwerpunkt auf steuerrechtlichen Fragen, um laufende internationale steuerpolitische Debatten wie die aktuelle Diskussion über die Erosion der Basis und gewinnverlagerung (BEPS) zu unterstützen.

## **TRANSLATED VERSION: PORTUGUESE**

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

## **VERSÃO TRADUZIDA: PORTUGUÊS**

Aqui está uma tradução aproximada das ideias acima apresentadas. Isto foi feito para dar uma compreensão geral das ideias apresentadas no documento. Por favor, desculpe todos os erros gramaticais e não responsabilize os autores originais responsáveis por estes erros.

## **INTRODUÇÃO**

Os conflitos de interesse entre os proprietários das empresas e a gestão das empresas causadas pela separação da propriedade e do controlo estão entre as questões mais importantes e bem exploradas no âmbito da economia empresarial. No entanto, apesar de as partes contratantes, tanto acionistas como gestores, estarem sujeitas a tributação, as considerações fiscais têm sido notavelmente ausentes da literatura teórica de agente principal. Isto é surpreendente, dado os muitos casos em que os impostos influenciam a tomada de decisões. A tributação reduz o benefício que os acionistas e gestores recebem da sua relação contratual. Um acordo contratual pode mesmo ser evitado devido à presença de tributação, por exemplo, se o utilitário esperado do gestor cair abaixo do seu serviço de reserva. Além disso, os impostos alteram o conteúdo da informação e o efeito de incentivo das medidas de desempenho de gestão. Uma medida de desempenho pós-impostos motiva o gestor a exercer atividades de evasão fiscal, mas também é mais ruidosa do que a compensação antes de impostos, uma vez que é influenciada por legislação fiscal, como alterações à taxa de imposto. Os preços de transferência, utilizados para efeitos de coordenação e controlo internos, são afetados pela fiscalidade, bem como são um fator determinante para a atribuição do rendimento tributável nas empresas multinacionais.

Recentemente, talvez como resposta a um pedido de orientação mais teórica (por exemplo, Shackelford e Shevlin 2001; Hanlon e Heitzman 2010), o papel da fiscalidade em relação aos conflitos de agências entre proprietários e gestores de empresas tem recebido cada vez mais atenção. Nota de rodapé<sup>1</sup> Devido ao carácter interdisciplinar da fiscalidade e às diversas origens dos investigadores, as questões de investigação investigadas são múltiplas e as abordagens sobre a forma de implementar a tributação são heterogéneas.

Fornecemos uma revisão abrangente da literatura analítica principal-agente que analisa os efeitos da tributação sobre os conflitos de agências entre proprietários e gestores de empresas. Mais precisamente, discutimos a literatura que estuda a influência da tributação na tomada de decisões corporativas e de gestão num quadro de agente principal onde o principal pode ser interpretado como o(s) proprietário(s) da empresa e o(s) agente(s) pode ser interpretado como o(s) gestor(s) que atua(s) em nome do(s) proprietário(s) da empresa. Ao fazê-lo, resumimos explicitamente a discussão de documentos em que os incentivos entre os proprietários e gestores das empresas estão perfeitamente alinhados. Não discutimos literatura centrada na despesa pública ideal, nos efeitos sociais ou nas implicações sociais da fiscalidade. Embora não restringamos a nossa atenção a nenhum campo de investigação específico, constatamos que a maioria dos artigos que satisfazem os nossos critérios estão relacionados com a contabilidade e finanças (de gestão).

Um tema comum que percorre esta revisão é a questão de como a tributação afeta a partilha de riscos entre os proprietários e gestores das empresas.

O nosso estudo fornece informações valiosas para a adoção de uma perspetiva multilateral de planeamento fiscal, tal como proposto pela Scholes et al. (2009), segundo a qual um planeamento fiscal eficaz requer uma compreensão das implicações fiscais em todas as partes contratantes (aqui proprietários e gestores de empresas). Mostramos que existem várias motivações para estudar os efeitos da tributação na relação da agência entre os proprietários e gestores das empresas. Fornecemos ao leitor uma visão geral das questões de investigação relacionadas com os impostos que foram analisadas pela utilização de modelos de agente principal e resumimos os resultados associados organizados por tipo fiscal e área de investigação. Além disso, apresentamos um exemplo ilustrativo de modelação fiscal utilizando o quadro do modelo LEN, previsões empíricas deriveis, identificamos lacunas de investigação e oferecemos muitas possibilidades de investigação futura. Ao fazê-lo, formulamos previsões apenas para esses resultados analíticos que consideramos particularmente promissores para futuras investigações empíricas. Ao derivar previsões empíricas, também discutimos literatura empírica seletiva no que diz respeito a cada previsão.

Ao longo desta análise, repetem-se os seguintes temas. Em primeiro lugar, os estudiosos usam duas abordagens de modelação distintas: alguns estudiosos implementam e estudam os efeitos de apenas um tipo de imposto. Este é particularmente o caso quando as consequências das alterações à lei fiscal são analisadas. Outros académicos implementam vários tipos de impostos para analisar se e como esses tipos de impostos distorcem o conflito da agência. Em segundo lugar, a tributação é modelada de forma simplificada. Por exemplo, as taxas de imposto de todos os tipos são geralmente aplicadas como taxas de imposto proporcionais e o utilitário de reserva do gestor é assumido como independente da tributação. Em terceiro lugar, constatamos que a declaração de Shackelford e Shevlin (2001) sobre a investigação fiscal empírica: "Em vez de um tronco com grandes ramos, a literatura fiscal cresceu como um arbusto selvagem, surgindo em muitas direções [...]" (p.324) aplica-se igualmente ao conjunto de documentos analisados neste reexame. Neste conjunto de trabalhos, os académicos elaboram os efeitos de quatro tipos distintos de impostos: impostos sobre o rendimento das empresas, impostos sobre os salários, impostos sobre bónus e impostos sobre os acionistas. No que diz respeito à tributação dos rendimentos das empresas, os temas investigados incluem as consequências nos contratos de indemnização, evasão fiscal (e evasão fiscal), investimento e estrutura de capital e preços de transferência. Para todos os outros tipos de impostos, encontramos estudos no que diz respeito às compensações, bem como questões de investimento e estrutura de capital.

Tanto quanto sabemos, esta é a primeira revisão literária que discute a implementação e as consequências da tributação nos modelos de agente principal. A maioria das avaliações anteriores da literatura fiscal focam-se na investigação empírica. Para mencionar apenas alguns: Shackelford e Shevlin (2001) rever impostos e não-impostos trade-offs, preços de ativos e comércio multi-jurisdiccional. Graham (2003) pesquisa investigação fiscal relacionada com a estrutura de capital, política de pagamentos, estratégia de compensação, gestão de riscos e forma de organizações. Expandindo os resultados de Shackelford e Shevlin (2001) ao mesmo tempo que muda o foco na natureza interdisciplinar da investigação fiscal, Hanlon e Heitzman (2010) analisam quatro áreas de inquérito: evasão ao imposto sobre o rendimento das empresas, impostos ao nível dos investidores e preços de ativos, o papel informativo da contabilização dos impostos sobre o rendimento e as decisões de investimento e estrutura de capital. Olhando para as anteriores revisões teóricas de literatura sobre os modelos dos principais agentes, constatamos que os autores mencionam questões fiscais apenas de passagem, se é que são. O centro das atenções geralmente está em ilustrar como a teoria da agência pode ser aplicada a diferentes áreas de investigação, tais como a contabilidade de gestão (Baiman 1982, 1990), contabilidade (Lambert 2001), ou gestão da cadeia de fornecimento (Fayezi et al. 2012).

O papel prossegue da seguinte forma. A secção 2 descreve a metodologia utilizada para identificar os estudos relevantes para a nossa revisão. Uma tabela no final da Seita. 2 retrata o número de estudos agrupados por tipo fiscal, um tema de investigação alargado e um período de publicação. A secção 3 ilustra como os impostos são normalmente implementados em modelos de agente principal através da utilização de um modelo LEN. Em Seitas. 4 a 7, apresentamos e discutimos os resultados de cada um dos quatro tipos de impostos identificados: impostos sobre o rendimento das pessoas sociedades (Seita. 4), impostos sobre

os salários (Seita 5), impostos sobre bónus (Seita 6) e impostos sobre os acionistas (Seita 7). As secções dividem-se nas subsecções temáticas: compensação, investimento e estrutura de capital, evasão fiscal, preços de transferência e investigação futura. Nota de rodapé<sup>2</sup> Por conveniência, as tabelas no final de cada subsecção fornecem um resumo dos documentos revistos e incluem uma breve descrição do modelo, da(s) questão de investigação relacionada com os impostos e dos resultados associados. O trabalho é organizado de tal forma que os leitores interessados apenas nas previsões empíricas derivadas dos resultados analíticos podem saltar diretamente para eles, uma vez que são numerados e destacados ao longo do texto. A secção 8 concluirá com uma discussão sobre novas questões de investigação sem resposta e uma perspetiva de futura investigação fiscal.

## CONCLUSÃO

Este artigo fornece uma revisão de última geração dos efeitos fiscais sobre os conflitos de agências entre proprietários e gestores de empresas. Para além de resumir os resultados da investigação por tipos de impostos (rendimentos corporativos, salários, bónus e impostos sobre os acionistas) e área de investigação (compensação, investimentos, evasão fiscal e preços de transferência), também discutimos como os impostos são normalmente implementados em modelos de agências, previsões empíricas derivadas e identificamos lacunas de investigação para futuras investigações fiscais.

Revisões fiscais anteriores (por exemplo, Shackelford e Shevlin 2001; Hanlon e Heitzman 2010) documentam que a literatura fiscal existente (empírica) é bastante desarticulada. Em consonância com esta observação, constatamos que os documentos, mesmo dentro das quatro principais áreas de investigação identificadas, estão bastante ligados entre si e mostram pouca ou nenhuma referência cruzada entre si. Como a nossa análise indica, há muitos casos em que os impostos influenciam o comportamento de todas as partes contratantes. Por exemplo, os impostos sobre as sociedades não só reduzem os lucros de uma empresa, como também podem alterar o contrato de compensação ideal do gestor. Encontramos duas abordagens distintas de modelação fiscal. Por um lado, a maioria dos trabalhos centra-se na análise de uma única forma de tributação. Esta abordagem unilateral é motivada principalmente pelo interesse dos investigadores no efeito de uma determinada taxa de imposto ou de uma lei legislativa, como a colocação de limitações fiscais de dedutibilidade à compensação de gestão (ver, por exemplo, Göx 2008) ou a introdução de um imposto de bónus (ver, por exemplo, Radulescu 2012). Por outro lado, existem apenas alguns documentos que tentam incorporar vários impostos e, consequentemente, apresentam os efeitos globais da tributação (ver, por exemplo, Niemann 2008).

Frequentemente, os impostos são implementados de forma simplificada. Enumeramos três simplificações comuns: em primeiro lugar, os regimes fiscais são maioritariamente considerados proporcionais. Assumindo taxas de imposto proporcionais alivia a criação de modelos tratáveis que permitam soluções explícitas. Por exemplo, a inclusão de um imposto não proporcional no modelo LEN frequentemente utilizado violaria o pressuposto da linearidade e, por conseguinte, impediria a utilização deste tipo de modelo. No entanto, muitos regimes de impostos sobre os salários em todo o mundo são progressivos e a investigação dos efeitos de um regime fiscal tão progressivo é importante em alguns casos. Por exemplo, um imposto salarial progressivo poderia motivar o gestor a empreender ações indesejáveis, tais como a transferência de rendimentos entre períodos para minimizar a sua carga fiscal pessoal se o gestor estiver sujeito a uma taxa de imposto inferior à taxa de imposto marginal de topo. Em segundo lugar, a maioria dos investigadores assume que a utilidade da reserva não é afetada pela tributação. A flexibilização deste pressuposto pode melhorar a compreensão dos efeitos globais dos impostos sobre contratos de indemnização ou decisões de contratação. Finalmente, existem apenas alguns estudos de vários períodos. Uma possível explicação para isto pode ser a parsimonia modelo e a simplificação. No entanto, muitas questões fiscais, como os calendários de amortização ou os prejuízos fiscais, só podem ser analisadas através da utilização de um modelo de vários períodos. Consideramos que estas áreas inexploradas da investigação fiscal são altamente relevantes para a tomada de decisões firmes e as consideram como vias promissoras para a investigação futura.

Para nossa surpresa, constatamos que certos tipos de impostos ainda não foram investigados dentro dos modelos da agência. Consideramos que existem numerosas oportunidades para a investigação futura colmatar esta lacuna. Um exemplo para tal lacuna é o imposto sobre o valor acrescentado, que existe na maioria dos países em todo o mundo. Uma área em que a consideração deste imposto pode dar novos conhecimentos está na literatura sobre preços de transferência. Dado que o preço de transferência é um fator determinante para a distribuição das receitas dentro de uma empresa, um imposto sobre o valor acrescentado pode influenciar as decisões de preços de transferência da empresa. Trata-se, naturalmente, de uma questão que se coloca apenas na ausência de harmonização fiscal entre jurisdições fiscais. Outro exemplo são os impostos ambientais (impostos ecológicos), como a poluição ou os impostos sobre a energia, que são aplicados em muitos países da União Europeia. Uma questão interessante a investigar neste contexto pode ser o impacto dos impostos sobre a poluição no comportamento de investimento do gestor em tecnologias de substituição verde que ajudam a evitar ou reduzir tais impostos. Considere que as empresas normalmente têm de suportar os custos totais dos impostos sobre a poluição, enquanto as emissões só se ajustam se fornecerem incentivos aos gestores responsáveis. Além disso, constatamos que os impostos sobre a riqueza, como os impostos sobre a propriedade, ainda não receberam muita atenção. Por último, mas não menos importante, encorajamos a investigação futura com foco em questões legislativas fiscais para apoiar debates em curso sobre a política fiscal internacional, como a atual discussão sobre a erosão de base e a transferência de lucros (BEPS).