DO TRANSFER PRICING REFORMS LEAD TO A BOOM IN TAX CONSULTANTS?

Dina Pomeranz
Juan Carlos Suárez Serrato

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ABSTRACT

The OECD has promoted the adoption of internationally standardized transfer pricing rules to curb profit shifting for tax avoidance by multinational firms. Bustos et al. (2023) analyzed a large reform in Chile based on these OECD standards and found that it led to a surge in tax advisory services. This paper investigates the external validity of this finding. Combining employment history data with information on countries' strictness of transfer pricing regulations over time, we analyze the effect for four countries: Chile, Colombia, Spain, and Uruguay. Event-study difference-in-differences analysis shows that reforms led to substantial increase in transfer pricing consultants in most cases. The effect is larger when the reform is stronger and when a country has a lower level of pre-treatment transfer pricing strictness or of transfer pricing consultants.

Dina Pomeranz
University of Zurich
Department of Economics
dinadpomeranz@gmail.com

Juan Carlos Suárez Serrato
Stanford University
Department of Economics
and NBER
jc@jcsuarez.com

Introduction

Multinational firms are estimated to shift over 35% of their profits to subsidiaries in low-tax jurisdictions by manipulating transfer prices and exploiting loopholes in international tax regulations (Tørsløv et al., 2023). To counter the significant tax revenue losses that result from such profit shifting, many countries have strengthened the monitoring and enforcement of transfer pricing regulations, based on international Organisation for Economic Cooperation and Development (OECD) guidelines (OECD, 2017). The enforcement of these regulations often requires higher scrutiny of multinationals' transactions, mandating compliance with sophisticated guidelines and extensive documentation requirements.

Bustos et al. (2023) examine Chile's 2011 transfer pricing reform. The reform substantially expanded reporting requirements for multinational transactions, shifted the burden of proof to firms, and significantly increased enforcement resources. Contrary to the government's expectations, the reform did not reduce profit shifting through any of the common channels (i.e. payments for services, royalties, interests, or goods to foreign affiliates), and correspondingly did not lead to a significant increase in tax collection. However, the reform resulted in a large boom in transfer pricing advisory services.

The Chilean case shows that tightening transfer pricing regulations and increasing reporting complexity can unintentionally incentivize aggressive tax planning on top of compliance support services. The tax advisory industry is able to quickly adapt by reallocating international experts and training local consultants to meet the rising demand. This creates an opportunity for consultancy firms to up-sell multinationals on tax planning services, further limiting reforms' impact on revenue.

This paper analyzes the external validity of this finding by studying whether similar patterns emerge in other countries with similar transfer pricing regulatory changes. We use an event-study difference-in-differences approach to analyze the evolution of the tax advisory industry after countries undertake a significant increase in the strictness of their transfer pricing regulations. We compare the number of consultants working on transfer

pricing to professionals working in adjacent roles not directly related to transfer pricing. The identifying assumption is that absent increases in the strictness of transfer pricing regulations, the evolution of the number of transfer pricing consultants and other professionals in adjacent roles would have followed parallel trends. To support this assumption, we show that both of these groups indeed evolved in parallel before the reforms.

To measure changes in the strictness of transfer pricing regulations, we follow de Mooij and Liu (2020) and Gauß et al. (2024a) and use a transfer pricing risk index from Mescall and Klassen (2018) that estimates the strictness of these regulations across years. Using this index, we identify four countries (Chile, Colombia, Spain, and Uruguay) that experienced a sizable increase of more than one point in the risk index in a given year between 2006 and 2012. We combine this information with employment history data from online professional profiles scraped by Revelio Labs (RevelioLabs, 2024), which includes detailed employment history information (e.g., job titles, descriptions) by country, firm, and occupation over time. We identify professionals working in transfer pricing using self-reported job titles and descriptions. To obtain a consistent analysis across countries, we focus on Spanish-speaking countries, where we can identify professionals using similar job titles (e.g., "transfer pricing" or "precios de transferencia").

On average, after countries implement major transfer pricing regulatory changes, the number of transfer pricing consultants increases by 36 log points relative to the comparison group. This effect is significant at the 1% confidence level. Another way to interpret this magnitude is to exponentiate this effect, which implies a 175 percent increase in employment. The growth begins in the year following a reform and continues for another year before stabilizing.

While this overall effect is substantial, it masks important heterogeneity across countries. The conceptual framework and interview data outlined in Bustos et al. (2023) suggest certain conditions under which transfer pricing regulations may be more likely to induce such a boom in the tax consultancy industry. For instance, one would expect reforms to trigger a stronger boom when countries experience larger increases in their level of transfer pricing enforcement, as well as when they start from low baseline levels

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of enforcement. Furthermore, the boom is expected to be more pronounced in countries that have a small transfer pricing advisory industry to begin with.

The individual analyses by country illustrate these hypotheses. Indeed, Chile is the country that has the highest increase in its transfer pricing strictness after the reform, while having the lowest baseline score and a small baseline transfer pricing workforce normalized by GDP per capita. As expected, Chile experiences the largest response, with a 95 log-point increase in transfer pricing consultants, significant at the 1% level. Uruguay and Spain represent moderate cases, having had the second and third lowest baseline strictness and highest strictness increases through their respective reforms. Both countries experienced a significant growth of the transfer pricing consulting workforce of 53 and 46 log-point increases, respectively.

In contrast, Colombia experienced the smallest increase in transfer pricing strictness among the four countries, had a relatively high baseline strictness, and already had a substantial number of transfer pricing consultants at the time of the regulatory change. Consequently, the country shows no significant change in its transfer pricing advisory industry after the reform, which illustrates how these combined factors undermine the potential impact of these types of reform in the growth of the tax advisory industry.

Our findings shed light on whether regulations that strengthen transfer pricing strictness unintentionally produce a significant growth to the transfer pricing advisory industry. This issue highlights the necessity to take into account the role of such an industry when designing international tax regulations aiming to curb profit shifting by multinational firms. Stricter regulation can directly benefit the tax advisory industry, while at the same time, possibly undermining tax collection effectiveness, as illustrated by the Chilean case (Bustos et al., 2023).

This paper contributes to two main strands of literature. First, we expand on Bustos et al. (2023) and provide evidence of a broader phenomenon surrounding the growth of the transfer pricing advisory industry in response to national transfer pricing reforms. We show that this dynamic is not exclusive to Chile, but also applies to other countries, such as Spain and Uruguay. Through this, we further extend the literature on the

economic impacts of transfer pricing reforms, which has predominantly focused on their effects on firms' effective tax payments, profits, sales, and investments (Durst, 2010; Egger and Wamser, 2015; Buettner et al., 2018; de Mooij and Liu, 2020; Merlo et al., 2020; Laudage Teles et al., 2023; Gauß et al., 2024b; Teles et al., 2024).

Second, our study adds to the surprisingly small but growing literature on the tax advisory industry (Slemrod, 2019). Previous research has shown that tax experts shape firms' compliance and avoidance behavior and improve firms' tax planning in various ways (e.g., Slemrod et al., 2001; McGuire et al., 2012; Chetty and Saez, 2013; Mahon and Zwick, 2015; DeBacker et al., 2018; Battaglini et al., 2019; Chyz et al., 2021; Zwick, 2021; Mayo, 2023; Barrios and Gallemore, 2023). Our study builds on this body of research by focusing specifically on transfer pricing experts. Descriptive work has begun to quantify the tax advisory industry's size and its costs to firms through transfer pricing specialists' salaries, highlighting its recent growth (Tørsløv et al., 2023; Dyrda et al., 2024). We provide empirical evidence of one possible driver of this growth: the enactment of countries' transfer pricing regulations.

1 Background

1.1 Transfer pricing regulations

Taxing multinational companies is challenging because their profits are the result of joint operations of affiliates across countries. Standard regulations often tax each affiliate separately, allowing firms to reduce global tax payments by shifting profits to low-tax jurisdictions through intra-group transactions. To tackle profit shifting, most countries have implemented transfer pricing regulations requiring firms to follow the "arm's length principle". This principle mandates that affiliates conduct intra-group transactions at prevailing market prices as though they were unrelated parties.[1]

In practice, tax authorities often enforce compliance with the arm's length principle by establishing detailed guidelines on pricing rules and requiring multinationals to maintain

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[1]See Zucman (2014) for a review of the history of these regulations.

extensive and detailed documentation. This documentation must prove that intra-group transactions reflect market prices and outline which transfer pricing methods were used to determine those prices.

Implementing the arm's length principle poses significant challenges, particularly when transactions lack a clear market price. Intellectual property, for example, is rarely exchanged between unrelated parties, making it difficult to determine a comparable value. Similarly, services like management consulting, human resources, or marketing provided within a multinational firm often have no direct market equivalent. The complexity increases with the sheer volume of intra-group transactions, allowing firms to set strategic prices even under strict oversight.

To address these difficulties, many countries and international organizations, such as the OECD, have established detailed transfer pricing regulations for multinationals, including how affiliates should allocate costs for centralized services and how to estimate market prices when no observable price exists.[2] While these regulations differ across countries, they often include complex documentation requirements regarding the calculation of transfer prices. The more demanding countries often have general anti-avoidance rules, advanced pricing agreements, and high enforcement through audits. The adoption of transfer pricing documentation requirements has dramatically increased since the beginning of the twenty-first century. While 28 countries had transfer pricing regulations in the late 1990s, by 2019 177 countries implemented regulations, including all 38 OECD countries and 139 non-OECD countries (Laudage Teles et al., 2024).

1.2   The role of transfer pricing consultants

Tax advisors play a crucial role in assisting multinational firms with the complexities of transfer pricing regulations. As multinationals initially seek compliance support from tax advisors in the face of stricter regulations, advisors not only help firms comply with transfer pricing rules, but also up-sell additional tax planning services (Bustos et al., 2023). Interviews with experts in different areas of the transfer pricing space from a

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[2]For instance, the OECD first published its transfer pricing guidelines in 1995, revising them in 2010, 2017 and 2022.

previous study in Chile revealed strong complementarities between compliance support and tax planning strategies. For instance, a former Big Four consultant described that *"In the beginning, firms were focused on complying. Later we started selling more products. We tell them every year about the opportunity of tax planning, for example, 'you are losing a lot of money in this transaction.' Sooner or later, they start to be motivated to look at their transfer prices. The consulting firm grows with tax planning. Therefore, we focus on selling planning"* (Bustos et al., 2023).

The industry's supply response was highly elastic, as international experts were relocated to emerging markets and trained local professionals to meet rising demand. The high elasticity and quick responsiveness of the Big Four, among other factors, stems from the fact that the transfer pricing reform in Chile aligned regulations with international OECD guidelines. This makes knowledge from international transfer pricing consultants highly transferrable to other contexts. As one consultant explained, *"The transfer pricing partners (of the Big Four) were all foreigners. Still, many of the partners are today. The advantage for transfer pricing specialists is that the rules are international, so people can move around."* (Bustos et al., 2023).

Despite efforts by tax authorities to strengthen enforcement, tax authorities appear to struggle to match the resources and expertise of consulting firms. The revolving door between the public and private sectors further complicates regulatory efforts, as tax experts frequently transition between government agencies and advisory firms. While the tax authority frequently hires former employees of tax consultancies, uncompetitive remuneration makes retention difficult. For similar reasons, former employees of the tax authority often transition to the advisory industry, thereby further strengthening consulting firms' knowledge and insights. In the Chilean case, an interviewee described that *"Moving from consulting to the tax authority and vice versa happens a lot. For example, one consultant from a Big Four company in Colombia came to the Chilean tax authority and then left for a Big Four company in Chile before going back to a Big Four company in Colombia. Another one went from the Chilean tax authority to a Big Four company and then to a multinational."* (Bustos et al., 2023).

The Chilean case illustrates how stricter transfer pricing rules and increased reporting complexity not only raise the demand for compliance services but also incentivize aggressive tax planning. The tax advisory industry is able to adapts by reallocating experts and training local consultants. Meanwhile, tax authorities struggle to compete with better-resourced consulting firms. Given these dynamics, it is crucial to determine whether this phenomenon is unique to Chile or reflects a broader global trend.

2 Data and sample

2.1 Transfer pricing strictness

To examine the changes in the strictness of transfer pricing regulation, we use data from Mescall and Klassen (2018), who provide an index of "transfer pricing risk" for 30 countries between 2006–2012. This risk indicates the likelihood of a decrease in firms' future cash flows resulting from tax authorities' enforcement rules and activities related to transfer pricing.

This measure is constructed as follows. In 2010, the authors surveyed transfer pricing experts from two Big 4 firms worldwide. Experts assessed countries' overall transfer pricing risk on a scale from 1 (least risky) to 5 (most risky).[3] They regressed the experts' risk assessments on country-specific regulatory and enforcement factors for 2010 (as evaluated by two Big 4 firms).[4] For instance, these factors include the tenure of transfer pricing rules, the legal requirement for contemporaneous documentation, the availability of advance pricing agreements, and the degree of enforcement as assessed by transfer pricing experts, among others. Finally, Mescall and Klassen (2018) used the obtained coefficients as weights, applying these to a country-year time series of the same regulatory factors to expand the transfer pricing index across years.

As a result, the average transfer pricing risk score in the dataset is 3.98, ranging from 1.76 to 5.42. Table 1 shows the transfer pricing risk score for each country throughout

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[3]In total, they gather 448 country-level assessments from 76 experts.

[4]The set of regulations comes from Deloitte's annual *Transfer Pricing Strategic Matrix* and Ernst & Young's *Transfer Pricing Global Reference Guides*.

the available period. 60% of countries show an increase in their transfer pricing risk from 2006 to 2012, while it decreased for 23% and remained stable for 17%.

As we describe above, we focus on the set of Spanish-speaking countries available in the dataset to obtain a consistent set of job titles for professionals working in transfer pricing. We consider these countries to have tightened their transfer pricing strictness and undergone a "reform" if they experienced in a given year a sharp increase, higher than one point, in the transfer pricing risk index. Figure 1 shows the evolution of the index by country, highlighting the corresponding year for which the transfer pricing risk score jumped by at least one point. These years are 2009 for Spain, 2010 for Colombia, and 2011 for Chile and Uruguay, which we take as the event-time for each country in our empirical strategy. While for Chile and Uruguay these jumps are sharp in 2011, the increases for Colombia and Spain are more gradual throughout the period.

Figure 1 further exhibits that, once a country experiences such an increase, its score remains stable in subsequent years. Since the transfer pricing risk index is only available until 2012, we cannot know with certainty if there is a large drop in the index for any of the four treated countries after 2012. We, however, do not expect an additional large increase (one point or more) in the index for any of these countries, given that their risk indexes are already above four by 2012.

2.2   Countries' specific regulatory changes

We now discuss the specific regulatory changes that led to the more than one point increases in the strictness of transfer pricing regulations in the countries—Chile, Colombia, Spain, and Uruguay—that we identified using the transfer pricing risk index.

Chile. Chile implemented *Circular No. 49* in 2010, which came into effect in 2011 and expanded the documentation requirements for transfer pricing (Ernst & Young, 2012). The reform implemented the OECD transfer pricing standards in Chile, including additional reporting requirements on intra-firm transactions, increasing the enforcement capacity of the tax authority, and changing the burden of proof to require firms to justify that their transactions are compliant with the arm's length principle.

Colombia. Colombia's Resolution 11188, introduced in 2010, outlined technical specifications and content requirements for transfer pricing returns (Ernst & Young, 2010; PwC, 2012a). Furthermore, since 2009, taxpayers filing transfer pricing returns were required to present documentation to prove adherence to the arm's length principle. All taxpayers that did not comply with the arm's length principle were subject to a transfer pricing adjustment.

Spain. Spain's Royal Decree 1793/2008, enacted in November 2008, came into effect in 2009 mandating detailed transfer pricing documentation requirements for related-party transactions (Ernst & Young, 2012). Before 2009, there were no mandated requirements for formal group-level or taxpayer-specific documentation (PwC, 2012a). The Spanish tax authorities prioritized transfer pricing audits, focusing on business restructurings and intangible transactions. These measures emphasized compliance with arm's length principles in complex scenarios.

Uruguay. Uruguay's General Tax Bureau published its first binding consultation on transfer pricing in February 2010, which stipulated prices to be applied for commodity exports and imports (PwC, 2012b). Uruguay subsequently began conducting its first transfer pricing audits in 2011, the year in which we see a strong spike in the strictness of its transfer pricing regulation. These audits initially focused on companies with low profit margins and transactions involving international traders, particularly those handling commodities with internationally known market prices (KPMG, 2015).

2.3 Employment history data

We use employment history data from Revelio Labs, a global dataset that aggregates and standardizes publicly available employment information from online worker profiles on platforms such as LinkedIn.[5] Revelio Labs compiles data from online public profiles, resumes, and job descriptions, providing a detailed dataset on individual employment histories. The data include information on employers, start and end dates of specific positions, job titles and descriptions, and geographic locations, among other variables.

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[5]The data were extracted through the Redivis platform, a data hub affiliated with Stanford University, in February 2025.

Our study focuses on the transfer pricing advisory industry, specifically consultants employed by Big 4 firms, other consulting firms, and multinational corporations. To identify professionals in transfer pricing roles, we analyze self-reported job titles and descriptions in online professional profiles, searching for key terms and variations related to "transfer pricing."[6] This approach allows us to identify 1,729 transfer pricing positions in Chile, Colombia, Spain, and Uruguay between 2009 and 2014, spanning Big 4 and other consultancy firms, as well as multinational corporations.

To construct a control group for the transfer pricing advisory industry, we identify a set of professionals working in adjacent roles that are not directly related to transfer pricing but that require an analogous skill set.

Our approach follows these steps. First, we identify workers employed by the Big 4 and other international consulting firms. Second, we use the Standard Occupational Classification (SOC) System to select professionals in roles requiring similar skills as transfer pricing consultants, including the following occupations: Accountants and Auditors (13-2011), Compliance Managers (11-9199.02), Financial Managers (11-3031), Financial and Investment Analysts (13-2051), Investment Fund Managers (11-9199.03), and Treasurers and Controllers (11-3031.01). We exclude individuals working in academic and public institutions to ensure that the control group consists only of private sector professionals working in comparable conditions to transfer pricing consultants. Additionally, we exclude professionals in tax- and audit-related roles to avoid confounding effects from broad tax regulation changes that may come along with the stricter transfer pricing regulations and also influence other tax consulting roles. Third, we conduct a text analysis to identify the most common terms in job titles and descriptions, retaining those that are most closely related to consultancy and similar roles (e.g., accountants, advisors, consultants, analysts, assistants, associates, economists, specialists, etc.).

The final dataset is then collapsed at the country-firm-industry-year level. For each of the four countries (Colombia, Chile, Spain, and Uruguay), we collapse the dataset at the firm level, which consists of the Big 4 firms (Deloitte, Ernst & Young, KPMG

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[6]These variations include, terms in both Spanish and English, different job titles such as consultant, advisor, specialist, or analyst, and related concepts such as transfer pricing and profit shifting.

International, and PricewaterhouseCoopers) and a fifth group that pools all other firms together.[7] Then, for each firm we have the transfer pricing (treated) industry and the control industry, both comprised of transfer pricing consultants and professionals in adjacent roles, respectively. The sample period spans eight years from 2007 to 2016. This leaves us with a panel of 320 observations.

Table 2 presents the total number of transfer pricing and professionals in adjacent roles for each country from 2007 to 2016.[8] As expected, the transfer pricing industry is smaller than the broader control group of professionals in adjacent roles. On average, there are 64 professionals working in transfer pricing per country and year, while the average number of professionals in the control group is 19,189.

3 Empirical strategy

We combine information on country-wide transfer pricing risk with individual-level employment history data to analyze whether the transfer pricing advisory industry grows following regulatory changes that introduce stricter transfer pricing regulations ("transfer pricing reforms"). We use an event-study specification at the country-firm-industry-year level:

$$\ln(Y_{i,j,c,t}) = \alpha + \sum_{k \neq -1} \beta_k \cdot D_{t,k} + \gamma \cdot TP_i + \sum_{k \neq -1} \delta_k \cdot (D_{t,k} \times TP_i) + \sum_k \lambda_k + \lambda_t + \mu_j + \eta_c + e_{i,j,c,t} \quad (1)$$

where $\ln(Y_{i,j,c,t})$ is the number of professionals (in logs) in industry i, firm j, and country c at time t. $D_{t,k}$ is an event-time indicator equal to one if year t corresponds to event-time k (an increase higher than one point in countries' transfer pricing risk score in a given year) and zero otherwise. Here, $k = -1$ represents the baseline event-time immediately prior to the reform in each country.[9]

The treatment indicator TP_i equals one if professionals work in the transfer pricing

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[7]We group all other firms in this fifth category to avoid filling the dataset with zeroes since smaller firms vary across countries.

[8]The common period for all countries is 2009 to 2014.

[9]Thus, $k = 0$ corresponds to the first treated year after countries' reforms.

advisory industry and zero if professionals work in adjacent roles. Our coefficients of interest, δ_k, capture the differential treatment effects at each event-time relative to the baseline year. These measure the effect of the transfer pricing reforms by comparing the number of transfer pricing consultants with professionals in adjacent roles. In an additional specification, we let TP_i equal to the percentage change in the transfer pricing risk and zero before a given reform. In this specification, the coefficients δ_k capture the differential effect of doubling the transfer pricing risk in a given country.

We include firm fixed effects μ_j and country fixed effects η_c to control for any time-invariant differences at the firm and country levels (e.g., firm sizes, country's baseline regulatory levels). Event-time fixed effects λ_k and calendar-year fixed effects λ_t control for common time-varying shocks (e.g., global macroeconomic conditions, international trade trends). The error term $e_{i,j,c,t}$, which we cluster at the firm-country level. Finally, we restrict the sample period to include two pre-treatment and five post-treatment years (spanning from 2007 to 2016) across the four countries.

The identifying assumption for causal interpretation of this design is that absent the transfer pricing reforms, the number of transfer pricing consultants and professionals in adjacent roles would have evolved in parallel over time. To support this assumption, in Section 4 we show that both of these groups followed parallel trends prior to the reforms.

We also conduct the following difference-in-differences analysis to obtain an average estimate over the entire post-period:

$$\ln(\text{Y}_{i,j,c,t}) = \alpha + \beta \cdot \text{Post}_t + \gamma \cdot \text{TP}_i + \delta \cdot (\text{Post}_t \times \text{TP}_i) + \lambda_t + \mu_j + \eta_c + e_{i,j,c,t} \quad (2)$$

where Post_t indicates the years following the reforms in each country. In this case, our coefficient of interest is δ, which is the difference-in-differences estimate of the impact of the reforms on employment in the transfer pricing advisory industry.

Finally, we analyze whether the overall effect is different across countries. To study such treatment heterogeneity, we interact our variable of interest $\text{D}_{t,k} \times \text{TP}_i$ (or $\text{Post}_t \times \text{TP}_i$ in the difference-in-differences specification) with an indicator variable for each country in the sample. Using these treatment effects by country, we study whether these estimates

are associated to country's baseline characteristics conditions (such as the pre-treatment transfer pricing risk score or the pre-treatment size of the transfer pricing industry).

4 Results

4.1 Main event-study specification

We start by discussing our main specification, described in Equation 1. Figure 2 shows the impact of the transfer pricing reforms on the evolution of the number of transfer pricing consultants, relative to the control group of professionals in adjacent roles, for all countries together. Since the dependent variable is log-transformed, these estimates represent percentage changes rather than absolute increases.

First, we observe that in the two pre-treatment years, the number of professionals in both of these groups evolved in parallel, supporting the identifying assumption of our empirical strategy. After the reform, the number of transfer pricing consultants, relative to control professionals, increases. This growth begins in the year after a reform, where we estimate a 36 log-point increase, which is significant at the 1% level. This increase stabilizes after 2 years and remains high at a statistically significant 56 log-point increase 5 years after the reform. One way to interpret this magnitude is to exponentiate this effect, which implies a 175 percent increase in employment.[10]

Column (1) of Table 3 presents the regression estimates of the difference-in-differences analysis for all four countries together. On average, the number of transfer pricing consultants increases by 45 log points relative to the comparison group after the transfer pricing reforms. This effect is significant at the 1% confidence level.

4.2 Heterogeneity

While this overall effect is significant, it may mask important differences across the four countries. The conceptual framework and interview data from Bustos et al. (2023) guide

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[10]While this calculation is illustrative, this transformation does not exactly correspond to the percentage increase in the outcome.

our hypotheses about the conditions under which transfer pricing regulations are more likely to induce such a boom in the tax advisory industry. We expect this type of reform to induce stronger growth in the tax advisory industry in countries that experience larger increases in their level of transfer pricing risk as well as when they start from low baseline levels of risk. We also expect this growth to be more pronounced in countries that have a small transfer pricing consulting workforce to begin with.

Treatment effects by country

Figure 3 shows estimates of our variable of interest from the event study $D_{t,k} \times TP_i$ interacted with an indicator variable for each country in the sample. In all countries, we see a parallel evolution of the outcome between the treated and control groups throughout the pre-treatment periods. Chile experiences the largest response out of the four countries, reaching an increase of the transfer pricing workforce of approximately 125 log points at the end of the period. Spain and Uruguay show moderate but significant increases after the transfer pricing regulations become stricter. In contrast, Colombia shows no significant change in its transfer pricing consulting workforce after the reform.

Column (2) of Table 3 shows these estimates in regression form. On average, after the reform the number of transfer pricing consultants in Chile increases by 95 log points relative to the comparison group, significant at the 1% level. This increase is 46 and 53 log points for Spain and Uruguay, respectively.

Correlational analyses

We now use these difference-in-differences estimates by country and correlate them with key country indicators to provide suggestive evidence of our hypotheses described above. Figure 4 shows these associations, comparing estimated treatment effect (on the y-axis) to each key country indicator (on the x-axis). Panel (a) shows the relationship between the treatment effect and the increase in the transfer pricing risk score. We observe that the larger the increase, the larger the effect of the transfer pricing reform on the growth of the tax advisory industry, and we calculate a correlation of 0.94. Panel (b) shows the

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correlation with the pre-treatment level of transfer pricing risk score. In this case, the relationship is negative (-0.99), suggesting that the treatment effect is larger in countries with lower baseline risk scores. Panel (c) shows a negative correlation (-0.91) with the number of transfer pricing consultants normalized by GDP per capita, indicating that the treatment effect is also larger in countries with a low baseline number of transfer pricing consultants.

The correlational and individual event-study analyses support our hypotheses. Indeed, Chile is the country that experiences the largest boom in the tax advisory industry, while being the country with the largest increase in their transfer pricing risk score after their reform, having the lowest baseline score and a low baseline number of consultants working on transfer pricing to begin with. On the other side of the spectrum, Colombia experiences no significant growth in its transfer pricing consulting workforce after the reform, while having the smallest jump in transfer pricing risk, a relatively high baseline risk level, and an already substantial transfer pricing consulting workforce at the time of the reform. This illustrates how these combined factors influence the potential impact of these types of reform on the growth of the tax advisory industry.

4.3 Event-study with treatment intensity

Finally, we provide a formal test of the dynamics described above by conducting an additional event-study specification where we define the treatment variable TP_i as the percentage change in a given country's transfer pricing risk. Figure 1 shows level increases in this score. By dividing these jumps by the score of the prior year, we obtain an indicator of the percentage increase in the transfer pricing score. These percentage increases are 32% for Colombia in 2010, 83% for Spain in 2009, 125% for Uruguay, and 180% for Chile in 2011.

Figure 5 shows the impact of countries' doubling their transfer pricing score on the number of transfer pricing consultants, relative to the control group of professionals. By comparing Figures 1 and 5, we can observe that taking into account the percentage growth in the transfer pricing risk score (e.g., treatment intensity) increases the estimated

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effect of the reforms. While the difference-in-differences estimate of baseline specification is 45 log points, the effect of a country doubling its transfer pricing risk score is 67 log points, which is also significant at the 1% level. This result highlights the fact that larger increases in the level of transfer pricing enforcement lead to larger growth in the transfer pricing consulting workforce.

5 Conclusion

We examine the impact of transfer pricing reforms on the tax advisory industry, building on prior research that documented a surge in tax consultants following Chile's 2011 reform. Using an event-study difference-in-differences approach, we analyze employment history data across four Spanish-speaking countries that experienced a regulatory-driven increase in their transfer pricing strictness. Our results show that these reforms lead to a significant increase in the number of transfer pricing consultants, with important cross-country heterogeneity.

Our findings shed light on a critical unintended consequence of enacting transfer pricing regulations. While these policies aim to curb profit shifting, they simultaneously fuel the expansion of the transfer pricing advisory industry. This pattern is most pronounced in countries with weaker baseline levels of transfer pricing enforcement, higher increases in their enforcement, and smaller pre-existing tax advisory industries. The results reinforce the role of transfer pricing regulations in shaping the evolution of the tax advisory industry.

Overall, this paper highlights the importance of accounting for the tax advisory industry's responses when designing international tax regulations. While stricter enforcement mechanisms may enhance compliance, they also create incentives for firms to seek sophisticated compliance support and tax planning services, potentially undermining tax revenue collection. A promising avenue for future research is exploring which type of regulations can mitigate these unintended consequences and effectively raise tax revenue, especially in developing countries, where enforcement tends to be weaker. By considering

the dynamics between tax enforcement and advisory services, policymakers can better anticipate and address the complex responses to transfer pricing reforms.

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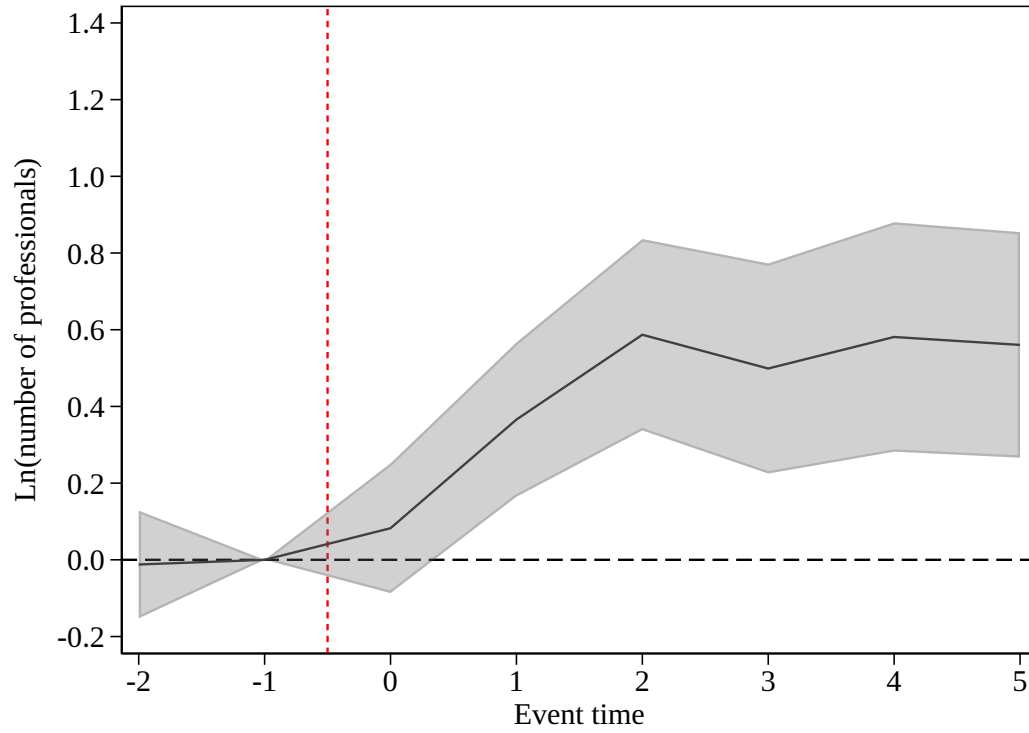
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Figure 1:
Evolution of the Transfer Pricing Strictness
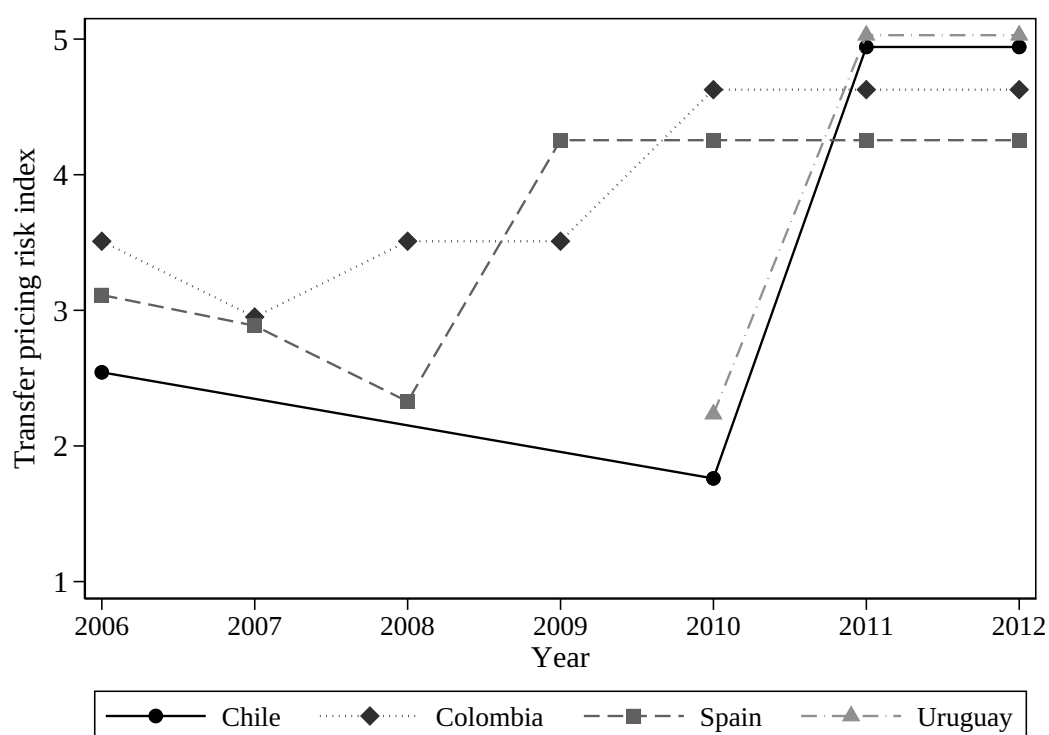
Notes: This figure shows the evolution of the transfer pricing risk index from Mescall and Klassen (2018). The index measures the overall strictness of countries' transfer pricing regulations. A higher score indicates stricter regulations. We focus on Spanish-speaking countries in the dataset that experienced an increase in the risk score of more than one unit. We classify these events as "transfer pricing reforms." Such increases occur in 2009 for Spain, 2010 for Colombia, and 2011 for Chile and Uruguay.

Impact of Transfer Pricing Reforms
on the Transfer Pricing Advisory Industry

Notes: This figure shows the evolution of the number of transfer pricing consultants compared to a control group of professionals, following the event-study specification of Equation (1), including Chile, Colombia, Spain, and Uruguay. The dotted vertical line indicates the start of the event, where $t = 0$ corresponds to the year of the reforms. Standard errors are clustered at the firm-country level. The shaded area represents 95% confidence intervals.

Figure 3:
Impact of Transfer Pricing Reforms
on the Transfer Pricing Advisory Industry by Country
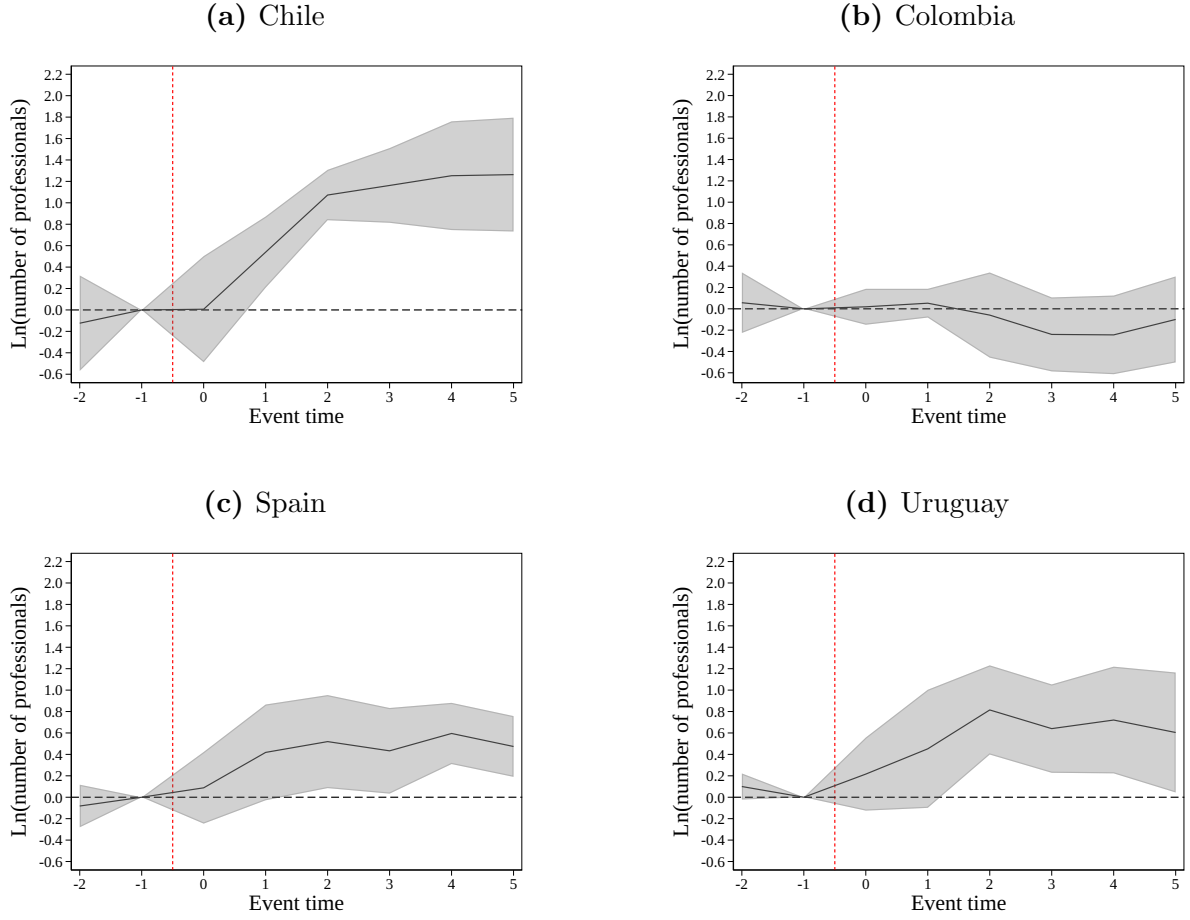
(a) Chile

(b) Colombia


(c) Spain

(d) Uruguay

Notes: Notes: This figure shows the evolution of the number of transfer pricing consultants compared to a control group of professionals, following the event-study specification of Equation (1), including Chile, Colombia, Spain, and Uruguay. The dotted vertical line indicates the start of the event, where $t = 0$ corresponds to the year of the reforms. Standard errors are clustered at the firm-country level. The shaded area represents 95% confidence intervals.

Figure 4:
Heterogeneous Treatment Effects

(a) Increase in the
Transfer Pricing Risk Score

(b) Pre-treatment
Transfer Pricing Risk Score

(c) Pre-treatment Size of
Transfer Pricing Advisory Industry
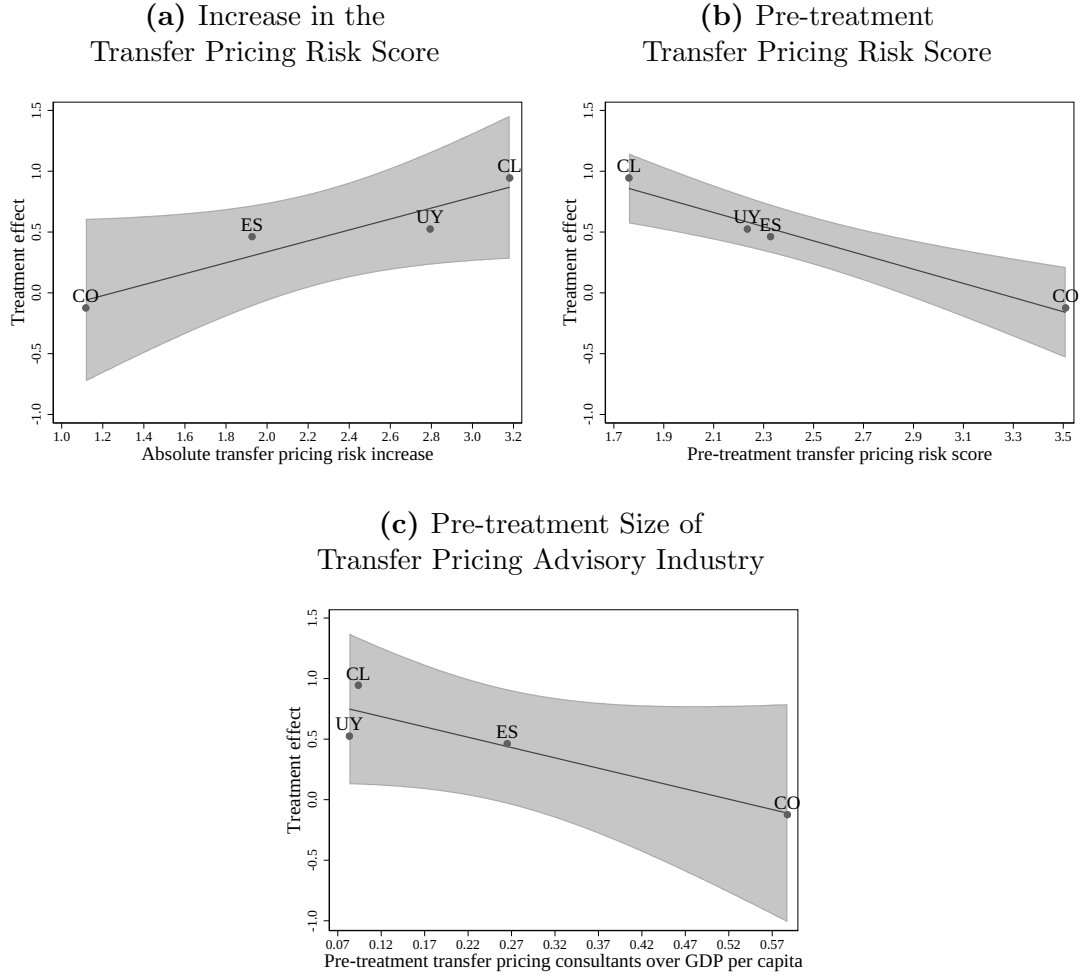
Notes: This figure shows correlations between difference-in-differences treatment effect estimates and three key factors that help explain the heterogeneity in treatment effect size across countries. Panel (a) shows the correlation with the transfer pricing risk score increase in the year of the reform. The size of this correlation is 0.94. Panel (b) shows the correlation with the pre-treatment transfer pricing risk score (-0.99). Panel (c) shows the correlation with the pre-treatment number of transfer consultants normalized by GDP per capita (-0.91). CL = Chile, CO = Colombia, ES = Spain, and UY = Uruguay. The shaded area represents 95% confidence intervals.

Figure 5:
Impact of Transfer Pricing Reforms on the
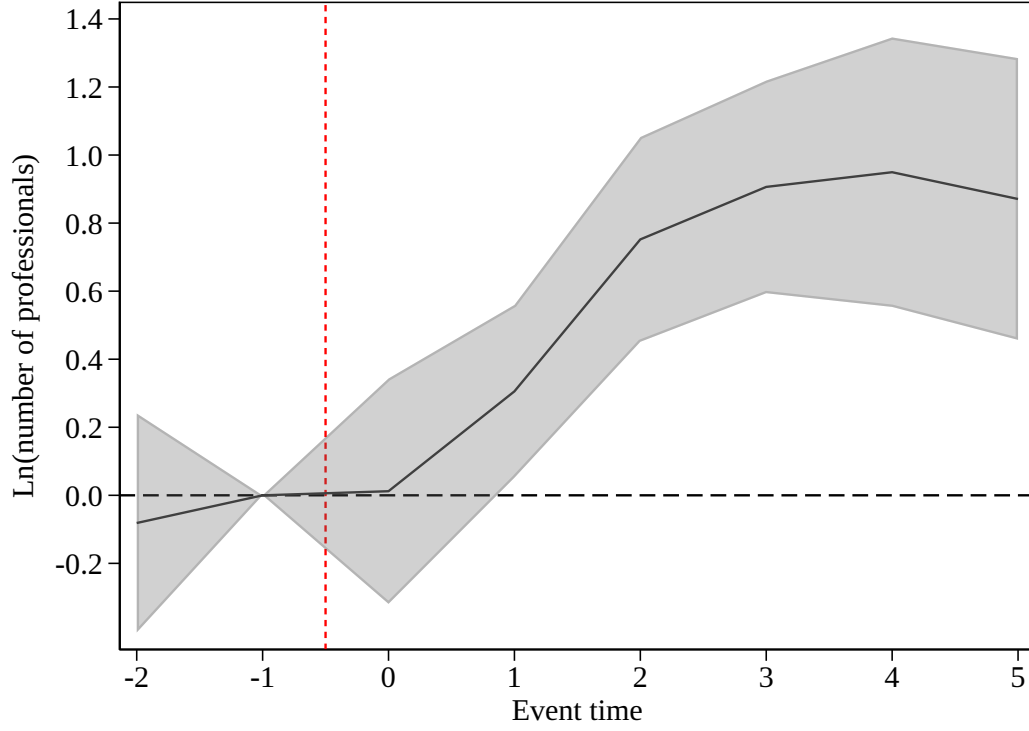Transfer Pricing Advisory Industry, Adjusted for Treatment Intensity

Notes: This figure shows the evolution of the number of transfer pricing consultants compared to a control group of professionals, following the event-study specification of Equation (1), including Chile, Colombia, Spain, and Uruguay. In this specification, we let TP_i equal to the percentage change in the transfer pricing risk and zero before a given reform. The coefficients correspond to the differential effect of doubling the transfer pricing risk in a given country. The dotted vertical line indicates the start of the event, where $t = 0$ corresponds to the year of the reforms. Standard errors are clustered at the firm-country level. The shaded area represents 95% confidence intervals.

Table 1:
Transfer Pricing Strictness

Country	2006	2007	2008	2009	2010	2011	2012
Australia	4.235	2.730	3.289	3.289	3.289	3.848	3.848
Austria	4.211	3.653	3.094	3.094	4.211	4.211	4.211
Belgium	3.039	3.039	3.039	3.289	3.289	3.289	3.513
Brazil	5.190	4.243	4.243	4.243	4.243	3.685	3.685
Chile	2.543	-	-	-	1.761	4.942	4.942
China	4.253	-	4.307	4.307	4.866	4.866	4.866
Colombia	3.510	2.951	3.510	3.510	4.627	4.627	4.627
Czech Republic	3.423	3.096	3.096	3.096	4.214	4.214	4.437
Finland	3.896	4.228	4.255	4.255	4.478	4.478	4.478
France	4.435	4.211	4.211	4.211	4.211	4.211	4.211
Germany	3.985	3.985	3.985	4.311	4.311	4.311	4.311
Greece	-	-	-	-	-	4.464	-
Hungary	3.663	3.663	3.159	3.159	3.410	4.527	4.527
India	3.897	3.897	3.897	3.897	3.897	5.015	5.015
Japan	4.081	4.081	3.903	3.903	3.903	3.903	4.127
Korea	3.848	-	3.848	3.848	3.848	4.072	4.072
Luxembourg	-	-	-	-	3.159	3.159	3.159
Netherlands	4.464	4.688	4.688	4.688	4.688	4.688	4.688
New Zealand	4.311	4.535	4.311	4.311	4.311	4.311	4.311
Norway	4.231	4.618	4.869	4.869	4.869	4.869	5.092
Poland	4.401	-	4.637	4.637	4.637	4.078	4.078
Portugal	4.077	3.347	3.347	3.347	3.347	3.347	3.347
Romania	-	-	-	-	3.216	3.775	3.775
Singapore	3.724	3.337	3.337	3.337	3.337	3.337	3.337
Slovak Republic	-	-	-	-	3.347	3.347	3.347
Spain	3.113	2.887	2.328	4.255	4.255	4.255	4.255
Sweden	3.265	4.435	4.211	4.211	4.211	4.211	4.435
Switzerland	-	2.936	2.936	2.936	2.936	3.718	3.718
Uruguay	-	-	-	-	2.235	5.029	5.029
Vietnam	-	5.416	4.857	5.416	5.416	4.857	4.857

Notes: This table shows the transfer pricing risk index from Mescall and Klassen (2018) for all countries in the dataset throughout the available period. The index measures the overall strictness of countries' transfer pricing regulations, and ranges between 1.76 to 5.42 points. A higher score indicates stricter regulations. Dashes indicate missing data.

Table 2: Number of Transfer Pricing Consultants and Professionals in Adjacent Roles

Year	Chile (1) Control Professionals	Chile (2) TP Consultants	Colombia (3) Control Professionals	Colombia (4) TP Consultants	Spain (5) Control Professionals	Spain (6) TP Consultants	Uruguay (7) Control Professionals	Uruguay (8) TP Consultants
2007	-	-	-	-	21,500	66	-	-
2008	-	-	17,476	33	22,690	85	-	-
2009	19,549	11	19,626	36	22,806	109	2,127	10
2010	21,516	12	22,355	47	23,347	147	2,352	10
2011	23,372	16	25,342	52	23,619	167	2,571	14
2012	25,137	30	28,268	63	23,620	164	2,725	20
2013	26,222	54	30,589	65	23,641	189	2,855	26
2014	26,567	66	32,451	68	24,338	193	2,963	20
2015	27,053	82	34,018	81	-	-	2,973	19
2016	27,367	86	-	-	-	-	3,023	19

Notes: This table shows the number of transfer pricing consultants ("TP Consultants") and professionals in roles not directly related to transfer pricing ("Control Professionals") for the years included in the event-studies.

Table 3:

Impact of Transfer Pricing
Reforms on the Transfer Pricing Workforce

	(1) Ln(number of professionals)	(2) Ln(number of professionals)
All	0.452***	
	(0.123)	
Chile		0.945***
		(0.152)
Colombia		-0.124
		(0.120)
Spain		0.462*
		(0.226)
Uruguay		0.525***
		(0.170)
Year FE	Yes	Yes
Firm FE	Yes	Yes
Country FE	Yes	No
Adjusted R2	0.807	0.806
Observations	320	320

Notes: This table shows the difference-in-differences estimates of the evolution of the number of transfer pricing consultants compared to a control group of professionals, following the specification of Equation (2). Column (1) shows estimates for all countries, as in Figure 2. Column (2) shows estimates separately for Chile, Colombia, Spain, and Uruguay, as in Figure 3. Standard errors are clustered at the firm-country level. ***p<0.01, **p<0.05, *p<0.1.