

Do Corporate Taxes Affect Executive Compensation?

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Abstract

The limitation of executive compensation has been a matter of public and policy debate for at least 20 years. We examine a first-time regulatory action where the deductibility of the *total value* of executive compensation is limited and unavoidable. We find that, rather than reduce remuneration, companies reduce precautionary savings, thereby increasing risk. This suggests that firms pass on the burden of increased taxes to shareholders. Our results may shed light on other reforms such as the U.S. Tax Cuts and Jobs Act of 2017 and contribute to prior findings that argue for proactive regulation to limit executive compensation.

Keywords Corporate taxes; tax incidence; executive compensation

JEL Classification J33; H21; H22; M12

1 Introduction

In this paper, we examine the effect of corporate taxes on executive compensation. Fueled by the increased debate about inequality and the role of executive pay (e.g., Piketty and Saez 2003), as well as strong media attention, policymakers around the world have tried several tax instruments to address this issue. For example, in 1993 the U.S. introduced Section 162(m) of the Internal Revenue Code, which limited the tax deductibility of non-performance-based remuneration components, and in 2009 the U.K. implemented a bonus tax. However, because these regulations affected only certain compensation components, firms and managers have been able to circumvent these regulations by changing the composition of compensation (e.g., Rose and Wolfram 2000). Hence, whether total compensation is affected by corporate taxes cannot be inferred from prior literature (e.g., Rose and Wolfram 2000; Ehrlich and Radulescu 2017; Bird 2018) – also because income shifting responses, examined in prior literature, are typically much stronger than real consequences (e.g., Slemrod 1995).

We contribute to this literature and the debate on executive compensation (e.g., Edmans, Gabaix and Jenter 2017) by examining the response of executive compensation to a limited tax deductibility of all compensation components. Theory is ambiguous: On the one hand, increasing the after-tax costs of hiring executives can result in new (i.e., lower) equilibrium wages in the market for managerial talent. On the other hand, it could be that incentive structures do not change due to importance of the executive for the firm. The 2017 U.S Tax Cuts and Jobs Act (TCJA) introduced a limit to the tax deductibility of executive compensation. However, since the TCJA contemporaneously changed many corporate tax provisions, reduced the federal corporate tax rate from 35% to 21%, and comprised substantial changes in personal income taxes, isolating the effect of limited tax deductibility using the TCJA is empirically challenging. We therefore examine a tax reform in Austria that, as in the U.S. case, restricted tax deductibility across all remuneration components, such as performance- and non-performance-based pay, as well as pay in kind and other fringe benefits. Thus, the reform curbs all avoidance channels through shifts in compensation components and ultimately increases the effective corporate tax rate on executive compensation. Importantly, there are no contemporaneous corporate or personal income tax changes in Austria that might blur the identification: The Austrian reform restricts the tax deductibility of total compensation above € 500,000, while keeping, e.g., the statutory corporate tax rate constant.

The economic implications of the Austrian 2014 tax change are significant for firms and executives. To illustrate these economic implications, consider an executive with a total compensation of \$1,000,000. For the Austrian tax rate of 25%, the after-tax cost for the firm is \$750,000. The 2014 reform limits the deductibility to \$500,000. This limit increases the after-tax cost for the firm to \$875,000 ($= \$1,000,000 - 25\% \times \$500,000$). This corresponds to an increase in costs at the firm level of almost 17% to hire executives, which make it substantially more expensive to maintain pre-limit incentive structures. Hence, for the individual contract, there is a large increase in the after-tax costs of hiring a top manager that can shift the equilibrium wage. On average, the increased tax burden for Austrian firms in our sample accounts for approximately 4% of a firm's income taxes payable. Taken together, the Austrian setting therefore allows us to answer the open question of whether limiting the tax deductibility of executive compensation can affect the level of executive compensation. In short, we ask whether executives bear the burden of the corporate tax in the form of lower wages, or if firms, and thus ultimately shareholders, bear the burden.

This question is important for at least two reasons. First, over the past decade, economists, policy makers, and the media have expressed increasing concerns about high executive pay (see, e.g., articles in *The New York Times* and *The Economist*).¹ Piketty and Saez (2003) show that the increase in wealth concentration is “due to the very large rise of top wages since the 1970s.” Consequently, policy makers frequently discuss a limited tax deductibility of executive compensation as a means to curb executive compensation or moderate social income inequalities. Second, our paper is directly related to the literature on executive pay (Bird 2018) and tax incidence (e.g., Arulampalam, Devereux, and Maffini 2012; Fuest, Peichl, and Siegloch 2018). We complement this literature by examining whether corporate taxes and, in our case, the increase in the corporate tax rate stemming from limited deductibility are borne by executives. Our results are thus also informative for the recent U.S. tax change.

While policy makers have clear intentions when limiting deductibility, i.e. reducing executive compensation or social inequalities, the theoretical implications of a comprehensive deductibility limit

¹ *The New York Times*, “Letter from Washington: As U.S. rich–poor gap grows, so does public outcry,” February 2007, <https://www.nytimes.com/2007/02/18/world/americas/18iht-letter.4637416.html> [11/30/2018]; *The Economist*, “Executive Pay in Europe – Pay Attention,” June 2008, <https://www.economist.com/business/2008/06/12/pay-attention> [last accessed 11/30/2018].

on executive pay are ambiguous. On the one hand, firms could share the increased tax burden with the managers and reduce wages since a new compensation optimum arises under the changed after-tax cost. Hence, firms could reduce executive remuneration to pass on part of the corporate tax to the executive as the firm's cost-benefit trade-off has changed considerably.² However, exactly their managerial talents might make managers indispensable. Previous research accounts for their specific skills and talents (e.g., Gabaix and Landier 2008; Terviö 2008; Kaplan, Klebanov, and Sorensen 2012). Due to their importance, the labor supply of managers might be very elastic, whereas the labor demand of firms might be relatively inelastic. Hence, firms therefore could rather cautiously maintain old incentive structures (though one can then raise the question as to why the executive could not have earned a higher wage before the reform). As a result, firms' shareholders and other stakeholders theoretically bear the additional tax burden from the limited deductibility. We further corroborate the ambiguity of the theory in a simple principal-agent model that explicitly models the impact of tax deductibility limits on executive compensation. Altogether, the question of whether a comprehensive tax deductibility limit for compensation affects executive remuneration is ultimately an empirical one.

To examine how corporate taxes affect executive compensation, we use the unanticipated tax law change in Austria in 2014. Austria's compensation policy, institutional environment, and economic conditions are comparable to those of other European countries and the U.S. As an OECD country, Austria follows the OECD Principles of Corporate Governance, as do Canada, the U.S., and the U.K. As in most countries, executive compensation in Austria comprises performance and non-performance-based components. Prior to 2014, all compensation components were tax deductible in Austria. Following the federal elections in Austria in 2013, the newly formed government, in a surprise move to the public and the markets, announced the introduction of limited tax deductibility for any type of compensation exceeding EUR 500,000 per employee per year. Given the average compensation of board members and executives, this can add up to a sizable amount of additional tax burden for the firm and

² Additionally, models of tax incidence (e.g., Arulampalam, Devereux, and Maffini 2012; Fuest, Peichl, and Siegloch 2018) suggest that, particularly because of their bargaining power, managers participate in the firm's profits, and thus bear part of the tax incidence. Since a higher effective corporate tax rate reduces after-tax profits, these models predict negative effects on the amount of compensation.

is sizable for the individual contract.³ This significant economic tax increase on executive labor induced by the 2014 reform that cannot be circumvented by shifting compensation components from higher- to lower-taxed components provides a suitable setting to test whether executives or firms bear the corporate tax burden. We exploit this setting in a difference-in-differences (DiD) approach, since some executives are affected by this rule, while others are not.⁴

We collect data on executive compensation for all listed, disclosing Austrian firms from their annual statements and disclosures over the period from 2012 to 2017. During this period, the corporate tax rate remained constant and corporate as well as income tax laws did not change significantly, except for the introduction of the tax deductibility limit. We combine these data with financial statement information from Worldscope. In our initial tests, we find that Austrian executives affected by the limit experienced lower growth in total pay relative to unaffected executives. This result is an indication that managers appear to bear part of the corporate tax and that corporate taxes can affect executive compensation (see also Bird 2018).

One concern about this DiD analysis is that we cannot control for general global trends in executive compensation between executives with higher remuneration relative to those with lower levels of compensation. In other words, our results from Austria could just reflect a general trend in converging compensation across firms during the sample period. To account for such trends, we augment our dataset with executive-level data on executive board members from Germany, the U.S., the U.K., and France. Our main empirical analysis uses thus triple-difference settings, comparing the trend between treated and control executives in these countries with that in Austria to account for the general trend. The findings are striking: our significant results from the Austrian setting disappear. That is, the results we obtain for Austrian firms in isolation simply reflect a general trend in executive compensation. There is no discernible change in executive compensation when the tax law limits the tax deductibility of executives' labor expense.

³ The average executive board of Austrian companies comprises four members with an average salary of EUR 1,000,000 if they are affected by the rule. This adds up to EUR 2,000,000 in non-deductible compensation per firm. Considering the Austrian corporate income tax rate of 25%, the average affected firm faces an additional tax burden of EUR 500,000 for their four board members (or EUR 125,000 per board member or an increase in compensation costs by almost 17%).

⁴ We find support for the assumption that treated and control executives follow a common trend prior to 2014.

This finding is robust to a battery of robustness and sensitivity tests. First, we continue to find this insignificant result when using a matching approach that eliminates differences, for example, in firm size between treated and control groups. Second, we examine whether the effect is similar for newly signed contracts because existing contracts might be sticky. We still find no discernible change in executive compensation for newly signed contracts. Third, we allow for lagged reform effects as it might take some time for the limited tax deductibility to change contracts. Fourth, we employ less restrictive fixed effects structures. Fifth, we require a balanced panel to avoid that entries and exits drive our results. In all these test, we still find no effect of the limited tax deductibility on executive compensation.

We also provide several cross-sectional analyses with respect to differences in the labor supply elasticity of executives. While the average effect could be insignificant, executives with a less elastic labor supply could bear part of the corporate tax burden. We examine three different cross sections that intend to exploit differences in executives' labor supply elasticity. First, we compare the compensation of CEOs versus that of other executives. Second, we split the sample based on executives' tenure, age, and the firm's return on assets (ROA). Finally, we compare firms with higher versus lower profitability. In none of the subsamples do we find evidence of executive compensation being affected by corporate taxes. It therefore appears as if executives, irrespective of their level, tenure, age, or performance, have sufficient labor market power to avoid having the corporate tax burden passed on to them. Our results indicate that corporate taxes have no effect on executive compensation. This result is consistent with the theoretical argument that, because of executives' high labor market power, firms cannot pass on the corporate tax burden to executives.

In the final step, we examine whether shareholders bear the burden of the corporate tax on executives. Shareholders could bear the cost of the corporate tax, since firms could reduce dividends or capital investments, or tap internal resources by reducing financial slack. We find no evidence that firms reduce dividends or investments. Instead, our results indicate that affected Austrian firms reduce precautionary savings, that is, reduce financial slack. Cash holdings are high-discretion financial resources, which enable managerial flexibility (George 2005). This strategy is potentially costly for shareholders, since reducing existing financial buffers predisposes firms to economic shocks (e.g., Latham and Braun 2008) and hostile takeovers (e.g., Haushalter, Klasa, and Maxwell 2007), and reduces

internal funds to finance large future investments (e.g., Almeida, Campello, and Weisbach 2004). Hence, shareholders appear to bear the corporate tax burden of taxing executives through reduced cash holdings.

Our paper contributes to the literature in two ways. First, we contribute to the literature on corporate taxes and executive compensation (Hall and Liebman 2000; Rose and Wolfram 2000; Ehrlich and Radulescu 2017; Bird 2018). In a setting where the limited deductibility of executive compensation cannot be avoided, we show that in contrast to setting, which allow for substitution between compensation components (e.g., Bird 2018), corporate taxes have no discernible impact on executive compensation. The changes in Austrian compensation between affected and unaffected executives reflect only a general global trend in executive compensation. In other words, executives do not bear the burden of the corporate tax. Instead, the additional corporate tax burden is (at least partly) borne by shareholders in the form of reduced cash holdings.

Second, our paper thus relates to the literature on the incidence of corporate taxes in general and of labor tax costs specifically (Arulampalam, Devereux, and Maffini 2012; Fuest, Peichl, and Siegloch 2018). While the theory on the incidence of corporate taxes falling on executives is ambiguous, our results indicate that executives do not bear the corporate tax burden. Hence, any policy attempt to reduce executive compensation by changing the corporate tax code might not be successful because of executives' labor market power.

We also note that there are some limitations since we only provide evidence from one European country. Keeping in mind that our results are not necessarily generalizable to other countries, we still cautiously draw some policy conclusions and draw implications for potential papers examining the extension to Section 162(m) in the course of the recent Tax Cuts and Jobs Act of 2017 that limits tax deductibility of executive compensation. Our results suggest that such attempts might not be successful in reducing executive compensation. Hence, policy makers might consider other approaches, such as increased personal income taxes, as proposed by Piketty (2014) and Piketty, Saez, and Stantcheva (2014). However, for a more complete picture, evidence from several reforms would be informative.

2 Predictions and Institutional Background

2.1 Corporate Governance and Compensation Policy in Austria

We exploit the introduction of a tax deductibility limit in Austria to identify whether firms pass on an increase in tax costs to their executives in the form of lower wages. In our empirical approach, we compare the executive compensation of Austrian firms to the executive compensation of German, U.S., U.K., and French firms. Austria is comparable to our set of control countries, as well as many other countries, in many respects. First, all the countries in our sample are members of the OECD and, therefore, follow the OECD Principles of Corporate Governance, making them comparable in terms of corporate governance. According to the OECD Principles of Corporate Governance, a special committee of the board comprised either wholly or mostly of independent directors shall be responsible for setting and negotiating executive compensation and contracts for board members and key executives.⁵ While the formal organization of firms' management and directors differs across our set of countries, corporate governance across all countries should ensure no potential conflicts of interest between management and the committee responsible for executive compensation. For example, like German publicly listed firms, Austrian publicly listed firms are organized in a two-tier system, with strict separation of the executive and supervisory boards (Jungmann 2009; Block and Gerstner 2016). While the executive board manages the firm, the supervisory board appoints, dismisses, and monitors the members of the executive board. In contrast, U.K. and U.S. firms are traditionally organized in a one-tier system in which executive and non-executive members constitute the board mostly in equal parts (Jungmann 2009); however, as in the two-tier German and Austrian systems, non-executive members and independent directors evaluate the firm's strategy and monitor executives, comparable to the supervisory board mandated for German and Austrian firms (Block and Gerstner 2016). In France, firms can choose between a one- and a two-tier board structure, the former being more popular (Millet-Reyes and Zhao 2010). While firms are potentially organized differently, executive compensation is effectively set similarly across the chosen countries. More importantly, comparable to German, U.S., U.K., and French

⁵ G20/OECD Principles of Corporate Governance, VI. D. 4. Aligning key executive and board remuneration with the longer-term interests of the company and its shareholders, <https://www.oecd-ilibrary.org/docserver/9789264236882-en.pdf?expires=1542287638&id=id&accname=ocid177428&checksum=AF3A76B6D81F6A5A07508351FE6ACBEB> [last accessed 11/15/2018].

compensation packages, Austrian executive compensation comprises fixed and short-term as well as long-term variable pay (Murphy 2013). Thus, Austria shares institutional features with other countries in terms of setting executive compensation.

Austria is also comparable in terms of corporate taxation to Germany, the U.S., the U.K., and France. Executive compensation is commonly considered a tax-deductible operating expense at the firm level for firms in Germany, the U.K., and France, whereas the U.S. introduced a tax deductibility limit on non-performance-based compensation exceeding USD 1,000,000 as early as 1993. Thus, the tax treatment of executive compensation does not change during our sample period in any sample country, except in Austria, the shock we exploit for identification. In addition, corporate tax rates and, thus, the after-tax cost of executive compensation are similar across our sample countries. While Austrian firms face a 25% corporate tax rate, German firms face a combined corporate tax rate of approximately 30%. The corporate tax rate in France was 33.33% in 2014, and the U.K. levied 21% before April 2014, 20% in 2015, and then 19% as of 2016. The U.S. levied corporate taxes at a federal corporate tax rate of 35% until 2017. In 2010, the U.K. as well as France levied an increased tax on bonus payments in certain financial institutions.⁶ Taken together, Austrian tax rules on executive compensation are comparable to those of the other countries in our sample prior to 2014, despite minor differences in tax rates.

Lastly, Austria is comparable to Germany, the U.S., the U.K., and France in terms of economic development, such as productivity, inflation, political stability, rule of law, and corruption. Overall, in terms of institutions regulating executive compensation and economic development, Austria is comparable to the other countries in our sample, as well as outside our sample.

2.2 Tax Deductibility Reform in Austria

Austrian firms could fully deduct wages, including executive compensation, for corporate tax purposes until 2014. As of 2014, any executive compensation exceeding EUR 500,000 is no longer tax deductible. The limit comprises all types of compensation components, such as fixed pay, variable pay, pay in kind, and other fringe benefits. The reform was implemented swiftly (see Figure 1). Initiated in July 2013, when the campaigns for the Austrian election started, the Social Democratic Party of Austria

⁶ Due to these bonus taxes and surcharges, we exclude the executives of financial institutions from our sample.

(SPÖ) – one of the major political parties in Austria – included plans to introduce a tax deductibility limit in their election program.

Although plans to introduce a tax deductibility limit on executive pay were public six months before finally entering into force at the start of 2014, its ultimate implementation at that time was far from certain for the following reasons. First, the reform was initially intended to be restricted to firms with close ties to the state (“state-near firms”)⁷ and was not at the top of the SPÖ’s political agenda. Second, the outcome of the Austrian election in terms of potential coalitions and majorities was far from certain in 2013. Both major parties, the Austrian People’s Party (ÖVP) and the SPÖ, fought a head-to-head race in the polls. Thus, the reform’s implementation was not predictable for firms until its final implementation, when the newly elected Austrian government surprisingly introduced the tax deductibility limit for any compensation exceeding EUR 500,000. In February 2014, the new government passed the Tax Code Amendment Act (*Abgabenänderungsgesetz*), including the tax deductibility limit, which was no longer restricted to state-near firms but was applicable to all Austrian firms. It took another year for the reform’s ultimate legal certainty. The reform was challenged in 2014, and the Austrian Federal Fiscal Court declared the reform unlawful in September 2014⁸ but it was ultimately upheld by the Austrian Constitutional Court at the beginning of 2015.⁹ The shift of payments into the future is neither possible nor sensible, as the deductibility limit maintains for pensions.¹⁰ The tax deductibility limit also comprises all types of compensation, including fixed pay, variable pay, and pay in kind and other fringe benefits, leaving no room to avoid the tax increase through shifts in compensation components.¹¹

⁷ SPÖ 2013 election program, project 19, https://www.mehr-demokratie.at/sites/default/files/PDF/spoe_wahlprogramm_2013.pdf [last accessed 11/15/2018].

⁸ Federal Fiscal Court’s action report, https://www.bfg.gv.at/BFG_Taetigkeitsbericht_2014.pdf?61ee19 [last accessed 30/10/2018].

⁹ Austrian Constitutional Court 12/9/2014, G 136/2014, ÖBA 2015/42 (VfGH).

¹⁰ Income Tax Guidelines (*Einkommensteuerrichtlinien*) 14.8a.1, 4852b, and 4852d: <https://findok.bmf.gv.at/findok?execution=e3s2#segmentHeadline1> [last accessed 03/22/2019].

¹¹ Additionally, intentional evasion of the tax increase through artificial arrangements can be challenged by the Austrian tax authorities according to the General Anti-Avoidance Regulation (§22 BAO), for which executive compensation levels are salient information and relatively easy to audit at low cost.

The Austrian legislator justified the reform, with reference to “increasing income differentials,”¹² which was not equally well received. While the Austrian Chamber of Labor valued the reform as a “first important step to implement appropriate executive remuneration,” the Austrian Federation of Industries criticized the reform as “raid-like” and “harming Austria as a business location.”¹³ The Austrian newspaper *Der Standard* stated that the deductibility limit in Austria was arbitrarily chosen and impedes competitiveness.¹⁴ The rule was also economically relevant to listed Austrian firms increasing tax payments of about 4% of average corporate taxes paid (see footnote 3).

Important for our identification strategy, personal tax rates as well as corporate tax rates did not change contemporaneously. A couple of years later, in 2016, there was a change to personal income tax rates on income such as wages. However, the adjustment is negligible for most of our sample executives. For example, an executive with an income of € 1 million experienced a very small decrease in personal income taxes of about € 2,400. Compared to the impact of the limited deductibility on the corporate tax bill of € 125,000, the income tax changes in 2016 are very unlikely to drive our results.¹⁵ For three reasons, we are confident that the 2016 changes are unlikely to explain our results. First, the effect of the corporate tax is always larger than the change in the personal income tax for any level of income. Second, in our sample, the personal tax effect is negligibly small as about 90% (75%) of executives in Austria earn less than € 1.5 (1.0) million. Third, in untabulated test, we show that our results are robust to the exclusion of Austrian executives with incomes above € 1 million. In this sample, the 2016 change in personal taxes cannot explain the effect of the 2014 Austrian tax reform.

Even though the legislation change of the limited deductibility was subject to harsh criticism in Austria, other countries implemented similar tax changes. For example, in 2017, the U.S. Tax Cuts and Job Act expanded the existing deductibility limit to all compensation components (Kastiel and Noked 2018). However, since personal income tax rates, tax credits, tax deductions and, in particular, the

¹² Explanations of the political intentions behind the Austrian reform can be found at Z5 and Z12 lit c. (§20. Abs. 1 Z 7 and § 124b Z 253 EStG 1988) AbgÄG 2014, https://www.parlament.gv.at/PAKT/VHG/XXV/II/I_00024/fname_337614.pdf [last accessed 10/17/2018].

¹³ *Kurier*, on the deductibility limit of compensation, <https://kurier.at/wirtschaft/managergehaelter-steuermalus-ab-500-000-euro-zulaessig/108.053.061> [last accessed 10/20/2018].

¹⁴ *Der Standard*, on the deductibility limit of compensation, <https://derstandard.at/2000010442814/Gegen-Steuer-Malus-fuer-Manager> [last accessed 10/13/2018].

¹⁵ For very high incomes (well above € 2 million), higher marginal tax rates might lead to higher personal income tax burdens, which in turn might affect executive compensation.

corporate tax rate as well as the definition of the corporate tax base changed substantially, isolating the effect of the limited deductibility using the U.S. setting and the U.S. Tax Cuts and Job Act is empirically challenging. We therefore use the Austrian case to inform the debate about taxes and executive pay.

2.3 Effect of Limited Deductibility on Executive Compensation and Firm Performance

This section outlines the theoretical effects corporate taxes have on executive compensation. Executive compensation is considered a tax-deductible operating expense at the firm-level in virtually all tax systems. Thereby, it decreases the firm's tax burden. The introduction of a tax deductibility limit on executive compensation thus increases the firm's corporate tax burden and costs to hire executives. Two distinct effects can occur, based on considerations regarding firm-internal value maximization and the labor market equilibrium. Firms could either pass on part of the additional tax burden to their executives in the form of lower wages, to shield shareholders from the additional nominal tax burden, or else protect the executives and pass the burden to shareholders or other stakeholder groups.

In general, firms and therefore their shareholders face an agency conflict, which arises from the separation between ownership (principal) and management (agent) of a corporation. Due to their involvement into daily business, executives have asymmetrically more information, which they can use to maximize their personal utility regardless of firm value as the shareholders' concern (e.g., Holmström 1979). To mitigate this agency conflict and align interests of both parties usually executive compensation is tied to firm performance to optimize firm value (e.g., Jensen and Meckling 1976). However, not only internal considerations determine compensation, but also the supply and demand in the market for high-skilled executive labor, which decide on enforceability. Two different theories about executive compensations provide predictions for the effects the deductibility limit could have on executive compensation: The "efficient contracting" and the "rent extraction" view.

Following the "efficient contracting" theory, the substantial increase in compensation costs determine a new firm-internal optimum based on the after-tax costs relative to the benefits for shareholders in the form of effort generation by the manager. Since after-tax costs increase significantly, one would expect firms to strive for lower executive compensation. However, executive compensation can either decrease or remain unchanged dependent on the executive's market power relative to the firm's market power in the labor market. Hence, compensation arises from a "competitive equilibrium

in the market for managerial talent, and that incentives are structured to optimize firm value” (Murphy 2013:334). Again, the introduction of a tax deductibility limit can result in comparably lower compensation for affected executives. A firm can pass on the additional tax burden to an executive in form of lower compensation, in case the executive has relatively lower market power due to, for example, less profound skills or talent or lacking mobility. Recent research suggests that executive compensation and hence their market or bargaining power vary with executive characteristics or talent. For example, executive compensation is positively correlated with executives’ firm experience (Graham, Li, and Qui 2012) or age (Daily, Certo, and Dalton 2000). Hence, younger and less experienced executives potentially have lower relative market power in the executive labor market compared to older and more experienced executives, increasing the firm’s ability to shift the additional tax burden towards less powerful executives. Additionally, we observe low mobility in Austrian board members, with hardly any Austrian being a board member in a German DAX firm. The lack of outside options might further enable firms to pass on the tax burden to executives. Hence, firms could decide to shift at least part of the tax burden to either specific, more vulnerable groups or even all, immobile executives.

On the other hand, there are arguments that imply a constant executive compensation. This would be the case if the firms were not able to shift the tax burden to the executives due to the managers’ relatively high market power. Prior research finds, that while executive outside options increased over the last years with a shift in demand of transferable rather than firm-specific executive skill sets (Frydman, 2005; Murphy and Zájbojník, 2004, 2007), also competition between firms for scarce managerial talent increased due to intensified international trade (Marin and Verdier, 2012). High-skilled employees, such as executives, also provide skills that are highly valuable for certain firms (e.g., Gabaix and Landier 2008; Terviö 2008; Kaplan, Klebanov, and Sorensen 2012). Prior research suggests that especially high-skilled employees are less likely affected by increased corporate taxes (e.g., Fuest, Peichl, and Siegloch 2018). Thus, taking a market-based view firms are less able to pass on the corporate tax increase in form of lower wages to powerful executives with high market power. Hence, the firms’ labor demand is rather inelastic and their market power relatively low, their ability of shifting the

economic burden of the tax might be restricted (Harberger 1962; Fullerton and Metcalf 2002), since agency costs exceed the additional tax burden. As a result, executive compensation remains unaffected.

The “rent extraction” view implies that managers extract rents beyond an optimal level (e.g. Bebchuk and Fried 2003, 2004, 2005; Core, Holthausen and Larcker 1999; Edmans, Gabaix and Jenter 2017). For example, Jiraporn, Kim, and Davidson (2005) show that weaker shareholder rights are associated with more generous executive compensation. This implies that contracts might not have been efficient in the first place. The exogenous reform shock could adjust compensation to efficient structures and reduce executive pay as happened after a Canadian reform. Bird (2018) shows that executive compensation decreased on average following the abolishment of a large tax incentive on stock option pay in Canada suggesting that the tax benefit associated with managers’ stock option pay was entirely extracted by and passed on to executives before. Hence, executive compensation would also decrease after the introduction of a tax deductibility limit.

Our previous discussion shows that the theoretical predictions provide ambiguous results. To further corroborate these ambiguous predictions, in Appendix A.1, we present a simple moral hazard LEN model with managerial bargaining power to demonstrate how limited deductibility affects executive compensation. The model implications are qualitatively similar when assuming that executive compensation is linked either to pre-tax or after-tax profitability. In general, the executive’s remuneration would decrease only if the executive’s bargaining power falls below a certain threshold, dependent on the manager’s risk aversion and the impact of external factors on the firm’s performance goal. Otherwise, the introduction of a deductibility limit would have no effect on wage development. Collectively, prior theoretical literature as well as our simple moral hazard model yield ambiguous predictions with respect to executive compensation. Ultimately, it is an empirical question. Since the theoretical implications are mixed, we state our main hypothesis in null form as follows.

Hypothesis 1: Executive compensation does not decrease following the limitation of the tax deductibility of executive compensation.

3 Empirical Approach and Data

3.1 Identification and Empirical Specification

To test if firms pass on the economic burden of the limited tax deductibility to their executives, we exploit variation in the tax costs for executive labor at the firm level. In 2014, Austria restricted the tax deductibility of (executive) compensation to EUR 500,000. Firms face limited tax deductibility of executive compensation if the executive earns more than EUR 500,000 per year. We therefore split the sample into executives affected by the reform ($TREAT = 1$), who earn more than EUR 500,000 yearly, and executives who are not affected by the reform ($TREAT = 0$). We then use a DiD approach where we compare the changes in compensation between these groups (first difference) before and after the reform (second difference). If affected executives earn less than their unaffected peers after the introduction of the tax deductibility limit, the tax incidence of the burden of the limited tax deductibility would fall on executives in the form of lower compensation. We thus estimate the following equation:

$$\ln(Pay)_{i,t} = \alpha + \beta_1 TREAT_i + \beta_2 REFORM_t + \beta_3 TREAT_i \times REFORM_t + \delta X_{i,t} + \mu_t \quad (1) \\ + \rho_i + \epsilon_{i,t},$$

where $\ln(Pay)$ is the natural logarithm of the total compensation of executive i in year t . We additionally estimate equation (1) using fixed and variable compensation as dependent variables. The variable $TREAT$ is an indicator variable taking the value of one if the executive earns more than EUR 500,000 yearly in 2012 and 2013, and zero otherwise. As the reform was enacted rapidly, with just two months between the announcement and its entry into force, we do not expect any anticipation effects by firms. We therefore base the treatment status on pre-reform compensation levels. The reform sorts approximately 45% of the executive–year observations into the group of unaffected executives and 55% into the group of affected executives. The variable $REFORM$ is a dummy variable taking the value of one for years in which the tax deductibility limit applies (2014 onward), and zero otherwise. If the Austrian reform were to reduce executive compensation, we would obtain a negative β_3 coefficient.

In our empirical analysis, we additionally control for variables that likely positively affect executive compensation (e.g., Bebchuk and Grinstein 2005; Gabaix and Landier 2008; Bird 2018). Hence, X is a vector of control variables that includes firm size, $Size$, and a set of firm performance measures, including lagged ROA , lagged stock return ($Return$), and the market-to-book ($MTBV$). The

vector X also includes executive-level control variables such as the indicator variable CEO , which takes the value of one if the executive in question acts as the CEO (and zero otherwise), the executive's age (Age), and firm experience in years ($FirmExperience$). All variables are defined in Table 1. We use both year fixed effects μ_t and executive fixed effects ρ_i , respectively, to control for time- and executive-invariant unobserved heterogeneity. We cluster standard errors at the executive level (Petersen 2009).

One concern about our analysis is that there are global trends in executive compensation that are uncorrelated with Austrian tax law changes. To the extent that these global trends also affect Austrian firms, our coefficient of interest, β_3 , could pick up these trends. We therefore estimate our DiD specification for several other countries that did not introduce a tax deductibility limit but which are subject to the same general trends. In particular, we choose Germany, the U.S., the U.K., and France to obtain a broader picture of the development of compensation in Europe and the U.S. Germany shares its language and borders with Austria, and its executive remuneration evolved similarly before the reform year 2014. The U.K. and France are separated from Austria by both language and spatially, so that any spillover effects are unlikely. We include the U.S. as an important non-European benchmark. Since these countries did not introduce a tax deductibility limit as Austria implemented in 2014, we can account for general global compensation trends by splitting the executives in these countries as well into groups of pseudo-affected and pseudo-unaffected executives.

We mimic the Austrian reform in all non-reform countries and categorize executives earning more than EUR 500,000 in 2012 and 2013 as treated ($TREAT = 1$). In countries with average compensation levels well beyond EUR 500,000, such as Germany or France in our sample, setting the pseudo-threshold at EUR 500,000 would yield very small groups of unaffected executives serving as a control group. In this case, we construct pseudo-reform thresholds within non-reform countries to sort approximately 55% of the executives into the affected group and 45% into the unaffected group. This proportion mirrors the distribution of affected and unaffected executive-year observations in the reform country of Austria. We implement this so-called distribution-like pseudo-reform in Germany and France. The pseudo-thresholds are set to EUR 1.8 million and EUR 1.7 million, respectively. In the U.S.

and the U.K., we use a cutoff of EUR 500,000, consistent with Austria, by converting compensation in local currency to euros.¹⁶

We then extend specification (1) to a triple-difference estimator that compares relative changes in compensation between affected and unaffected executives in Austria (first difference) to relative changes in compensation between pseudo-affected and pseudo-unaffected executives in non-reform countries (second difference) around 2014 (third difference). Therefore, we compare relative compensation changes not only within countries, but also across countries for further robustness and to isolate the incremental effect of a tax deductibility limit at the firm level on the compensation levels of executives. Empirically, we implement the triple-difference estimator as follows:

$$\begin{aligned} \ln(\text{Pay})_{i,t} = & \alpha + \beta_1 TREAT_i + \beta_2 REFORM_t + \beta_3 AT_i + \beta_4 TREAT_i \times REFORM_t \\ & + \beta_5 TREAT_i \times REFORM_t \times AT_i + \beta_6 TREAT_i \times AT_i + \beta_7 REFORM_t \\ & \times AT_i + \delta X_{i,t} + \mu_t + \rho_i + \epsilon_{i,t}, \end{aligned} \quad (2)$$

where all the variables are the same as in specification (1) and AT is an indicator variable equal to one if the executive in question is at an Austrian firm, and zero otherwise. The coefficient β_4 captures up the relative difference in compensation levels in the reform period (first difference) between affected and unaffected executives (second difference) in countries other than Austria. This coefficient thus captures the general trend in compensation between these groups. Our coefficient of interest is β_5 , which captures the incremental change of the executive compensation of Austrian treated firms (third difference). If the Austrian tax change indeed “has teeth” and reduces executive compensation, then β_5 should be negative and statistically significant.

One potential concern about our approach is that our fixed effects structure with executive fixed effects is too tight to identify the effect of limited tax deductibility on executive pay. We therefore replicate our main results without these fixed effects. As reported in Table A.4 of the Online Appendix, our results are insensitive to the exclusion of executive fixed effects. Hence, the main inferences that we draw with these fixed effects also hold without these fixed effects.

¹⁶ To demonstrate that our arguably somewhat arbitrary cutoff choice is not responsible for our findings, we also implement so-called distribution-like pseudo-reforms in all the other countries (the U.S. and the U.K.) for additional robustness in the Online Appendix, Tables A.1 to A.3.

3.2 Data and Sample

Our empirical analysis rests on a sample comprising data on executive compensation (total, fixed, and variable pay) and demographic characteristics (age, firm tenure, and CEO status) from 2012 to 2017, including 119 executives of Austrian firms, 167 executives of German firms, 6,368 executives of U.S. firms, 1,226 executives of U.K. firms, and 24 executives of French firms. Since listed firms in Austria are only required to disclose overall individual board member pay data since 2012, our sample period is naturally restricted to 2012.¹⁷ Data for the executives of U.S. firms were retrieved from ExecuComp. Data for the executives of U.K. and French firms were retrieved from BoardEx.¹⁸ Additionally, we hand-collected the compensation and characteristics data of Austrian and German executives and firms to ensure better data coverage for the reform country, Austria, and the most similar non-reform country in terms of language and institutions (Germany). In particular, data coverage of Austria is poor in commercially available databases. We therefore collected data from audited financial disclosures. Whereas the disclosure of overall executive compensation levels has been mandatory since 2012, the breakdown by fixed and variable compensation is only recommended.¹⁹ However, the majority of listed Austrian firms disclose granular data for the annual compensation of their executives. Our data therefore comprise detailed information on executives' annual remuneration, including fixed, variable, other, and total compensation, as well as their demographic characteristics, such as age, board, and firm tenure, and their role on the board for all 54 listed Austrian firms that disclose individual pay data.

To arrive at the final sample including the other countries, we start with the universe of BoardEx and ExecuComp observations (111,417 executive–year observations). We then link our executive data to firm-level financial data retrieved from the Thomson Reuters Worldscope database. In this step, we lose 47,921 executive–year observations due to missing firm-level financials (total assets, stock returns for the end of the financial year, pre-tax income, and market-to-book values). However, this allows us to control for the effect of firm performance on executive compensation levels. Additionally, we require

¹⁷ Changes of the Austrian Corporate Governance Code 2012, <https://www.corporate-governance.at/uploads/u/corpgov/files/code/corporate-governance-code-072012.pdf> [03/22/2019]; §239 1 4 UGB (Austrian Commercial Code).

¹⁸ The BoardEx data are very detailed, especially for the U.K., and comparable in coverage to ExecuComp.

¹⁹ Austrian Corporate Governance Code comply-or-explain rule 31 <https://www.corporate-governance.at/uploads/u/corpgov/files/code/corporate-governance-code-012018.pdf> [10/31/2018]; German Corporate Governance Code 4.2, <https://www.dcgk.de/en/code/current-version/management-board.html> [last accessed 10/31/2018].

non-missing values for total, fixed, and variable compensation (dropping 7,345 executive-year observations). Finally, we require compensation data for at least our pre-reform periods, 2012 and 2013,²⁰ and one post-reform year, 2014, for each executive. We lose 17,960 executive-year observations in this necessary step, because the assignment to the treatment and control groups needs to be carried out with pre-reform values. We winsorize all continuous variables at the first and 99th percentiles. Table 2 summarizes all the steps performed per country. Our final sample comprises 7,951 executives and 38,288 executive-year observations.

Table 3 presents summary statistics for the compensation levels, firm-level performance measures, and executive-level characteristics for each country. Executives of firms in Austria earn, on average, EUR 799,770 per year, are 52.71 years old, and have spent 14.44 years with the firm (Panel A). A total of 29% of the executives in the sample of Austrian firms act as the CEO. The total compensation of Austrian firm executives is almost equally divided between fixed pay (on average EUR 388,230) and variable pay (on average EUR 338,960). Austrian executives unaffected by the reform (with total compensation under than EUR 500,000 in 2012 and 2013) are, on average, 4.22 years younger and have, on average, 2.69 years less firm experience than affected executives earning more than EUR 500,000 in 2012 and 2013. Unaffected executives work, on average, in smaller firms (*Size*, $14.02 < 15.56$) with higher profitability (*Return*, $0.11 > 0.03$) compared to their affected counterparts.

Executive compensation differs slightly across countries (Table 3, Panels B to E). Whereas the executives of German and French firms earn, on average, EUR 2.4 million yearly, executives in the U.S. (U.K.) earn, on average, EUR 548,700 (EUR 378,910). These differences in total compensation are mainly attributable to differences in firm size (*Size*) across countries in the sample. German and French firms are significantly larger (*Size* = 17.64 and 16.75, respectively) than the U.S. and U.K. firms (*Size* = 14.83 and 11.61, respectively) in the sample. The share of fixed pay relative to total compensation varies from 35% in the U.K. to 87% in the U.S. The average age of firm executives in non-reform countries ranges from 52.94 years in the U.K. to 58.42 years in France.

²⁰ We intentionally require two available pre-reform periods (2012 and 2013) to ensure that changes in variable compensation levels with firm performance have less of an impact on our treatment assignment. The treatment assignment is explained in detail in the next section.

To mitigate potential effects of differences across subsamples on our empirical estimation, we additionally match our covariates (*Size*, *ROA*, *Return*, and *MTBV*), using entropy balancing (Hainmueller 2010) across all countries. Table 4 shows that the remaining differences in *Size*, *ROA*, *Return*, and *MTBV* across countries are insignificant after entropy balancing. All our empirical tests are performed using the main sample, as well as the matched sample.

3.3 Parallel Trends Assumption

A crucial requirement for our empirical identification is that executive compensation evolved uniformly over time before the reform in 2014 (parallel trends assumption; see, e.g., Roberts and Whited 2012). We perform the following analyses to check whether the parallel trends assumption holds in our setting. Figure 2 presents the growth in total compensation over time of the unaffected (control) executives and affected (treatment) executives for each country. Overall, in each country, total compensation grew by a factor of one to two from 2012 to 2017. This result provides first evidence of a global trend in executive compensation during the sample period. Although the compensation levels of (pseudo-)affected executives in the sample are, on average, two to five times higher than those of unaffected executives, Figure 2 provides graphical evidence that compensation evolved uniformly in the pre-reform period for the executives of Austrian, German, U.S., and U.K. firms. Only the executive compensation levels of French firms evolved somewhat differently in the pre-reform period, which could be attributable to the small sample size. In Figures A.1 and A.2, we replicate these statistics using fixed pay and variable pay, respectively. The inferences are similar the ones for total pay.

Additionally, we provide statistical evidence that executive compensation evolved uniformly before 2014 between the treatment and control groups. In Figure 3, Panel A, we plot the annual DiD coefficients for the pre-reform period (2012 and 2013) for each non-reform country. Note that the coefficients indicate relative change in the pre-reform period across groups. The vertical confidence intervals indicate no significant relative change between groups in the pre-reform period, and the coefficient is close to zero for the majority of the non-reform countries. In Panel B, we also plot the triple-difference coefficient. Overall, the parallel trends assumption appears to hold in our sample.

4 Results

4.1 Effect of the Reform on Executives' Compensation Levels

We start our empirical analysis by examining the effects of limiting the tax deductibility of labor expenses on executive compensation levels in Austria, using the DiD approach from equation (1). In Panel A of Table 5, we report the results for the reform country, Austria, using total pay (column (1)), fixed pay (column (2)), and variable pay (column (3)) as the dependent variable. The results are striking: executives within the scope of the reform earn, on average, 21.7 percent less in the reform period relative to their peers outside the scope of the reform. The difference is statistically significant at the 1% level. The difference in compensation levels between executives within and outside the scope of the reform is mainly attributable to differences in variable pay in the reform period. The coefficient on variable pay is negative and statistically significant at the 5% level and it is also economically comparable to the coefficient on total pay. The coefficient on fixed pay is statistically and economically insignificant. Thus, executives falling within the scope of the introduced tax deductibility limit appear to earn less after the reform relative to their peers outside the scope of the reform. It thus appears at first glance as if managers bear the economic burden of the limited tax deductibility.

To rule out the possibility that this result just reflects a general global trend in compensation, we repeat this DiD analysis for the other countries. In Panel A, Table 5, we present the results for Germany. Relative to their peers, executives with compensation levels exceeding the set pseudo-threshold earn, on average, 23.1 percent less in the reform period. The coefficient is statistically significant at the 1% level. Most importantly, the coefficient estimate is economically comparable to that for Austria. The picture is very similar in the other non-reform countries. While, in the U.S., executives within the scope of the pseudo-reform earn, on average, 10.6 percent less than their peers (p-value < 1%), the relative difference in the U.K. amounts to 18.6 percent (p-value < 1%). We find similar results in France, with economically comparable differences in compensation levels. However, the coefficients are statistically insignificant, presumably because of a lack of sufficient observations. Taken together, we find economically comparable income differentials between groups of executives in the reform period in countries in which no comparable reform was introduced. Overall, these first results

indicate that the Austrian response partially captures worldwide trends in compensation growth between comparable groups of executives, and not limited tax deductibility.

To test this claim empirically, we use the triple-difference approach from equation (2). This approach allows us to disentangle the incremental reform effect in Austria from global trends. Table 6 presents the regression results for the incremental effect on the total compensation of executives of Austrian firms compared to the executives of German, U.S., U.K., and French firms. The coefficient β_5 of the triple interaction term $REFORM_t \times TREAT_i \times AT_i$ captures the incremental effect of the Austrian tax deductibility limit on the compensation levels of executives in Austria. However, the coefficient β_5 is statistically *insignificant* across all specifications using the full sample (Panel A) and the matched sample (Panel B). Relative to the executives of firms in non-reform countries, the affected executives of Austrian firms do not earn significantly less, on average, after the reform. These results suggest that the introduction of a deductibility limit had no incremental effect on total compensation levels. This result is consistent with the notion that, due to executives' high labor supply elasticity relative to the inelastic labor demand of firms, executives do not bear the corporate tax burden of limited tax deductibility.

So far, we have evaluated total compensation without considering whether the mix of compensation can change. We therefore repeat our triple-difference analysis using fixed and variable pay separately as dependent variables to examine whether the executives of Austrian firms experienced shifts in the compensation components. We use fixed compensation (Table 7) and variable compensation (Table 8) as the dependent variables. The results are very similar to our results for total compensation. The coefficient β_5 , which captures the incremental reform effect in Austria, remains statistically *insignificant* when either fixed or variable compensation is the dependent variable. This result holds for the full sample (Panel A of Tables 7 and 8) and the matched sample (Panel B of Tables 7 and 8).

Overall, these results provide evidence that executive compensation is not sensitive to the limited tax deductibility. Of the 24 coefficients in Tables 6 to 8 capturing this effect, *none* is statistically different from zero. The results we find for the sample of Austrian firms appear to simply reflect a general trend in executive compensation. Hence, from the baseline results, we cautiously conclude that

there is no discernible change in executive compensation when the tax law limits the tax deductibility of executives' labor expense.

4.2 Sensitivity Analysis

We run several robustness checks to corroborate our finding. Since we want to document that the results are similar and insignificant, the Online Appendix is very extensive to show that none of our research design choices is responsible for the insignificant effect. The first robustness test addresses concern about the actual reform year. Since it took time for the Austrian Supreme Court to confirm the reform as constitutional, firms could respond to the tax law change with delay. After the reform was introduced in 2014, a court decision regarding the constitutionality of the reform was pending in the Austrian Supreme Court until the measure was declared lawful in 2015. Thus, ultimate legal certainty was achieved in 2015, potentially affecting firms' response to the reform. We therefore rerun the triple-difference approach of equation (2) but define 2015 as the reform year. We run this additional test to investigate whether firms reacted later to the reform as a response to the pending decision of the Austrian Supreme Court. Table A.5 (A.6) in the Online Appendix summarizes the results for the full (matched) sample. The results indicate that, comparable to our main results, the reform did not affect the compensation levels of executives in Austria. In fact, the coefficient of interest is statistically insignificant in all 12 specifications.

The second concern is that executives can enter or exit the sample, which could affect our results. To address this concern, we re-estimate equation (2) using a balanced panel requiring six years of non-missing data per executive. Table A.7 (A.8) of the Online Appendix presents the results for the (matched) balanced panel. Again, we find no effect of the Austrian tax law on executive compensation. The coefficient of interest remains statistically insignificant across all specifications for total or fixed compensation. For variable compensation, the β_5 coefficient is significant once at the 10% level. In other words, out of the 12 regressions, one coefficient is significant at the 10% level. Collectively, these robustness tests provide further evidence that the introduction of the tax deductibility limit in Austria in 2014 did not significantly reduce executives' compensation levels. These results indicate that the increased tax burden of corporations was not passed on to executives in the form of lower wages.

We additionally test whether the compensation levels in newly concluded executive contracts of Austrian firms are lower compared to newly concluded executive contracts of German firms. We define newly signed contracts as contracts that were signed for the first time in our sample period. We perform univariate DiD testing and compare the difference in compensation levels between Austrian and German newly signed contracts in the pre-reform period to the difference in compensation levels between Austrian and German newly signed contracts in the post-reform period. We perform this univariate test because our previous empirical specification relies on the pre-reform assignment of treatment status and therefore excludes contracts that are newly signed in the post-reform period. Figure 4 summarizes the results. The difference in compensation levels between Austrian and German newly signed contracts is statistically significant in both the pre- and post-reform periods. However, in line with our previous results, the DiD coefficient is statistically insignificant for new contracts.

4.3 Cross-Sectional Analysis: Effect of Labor Supply Elasticity

In a final step of the analysis on executive compensation, we go beyond the average response and examine cross-sectional variation in the labor supply elasticity. Theory predicts that the effect of corporate taxes on manager compensation depends on the relative elasticity of managers relative to firms. To test the effect of variations in labor supply elasticity on the sensitivity of compensation levels, we investigate cross-sectional differences of executive- and firm-level characteristics. All of these cross sections are designed to test differences in the relative elasticity of labor supply and demand. As a first test, we include only executives who are CEOs in the sample and re-estimate regression model (2). CEOs are potentially more important to the firm and therefore have a stronger position in the labor market for executives. We therefore rerun our triple-difference approach from equation (2) but limit the sample to CEOs. Panel A of Table A.9 (A.10) presents the regression results using CEO total compensation as the dependent variable using the full (matched) sample.

Provided CEOs have more market power in the labor market and therefore lower labor supply elasticity than their non-CEO peers, the firm is even less able to pass on the economic burden of the tax increase to its CEO. In this case, the coefficient on the triple interaction term in specification (2) should remain statistically insignificant. Comparable to our baseline results, the coefficient on the triple interaction term capturing the incremental reform effect in Austria indeed remains statistically

insignificant across all specifications. In Panel B of Tables A.9 and A.10, we restrict the sample to the other executives who could have less labor market power. However, for these individuals as well, we continue to find insignificant coefficients across all specifications. This finding indicates that non-CEOs also have sufficiently high labor supply elasticity so that they do not bear the burden induced by the limited tax deductibility of executive compensation.

The second cross section exploits differences in tenure with the firm. Executives with longer firm experience have a potentially stronger bargaining position than their less experienced peers (Graham, Li, and Qui 2012). We therefore split our sample along the median of firm experience in years and re-estimate equation (2) for both subsamples. Table A.11 (A.12) presents the results using the full (matched) sample. In line with our previous results, the coefficient of interest, β_5 , is mainly statistically significant in both subsamples (high versus low experience). Of the 24 estimations, only two coefficients β_5 are negative and statistically significant. The other 22 coefficients are either insignificant (20 coefficients) or positive and borderline significant (one coefficient). An alternative way to test this notion is to split based on the age of the executive (Graham, Li, and Qui 2012). The results for the split the sample based on the age are reported in Tables A.13 and A.14 for the full and the matched sample. Graham, Li, and Qui (2012) suggest that there is also no difference between younger and older executives in the sample. Of the 24 estimated β_5 coefficients all coefficients are insignificant. Collectively, these results suggest that, independent of the age or tenure of executives, the tax deductibility limit has an effect on executive compensation.

Further, we exploit differences in the profitability of investments. The idea is that executives of more (less) successful firms are in a better (worse) bargaining situation. Hence, for the executives of less profitable firms, the tax deductibility limit could be binding and lead to a reduction in compensation growth. We split the sample into firms having an ROA above the median and firms having an ROA below the median. We then estimate equation (2) for both subsamples. The results are presented in Tables A.15 and A.16, respectively. In line with our previous results, there are no differences across the samples of high- and low-profit firms. The coefficient on the triple interaction term capturing the incremental reform effect in Austria remains mainly statistically insignificant. Of the 24 estimated β_5 coefficients, only one is negative and statistically significant. The other 23 coefficients are insignificant,

suggesting that the executives of less successful firms are also in a strong enough bargaining situation and do not experience a reduction in compensation growth. Lastly, we mitigate concerns that reductions in executive compensation growth are limited to top-earning executives. We therefore rerun regression model (2) in a subsample of treated executives in the upper median of the income distribution and report the results in Tables A.17 and A.18 for total, fixed, and variable pay using the full and the matched sample, respectively. Our previous results collectively hold in this subsample analysis of top-earning executives.

Overall, the previous tests confirm our baseline results that the economic burden of the corporate tax is not passed on to executives in the form of lower compensation. These results hold in a variety of different subsamples in which we expect cross-sectional differences in the labor supply elasticity of executives. It thus appears as if executives have sufficient labor market power to prevent the corporate tax burden created by limited tax deductibility from being passed on to them.

5 Do Firms and Their Shareholders Bear the Burden of the Tax on Executives?

In the final step, we examine who ultimately bears the burden of the additional tax. As stated before, the increased tax burden accounts for no less than approximately 4% of the income taxes payable for the Austrian firms in our sample. If executives do not bear the burden of the tax, shareholders or other employees could bear the burden of the increase in corporate tax on executives. Passing on the additional tax burden to a firm's lower-level employees is theoretically possible but could be complicated, as employment protection in Austria is strong. For example, even necessary redundancy dismissals must be approved by a third party.²¹ Shareholders could bear the cost of the corporate tax in several testable ways. Firms can reduce dividends or investments in capital or research and development (R&D), cut labor expenses on other employees, or tap internal resources by reducing financial slack. These strategies have different costs. Although dividend payouts are easily adjustable, firms will most likely back away from dividend cuts due to signaling effects (e.g., Beaver, Kettler, and Scholes 1970; Kalay 1980). Cutting investment comes at the cost of reduced future sales and growth. Still, previous research suggests that R&D expenses are often subject to myopic investment behavior (e.g., Bushee

²¹ Employment Flexibility Index—EU and OECD Countries (2018), <https://en.llri.it/wp-content/uploads/2017/12/Employment-Flexibility-Index-2018-LFMI.pdf> [last accessed 02/25/2019].

1998) or real earnings management (e.g., Bange and De Bondt 1998), similar to capital expenses (e.g., Graham, Harvey, and Rajgopal 2005).

Firms could therefore opt for less salient ways and take from cash reserves. Specifically, firms could reduce financial slack, or cash holdings. Contrary to debt, fixed assets, or any excess capacity, cash holdings are highly discretionally financial resources that increase managerial flexibility (George 2005). However, this strategy also bears costs for shareholders, since a reduction of financial buffers increases the firm's risk of environmental turbulence (e.g., Latham and Braun 2008), hostile takeover (Haushalter, Klasa, and Maxwell 2007), and less valuable, large investments (e.g., Almeida, Campello, and Weisbach 2004). Therefore, reducing cash holdings can reduce firm value and shareholders would ultimately bear the tax burden of introducing the tax deductibility limit.

To test if the introduction of the tax deductibility limit has real effects on Austrian firms and ultimately their shareholders, we analyze the reform's effects at the firm level by examining payout, investment decisions, as well as financial slack. We perform this analysis at the firm level and estimate the following empirical specification that is conceptually comparable to specification (2):

$$\begin{aligned}
 Y_{i,t} = & \alpha + \beta_1 TREATFIRM_i + \beta_2 REFORM_t + \beta_3 AT_i + \beta_4 TREATFIRM_i \times REFORM_t & (3) \\
 & + \beta_5 TREATFIRM_i \times REFORM_t \times AT_i + \beta_6 TREATFIRM_i \times AT_i \\
 & + \beta_7 REFORM_t \times AT_i + \delta X_{i,t} + \mu_t + \rho_i + \epsilon_{i,t},
 \end{aligned}$$

where Y is firm's i dividend payout (*Dividends*), investment (*Investment*), or financial slack (*Slack*) in year t . All the variables are described in detail in Table 1. Since R&D expenses, the number of employees, and labor expenses are not mandatory reporting items, data coverage is limited. We therefore only report the results using these variables in the Online Appendix, Table A.19. We note here that the results are similar to those for capital investment and dividends.

The variables *REFORM* and *AT* are the same as in specification (2). However, since our analysis is no longer performed at the executive level but, instead, at the firm level, we also set the treatment indicator *TREATFIRM* at the firm level in the specification above. Accordingly, *TREATFIRM* takes the value of one if the firm employs an executive falling within the scope of the tax deductibility limit in year 2013, and zero otherwise. The coefficient β_5 captures relative changes in dividends, investment, or financial slack between affected and unaffected firms in Austria (first

difference) to relative changes in these variables between pseudo-affected and pseudo-unaffected firms in non-reform countries (second difference) around 2014 (third difference). If firms transfer part of the corporate tax burden onto shareholders, the coefficient β_5 should be negative. We additionally control for variables that likely affect firms' dividend payout, investment, and financial slack. Hence, X is a vector of control variables that includes *Size*, *Leverage*, and *TobinsQ* to control for the effects on *Dividends*, *Investment*, and *Slack*. We further control for *ROA* and *Cash* when using *Dividends* as the dependent variable and *Sales Growth* when using *Investment* as the dependent variable. Additionally, we include industry fixed effects ρ_i and year fixed effects μ_t , respectively, to control for time- and industry-invariant unobserved heterogeneity.

Equation (3) effectively compares the relative changes in dividend payout, investment, and financial slack of affected Austrian firms relative to unaffected Austrian firms, using the financial performance of German and U.S. firms as a benchmark (triple-difference estimation). We limit our empirical benchmark to German and U.S. firms because no corporate tax rate changes were implemented in these countries. From 2015 to 2018, the U.K. gradually reduced the corporate tax rate from 21% to 19%,²² and France had to rescind an illegal dividend overtaxing policy, which was disadvantageous for firms.²³ Although this should not affect our executive-level test in Section 4, it can have effects at the firm level when payout, investment, and cash holdings are the dependent variables.

We report the results in Table 9. Overall, the results suggest that affected Austrian firms experience a reduction in their financial slack, measured as cash holdings, relative to unaffected Austrian firms. Investments and dividend payout appear to remain unaffected by the change in the tax deductibility of executive compensation. For financial slack, we find negative coefficients of interest when using either German or U.S. firms as the benchmark. The coefficients of interest are statistically significant at the 5% level for the full sample and statistically significant at the 10% level for the matched sample. In contrast, for investments and dividend payout, our coefficients of interest remain economically and statistically insignificant in the matched sample.

²² U.K. Government (2018), Rates and Allowances: Corporation Tax, <https://www.gov.uk/government/publications/rates-and-allowances-corporation-tax/rates-and-allowances-corporation-tax> [02/25/2019].

²³ Local.fr (2017), “‘Amateurism’ sees France forced to pay back EUR 10 billion in tax to big companies,” <https://www.thelocal.fr/20171018/france-told-to-pay-companies-10-billion-in-blow-to-deficit-target> [last accessed 02/25/2019].

We interpret these results as being consistent with theory. Although a reduction in dividend payout or investment is interpreted as a particularly negative signal to investors (e.g., for dividends, see Woolridge 1982 and Denis, Denis, and Sarin 1994; for investments, see Williams 1988), absorbing the economic burden of the increase in tax costs on executive compensation through reduced cash holdings is less transparent to investors and highly discretionary (George 2005). Nonetheless, a reduction in cash holdings may reduce firms' resistance to negative economic shocks (e.g., Latham and Braun 2008). Hence, it appears as if shareholders bear part of the corporate tax on executive compensation.

6 Conclusion

This paper examines the effect of limiting the tax deductibility of manager compensation on the pay of executives. We use the 2014 tax law change in Austria to examine this question. Using the data on individual executives' compensation of all disclosing Austrian firms, we find evidence that executives affected by the regulation received lower total compensation relative to executives unaffected by the limited tax deductibility. However, once we compare the response in Austria to a set of four other countries to capture the global trend in executive compensation, we find that limiting the tax deductibility of manager compensation has no discernible effect on executive compensation. This finding is robust to a battery of robustness tests and subsample analyses. Based on our findings, we cautiously conclude that executive compensation is not sensitive to the corporate tax code or the tax deductibility of labor expenses, possibly because it was optimally negotiated in the first place.

One caveat of our empirical analysis is based on one country. The results may thus not necessarily generalize to other countries. Bearing this in mind, we still think that our can be informative for the heated debate about the level of (excessive) executive compensation and increasing inequality (e.g., Piketty and Saez 2003). Several parties around the world suggest that limiting the deductibility of manager compensation from the corporate tax base can fix the problem of excessive pay and reduce income inequality. Our results imply that executives do not bear the burden of the corporate income tax (at least in Austria). Instead, part of the tax burden is borne by shareholders. Hence, the corporate tax code does not appear to be an effective tool if policy makers intend to limit executive compensation.

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Figure 1 Timeline of events in Austria

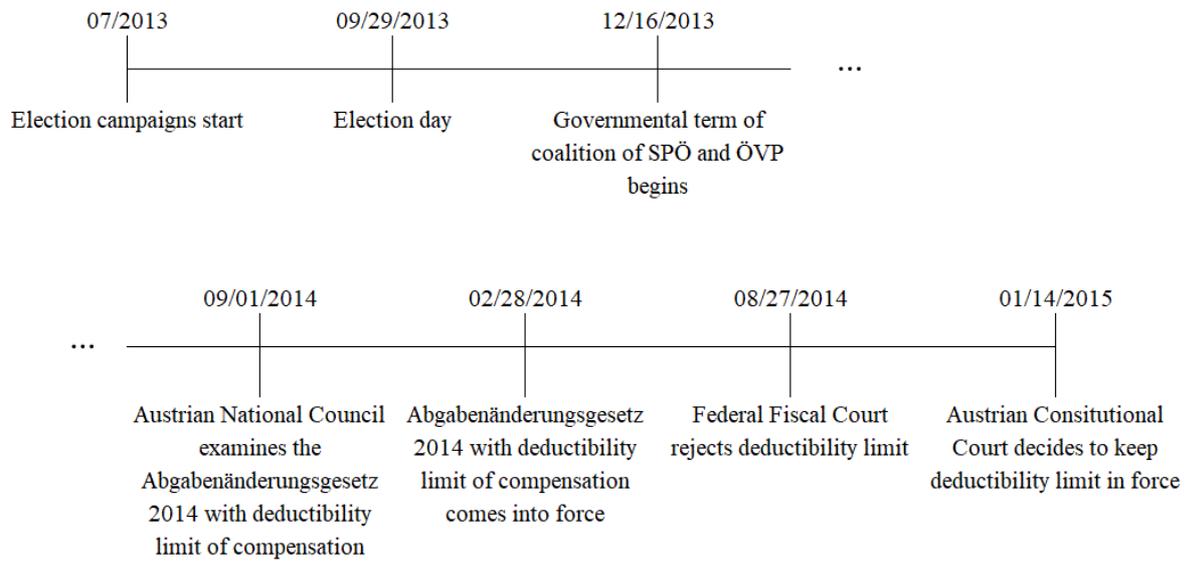
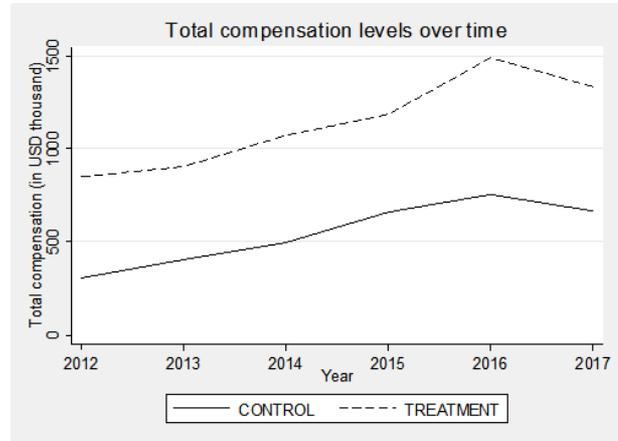
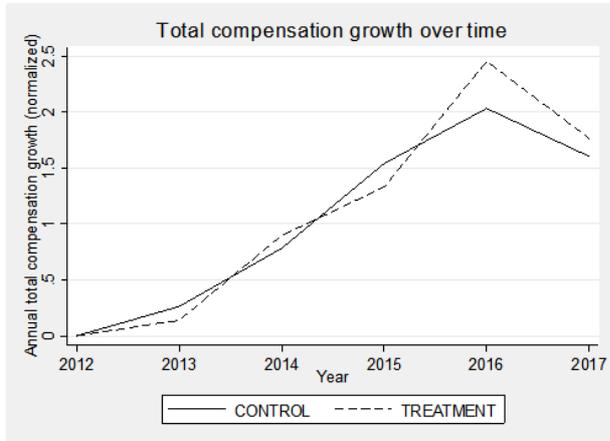


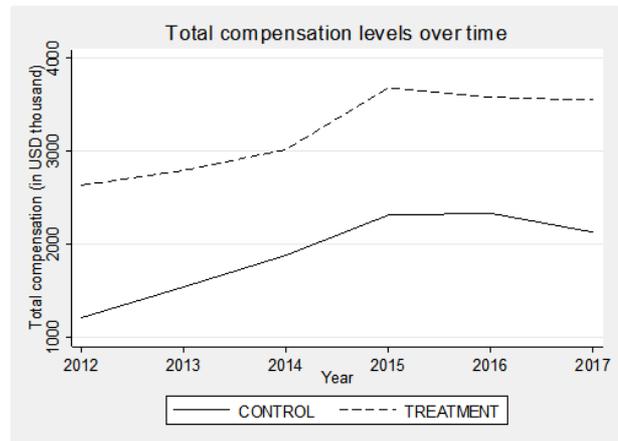
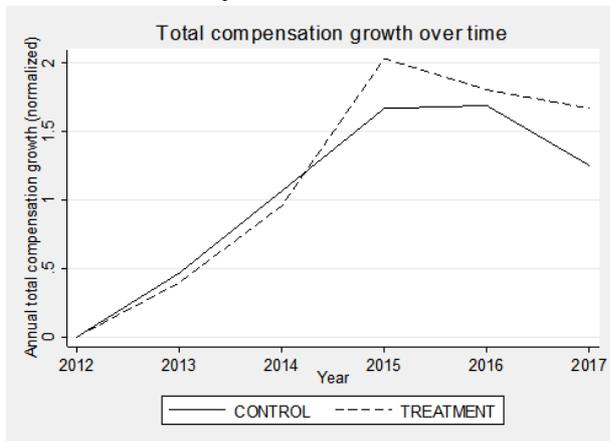
Figure 2

Total compensation over time by country

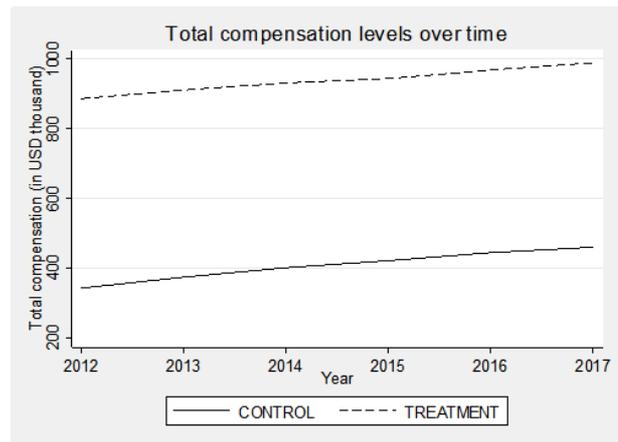
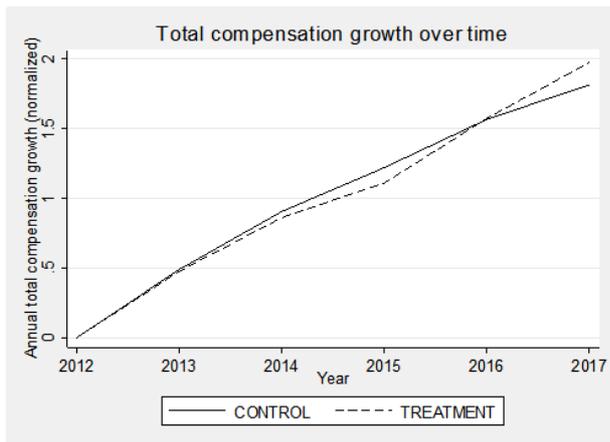
Panel A: Austria



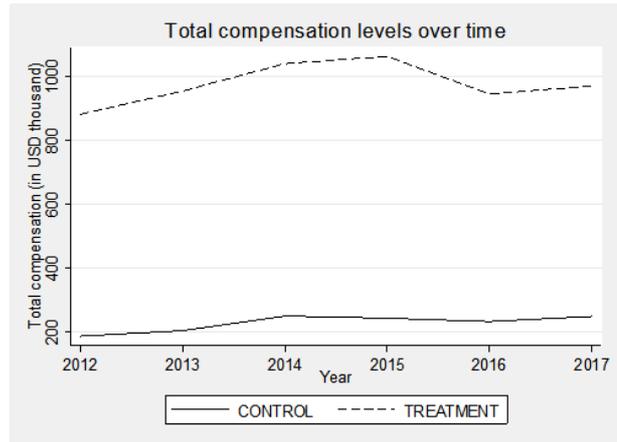
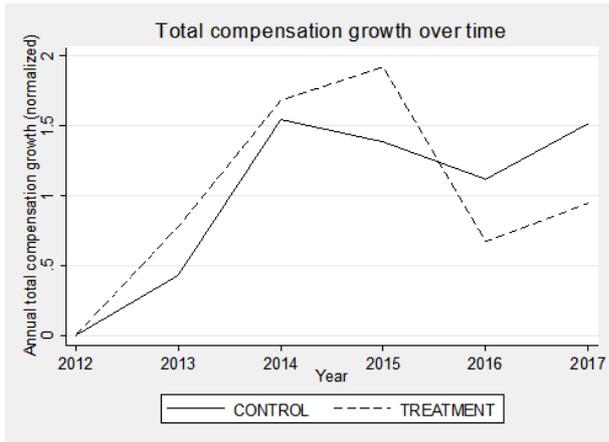
Panel B: Germany



Panel C: U.S.



Panel D: U.K.



Panel E: France

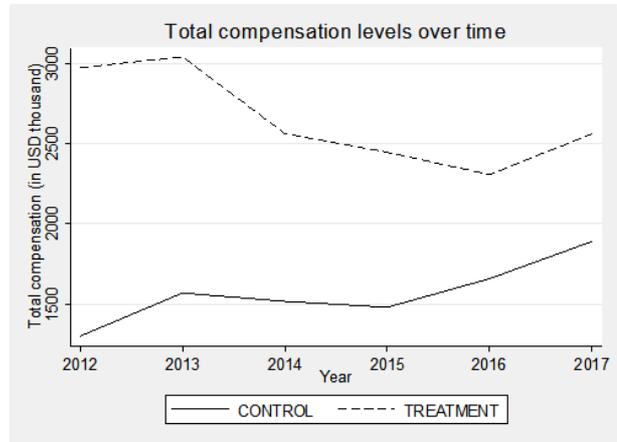
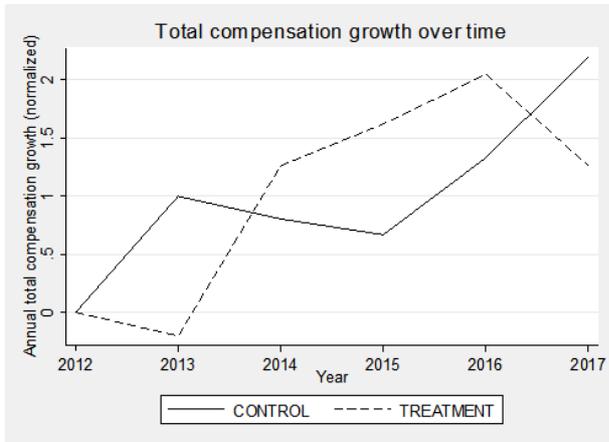
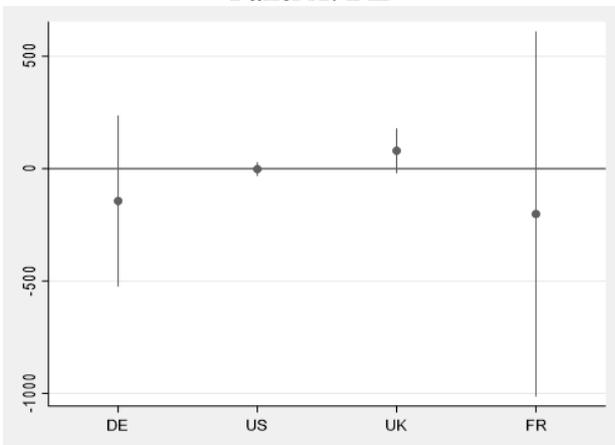


Figure 3

Parallel trends

This figure plots yearly difference-in-difference coefficients for the pre-reform period (2012 and 2013, Panel A) and yearly triple-difference coefficients for the pre-reform period (Panel B) for each non-reform country. Vertical lines indicate the confidence interval at the 1% level.

Panel A: DiD



Panel B: Triple Difference

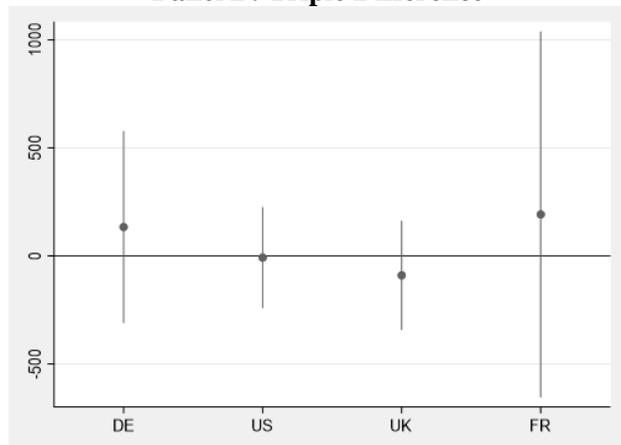


Figure 4

New contracts

This figure presents the level of executive compensation (total pay and fixed pay) in the pre- and post-reform periods for the non-reform country of Germany (DE) and the reform country, Austria (AT), for new contracts. New contracts are defined as contracts that were concluded in 2012 or 2013 (PRE) or in 2014 or 2015 (POST) for the first time. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels (two-tailed *t*-test), respectively.

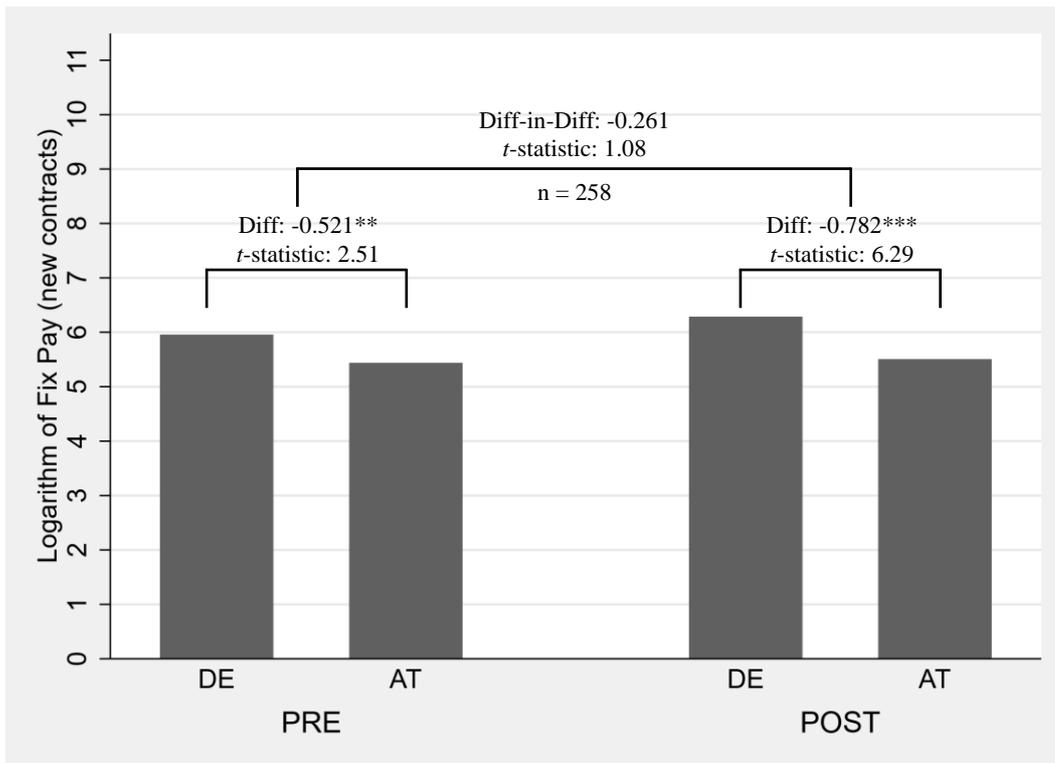
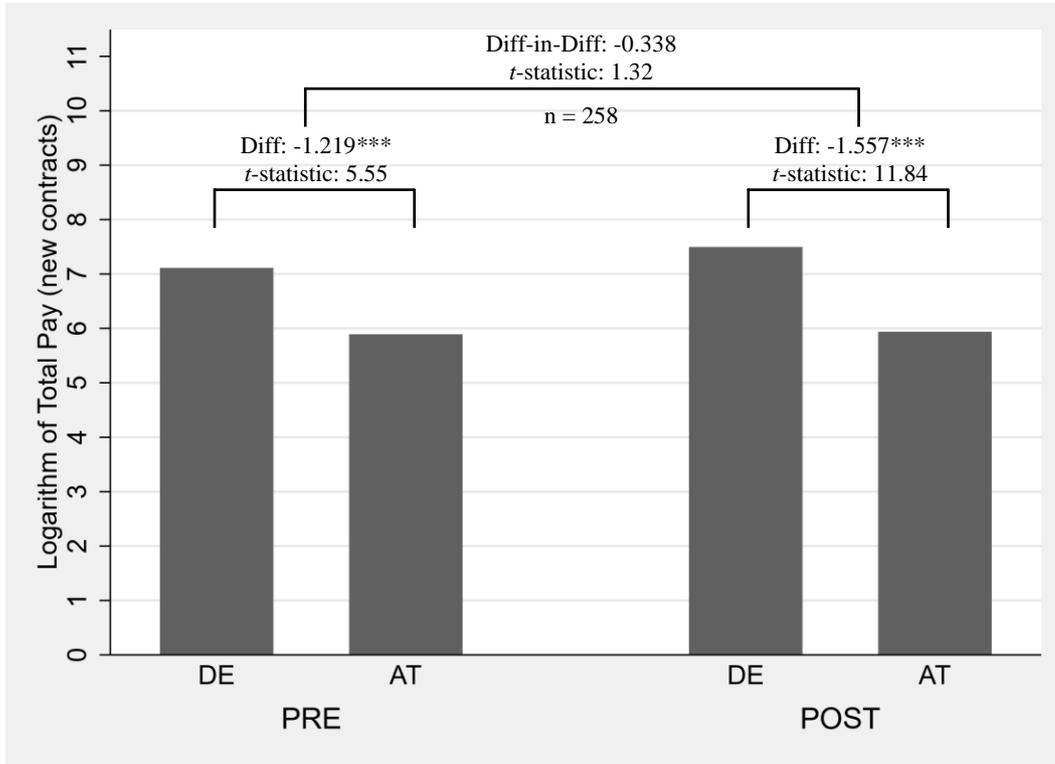


TABLE 1
Variable descriptions

Variable	Description
Dependent Variables	
<i>Fix Pay</i>	Executives' fixed pay, in thousands.
<i>ln(Fix Pay)</i>	Natural logarithm of executives' fixed pay.
<i>Variable Pay</i>	Executives' variable pay, in thousands.
<i>ln(Variable Pay)</i>	Natural logarithm of executives' variable pay.
<i>Total Pay</i>	Executives' total pay, in thousands.
<i>ln(Total Pay)</i>	Natural logarithm of executives' total pay.
<i>Dividends</i>	Cash dividends paid, defined as cash dividends (Worldscope item 4551) scaled by lagged total assets (Worldscope item 2999).
<i>Investment</i>	Defined as capital expenditures (Worldscope item 4601) scaled by lagged total assets (Worldscope item 2999).
<i>Slack</i>	Defined as the firm's cash holdings (Worldscope item 2005) scaled by lagged total assets (Worldscope item 2999).
Firm-Level Variables	
<i>Leverage</i>	Defined as total debt (Worldscope item 3255) scaled by the firm's total assets (Worldscope item 2999).
<i>MTBV</i>	Market-to-book value of the firm (Worldscope item MTBV).
<i>Return</i>	Average yearly stock return, defined as the stock price at the end of financial year t less that at the end of financial year $t - 1$, divided by the stock price at the end of financial year $t - 1$ (Worldscope items 5015 to 5070).
<i>ROA</i>	ROA, defined as pre-tax income (Worldscope item 1401) divided by total assets (Worldscope item 2999).
<i>Sales Growth</i>	Defined as the natural logarithm of change in sales (Worldscope item 1001) over two years.
<i>Size</i>	Natural logarithm of total assets (Worldscope item 2999).
<i>TobinsQ</i>	Defined as the sum of equity market value (Worldscope 5301 to 5085) and book the value of liabilities, scaled by the sum of the book value of equity and the book value of liabilities (Worldscope item 3351).
CEO Characteristics	
<i>CEO</i>	Dummy variable that takes the value of one if the executive is the CEO in the current year.
<i>Age</i>	Executive's age (available only for the hand-collected datasets for Germany and Austria).
<i>YearsFirm</i>	Executive's number of years active in the firm (available only for the hand-collected datasets for Germany and Austria).

TABLE 2
Sample selection

Step	Description	Remaining Observations				
		AT	DE	U.S.	U.K.	FR
1	All available executive–years in the hand-collected (AT/DE), ExecuComp (U.S.), and BoardEx (U.K./FR) data. ²⁴	1,005	1,260	83,739	15,434	8,091
2	Less executive–years missing financials to calculate performance control variables in Worldscope (total assets, stock return at the end of the financial year, pre-tax income, market-to-book value).	913	1,162	46,120	8,655	6,809
3	Less executives missing pay data (total, fixed, and variable compensation).	885	1,162	46,111	8,645	233
4	Less executives missing pre-reform financial year (2013) and post-reform financial year (2014) data.	621	840	30,556	5,951	127

²⁴ Non-executive directors are already excluded from BoardEx data.

TABLE 3
Descriptive statistics

This table presents descriptive statistics for Austria (Panel A), Germany (Panel B), the U.S. (Panel C), the U.K. (Panel D), and France (Panel E). We report descriptive statistics for the full sample, the control group sample, and the treatment group sample for each country. The control (treatment) group in Austria consists of executives earning less (more) than EUR 500,000 in 2012 and 2013. The control (treatment) group in Germany consists of executives earning less (more) than EUR 1.7 million in 2012 and 2013. The control (treatment) group in the U.S. consists of executives earning less (more) than EUR 433,000 in 2012 and 2013. The control (treatment) group in the U.K. consists of executives earning less (more) than EUR 297,000 in 2012 and 2013. The control (treatment) group in France consists of executives earning less (more) than EUR 1.8 million in 2012 and 2013.

Panel A: Austria												
	Full Sample				Control Group				Treatment Group			
	N	Mean	SD	Median	N	Mean	SD	Median	N	Mean	SD	Median
<i>Fix Pay</i>	612	388.23	194.94	359.39	336	289.46	136.45	285.32	276	508.48	187.92	485.79
<i>ln(Fix Pay)</i>	612	5.76	0.85	5.88	336	5.44	0.95	5.65	276	6.15	0.49	6.19
<i>Variable Pay</i>	612	338.96	370.30	250.93	336	205.62	261.39	133.00	276	501.29	416.24	401.02
<i>ln(Variable Pay)</i>	513	5.53	1.15	5.74	267	5.00	1.23	5.21	246	6.11	0.68	6.06
<i>Total Pay</i>	612	799.77	547.35	674.87	336	541.82	380.16	466.27	276	1113.80	556.17	965.00
<i>ln(Total Pay)</i>	612	6.40	0.97	6.51	336	5.97	1.06	6.14	276	6.91	0.45	6.87
<i>Size</i>	612	14.72	1.99	14.50	336	14.02	1.92	13.99	276	15.56	1.74	14.78
<i>Return</i>	612	0.08	0.36	0.04	336	0.11	0.41	0.04	276	0.03	0.28	0.02
<i>ROA</i>	612	0.05	0.04	0.05	336	0.05	0.04	0.04	276	0.05	0.05	0.05
<i>MTBV</i>	612	1.56	1.08	1.16	336	1.59	1.11	1.26	276	1.52	1.04	1.15
<i>CEO</i>	612	0.29	0.45	0.00	336	0.19	0.39	0.00	276	0.41	0.49	0.00
<i>Age</i>	612	52.71	6.91	52.54	336	50.81	6.77	50.04	276	55.03	6.35	55.04
<i>YearsFirm</i>	612	14.44	10.35	11.59	336	13.18	9.88	10.00	276	15.87	10.69	14.30

Panel B: Germany												
	Full Sample				Control Group				Treatment Group			
	N	Mean	SD	Median	N	Mean	SD	Median	N	Mean	SD	Median
<i>Fix Pay</i>	840	708.38	336.26	648.77	456	600.66	274.40	569.10	384	836.30	357.80	751.17
<i>ln(Fix Pay)</i>	840	6.46	0.48	6.48	456	6.31	0.45	6.34	384	6.64	0.45	6.62
<i>Variable Pay</i>	840	1,636.56	993.07	1,479.63	456	1192.09	676.15	1150.68	384	2164.36	1050.10	1946.55
<i>ln(Variable Pay)</i>	819	7.24	0.68	7.31	444	6.95	0.65	7.07	375	7.59	0.54	7.59
<i>Total Pay</i>	840	2,450.50	1,223.65	2,224.96	456	1880.55	810.03	1811.71	384	3127.32	1286.26	2841.46
<i>ln(Total Pay)</i>	840	7.67	0.55	7.71	456	7.44	0.49	7.50	384	7.95	0.47	7.95
<i>Size</i>	840	17.64	1.91	17.65	456	17.62	1.62	17.40	384	17.65	2.22	18.41
<i>Return</i>	840	0.12	0.28	0.10	456	0.12	0.30	0.10	384	0.12	0.26	0.12
<i>ROA</i>	840	0.05	0.04	0.06	456	0.05	0.04	0.06	384	0.05	0.05	0.06
<i>MTBV</i>	840	2.29	2.00	1.78	456	2.33	2.06	1.94	384	2.24	1.93	1.54
<i>CEO</i>	840	0.19	0.40	0.00	456	0.04	0.21	0.00	384	0.37	0.48	0.00
<i>Age</i>	840	53.91	5.51	54.04	456	52.69	5.93	53.04	384	55.36	4.56	56.04
<i>YearsFirm</i>	840	16.18	9.91	15.01	456	15.16	9.72	14.01	384	17.38	10.01	17.01

Panel C: U.S.												
	Full Sample				Control Group				Treatment Group			
	N	Mean	SD	Median	N	Mean	SD	Median	N	Mean	SD	Median
<i>Fix Pay</i>	30,556	548.70	295.41	475.00	15,809	379.76	172.94	355.21	14,747	729.81	292.16	663.56
<i>ln(Fix Pay)</i>	30,556	6.16	0.56	6.16	15,809	5.84	0.48	5.87	14,747	6.51	0.43	6.50
<i>Variable Pay</i>	30,556	77.40	292.35	0.00	15,809	33.65	168.02	0.00	14,747	124.29	377.61	0.00
<i>ln(Variable Pay)</i>	5,918	4.99	1.71	5.16	2,731	4.26	1.61	4.43	3,187	5.61	1.54	5.78
<i>Total Pay</i>	30,556	628.00	442.58	507.50	15,809	413.69	255.93	371.30	14,747	857.74	483.35	725.00
<i>ln(Total Pay)</i>	30,556	6.26	0.60	6.23	15,809	5.90	0.49	5.92	14,747	6.64	0.46	6.59
<i>Size</i>	30,556	14.83	1.71	14.81	15,809	14.21	1.57	14.18	14,747	15.48	1.60	15.49
<i>Return</i>	30,556	0.18	0.41	0.15	15,809	0.19	0.44	0.15	14,747	0.18	0.39	0.15
<i>ROA</i>	30,556	0.06	0.14	0.06	15,809	0.05	0.14	0.05	14,747	0.07	0.14	0.06
<i>MTBV</i>	30,556	3.83	8.84	2.70	15,809	3.76	8.06	2.64	14,747	3.91	9.61	2.77
<i>CEO</i>	30,556	0.23	0.42	0.00	15,809	0.08	0.27	0.00	14,747	0.39	0.49	0.00
<i>Age</i>	30,528	54.30	7.12	54.00	15,784	52.81	7.00	53.00	14,744	55.90	6.90	56.00

Panel D: U.K.												
	Full Sample				Control Group				Treatment Group			
	N	Mean	SD	Median	N	Mean	SD	Median	N	Mean	SD	Median
<i>Fix Pay</i>	5,951	378.91	285.27	309.00	3,133	220.80	180.31	189.00	2,818	554.70	277.52	488.00
<i>ln(Fix Pay)</i>	5,769	5.70	0.80	5.76	2,958	5.22	0.75	5.28	2,811	6.21	0.47	6.19
<i>Variable Pay</i>	5,951	210.09	374.90	37.00	3,133	72.06	180.30	0.00	2,818	363.54	464.73	222.00
<i>ln(Variable Pay)</i>	3,467	5.14	1.41	5.38	1,405	4.24	1.38	4.22	2,062	5.76	1.04	5.83
<i>Total Pay</i>	5,951	593.27	608.13	390.00	3,133	294.80	338.41	213.00	2,818	925.12	666.76	723.00
<i>ln(Total Pay)</i>	5,776	5.99	0.98	6.01	2,965	5.39	0.86	5.41	2,811	6.63	0.62	6.58
<i>Size</i>	5,951	11.61	2.42	11.42	3,133	10.44	2.01	10.31	2,818	12.92	2.14	12.66
<i>Return</i>	5,951	0.17	0.50	0.09	3,133	0.16	0.58	0.05	2,818	0.17	0.41	0.13
<i>ROA</i>	5,951	-0.01	0.34	0.05	3,133	-0.07	0.43	0.03	2,818	0.05	0.16	0.07
<i>MTBV</i>	5,951	2.67	3.64	1.78	3,133	2.39	3.76	1.53	2,818	2.98	3.47	2.15
<i>CEO</i>	5,951	0.39	0.49	0.00	3,133	0.31	0.46	0.00	2,818	0.48	0.50	0.00
<i>Age</i>	5,951	52.94	8.33	53.04	3,133	52.46	9.41	52.04	2,818	53.47	6.90	53.04

Panel E: France												
	Full Sample				Control Group				Treatment Group			
	N	Mean	SD	Median	N	Mean	SD	Median	N	Mean	SD	Median
<i>Fix Pay</i>	127	1,247.68	729.94	1,094.00	72	1122.64	834.97	949.50	55	1411.36	527.67	1288.00
<i>ln(Fix Pay)</i>	127	6.98	0.56	7.00	72	6.82	0.63	6.86	55	7.19	0.34	7.16
<i>Variable Pay</i>	127	1,208.30	746.41	1,141.00	72	1049.58	808.75	841.50	55	1416.07	602.03	1277.00
<i>ln(Variable Pay)</i>	127	6.83	0.86	7.04	72	6.58	1.01	6.73	55	7.16	0.45	7.15
<i>Total Pay</i>	127	2,457.06	1,377.07	2,202.00	72	2169.92	1581.91	1750.50	55	2832.96	938.44	2624.00
<i>ln(Total Pay)</i>	127	7.64	0.63	7.70	72	7.44	0.73	7.47	55	7.90	0.30	7.87
<i>Size</i>	127	16.75	0.78	16.93	72	16.53	0.78	16.72	55	17.05	0.68	17.06
<i>Return</i>	127	0.06	0.26	0.07	72	0.03	0.26	0.04	55	0.11	0.25	0.09
<i>ROA</i>	127	0.07	0.08	0.06	72	0.08	0.10	0.06	55	0.06	0.03	0.05
<i>MTBV</i>	127	2.59	2.21	2.04	72	2.97	2.72	2.16	55	2.10	1.09	1.91
<i>CEO</i>	127	0.46	0.50	0.00	72	0.32	0.47	0.00	55	0.65	0.48	1.00
<i>Age</i>	127	58.42	5.25	59.04	72	57.30	5.97	58.04	55	59.88	3.69	60.04

TABLE 4
Results of entropy balancing

This table presents the results of the entropy matching procedure. Matching was performed based on the pre-reform (before 2013) covariates *Size*, *ROA*, *Return*, and *MTBV*. The table reports the means for *Size*, *ROA*, *Return*, and *MTBV* for the reform country, Austria (AT), and all the means of all the covariates for the non-reform countries of Germany (DE), the U.S., the U.K., and France (FR) before and after matching. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

	Mean	Mean after Entropy Balancing				Mean before Entropy Balancing			
	AT	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
<i>Size</i>	14.62	14.63	14.62	14.62	16.04***	17.57***	14.63	11.47***	16.71***
<i>ROA</i>	0.054	0.054	0.054	0.054	0.066	0.050*	0.065***	-0.007***	0.074***
<i>Return</i>	0.045	0.045	0.045	0.045	0.062	0.070**	0.112***	0.106***	0.022
<i>MTBV</i>	1.434	1.439	1.435	1.434	1.923*	2.092***	3.723***	2.515***	2.221***

TABLE 5
Within-country compensation changes

This table presents the within-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (the reform country) and Germany, the U.S., the U.K., and France (all non-reform countries). The dependent variable is defined as the natural logarithm of total compensation (sum of fixed pay and variable pay) and fixed and variable compensation; *Reform* is an indicator variable taking the value of one for 2014 onward; *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13. All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Austria and Germany						
	Austria (Reform Country)			Germany (Non-Reform Country)		
	(1)	(2)	(3)	(4)	(5)	(6)
	Total Pay	Fixed Pay	Var. Pay	Total Pay	Fixed Pay	Var. Pay
<i>Reform</i> × <i>Treatment</i>	-0.245*** (0.071)	-0.045 (0.096)	-0.236** (0.110)	-0.263*** (0.065)	-0.143** (0.060)	-0.350*** (0.080)
<i>Size</i>	-0.253 (0.161)	0.166 (0.181)	-0.797*** (0.264)	0.183* (0.107)	-0.065 (0.109)	0.202 (0.127)
<i>ROA</i>	1.122 (0.745)	3.307* (1.811)	3.383*** (1.229)	-0.376 (0.835)	0.161 (0.682)	-0.503 (0.956)
<i>Return</i>	-0.127* (0.065)	-0.161*** (0.057)	0.274*** (0.099)	0.153** (0.066)	0.016 (0.058)	0.269*** (0.076)
<i>MTBV</i>	0.010 (0.026)	-0.014 (0.026)	-0.139* (0.079)	-0.014 (0.013)	-0.004 (0.013)	-0.021 (0.014)
<i>CEO</i>	0.195** (0.097)	0.515 (0.376)	0.114 (0.115)	0.378*** (0.098)	0.339*** (0.082)	0.328** (0.131)
Observations	612	612	513	840	840	819
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.885	0.775	0.762	0.547	0.568	0.548
Panel B: U.S. and U.K.						
	U. S. (Non-Reform Country)			U.K. (Non-Reform Country)		
	(1)	(2)	(3)	(4)	(5)	(6)
	Total Pay	Fixed Pay	Var. Pay	Total Pay	Fixed Pay	Var. Pay
<i>Reform</i> × <i>Treatment</i>	-0.118*** (0.008)	-0.107*** (0.007)	-0.091 (0.057)	-0.150*** (0.021)	-0.067*** (0.017)	-0.279*** (0.051)
<i>Size</i>	0.072*** (0.011)	0.067*** (0.009)	0.220*** (0.058)	0.146*** (0.023)	0.067*** (0.021)	0.277*** (0.051)
<i>ROA</i>	0.039* (0.023)	0.005 (0.018)	0.055 (0.114)	-0.105** (0.050)	-0.058 (0.046)	0.143 (0.236)
<i>Return</i>	0.018*** (0.005)	0.012*** (0.004)	0.108*** (0.033)	0.039*** (0.010)	0.008 (0.009)	0.108*** (0.025)
<i>MTBV</i>	0.000 (0.000)	0.000 (0.000)	-0.002 (0.003)	0.008*** (0.002)	0.004** (0.002)	0.005 (0.007)
<i>CEO</i>	0.472*** (0.021)	0.523*** (0.021)	0.271** (0.127)	0.247*** (0.055)	0.246*** (0.051)	0.326*** (0.086)
Observations	30,556	30,556	4,885	5,772	5,765	3,345
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.818	0.831	0.822	0.879	0.874	0.832

Panel C: France			
	France (Non-Reform Country)		
	(1)	(2)	(3)
	Total Pay	Fixed Pay	Var. Pay
<i>Reform × Treatment</i>	-0.163 (0.108)	-0.194 (0.122)	-0.199 (0.195)
<i>Size</i>	-0.176 (0.367)	-0.147 (0.372)	-0.521 (0.526)
<i>ROA</i>	0.773 (0.717)	1.155 (1.026)	1.090 (1.412)
<i>Return</i>	0.192 (0.124)	-0.021 (0.106)	0.442** (0.189)
<i>MTBV</i>	-0.068 (0.055)	-0.037 (0.058)	-0.135* (0.066)
<i>CEO</i>	0.200 (0.132)	0.113 (0.102)	0.312 (0.208)
Observations	127	127	127
Executive fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Adj. R-squared	0.885	0.828	0.864

TABLE 6
Effect of a tax deductibility limit at the firm level on
executives' total compensation levels

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (sum of fixed pay and variable pay). The variable *Reform* is an indicator variable taking the value of one for 2014 onward, and *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Full Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.266*** (0.064)	-0.118*** (0.008)	-0.194*** (0.023)	-0.174* (0.103)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.029 (0.096)	-0.110 (0.070)	-0.030 (0.075)	-0.072 (0.129)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,384	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.870	0.821	0.880	0.907
Panel B: Matched Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.266*** (0.065)	-0.131*** (0.009)	-0.196*** (0.024)	-0.175* (0.103)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.027 (0.095)	-0.108 (0.069)	-0.037 (0.073)	-0.072 (0.130)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,384	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.881	0.862	0.880	0.924

TABLE 7
Effect of a tax deductibility limit at the firm level on
executives' fixed compensation levels

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of fixed compensation. The variable *Reform* is an indicator variable taking the value of one for 2014 onward, and *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Full Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.147** (0.061)	-0.107*** (0.007)	-0.115*** (0.018)	-0.223* (0.114)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.085 (0.106)	0.024 (0.085)	0.033 (0.088)	0.162 (0.165)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,377	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.772	0.829	0.862	0.831
Panel B: Matched Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.147** (0.061)	-0.106*** (0.010)	-0.120*** (0.019)	-0.204* (0.111)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.089 (0.107)	0.024 (0.088)	0.038 (0.087)	0.121 (0.153)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,377	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.781	0.798	0.810	0.876

TABLE 8
Effect of a tax deductibility limit at the firm level on
executives' variable compensation levels

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of variable compensation. The variable *Reform* is an indicator variable taking the value of one for 2014 onward, and *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13. All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Full Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.330*** (0.079)	-0.096* (0.057)	-0.277*** (0.058)	-0.239 (0.178)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.089 (0.135)	-0.128 (0.123)	0.051 (0.124)	0.001 (0.211)
Controls	Yes	Yes	Yes	Yes
Observations	1,330	5,396	3,856	638
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.826	0.820	0.823	0.814
Panel B: Matched Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.326*** (0.080)	-0.139** (0.059)	-0.272*** (0.059)	-0.221 (0.179)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.087 (0.134)	-0.094 (0.120)	0.042 (0.122)	-0.018 (0.211)
Controls	Yes	Yes	Yes	Yes
Observations	1,330	5,396	3,856	638
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.833	0.763	0.786	0.859

TABLE 9
Effect of a tax deductibility limit at the firm level
on firm investment, payout, and financial slack

This table presents the cross-country regression results for firm investment, payout, and financial slack from 2012 to 2017 separately for Germany (DE) and the U.S. The dependent variable for payout is defined as cash dividends scaled by total assets, the dependent variable for investment is defined as change in capital expenditure over lagged total assets, and the dependent variable for financial slack is defined as cash holdings scaled by total assets. The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *TreatFirm* is an indicator variable taking the value of one if any Austrian board member earned more than EUR 500,000 in 2012 and 2013, a German executive earned more than EUR 3.35 million, or a U.S. executive earned more than EUR 500,000. All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Germany

	Full Sample			Matched Sample		
	(1) Dividends	(2) Investment	(3) Cash	(4) Dividends	(5) Investment	(6) Cash
<i>Reform</i> × <i>TreatFirm</i>	0.004 (0.011)	0.008 (0.014)	0.020 (0.021)	0.003 (0.012)	0.001 (0.017)	0.028 (0.031)
<i>Reform</i> × <i>TreatFirm</i> × <i>AT</i>	0.003 (0.013)	0.015 (0.020)	-0.077** (0.037)	0.003 (0.014)	0.027 (0.023)	-0.071* (0.041)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	360	307	374	358	306	372
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.278	0.342	0.249	0.258	0.315	0.470

Panel B: U.S.

	Full Sample			Matched Sample		
	(1) Dividends	(2) Investment	(3) Cash	(4) Dividends	(5) Investment	(6) Cash
<i>Reform</i> × <i>TreatFirm</i>	0.001 (0.002)	0.009* (0.005)	0.008 (0.009)	0.000 (0.002)	0.010* (0.005)	0.010 (0.009)
<i>Reform</i> × <i>TreatFirm</i> × <i>AT</i>	0.003 (0.007)	0.004 (0.013)	-0.060** (0.030)	0.004 (0.007)	0.006 (0.012)	-0.056* (0.029)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,669	9,170	9,987	9,586	9,135	9,837
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.121	0.196	0.374	0.141	0.222	0.371

A.1 LEN model with executive bargaining power

A simple moral hazard LEN model with regard to executive bargaining power—following Fuest, Peichl, and Siegloch’s (2015) individual wage bargaining model—is ambiguous: the firm owner outcome x depends on executive effort a and an exogenous factor $\varepsilon \sim N(0, \sigma^2)$ that prevents effort from being directly verifiable. Therefore, the contract between a firm and a manager must provide incentives that motivate the manager to work in the interests of the firm. An alignment of interests is usually achieved via bonus payments that are linked to the firm’s outcome with a bonus factor β . Therefore, the executive’s compensation s comprises a fixed amount f and a performance-based remuneration component $s = bf + (1-b)\beta x$, dependent on the manager’s bargaining power, which grows in $b \in (0,1)$. Normally, the manager is assumed to be risk averse, since the manager really depends on this compensation, expressed by his or her certainty equivalent $CE = E[s] - \frac{r}{2} \text{Var}[s] - C(a) = (f + \beta x) - \frac{r}{2} \beta^2 \sigma^2 - \frac{a^2}{2}$. This certainty equivalent needs to be at least as high as the compensation of an alternative job \underline{U} ; therefore, the manager accepts the contract in the first place or does not resign later on. The principal wants to maximize after-tax income, ensuring the manager’s participation via the fulfillment of the participation constraint (PC) and the manager’s effort via the fulfillment of the incentive compatibility constraint (IC). The deductibility limit of compensation is presented as $\alpha = \frac{\text{deductibility limit}}{\text{overall compensation}} = \frac{l}{s} \leq 1$. The term α is defined for all limits lower than the overall compensation, and it equals one if there is no restriction,

$$\begin{aligned} \max_{f\beta} \quad & \Pi = (1-c)(x - \alpha s) - (1-\alpha) s \\ \text{s.t.} \quad & (PC): CE \geq \underline{U} \\ & (IC): a^* \in \arg \max_a CE \end{aligned} \tag{A.1}$$

The optimal overall executive salary is

$$s = b \left[\frac{(1-c)^2 (r\sigma^2 - 1)}{2(1-\alpha c)^2 (1+r\sigma^2)} + \underline{U} \right] + \frac{(1-c)^2 (1-b)}{2(1-\alpha c)^2 (1+r\sigma^2)^2} . \tag{A.2}$$

So whether the overall salary is negatively affected as soon as a deductibility limit becomes active depends on the magnitude of $r\sigma^2$:

$$\begin{aligned} s_{\alpha=1} &= b \left[\frac{\overbrace{(1-c)^2 (r\sigma^2 - 1)}^{Co1}}{2(1-c)^2 (1+r\sigma^2)} + \underline{U} \right] + \frac{(1-c)^2 (1-b)}{2(1-c)^2 (1+r\sigma^2)^2} \leq / \geq \\ s_{0 < \alpha < 1} &= b \left[\frac{(1-c)^2 (r\sigma^2 - 1)}{\underbrace{2(1-\alpha c)^2 (1+r\sigma^2)}_{Co2}} + \underline{U} \right] + \frac{(1-c)^2 (1-b)}{2(1-\alpha c)^2 (1+r\sigma^2)^2} \end{aligned} \tag{A.3}$$

Since $(1-c)^2 < (1-\alpha c)^2$, the absolute value of the of Co2 is always greater than of Co1. However, if a deductibility limit affects remuneration negatively depends on whether $r\sigma^2 < 1$. Hence, predictions concerning the effect of a deductibility limit are ambiguous.

Several researchers have already investigated the effects of basing the performance-related remuneration components on either pre- or after tax performance measures. For example, Phillips (2003) and Gaertner (2014) find that using after-tax incentives is positively associated with lower effective tax rates. Powers, Robinson and Stomberg (2016) show that firms report lower ETRs in case the CEO's performance is measured after-tax – dependent the general design of the incentive system. In this model basing the agent's remuneration on after-tax profits before remuneration costs instead of pre-tax profits before remuneration costs sheds qualitatively similar, ambiguous results.

Do Corporate Taxes Affect Executive Compensation?

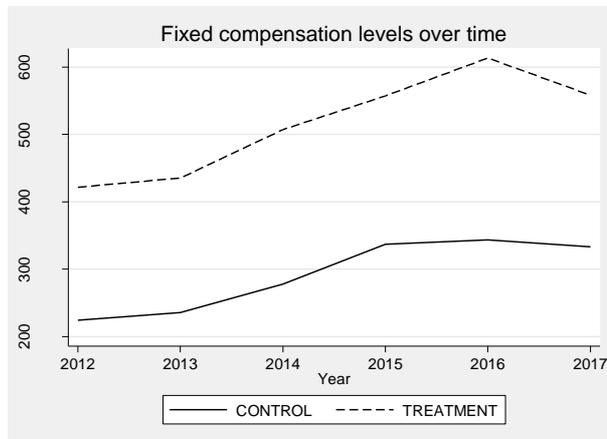
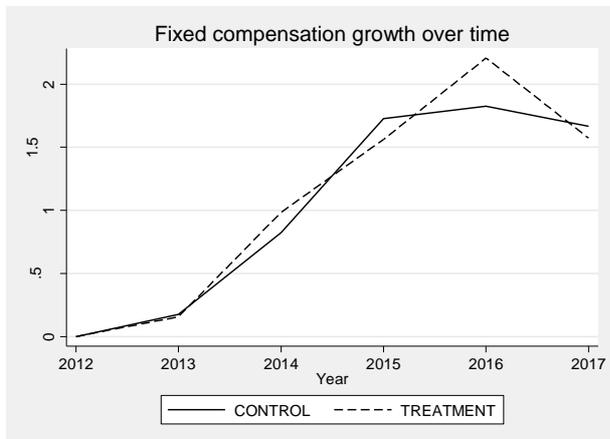
Online Appendix

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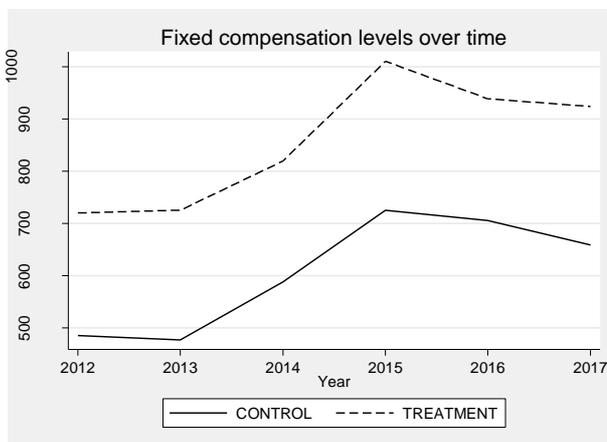
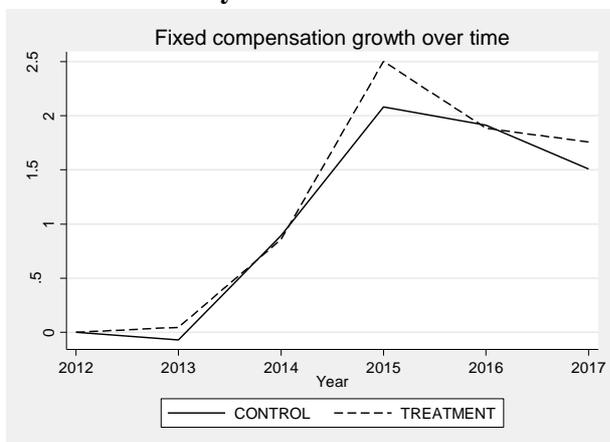
Figure A.1

Fixed compensation over time by country

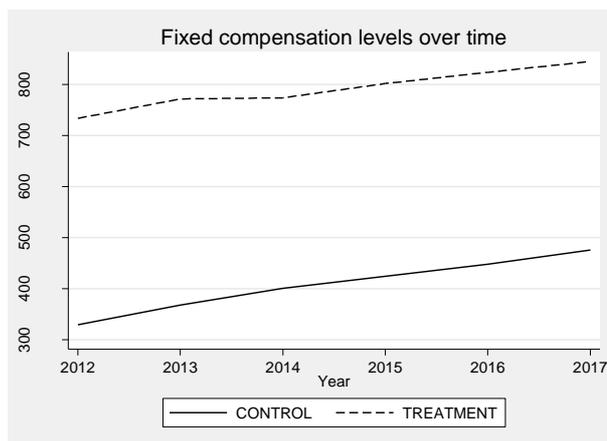
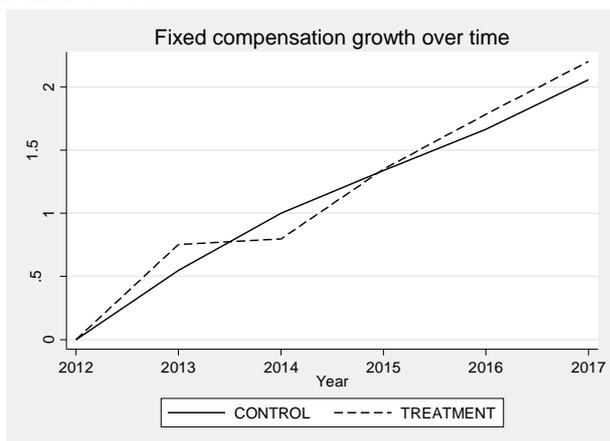
Panel A: Austria



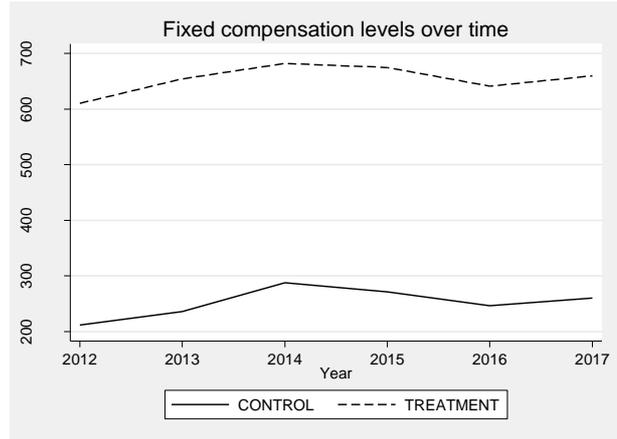
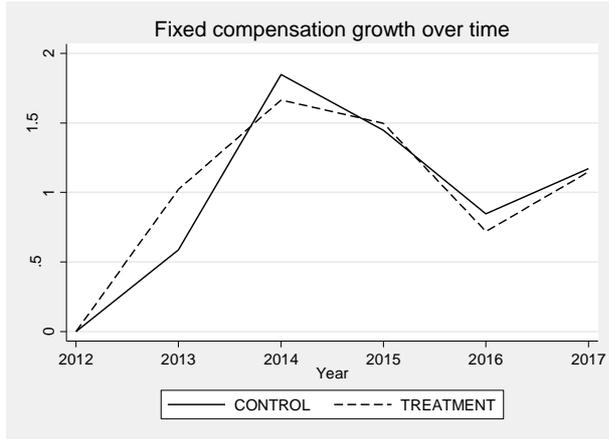
Panel B: Germany



Panel C: U.S.



Panel D: U.K.



Panel E: France

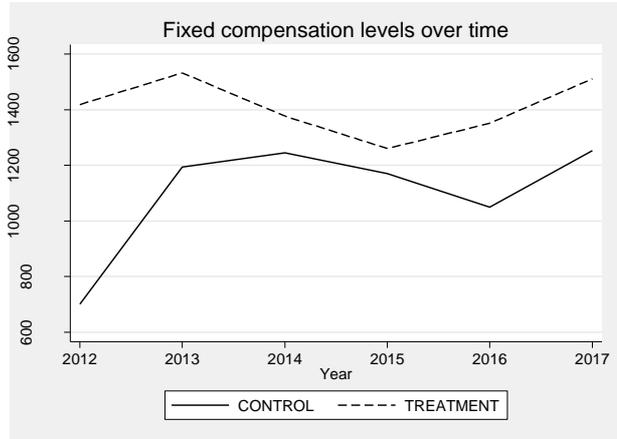
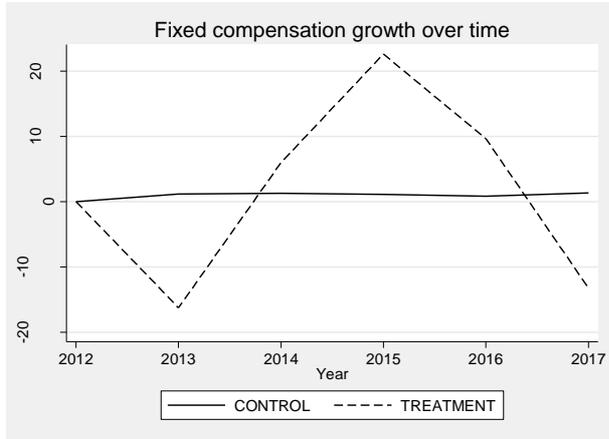
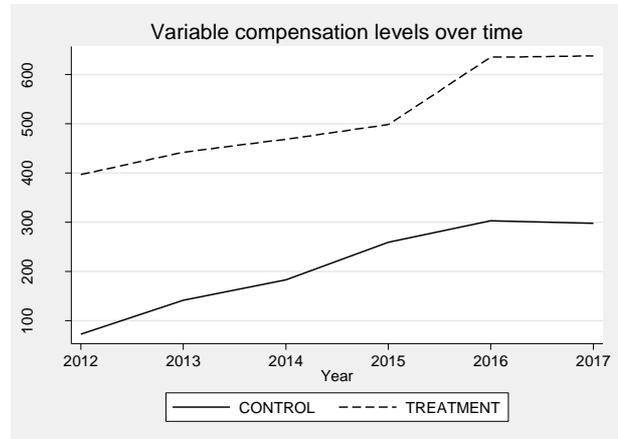
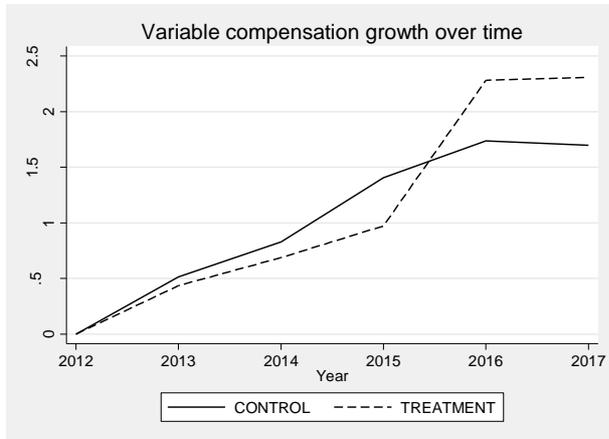


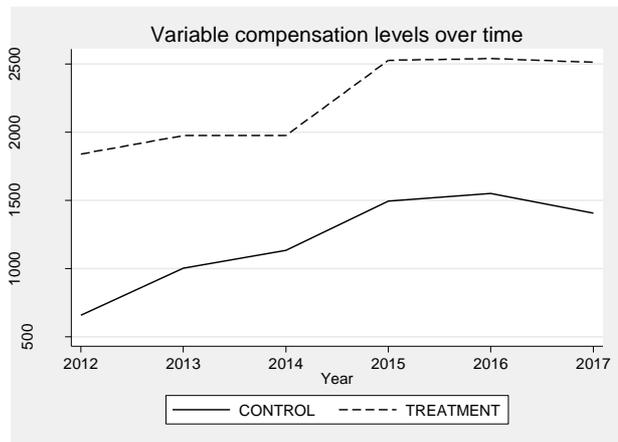
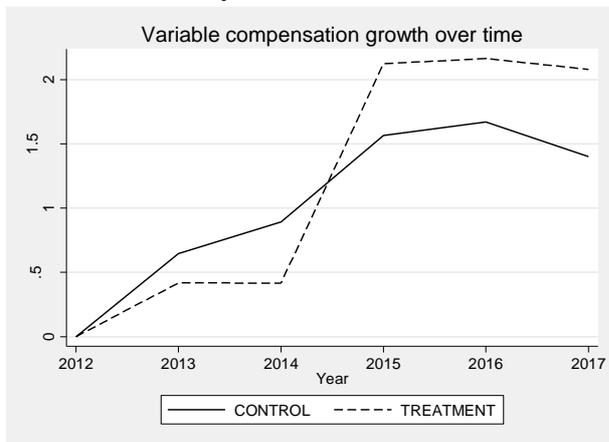
Figure A.2

Variable compensation over time by country

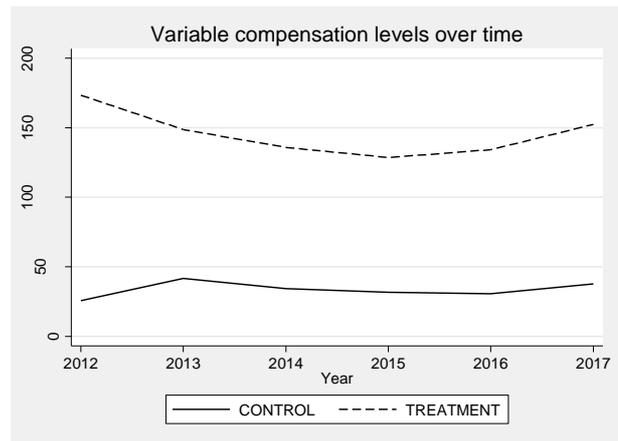
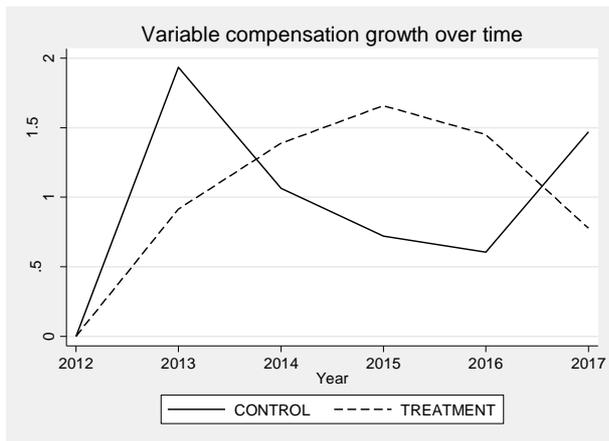
Panel A: Austria



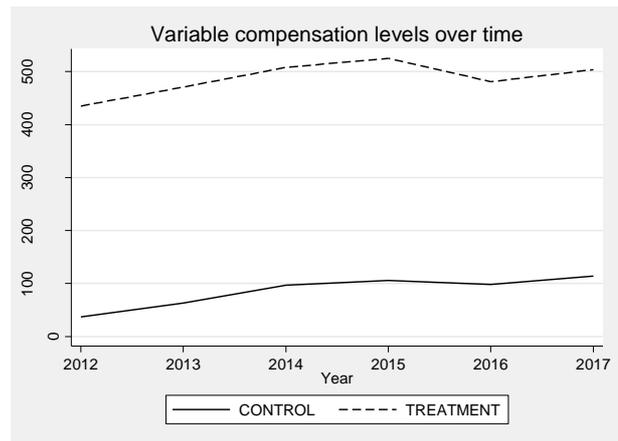
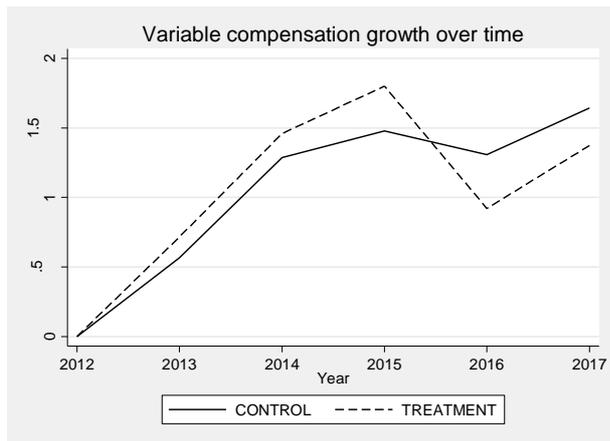
Panel B: Germany



Panel C: U.S.



Panel D: U.K.



Panel E: France

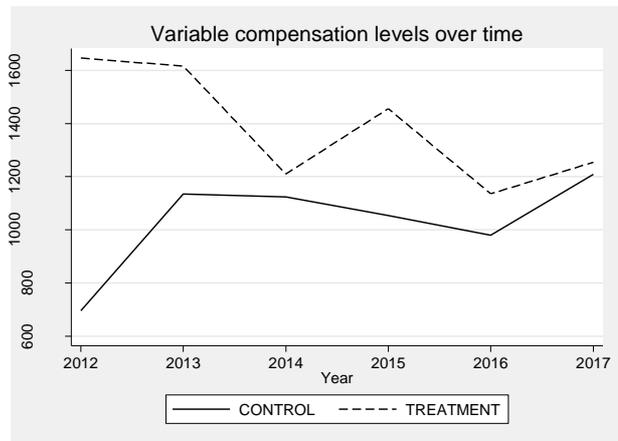
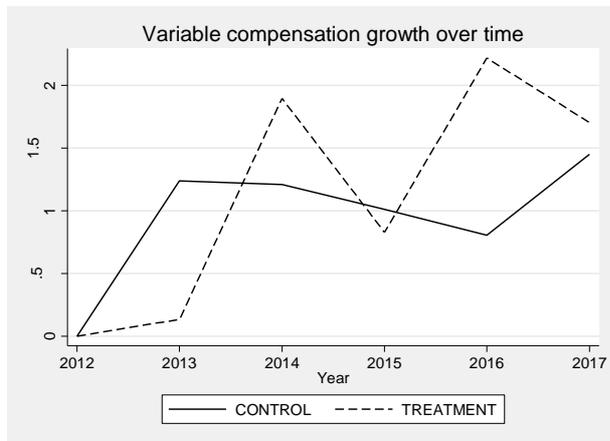


TABLE A.1
Effect of a tax deductibility limit at the firm level on
executives' total compensation levels, pseudo-reform distribution

This table presents the results for total pay if the pseudo-reform distribution is implemented in all control countries and replaces the rigor EUR 500,000 limit in the U.S. and the U.K. (Table 6).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (sum of fixed pay and variable pay). The variable *Reform* is an indicator variable taking the value of one for 2014 onward, and *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 433,000, U.K. executives earning more than EUR 297,000, and French executives earning more than EUR 1.8 million in 2013 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Full Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.266*** (0.064)	-0.113*** (0.008)	-0.206*** (0.025)	-0.174* (0.103)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.029 (0.096)	-0.115 (0.070)	-0.019 (0.076)	-0.072 (0.129)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,384	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.870	0.821	0.881	0.907
Panel B: Matched Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.266*** (0.065)	-0.126*** (0.009)	-0.209*** (0.026)	-0.175* (0.103)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.027 (0.095)	-0.113 (0.069)	-0.024 (0.074)	-0.072 (0.130)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,384	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.881	0.862	0.880	0.924

TABLE A.2
Effect of a tax deductibility limit at the firm level on
executives' fixed compensation levels, pseudo-reform distribution

This table presents the results for fixed pay if the pseudo-reform distribution is implemented in all the control countries and replaces the EUR 500,000 limit in the U.S. and the U.K. (Table 7).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of fixed compensation. The variable *Reform* is an indicator variable taking the value of one for 2014 onward, and *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 433,000, U.K. executives earning more than EUR 297,000, and French executives earning more than EUR 1.8 million in 2013 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Full Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.147** (0.061)	-0.112*** (0.007)	-0.164*** (0.021)	-0.223* (0.114)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.085 (0.106)	0.028 (0.085)	0.081 (0.089)	0.162 (0.165)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,377	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.772	0.830	0.863	0.831
Panel B: Matched Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.147** (0.061)	-0.111*** (0.009)	-0.168*** (0.022)	-0.204* (0.111)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.089 (0.107)	0.029 (0.087)	0.085 (0.088)	0.121 (0.153)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,377	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.781	0.798	0.810	0.876

TABLE A.3
Effect of a tax deductibility limit at the firm level on
executives' variable compensation levels, pseudo-reform distribution

This table presents the results for variable pay if the pseudo-reform distribution is implemented in all the control countries and replaces the EUR 500,000 limit in the U.S. and the U.K. (Table 8).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of variable compensation. The variable *Reform* is an indicator variable taking the value of one for 2014 onward, and *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2013. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 433,000, U.K. executives earning more than EUR 297,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Full Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.330*** (0.079)	-0.044 (0.057)	-0.346*** (0.066)	-0.239 (0.178)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.089 (0.135)	-0.180 (0.123)	0.119 (0.128)	0.001 (0.211)
Controls	Yes	Yes	Yes	Yes
Observations	1,330	5,396	3,856	638
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.826	0.820	0.824	0.814
Panel B: Matched Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.326*** (0.080)	-0.089 (0.060)	-0.328*** (0.067)	-0.221 (0.179)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.087 (0.134)	-0.145 (0.121)	0.097 (0.126)	-0.018 (0.211)
Controls	Yes	Yes	Yes	Yes
Observations	1,330	5,396	3,856	638
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.833	0.763	0.787	0.859

TABLE A.4
Effect of a tax deductibility limit at the firm level on
executives' total compensation levels

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (sum of fixed pay and variable pay). The variable *Reform* is an indicator variable taking the value of one for 2014 onward, and *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Full Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.261*** (0.053)	-0.132*** (0.008)	-0.189*** (0.026)	-0.238** (0.114)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.098 (0.110)	-0.037 (0.095)	0.045 (0.096)	0.108 (0.133)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,384	739
Executive fixed effects	No	No	No	No
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.630	0.500	0.597	0.537
Panel B: Matched Sample				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.261*** (0.054)	-0.126*** (0.010)	-0.193*** (0.026)	-0.291** (0.112)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.102 (0.110)	-0.034 (0.093)	0.049 (0.096)	0.170 (0.138)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,384	739
Executive fixed effects	No	No	No	No
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.621	0.437	0.531	0.620

TABLE A.5
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, lagged reform

This table presents the results for a lagged reform in 2015, when ultimate legal certainty was established, instead of 2014 (unmatched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2015 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13. All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.193*** (0.058)	-0.091*** (0.008)	-0.150*** (0.021)	-0.095 (0.107)
<i>Reform</i> × <i>Treatment</i> × AT	-0.013 (0.094)	-0.101 (0.073)	-0.050 (0.076)	-0.122 (0.136)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,384	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.868	0.820	0.880	0.905
Panel B: Fixed Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.103** (0.048)	-0.084*** (0.007)	-0.103*** (0.018)	-0.204* (0.114)
<i>Reform</i> × <i>Treatment</i> × AT	0.054 (0.118)	0.022 (0.109)	0.030 (0.111)	0.158 (0.181)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,377	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.770	0.828	0.862	0.831
Panel C: Variable Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.187*** (0.069)	-0.066 (0.066)	-0.294*** (0.053)	-0.118 (0.164)
<i>Reform</i> × <i>Treatment</i> × AT	0.016 (0.141)	-0.094 (0.139)	0.114 (0.135)	-0.069 (0.214)
Controls	Yes	Yes	Yes	Yes
Observations	1,330	5,396	3,856	638
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.824	0.820	0.825	0.813

TABLE A.6
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, lagged reform

This table presents results for a lagged reform in 2015 instead of 2014, when ultimate legal certainty occurred (matched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2015 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 433,000, U.K. executives earning more than EUR 297,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.192*** (0.059)	-0.103*** (0.009)	-0.152*** (0.022)	-0.081 (0.111)
<i>Reform</i> × <i>Treatment</i> × AT	-0.027 (0.095)	-0.103 (0.072)	-0.055 (0.075)	-0.148 (0.141)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,384	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.877	0.861	0.883	0.919
Panel B: Fixed Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.103** (0.049)	-0.084*** (0.009)	-0.108*** (0.018)	-0.165 (0.109)
<i>Reform</i> × <i>Treatment</i> × AT	0.045 (0.120)	0.009 (0.111)	0.029 (0.111)	0.084 (0.169)
Controls	Yes	Yes	Yes	Yes
Observations	1,452	31,168	6,377	739
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.776	0.794	0.808	0.873
Panel C: Variable Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.183*** (0.070)	-0.110 (0.067)	-0.266*** (0.055)	-0.087 (0.165)
<i>Reform</i> × <i>Treatment</i> × AT	0.014 (0.141)	-0.063 (0.138)	0.094 (0.134)	-0.097 (0.213)
Controls	Yes	Yes	Yes	Yes
Observations	1,330	5,396	3,856	638
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.831	0.763	0.788	0.858

TABLE A.7
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, balanced panel

This table presents the results for executives who were board members during the whole sample period from 2012 to 2017, to track compensation changes continuously (unmatched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. We require at least six consecutive executive–years to be included in the panel. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.100** (0.044)	-0.093*** (0.009)	-0.105*** (0.025)	-0.287*** (0.094)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	-0.119 (0.080)	-0.111 (0.072)	-0.089 (0.077)	0.057 (0.114)
Controls	Yes	Yes	Yes	Yes
Observations	885	16,683	3,665	471
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.915	0.875	0.912	0.886
Panel B: Fixed Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.027 (0.037)	-0.068*** (0.007)	-0.019 (0.020)	-0.262** (0.130)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	-0.056 (0.066)	-0.011 (0.054)	-0.055 (0.056)	0.164 (0.148)
Controls	Yes	Yes	Yes	Yes
Observations	885	16,683	3,658	471
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.880	0.904	0.917	0.880
Panel C: Variable Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.029 (0.079)	-0.207** (0.084)	-0.227*** (0.064)	-0.380** (0.166)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	-0.176 (0.176)	0.023 (0.180)	0.028 (0.173)	0.112 (0.240)
Controls	Yes	Yes	Yes	Yes
Observations	829	3,144	2,337	415
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.872	0.823	0.852	0.848

TABLE A.8
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, balanced panel

This table presents the results for executives who were board members during the whole sample period from 2012 to 2017, to track compensation changes continuously (matched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. We require at least six consecutive executive–years to be included in the panel. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.099** (0.044)	-0.099*** (0.009)	-0.102*** (0.025)	-0.286*** (0.095)
<i>Reform</i> × <i>Treatment</i> × AT	-0.119 (0.080)	-0.113 (0.070)	-0.099 (0.075)	0.058 (0.116)
Controls	Yes	Yes	Yes	Yes
Observations	885	16,683	3,665	471
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.915	0.858	0.899	0.926
Panel B: Fixed Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.031 (0.040)	-0.071*** (0.007)	-0.019 (0.020)	-0.350* (0.195)
<i>Reform</i> × <i>Treatment</i> × AT	-0.005 (0.060)	-0.012 (0.053)	-0.059 (0.056)	0.303 (0.196)
Controls	Yes	Yes	Yes	Yes
Observations	885	16,683	3,658	471
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.879	0.881	0.897	0.888
Panel C: Variable Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.054 (0.098)	-0.149* (0.085)	-0.250*** (0.094)	-0.352 (0.228)
<i>Reform</i> × <i>Treatment</i> × AT	-0.285* (0.164)	-0.179 (0.153)	-0.068 (0.161)	0.002 (0.260)
Controls	Yes	Yes	Yes	Yes
Observations	829	3,144	2,337	415
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.875	0.812	0.835	0.877

TABLE A.9
Effect of a tax deductibility limit at the firm level on
(non-)CEOs' compensation levels

This table shows the results for the total pay of executives who serve as CEOs and those with other roles, separately, to account for potential differences in bargaining power (unmatched sample).

This table presents the cross-country regression results for CEO compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13. All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: CEOs				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.210** (0.082)	-0.050** (0.021)	-0.144*** (0.034)	-0.130 (0.155)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.154 (0.120)	-0.033 (0.115)	0.062 (0.118)	0.076 (0.173)
Controls	Yes	Yes	Yes	Yes
Observations	336	7,040	2,399	233
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.898	0.864	0.883	0.878
Panel B: Non-CEOs				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.309*** (0.081)	-0.103*** (0.011)	-0.153*** (0.029)	-0.161 (0.126)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.037 (0.118)	-0.117 (0.086)	-0.065 (0.091)	-0.136 (0.163)
Controls	Yes	Yes	Yes	Yes
Observations	1,102	23,684	3,927	500
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.861	0.783	0.881	0.907

TABLE A.10
Effect of a tax deductibility limit at the firm level on
(non-)CEOs' compensation levels

This table shows the results for the total pay of executives who serve as CEOs and those with other roles, separately, to account for potential differences in bargaining power (matched sample).

This table presents the cross-country regression results for CEO compensation levels from 2012 to 2017 separately for Austria (AT), the reform country, and Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: CEOs (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.206** (0.083)	-0.060*** (0.022)	-0.142*** (0.035)	-0.107 (0.143)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.148 (0.121)	-0.028 (0.114)	0.056 (0.115)	0.052 (0.166)
Controls	Yes	Yes	Yes	Yes
Observations	336	7,040	2,399	233
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.896	0.839	0.875	0.899
Panel B: Non-CEOs (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.307*** (0.081)	-0.115*** (0.012)	-0.159*** (0.029)	-0.168 (0.118)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.040 (0.118)	-0.125 (0.087)	-0.070 (0.091)	-0.119 (0.163)
Controls	Yes	Yes	Yes	Yes
Observations	1,102	23,684	3,927	500
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.876	0.863	0.885	0.920

TABLE A.11
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, split by the median of *FirmExperience*

This table shows the results based on a median split on executives' individual firm experience, to account for potential differences in bargaining power (unmatched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017, separately, for Austria (AT), the reform country, Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13. All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Compensation									
	<i>FirmExperience</i> < Median in 2013				<i>FirmExperience</i> > Median in 2013				
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	
<i>Reform</i> × <i>Treatment</i>	-0.269** (0.113)	-0.002 (0.027)	0.233*** (0.039)	-0.081 (0.117)	-0.282*** (0.072)	-0.099*** (0.026)	-0.084*** (0.024)	-0.315* (0.174)	
<i>Reform</i> × <i>Treatment</i> × AT	-0.037 (0.159)	-0.117 (0.122)	0.091 (0.127)	-0.257 (0.169)	0.125 (0.111)	-0.151* (0.088)	-0.165* (0.085)	0.172 (0.196)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	655	2,540	2,828	330	796	2,735	3,544	408	
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Adj. R-squared	0.887	0.835	0.831	0.926	0.833	0.852	0.925	0.845	

Panel B: Fixed Compensation									
	<i>FirmExperience < Median in 2013</i>				<i>FirmExperience > Median in 2013</i>				
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	
<i>Reform × Treatment</i>	-0.179*	0.035	-0.156***	-0.095	-0.128	-0.066***	0.001	-0.341**	
	(0.096)	(0.025)	(0.031)	(0.153)	(0.080)	(0.023)	(0.018)	(0.151)	
<i>Reform × Treatment × AT</i>	0.115	0.067	0.237	0.018	0.062	-0.089	-0.157	0.269	
	(0.163)	(0.179)	(0.192)	(0.261)	(0.109)	(0.098)	(0.096)	(0.164)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	655	2,540	2,828	330	796	2,735	3,537	408	
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Adj. R-squared	0.805	0.833	0.797	0.854	0.697	0.864	0.925	0.751	

Panel C: Variable Compensation									
	<i>FirmExperience < Median in 2013</i>				<i>FirmExperience > Median in 2013</i>				
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	
<i>Reform × Treatment</i>	-0.319**	0.023	-0.264***	-0.087	-0.365***	-0.179	-0.283***	-0.603*	
	(0.136)	(0.232)	(0.075)	(0.209)	(0.096)	(0.208)	(0.072)	(0.311)	
<i>Reform × Treatment × AT</i>	-0.066	-0.152	0.152	-0.343	0.262*	-0.043	0.040	0.539	
	(0.221)	(0.297)	(0.205)	(0.274)	(0.156)	(0.268)	(0.175)	(0.333)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	596	496	1,714	277	733	642	2,135	360	
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Adj. R-squared	0.811	0.756	0.806	0.788	0.839	0.843	0.835	0.840	

TABLE A.12
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, split by the median of *FirmExperience*

This table shows the results based on a median split on executive's individual firm experience, to account for potential differences in bargaining power (matched sample). This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017, separately, for Austria (AT), the reform country, Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 433,000, U.K. executives earning more than EUR 297,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Compensation (Matched Sample)									
	<i>FirmExperience</i> < Median in 2013				<i>FirmExperience</i> > Median in 2013				
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	
<i>Reform</i> × <i>Treatment</i>	-0.269** (0.113)	-0.005 (0.029)	-0.241*** (0.039)	-0.041 (0.113)	-0.283*** (0.072)	-0.107*** (0.027)	-0.076*** (0.024)	-0.350** (0.167)	
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	-0.039 (0.158)	-0.129 (0.123)	0.100 (0.127)	-0.317* (0.168)	0.127 (0.110)	-0.145* (0.086)	-0.173** (0.083)	0.219 (0.189)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	655	2,540	2,828	330	796	2,735	3,544	408	
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Adj. R-squared	0.899	0.883	0.869	0.938	0.840	0.829	0.900	0.891	

Panel B: Fixed Compensation (Matched Sample)								
	<i>FirmExperience < Median in 2013</i>				<i>FirmExperience > Median in 2013</i>			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform × Treatment</i>	-0.179*	0.029	-0.150***	-0.043	-0.128	-0.065**	0.002	-0.359**
	(0.097)	(0.023)	(0.031)	(0.116)	(0.081)	(0.027)	(0.019)	(0.158)
<i>Reform × Treatment × AT</i>	0.118	0.079	0.221	-0.068	0.063	-0.094	-0.159	0.282
	(0.163)	(0.183)	(0.188)	(0.224)	(0.108)	(0.105)	(0.100)	(0.182)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	655	2,540	2,828	330	796	2,735	3,537	408
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.815	0.842	0.796	0.889	0.696	0.797	0.835	0.847
Panel C: Variable Compensation (Matched Sample)								
	<i>FirmExperience < Median in 2013</i>				<i>FirmExperience > Median in 2013</i>			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay
<i>Reform × Treatment</i>	-0.313**	-0.016	-0.274***	-0.022	-0.363***	-0.214	-0.229***	-0.579*
	(0.136)	(0.256)	(0.078)	(0.208)	(0.096)	(0.221)	(0.074)	(0.303)
<i>Reform × Treatment × AT</i>	-0.078	-0.159	0.144	-0.413	0.269*	-0.006	0.018	0.515
	(0.221)	(0.313)	(0.204)	(0.266)	(0.155)	(0.275)	(0.171)	(0.325)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	596	496	1,714	277	733	642	2,135	360
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.816	0.680	0.737	0.857	0.847	0.822	0.821	0.865

TABLE A.13
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, split by the median of Age

This table shows the results based on a median split on executives' individual age, to account for potential differences in bargaining power (unmatched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017, separately, for Austria (AT), the reform country, Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Compensation

	Executive Age < Median in 2013				Executive Age > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.276*** (0.089)	-0.104*** (0.013)	-0.173*** (0.028)	-0.188 (0.148)	-0.165* (0.095)	-0.066*** (0.011)	-0.111*** (0.032)	-0.208 (0.131)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.081 (0.138)	-0.032 (0.094)	0.033 (0.099)	-0.037 (0.177)	-0.089 (0.144)	-0.191 (0.123)	-0.153 (0.126)	-0.030 (0.186)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	753	14,583	3,497	378	698	16,584	2,886	360
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.895	0.808	0.878	0.926	0.817	0.824	0.884	0.845

Panel B: Fixed Compensation								
	Executive Age < Median in 2013				Executive Age > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform × Treatment</i>	-0.158*	-0.095***	-0.110***	-0.159	-0.016	-0.055***	-0.004	-0.332*
	(0.081)	(0.010)	(0.023)	(0.126)	(0.085)	(0.010)	(0.025)	(0.185)
<i>Reform × Treatment × AT</i>	0.095	0.083	0.085	0.088	-0.005	0.015	-0.040	0.313
	(0.111)	(0.082)	(0.088)	(0.154)	(0.207)	(0.229)	(0.231)	(0.324)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	753	14,583	3,496	378	698	16,584	2,880	360
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.865	0.818	0.867	0.918	0.612	0.833	0.859	0.657

Panel C: Variable Compensation								
	Executive Age < Median in 2013				Executive Age > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay
<i>Reform × Treatment</i>	-0.269**	-0.111	-0.247***	-0.084	-0.294***	-0.151	-0.290***	-0.365
	(0.120)	(0.094)	(0.062)	(0.208)	(0.105)	(0.096)	(0.087)	(0.270)
<i>Reform × Treatment × AT</i>	-0.033	-0.049	0.090	-0.247	0.168	-0.048	0.063	0.279
	(0.201)	(0.178)	(0.163)	(0.258)	(0.185)	(0.225)	(0.220)	(0.310)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	670	2,492	2,141	310	659	2,903	1,714	327
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.830	0.796	0.825	0.833	0.824	0.837	0.824	0.783

TABLE A.14
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, split by the median of Age

This table shows the results based on a median split on executives' individual age, to account for potential differences in bargaining power (matched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017, separately, for Austria (AT), the reform country, Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

	Executive Age < Median in 2013				Executive Age > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.274*** (0.090)	-0.113*** (0.014)	-0.185*** (0.029)	-0.162 (0.147)	-0.167* (0.095)	-0.081*** (0.012)	-0.103*** (0.033)	-0.223* (0.129)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.072 (0.139)	-0.050 (0.097)	0.030 (0.099)	-0.055 (0.185)	-0.058 (0.142)	-0.177 (0.121)	-0.160 (0.127)	0.006 (0.176)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	753	14,583	3,497	378	698	16,584	2,886	360
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.905	0.885	0.893	0.931	0.819	0.802	0.865	0.899

Panel B: Fixed Compensation (Matched Sample)								
	Executive Age < Median in 2013				Executive Age > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform × Treatment</i>	-0.159*	-0.095***	-0.117***	-0.127	-0.015	-0.057***	-0.008	-0.325*
	(0.082)	(0.012)	(0.023)	(0.126)	(0.085)	(0.017)	(0.026)	(0.178)
<i>Reform × Treatment × AT</i>	0.097	0.078	0.095	0.054	0.027	0.022	-0.032	0.310
	(0.111)	(0.084)	(0.087)	(0.158)	(0.203)	(0.233)	(0.233)	(0.291)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	753	14,583	3,496	378	698	16,584	2,880	360
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.877	0.885	0.881	0.927	0.599	0.648	0.715	0.790
Panel C: Variable Compensation (Matched Sample)								
	Executive Age < Median in 2013				Executive Age > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay
<i>Reform × Treatment</i>	-0.260**	-0.219**	-0.246***	-0.069	-0.294***	-0.157	-0.248***	-0.327
	(0.121)	(0.103)	(0.064)	(0.199)	(0.106)	(0.098)	(0.087)	(0.268)
<i>Reform × Treatment × AT</i>	-0.044	0.041	0.080	-0.242	0.181	-0.029	0.060	0.211
	(0.201)	(0.178)	(0.159)	(0.248)	(0.184)	(0.220)	(0.218)	(0.310)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	670	2,492	2,141	310	659	2,903	1,714	327
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.839	0.757	0.789	0.865	0.826	0.755	0.779	0.855

TABLE A.15
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, split by the median ROA

This table shows the results based on a median split on firms' individual ROA, to account for potential differences in pay ability (unmatched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017, separately, for Austria (AT), the reform country, Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Compensation		ROA < Median in 2013				ROA > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	
<i>Reform</i> × <i>Treatment</i>	-0.292*** (0.081)	-0.076*** (0.012)	-0.145*** (0.040)	-0.190* (0.100)	-0.248** (0.101)	-0.106*** (0.012)	-0.154*** (0.025)	-0.107 (0.135)	
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.031 (0.123)	-0.142 (0.095)	-0.091 (0.104)	-0.072 (0.139)	0.055 (0.158)	-0.032 (0.123)	0.030 (0.125)	-0.084 (0.197)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	679	15,483	3,003	350	772	15,684	3,380	388	
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Adj. R-squared	0.810	0.824	0.860	0.834	0.894	0.815	0.895	0.930	

Panel B: Fixed Compensation								
	ROA < Median in 2013				ROA > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform × Treatment</i>	-0.187** (0.075)	-0.066*** (0.009)	-0.076** (0.034)	0.022 (0.056)	-0.104 (0.094)	-0.100*** (0.010)	-0.068*** (0.019)	-0.302* (0.172)
<i>Reform × Treatment × AT</i>	-0.034 (0.103)	-0.123 (0.084)	-0.136 (0.093)	-0.241** (0.109)	0.213 (0.216)	0.174 (0.214)	0.151 (0.216)	0.414 (0.316)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	679	15,483	2,997	350	772	15,684	3,379	388
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.765	0.834	0.839	0.855	0.779	0.822	0.882	0.831

Panel C: Variable Compensation								
	ROA < Median in 2013				ROA > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay
<i>Reform × Treatment</i>	-0.349*** (0.100)	-0.078 (0.085)	-0.259*** (0.087)	-0.430* (0.218)	-0.313** (0.124)	-0.178 (0.108)	-0.252*** (0.066)	0.042 (0.219)
<i>Reform × Treatment × AT</i>	0.036 (0.231)	-0.077 (0.152)	0.063 (0.156)	0.224 (0.299)	0.230 (0.167)	0.197 (0.213)	0.281 (0.197)	-0.133 (0.255)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	608	2,854	1,475	298	721	2,541	2,380	339
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.821	0.831	0.841	0.822	0.830	0.811	0.815	0.827

TABLE A.16
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, split by the median ROA

This table shows the results based on a median split on firms' individual ROA, to account for potential differences in pay ability (matched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017, separately, for Austria (AT), the reform country, Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Compensation (Matched Sample)

	ROA < Median in 2013				ROA > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.292*** (0.080)	-0.089*** (0.013)	-0.148*** (0.040)	-0.204** (0.081)	-0.246** (0.101)	-0.116*** (0.013)	-0.160*** (0.026)	-0.084 (0.138)
<i>Reform</i> × <i>Treatment</i> × AT	0.050 (0.122)	-0.143 (0.094)	-0.088 (0.102)	-0.046 (0.125)	0.053 (0.158)	-0.027 (0.122)	0.033 (0.125)	-0.138 (0.219)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	679	15,483	3,003	350	772	15,684	3,380	388
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.809	0.786	0.850	0.883	0.906	0.893	0.907	0.934

Panel B: Fixed Compensation (Matched Sample)								
	ROA < Median in 2013				ROA > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform × Treatment</i>	-0.185** (0.075)	-0.075*** (0.010)	-0.078** (0.034)	0.009 (0.037)	-0.107 (0.095)	-0.087*** (0.017)	-0.076*** (0.021)	-0.274 (0.165)
<i>Reform × Treatment × AT</i>	-0.015 (0.100)	-0.127 (0.084)	-0.131 (0.091)	-0.214** (0.089)	0.227 (0.219)	0.179 (0.220)	0.178 (0.227)	0.294 (0.308)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	679	15,483	2,997	350	772	15,684	3,379	388
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.760	0.797	0.821	0.909	0.790	0.804	0.817	0.865

Panel C: Variable Compensation (Matched Sample)								
	ROA < Median in 2013				ROA > Median in 2013			
	DE	U.S.	U.K.	FR	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay	Var. Pay
<i>Reform × Treatment</i>	-0.350*** (0.099)	-0.099 (0.090)	-0.235*** (0.090)	-0.488*** (0.180)	-0.307** (0.126)	-0.217* (0.111)	-0.272*** (0.068)	0.097 (0.168)
<i>Reform × Treatment × AT</i>	0.052 (0.230)	-0.043 (0.143)	0.066 (0.151)	0.283 (0.271)	0.221 (0.166)	0.169 (0.206)	0.278 (0.196)	-0.196 (0.237)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	608	2,854	1,475	298	721	2,541	2,380	339
Executive fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.828	0.779	0.801	0.859	0.838	0.765	0.784	0.870

TABLE A.17
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, top earners

This table presents the results for top-earning executives, who are paid above the median, to account for potential discriminating relations between the highest incomes and bargaining power (unmatched sample).

This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017, separately, for Austria (AT), the reform country, Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. We restrict the sample of treated executives to executives above the median in terms of the variable *PayDifference*. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.244*** (0.067)	-0.145*** (0.011)	-0.176*** (0.029)	-0.221 (0.139)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.017 (0.108)	-0.057 (0.083)	-0.011 (0.088)	-0.028 (0.171)
Controls	Yes	Yes	Yes	Yes
Observations	1,133	25,122	5,335	575
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.886	0.835	0.883	0.911
Panel B: Fixed Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.097 (0.063)	-0.114*** (0.009)	-0.095*** (0.022)	-0.245* (0.130)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	-0.021 (0.122)	-0.016 (0.103)	-0.025 (0.107)	0.125 (0.196)
Controls	Yes	Yes	Yes	Yes
Observations	1,133	25,122	5,328	575
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.793	0.834	0.859	0.833
Panel C: Variable Pay				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.269*** (0.082)	-0.078 (0.065)	-0.307*** (0.066)	-0.319 (0.291)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.039 (0.156)	-0.088 (0.144)	0.146 (0.145)	0.045 (0.325)
Controls	Yes	Yes	Yes	Yes
Observations	1,021	4,397	3,097	484
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.845	0.844	0.844	0.833

TABLE A.18
Effect of a tax deductibility limit at the firm level on
executives' compensation levels, top earners

This table presents the results for top-earning executives, who are paid above the median, to account for potential discriminating relations between the highest incomes and bargaining power (matched sample). This table presents the cross-country regression results for executives' compensation levels from 2012 to 2017, separately, for Austria (AT), the reform country, Germany (DE), the U.S., the U.K., and France (FR), all non-reform countries. We restrict the sample of treated executives to executives in the upper quartile ($> p(75)$) in terms of the variable *PayDifference*. The dependent variable is defined as the natural logarithm of total compensation (Panel A), fixed compensation (Panel B), and variable compensation (Panel C). The variable *Reform* is an indicator variable taking the value of one for 2014 onward. The variable *Treatment* is an indicator variable taking the value of one for Austrian executives earning more than EUR 500,000 in 2012/13. The variable *Treatment* takes the value of one for German executives earning more than EUR 1.7 million, U.S. executives earning more than EUR 500,000, U.K. executives earning more than EUR 500,000, and French executives earning more than EUR 1.8 million in 2012/13 (pseudo-reform). All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Total Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Total Pay	Total Pay	Total Pay	Total Pay
<i>Reform</i> × <i>Treatment</i>	-0.382*** (0.089)	-0.170*** (0.015)	-0.179*** (0.039)	-0.121 (0.115)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.176 (0.143)	-0.007 (0.113)	0.026 (0.116)	-0.117 (0.170)
Controls	Yes	Yes	Yes	Yes
Observations	958	22,090	4,800	492
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.881	0.833	0.873	0.910
Panel B: Fixed Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
<i>Reform</i> × <i>Treatment</i>	-0.124 (0.096)	-0.114*** (0.011)	-0.082*** (0.028)	-0.264* (0.133)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	-0.076 (0.180)	-0.083 (0.151)	-0.093 (0.158)	0.060 (0.203)
Controls	Yes	Yes	Yes	Yes
Observations	958	22,090	4,793	492
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.784	0.822	0.842	0.823
Panel C: Variable Pay (Matched Sample)				
	DE	U.S.	U.K.	FR
	(1)	(2)	(3)	(4)
	Variable Pay	Variable Pay	Variable Pay	Variable Pay
<i>Reform</i> × <i>Treatment</i>	-0.422*** (0.110)	-0.098 (0.077)	-0.321*** (0.067)	-0.049 (0.120)
<i>Reform</i> × <i>Treatment</i> × <i>AT</i>	0.248 (0.186)	-0.001 (0.167)	0.227 (0.162)	-0.174 (0.196)
Controls	Yes	Yes	Yes	Yes
Observations	858	3,855	2,645	413
Executive fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.837	0.855	0.850	0.836

TABLE A.19
Effect of a tax deductibility limit at the firm level
on firms' investment, payout, and financial slack

This table presents additional cross-country regression results for firms' R&D investment and average employee compensation from 2012 to 2017 separately for Germany (DE) and the U.S. The variable *R&D* is defined as R&D expenses scaled over total assets and *Employees* is defined as average staff costs per employee. The variable *TreatFirm* is an indicator variable taking the value of one if any Austrian board member earned more than EUR 500,000 in 2012 and 2013. The variable *TreatFirm* takes the value of one for German executives earning more than EUR 3.35 million and for U.S. executives earning more than EUR 500,000. All the remaining independent variables are defined in Table 1. We report robust standard errors clustered at the executive level in parentheses. ***, **, and * denote significant differences at the 1%, 5%, and 10% levels, respectively.

Panel A: Germany				
	Full Sample		Matched Sample	
	(1) R&D	(2) Employees	(3) R&D	(4) Employees
<i>Reform</i> × <i>TreatFirm</i>	-0.011 (0.009)	-0.078 (0.153)	-0.009 (0.010)	-0.113 (0.173)
<i>Reform</i> × <i>TreatFirm</i> × <i>AT</i>	0.054 (0.034)	-0.047 (0.165)	0.047 (0.029)	0.005 (0.200)
Controls	Yes	Yes	Yes	Yes
Observations	201	261	201	261
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.523	0.185	0.525	0.126
Panel B: U.S.				
	Full Sample		Matched Sample	
	(1) R&D	(2) Employees	(3) R&D	(4) Employees
<i>Reform</i> × <i>TreatFirm</i>	-0.013 (0.013)	0.038 (0.116)	-0.011 (0.011)	-0.035 (0.129)
<i>Reform</i> × <i>TreatFirm</i> × <i>AT</i>	0.020 (0.022)	0.054 (0.232)	0.029 (0.023)	-0.042 (0.156)
Controls	Yes	Yes	Yes	Yes
Observations	4,136	1,750	4,129	1,746
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Adj. R-squared	0.257	0.323	0.340	0.201