Prague Economic Papers
2024, Volume 33, Issue 6
https://doi.org/10.18267/j.pep.883

VŠE / PRAGUE UNIVERSITY OF ECONOMICS AND BUSINESS

The Impact of Deferred Tax on the Purchase Prices in Czech Real Estate Transactions*

Tomáš Podškubka, Barbora Rýdlová

Department of Finance and Business Valuation, Faculty of Economics, Prague University of Economics and Business, Prague, Czech Republic, email: tomas.podskubka@vse.cz

Abstract

The study examines the deferred tax in the valuation and acquisition of real estate companies, the behavior of the buyers and sellers in real estate transactions and the impact on the purchase price. We analyze the data from the Czech Republic commercial real estate market in the period of 2018–2019 where taxation provisions for Asset and Share Deal transactions induce a special type of a deferred tax – a latent capital gains tax (LCGT). Based on the data of 25 Share Deal real estate transactions we bring evidence that the LCGT was reflected in the purchase price by 0–50%, median value being 0%. We document that this market-imported percentage can be explained in two complementary ways. Firstly, using the capitalization approach, and secondly, using the behavioral approach by the bargaining power of the seller. Moreover, we show that the LCGT percentage reflected in the purchase price is dependent only on the discount rate and tax amortization period.

Keywords: deferred tax; latent tax, real estate transactions, transfer of property, transfer of interest

JEL Classification: G34

1. Introduction

The issue of tax deferral is still one of the topics that are often the subject of debates and dissimilar views. Deferred tax represents the temporary difference between the accounting and taxation treatment of accounting events. It is essentially an accounting construct designed

* The article is prepared as one of the outputs of the research project of the internal grant system of the Faculty of Economics, Prague University of Economics and Business, Prague, IP 100040.

to comply with the accrual basis of accounting (reporting in a material and temporal manner). In the Czech Republic, certain accounting entities adhere to Czech Accounting Standards (CAS), while others comply with International Financial Reporting Standards (IFRS). Just as English has displaced other languages as the lingua franca in the business environment, IFRS are displacing individual national jurisdictions in the field of accounting regulation, becoming the 'English' of accounting. This process occurs either through the full adoption of IFRS or through the gradual influence on national rules by implementing partial concepts and solutions derived from IFRS (Skálová, 2020). One of the already harmonized concepts is the accounting concept of deferred tax stipulated by Czech Accounting Standard No. 003 – Deferred Tax that is compatible with IAS 12 – Income Taxes.

According to Pelák (2010), deferred tax most often arises from the difference between the book and tax amortized costs of depreciated tangible and intangible fixed assets, but it can also arise, for example, from provisions for inventories, receivables, provisions made in excess of tax deductibility or tax losses.

However, the taxes, including deferred taxes, should not be viewed only as an accounting tool. First of all, they influence the behavior of the market participants and have the power to impact the purchase price and other aspects of market transactions.

This study examines how deferred taxes impact the behavior of the buyers and the sellers in the Czech real estate market. The study investigates a particular form of deferred tax resulting from the Czech Republic's differentiated tax treatment of two categories of real estate transactions: Asset Deals and Share Deals. In the Share Deal transactions, the buyer acquires a share in the company owning the subject real property, whereas in the Asset Deal, the buyer acquires the subject property directly. Historically, the decisions about structuring of real estate transactions in the Czech Republic were made based on many aspects. Typically, it might be the higher liquidity of shares in the real estate companies, the rental legal continuity or limited transaction costs. The two types of transactions also differ in the financing options or the risks taken by the investor (the risks of the real estate asset compared to the risk associated with the investment at the company share level). However, the tax context of the two types of transactions plays a significant role in the decision-making process of the market participants (Clifford Chance, 2020). Before 2019, the real estate acquisition tax of 4% was, in effect, applied solely to Asset Deal transactions. It led to market distortion and favored the Share Deal transactions over Asset Deal transactions. From 2020, this tax stipulated by Act No. 340/2013 Coll., on Real Estate Acquisition Tax, was abolished by Act No. 386/2020 Coll. However, the real estate market participants have also other tax considerations.

In the case of a Share Deal transaction, it is necessary to address both the issue of recognition of deferred tax in the accounting books in the case of a post-acquisition merger and the issue of considering the amount of Latent Capital Gains Tax (LCGT) in the calculation of the purchase price of the share in the real estate company (Stojek and Zychiewicz, 2023). While the amount of the deferred tax is determined by accounting and tax regulations and is primarily the difference between the tax and book amortized cost of the property, the LCGT is more complex and is based on the difference between the tax amortized cost and the market (revalued) value of the property or its purchase price. According to Eim (2019), the specific amount of LCGT is subject to negotiation between the buyer and seller, with the amount having an impact on the final purchase price, and may indirectly affect other components of the purchase price. The purpose of taking LCGT into account in the purchase price for a Share Deal is to compensate for the disadvantage of losing the new tax-effective purchase price of the property if the transaction was carried out by an Asset Deal. In addition to determining the calculation of the purchase price, the manner in which the LCGT will be calculated needs to be considered. As the LCGT potentially reduces the purchase price, it is in the interest of the buying party to take it into account in full. On the other hand, it is in the selling party's interest not to take the LCGT into account at all. The conflicting interests then give rise to price negotiations.

It is clear from the above that LCGT is a frequent topic in real estate transactions and a potential source of disagreement, as it affects not only the accounting but also the purchase price or evaluation. The objective of this article is to bring empirical evidence on the impact of LCGT in the Czech Republic on purchase prices and valuations in real estate transactions. Based on the results of the study, we use two approaches to explain the empirically observed values. First, we use capitalization approach, and second, we use a behavioral explanation.

2. The Literature Review

The literature review is focused on three specific areas – the real estate market nature and its specifics, the impact of taxes on the purchase prices in the real estate market and the deferred tax in the real estate market context.

Naturally, the attention in real estate market research is paid to its´ specifics compared to the financial securities markets. The research and models are usually based on the perfectly competitive market assumption, but we can observe that the real estate market has rather an imperfect nature due to many reasons. First, it is the segmentation, the uniqueness (heterogeneity) of the assets and illiquidity. Anglin and Wiebe (2013) provide empirical evidence

on real estate market illiquidity, showing that a single seller can influence the price relatively to the competing sellers. The imperfect market causes that the sellers are not pure price-takers in the market: the market price is a subject of bargaining. Therefore, the attention is drawn to other type of studies focusing on the bargaining process and factors.

Harding et al. (2003) include the bargaining power of the buyer and seller into the hedonic price model to analyze the price of houses in the USA. They conclude that factors like wealth, gender, or presence of children in the household influence the bargaining power. Harding et al. (2003) go forward with the Harding, Rosenthal and Sirmans model (HRD) and analyze whether vacant houses influence the bargaining power of the seller. They find that if the house is vacant, the negotiated price is lower. Colwell and Munneke (2006) used the HRD model for office market data. Their conclusions are in line with the previous research, bringing evidence on the differences in bargaining power for specific groups of buyers and seller and property classes.

Wilhelmsson (2008) analyzed bargaining power of individual informed and uninformed buyers of residential properties in Stockholm. He found that informed buyers pay less than uninformed ones. Allen et al. (2016) confirm that the bargaining power differs for different types of investors – individual vs. corporate, or developers, or financial institutions. They investigate various combinations of the transaction sides and find that individuals bargaining with corporations and developers have a weaker bargaining power. The same result came out for individuals vs. financial institutions. Surprisingly, based on the results of the study, the authors also concluded that financial institutions have a weaker bargaining power compared to corporate investors or builders. The authors assign that to either a different type of property subject to the transaction or to the pressure on time aspects of the transactions of financial institutions.

Ling et al. (2018) focus on information asymmetry and document that there is a price premium paid by distant buyers compared to the price paid by the local investors in the commercial real estate markets.

The impact of taxes on the real estate market is an area where we witness a growing amount of empirical evidence and research.

Church (1974) estimated and tested a tax capitalization model. Based on residential property data, he confirmed a significant effective tax rate impact on purchase prices. Similar capitalization approaches were used by King (1977) and Richardson and Thalheimer (1981), confirming empirically and measuring the impact of tax capitalization on purchase prices.

The deferred tax effect in the real estate market context is rather new and country-specific area of research; however, it has been gaining more attention in recent years. Ling and Petrova (2008) bring evidence on the significant role that tax-deferred exchanges play in the determination of reservation and transaction prices in U.S. commercial real estate markets. Interestingly, they found average price premiums of such transactions higher than the tax deferral benefits, which can be explained by the specific nature of commercial real estate markets. Dillard et al. (2013) examine the effect of tax-deferred provisions on the farm real estate transactions in U.S. confirming statistically significant price premium for the deferred-tax affected transactions. The deferred tax-induced price premium is not only present in the commercial property segment, but it has been observed in residential property markets as well (Holmes and Slade, 2001).

In this paper, we contribute to the existing literature by investigating the extent to which a deferred tax (or LCGT) in a specific case of Share Deals in the Czech tax framework impact the transaction price using the capitalization approach. Moreover, we also analyze the bargaining power of the sellers as the factor capable to influence the purchase prices.

3. Deferred Tax from an Accounting Perspective

Deferred tax is a double entry accounting tool used to allocate income tax expense to the correct accounting period. As described in more detail by Mejzlík et al. (2015), some accounting entities operating in the Czech Republic apply Czech Accounting Standards (CAS), while others apply International Financial Reporting Standards (IFRS). For the relationship between the accounting and tax systems in the Czech Republic, the wording of the Income Tax Act No. 586/1992 Coll. is decisive. Further to this issue, Mejzlík et al. (2015) state that according to the Income Tax Act, it is irrelevant under which accounting regulations the taxpayer prepares the individual financial statements; the calculation of the tax base must always be based on the economic result determined in accordance with the procedures of Czech accounting regulation.

As a consequence, income tax legislation causes the accounting profit and tax base to differ by a number of items. For this reason, the income tax payable is not related to the accounting profit but to the tax base. In order to apply in the financial statements, the principle of observing the temporal and material relationship of expenses and income to the accounting period, a tool – deferred tax – is used in accounting to eliminate the resulting mismatch (Vácha, 2012).

According to Svatošová and Trávníčková (2012), deferred tax is determined from all temporary differences that arise from different accounting and tax views of items recorded in accounting, e.g., from differences between the accounting and tax value of tangible assets that have different accounting and tax depreciation or different tax and accounting input prices. The calculation of deferred tax results in a deferred tax liability or deferred tax asset.

A deferred tax liability is the amount of income tax that will be payable in a future period if differences between the carrying amount and the tax base are settled, or an asset is disposed of (e.g., sale of an asset).

A deferred tax asset is the amount of income tax that will be "saved" in the future, i.e., it represents the saving that will be achieved if deductible temporary differences, unused tax losses or other tax credits or deductions are applied against a sufficient tax base.

Given that the main asset of real estate companies is the real estate itself, deferred tax arising from differences in the book and tax amortization prices of real estate is mainly dealt with in the case of acquisitions of such companies. The calculation can be seen from the equation below:

$$ADT = (AACP - TDC) \times CTR \tag{1}$$

where ADT is the amount of accounting deferred tax, $AACP$ is the accounting amortised cost of the property, TDC denotes the tax depreciated cost of the property, and CTR is the corporate tax rate in the Czech Republic.

This is the most common reason for deferred tax liabilities, because real estate companies usually use accelerated tax depreciation, while real estate is usually depreciated on a straight-line basis (Lukeš and Pospíšil, 2023). Thus, in the equation above, $AACP > TDC$ is usually the case.

According to Skálová (2012), after the acquisition of a share in a real estate company, it is common to carry out a merger with a revaluation, which is associated with a subsequent obligation to account (most often) for a deferred tax liability due to the revaluation, which is carried out on the basis of an expert opinion. According to Lukes and Pospíšil (2023), the deferred tax liability in this case arises from the difference between the new market value of the property (which also becomes the book price) and the tax depreciation value of the property. In such circumstances, it is irrelevant whether the company reports under IFRS or CAS, as the accounting base is revalued at market value based on an expert opinion, and the tax base, in all cases, is derived from economic result based on CAS. Depending on the nature of the deferred tax liability, it is charged either against assets or against equity, or a combination of these approaches.

4. Forms of Transactions in the Sale of Real Estate

Real estate can be sold via two different transaction forms. The first type is the so-called Share Deal. Through this form, the buyer acquires a share in the company that owns the property in a single deal. Thus, the new owner does not take ownership of the property directly, but becomes the owner of a share in the company that owns the property. The land register will therefore still show the same company as the owner of the property before and after the transaction. The calculation of the purchase price of a Share Deal is very complex and goes beyond the scope of this article. As mentioned in the introduction, we will focus primarily on one component, namely LCGT, which is intended to compensate for a certain tax disadvantage compared to the Asset Deal.

According to Alickovic and Brauweiler (2020), a Share Deal is the purchase of all the shares of a company or the purchase of a certain percentage of shares that entitle the buyer to exercise control over the company. In this transaction, all rights, obligations, and related assets and liabilities are transferred to the buyer. The advantage of this form of acquisition is that the assets do not have to be transferred one by one, but in a single transaction.

The second type is the so-called Asset Deal. Through this form of transaction, the buyer acquires direct ownership of the property. The ownership is thus also changed in the Land Registry. The buyer has a new tax-effective entry price for the property from which to depreciate. In some cases, it is also possible to acquire liabilities or part of the liabilities if they are negotiated with the lenders in advance. There are certain hurdles associated with an Asset Deal. Each individual asset to be sold must be a part of the purchase agreement along with employment, contractual and legal relationships. According to the principle of legal certainty, it is important that the transferred assets can be defined without doubt. Details of the premises and any employment contract must be provided. It is even more complex for the transfer of intangible assets. In the case of a transfer of contractual relationships, the consent of each of the seller's contractual partners is required. If the consent of the relevant contractual partner is not provided, the contracts are not transferred to the buyer. The advantage of an Asset Deal, on the other hand, is that the buyer can choose only those assets that he wants to acquire.

All in all, in the current environment, the Share Deal form is more advantageous in terms of total transaction costs for large commercial properties in the Czech Republic. For this reason, the Share Deal was also a significantly more prevalent form of transaction for large commercial property sales at the date of this analysis. In the case of a Share Deal sale, both the issue of accounting treatment of deferred tax in the event of a post-acquisition merger and the issue of considering the amount of LCGT in the calculation of the purchase price of a share in a real estate company need to be addressed.

5. Share Deal Transactions: Purchase Price, LCGT and Valuation

In commercial negotiations in the case of acquisition of a stake in a real estate company, the issue of considering LCGT in the purchase price is addressed comprehensively. The specific commercial agreement on LCGT may be either direct (discount from the property value) or linked to the agreement on other components of the purchase price, e.g., the yield used in the income-based valuation of the property. As Eim (2019) states, considering LCGT is also essential for the correct reporting of yields in relation to purchase prices and for assessing what stage of the economic cycle the property market is currently in. The LCGT can represent a discount on the purchase price in percentage points or an adjustment to the capitalization rate in tenths of percentage points. The LCGT is the amount arising from both the difference between the tax and book residual value of the property and the difference between the market (revalued) value of the property and the book residual value. As mentioned above, in case of LCGT, the accounting standards applied by the company are irrelevant, as the market value is determined by the market (expert valuation) and the tax base is exclusively governed by Czech regulation. The amount of LCGT consideration is subject to negotiation between the buyer and the seller and affects the final purchase price.

As demonstrated bellow, the normal standard in negotiating the terms of the contract between the two parties in a transaction is that they agree on an appropriate method of calculating the purchase price. In addition to determining the calculation of the purchase price, consideration must be given to the manner in which the LCGT will be calculated. The following is a general equation used in Share Deal transactions in the property market in the Czech Republic to calculate LCGT in a real estate transaction, i.e., as an item in the calculation of the purchase price of a Share Deal.

$$LCGT = (MVP - TDC) \times CTR \tag{2}$$

where $LCGT$ is the total amount of LCGT in financial units, MVP is the market value of the property, P represents the consensual percentage of LCGT accepted by the transaction parties.

$$LCGTP = LCGT \times P \tag{3}$$

where $LCGTP$ is the amount of LCGT reflected in the purchase price in financial units, P represents the consensual percentage of LCGT accepted by the transaction parties.

Given the rise in property prices over time and accelerated tax depreciation, $MVP > TDC$ and, as we elaborate below, market observed P usually lies in the interval $< 0\%; 50\% >$ based

on empirical professional experience (Clifford Chance, 2020). The evaluator should also base his valuation of the share in a Share Deal transaction on normal market standards, i.e., the valuation at market value should reflect all the influences that a rational buyer and seller would take into account, i.e., including the impact of LCGT on purchase prices commonly observed at the market.

As the LCGT potentially reduces the purchase price, it is in the interest of the purchasing party to fully reflect its value in the purchase price ($P = 1$). On the other hand, it is the selling party's interest that the LCGT is not reflected in the selling price at all (reflects 0% of LCGT value). However, as mentioned above, the empirically observed values of P do not exceed 50% (the rule of thumb). In the following chapter we provide empirical data to test the amount of LCGT reflected in the purchase prices and we suggest explanations about what influences the general level of the P factor.

The analysis deals with the reflection of LCGT in the purchase price regardless of its treatment in the accounting of the real estate company being acquired and regardless of the setting of other parameters of the purchase price.

6. Data and Analysis of the LCGT from Completed Transactions

The LCGT analysis was conducted on the data set provided by the TPA company on real estate company Share Deal transactions with commercial property (except for one residential). We used a sample of 25 transactions from the Czech Republic. The analysis is carried out for the period of 2018–2019. This was followed by the COVID period, which was characterized by a downturn in investment activity in the property market, leading to a lack of data on further transactions. Furthermore, the repeal of the real estate acquisition tax in 2020 led to a decrease in the number of transactions. This legislative change markedly diminished the tax benefits associated with Share Deal transactions relative to Asset Deal transactions, potentially affecting both the structure and volume of market transactions post-2020. Consequently, utilizing data from after 2020 would introduce inconsistencies, thereby reinforcing the argument that the sample of 25 transactions from the period preceding these changes is representative for the study in question.

However, although the sample might seem limited, considering the small size of the Czech real estate market, we believe the data still can provide a representative overview. Due to confidentiality, the company details have been anonymized.

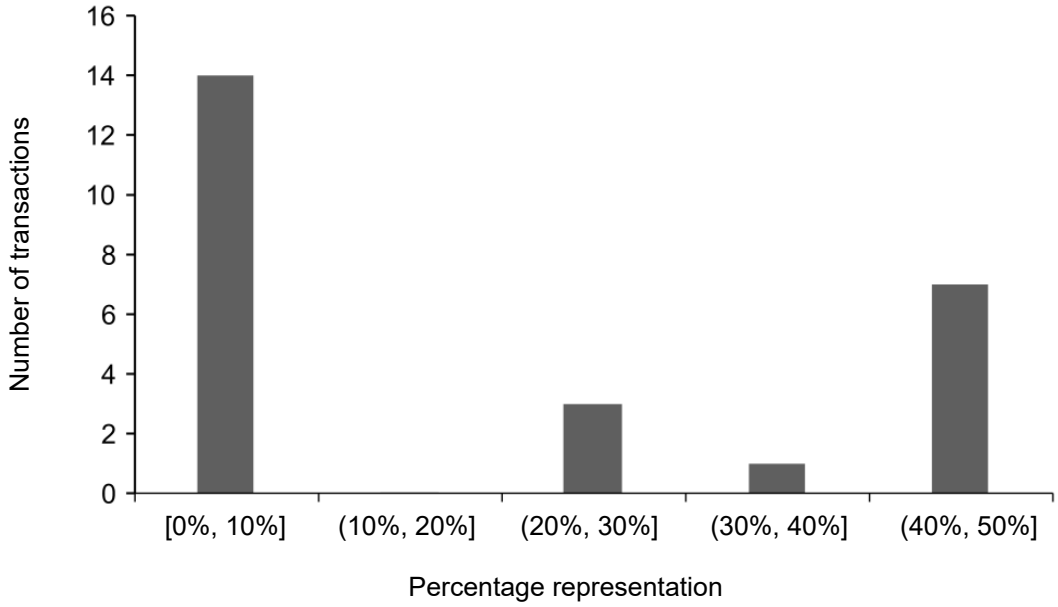
Table 1: Real estate transactions of Share Deal type in the Czech Republic in 2018–2019

Transactions	Year	Property type	P % LCGT taken into account
1	2019	Office	0%
2	2019	Office	0%
3	2019	Retail	25%
4	2019	Office	0%
5	2019	Warehouse	50%
6	2019	Retail	25%
7	2019	Office	0%
8	2019	Office	25%
9	2019	Office	50%
10	2018	Warehouse	50%
11	2018	Retail	50%
12	2018	Office	0%
13	2018	Office	0%
14	2018	Office	50%
15	2018	Office	0%
16	2018	Office	10%
17	2018	Residential	50%
18	2018	Office	40%
19	2018	Office	0%
20	2018	Office	0%
21	2018	Office	0%
22	2018	Office	45%
23	2018	Warehouse	0%
24	2018	Warehouse	0%
25	2018	Retail	0%
Min	0%		
Lower quartile	0%		
Median	0%		
Upper quartile	45%		
Max	50%		

Source: TPA analysis, authors' calculations

In total, there were 25 transactions completed in 2018–2019 in the Czech Republic covered by our study. In terms of real estate segments, offices (16 transactions) clearly dominated, followed by warehouses (4 transactions) and retail spaces (4 transactions). There was only one transaction in the residential segment in the sample. The descriptive statistics show that a large portion of the sample indicates 0% consideration of LCGT, with the sample median resulting in 0%. Interestingly, the upper quartile reached P value of 45%. The maximum value observed was 50% of the LCGT reflected in the purchase price. The upper bound of 50% confirms the empirically observed P values by professionals in the market. We also provide a frequency analysis using a histogram.

Figure 1: Frequency of occurrence, % LCGT reflection



Source: TPA analysis, authors' calculations

Most often, i.e., in 14 out of 25 cases, LCGT was implemented at a rate of 0–10%. The second most frequent case, i.e., 7 out of 25 cases, LCGT was implemented at a rate of 40–50%. The remaining 4 cases were within this band.

7. How Can the Upper–bound of P-values Be Explained?

As we demonstrated above, the practical market experience confirmed by the data of our study shows that it is not usual to reflect 100 % of the LCGT (P = 100%) in the purchase price. Based on our data, we can confirm that there were no transactions with P value exceeding

50%. We can explain this upper bound by a similar tax capitalization approach like applied by Church (1974), King (1977), or Richardson and Thalheimer (1981).

From the perspective of the buyer of the property, the LCGT is a value of the corporate income tax shield lost if the transaction is structured as an Asset Deal contrary to the situation if it was structured as an Asset Deal. Therefore, the above-mentioned formula of LCGT calculation (3) used by practitioners suffers from two major imperfections, the first of them is calculating with a nominal tax rate, and second being not considering the time value of money and risk connected with expected cashflows. The tax shield of the tax-deductible amortization in the future is never certain as to the volume and time. When we alter the formula (3) to reflect the time value of money, the present value of the LCGT based on capitalization approach must necessarily be lower than its nominal value based on formula (3) . If we make a simplifying assumption of the depreciation period equal in both cases (Asset Deal as well as Share Deal) and assumption of straight-line depreciation method of both, the market value (MVC) and the tax value (TDC), we arrive at following formula of the present value of the LCGT:

$$PVLCGT = \left(\frac{MVC - TDC}{d} \right) \times ECTR \times PVAF \tag{4}$$

PVLCGT indicates the present value of the LCGT, *d* is the depreciation period in years, and *PVAF* is the present value of annuity factor and *ECTR* is the effective corporate income tax rate.

Now we substitute the PVLCGT for the formula of LCGTP:

$$\left(MVC - TDC \right) \times ECTR \times P = \left(\frac{MVC - TDC}{d} \right) \times ECTR \times PVAF \tag{5}$$

and by canceling *ECTR* and (*MVC* − *TDC*) we arrive to the formula:

$$P = \frac{PVAF}{d}, \text{ or } P \times d = PVAF \tag{6}$$

We demonstrate that the LCGT reflected in the purchase price can be explained by the PVLCGT computed by discounting hypothetical expected tax shields from the present value.

Note that this relationship is no longer dependent on neither the effective tax rate of *ECTR* nor the market (*MVC*) and tax values (*TDC*) of the property. The formula for the supply side is notorious and need not be repeated here. The present value of annuity factor depends on the number of years d and the discount rate i, in percentages.

Table 2: Results of the expression PVAF/*d* at different values of *d* and *i*

i	d = 20	d = 30	d = 40	d = 50
4.0%	0.68	0.58	0.49	0.43
4.5%	0.65	0.54	0.46	0.40
5.0%	0.62	0.51	0.43	0.37
5.5%	0.60	0.48	0.40	0.34
6.0%	0.57	0.46	0.38	0.32
6.5%	0.55	0.44	0.35	0.29
7.0%	0.53	0.41	0.33	0.28

Source: authors' calculations

The capitalization approach in the table explains the results of the percentages of LCGT reflected in the purchase price described in the previous section. With realistic discount rate parameters of, say, 5–6.5% (yields of the commercial real estate sector in the Czech Republic) and a depreciation period of 30–50 years (usual commercial property lifetime/amortization time), we arrive at P values in the range of 30–50%. It fully corresponds to the market evidence in our data set.

Although we provide a valid theoretical and mathematical framework to explain the observed market data, we are aware of the shortcomings – the validity of the assumption accepted to simplify the case and make the relations more transparent. In real life, the simplifying assumption of equal time and straight-line depreciation methods for market and tax values might not be valid. If the depreciation method differed, the calculation would have to be made on a case-by-case basis, and the present value of an annuity factor would have to be replaced by a series of present value factors in Equation (4) and following.

However, the capitalization approach is based on a perfect competition assumption, which has proven false in the real estate market due to its' nature: illiquidity, with high transaction costs, information asymmetry, uniqueness of the assets. The capitalization approach is not able to explain the observed results fully. Therefore, we also need to employ aspects of behavior of the market participants, especially their bargaining power.

8. How Can the Histogram of P-values with Median Equal 0 Be Explained?

In connection with the above results of the analysis, it should be emphasized that these results reflect the situation on the Czech (commercial) real estate market in the period of 2018–2019, which was characterized by high demand, especially in the office and logistics segment (ARTN, 2019). The results of the analysis with median P equal 0% might be explained by the bargaining power theories, which show that bargaining power of the sellers and buyers in the market can significantly impact the purchase prices. The missing supply on the Czech commercial real estate investment market (ARTN, 2020) in the covered period completely eliminated the buyers' ability to reflect the LCGT in the purchase prices in the prevalent number of transactions. The shortage in supply is attributable to several factors, including prolonged permitting periods and the tendency of developers to hold and lease properties rather than sell them. Additionally, investment funds often hold properties in their portfolios on a long-term basis. It confirms to the studies by Harding et al. (2003) and numerous other authors proving the bargaining power of the transaction parties to be a relevant price-setting factor. In line with Wiebe (2013), we show on our data that the sellers had the power to set the prices.

The following COVID period of 2020–2022 and the subsequent period of complicated and uncertain market situation strongly influenced by the war in Ukraine is characterized by a lower investment activity measured by both the number and the volume of commercial real estate investments. Especially the foreign demand was weakened, with the local investors strengthening their position in the market. One of the factors that contributed to the decline in investment activity was the inflation and growing cost of financing and a lack of investment opportunities (ARTN). From the perspective of the beginning of 2024, it can be concluded that the recovery of investment activity in the Czech real estate market can be still rather slow and gradual. We would certainly like to shed more light on the topic in the future when we collect sufficient market evidence on the market transactions under these specific market condition.

8. Conclusion

In this paper, we provide market evidence on the extent to which a deferred tax (or LCGT) impacted the purchase prices in commercial real estate transactions in the Czech Republic in the period of 2018–2019. The LCGT is induced by different tax (amortization) legal provisions for two different types of real estate deals – the Asset Deal and the Share Deal. |

In transactions with large commercial properties, the so-called Share Deal was favored in the period of the study. In case the transaction is structured as a Share Deal, it is necessary to address both the issue of recognition of deferred tax in accounting in case of a post-acquisition merger, as well as considering the LCGT value in the estimation of the purchase price of the share in the real estate company. The deferred tax in Share Deals arises mainly due to the differences in the accounting and tax amortized cost of real estate. This is the reason why deferred tax liabilities arise most often, because real estate companies usually benefit from accelerated tax depreciation, whereas in accounting, the properties are usually depreciated on a straight-line basis. At the same time, due to constantly rising real estate prices in the Czech Republic in all segments (before Covid-19 period), real estate purchase prices in the transactions grow, which is also reflected in the accounting books through a post-acquisition merger.

While the accounting deferred tax is based on accounting and tax regulations, the more complex LCGT is subject to negotiation between the buyer and the seller. The purpose of the LCGT is to compensate for the disadvantage of losing the new tax-effective purchase price of the property under the hypothetical assumption that the transaction had been structured by an Asset Deal. We document that the LCGT is reflected by the transaction parties in the purchase price directly (discount) or indirectly in other parameters (yield). Moreover, we show that the LCGT is a subject of bargaining between the transaction parties. Since LCGT potentially reduces the purchase price, it is in the buyer's interest to keep the purchase price as high as possible, while the seller will try to eliminate the impact of LCGT on the purchase price. Based on the results of our analysis conducted on a sample of 25 real estate Share Deal transactions, the usual LCGT percentage reflected in the purchase price was found to be 0–50% of the nominal value of the LCGT. The most frequent percentages are in the interval 0–10% and 40–50% of the nominal LCGT value. Over 50% LCGT reflection in the purchase price was not present in our dataset. These results are consistent with and confirm practitioner market observations of up to 50% LCGT reflection in purchase prices.

We suggest the explanation of these results using two complementary approaches. Firstly, we use the capitalization approach and explain the LCGT percentage reflected in the purchase price by calculating the present value of the expected tax shield differences in the situation of hypothetical Asset Deal compared to the Share Deal transaction. Taking the time factor into account, i.e., discounting the effects of the LCGT to present value, we conclude that the present value of the LCGT corresponds to just about 30–50% of the LCGT face value under the assumption of straight-line depreciation and the same expected tax amortization period (tax life-time of the property). Moreover, we demonstrate that the present value

of the LCGT reflected in the purchase price is theoretically dependent only on the amortization period and discount rate.

Secondly, the capitalization approach is based on the perfect competition assumption where the subjects of the transactions are pure price-takers. However, the empirical evidence shows real estate markets have a different nature, and the market participants have the power to influence the prices. Therefore, we also explain the results of our study by the behavioral approach: the bargaining power of the transaction parties.

The data cover the commercial real estate market situation in 2018–2019 in the Czech Republic, when the sellers' side dominated.

The shortage of supply in the Czech commercial real estate investment market during this period (ARTN, 2020) can explain why the median percentage of the LCGT reflected in the purchase price was zero. The bargaining power of sellers was stronger than that of buyers. The following period 2020–2023 was characterized by the lack of data for reliable analysis due to a low market activity. It was caused by the stagnation of the real estate market in the Czech Republic due to Covid-19, geopolitical risks, recession and high interest rates. From the perspective of the mid-2024, only a gradual and slow resumption of investment activity on the real estate market can be expected when the cost of financing drops. For the future research, we suggest conducting a similar study based on a broader data sample and for a period when the real estate market was in a different condition so that our suggestions could be verified. We would also suggest extending the study for other factors of the bargaining power based on previous empirical studies of multiple authors. However, it would demand detail transaction data.

References

Allen, M. T., Fraser, S. P., Swaleheen, M. (2016). Differential Bargaining Power in Real Estate Transactions. *Real Estate Finance,* 33(2), 89–96.

Alickovic, V., Brauweiler, HC. (2020). *Mergers and Acquisitions: Share Deal vs. Asset Deal – Risks and Impediments*. In: Brauweiler, HC., Kurchenkov, V., Abilov, S., Zirkler, B. (eds) Digitalization and Industry 4.0: Economic and Societal Development. Springer Gabler, Wiesbaden. https://doi.org/10.1007/978-3-658-27110-7_16

Anglin, P. M., Wiebe, R. (2013). Pricing in an Illiquid Real Estate Market. *The Journal of Real Estate Research,* 35(1), 83–102.

ARTN (2019-2024). Trend Report 2019-2024. Praha: ARTN.

Church, A. M. (1974). Capitalization of the Effective Property Tax Rate on Single Family Residences. *National Tax Journal*. https://doi.org/NTJ41861933

Colwell, P.F., Munneke, H.J. (2006). Bargaining Strength and Property Class in Office Markets. *The Journal of Real Estate Finance and Economics,* 33, 197–213. https://doi.org/10.1007/s11146-006-9982-6

Clifford Chance (2020). What Implications Will Have the Abolition of the Czech Real Estate Acquisition Tax Have for Real Estate and Corporate Transactions and Financing? Client Briefing.

Dillard, G., Kuethe, H., Dobbins, C., Boehlje, M., Florax, R. J.G.M., (2013). The Impacts of the Tax-Deferred Exchange Provision on Farm Real Estate Values. *Land Economics,* 89(3), 479–89. https://doi.org/10.3368/le.89.3.479

Eim, J. (2019). Analysis of Commercial Real Estate Development. *Master Thesis*. Masaryk University. Faculty of Economics and Administration.

Harding, J. P., Rosenthal, S. S., Sirmans, C. F. (2003). Estimating Bargaining Power in the Market for Existing Homes. *The Review of Economics and Statistics,* 85(1), 178–188.

Harding, J. P., Knight, J. R., Sirmans, C. F. (2003). Estimating Bargaining Effects in Hedonic Models: Evidence from the Housing Market. *Real Estate Economics,* 31(4), 601–622.

Holmes, A., Slade, B.A. (2001). Do Tax-Deferred Exchanges Impact Purchase Price? Evidence from the Phoenix Apartment Market. *Real Estate Economics*, 29, 567–588. https://doi.org/10.1111/1080-8620.00023

King, A. T. (1977). Estimating Property Tax Capitalization – a Critical Comment. *The Journal of Political Economy,* 85(2), 425.

Ling, D. C., Naranjo, A., Petrova, M. T. (2018). Search Costs, Behavioral Biases, and Information Intermediary Effects. *Journal of Real Estate Finance and Economics,* 57(1), 114–151. https://doi.org/10.1007/s11146-016-9582-z

Ling, D.C., Petrova, M. (2008). Avoiding Taxes at Any Cost: The Economics of Tax-Deferred Real Estate Exchanges. *The Journal of Real Estate Finance and Economics,* 36, 367–404. https://doi.org/10.1007/s11146-007-9099-6

Lukeš, J., Pospíšil, J. (2023). Do You Recognize Deferred Tax on Conversions? *Bulletin of the Chamber of Tax Advisors of the Czech Republic.* 2023(3), 43–47.

Mejzlík, L., Arltová, M., Procházka, D., Vítek, L. (2015). The Adoption of International Financial Reporting Standards in The Czech Republic and its Impact on Corporate Taxation. *Politická Ekonomie*, 63(7), 811–832. https://doi.org/10.18267/j.polek.1036.

Pelák, J., (2010). Deferred Tax Issues in Mergers from a Valuation and Accounting Perspective. *Czech Financial and Accounting Journal*, 5(4), 101–107. https://doi.org/10.18267/j.cfuc.91

Richardson, D. H., Thalheimer, R. (1981). Measuring the Extent of Property Tax Capitalization for Single Family Residences. *Southern Economic Journal,* 47(3), 674.

Skálová, J. (2012). Deferred Tax in Conversions. *Czech Financial and Accounting Journal*, 7(3), 28–41. https://doi.org/10.18267/j.cfuc.319

Skálová, J., Mejzlík, L., Bareš, M. (2020). Reporting of Prior Period Errors and Changes in Accounting Policies by Czech Companies. *Politická Ekonomie,* 68(3), 245–266. https://doi.org/10.18267/j.polek.1279.

Stojek, D., Zychewicz, S. (2023). *Real Estate Accounting Guide 2023*. Working Papers No. 70-71, Deloitte.

Svatošová, J., Trávníčková, J. (2012). Full Version of Czech Accounting Standard No. 003 – Deferred Tax for Accounting Entities that Keep Accounts in Accordance with Decree No. 500/2002 Coll., as amended. *Financial Bulletin*. XLVI(2), 66–74.

Vácha, P. (2012). Theoretical Framework of Deferred Tax. *AUDITOR*, 19(4), 8.

Welz, T., Mönnich, I., Ishida, S. (2019). Comparison Asset Deal and Share Deal. Deloitte.

Wilhelmsson, M. (2008). Evidence of Buyer Bargaining Power in the Stockholm Residential Real Estate Market. *The Journal of Real Estate Research,* 30(4), 475–499.