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ESSAYS ON BANKS AND TAXATION

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This dissertation was sometimes a “long and winding road”, but in the end worth it. This time was enriching, while devastating. I guess all PhD students know what I am talking about. During this time, I was lucky to have a whole support group around me to distract me, to comfort me, to challenge me, to make me go the extra mile.

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2 INTRODUCTION AND SYNOPSIS

Banks are an important pillar of the economy (OECD (2009)). Their activities of financial intermediation are a vital prerequisite of a well-functioning economy. While banks are generally subject to corporate income taxation, the theory on optimal capital taxation suggests not to tax capital like interest income or dividends. This is due to the fact that banks are intermediaries of capital and a taxation might lead to distortions of, e.g., interest margins or debt-to-equity ratios, causing instability to the economy as a whole (Huizinga (2004), Albertazzi and Gambacorta (2010), Chiorazzo and Milani (2011), Shackelford, Shaviro, and Slemrod (2010), Shaviro (2011)). For that matter, the taxation of banks is a highly discussed topic.

After the financial crisis, two strongly debated topics emerged. First, policymakers and researchers wondered whether the corporate tax system provided incentives (e.g., the preferential tax treatment of debt over equity) that fostered the financial crisis (Shackelford et al. (2010), Shaviro (2011)). Second, the governments backed distressed banks with massive public aids to contain the financial crisis[1]. In relation to these aid programs, the public became increasingly sensitive to the question of whether the financial sector sufficiently tried to make up for the public aids, by, e.g., paying a sufficient amount of taxes (Aubry and Dauphin (2017)). Banks are therefore sharply critized when they either help clients to circumvent paying taxes (e.g., in the Panama cases[2] or the German Cum-Cum or Cum-Ex scandals) or they themselves try to avoid taxes[3] (Aubry and Dauphin (2017)). In particular, internationally operating banks use channels to engage in tax avoidance by, e.g., the exploitation of international tax rate differentials (Merz and Overesch (2016), Aubry and Dauphin (2017)) or by the exploitation of financial derivative characteristics (Joint Committee on Taxation (2011), Langenmayr and Reiter (2017)).

In response to this public critism, the European Union included Article 89 in the Capital Requirements Directive (CRD) IV, demanding financial institutions to publicly disclose certain financial statement items such as current tax expense on a country-by-country basis (European Parliament (2013))[4]. The revelation of this rather private information comes with potential benefits and costs. On the one hand, it allows investors and stakeholders to trace banks' geographic distribution of activities and to better understand the banks' operating business, increasing financial reporting transparency (Brown, Jorgensen, and Pope (2019), Dutt, Ludwig, Nicolay, Vay, and Voget (2019), Overesch and Wolff (2019)). On the other hand, it comes at huge costs for banks, causing, apart from implementation costs, reputational costs and negotiation costs with tax authorities (Dyreng, Hoopes, and Wilde (2016), Hanlon (2018)).

[1] See for example the U.S. Troubled Asset Relief Programm (TARP) where the U.S. government issued guarantees to distressed banks (https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/bank-investment-programs/Pages/default.aspx, last accessed: 2020-02-19).

[2] For further information on the investigation visit the websites of ICIJ (https://www.icij.org/investigations/panama-papers/pages/panama-papers-about-the-investigation/, last accessed: 2020-03-02) or of Sueddeutsche Zeitung (https://panamapapers.sueddeutsche.de/articles/56febff0a1bb8d3c3495adf4/, last accessed: 2020-03-02).

[3] In accordance with other tax avoidance literature, I define tax avoidance throughout this thesis as paying a low amount of taxes (Dyreng, Hanlon, and Maydew (2008)).

[4] The idea of this so called Country-by-country reporting (CbCR) was first outlined in the OECD Base Erosion and Profit Shifting (BEPS) Action 13 (OECD/ G20 (2015).). Opposed to Article 89, they herein suggest that multinational corporations submit a CbCR only to the respective tax authorities. For further information refer to OECD/ G20 (2015) under http://www.oecd.org/tax/beps/beps-actions/action13/ (last accessed: 2020-02-24).

Although taxes play a major role for banks, large-scale, empirical evidence on how corporate income taxes affect banks is still scarce (Hanlon and Heitzman (2010), de Mooij and Nicodème (2014)). To fill this gap, this thesis contributes to a better understanding of the relation between banks and tax planning outcomes. As the literature on banks and taxes substantially grew in recent years, the first study (study A) provides a structured review on how banks incorporate corporate income taxation into their decision-making process, spanning the last 20 years. The review therefore builds a basis for studies B and C. A key concern after the financial crisis is whether banks sufficiently compensate the government and the taxpayers for the received aid, e.g., in terms of tax revenues. As banks are usually excluded from tax avoidance studies, it is difficult to put the degree of banks' tax avoidance into perspective to that of other industries. The second study therefore compares banks' and non-banks' level of tax avoidance (study B). A potential tool to circumvent tax avoidance is the increase in financial reporting transparency with the help of country-by-country reporting (CbCR). In this respect, study C assesses investor perceptions on a potential introduction of public CbCR in Europe for banks. It provides evidence on investors' expectations on the costliness of CbCR.

In study A, **Gawehn (2020)** provides a review of empirical studies of the last two decades in the intersection of banks and corporate income taxation. The empirical literature on banks with a focus on taxation has grown in previous years, potentially due to a greater interest in banks after the financial crisis (OECD (2009, 2010, 2011)), a more competitive environment in banking services (Buch and Dages (2018)) and increased regulatory scrutiny (European Parliament (2013)).

Prior tax reviews[5], except for Shackelford and Shevlin (2001), do not explicitly provide a systematic overview of the literature on banks and taxation. In a first review of empirical tax research, Shackelford and Shevlin (2001) define three topics in tax accounting research: the trade-off between tax and non-tax considerations, taxes and asset prices and international taxation. With reference to the reviewed banking studies, Shackelford and Shevlin (2001) suggest that taxes play a sub-ordinated role in banks' decision-making process, being overruled by regulatory and financial reporting considerations. As Shackelford and Shevlin (2001), however, note, the latter findings might be distorted due to a lack of appropriately controlling for differences in banks' tax status. A decade later, the review of Hanlon and Heitzman (2010) focuses on corporations' financial reporting of tax expense and its information content for investors, furthermore on the concept and measurement of tax avoidance, on taxes and real business decisions as well as on the valuation of asset prices in the light of investor-focused taxes (e.g., capital gains taxation). In addition, Hanlon and Heitzman (2010) identify a lack in the research of financial institutions (e.g., banks) and taxation and call for more research in this field.

As a review on banks and corporate income taxation is, to the best of my knowledge, missing, I provide a structured overview. I herein assess whether banks incorporate corporate income taxes into their decision-making process and, if so, how they are implemented. Additionally, I deduce policy implications from the studies under review. Finally, I highlight important areas of emerging research. A review on this topic is useful for several reasons. First, researchers interested in this field might find it difficult to identify

[5] I refer to Shackelford and Shevlin (2001), Hanlon and Heitzman (2010), Graham, Raedy, and Shackelford (2012), Wilde and Wilson (2018).

relevant contributions as the literature grew in an unstructured fashion. Second, distortions, emerging from taxation, might cause significant negative effects for banks, customers and the economy as a whole. A summary on the distortions, found in the literature, is therefore helpful for policymakers to curtail proper tax legislation. Third, the review identifies research gaps and points to emerging areas of research in the intersection of tax legislation and bank regulation.

To provide a structure for the review, I assess the influence of corporate income taxes on banks' decision-making process in the context of their major stakeholder (customers, regulators, investors and tax authorities). Within this framework, I identify six dimensions in the literature that banks consider when minimizing corporate income tax expense: debt financing, tax incidence, organizational form choices, profit shifting, financial reporting transparency and customers' tax avoidance. To find adequate studies, I use the search engine *Web of Science Core Edition*. The search words that I use are a variant of "bank*" and "corp tax*"[6] and appear in the title, abstract or keywords of the papers. My sample period ranges from 1999 to 2019. The final sample consists of 31 published papers.

The key results according to the six dimensions are as follows. First, banks react to the preferential tax treatment of debt. The effect, however, depends on the size and the capital ratio of the bank. While large banks are least responsive to the tax incentive, small banks are highly responsive (e.g., de Mooij and Keen (2016), Heckemeyer and de Mooij (2017)). The strong finding for small banks might depend on the lack of other tax-minimization channels like, e.g., profit shifting. In addition, banks with sufficiently high capital ratios exploit the tax benefit of debt, while there is no significant evidence for banks with relatively low capital ratios (e.g., Schandlbauer (2017)). Second, evidence suggests that banks use the channel of tax incidence to shift some of the tax burden to their customers (e.g., Demirgüç-Kunt and Huizinga (1999), Albertazzi and Gambacorta (2010), Chiorazzo and Milani (2011)). Third, several studies assess banks' organizational form choices after U.S. banks were allowed to incorporate under Subchapter S in the context of the U.S. Small Business Jobs Protection Act of 1996. Incorporating under Subchapter S only provides tax benefits to banks. Policymakers intended that these tax benefits should be distributed to banks' employees via higher wages and to customers via lower prices. The studies generally find no evidence that employees and customers systematically benefit from an organizational change. They, however, find that banks' shareholders receive higher dividends after the conversion (e.g., Depken, Hollans, and Swidler (2010), Donohoe, Lisowsky, and Mayberry (2015), Chang, Jain, Lawrence, and Prakash (2016)). Fourth, there is some evidence that banks exploit international tax rate differentials to engage in profit shifting. The effect is most pronounced for income from trading gains (Demirgüç-Kunt and Huizinga (2001), Meeks and Meeks (2014), Merz and Overesch (2016)). Fifth, banks' financial reporting behavior suffered a shock due to the introduction of Article 89 in the CRD IV in 2013. Due to its recency, the evidence on whether the additional information increases financial transparency is scarce, but generally finds no effect or only weak effects on financial transparency and investor perceptions (Brown et al. (2019), Dutt et al. (2019), Joshi, Outslay, and Persson (2019), Overesch and Wolff (2019)). Sixth, several studies assess how banks evaluate customers' tax avoidance. If customers' tax planning is aggressive and they have not provided enough reserves to counterbalance any additional tax charges, the repayment of bank loans might be at stake. There is mixed evidence on whether banks view customers' tax avoidance as beneficial (e.g.,

[6] The wildcard * allows for a more efficient search, as combinations like "banks and corporate taxation" are covered.

Hasan, Hoi, Wu, and Zhang (2014), Gallemore, Gipper, Maydew, Gallemore, and Gipper (2019)).

The studies above generally show that corporate income taxation leads to four major distortions. First, due to the relative tax attractiveness of debt over equity, banks are inclined to increase their debt level. This effect is counterproductive to the call for higher equity ratios (D'Erasmo (2018)). Second, the level of the corporate income tax rate has implications for banks' securitization behavior. In geographic areas with a high demand for loans and low supply of deposits, banks will securitize loans to generate funds (i.e., the deposits do not suffice). In this setting, securitization will be more pronounced in areas with high tax rates. This is due to the fact that banks structure securitization in such a way that the proceeds are free of tax. As securitized loans are generally not evaluated appropriately by the selling bank, these practices bear a high risk to financial stability (Gong, Hu, and Ligthart (2015), Han, Park, and Pennacchi (2015)). Additional taxes on banks might therefore reinforce this circle. Third, corporate income taxation seems to distort interest rates for customers and lenders and is therefore probably welfare decreasing. Fourth, due to the international tax differential, banks are incentivized to invest in countries only because of the tax advantage. A mere focus on tax advantages might cause inefficient allocations of investments (Demirgüç-Kunt and Huizinga (2001), Huizinga, Voget, and Wagner (2014)).

In the following, I identify areas of future research in the context of taxation and bank regulation. A better understanding of this interplay is important for several reasons. First, bank regulation is ever increasing (Basel Committee On Banking Supervision (2010)) and corporate tax systems around the world become more complex (Hoppe, Schanz, Sturm, and Sureth-Sloane (2019)), negative spillover effects between these two systems might harm the economy as a whole. Additional taxes or levies for banks are discussed or already introduced. With reference to the securitization of loans, the interaction between, e.g., the bank levies, and corporate income taxation should be of interest to regulators as additional taxes might exacerbate the distortions of corporate income taxation (Han et al. (2015)). A preliminary study (Bremus, Schmidt, and Tonzer (2018)) shows that the effect of the bank levy decreases with an increasing corporate tax rate. Second, regulation and tax rules might cause heterogeneous responses between banks, burdening some banks more than others. Prior research generally focuses on the consequences for large and/ or multinational banks (due to their systemic relevance), but often neglects medium-sized and small institutions. To uphold a stable financial system, policymakers need to be aware of negative effects, arising for all bank groups. Additionally, policymakers would receive valuable insights from studies, assessing the different channels small and medium-sized banks have to minimize tax expense and their relation to bank regulation. Third, it is also important to know whether distortions from corporate income taxation have real effects, potentially threatening economic growth. Smolyansky (2019) shows in the context of banks that changes in U.S. state tax legislation have real consequences for those states, not changing their tax laws.

In sum, I contribute to the tax accounting literature by providing the first, structured review in the intersection of corporate income taxation and banks. The studies under review provide evidence that banks are sensitive to taxation. Furthermore, I deduce four major distortions, arising from corporate income taxation. These are particularly relevant for policymakers when considering additional rules to bank regulation or taxation. Eventually, I identify areas in which empirical research on topics that help to shape adequate tax legislation is scarce or lacking.

In study B, **Gawehn and Müller (2020)** assess whether the overall degree of banks' tax avoidance is comparable to that of non-banks. Additionally, we are interested in whether the impact of frequently identified tax avoidance variables differ between banks and non-banks. As shown in study A and in recent reports (OECD (2009, 2010, 2011)), banks are usually excluded from tax avoidance studies (e.g., Mills, Erickson, and Maydew (1998), Dyreng, Hanlon, Maydew, and Thornock (2017)). Reasons to exclude banks are twofold. First, there are differences in business models between banks and non-banks, resulting in accounting differences. This fact poses a problem to research designs, as control variables (e.g., research and development expense) might not be available. Second, researchers are concerned about regulatory differences, causing banks to behave differently than non-banks (e.g., Frank, Lynch, and Rego (2009)). To overcome the first problem, missing control variables are regularly replaced by zeros. Concerning the second argument, it is not clear which effect regulation has on banks' tax avoidance behavior. On the one hand, if an aggressive tax strategy leads to additional tax payments and banks fail to meet these additional payments with reserves, banks' cash decreases, weakening reserves that should normally be invested in keeping a sustainable capital ratio. For that matter, banks might be less inclined to engage in aggressive or risky tax avoidance. On the other hand, banks have other opportunities to obtain a low level of tax expense, e.g., by using income from trading gains (Merz and Overesch (2016), Langenmayr and Reiter (2017)). The flexibility of banks to engage in tax avoidance probably also depends on whether the bank has a sustainable capital ratio or not (Scholes, Wilson, and Wolfson (1990), Collins, Shackelford, and Wahlen (1995), Schandlbauer (2017)).

To address our research question, we use a U.S. sample of publicly listed banks and non-banks between 2004 to 2016. Our proxies for tax avoidance are the GAAP effective tax rate (ETR) and the Cash ETR. While investors and the public are primarily interested in the GAAP ETR, the Cash ETR provides an indicator of the actual cash outflows of taxes (Dyreng et al. (2008)). We run unstandardized and standardized regressions on separate bank and non-bank samples as well as on a joint sample. To split banks and non-banks in the joint sample, we use a binary variable. The coefficient of this binary variable is our indicator of whether banks' tax avoidance is different from that of non-banks. The standardized regression facilitates the interpretation of our binary variable. In the unstandardized regression, the coefficient of the binary variable shows the effect of banks on the ETR when all other control variables are held constant at zero. The standardized approach, i.e., demeaning and standardizing all non-binary variables, evaluates the influence of the binary variable when the other control variables are held constant at their means (Bring (1994), Afshartous and Preston (2017)).

Graphical evidence indicates that, except for the financial crisis, banks have similar levels of Cash ETRs and GAAP ETRs compared to non-banks. In our regressions, we find evidence that banks have significantly higher Cash ETRs, but that there is no significant association between banks and GAAP ETRs. On average, banks have a 4 to 5 percentage points higher Cash ETR than non-banks. In economic terms, this comprises about 16 % to 20 % of mean Cash ETR. Concerning differences in frequently used tax avoidance variables, we find incremental differences for variables measuring financial constraint and operating expense in both ETR specifications.

In addition to OLS regression, we apply quantile regression to our sample. It is possible that, while being a bank has no significant influence on tax avoidance at the mean, the picture looks different for other areas of the tax avoidance distribution. In general, we find that banks report higher ETRs in lower quantiles of the tax avoidance distribution, indicating that they are relatively worse at keeping low levels of tax avoidance compared to non-banks.

A key argument for excluding banks are regulatory differences. One proxy for regulation is the capital ratio of banks. We therefore assess whether banks with worse or better capital ratios have a different association with tax avoidance compared to non-banks. We divide banks into worse- or better-capitalized[7], depending on whether they are above or below a certain quantile of the capital ratio. Generally, both worse- and better-capitalized banks have a higher Cash ETR than non-banks. In terms of magnitude, the difference between worse-capitalized banks and non-banks is larger than that between better-capitalized banks and non-banks. In line with prior research (Scholes et al. (1990), Schandlbauer (2017)), this finding provides cautious evidence that worse-capitalized banks have less flexibility in tax planning.

In sum, our results suggest that banks have a lower level of tax avoidance, measured in terms of Cash ETR, than non-banks. The effect is economically significant. In addition, we find that banks that are more constrained in terms of regulation, have a lower degree of tax avoidance than non-banks, suggesting that regulation is limiting tax planning strategies.

In this study, we contribute to the tax avoidance literature by sharpening the understanding of banks' tax avoidance. With regard to the discussions about whether banks sufficiently make up for the public aids during the financial crisis, this study is particularly informative for policymakers as it directly compares the degree of banks' tax avoidance to that of non-banks. Our findings also implicitly contribute to methodological issues in the tax avoidance literature, showing that the inclusion of banks does not generally change average inferences. This is in line with, e.g., Bird, Edwards, and Ruchti (2018) who account for industry differences by industry-fixed effects. For that matter, we believe that this study is also informative for researchers, interested in how the inclusion of banks would alter standard inferences.

In study C, **Flagmeier and Gawehn (2020)** assess investor perceptions on the potential introduction of public CbCR for European financial institutions. In particular, we analyze whether investors regard the introduction as beneficial or harmful. The inclusion of public CbCR in the CRD IV was surprising to many legislative observers which makes it a suitable setting for an event study[8]. We use a press statement from the rapporteurs of the European Parliament on a negotiation meeting as our event date (February 20$^{\text{th}}$, 2013). This press release indicates that public CbCR was discussed in the meeting and is the first mentioning of CbCR in public documents after a first mentioning in a draft in May 2012. We therefore do not measure reactions of investors to the actual introduction of public CbCR, but their perceptions on this topic.

Whether investors regard a potential introduction as beneficial or harmful, depends on the perceived net costs or net benefits. Hanlon (2018) provides an assessment of potential costs and benefits of CbCR to tax authorities as proposed by OECD BEPS Action Plan 13 (OECD/ G20 (2015)). According to her, potential costs are reputation costs[9], implementation costs, costs from disputes with tax authorities

[7] In our terminology, we follow Schandlbauer (2017).

[8] We gathered additional information of and opinions on the legislative process from a correspondence with a PwC manager who observed the development of the CRD IV.

[9] For empirical evidence on reputation cost and tax avoidance see, e.g., Hanlon and Slemrod (2009), Gallemore, Maydew, and Thornock (2014), Dyreng et al. (2016).

and accompanying additional taxes. A potential benefit results from increased transparency on the side of the financial institution. With this additional information, financial institutions receive better insights into their geographic interlocking, into understanding the companies' business units as well as turnover and yield more efficient allocation strategies (Hanlon (2018)). More efficient resource allocation and the reporting on this matter potentially leads to a higher shareholder value and cash payments to investors (Overesch and Wolff (2019)). In addition, opaque financial information of firms might result from sophisticated financial strategies like, e.g., exploiting the international tax differentials through a complex subsidiary structure. Managers might use these sophisticated structures to extract private rents from the firm (Desai and Dharmapala (2006), Desai, Dyck, and Zingales (2007)). An increase in financial reporting transparency due to CbCR might contain these endeavours of managers and yield a better alignment of incentives between managers and shareholders. Based on the countervailing arguments above, it is not clear whether investors will prefer an increase in financial reporting transparency over the expected costs. It is therefore an empirical question how investors will react.

Applying the multivariate regression model of Schipper and Thompson (1983), we regress raw returns on a market index and our three-day event window to infer whether investors perceive a potential introduction as harmful or beneficial. In sum, we use six different market indices (Euro Stoxx 600 and Euro Stoxx 50, Stoxx Europe 600 and Stoxx Europe 50, MSCI World and MSCI World Banks). The coefficient on the event window can be interpreted as the three-day cumulative abnormal return (CAR). As the CbCR of CRD IV only applies to international EU financial institutions, we use these as our treatment group. We find a positive and significant market reaction around our event date for one (MSCI World Banks) out of six market indices. The CARs amount to 0.0041 (0.41 %). These findings are similar in magnitude to Chen (2017), investigating investor reactions to the introduction of Australian public tax return data.

As investors might perceive the net costs and net benefits differently for financial institutions with different characteristics like Dutt et al. (2019) assume, we also test for cross-sectional differences in investor reactions. We again rely on the multivariate regression model and interact our event window with different firm characteristics. We compare international EU financial institutions to domestic EU financial institutions and to international non-EU financial institutions. Within our treatment group (international EU institutions), we assess differences between small financial institutions and large financial institutions and between systemically relevant financial institutions to non-relevant, large financial institutions. Additionally, we take the prior degree of a firm's publicly provided tax and geographic information into account. First, we assess whether investors react differently for international EU financial institutions with a high degree of pre-event geographic segment disclosure compared to those with a low degree. Second, we compare investor reactions on international EU financial institutions with a low, pre-event GAAP ETR to those with a high level. We find significant and negative reactions for large financial institutions in comparison to small financial institutions and for systemically relevant financial institutions to non-relevant institutions.

In sum, we contribute to the literature on public tax disclosure, providing some evidence that investors perceive a potential introduction of public CbCR as beneficial. Additionally, our findings suggest that investors perceive the costs and benefits of CbCR differently. For large and systemically relevant financial institutions, investors view public CbCR more costly than for medium-sized and small financial institutions. Policymakers and regulators should be concerned that large financial institutions suffer above average from the introduction of public CbCR. Chen (2017) notes that predicting investor behavior is predicting firm behavior. If large financial institutions fear negative consequences from increased financial transparency, they might be inclined to find work-arounds (e.g., closing subsidiaries in tax havens, but increasing trades with hybrid derivatives) that might threaten financial stability.

All in all, this thesis provides insights into different aspects of banks and taxation. All studies show that corporate income taxation plays an important role for banks and their decision-making processes. Study A is especially informative for policymakers and researchers that are interested in the relation of banks and corporate income taxation. It provides a summary of studies that assess the influence of taxes on banks' decision-making process. Additionally, it points to areas in the intersection of bank regulation and taxation that are, so far, neglected in recent research. Study B provides single-country evidence that banks, on average, pay more cash taxes than non-banks. This is particularly true for banks who are relatively worse-capitalized. Regulators and tax legislators should therefore mutually evaluate regulation and tax policy tools, in particular additional taxes, to not unnecessarily burden banks. As the sample only consists of few internationally operating banks, a possible follow-on study might compare the level of tax avoidance of internationally operating banks to that of internationally operating non-banks in a cross-section of countries. Study C provides insights into the costliness of an increase in public tax data for financial institutions. The investor reaction to the event is positive, indicating that investors perceive a potential introduction of public CbCR as beneficial. However, the reaction is not homogenous across all groups of financial institutions. For large and systemically relevant institutions, investors perceive CbCR less beneficial than for the other groups. This result is in particular relevant for regulators.

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3 STUDIES OF THE DISSERTATION

STUDY A

Banks and Corporate Income Taxation: A Review*

Vanessa Gawehn†

Abstract

In this paper, I review the empirical literature in the intersection of banks and corporate income taxation that emerged over the last two decades. To structure the included studies, I use a stakeholder approach and outline how corporate income taxation plays into the relation of banks and their four main stakeholders: bank regulators, customers, investors and tax authorities. I identify six dimension where taxes are important for banks: debt financing, tax incidence, organizational form choices, profit shifting, financial reporting transparency and customers' tax avoidance. In addition, the studies in this review show that corporate income taxes lead to distortions between debt and equity financing, between on- and off-balance sheet financing, of prices and of investment allocations. My contribution to the literature is threefold: First, I contribute by providing, to the best of my knowledge, a first comprehensive review on this topic. Second, I deduce policy implications from the studies under review. Third, I point to areas of future research in the intersection of bank regulation and tax legislation.

JEL classification: G21, H22, H25, M41

Key words: Corporate income taxes, banks, stakeholder approach, decision-making process

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STUDY B

Tax Avoidance - Are Banks Any Different?*

Vanessa Gawehn† Jens Müller‡

Abstract

While the public has noticed the need for the detection of potential tax loopholes and demands further improvement in the taxation of banks, there is scarce empirical evidence whether banks' degree of tax avoidance actually differs from that of non-banks. We try to close this gap by investigating U.S. banks' tax avoidance behavior for a sample period from 2004 to 2016. To identify banks' tax avoidance, we use annual Cash ETRs and GAAP ETRs and compare them to the tax avoidance behavior of non-banks. As there are various channels of tax avoidance, we account for differences in several areas such as corporate fundamentals, the degree of multinationality and regulatory scrutiny. We provide cautious evidence that banks have significantly higher Cash ETRs than non-banks. Using quantile regression, we find evidence that the assocation between banks and ETRs is not constant over the whole tax avoidance distribution, with banks reporting significantly higher ETRs compared to non-banks in those regions of the tax avoidance distribution which are regularly classified as "high tax avoidance". In line with recent research, we provide some evidence that the difference in Cash ETRs between banks and non-banks is more pronounced for worse-capitalized, than for better-capitalized banks.

JEL classification: G21, H26, M41

Key words: Tax avoidance, banks, non-banks, standardized coefficients, quantile regression

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STUDY C

Do Investors Care About Tax Disclosure?*

Vanessa Flagmeier† Vanessa Gawehn‡

Abstract

We assess the investor reaction to a potential introduction of public country-by-country reporting (CbCR) into the European Capital Requirements Directive IV. Estimating cumulative abnormal returns with the help of a multivariate regression model, we find weak significant evidence around our event date (February 20$^{\text{th}}$, 2013) that investors perceive the introduction of CbCR as beneficial. In additional tests, we assess investor perceptions relative to different control groups (domestic institutions and non-EU institutions) and in the cross-section (splitting across size, systemically relevant, pre-event level of GAAP ETR and pre-event level of geographic disclosure). The only significant outcome is a negative reaction for large international EU institutions.

JEL classification: H25, H26, G21, G28

Key words: Country-by-country reporting, CbCR, financial institutions, investor reactions, event study, multivariate regression model

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