“Tax optimal cross border debt financing under the new German Thin-Capitalization-Rule (German interest barrier) Intra fiscal group cross-border debt financing via a foreign fiscal group finance branch”

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Tax optimal cross-border debt financing under the new German Thin-Capitalization-Rule (German interest barrier)

Intra fiscal group cross-border debt financing via a foreign fiscal group finance branch

Abstract

The so-called interest barrier (Zinsschranke) introduced as a new thin-capitalization-rule under the German Business Tax Reform Act 2008 marked one of the deepest cuts in modern German tax history. The German interest barrier massively restricts the deductibility of interest expenses (intra group debt financing, shareholder debt financing, bank loans) for German Corporate Income Tax and Trade Tax purposes. Under the interest barrier rule (Sec. 4h German Income Tax Act, Sec. 8a German Corporate Income Tax Act), net interest expenses of a German Corporation are tax deductible only up to 30% of the taxable profit (EBITDA) per current fiscal year. So the interest barrier will deeply cut into the financing structures of German enterprises and investors engaged in Germany. The principal aim of the interest barrier is to avoid the transfer of taxable profits from German Corporations to foreign intra group debt finance companies. As a consequence, tax planning opportunities for German Corporations reducing their high tax burden by using cross-border intra group debt financing structures have been limited massively. So far German tax literature has only developed instruments optimizing the interest deduction within the 30% EBITDA-threshold, yet there is still no financing structure allowing German companies and foreign investors in Germany to avoid the interest barrier completely. Introducing a completely new cross-border debt financing structure (IPM – Interest-Pooling Model), this article shows a new financing model that avoids the German interest barrier completely. The Interest-Pooling-Model (IPM) can be of great interest to investors in Germany because the effective tax rate concerning German direct investments would be lowered substantially by unlimited cross-border intra group debt financing without triggering the application of the interest barrier.

Keywords: cross-border debt financing, Tax Optimization of German direct investments, unlimited tax-effective intra fiscal group debt financing, foreign finance branch, German Thin-Capitalization-Rule (interest barrier).

JEL Classification: K34, G34, F23, F34.

Introduction

Introducing the worldwide unique concept of the interest barrier (Zinsschranke) within the German Business Tax Reform 2008, the legislature has massively limited the tax-effective deduction of interest expenses. Under the interest barrier rule, a German corporation can only deduct net interest expenses of up to 30% of taxable income before interest expenses, taxes, depreciation and amortization (taxable EBITDA) for German Corporate Income Tax and Trade Tax purposes per fiscal annum. As a consequence, the interest barrier has a very strong influence on how investments in Germany are financed. Only interest expenses from debt financing generally lower the German taxable profit, whereas profits arising from equity financed German investments are fully subjected to high German Corporate Income and Trade Tax. In this regard, the international tax arbitrage between high and low-taxed jurisdictions could only be utilized by using debt financing. Intercompany debt financing is one of the most important instruments of international tax planning for enterprises and groups. Limiting the deductibility of interest expenses for German tax purposes, dramatically and consequentially affecting the profit shifting by intra group debt financing, the German interest barrier has been a very significant issue facing German groups and foreign investors (German inbound-investments). And up to now, there has been no debt financing structure in sight that avoids the interest barrier completely. This article shows a completely new intra group debt cross-border financing model – IPM – Interest-Pooling Model – for enterprises to optimize their group Effective Tax Rate (ETR) by unlimited debt financing of German investments without triggering the interest barrier.

The paper proceeds as follows: after a literature review in section 1, the general principles of the interest barrier are presented in section 2. Thereafter in section 3, the general stipulations of tax-effective intra group cross-border debt financing structures are described from a German tax perspective,


1 See Homburg (2007, pp. 717-728), Kessler and Köhler and Knörzer (2007, pp. 418-422), Eilers (2007, pp. 733-735). In the EU, only Italy and Latvia have a similar concept to the German interest barrier rule, see Zielke (2009, p. 69, Table 3), Herzog and Bohn (2009, pp. 253-261).

2 The EBITDA has to be determined from a tax perspective only.

3 For an actual analysis of international tax arbitrage in the EC see Zielke (2009).


5 See IAS 12 and IAS 12.86 International Accounting Standards. The ETR is defined as quotient of actual and deferred tax expenses on income of the group and the result before taxes on income of the group.
including an analysis of the differences in German CFC-Taxation between a foreign finance corporation and a foreign finance branch, both being low taxed and funded with group equity, and the resulting discrepancies in German Taxation. Then in section 4, the Interest-Pooling Model (IPM) is developed towards ensuring an effective utilization of the cross-border tax differential by unlimited intra-group debt financing of a German corporation under the interest barrier. Section 4 also shows two different structures/alternatives of the Interest-Pooling Model (IPM), these being cross-border side-stream intra fiscal group debt financing and cross-border down-stream intra fiscal group debt financing. The final section summarizes and concludes.

1. Literature review

Analyzing the German tax literature, up to now no (cross-border) debt financing structure has been developed allowing unlimited tax-effective interest deduction under the German interest barrier. German tax literature has only developed instruments generally optimizing the deduction of interest expenses within the 30% EBITDA-threshold, but there is still no (cross-border) debt financing structure for German companies and foreign investors in Germany to avoid the interest barrier completely.

For instance, the following strategies optimizing the deduction of interest expenses have been discussed so far: Increasing the 30% EBITDA-threshold, optimization within the equity ratio comparison (escape clause), multiple utilization of the exemption limit of Euro 3 million by splitting up the interest expenses on more than one subsidiaries, shift of interest expenses on foreign subsidiaries.

The main point of this article is the development of a complete new intra-group cross-border debt financing model (Interest-Pooling Model – IPM) to ensure unlimited tax effective deduction of interest expenses with regard to German investments under the interest barrier. Additionally, the Effective Tax Rate (ETR) should be minimized by utilization of the cross-border tax differential.

2. General principles of the interest barrier

2.1. Structure and mechanism. Before the Interest-Pooling Model (IPM) will be discussed in greater detail, there should be a short look at the interest barrier rules in general. Under the interest barrier, interest expenses are tax deductible up to the amount of interest earned per business without any limits within the same fiscal year. A business is defined as any corporation or partnership generating business income. Net interest expenses – also any interest expenses exceeding the amount of interest earned – are basically tax deductible only up to the amount of 30% of the business taxable EBITDA within one assessment period. So the interest barrier basically applies in the case of negative net interest expenses. In other words, the maximum tax effective interest deduction by a German corporation or partnership per fiscal year is basically limited to the amount of interest received in the same fiscal year plus 30% of the taxable EBITDA.

If the net interest expense of the business exceeds the threshold of 30% of the taxable EBITDA in one fiscal year, the exceeding portion of interest expenses beyond the 30% EBITDA-threshold remains non-deductible for German tax purposes but is carried forward indefinitely to future fiscal years (interest carry forward). The interest carry forward can only be deducted in the subsequent fiscal periods to the amount of interest received in the same fiscal year plus 30% of the taxable EBITDA of the relevant year.

There are three principal exemptions from the interest barrier:

1. Exemption limit

As a relief for small and medium sized companies, the interest barrier is not applicable if the net interest expense of the debt financed corporation or partnership is less than Euro 3 million per fiscal year (tax-threshold of Euro 3 million). Assuming an interest rate of 5%, only debt financing structures with a volume of less than Euro 60 million borrowed capital are unaffected by the interest barrier. In the case of a German fiscal group the exemption limit is only available for the parent company and not thereafter for the subsidiaries.

2. Stand-alone clause

Basically, the interest barrier does not apply if the debt financed corporation or partnership does not belong to a consolidated group or only belongs in part (joint-venture). A consolidated group is

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4 For example, see Scheunemann and Duttiné-Müller (2007, pp. 518-525), Kuhlmaul and Ruiner and Schappe (2008a, pp. 505-514).
assumed if the corporation or partnership is or may be consolidated under the applicable accounting regime, primarily IFRS, then German GAAP or other EU accounting rules. Additionally, a corporation or partnership belongs to a consolidated group, if the finance and business policy of this corporation or partnership may be determined in common with one or more other businesses (Gleichordnungs-konzern).

Nevertheless, in the case of harmful shareholder debt financing, the stand-alone clause does not apply to corporations and business partnerships with corporations as shareholders not being part of a consolidated group. Harmful shareholder debt financing is given when the entity is paying more than 10% of their net interest expense per fiscal year to a shareholder directly or indirectly holding an interest of more than 25% in the lending entity or to a person related to such a shareholder (e.g., subsidiary).

3. Escape clause

Being part of a consolidated group, the interest barrier does not apply to corporations and partnerships if the equity ratio in their audited financial statements under IFRS for the previous fiscal year is not lower than for the entire consolidated group (equity ratio comparison). A difference of up to 2 percentage points within the equity ratio comparison is disregarded. In case of harmful shareholder debt financing, the utilization of the escape clause is excluded. In tax practice, the escape clause would not be used by many enterprises because of the complexity and high audit costs.

Last but not least, it can be said that the escape clause is not applicable in the case of a (foreign) intra-group debt financing company operating with equity. This shows exactly that the interest barrier will combat foreign low-taxed intra-group finance companies funded by group equity capital.

2.2. Significant aspects of the interest barrier.

Working with a preliminary or ultimate double-taxation of non-deductible interest expenses, the interest barrier is designed to affect all kinds of excessive debt financing adversely. At the level of the recipient of the interest payments, interest income is full taxable whereas on the level of the debt financed corporation non-deductible interest expenses are fully taxable, too. This results in economic double-taxation. Intra-group debt financing and intercompany loans are mainly affected. In contrast to the US thin-capitalization-rules (earning stripping rules), the interest barrier already applies in the case of pure domestic debt financing, not only to cross-border debt financing.

Even if the interest income generated by a domestic creditor is fully subjected to German tax, the interest barrier is basically applicable at the level of the debt financed corporation (economic double-taxation).

In itself, a German fiscal group (Organschaft) is not an instrument to avoid the interest barrier. A German fiscal group basically consists of a domestic parent company and at least one domestic subsidiary in the legal form of a corporation. The subsidiaries are entered into a profit and loss transfer agreement with their parent company, leading to a full profit transfer from the subsidiaries to the level of the parent company (profit shifting effect). Furthermore, the taxable profits of the subsidiaries will be aggregated on the level of the parent company and will be subjected to tax only in the hands of the domestic parent company (tax effect). Regarding the profit transfer within the fiscal group, there is no need for intra fiscal group debt financing because there is always a complete bottom-up transfer of the subsidiary’s total profits to the parent company irrespective of intra fiscal group debt financing or not. Within domestic intra fiscal group debt financing there is an automatic netting of interest expenses and interest income on the level of the parent company but no reduction of the taxable profit of the fiscal group. So domestic intra fiscal group debt financing has actually no impact on the amount of taxable profits for domestic German taxation. In the case of debt financing of the fiscal group from outside – the creditor is not a member of the fiscal group and the taxable profit of the fiscal group is reduced – the interest barrier is fully applicable on the level of the domestic parent company basically limiting the tax-effective interest deduction to a maximum of 30% of total taxable EBITDA of the whole fiscal group. To summarize, it is actually not possible to avoid the interest barrier only by utilization of a German fiscal group.

Under the interest barrier rule German taxation strongly depends on the legal form of the entity. Regarding German taxation of profits, both business partnerships and permanent establishments are tax-transparent (flow-through-principle). According to

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3 See Kuhn and Pfirrmann and Meyer and Schäfer (2008b, pp. 135-141).
4 Tax-effective interest deduction within the interest carry forward in future periods.
7 See Kollruß and Erl and Seitz and Gruebner and Niedental (2009, pp. 117-123).
the flow-through-principle, the profits of such a tax-transparent entity/unit are subjected to German Corporate Income Tax at the level of the investors. For the purposes of the interest barrier, the flow-through-principle would only be applicable in the case of a permanent establishment, not in the case of a business partnership. This means, for instance, that interest earnings of an business partnership could only be utilized for the purposes of the interest barrier on the level of the business partnership itself, but not on the level of the shareholders (deferral-effect).

In contrast, taxable interest earnings of a permanent establishment are allocated to the investor for application of the interest barrier (flow-through-effect).

3. General requirements on tax optimal intra-group cross-border debt financing structures from a German tax perspective

Intra-group cross-border debt financing is one of the most important instruments of international tax planning for enterprises and groups to lower their Effective Tax Rate (ETR) considerably. From a German tax perspective, several parameters must be fulfilled to benefit effectively from the cross-border tax differential (tax arbitrage) by shifting profits from high-taxed German corporations to foreign low-taxed intra-group units via intra-group debt financing. Principal stipulations of tax-effective intra-group cross-border debt financing are summarized in Table 1.

Table 1. Principal stipulations of tax-effective intra-group cross-border debt financing from a German tax perspective

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest barrier</td>
<td>Full tax-effective interest deduction on the level of the German debt financed entity without triggering the application of the interest barrier</td>
</tr>
<tr>
<td>Foreign taxation</td>
<td>Low taxation of shifted profits – existence of a cross-border tax differential (tax arbitrage)</td>
</tr>
<tr>
<td>German anti-avoidance provisions</td>
<td>German CFC-Taxation (Controlled foreign company legislation) does not apply or negative tax effects of German CFC-Taxation can be minimized</td>
</tr>
<tr>
<td>Profit repatriation</td>
<td>Capital import neutrality – no foreign branch profits tax or foreign withholding tax on profit distribution; tax exemption of shifted profits or foreign tax credit for German tax purposes</td>
</tr>
</tbody>
</table>

German CFC-Taxation can be defined as an anti-avoidance provision to avoid the utilization of the cross-border tax differential. The passive income (e.g., interest income) produced by a foreign low-taxed corporation or permanent establishment is attributed to the German parent company and will be taxed on a current basis. Double taxation is avoided by a tax credit for taxes of the foreign CFC-corporation/permanent establishment paid abroad. In this manner German CFC-Taxation leads to capital export neutrality.

To benefit effectively from the cross-border tax differential, German CFC-Taxation (Controlled foreign company legislation) should not apply. Otherwise, there would only be a very short temporary screening of profits from high German taxation but no ultimate reduction of the Effective Tax Rate (ETR). Essentially, German CFC-Taxation applies if one or more corporations or entities subject to Germany’s unlimited tax liability control a foreign corporation operating in a low-tax area (tax burden less than 25% on income) and this foreign corporation generates passive income. German tax authorities argue that income from non-active group financing is always passive income in the sense of German CFC-Taxation and rebutting evidence (escape) is not possible according to the ECJ-judgment in the Cadbury Schweppes case. This means that low-taxed foreign passive group finance companies/units are generally subjected to German CFC-Taxation.

In the case of a low-taxed foreign passive subsidiary (corporation) in the group, German CFC-Taxation will apply and the passive income of this foreign subsidiary is attributed to the German parent company (corporation) and will be subjected to German Corporate Income Tax and German Trade Tax on the level of the German parent, subject to the set-off of foreign taxes of the foreign passive subsidiary only against the German Corporate Income Tax (foreign indirect tax credit); there is no foreign indirect tax credit for German Trade Tax purposes. As a result, German CFC-Taxation leads to capital export neutrality, foreign operations will be taxed the same way as domestic income, the shifting of profits from high-taxed German corporations to low-taxed foreign group units is no longer favorable.

In the following the differences in CFC-Taxation between a foreign corporation and a foreign permanent establishment are analyzed. In the case of a foreign permanent establishment the profit shifted abroad by interest expenses is a profit of a foreign permanent establishment and is not subjected to German Trade Tax under German CFC-Taxation (Sec. 9, no. 3 German Trade Tax Act). Using a foreign finance branch instead of a foreign finance corporation, the utilization of the cross-border tax differential for German Trade Tax purposes is possible.

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2 Non-active group financing is given if the foreign finance company/unit operates with group equity.

3 See ECJ, 12 September 2006, Case C-196/04 (Cadbury Schweppes).
3.1. CFC group finance corporation. The shift of German taxable profits by cross-border intra-group debt financing via a CFC group finance corporation is depicted in Figure 1.

In the case of shifting taxable profits from a German group corporation to a low-taxed foreign group subsidiary (corporation) being subjected to German CFC-Taxation via cross-border intra-group debt financing, the tax effects can be described as follows:

$$\lambda = \frac{I}{TB}$$  \hspace{1cm} \hspace{1cm} 0 \leq \lambda \leq 0.3 \hspace{1cm} (1)$$

or $$\lambda \cdot TB = I$$.

The parameter $$\lambda$$ stands for the extent of profit shifting from a German group corporation to the foreign CFC-subsidiary via cross-border intra-group debt financing. It must be considered that the shifting of profits via cross-border intra-group debt financing is limited by the interest barrier. So the maximum for $$\lambda$$ and also for the maximum debt financing possibility of a German corporation under the interest barrier – the relation between deductible interest expenses (I) and German tax base (TB) of the debt financed corporation – is 0.3 (i.e. 30%).

Considering the tax effects of German CFC-Taxation described above, the total tax effect of cross-border intra-group debt financing in the case of a foreign CFC group financing corporation will be given by

$$T_p + T_G =$$

$$\left( \lambda \cdot TB \right) \cdot s_{\text{f, CIT}} + TB \cdot \left(1 - \lambda\right) \cdot s_{\text{f, CIT}} + 0.25 \cdot (TB \cdot \lambda - 100 \cdot 000) \cdot s_{\text{f, CIT}} + TB \cdot \left(1 - \lambda\right) \cdot s_{\text{f, CIT}} \cdot \left(1 + s_{\text{SolZ}}\right) + \left( \lambda \cdot TB \right) \cdot s_{\text{f, CIT}} + \left( \lambda \cdot TB \right) \cdot \left(1 + s_{\text{SolZ}}\right) - \left( \lambda \cdot TB \right) \cdot s_{\text{f, CIT}} \cdot \left(1 + s_{\text{SolZ}}\right)$$  \hspace{1cm} \hspace{1cm} (2)

$$\lambda = 0.3$$ means the maximum taxable profit of a German group corporation is shifted to the foreign low-taxed CFC group corporation by intra-group debt financing without triggering the application of the interest barrier. In this case ($$\lambda = 0.3$$) the following tax effect will result:

$$T_p + T_G =$$

$$\left(0.3 \cdot TB\right) \cdot s_{\text{f, CIT}} + TB \cdot \left(1 - 0.3\right) \cdot s_{\text{f, CIT}} + 0.25 \cdot (TB \cdot 0.3 - 100 \cdot 000) \cdot s_{\text{f, CIT}} + TB \cdot \left(1 - 0.3\right) \cdot s_{\text{f, CIT}} \cdot \left(1 + s_{\text{SolZ}}\right) + \left(0.3 \cdot TB\right) \cdot s_{\text{f, CIT}} + \left(0.3 \cdot TB\right) \cdot s_{\text{f, CIT}} \cdot \left(1 + s_{\text{SolZ}}\right) - \left(0.3 \cdot TB\right) \cdot s_{\text{f, CIT}} \cdot \left(1 + s_{\text{SolZ}}\right)$$  \hspace{1cm} \hspace{1cm} (3)

1 Considering foreign Corporate Income Tax, German Trade Tax, German Corporate Income Tax, German Solidarity Surcharge and 25% add-back of deductible interest expenses for German Trade Tax above € 100.000. It is assumed that in the case of intra-group debt financing the amount of interest expenses is higher than €100.000.
or summarized

\[
T_F + T_G = 0,25 \cdot (0,3 \cdot TB - 100,000) \cdot s_n - (0,3 \cdot TB) \cdot sf \cdot s_{SolZ} + TB \cdot s_n + TB \cdot s_{cil} \cdot (1 + s_{SolZ})
\]  

(4)

In the case of no cross-border debt financing, \(\lambda = 0\). This situation is equivalent to an entirely domestic taxation.

\(\lambda = 0 \text{ (domestic taxation)}\)

\[
T_F + T_G = + TB \cdot s_n + TB \cdot s_{cil} \cdot (1 + s_{SolZ})
\]  

(5)

The difference between equation (4) and (5) is:

\[
\text{difference } (4) - (5) = 0,25 \cdot (0,3 \cdot TB - 100,000) \cdot s_n - (0,3 \cdot TB) \cdot sf \cdot s_{SolZ}
\]  

(6)

It can be shown that the German CFC-Taxation overcompensates the cross-border tax differential. In the case of a foreign group finance corporation there is no tax advantage of cross-border intra group debt financing at all if the German CFC-Taxation applies.

The next step examines the tax effects of a CFC group finance branch.

\[
T_F + T_G = (\lambda \cdot TB) \cdot s_f + TB \cdot (1 - \lambda) \cdot s_n + 0,25 \cdot (TB \cdot \lambda - 100,000) \cdot s_n + TB \cdot (1 - \lambda) \cdot s_{cil} \cdot (1 + s_{SolZ}) + (\lambda \cdot TB) \cdot s_{cil} \cdot (1 + s_{SolZ}) - (\lambda \cdot TB) \cdot sf \cdot (1 + s_{SolZ}).
\]  

(7)

3.2. CFC group finance branch. The utilization of the cross-border tax differential by intra-group debt financing via a foreign group finance branch is shown in Figure 2.

In the case of a foreign group finance branch the tax effect can be described as follows:

Fig. 2. Shift of German taxable profits by cross-border intra-group debt financing via a CFC group finance branch

Considering the interest barrier in the case of maximum intra-group debt financing via a foreign group finance branch \(\lambda = 0,3\).
\( \lambda = 0.3 \) (maximum intra-group cross-border debt financing)

\[
T_p + T_G = (0.3 \cdot TB) \cdot s_f \quad \text{foreign CIT}
\]

\[
+ TB \cdot (1 - 0.3) \cdot s_H \quad \text{residual German Trade Tax}
\]

\[
+ 0.25 \cdot (0.3 \cdot TB - 100.000) \cdot s_H \quad \text{German Trade Tax add-back of interest} \\
\geq 0
\]

\[
+ TB \cdot (1 - 0.3) \cdot s_{cit} \cdot (1 + s_{SolZ}) \quad \text{residual German CIT}
\]

\[
+ (0.3 \cdot TB) \cdot s_{cit} \cdot (1 + s_{SolZ}) - (0.3 \cdot TB) \cdot s_f \cdot (1 + s_{SolZ}) \quad \text{German CFC–Taxation CIT}
\]

or summarized

\[
T_p + T_G =
\]

\[
+ TB \cdot (1 - 0.3) \cdot s_H \quad \text{residual German Trade Tax}
\]

\[
+ 0.25 \cdot (0.3 \cdot TB - 100.000) \cdot s_H \quad \text{German Trade Tax add-back of interest} \\
\geq 0
\]

\[
+ TB \cdot s_{cit} \cdot (1 + s_{SolZ}) \quad \text{German CIT}
\]

\[
- (0.3 \cdot TB) \cdot s_f \cdot s_{SolZ}. \quad \text{German CFC–Taxation CIT}
\]

Comparing the taxation of a CFC finance branch with a CFC finance corporation, the difference between equation (4) and (9) is relevant.

\[
\text{difference (4) – (9) = } \]

\[
- 0.3 \cdot TB \cdot s_H \quad \text{German Trade Tax advantage}
\]

In the case of a CFC group finance branch there is a tax advantage regarding German Trade Tax. In this respect, establishing a CFC finance branch is more tax-efficient than utilizing a CFC finance corporation. The reason is that passive income (e.g., interest earnings) obtained in a foreign branch of a German corporation is not subjected to German Trade Tax. The basic concept of German Trade Tax is taxation on the principle of territoriality. Only gains obtained from commercial domestic branches are subjected to German Trade Tax. Gains derived from commercial foreign branches are exempt from German Trade Tax. This exemption is not a loophole in German CFC-Taxation. It is the consequence of the German Trade Tax Law, basically focusing on the territorial trade tax concept in the case of branches. Last but not least, there are no efforts made by the German legislator altering the German Trade Tax Law in this context.

Last but not least, the question still has to be answered whether it is possible to utilize the cross-border tax differential by using a CFC group finance branch. In this respect, the difference between equation (9) and (5) is relevant. So the differences between entirely domestic taxation of the taxable profits of the German corporation and the taxation in the case of a CFC group finance branch with maximum intra-group cross-border debt financing of the German corporation under the interest barrier are compared with one another.

\[
\text{difference (9) – (5) =}
\]

\[
- 0.3 \cdot TB \cdot s_H \quad \text{German Trade Tax advantage}
\]

\[
+ 0.25 \cdot (0.3 \cdot TB - 100.000) \cdot s_H \quad \text{German Trade Tax add-back of interest disadvantages} \\
\geq 0
\]

\[
- (0.3 \cdot TB) \cdot s_f \cdot s_{SolZ}. \quad \text{German Solidarity Surcharge advantage}
\]

Disregarding the € 100,000 threshold for German Trade Tax add-back of interest (Sec. 8, no. 1 German Trade Tax Act) as well as the German Solidarity Surcharge advantage and summarizing equation (11), the total German Trade Tax advantage can be written as:

\[
\text{Total German Trade Tax advantage =}
\]

\[
-(0.3 \cdot TB \cdot s_H) \cdot 0.75 \quad \text{Total German Trade Tax advantage (12)}
\]
Equation (12) clearly shows that there is a significant tax advantage utilizing a foreign CFC group finance branch for intra-group debt financing of a German corporation in comparison with entirely domestic taxation of the profits of a German corporation without cross-border intra-group debt financing. Irrespective of German CFC-Taxation, in the case of foreign group finance branch, German Trade Tax can be reduced by the amount of 75% of the tax-deductible interest expenses. The profit of a foreign branch is not subjected to German Trade Tax (Sec. 9 no. 3 German Trade Tax Act) and there is no Trade Tax abroad. The utilization of the cross-border tax differential by using a foreign group finance branch is possible.

3.3. Intermediate result. The shift of taxable profits from a German corporation to a low-taxed foreign group finance corporation or branch is generally restricted to 30% of the German debt financed corporation’s taxable EBITDA per fiscal year (interest barrier). As a consequence, the extent of profit shifting from a German corporation to low-taxed foreign group units is restricted considerably by the interest barrier. Additionally, a low-taxed foreign passive group finance corporation or a branch operating with group equity is basically subjected to German CFC-Taxation. So equation (12) can be written generally:

\[-\lambda \cdot (TB \cdot s_n) \cdot 0,75\]

Due to the interest barrier the maximum for \( \lambda = 0.3 \). This determines the maximum extent of profit shifting for German Trade Tax purposes by intra-group cross-border debt financing via a foreign group finance branch, including the effects of German CFC-Taxation. In the case of a foreign group finance branch the factor 0.75 is fixed and describes the overall German Trade Tax advantage of cross-border intra-group debt financing of a German corporation: Firstly, tax-effective interest deduction for German Trade Tax purposes within the limitation of the interest barrier (30% of the taxable EBITDA) in the amount of 100%, then secondly 25% Trade Tax add-back of deducted interest expenses on the level of the debt financed German corporation, and thirdly, interest income of a foreign intra-group finance branch is not subjected to German Trade Tax irrespective of German CFC-Taxation (Sec. 9, no. 3 German Trade Tax Act).

4. The Interest-Pooling Model (IPM)

4.1. General functionality. In the next step the Interest-Pooling Model (IPM) is introduced. The Interest-Pooling Model (IPM) works with a low-taxed foreign finance branch (funded with group equity capital) of a German corporation being subsidiary of a German fiscal group. In the Interest-Pooling Model, debt financing only takes place within the German fiscal group’s subsidiaries. IPM as a complete new debt financing structure ensures unlimited intra-group cross-border debt financing of a German corporation for German Trade Tax purposes without triggering the limitation of the interest barrier (maximum tax-effective interest deduction in the amount of 30% of the taxable EBITDA) including the effects of German CFC-Taxation. With the Interest-Pooling Model (IPM), the utilization of the cross-border tax differential by intra fiscal group debt financing can be expanded to the maximum. This means that the maximum range for \( \lambda \) in equation (13) can be extended to 1 (0 \( \leq \lambda \leq 1 \)).

\[-\lambda \cdot (TB \cdot s_n) \cdot 0,75\]

\( \lambda = 1 \) means a reduction of the German Trade Tax burden of a German corporation by 75% via cross-border intra fiscal group debt financing.

4.2. Interest-Pooling Model (IPM) utilizing side-stream financing. The Interest-Pooling Model (IPM) can be realized in two different alternatives, in the form of side-stream intra fiscal group debt financing or in the form of down-stream intra fiscal group debt financing. In the case of side-stream
intra fiscal group debt financing, an intercompany loan exists between the foreign finance branch of one subsidiary of the German fiscal group as creditor and another subsidiary of the German fiscal group as recipient. Alternatively, with down-stream intra fiscal group debt financing, the German parent of the German fiscal group is creditor through their foreign finance branch and recipient of this intercompany loan is a subsidiary of the German fiscal group.

The structure of the Interest-Pooling Model (IPM) in the alternative of side-stream intra fiscal group debt financing is represented graphically in Figure 3.

A case of German fiscal group taxation is depicted in Figure 3. The German group consists of the following domestic corporations: German parent, German subsidiary 1 including the foreign low-taxed intra fiscal group finance branch, German subsidiary 2 and German subsidiary 3. All German subsidiaries have been entered into a profit and loss transfer agreement (Sec. 291 German Stock Companies Act) with their German parent company, leading to a full profit transfer from the subsidiaries to the level of the parent company (profit shifting effect).

As a tax-effect of the German fiscal group, the taxable profits of all German subsidiaries are calculated separately at the level of each German subsidiary for German Corporate Income Tax and German Trade Tax and are subsequently aggregated for taxation at the level of the parent company. The total taxable profit of the German fiscal group (taxable profits of the subsidiaries plus taxable profits of the parent company) is subjected to German Corporate Income Tax and German Trade Tax at the level of the German parent company (Sec. 14, Para. 1 German Corporate Income Tax Act, Sec. 2, Para. 2, s. 2 German Trade Tax Act).

The CFC finance branch and its profits are integral parts of German subsidiary 1 for German Corporate Income Tax and German Trade Tax purposes. To determine the taxable profits of German subsidiary 1, the profit (interest earnings) of the CFC finance branch is considered entirely in the domestic profit determination of German subsidiary 1 due to German Corporate Income taxation being on a worldwide income basis. In the case of a double-tax treaty exemption of the profits of the foreign CFC finance branch at the level of German subsidiary 1 for German tax purposes, there will be a Treaty-Override based on the application of the German CFC-Taxation (Sec. 20, par. 2 German Foreign Tax Act). As a consequence,
only the unilateral credit method applies for German Corporate Income Tax instead of the exemption method of a double-tax treaty.

The profits of the CFC finance branch consist of the interest earnings from the intercompany loan to German Subsidiary 2, and are only subjected to German Corporate Income Tax at the level of the German parent company with a foreign tax credit for the taxes paid on the foreign branch’s profits abroad which are not subjected to German Trade Tax (Sec. 9, no. 3 German Trade Tax Act).

At the level of intra fiscal group debt financed subsidiary 2, there is a complete tax-effective interest deduction for German Corporate Income Tax and of 75% of the interest expenses for German Trade Tax purposes considering the 25% add-back of deducted interest expenses (Sec. 8, no. 1 German Trade Tax Act).

To summarize, the overall tax-effect including the foreign tax credit is a reduction of the taxable profit of German subsidiary 2 for German Trade Tax in the amount of 75% of the tax-deductible interest expenses. If the interest barrier does not apply, the total taxable profit of German subsidiary 2 for German Trade Tax can be lowered by 75%.

In the case of a German fiscal group, the interest barrier can only apply at the level of the domestic parent company but not at the level of each subsidiary, because the German fiscal group is considered to be one business under the interest barrier (Sec. 15, no. 3 German Corporate Income Tax Act). Interest earnings and interest expenses of German subsidiaries 1 and 2 are included in the application of the interest barrier at the level of the parent company. In respect of the foreign CFC finance branch of German subsidiary 1, the flow-through-principle applies for German tax purposes. This means that the interest earnings of the CFC finance branch obtained from an intra fiscal group loan to German Subsidiary 2 are considered as interest earnings of the German subsidiary 1 for the purposes of the interest barrier (Sec. 4h, Para. 3, s. 3 German Income Tax Act) and will be considered in the application of the interest barrier at the level of the parent company. The interest expenses of German subsidiary 2 for interest payment on the intercompany loan to the foreign CFC finance branch of Subsidiary 1 are also included in the application of the interest barrier at the level of the parent company.

At the level of the parent company interest earnings and interest expenses of all subsidiaries belonging to the fiscal group are pooled for the purpose of the interest barrier rule (Sec. 15, no. 3, s. 3 German Corporate Income Tax Act) – interest-pooling effect. Due to the interest payment from German group subsidiary 2 to the foreign finance branch of German group subsidiary 1 (flow-through-principle) within the intra fiscal group debt financing, the interest expenses of German group subsidiary 2 is as high as the interest earnings of German group subsidiary 1. This means that the parent company of the German fiscal group has interest expenses in the same amount as interest earnings (interest-pooling) from intra fiscal group debt financing. Under the interest barrier, interest expenses are tax-deductible without any limitations up to the amount of interest earnings of the same fiscal year (Sec. 4h, Para. 1 German Income Tax Act). At the level of the parent company of the fiscal group there is a netting of interest expenses and interest earnings from cross-border intra fiscal group debt financing. As a result, the interest barrier is not applicable.

In summary, it can be confirmed that the Interest-Pooling Model (IPM) is not affected by the interest barrier. The Interest-Pooling Model (IPM) ensures a tax-effective utilization of the cross-border tax differential via unlimited cross-border intra fiscal group debt financing without triggering the application of the interest barrier. The Effective Tax Rate (ETR) concerning German direct investments can be lowered substantially. In the following, the tax-effects of the Interest-Pooling Model (IPM) on this Effective Tax Rate are calculated.

Equation (5) shows the German tax burden of a German corporation in the case of non intra-group debt financing. In this case, \( \lambda = 0 \) (complete domestic taxation). In equation (14), the total tax benefit of the Interest-Pooling Model is displayed (German Trade Tax advantage). In the case of maximum intra fiscal group debt financing \( \lambda = 1 \). The German Corporate Income Tax rate \( s_{cit} \) is 15% and the German Solidarity Surcharge rate \( s_{solid} \) is 5.5%. The average municipal German Trade Tax rate \( s_n \) is around 14%. Now, equation (5) and equation (14) can be written in the form of combined effective tax rates:

\[ \lambda = 0 \text{ (complete domestic taxation)} \]

\[ T_F + T_G = \left[ s_n + s_{cit} \cdot (1 + s_{solid}) \right] \cdot TB, \]

\[ \lambda = 1 \text{ (maximum cross-border intra fiscal group debt financing)} \]

\[ -s_n \cdot 0.75 \cdot (TB) \]

Inserting the average municipal German Trade Tax rate \( s_n \) of 14% into equation (16), the combined effective tax-rate of a German corporation can be lowered by around 10.5 percentage points \((14\% \times 0.75 = 10.5\%)\) by utilization of the Interest-Pooling Model (IPM).
The parameter values for $s_{tt} = 0.14$, $s_{cit} = 0.15$, $s_{Solz} = 0.055$ are now inserted into equation (15). The result is the combined domestic effective tax-rate of a German corporation in the case of entire domestic taxation (non cross-border intra fiscal group debt financing). The domestic effective tax-rate is $29.83\%$ ($0.14 + 0.15 \times 1.055$).

As a result, the combined effective tax-rate of a German corporation can be lowered from $29.83\%$ to $19.33\%$ ($29.83\% - 10.5\% = 19.33\%$) via maximum cross-border intra fiscal group debt financing applying the Interest-Pooling Model. Taking an overall view, the combined effective tax-rate of a German Corporation (German Corporate Income Tax/German Trade Tax) can be maximally reduced by $35.2\%$ within the Interest-Pooling Model (IPM).

### 4.3. Interest-Pooling Model (IPM) utilizing down-stream financing

The Interest-Pooling Model (IPM) is a very flexible debt financing structure, especially for foreign investors in Germany. Instead of financing a German trading corporation directly with debt capital provided by the foreign mother company within the limitation of the interest barrier (tax-deductible interest expenses only up to $30\%$ of the taxable EBITDA), a German holding company in the legal form of a corporation is funded by the foreign mother company with group equity capital. In the next step, the German holding company funds a foreign low-taxed finance branch (e.g., in Ireland, Cyprus or Isle of Man) with equity and a German trading subsidiary with minimum equity capital.

Then the German trading subsidiary enters into a profit and loss transfer agreement with the German holding company. There follows a fiscal grouping between the German holding company as parent and the German trading subsidiary for German tax purposes. Thereafter the foreign low-taxed finance branch of the German holding company (parent company of the fiscal group) grants an intercompany loan to the German trading subsidiary (cross-border intra fiscal group debt financing). With the borrowed capital, the German trading subsidiary invests in their German business. Within the outlined alternative structure of the Interest-Pooling Model (IPM), the German trading corporation can be unlimitedly cross-border debt financed without triggering the application of the interest barrier. If the German trading company is directly debt financed by the foreign mother company, the interest barrier applies and the tax-effective interest deduction is limited to the extent of $30\%$ of the taxable EBITDA of the debt financed German trading subsidiary. To conclude, the displayed alternative structure of the Interest-Pooling Model (IPM) in the form of intra fiscal group down-stream debt financing is extremely interesting for foreign investors in Germany but equally applicable for German groups.

The Interest-Pooling Model (IPM) utilizing down-stream cross-border intra fiscal group debt financing is depicted in Figure 4.
Summary and conclusion

The German interest barrier massively restricts the tax deductibility of interest expenses for German tax purposes and deeply cuts into the financing structures of German enterprises and investors engaged in Germany. Under the interest barrier rule a German corporation can only deduct net interest expenses up to 30% of the taxable EBITDA for German Corporate Income Tax and German Trade Tax purposes. Therefore, the potential shift of German taxable profits by means of cross-border intra-group debt financing by a German corporation into a low-taxed foreign group unit is strongly limited. This means that the utilization of the cross-border tax differential via intra-group debt financing of a German Corporation – one of the most important instruments of international tax planning – has been essentially limited by the interest barrier.

Up to now, German tax literature has failed to develop a debt financing structure ensuring unlimited tax-effective interest deduction under the interest barrier. With the Interest-Pooling Model (IPM), this paper develops a completely new debt financing structure – an intra-group cross-border debt financing model – to ensure the unlimited tax effective deduction of interest expenses with regard to German direct investments under the interest barrier. Furthermore, the Effective Tax Rate (ETR) of German direct investment can be lowered considerably without triggering the application of the interest barrier by using the Interest-Pooling Model.

The application of the interest barrier strongly depends on the legal form and the legal structure of the German debt financed entity. Only in the case of a German fiscal group with intra-group debt financing by a member of the German fiscal group there is a pooling effect of interest expenses and interest earnings (interest-pooling effect) from intercompany debt financing at the level of the parent company of the group. In the case of a German fiscal group the interest barrier is only applicable at the level of the parent company. Interest expenses are tax deductible up to the amount of the interest earned per business without any limits within the same fiscal year under the interest barrier. As a consequence, the interest barrier is not applicable in the case of intra fiscal group debt financing. Therefore, the Interest-Pooling Model (IPM) works with a German fiscal group and with debt financing only between the members of the fiscal group (German parent company and German subsidiaries).

Utilizing the cross-border tax differential within the Interest-Pooling Model (IPM), the tax effect of a German fiscal group – netting of interest expenses and interest earnings of each member corporation of the German fiscal group at the level of the parent company from intra fiscal group debt financing for purposes of the interest barrier – is combined with a foreign low-tax finance branch of a member of the German fiscal group (parent company or subsidiary), funded with group equity and operating as an intra fiscal group creditor (cross-border debt financing). Regarding such a financial branch of the German fiscal group (parent or subsidiary), the flow-through-principle would apply for purposes of the interest barrier. As a consequence, the interest earnings of the foreign finance branch of the member of the German fiscal group are allocated to the parent company of the fiscal group for the application of the interest barrier. The corresponding interest expenses of the member of the German fiscal group as recipient of the intra fiscal group loan would also be allocated to the parent company for purposes of the interest barrier. Due to the netting of interest expenses and earnings from intra fiscal group cross-border debt financing within the Interest-Pooling Model (IPM) at the level of the parent company of the German fiscal group, the interest barrier is not applicable. With the Interest-Pooling Model (IPM), unlimited debt financing of a German corporation is possible without triggering the application of the interest barrier. The profits shifted to the foreign finance branch of a group member of the German fiscal group by intra fiscal group debt financing are not subjected to German Trade Tax. Regarding the 25% Trade Tax add-back of deducted interest expenses, the entire tax effect of the Interest-Pooling Model is a reduction of the German Trade Tax burden of a German debt financed corporation by 75%. In an overall view, the Effective Tax Rate (ETR) of a German debt financed corporation consisting of German Corporate Income Tax, Solidarity Surcharge and German Trade Tax (combined effective tax rate) can be lowered from 29.83% to 19.33% within the Interest-Pooling Model (IPM) by cross-border intra fiscal group debt financing.

The Interest-Pooling Model (IPM) is considered as a very flexible intra-group debt financing structure for foreign investors in Germany and also for German groups wishing to ensure the effective utilization of the cross-border tax differential by means of unlimited intra fiscal group debt financing of a German corporation under the interest barrier.

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