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Profit shifting and tax response of multinational banks

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ABSTRACT

This paper analyzes multinational banks' response to taxation. For the empirical analysis we use firm-level bank data from the Bankscope database. We find significant tax effects on reported profits of bank subsidiaries. The magnitude for the tax response of reported profits doubles the effects found in previous studies for non-financial MNCs. Additional analysis reveals that the response to tax incentives differs across business types. The tax elasticity of revenues generated by interest-bearing activities is less responsive compared to other activities. Results also reveal significant tax effects on loan loss provisions.

1. Introduction

When G20 leaders met in Pittsburgh in 2009 to discuss the still ongoing financial crisis they requested the IMF to investigate "...how the financial sector could make a fair and substantial contribution toward paying for any burden associated with government interventions to repair the banking system" (IMF, 2010). Thereafter, various tax measures to improve regulation of capital structure as well as possibilities to shift part of the crisis related costs from taxpayers to the financial sector have been discussed.

Recently, a public debate on what the OECD (2013) denotes "base erosion and profit shifting" (BEPS) has been stirred up by aggressive tax planning of some very prominent companies mainly from the IT and retail sector. Interestingly, the financial sector is not at the heart of this recent discussion. One reason might be the scarce empirical evidence on banks' tax response. We therefore aim at evaluating the status quo of banks' response to international taxation.

Taxable profits are separately determined for each subsidiary of a multinational bank and subject to tax in a subsidiary's country of residence. Therefore, the international differences in tax rates provide an incentive to adopt strategies that are associated with profit shifting from high-taxed to low-taxed subsidiaries. Shifting taxable profits into low-tax jurisdictions minimizes the overall tax payments. Profit shifting means some redistribution of the profits among the subsidiaries of a multinational firm by reallocating certain functions and risks as well as manipulating intra-firm transactions.

Profit-shifting activities of multinational corporations (MNCs) have long been subject to extensive research. The literature provides striking evidence for profit shifting (cf. Hines and Rice 1994; Huizinga and Laeven 2008) and tax effects on capital structures (cf. Desai et al., 2004; Huizinga et al., 2008). However, the financial sector has been left out in all of these studies. We therefore investigate the profit response of multinational banks to taxes. To the best of our knowledge we have only limited evidence for profit shifting within banks. Demirgüc-Kunt and Huizinga (1999, 2001) conclude that foreign banks pay lower taxes in several developed countries and therefore suspect them to engage in profit shifting. Huizinga et al. (2014) consider tax rates of host and parent countries. While they also find some evidence for profit shifting, their focus is on the pricing and quantity effects of international double taxation as reflected in interest margins and FDI of banks.

We focus on the tax response of bank subsidiaries. Our study particularly contributes to the literature by considering how bank regulation, anti-tax avoidance rules and different business models of banks affect the intensity of profit shifting. Moreover, we

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investigate a potential shifting channel of banks and analyze the influence of tax incentives on the discretionary component of loan loss provisioning.

For our empirical analysis we use subsidiary-level bank data from the international bank database Bankscope in 131 countries from 2001 until 2012. In accordance with previous literature that has analyzed non-financial firms we analyze banks' tax elasticity of subsidiary profits. While profits of a subsidiary are determined by several factors, a systematic impact of tax incentives on reported profits can be interpreted as indirect evidence for profit shifting. Our results suggest that reported earnings of multinational bank subsidiaries significantly respond to host country tax incentives. However, our results also show that the profit response to taxes is significantly restricted by anti-tax avoidance legislation. Moreover, we find weak evidence that the tax response was reduced during the financial crisis in 2008–2011.

The magnitude of the tax sensitivity of reported profits is more than twice as big as effects found in previous studies for MNCs outside the financial sector. Therefore, our results suggest that banks have enhanced tax planning opportunities.

In additional analyses we investigate the intensity of profit shifting across different business models of banks and identify possible shifting channels. First, we consider the response of revenues from certain profit components to taxes. Our analysis reveals that the tax elasticity of profits differs across business models. The tax elasticity of revenues generated by interest-bearing activities is less responsive compared to other activities. In particular, trading gains are highly tax sensitive.

Second, we focus on loan loss provisioning as one potentially important shifting tool. Considerable studies have analyzed the discretionary component of loan loss provisions (LLPs) used for income smoothing (Greenawalt and Sinkey, 1988; Beatty et al., 1995; Collins et al., 1995). Although LLPs value as an indicator for future deduction from taxable base, the potential tax response of LLPs has not yet been analyzed empirically. Making LLPs can reduce taxable income in most countries. However, even in the case where LLPs are not tax deductible, they serve as a proxy for the allocation of credit risks and bad debt in high-tax countries. Therefore, we expect that LLPs are tax sensitive. Our results, in fact, suggest significant positive effects of host country taxes on the level of loan loss provisions.

The remainder of the paper is organized as follows. In Section 2, a discussion of the tax incentives to shift profits is provided. Section 3 explains the empirical approach and describes the data. Empirical results are presented in Section 4. Section 5 concludes.

2. Profit-shifting activities

Each subsidiary and permanent establishment of a multinational bank is subject to tax in its country of residence. Taxable profits are separately determined for each subsidiary. Therefore, international differences in tax rates provide an incentive to adopt strategies that are associated with profit shifting from high-taxed to low-taxed subsidiaries.

2.1. Profit shifting of multinational banks

International tax principles are applied to all types of multinational firms including banks. However, the intensity and the shifting mechanisms used might differ for banks. While profit-shifting activities are often associated with intangible assets and manipulation of transfer prices for firm-specific goods, profit-shifting activities of banks rely on additional strategies.

Profit shifting is conducted either by allocating certain functions and risks or by manipulating intra-firm transactions. In particular, profit margins are influenced by the functions performed and the risks taken by a subsidiary. Thus, the profit allocation within a multinational bank depends on the allocation of functions like credit management, investment analysis, and the underwriting function. In particular, the latter is associated with an allocation of default risks. Moreover, profits of a subsidiary are affected by intrafirm guarantees that transfer credit risks. Furthermore, the allocation of interest and liquidity risks as well as the hedging of exchange rate risks and market risks influences the distribution of taxable profits across subsidiaries.

Banks can manipulate transfer prices for intra-firm financial transactions like interest margins or service fees. Shifting strategies of banks could also consider allocation of certain business activities like trading or asset management that is potentially highly mobile. Furthermore, credit risks can be allocated to a subsidiary in a high-tax country by contracting out the liability of a loan. As a consequence, loan loss provisioning or credit default reduce earnings subject to a high-tax rate while profits of the low-taxed subsidiary that has contracted out the liability increase.

Moreover, the choice between debt and equity financing affects taxable profits of subsidiaries and can be used to shift taxable profits. Interest expenses reduce taxable profits of the borrowing subsidiary while equity financing is not associated with a comparable deduction. Therefore, a multinational bank has an incentive to allocate debt finance in high-tax countries. In addition, internal capital markets can be used to substitute equity capital of subsidiaries in high-tax jurisdictions by intra-firm debt financing. While banks' capital structures are also affected by regulatory requirements, Keen and de Mooij (2012) and de Mooij and Heckemeyer (2013) find similar tax effects on capital structures of banks compared to the non-financial sector.

Profit-shifting techniques are associated with significant costs of restructuring organizational and financial structures. Tax legislation also restricts the extensive use of shifting techniques by implementing anti-avoidance regulations. Therefore, tax aggressive firms suffer the risk that transfer prices are adjusted in the course of tax audits. While financial institutions have so far not been at the center of transfer-pricing discussion, transfer pricing regulation also affects banks. The OECD (2010) report on the attribution of profits to permanent establishments dedicates a special section to banks' profit allocation. Moreover, court cases dealing with transfer pricing in financial firms are well-documented.[2] We will therefore test whether higher host country taxes are associated with less reported earnings of bank subsidiaries and attempt to identify tax responses of loan loss provisioning.

Particularly, tax authorities scrutinize intra-group transactions including the transfer of certain functions or risks by means of transfer-pricing rules. Transfer prices are assessed and adjusted if they do not correspond to the arm's length principle. The key practical issue with applying the arm's length principle is the comparability of intra-group transactions with transactions between unrelated parties. Identification of comparable transactions requires data that is often hard to collect or insufficient (see e.g. Durst and Culbertson 2003). Tax authorities have implemented transfer-pricing regulations, but tightness, enforcement and documentation obligations of these rules vary across countries. Lohse and Riedel (2013) find for MNCs outside the banking sector that additional documentation obligations related to transfer pricing can effectively restrict the tax response of reported profits. Since transfer-pricing rules are also applied to interest margins or the

[2] Court cases are documented, for example, in Canada: HSBC Bank Canada v. The Queen, 2011 TCC 37, http://www.canlii.org/en/ca/tcc/doc/2011/2011tcc37/2011tcc37.html; General Electric Capital Canada Inc. v. The Queen, 2009 TCC 563, http://www.canlii.org/en/ca/tcc/doc/2009/2009tcc563/2009tcc563.html.