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AUTHORS

Thomas Kollruss

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Thomas Kollruss (Germany)

Multinational investment structure and financial asset performance: evidence from Germany

Abstract

This paper is concerned with the implications of multinational investment structures on financial asset performance. In this context, taxation can be considered as a key factor that substantially affects the real rates of return on capital investment (after-tax profits). Therefore, a primary objective of successful financial investment management and financial engineering is to establish an innovative multinational investment structure as a financial innovation with which to significantly optimize the net (after-tax) returns. From a German perspective, this paper provides insight into the financial structuring process in regard to the design of multinational financial investment structures. As a financial investment management solution, the multinational internal financial and organizational structure of an investor must be merged and fine-tuned to obtain a smart and tax-efficient multinational investment pattern. Thus, the major finding of the paper is the introduction of a new investment management approach to improve overall performance: financial investments must be wrapped into a tax-effective multi-country investment structure to obtain optimal after-tax returns. This paper refers to this new and innovative investment management approach as “financial tax wrapping”.

Keywords: multinational investment management, new investment management approach, investment strategy, multinational investment structure, financial investment performance.

JEL Classification: H25, F23, G32.

Introduction

This paper introduces a novel and innovative investment management approach that demonstrates how the overall performance of financial investments can be significantly improved by financial structuring. This new financial investment approach may be termed “*financial tax wrapping*”. In this respect, financial investment management must merge and fine-tune the internal multinational financial and organizational structure of investors as key performance parameters, to obtain tax optimal after-tax returns (“*tax wrapping*”). Successful financial investment management must consider the targeted optimization of the tax burden as a key driver of financial investment performance and as an integral component of the investment tools. This concept depends on the assumption that a German MNC corporation (investor) derives interest income from an international financial investment in the form of a Madeiran¹ bank fixed deposit account (financial asset) by a banking entity located in the Madeira International Business Center (MIBC). The effective Madeiran/Portuguese tax rate ($t_{p-eff.}$) for interest income is 0%. The German corporation (financial investor) has three basic options for financial structuring:

1. Introducing a new financial management approach (“*financial tax wrapping*”): Utilizing the Belgium-Madeira hybrid structure (Section 2).

2. Interposing a foreign wholly-owned subsidiary (Madeira subsidiary) as an intermediate financial investor (Section 3).
3. Holding the financial asset (Madeiran bank fixed deposit account) directly (Section 3).

The general conditions regarding the taxation of a German corporation’s foreign interest income can be described as follows.

The global income of German corporations (GmbH/AG/SE/UG) is generally subject to German company taxation². The applicable German marginal tax rate (t_G) is approximately 29.83%. This rate is based on the assumption that a German corporation derives interest income from financial investments in a low-taxed country that are taxed there at a rate (t_F) of 0%. Pursuant to the German principle of the residence-based taxation of a German corporation’s global income, companies are unable to benefit from foreign tax incentives or foreign tax havens. As a result, the foreign interest income of German corporations is taxed on a residence basis (capital export neutrality), and the applicable effective tax rate is basically 29.83%³ (t_g) rather than 0%. Due to the restrictive German CFC legislation, the interposition of a foreign subsidiary (CFC – controlled foreign corporation) to shelter low-taxed foreign interest income from high German taxation is not practica-

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¹ Madeira (island) belongs to Portugal and therefore to the European Union (EU).

² German company taxation refers to taxation with the German corporate income tax (CIT, “*Körperschaftsteuer*”) and includes the solidarity surcharge (“*Solidaritätszuschlag*”) and the German trade tax (“*Gewerbesteuer*”). For the relevant tax rates, see Footnote 3.

³ German CIT rate (t_{G-CIT}) = 15%, solidarity surcharge on German CIT (t_{G-SolZ}) = 5.5%, average German trade tax rate ($t_{G-Trade Tax}$) = 14%. Total German company tax rate = 29.83% ($0.15 \times 1.055 + 0.14$).

ble. Under German CFC taxation, the interest income of a foreign subsidiary being taxed at a low rate (tax rate (t_F) below 25%) and mainly generating interest income (passive income) is included in the taxable income of the German parent company.¹ In this case, the CFC income inclusion is already applicable if the German parent company holds 1% or less of the CFC's share of the capital. Therefore, in principle, German MNCs cannot utilize the international tax arbitrage by interposing foreign subsidiaries (CFC).

The remainder of the paper is organized as follows. Section 1 contains the literature review. Section 2 demonstrates the new financial investment approach of “*financial tax wrapping*” by developing the Belgium-Madeira hybrid structure. In this multinational investment structure, a German corporation invests in the Madeira bank fixed deposit account (financial asset) via an intermediary hybrid Belgian subsidiary treated as a flow-through entity for German tax purposes and as a corporation for Belgian and Portuguese tax purposes. The Belgium-Madeira investment structure works as a tax shelter that completely shields the Madeira interest from German and Belgian taxation². Section 2 also reveals a new method of “*financial engineering*” that provides a general method by which investment managers can establish a (tax-)optimized multinational investment structure by utilizing and combining the major value drivers affecting financial investment performance: the multinational internal financial and organizational structure of the investor focused on the specific financial asset (a Madeira bank fixed account in this paper).

Section 3 determines the tax shields of the three financial structuring options [(1) – (3)] and analyzes these findings in more detail. With respect to these findings, the optimal multinational investment structure for a German corporation's financial investment (Madeiran bank fixed deposits) is derived. Finally, Section 4 provides summary statements and indicates the applicability of the newly developed investment management approach (“*financial tax wrapping*”) to other multinational investors (other than German investors) and other foreign tax systems.

1. Literature review

An analysis of the literature reveals a distinctive research deficit (in investment management) regard-

ing the investigation of multinational investment structure as a key parameter of financial asset performance. The existing theoretical and empirical research focuses mainly on the capital structure choice as a result of the determining³ factors (De Angelo and Ronald, 1980; Desai, Foley and Hines, 2004). The inverse research approach regarding whether the formation of an investment structure can influence the determining factors – especially the effective tax burden to substantially improve the overall performance/after-tax return of financial investments – is scarcely considered in the literature. Kollruss (2010) shows that establishing specific internal debt financing structures can enable MNCs to successfully overcome thin-cap restrictions and to significantly optimize the overall group tax rate through intercompany debt financing. Minz and Weichenrieder (2010) indicate that the concept of interposing foreign subsidiaries in investments can generally be used to obtain tax advantages.

By developing the new investment management approach of “*financial tax wrapping*” as a financial innovation, this paper makes an important contribution to the improvement of investment management solutions. The paper shows how financial investment activities can be substantially optimized by considering the formation of a multinational investment structure in the financial engineering process as the second⁴ major driver of financial asset performance. Furthermore, the relevant elements (the internal financial and organizational structure of the financial investor that includes each investor's subsidiary involved in the investment process) of a multinational investment structure are illustrated for the purposes of assisting investment managers in creating specific multinational investment patterns.

2. The Belgium-Madeira hybrid structure

2.1. Multinational financial investment structuring and key design features. The hybrid Belgian-Madeira structure can be used to derive interest income from a bank fixed deposit account without triggering German CFC taxation. First, a German parent company (G-GmbH) establishes a new, wholly-owned Belgian SCS (*société en commandite simple*) that is capitalized with the amount of equity (λ) required for the financial investment (bank fixed deposits). The Belgian SCS is a hybrid entity for tax purposes. For German tax purposes, the Belgian SCS is taxed as a

¹ For details, see Kollruss (2011), ET, p. 12 et seq.

² The tax sheltering effects result from the Belgian notional interest deduction (NID) and a tax-matching credit of the German-Portuguese tax treaty. Therefore, a German corporation (investor) can obtain foreign interest income without triggering any taxes (especially German trade tax and German corporate income tax).

³ E.g., the relevant domestic and international tax law.

⁴ The first major driver of performance is the yield of the contemplated financial asset.

flow-through entity (foreign PE). Thus, Germany taxes the interest income of the SCS at the level of the German parent company (G-GmbH) as a taxable

person¹. However, Belgium treats the SCS as a corporation and thus as a taxable person for Belgian tax purposes (hence, subject to Belgian CIT²).

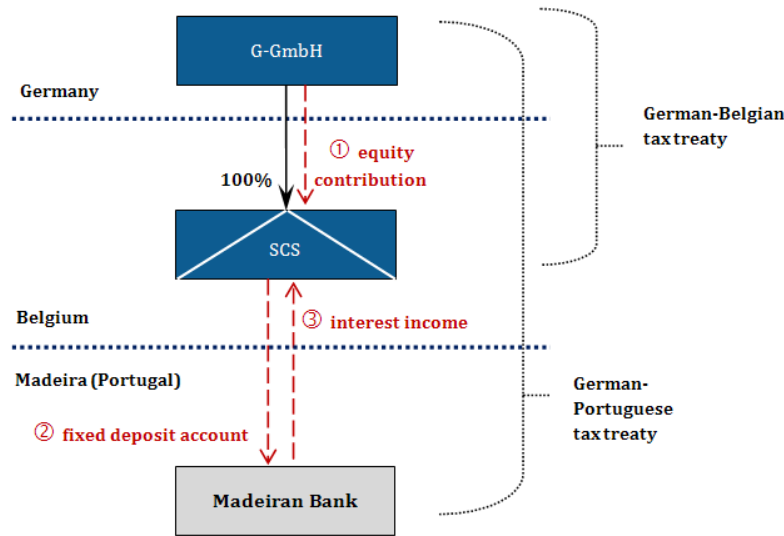


Fig.1. Multinational financial investment structure: Belgium-Madeira hybrid structure

Secondly, the Belgian SCS invests the equity capital in a bank fixed deposit account by using a bank located in the Madeira³ International Business Center (MIBC). The applicable fixed gross interest rate (before taxes) is defined as (i_M). Then, the Belgian SCS receives interest income from the Madeiran bank. For German tax purposes, the German-Belgian tax treaty and the German-Portuguese tax treaty are applicable.

2.2. Performance analysis of the Belgium-Madeira hybrid investment structure including taxation.

2.2.1. Madeiran/Portuguese analysis. The interest income is paid by a banking entity located in the Madeira International Business Center (MIBC) to the non-resident Belgian SCS. Interest that is paid by Portuguese corporations (banks) to non-residents is subject to a Belgian withholding tax rate (w_P) of up to 20%. However, according to domestic Portuguese tax law (MIBC withholding tax incentives), a withholding tax exemption would apply; thus, zero withholding taxes would be due in Madeira/Portugal. In summary, the interest income derived from the Belgian SCS’s bank fixed deposit account is not subject to any taxes in Madeira/Portugal.

The Belgian SCS’s Portuguese tax burden (T_P) can be defined as follows:

$$T_P = (\lambda \cdot i_M) \cdot w_P \text{ with } 0 \leq w_P \leq 0.2. \quad (1)$$

The Belgian SCS’s Portuguese tax burden T_P is 0 because the Portuguese withholding tax (w_P) rate is 0%. Therefore, the effective Madeiran/Portuguese tax rate (t_{p-eff}) is 0%.

2.2.2. Belgian analysis. At the level of the Belgian SCS, the interest income from Madeira bank fixed deposits is subject to the regular Belgian corporate income tax/CIT (Belgian CIT rate (t_B) = 34%). However, the Belgian SCS can claim the notional interest deduction (NID). The NID is a tax deduction for Belgian CIT purposes that corresponds to the amount of the SCS’s total equity⁴ multiplied by the average interest rate applicable for a risk-free, long-term Belgian government bond (OLO) in the SCS’s nonconsolidated closing balance sheet for the relevant tax year (the preceding financial year). For 2011 and 2012, this average interest rate/notional interest rate (i_{NID}) amounts to 3.8%⁵. Thus, Belgian SCS’s are able to deduct a notional interest expense of 3.8% of the equity capital (λ) as a tax deduction from their Belgian CIT base. Consequently, the Belgian SCS’s interest income from the Madeira bank fixed deposits is not subject to Belgian CIT if the Madeira interest rate (i_M) is less than or equal to the notional interest rate (i_{NID}) considered in cal-

¹ See Kollruss (2010), StuW, p. 381 et seq; Lüdicke (2011), IStR, p. 91 et seq.
² CIT = corporate income tax.
³ Madeira (island) belongs to Portugal and therefore to the European Union (EU).

⁴ There are several adjustments necessary in the calculation of the relevant equity (“risk capital”), such as the deduction of the net tax value of shares held in other subsidiaries (fixed assets) and the exclusion of assets whose profit is exempt from Belgian CIT by tax treaties.
⁵ Small and medium-sized companies obtain a 0.5 basis point higher average interest rate in the calculation of the NID for 2011-2012 (4.3%).

culating the Belgian NID for the 2011 tax year (3.8%). In this case, there is no Belgian taxation of the interest income at the level of the Belgian SCS due to the NID.

Equation (2) formally describes the Belgian tax burden (T_B) of a Belgian SCS with regard to the interest income from Madeira considering the Belgian notional interest deduction (NID):

$$T_B = \lambda \cdot (i_M - i_{NID}) \cdot t_B. \quad (2)$$

If the Madeira bank fixed deposit interest rate (i_M) is less than or equal to 3.8% (the notional interest rate (i_{NID})), a Belgian SCS would not owe Belgian CIT. Thus, with regard to the Belgium-Madeira hybrid structure, in which $i_M \leq i_{NID}$, the Madeira interest

income is not taxed at the level of the Belgian SCS for Belgian tax purposes. The Belgian tax burden (T_B) is 0. The effective Belgian tax rate ($t_{B-eff.}$) with respect to the Belgium-Madeira hybrid structure is 0%.

In Figure 2¹ below, the progression of a Belgian SCS's effective Belgian CIT rate ($T_{B-eff.}$) is depicted subject to the notional interest deduction (NID) and assuming that the Belgian SCS's return on equity (interest rate for the capital investment i_M) should range from 0% to 20% ($0 < i_M \leq 0.2$). In equation (3), the effective Belgian CIT rate is calculated as a function of the return on equity (i_M):

$$T_{B-eff.} = \frac{(i_M - i_{NID}) \cdot t_B}{i_M} \quad (3)$$

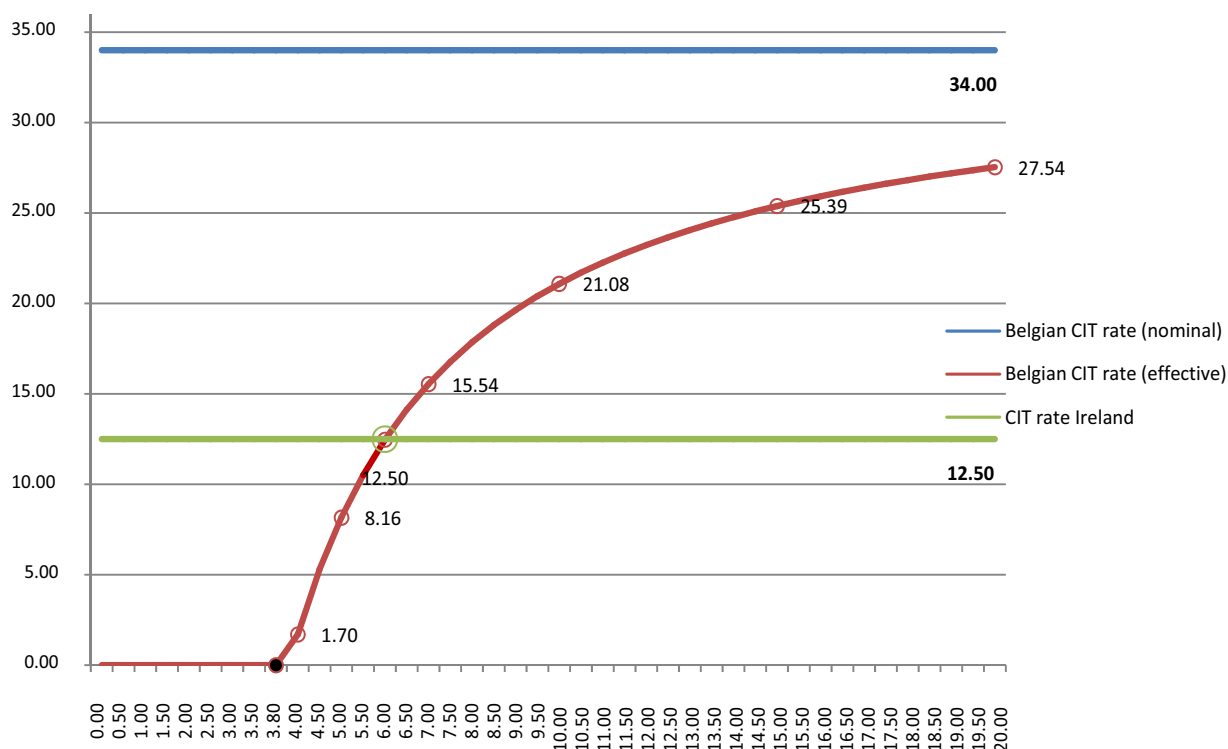


Fig. 2. Effective Belgian CIT tax rate in consideration of the notional interest deduction (NID)

This diagram confirms that a Belgian SCS's effective Belgian CIT rate is 0% if the return on the capital investment (i_M) does not exceed the notional interest rate (i_{NID} , 3.8%). In this case, a Belgian SCS can derive Madeira interest income without triggering any Belgian taxes at the entity level. Moreover, the diagram clearly indicates that the Belgian notional interest deduction (NID) is primarily intended to attract capital investments rather than real business activities (e.g., production). Subject to the return on equity (i_M), NID provides only a very low effective Belgian CIT tax rate that ranges from 0% to 7%. This is the typical operational area of capital investments (e.g., bank fixed deposit) and intra-group finance companies. Despite the Belgian NID,

Ireland appears to be a better location for conducting real business activities on the basis of a comparison of effective CIT tax rates².

With respect to the profit repatriation from a Belgian SCS to a German parent company (G-GmbH) by distribution, the Belgian SCS qualifies as a subsidiary of the Parent Subsidiary Directive (90/

¹ The horizontal axis (x-axis) of the two-dimensional Cartesian coordinate system reflects the Belgian SCS's return on equity (i_M) with regard to capital investment, whereas the vertical axis (y-axis) reflects the CIT tax rate. For comparison purposes only, the straight proportional Irish CIT tax rate ($t_{IE} = 12.5\%$) is also included in this diagram. This CIT tax rate would be applicable if the Madeiran interest income is derived through an Irish entity.

² The return on equity in the field of production should generally exceed 7%.

435/EC)¹. The German G-GmbH also represents a qualified parent company according to the Parent Subsidiary Directive. Therefore, Belgium exempts an SCS's dividend distributions to its German parent (G-GmbH) from any Belgian withholding taxes (zero Belgian withholding tax).

A summary of the Belgian tax implications with respect to the Belgium-Madeira hybrid tax structure reveals that Madeiran interest income is not taxed in Belgium. At the level of Belgian SCSs, no Belgian CIT tax burden is incurred due to the notional interest deduction (NID). According to the Parent Subsidiary Directive, an SCS's profit repatriation (dividend distribution) is not subject to any Belgian withholding taxes.

2.2.3. German analysis. A hybrid Belgian SCS is treated as its German parent company's Belgium branch (flow-through principle) for German tax purposes. Hence, a Belgian SCS's Madeira interest income is exempt from German trade tax at the level of the German parent company². Thus, the business income derived through a foreign PE (here the SCS's Madeiran interest income) is not subject to German trade tax due to the territorial principle.

Regarding the German CIT taxation of the Madeiran interest income, the German-Portuguese tax treaty and the German-Belgian tax treaty are applicable at the level of the German parent. According to German tax law, Belgian SCSs are treated as flow-through entities. Thus, a Belgian SCS's interest income is derived by its German parent company as a taxable person for German tax purposes because the Belgian SCS is treated as a branch of the German parent. Therefore, the German-Portuguese tax treaty is also applicable. According to the German-Portugal tax treaty, a German parent company obtains a 15% tax-matching credit (c) based on the Madeiran/Portuguese interest income for German CIT purposes^{3,4}. Whether or not Portugal imposes a withholding tax on the interest income is irrelevant for the tax-matching credit.

Therefore, a German parent company (G-GmbH) is fully liable for the German CIT with its Madeira interest income, and the German CIT rate (t_{G-CIT}) of 15% applies. However, due to the German-Portuguese tax treaty, a German parent company receives an equivalent 15% tax-matching credit without

paying any Portuguese (withholding) taxes. When the tax-matching credit (c) is utilized, the German parent company's Madeiran/Portuguese interest income is not subject to German CIT.

Thus, a German parent company's total German tax burden (T_G), in terms of Madeiran interest, income can be formally written in equation (4) as follows:

$$T_G = \underbrace{\lambda \cdot i_M}_{\text{Interest income}} \cdot \underbrace{(t_{G-CIT} - c)}_{\text{German CIT rate minus tax-matching credit}}. \quad (4)$$

Because the tax-matching credit ($c = 15\%$) is equivalent to the German CIT rate ($t_{G-CIT} = 15\%$), no German taxes are incurred. Therefore, a German parent company's Madeiran interest income is completely untaxed in Germany. A German parent's German tax burden (T_G) with respect to its Madeiran interest income is 0. Thus, the German effective tax rate ($t_{G-eff.}$) with respect to the Belgium-Madeira hybrid tax structure is 0%.

Is there a potential risk that the tax-matching credit will not be granted for German tax purposes? A German parent company receives the tax-matching credit based on the German-Portuguese tax treaty. Only the German-Portuguese tax treaty is relevant in determining whether Madeira interest income originates from Portugal for the application of the tax credit method in Germany⁵. In this regard, German tax law is inapplicable⁶. Furthermore, a German parent company's tax-matching credit granted by the German-Portuguese tax treaty is not precluded by the German-Belgian tax treaty. With respect to the German application of the German-Belgium tax treaty, Madeiran/Portuguese interest income is not attributed to a Belgian PE because Belgian SCS generate no corporate profits (Art. 7 OECD-MA) in terms of the German-Belgium tax treaty. Therefore, regarding the application of the German-Belgium tax treaty, only the tax credit method is applicable; the exemption method does not apply. Hence, the Madeiran/Portuguese interest income is not exempted by the German-Belgium tax treaty at the level of the German parent company. In conclusion, there may not be a risk regarding the application of the tax-matching credit.

2.3. Risk analysis. **2.3.1. Legal risk analysis.** In this paragraph, I analyze whether the Belgium-Madeiran hybrid tax structure could be seen as an abusive tax

¹ Annex of the Parent Subsidiary Directive (90/435/EC), sub-paragraph a).

² Sec. 2, para. 1, sec. 9, no. 3 GTTA.

³ Art. 24, para. 2, sub-paragraph c), sub-paragraph b), bb); protocol no. 8, sub-paragraph a) German-Portuguese tax treaty.

⁴ See also sec. 26, para. 6, sentence 7 GCITA (German Corporate Income Tax Act).

⁵ The Madeiran bank as a debtor is a resident of the contracting state of Portugal. The German parent company as a creditor is a resident of the contracting state of Germany regarding the Madeira bank fixed deposit account. Art. 11 of the German-Portuguese tax treaty is applicable.

⁶ According to domestic German tax law, the interest income would originate from Belgium. See. sec. 34d, no. 2a).

shelter as defined by sec. 42 AO German Fiscal Code. Sec. 42 AO takes the position of a general anti-avoidance provision¹.

However, according to German supreme tax court² case law, there should be no possibility in which the Belgium-Madeiran hybrid structure could qualify as an abusive tax shelter. Pursuant to case law, the generation of low-taxed or untaxed (passive) interest income is not covered by sec. 42 AO³. The permanent interposition of a foreign EU entity is not an abusive transaction according to sec. 42 AO⁴. Moreover, the general anti-avoidance provision of sec. 42 AO is applicable only if the arrangement or investment pattern is wholly artificial (“letterbox”, no economic substance) and results in tax advantages that are not provided by German tax law. The Belgium-Madeira hybrid structure leads to tax advantages that are provided within the limits of the law. Furthermore, this investment structure completely fulfills the requirements of the European Court of Justice (EuGH) in the Cadbury Schweppes case (C-196/04) in terms of (economic) substance and physical existence (premises, staff or equipment)⁵.

In summary, the Belgium-Madeira hybrid structure is not affected by sec. 42 AO (general anti-avoidance provision). This stable investment structure is fully accepted by German tax law. Moreover, regarding the treatment of the Belgium-Madeira hybrid structure by the German fiscal authorities, there is no doubt that the interposition of the (hybrid) Belgian subsidiary will be fully accepted. From empirical experience and also from statements of the German fiscal authorities it can be derived, that the interposition of a foreign legal entity is entirely accepted for German tax purposes, if this foreign legal entity is not a artificial arrangement (letterbox without economic activity)⁶. Accordingly, in the case at hand the utilization of the Belgian subsidiary is completely recognized by the German fiscal authorities because of its economic activity in the market (asset management)⁷. Besides the considered German situation, it can be derived with relevance to other (foreign) jurisdictions that an intermediary foreign entity providing financial activities is regularly recog-

nized by the relevant fiscal authorities. To summarize, there is no risk that the proposed Belgium-Madeira hybrid structure will be denied (null and void) by the German fiscal authorities.

2.3.2. Financial risk analysis. Besides the legal risk aspects it is important to analyze how the innovative investment management approach “financial tax wrapping” fits into risk-adjusted return measures like the Sharpe Ratio, Sortino Ratio, Treynor Ratio and the Jensen’s Alpha. This can be answered by performing a financial risk analysis, utilizing the above mentioned ratios to evaluate the risk of a tax-optimized financial investment compared to the scenario in which the same financial investment is not established in a tax-optimized investment structure. This allows a comparison between the performance of a financial investment depending on its tax structure and the risks involved. By using the risk-adjusted return measures, mentioned above, the investment manager can make a judgment on the risks of a tax planning method in relation to its specific contribution to increase excess returns (additional cash flow after taxes, profits from cash tax savings, additional effective tax rate effects). Furthermore, the investment manager would be able to measure whether a specific tax planning structure/scenario is suitable in the light of the respective risk to improve the financial asset performance. Furthermore, applying risk-adjusted return measures enables the investment management to successfully select from a range of different tax planning structures/alternatives based on the potential risk structure.

Before analyzing the Belgium-Madeira hybrid structure in the light of risk-adjusted return measures, this tax planning approach generates no additional risks compared to the situation where no additional tax planning measures have been applied (given the situation, where the German parent company holds the bank fixed account directly not via the Belgian subsidiary). Even if the interposition of the Belgian subsidiary should not be recognized by the German tax authorities, the German parent company would also obtain the 15% tax-matching credit by the German-Portuguese tax treaty as well as in the direct investment scenario without “tax planning” in which the German parent company holds the bank fixed account directly. The Belgium-Madeira hybrid structure contains a so-called risk buffer (risk limitation to zero), which means that the risk-adjusted returns in the case of applying this investment pattern can only increase the excess returns (no disadvantageous impacts) compared to the case without tax planning (direct investment, “risk-free investment”). Given the background of the risk-adjusted return measures (various ratios mentioned above) and the financial investment at hand (Madeira bank

¹ See also Linn, IFA Branch Report, Cahiers de droit fiscal international, Vol. 95a, 2010, p. 335, et seq.

² German supreme tax court or *Bundesfinanzhof* (BFH).

³ See BFH, 20.03.2002, I R 63/99, BStBl II 2003, p. 50; BFH, 07.09.2005, I R 118/04, BStBl II 2006, p. 537.

⁴ BFH, 25.02.2004, I R 42/02, BStBl II 2005, p. 14.

⁵ See EuGH, 12.09.2006, C-196/04 (Cadbury Schweppes), DStR 2006, p. 1686, et seq.

⁶ See, German Federal Ministry of Finance, decree of 28.12.2004, BStBl I 2005, p. 28, no. 3; decree of 08.01.2007, BStBl I 2007, p. 99; decree of 14.05.2004, BStBl I 2004, p. 3, no. 3; decree of 19.03.2004, BStBl I 2004, p. 411.

⁷ See footnote 6 (p. 107).

fixed account) the financial asset performance would always increase by utilizing the Belgium-Madeira hybrid structure compared to the risk-free situation (direct investment) without applying “tax planning” measures. This means that an optimal tax planning approach can be identified by such impacts on the risk-adjusted ratios mentioned above. To put it to another way, investment management can utilize the risk-adjusted ratios to find out whether a tax planning method is suitable to improve the overall financial asset performance by considering the relevant risk-return profile.

In the case at hand (Belgium-Madeira hybrid structure) the “risk-free” scenario is defined as the direct investment (see equation (8)). The Belgium-Madeira hybrid structure is being considered as the “risk” tax planning scenario. The total amount of capital (λ) invested in the Madeira bank fixed deposits is the same in the risk-free and the risk scenario and the market risk is also the same. Transaction costs are neglected. In the risk-free scenario (direct investment) the risk-free rate of return is the Madeira interest rate (i_M) after German trade tax ($t_{G-direct}$) (14%) or $i_M \cdot 0.86$, being identically to the average return in this scenario. The rate of return, in the case of the Belgium-Madeira hybrid structure (“risk scenario”)

is i_M (zero taxation) and can be simultaneously defined as average return regarding this scenario.

As described above, the Belgium-Madeira hybrid structure bears no additional risks compared to the risk-free scenario under the assumption of the same market risks. Thus, the standard deviation, the downside deviation and beta (β) is the same as in the scenario without a tax planning approach (direct investment). As a consequence, the Sharpe ratio, the Sortino ratio and the Treynor ratio are higher in the tax-optimized financial investment scenario (Belgium-Madeira hybrid structure) than in the benchmark scenario without tax planning (direct investment/risk-free scenario). The Jensen’s Alpha (α) would result in a positive amount > 0 (which means strong performance) by considering the Belgium-Madeira hybrid structure. In summary, all risk-adjusted return ratios indicate that the Belgium-Madeira hybrid structure – the tax-optimized financial investment – derives excess returns (tax savings) without any additional risks compared to the scenario without tax planning activities (direct investment). The following Table 1 summarizes the findings, focusing on the Sharpe ratio, the Sortino ratio and the Treynor ratio.

Table 1. Risk-adjusted return ratios/measures and tax planning method

Ratios	Description/calculation	Belgium-Madeira hybrid structure	Direct investment – benchmark
Sharpe	Compares excess returns to total portfolio risk (reward-to-variability ratio); [Average return – Risk free rate] : Standard deviation	$(i_M - i_M \cdot 0.86) : 1$ $i_M \cdot 0.14 = i_M \cdot [t_{G-direct}]^1$	$(i_M \cdot 0.86 - i_M \cdot 0.86) : 1 = 0$
Sortino	Measures the risk-adjusted return of an investment; considers only the downside volatility [Average return – Risk free rate] : Downside deviation	$i_M \cdot [t_{G-direct}]$	0
Treynor	The Treynor measure relates excess return over the risk-free rate to the additional risk taken; systematic risk is used instead of total risk [Average return – Risk free rate] : β	$i_M \cdot [t_{G-direct}]$	0
Standard deviation	Determines the volatility; any variation from a mean value (up- and downward)	1	1
Downside deviation	Focuses on returns that fall below a minimum threshold or minimum acceptable return	1	1
Beta (β)	Indicates the level of volatility associated with the investment as compared to the market; key parameter in CAPM	1	1

Given the background of the risk-adjusted return measures, Table 1 reveals that the best method of tax planning is the one which generate risk-free excess returns (tax savings) additionally to the returns generated in the scenario where the same investment would not be realized in a tax-optimized investment structure.

Furthermore, the important knowledge can be inferred that the targeted tax-optimization of an investment would regularly lead to risk-free excess returns (tax savings), if the relevant tax planning approach

contains a built-in risk buffer like the Belgium-Madeira hybrid structure. This exactly confirms that tax planning should not be neglected in order to increase the overall investment performance. Otherwise, extensive opportunity costs may be caused by dispensing excess return opportunities (tax savings, excess cash flow), if tax planning is disregarded.

2.4. The inapplicability of German CFC taxation.

German CFC taxation does not apply to the Belgium-Madeira hybrid tax structure because hybrid Belgian SCSs do not qualify as corporations for German (CFC) tax purposes. In fact, Belgian SCSs are treated as flow-through entities. A Belgian SCS’s interest income is not exempt from German taxation

¹ The excess risk-free return is identical to the tax savings (German trade tax).

by the German-Belgian tax treaty at the level of the German parent company. In this respect, a Belgian SCS generates no business profits according to Art. 7 OECD-MA; it derives only interest income (Art. 11 OECD-MA). Therefore, a Belgian SCS does not constitute a permanent establishment in terms of the German-Belgian tax treaty. The interposition of a Belgian SCS yields no tax-sheltering effects. A Belgian SCS's Madeiran interest income is fully subject to German taxation at the level of the German parent company. Therefore, German CFC taxation is not applicable. German CFC taxation is applicable only if the interposition of a foreign entity prevents the profits of this intermediary entity from taxation at the level of the German shareholder; in contrast, when a foreign entity is not interposed, the German shareholder would derive its profits (interest income) directly.

2.5. Tax-sheltering mechanism and qualification conflict. Regarding the Belgium-Madeira hybrid tax structure, tax-sheltering effects do not result from interposing a Belgian SCS. Even if a hybrid Belgian SCS is interposed, the Madeira interest income is fully subject to German taxation at the level of the German parent company ($t_{G-CIT} = 15\%$). The tax-sheltering effect at the level of the German parent company results from a nexus between the tax-matching credit ($c = 15\%$) of the German-Portuguese tax treaty – for which the Madeira interest income does qualify – and the German domestic tax treatment of this interest income for German trade tax purposes. According to domestic German trade tax law, the Madeiran interest income qualifies as a German parent company's exempt business profits or income derived from holding shares in a Belgian SCS. For German trade tax purposes, the income source of Madeira interest income is a Belgian SCS or Belgium. A Belgian

SCS has the effect of transforming its Madeira interest income into tax-exempt business profits or income at the level of the German parent company only for German trade tax purposes (secondary sheltering via income transformation)¹.

However, for the purposes of the German CIT and the tax-matching credit, only the German-Portuguese tax treaty is relevant. In this regard, the source of the Madeiran interest income is Portugal. Thus, the Belgium-Madeira hybrid tax structure effectively utilizes a qualification conflict in terms of different income attributions to optimize the overall tax rate. Due to the Belgium-Madeira hybrid tax structure, a German parent company's Madeira interest income is split into two different revenue streams solely for German corporate income tax and German trade tax purposes.

In summary, German CFC taxation is not applicable to the Belgium-Madeira hybrid tax structure. Moreover, Madeiran interest income can be earned by a German parent company without any taxation (zero taxation). In addition, the tax-sheltering effect of the Belgium-Madeira hybrid tax structure is shown by the following numerical example:

Example 1. The tax-sheltering effects of the Belgium-Madeira hybrid investment structure:

The Belgian SCS obtains EUR 1 million interest income from its Madeiran bank fixed deposit account. The Madeiran interest income is not subject to any taxes in Portugal (no CIT/withholding taxes) or Belgium (notional interest deduction, no CIT/withholding taxes). However, the Madeiran interest income is fully subject to German CIT at the level of the German parent company.

Table 2. Numerical example of the tax-sheltering effect

Taxation of the German parent company		
German parent company's CIT base	1.000.000 (Madeira Interest Income)	German CIT
German CIT (German parent) 15%	150.000	
Tax-matching credit 15% (German-Portuguese tax treaty)	-150.000 (German CIT sheltering effect)	
German CIT burden (German parent company)	0	
German parent company's trade tax base	1.000.000 (Madeira Interest Income)	German Trade Tax
Trade tax exemption (sec. 2, para. 1 GTTA) (Madeiran interest income qualifies as business profits derived through the Belgian SCS)	-1.000.000 (German trade tax-sheltering effect)	
German trade tax burden (German parent company)	0	
Zero taxation of the Madeira interest income (Portugal/Belgium/Germany)		

¹ In terms of German trade tax legislation, a Belgian SCS qualifies as a "virtual trading partnership" (*gewerblich geprägte Personengesellschaft*). See sec. 15, para. 3, sentence 2, German Income Tax Act (*Einkommensteuergesetz*).

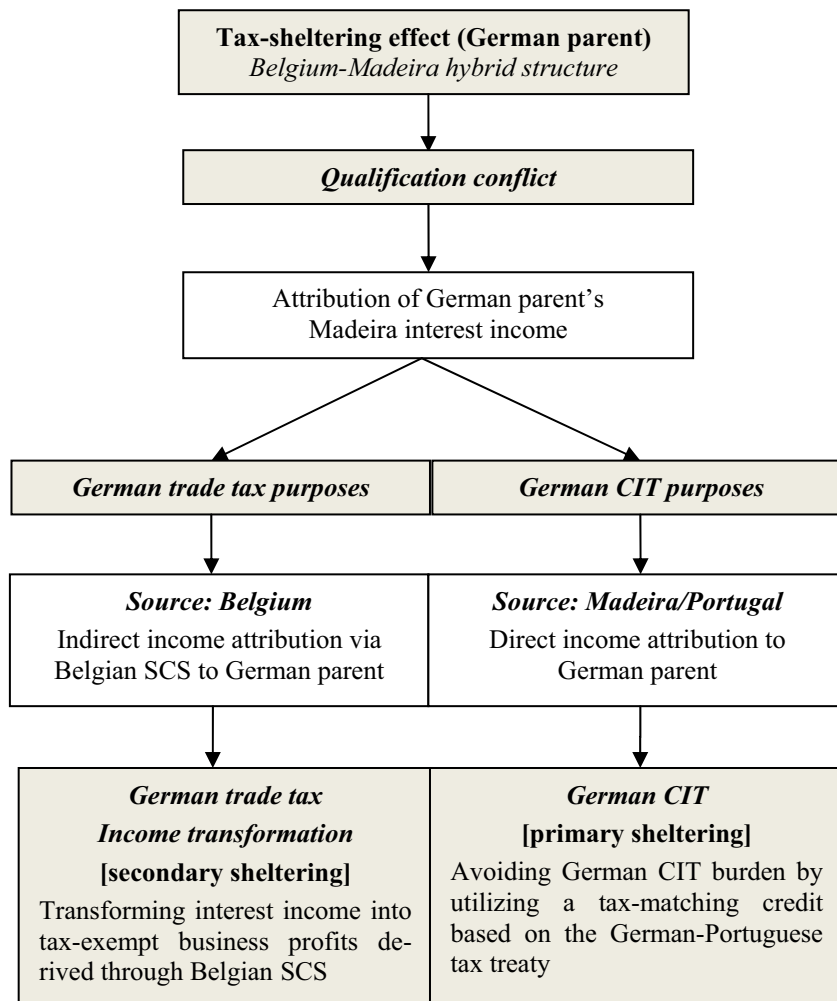


Fig. 3. Fractionizing the Belgium-Madeira hybrid investment structure's tax-sheltering effect

3. Tax shield and overall effects

The following summary describes the tax effects of the Belgium-Madeira hybrid tax structure: a German parent company (German MNC) can effectively utilize the tax advantages of a cross-border financial investment (Madeiran bank fixed deposit account) in the Madeira International Business Center (MIBC) without triggering the harmful effects of the German CFC legislation. Equation (5) displays the effective tax rate (t_ϕ) for the Madeira interest income of a German MNC using the Belgium-Madeira hybrid tax structure. Equation (5) can be written as follows:

$$t_\phi = \underbrace{t_{P-eff.}}_{\text{effective tax rate}} + \underbrace{t_{B-eff.}}_{\text{effective tax rate}} + \underbrace{t_{G-eff.}}_{\text{effective tax rate Germany}} \quad (5)$$

Because the Portuguese, Belgian and German effective tax rate, with respect to the Belgium-Madeira hybrid tax structure, equals zero, the Madeiran interest income effective tax rate (t_ϕ) is 0%. Utilizing the Belgium-Madeira hybrid tax structure as an investment structure, the German parent company is able to derive the Madeira interest income without taxation.

If a German parent company earns passive interest income through a wholly-owned Madeira subsidiary (Madeira CFC) incorporated in the low-taxed¹ Madeira International Business Center (MIBC), German CFC taxation is applicable and leads to largely capital export neutral taxation of the Madeira interest income. In contrast, the Belgium-Madeira hybrid tax structure enables German MNCs to completely avoid the German CFC taxation.

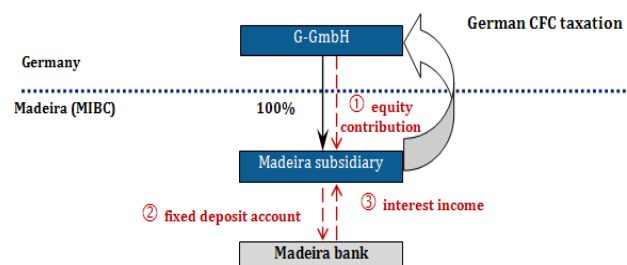


Fig. 4. Madeira subsidiary and German CFC taxation

¹ The Madeira CIT rate is 4% for entities located in the International Business Center of Madeira (MIBC).

If a German parent company earns Madeiran interest income through a wholly-owned Madeiran subsidiary incorporated in the Madeira Business Center (MIBC), German CFC taxation is applicable¹. As a consequence, the Madeira subsidiary's gross interest income is fully included in the German parent company's CIT base and trade tax base (known as *Hinzurechnungsbetrag* or income inclusion). Moreover, the Portuguese CIT ($t_{P-Sub} = 4\%$) paid for by the Madeiran subsidiary for its interest income can be

$$T_{\Pi-CFC} = \lambda \cdot i_M \cdot t_{P-Sub} +$$

Portugal: CIT taxation (interest income) at the Madeira subsidiary level

$$+ \lambda \cdot i_M \cdot \left[(t_{G-CIT} - t_{P-Sub}) \cdot (1 + t_{G-SolZ}) + t_{G-Trade Tax} \right].$$

Germany: CFC taxation (interest income) at the German parent level

(6)

After the relevant³ tax rates are inserted into equation (6), the effective tax rate of the Madeiran interest income is 29.6% ($t_{\Pi-CFC} = 29.6\%$). In contrast, the effective tax rate (t_{ϕ}) for the Madeiran interest income is 0% when the Belgium-Madeira hybrid tax structure is applied. In summary, the Belgium-Madeira hybrid tax structure creates a significant periodical tax shield (TS_{t-CFC}) compared with the situation in which a wholly-owned Madeira subsidiary (CFC) is interposed. This periodic tax shield (TS_{t-CFC}) is formally computed in equation (7) as the difference between equations (6) and (5):

$$TS_{t-CFC} = T_{\Pi-CFC} - t_{\phi}. \quad (7)$$

As a result of interposing a Madeira subsidiary, a German parent company cannot effectively utilize the cross-border tax differential ($t_{P-Sub} = 4\%$) and the

$$T_{G-direct} = \lambda \cdot i_M \cdot \left[(t_{G-CIT} - c) + t_{G-Trade Tax} \right] =$$

$$= \underbrace{\lambda \cdot i_M}_{\text{Interest income}} \cdot \underbrace{(t_{G-Trade Tax})}_{\text{Trade tax rate}}.$$

Interest income Trade tax rate

Because the tax-matching credit ($c = 15\%$) is equal to the German CIT rate ($t_{G-CIT} = 15\%$), the Madeira interest income is actually subject to German trade tax. The tax-matching credit is relevant solely for German CIT but is not relevant for German trade

claimed as a foreign CFC tax credit at the level of the German parent company for German CFC tax purposes; however, this credit can be claimed only for the purposes of German CIT taxation².

Equation (6) reveals the effective tax rate (T_{Π}) of the Madeiran interest income in situations in which a wholly-owned Madeira subsidiary (CFC) is interposed. German CFC taxation is simultaneously considered:

tax incentives of the MIBC due to German CFC taxation intervention. When the Belgium-Madeira hybrid tax structure is utilized, German CFC taxation is not applicable.

Consider another alternative investment structure in which a German parent company holds a Madeiran bank fixed deposit account directly. As tax consequences, the Madeiran interest income is fully subject to German CIT and German trade tax at the level of the German parent company. The German parent company obtains a 15% tax-matching credit (German-Portuguese tax treaty). The German parent company's interest income is not subject to any taxes in Portugal (CIT/withholding tax).

Equation (8) shows the German parent company's total tax burden ($T_{G-direct}$) as a result of receiving the Madeira interest income directly:

(8)

tax purposes. Thus, a German parent company's effective tax rate ($t_{G-direct}$) is 14% as a result of receiving the Madeiran interest income directly.

¹ See sec. 7, para. 1, sec. 10, para. 1, 2 GFTTA (German Foreign Transaction Tax Act – *ASiG/Außensteuergesetz*).

² See sec. 12, para. 1, 2 GFTTA; BFH, 21.12.2005, I R 4/05, BStBl II 2006, p. 555.

³ Applicable tax rates: $t_{P-Sub} = 0.04$; $t_{G-CIT} = 0.15$; $t_{G-SolZ} = 0.055$; $t_{G-Trade Tax} = 0.14$.

In conclusion, it is more tax-efficient for a German parent company to receive Madeira interest income directly ($t_{G-direct} = 14\%$) compared with the option of interposing a wholly-owned Madeira subsidiary ($t_{IL-CFC} = 29.6\%$), but the option to receive the Madeira income directly is substantially less tax-effective than utilizing the Belgium-Madeira hybrid structure ($t_{\phi} = 0\%$). Therefore, for German MNCs, the Belgium-Madeira hybrid tax structure is the most tax-efficient way of structuring a capital investment in Madeira bank fixed deposits (effective tax rate = 0%). Utilizing the Belgium-Madeira hybrid tax structure, German MNCs are able to completely eliminate

the German CFC taxation. Table 2 and Figure 5 below summarize the key findings.

Table 2. Periodic tax shields

	German parent's financial investment structure (Madeira bank fixed deposits)		
	Belgium-Madeira hybrid tax structure	Madeira MIBC subsidiary (CFC)	direct capital investment
Effective tax rate	0%	29.6%	14%
Periodic tax shield	Base value	+ 29.6 percentage points	+ 14 percentage points

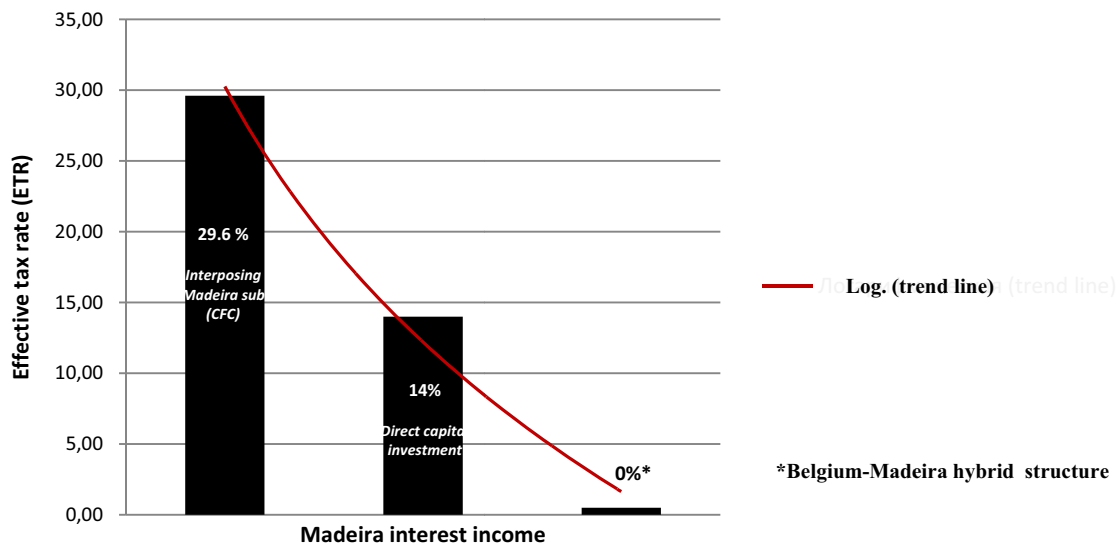


Fig. 5. Several financial investment structures and effective tax rates

Summary and conclusions

Germany’s global/international income taxation and CFC legislation prevents German MNCs from effectively utilizing the international tax arbitrage. These factors primarily affect portable income, such as foreign financial investment income. Therefore, the foreign financial investments of German MNCs should be wrapped into a tax-effective multinational investment structure to generate the optimally effective tax rates (defined here as “financial tax wrapping”). This multinational tax structure allows for the complete elimination of CFC taxation and provides a substantial tax shield in terms of permanently, excluding foreign low-taxed interest income from the German tax base. In this respect, the paper first developed the “Belgium-Madeira hybrid structure”, a tax-optimized, multinational financial investment structure for German MNCs. This multinational financial investment structure can be used by German MNCs to derive interest income from a bank fixed deposit account without triggering any taxes. The key aspect of the “Belgium-Madeira hybrid structure” is the indirect financial investment

via a hybrid Belgian entity. The development of the “Belgium-Madeira hybrid structure” reveals significant findings in the fields of international financial management, financial engineering, and financial structuring, providing significant know-how in establishing optimal multinational financial investment structures as an investment tool to increase the overall performance of financial investments substantially. In a multinational investment structure, the inward profit shifting of low-taxed foreign financial investment income could be used as a powerful investment tool with which to achieve permanent tax-shielding effects and to utilize the cross-border tax differential effectively. In contrast, the typical investment strategy of interposing a foreign low-taxed subsidiary (CFC) as an intermediate financial investor is less beneficial for the (tax) optimization of the foreign financial investments of German MNCs.

Moreover, the findings of this paper – especially the new financial investment management approach termed “financial tax wrapping” – can be applied to other multinational corporations and investors (in addition to German MNCs) and foreign tax systems.

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