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**THIN CAPITALIZATION AND INTEREST DEDUCTION
REGULATIONS**

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Table of Contents

| | | |
|-------|--|----|
| I. | Abstract..... | 3 |
| II. | Introduction..... | 4 |
| III. | Literature Review..... | 7 |
| IV. | Tax Principles..... | 10 |
| V. | International Tax Laws..... | 16 |
| VI. | Development and Overview of Thin Capitalization Rules..... | 17 |
| VII. | The Impact of Tax Competition..... | 20 |
| VIII. | Thin Capitalization/Interest Deduction Limits in the United States..... | 24 |
| IX. | Thin Capitalization/Interest Deduction Limits in Germany..... | 29 |
| X. | Thin Capitalization/Interest Deduction Limits in the United Kingdom..... | 33 |
| XI. | Thin Capitalization/Interest Deduction Limits in Other G-7 Countries..... | 40 |
| XII. | Thin Capitalization/Interest Deduction Limits in Other Key Countries..... | 45 |
| XIII. | Thin Capitalization/Interest Deduction Limits in the EU's Least Populous Countries..... | 51 |
| XIV. | Evaluation of Thin Capitalization/Interest Deduction Regulations..... | 55 |
| XV. | Proposal: Limit Interest Expenses to the WW Enterprise's Interest Expense Ratio...58 | |
| XVI. | Conclusion..... | 63 |
| XVII. | References..... | 64 |

Abstract

The United States federal government is projecting to incur large budget deficits for many years into the future, and may propose international tax law changes to raise tax revenue. While a 2009 Obama administration proposal to change U.S. international tax laws was recently withdrawn, a comprehensive overhaul plan may be submitted next year. One potential change may involve restrictions on interest deductions. The purpose of this paper is to analyze current thin capitalization regulations in a number of key countries, and to recommend the best approach to limit highly leveraged financing structures. These regulations are evaluated by a number of tax principles, including efficiency, effectiveness and fairness. A key problem with many existing approaches is that they enact uniform, “one size fits all,” interest deduction regulations, and these approaches frequently do not achieve their intended objectives. Uniform regulations permit many firms to incur more intercompany debt than the enterprise would choose to borrow, and they can also unfairly constrain other businesses that rely on debt. This paper proposes limiting a Controlled Foreign Corporation’s (CFC’s) tax deductible interest expenses by the worldwide enterprise’s own ratio of interest expense to earnings. This approach may resolve many of the problems inherent in other regulations and it achieves many of the principles for a high quality tax system. This approach should be considered by countries considering amending their regulations, including the United States.

Introduction

The United States federal government is currently facing budget deficits that are among the largest in its history. According to the government's Congressional Budget Office (CBO), the current year's deficit will total \$1.6 trillion, which is 11.2 percent of GDP, the highest percentage since World War II (CBO Summary, 2009, p. 1). Moreover, budget deficits are expected to remain large long into the future. According to CBO projections, the U.S. federal government's spending will exceed revenue every year over the next decade. The CBO projects rising health care costs and an aging population will put further pressure on budget deficits, and this debt will reduce economic growth. It says that "Over the long term (beyond the 10-year baseline projection period), the budget remains on an unsustainable path" (p. 4). The CBO Summary also states, "Putting the nation on a sustainable fiscal course will require some combination of lower spending and higher revenues than the amounts now projected" (p. 1).

Earlier this year the Obama Administration proposed a new set of international tax laws, designed to overhaul the way in which U.S.-based Multinational Enterprises (MNEs) are taxed, and to generate additional tax revenue. While the 2009 proposal was recently withdrawn, the Obama administration is reportedly proposing a comprehensive overhaul of international tax laws next year.¹ One 2009 proposal would have tightened restrictions on interest deductibility, but it would only apply in very limited situations. In contrast, a number of other countries have recently enacted more comprehensive changes to rules governing interest deductions. For example, Germany and Italy have recently overhauled their interest deduction rules, and other EU countries are also considering modifications. As Nadal (2008) writes, "countries around the world, concerned with earnings stripping, have been tightening their thin capitalization regimes" (p. 1). She added "The question becomes whether the U.S. thin cap rules are tight enough, or whether there are loopholes that can be closed."

¹ See "Business Fends Off Tax Hit: Obama Administration Shelves Plan to Change How U.S. Treats Overseas Profits" in the October 13, 2009 Wall Street Journal, page A1, for a discussion of its decision to withdraw its 2009 tax proposals. According to the article "Obama aides say the administration has set the idea aside for now, but may return to it as part of a broader tax overhaul sometime next year" (page A1).

This paper's purpose is to analyze international tax laws that regulate excessively leveraged financing structures. These tax laws are designed to combat thinly capitalized financing structures and are important both to governments and MNEs. From a government's perspective, they impact both tax revenue and the country's economic competitiveness. From the MNE's perspective, they determine the firm's tax expense and may shape where it conducts business. The purpose of this paper is to analyze approaches countries are employing to combat these tax minimization strategies and to recommend a strategy that is most likely to achieve the intended objectives.

Thin capitalization is a financing strategy MNEs use to make Foreign Direct Investment (FDI). When a MNE initiates business activities in another country, it frequently forms a local subsidiary to conduct business. These investments need to be funded to support business expansion. The cash is supplied as equity and/or debt. Debt creates an opportunity to lower income taxes, as interest expenses are tax deductible, while dividends are not. When an investment in a high-tax country is funded with intercompany debt extended from a low-tax country, profit is shifted to the country imposing lower taxes. Thus the MNE reduces its worldwide tax rate without incurring additional trade expenses. This can motivate MNEs to fund overseas investments in high-tax jurisdictions with a high ratio of debt-to-equity.

Farrar and Mawani (2008) write: "A business is said to be thinly capitalized if it is financed with a high proportion of debt relative to equity. The rules that limit the amount of interest deductions in those situations are known as thin capitalization rules" (p. 3). Some analysts prefer to focus on how income is shifted from one jurisdiction to another, and use the terms "interest stripping" or "earnings stripping." In describing how income is shifted out of the U.S. Isenbergh (2005) writes: "This maneuver is known in the tax lexicon as 'interest stripping' or 'earnings-stripping' because taxable income is stripped from the U.S. tax environment by interest deductions" (p. 33). Whatever term is used, the evidence demonstrates this is not a theoretical concern; it happens in practice. Haufler and Runkel (2008) write "Recent empirical research provide conclusive evidence that international tax differentials affect multinationals' financing structures in a way that is consistent with overall tax minimization" (p. 1). Countries imposing high income tax

rates are concerned with these funding strategies, contending the income was earned in their country, and profits should be taxed there. To limit this activity, countries have enacted a number of regulatory strategies. Thin capitalization rules limit a firm's debt-to-equity ratio to control highly leveraged financing structures. Interest deduction regulations directly limit the tax deductible interest expense a firm can recognize. Some countries employ either thin capitalization rules or interest deduction limitations, but many countries use a combination of regulations to combat excessive financial leverage.

Banks, insurance companies, and investment banks rely on significantly more debt than non-financial services firms, such as manufacturing organizations and retail firms. Thus financial services firms have higher debt-to-equity ratios compared to other industries, and some countries establish separate thin capitalization policies for these firms. This paper will not address thin capitalization/interest deduction limitations in that business sector. It will also focus on rules applying to corporate entities, rather than partnerships and other business forms.

The purpose of this paper is to evaluate a number of current approaches used to control excessively leveraged financing structures. These approaches are measured against criteria used to evaluate tax law quality, and a proposal is made concerning the best regulatory approach. This paper assumes no major changes to the existing paradigm of international business taxation; it is taken for granted that each country separately taxes the profits earned by businesses operating within its borders, and that governments do not coordinate their activities when enacting and enforcing tax laws.²

This paper contributes to knowledge of these international tax regulations by critically evaluating approaches to combat thin capitalization/interest deduction tax rules. Key findings are that there

² A number of articles have proposed fundamental changes to the existing paradigm of international taxation. For example, see Avi-Yonah, R. and Clausen, K., "Reforming Corporate Taxation in a Global Economy: A Proposal to Adopt Formulary Apportionment." The article is in *Path to Prosperity: Hamilton Project Ideas on Income Security, Education, and Taxes*, edited by J. Furman and J. E. Bordoff, 319-44. Washington, D.C.: Brookings Institution Press, 2008.

are flaws in many thin capitalization and interest deduction tax laws that can make them ineffective and inefficient at achieving their intended objectives. Other regulations do not give firms or regulators sufficient guidance to determine whether they are complying with these tax laws. After reviewing tax principles and existing regulations, this paper proposes an approach that satisfies the principles which define an effective, efficient and fair tax law.

Literature Review

As explained, this paper's purpose is to evaluate regulations that constrain highly leveraged financing structures by comparing such regulations against tax principles that define effective, efficient and fair tax laws. Thus this paper draw upon literature from a number of sources, including theories concerning what defines a high quality tax law, and other papers that specifically address thin capitalization issues.

Adam Smith may have been the first economist to define the qualities of fair and effective tax laws, but he wrote at when government spending and taxes were significantly lower than they are today. Musgrave and Musgrave (1976) defined tax principles in a modern era, when government spending programs play a substantial role in developed economies, more activities are taxed, and taxes play an important role in shaping a nation's economy. In addition, MNEs now operate throughout the world and are capable of rapidly moving operations from one country to another, sometimes motivated by the search for lower taxes. The OECD (2001) has also attempted to define tax principles in a world in which global businesses move activities between countries and nations compete vigorously to attract jobs and investment.

Gresik (2001) analyzed a world in which global tax competition shapes national tax laws. He described how MNEs seek to reduce their tax obligations by shifting activities from one country to another, and how tax competition drives countries to reduce income tax rates and attract Foreign Direct Investment (FDI). As FDI directly and indirectly stimulates economic prosperity and creates a more skilled workforce, nations compete to attract MNEs, eroding the tax base of other countries. Thus tax competition continually drives business tax rates down.

In recent years a number of studies have shown that thin capitalization is one way MNEs reduce their worldwide tax obligations. Desai, Foley and Hines (2004) conducted a study of U.S.-based MNEs, and demonstrated they leveraged subsidiaries in countries with high income tax rates with more debt than subsidiaries in countries imposing low income taxes. In addition, they demonstrated that intercompany debt was more responsive to high tax rates than third-party debt. In other words, the subsidiaries were leveraged with loans extended from related parties, supporting the premise that companies were stripping earnings from high-tax to low-tax jurisdictions. Mintz and Weichenrieder (2005) conducted a similar study of German-based MNEs, and reached very similar conclusions. Subsidiaries of German firms were incurring more debt when they operated in high-tax jurisdictions than they did when conducting business in low-tax countries. They also determined the German subsidiaries were primarily leveraged with intercompany debt, again supporting the hypothesis that firms used thin capitalization strategies to shift earnings from high-tax to low-tax jurisdictions.

Seida and Wempe (2004) conducted a study of U.S. Inverted Corporations (ICs). In a U.S. corporate inversion, MNEs shift their worldwide headquarters from the United States to other countries. They demonstrated several companies that transferred their headquarters abroad reduced their taxes substantially as a result. They showed that several of these companies achieved this result by leveraging their U.S. subsidiary with intercompany debt, stripping earnings from the United States to other countries. Though their study focused only on ICs, their study provided further evidence that MNEs transfer earnings from high-tax to low-tax jurisdictions through intercompany loans and interest payments.

A number of papers have focused upon the specific thin capitalization/interest deduction regulations in certain countries. Lund, Korsgaard and Albertsen (2008) introduced a series of articles describing thin capitalization and interest deduction rules in thirty-five countries. Each of the articles was written by a specialist in that country's rules. The articles described how interest expenses are treated for tax purposes in each country, and explained restrictions the governments impose on either financing structures or interest deductibility. The authors noted

that historically the rules have regulated debt-to-equity ratios. However in recent years some governments have restricted interest deductibility by establishing limits on the ratio of interest expenses to earnings.

von Brocke and Perez (2009) focused upon the evolution of thin capitalization rules in Germany and discussed related developments in the United Kingdom. They described how thin capitalization rules originated in those countries to combat excessively leveraged financing structures, which deprived governments of needed tax revenue. However both countries modified their rules to comply with Article 43 of the EC Treaty, the freedom of establishment clause. Lawmakers in both countries modified their rules to ensure they treated domestic and international firms equitably. In addition, von Brock and Perez explained how Italian legislators in 2008 modeled new rules after German legislation. The article demonstrated that tax laws sometimes face legal challenges, and it also showed that nations closely monitor thin capitalization laws in other countries.

van Saparoea (2009) also analyzed thin capitalization rules in Germany and the United Kingdom, and offered suggestions concerning proposed changes in the Netherlands. The article described how competitive economic pressures have forced frequent changes to these laws. It also explained the difficulties large countries experience trying to remain economically competitive while other countries reduce tax rates to attract FDI. It provided further evidence tax competition is a key force shaping thin capitalization rules, and demonstrated that tax authorities evaluate thin capitalization rules in other countries when constructing their own laws.

Tax Principles

To evaluate the effectiveness of thin capitalization and interest deduction rules, it will be useful to identify the criteria by which these laws should be judged. It may be impossible to develop a comprehensive list of tax principles to which all would agree. Nonetheless, economists and tax experts have identified general principles by which tax laws should be evaluated. As Musgrave

and Musgrave (1976) write, “ideas as to what constitutes a ‘good’ tax system have had their influence. Economists and social philosophers, from Adam Smith on, have propounded what such requirements should be” (p. 210). For the purposes of this paper, we will focus upon those principles that may be relevant to an analysis of thin capitalization and interest deduction tax regulations.

It is generally agreed that tax obligations should be clearly stated, and identified with as little ambiguity as possible. Both the taxpayer and tax collector benefit from knowing precisely the amount owed, and when funds are due. Businesses need this information to prepare accurate financial statements and to prepare financial forecasts. And government agencies need this same information to prepare their financial plans. The European Commission (EC) states that certainty is an important tax principle, emphasizing both the taxpayer’s and government’s need for predictability. The EC (2004) has written “Certainty is desirable to assist business planning, but also to provide a degree of revenue certainty for administration; for example, if the rules governing loss-offset are unclear then neither business nor government can predict tax payments and revenue” (p. 4). For the purposes of this paper, this will be called the certainty principle.

Efficiency is another important principle that is generally supported. To be efficient, a tax system should collect revenue with as little expense as possible. Funds spent collecting taxes reduce the earnings of businesses and individuals, and add nothing to public welfare. Musgrave and Musgrave (1976) write: “Administration and compliance cost should be as low as possible compatible with other objectives” (p. 211). The EC Commission also supports the efficiency principle, writing, “The simpler a tax base is the lower the administrative or compliance costs should be, for both administrations and business” (p. 5). Furthermore, “The rules of a tax base must be easy to enforce as an unenforceable tax is unlikely to be equitable or neutral” (p. 5).

The EC comments identify another efficiency characteristic, which is the efficient functioning of markets. Most economists believe that when markets are operating efficiently, tax motivations

should play a minimal role in shaping business and consumer decisions. Taxes can distort markets and impose a welfare loss upon an economy. Musgrave and Musgrave (1976) wrote “Taxes should be chosen so as to minimize interference with economic decisions in otherwise efficient markets” (p. 210). Ideally taxes should play a negligible role in shaping economic decisions.

However taxes can play an important role in correcting market inefficiencies, or in addressing externalities. As Musgrave and Musgrave (1976) wrote: “At the same time, taxes may be used to correct inefficiencies in the private sector, provided they are a suitable instrument for doing so” (p. 210). Similarly, the EC Commission (2004) has written: “taxation policy may be used to correct ‘market failures’ whereby distortions or inefficiencies in a particular market economy can be ‘corrected’ by the use of specific tax incentives” (p. 4). While it may not be easy to discern whether markets are operating efficiently or not, most economists and tax experts would agree that taxes should play a role in addressing externalities.

Probably all parties agree taxes should be “fair,” but defining fairness with any specificity is difficult. Jones (2006) writes a “standard by which to evaluate a tax is whether the tax is fair to the people who must pay it. While no economist, social scientist, or politician would ever argue against fairness as a norm, there is precious little agreement as to the exact nature of tax equity” (p. 34). Nonetheless, taxpayers and regulators expect tax laws should be rational and logical, and they should not be random or arbitrary. In a general sense, most economists, tax experts and taxpayers expect tax laws should be reasonable, coherent and just. Moreover, they should not unduly impact business operations without good cause.

Some experts have taken the general concept of fairness, and tried to describe it more precisely. Two further fairness definitions have been suggested, and while neither is a comprehensive definition, both identify what many taxpayers expect. One is the benefit principle, which argues a taxpayer’s obligations should be related to the value of services received from the government. A second is the ability-to-pay principle, which says taxes should be related to the taxpayer’s

capacity to meet the obligation. At a minimum, it makes no sense to assess taxes which cannot be paid.

However the benefit principle and the ability-to-pay principle may direct tax laws in different directions. First, it may be difficult to measure and value the government benefits taxpayers receive. How does one value the benefit of police protection or public parks? As Schön (2009) writes, “There is simply no conceivable way to measure the ‘price’ of public services for the individual private actor” (p. 76). Beyond this, many public services are specifically designed to aid a society’s neediest citizens, with the least ability-to-pay. The benefits they receive may far exceed the taxes they can pay. And others may have the capacity to pay substantial taxes, but have little or no need for many government programs. Liberals and conservatives are likely to have different perspectives on which principle best represents fairness. Political conservatives may favor the benefit principle, which advocates paying only for what is received. Political liberals are likely to favor the ability-to-pay principle, which may support income redistribution. As Musgrave (1986) writes, “Contrasted with the conservative appeal of the benefit doctrine, the ability to pay approach was favoured by liberal writers who were not averse to income redistribution” (p. 321).

Musgrave and Musgrave (1976) describe the benefit principle this way: “One approach rests on the so-called benefit principle. According to the theory, dating back to Adam Smith and earlier writers, an equitable tax system is one under which each taxpayer contributes in line with the benefits which he receives from public services” (p. 211). In international tax, this is also used to support taxing profits where they are sourced. Schön (2009) writes, “The benefit principle is meant to justify income taxation with respect to the support granted by a country to the generation of income in its territory. This principle is in particular invoked by source countries to legitimate taxation in jurisdictions where the taxpayer is not resident but carries on all or part of his income-generating operations” (p. 75). Governments may cite the benefit principle to support thin capitalization/interest deduction regulations, arguing that intercompany loans are

extended to shift income from where it is earned, and where government services are provided, to low-tax jurisdictions that provide minimal government support.

Musgrave and Musgrave (1976) describe the other fairness principle this way: “The other strand, also of distinguished ancestry, rests on the ‘ability-to-pay’ principle. Under this approach, the tax problem is viewed by itself, independent of expenditure determination.” (p. 211). Thus tax obligations are not necessarily linked to benefits received. Schön (2009) notes that the ability-to-pay principle rests upon liberal values of shared sacrifice, writing “The ability-to-pay principle is deeply rooted in the Western tradition of being a citizen’s contribution to the common good by reason of solidarity among the members of a society. It is meant to address the different consumption power of different taxpayers in order to enforce a politically defined financial sacrifice” (p. 71). Musgrave and Musgrave say that while market-oriented economists may take issue with the ability-to-pay principle, it remains an important standard by which taxes are frequently evaluated. They write that a “given total revenue is needed and each taxpayer is asked to contribute in line with his ability to pay. This approach leaves the expenditure side of the public sector dangling, and is thus less satisfactory from the economist’s point of view. Yet, actual tax policy is largely determined independently of the expenditure side and an equity rule is needed to provide guidance. The ability-to-pay principle is widely accepted as this guide” (p. 211-212).

Most experts believe taxes should be neutral, in that they should not discriminate in favor or against certain taxpayers and investors, in the absence of externalities. Musgrave and Musgrave (1976) said “Taxes should be chosen so as to minimize interference with economic decisions in otherwise efficient markets” (p. 210). Doernberg (2008) writes “From an efficiency point of view, the aspirational goal for a tax system in general, or for the U.S. rules governing international transactions specifically, is the implementation of a tax-neutral set of rules that neither discourage nor encourage particular activity. The tax system should remain in the background, and business, investment, and consumption decisions should be made for non-tax reasons” (p. 3-4).

In general, there are two different aspects to neutrality. One is capital-export neutrality, and the second is capital-import neutrality. Concerning the former, Doernberg (2008) writes: “A tax system meets the standard of capital-export neutrality if a taxpayer’s choice between investing capital at home or abroad is not affected by taxation” (p. 4). Schön (2009) describes it similarly, writing that capital export neutrality “requires that—from the position of the investor—the tax burden for foreign and domestic investment is equal and therefore does not distort the decision of whether to invest here or there” (p. 79). While many believe this is still a worthwhile objective, in practice capital-export neutrality does not exist today, due to international tax competition and laws that encourage countries to tax income where it is sourced, or earned. Schön (2009) argues that capital-export neutrality would be “most easily achieved when the country of residence of the investor taxes his or her worldwide income while the country of source fully waives its jurisdiction over income connected with its territory” (p. 79). However source-based taxation is more frequent than residence-based taxation, and few countries would be willing to forgo taxing profits earned (or sourced) in their country.

Capital import neutrality has played an important role in the development of thin capitalization laws. Schön (2009) writes “The concept of capital import neutrality starts from the perspective of the host country of an investment and compares the tax burden for domestic and foreign investors” (p. 80). Doernberg (2008) says “This standard is satisfied when all firms doing business in a market are taxed at the same rate” (p. 5). To encourage FDI and support international trade, many international agreements require that domestic firms and overseas investments are taxed equitably, and countries violating these rules can be subject to trade sanctions and penalties. To attract or limit FDI countries may be tempted to use the tax system to either subsidize or penalize overseas investors, which is considered an unfair trade practice. Thus many trade agreements and international tax standards mandate consistent tax rates and regulations, so companies compete on a “level-playing field.” Some jurisdictions support this standard with a “freedom of establishment” clause. As will be explained subsequently, several thin capitalization rules have violated this standard, as judged by the European Commonwealth’s (EC) freedom of establishment clause.

Finally, we should ask whether thin capitalization/earnings stripping rules achieve their intended objective. Are they effective? As Musgrave and Musgrave (1976) wrote, it is appropriate to use taxes to correct market inefficiencies (p. 210). In this case, the inefficiency tax authorities wish to address is the shifting of earnings from high-tax jurisdictions in which they are earned, to low-tax jurisdictions. Is a thin capitalization rule effective at achieving this objective? Or is it so lax that it does not restrict abuse? How easy is it to evade the tax laws and move profits? Is the law so restrictive that it constrains firms from financing FDI in ways inconsistent with their business models? In short, do the laws achieve the goals of funding government services while promoting a prosperous economy? An effective thin capitalization law should constrain firms from incurring excessive intercompany debt solely for the purpose of reducing taxes. But it should also allow firms to incur debt, and take a tax deduction, when such debt is a normal part of a firm's business model.

To summarize, the tax principles used to evaluate thin capitalization, interest expense deduction limits, and related rules are:

- 1) The certainty principle
- 2) The efficiency principle
- 3) The fairness principle, which also includes:
 - a. The benefit principle
 - b. The ability-to-pay principle
- 4) The neutrality principle, which also includes:
 - a. Capital-export neutrality
 - b. Capital-import neutrality
- 5) The effectiveness principle

International Tax Laws

International laws govern how business transactions are treated for income tax purposes, and frequently reflect the tax principles cited. These tax laws are more specific than tax principles, and may be interpreted differently from country-to-country. Nonetheless, they govern how nations tax MNEs. In addition, unlike the tax principles mentioned above, these international tax laws may be the source of litigation between taxpayers and tax authorities in various nations. Most economists and tax experts believe business transactions should not be motivated solely by tax reduction goals. This is the business purpose doctrine. This doctrine says a business transaction should have some purpose other than tax minimization. Jones (2006) says in the United States “a transaction should not be effective for tax purposes unless it has a genuine business purpose other than tax avoidance. The lack of any business purpose by the participants can render a transaction meaningless, at least from the perspective of the IRS, even if the transaction literally complies with the law” (p. 85)³ Many other countries have similar regulations, to prevent taxpayers and advisors from structuring elaborate tax transactions that serve no business purpose other than reducing tax obligations.

Related to the business purpose doctrine, most tax authorities believe tax obligations should be determined by the underlying business substance, rather than the legal structuring of a transaction. This is known as the substance over form doctrine.⁴ In many situations it is possible to structure a business transaction so it literally complies with the law, but the net result of the transaction conflicts with the law’s intention. As Lessambo (2009) writes, “The substance over form doctrine relies upon the underpinning that the tax results of an arrangement are better determined based on the underlying substance rather than its mere formal structuring. Therefore, the IRS has the ability to challenge a given transaction according to its underlying substance” (p. 207). This doctrine is frequently relevant in thin capitalization regulations. For example, to shift income from one country to another, a MNE may extend an intercompany loan from one legal entity to another. Tax regulations might try to prevent this by specifically limiting intercompany

³ The business purpose doctrine was first articulated in the United States in *Gregory v. Halvering*, 293 U.S. 465 (1935).

⁴ Within the United States, this doctrine was articulated in *Commissioner v. Danielson*, 378 F.2d 771 (CA-3, 1967).

debt. In response, the MNE might structure a loan so it is literally extended from a third party, but in substance the parent guarantees the debt or initiates a back-to-back loan that culminates in the third-party loan. Tax authorities may argue that while the loan was formally extended from a third party, in substance it was an intercompany loan.⁵ Courts frequently look through the legal agreements and focus on the net business substance of transactions.

Another important legal concept is the arm's-length standard. The arm's-length standard governs how related entities value sales of products and services. When a MNE operates in more than one country, it typically creates a new legal entity to facilitate legal operations in that jurisdiction. That entity may need to buy or sell products from other legal entities within the same MNE. According to Jones (2006), "An important presumption about market transactions is that the parties are negotiating at arm's-length. In other words, each party is dealing in its own economic self-interest, trying to obtain the most advantageous terms possible from the other party" (p. 62). The OECD's Transfer Pricing Guidelines for Multi-National Enterprises and Tax Administrations cites the arm's-length standard (p. 254). U.S. Treasury Regulation §1.482(1)(b)(1) also supports the arm's length standard, stating, "In determining the true taxable income of a controlled taxpayer, the standard to be applied in every case is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer."

Development and Overview of Thin Capitalization Rules

To understand thin capitalization rules, a brief overview of this issue follows, and a more detailed examination of the regulations in a number of key countries will ensue. Rules in all G-7 countries plus Denmark, the Netherlands and New Zealand will be reviewed in some detail, as rules in those countries illustrate many of the challenges and complexities of drafting effective

⁵ A closely-related and overlapping tax standard is the "step transaction" doctrine. Lessambo (2009) writes, "Under the step transaction doctrine a series of formally separate transactions will be integrated if they show to be interdependent, and part of a sole picture" (p. 209). For example, if a MNE lent money to a bank, and that bank lent the funds back to the MNE's subsidiary, tax authorities might collapse the two transactions together to demonstrate the loan should be viewed as related-party debt. Thus both the form over substance principle and the step-transaction doctrine could be used to treat the series of transactions as a related-party loan.

thin capitalization/interest deduction rules. These rules will be contrasted with regulations in a number of smaller European countries.

In 1969 the United States enacted IRC 385, which gave tax authorities the power to determine if intercompany loans were, in substance, equity investments. Tax authorities believed then that characterizing intercompany loans as equity would resolve the thin capitalization issue. If the IRS could deem intercompany loans to be investments, it could treat the interest payments as dividends, which are not tax deductible. However tax authorities eventually determined these tools were inadequate, and that additional tools were necessary. According to Lessambo (2009), “In 1989, Congress enacted section 163(j) for excessive interest payments paid abroad” (p. 10). Many other countries began to develop similar rules around this time. According to von Brocke and Perez (2009), “In the late 1990s most developed countries began to introduce thin capitalization rules in order to restrict the implementation of abusive financing structures which might lead to the transfer of profits to another jurisdiction where the profits were taxed at a lower rate” (p. 29).

From inception, thin capitalization rules generally evaluated the firm’s balance sheet to determine if the Controlled Foreign Corporation’s (CFC’s) financing structure was excessively leveraged. von Brocke and Perez (2009) write, “In a first stage, the majority of these thin capitalization rules established the existence of safe harbours (e.g. debt-to-equity ratios) in order to force related companies to apply normal market conditions in their intra-group transactions” (p. 29). Lund, Korsgaard and Albertsen (2008) agree, writing “Specific rules aimed to discourage thin capitalization often require that the debt-to-equity ratio meet a specific ratio in order for the company to be allowed to deduct interest expenses” (p. 283).

However, since that time, several countries have shifted their approach to combat these financing strategies. Lund, Korsgaard and Albertsen (2008) write “In recent years, there has been a tendency for some countries to base their rules on a company’s operations, and more and more countries are introducing so-called interest limitation rules and earnings stripping rules” (p. 283).

Germany and Italy have recently adopted this approach. von Brocke and Perez (2009) believe debt-to-equity rules were ineffective, writing “it was very simple for companies to circumvent the limit established by debt-to-equity ratio by increasing the equity of the financed subsidiary in a manner sufficient to push down as much debt as necessary” (p. 29). In addition, several countries found their rules were inconsistent with the capital import neutrality principle, which also motivated those countries to develop alternative regulatory approaches.

One country, the United Kingdom, began by limiting the debt-to-equity ratio, and now relies exclusively upon the arm’s-length standard. The U.K. does not give taxpayers any firm financial guidelines or ratios, which may make it difficult for taxpayers to comply with the standard, and for regulators to enforce it. Developments in the United Kingdom will be discussed in more detail subsequently.

There are several other facets to thin capitalization rules that merit attention. One is that countries monitor thin capitalization rules in other countries when developing their own policies. van Saparoea (2009) writes that a “Netherlands legislator has been investigating the possibility of introducing new legislation that is similar to that applying in Germany” (p.7). von Brocke and Perez state “With the 2008 Budget law, the Italian parliament introduced new interest limitation rules inspired by the new German rules, and repealed thin capitalization rules which have been in place since 2003” (p. 33). In part this is driven by the search for more effective way to regulate this activity, but it may also be motivated by tax competition.

Several countries have altered their rules a number of times in the past decade. von Brocke and Perez (2009) write “the United Kingdom modified its thin capitalization rules three times between 1994 and 2004” (p. 29). They also explain Germany had thin capitalization rules which were changed in 2000, 2003, and 2007 (p. 30-33). Describing developments in Germany, the Netherlands and the United Kingdom, van Saparoea’s article is entitled “Optimizing the Interest Deduction Rules—A Never-Ending Story” (p. 3). Frequent changes suggest it has been difficult to craft these rules successfully. Several governments have monitored these rules regularly and

have modified them to improve effectiveness. However other countries have developed more stable thin capitalization rules, for reasons to be discussed subsequently.

The Impact of Tax Competition

One of the driving forces behind international tax laws is tax competition. As MNEs must satisfy shareholders they seek to maximize net income, which motivates them to reduce income taxes. Gresik (2001) notes that MNEs have the ability to transfer operations from one country to another, and explains: “This flexibility not only helps transnationals minimize the cost of taxes and regulations imposed by national governments; it can also aid them in pitting one government against another” (p. 800). Because MNEs can move business operations easily, they have a negotiating advantage over taxing authorities.

Gresik argues tax competition deprives some countries of needed tax revenue. He writes “it is clear that one country’s choice of tax policy can impose fiscal externalities on another country” (p. 820). Beyond this, MNEs manage the information they provide to taxing authorities. Governments do not share tax return information without taxpayer agreement, creating an information asymmetry that benefits the MNE. As Gresik writes, “In the absence of shared information, the usual global efficiency losses arise because each country’s tax policies still impose negative externalities on the other” (p. 833).

Similarly, governments aim to develop tax policies that maximize a nation’s well-being. However the task confronting tax authorities and legislators can be challenging. While it is clear MNEs increase profits through lower tax rates, it is less clear whether governments benefit from increasing or decreasing income tax rates. Lowering tax rates may reduce tax revenues, at least initially. But lower taxes may also attract FDI, create jobs, and make businesses more competitive. Increasing tax rates might immediately raise tax revenue, but discourage FDI. Schön (2009) writes, “Governments know that a simple extension of the tax base or a raise of the tax rate might not have the aspired revenue effect once mobile taxpayers relocated their

residence or their activity/investment to another jurisdiction. There might be a fall in revenue, while a lowering of the tax base or rate might induce more investment, increasing both domestic welfare and the government budget” (p. 70). Some small countries, such as Singapore and Ireland, have adopted low tax strategies to attract investment. It is not entirely certain what the best economic strategy is, and countries need to balance prospects of attracting new investment against the immediate impact upon tax revenue. So not only do MNEs have an information advantage over governments, they have clearer objectives.

van Saparoea (2009) describes the government’s dilemma: “Anti-abuse legislation has over time become a challenging issue for tax authorities, which try to balance tax opportunities, on the one hand, and tax restrictions, on the other, within the constraints of retaining a competitive advantage, compared to other jurisdictions” (p. 3). In the absence of coordinated international tax policies, this clearly gives MNEs an advantage. In a global economy with mobile capital, one country can gain an advantage by offering lower income tax rates or less restrictive tax policies, at least in the short run. This pressures other countries to follow suit and match the tax rate cuts or to enact permissive tax regulations.

Evidence of Thin Capitalization/Earnings Stripping

While it is clear that MNEs could reduce their tax rate by leveraging debt on subsidiaries in high-tax jurisdictions, for some time no study conclusively demonstrated firms were doing so. Desai, Foley and Hines (2004) commented that “estimating the sensitivity of capital structure to tax incentives has proven remarkably difficult, due in part to measurement problems. Consequently, it is not surprising that several studies find no effect or unexpected relationships between tax incentives and the use of debt” (p. 2454).

However in recent years several studies have shown that firms leverage more debt on subsidiaries operating in countries imposing high income taxes. As Haufler and Runkel (2008) wrote, the evidence that high income tax rates motivate additional debt is “conclusive” (p. 1). In addition, the studies also demonstrate that most of the additional debt is extended from related

entities within the MNE, which allows the company to reduce its tax rate without incurring additional trade expenses.

Desai, Foley and Hines (2004) studied the leverage of 3,680 MNEs owning 32,342 related corporations during 1982, 1989 and 1994. The study focused on U.S. firms investing abroad. They concluded these firms increased debt in response to high tax rates. They write: “First, there is strong evidence that affiliates of multinational firms alter the overall level of composition of debt in response to tax incentives. The estimates imply 10% higher tax rates are associated with 2.8% greater affiliate debt as a fraction of assets, internal finance being particularly sensitive to tax differences. While the estimated elasticity of external borrowing with respect to the tax rate is 0.19, the estimated tax elasticity of borrowing from parent companies is 0.35” (p. 2452). In other words, when operating in high-tax jurisdictions, MNEs increased both trade and intercompany debt, but intercompany debt was more responsive to high income tax rates.

They also compared debt-to-equity levels in several countries. Desai, Foley and Hines write “affiliates in high-tax countries generally make greater use of debt to finance their assets than do affiliates in low-tax countries. Affiliates in tax havens such as Barbados have aggregate leverage ratios of 0.30 or less, while affiliates in high-tax countries such Japan and Italy have aggregate leverage ratios that exceed 0.53” (p. 2462).

A study of German companies reached similar conclusions. Mintz and Weichenrieder (2005) conducted a study of the outbound investments of 13,758 German-owned subsidiaries between 1996 and 2002. They also concluded there was a strong relationship between high income tax rates and subsidiary debt. They write, “We find that the tax rate in the host country has a sizeable and significantly positive effect on leverage” (p. 1).

Mintz and Weichenrieder said their results were similar to those in the study by Desai, Foley and Hines, writing “our estimates are largely in line with results derived from U.S.-owned subsidiaries” (p. 17). However they did find some differences in the behavior of German firms, as compared to U.S. based MNEs. They concluded German firms used very little third-party debt to achieve higher leverage, writing “German-owned subsidiaries rely almost exclusively on intra-company loans, while in U.S. studies the marginal effect of a tax change has turned out to be larger for third-party debt” (p. 17). In short, the German firms used little trade debt to achieve financial leverage.

Mintz and Weichenrieder also analyzed the debt ratios of wholly-owned versus partially-owned subsidiaries. They write “While wholly-owned firms experience a significant tax effect on their financial leverage, this is not the case for German subsidiaries that are less than 100% owned affiliates” (p. 17). They believed that minority shareholder interests complicated the process of extending related-party debt.

Seida and Wempe (2004) analyzed the impact of twelve corporate inversions, contrasting results with twenty-four similar corporations, in similar industries and with comparable annual revenue figures. They found that ICs realized substantial reductions in their effective tax rate (ETR) as a result of the corporate inversion. The pre-inversion tax rate fell from 32.01 percent to 20.44 percent after the inversion (p. 806). They wrote “The 11.57 percentage point percentage point reduction in mean ETR for the inversion sample is significantly greater than the mean ETR reduction for the control sample (approximately four percentage points)” (p. 806).

Furthermore, the study concluded the ETR decreased due to a substantial decline in U.S.-sourced income, primarily due to earning’s stripping. They write that “despite managers’ claims that inversion is necessary to avoid U.S. tax on foreign earnings, most of the observed inversion-related tax reduction is likely due to avoidance of U.S. tax on U.S. earnings through increased stripping of U.S. earnings to lower-tax foreign countries” (p. 825).

To summarize, all three studies demonstrated that MNEs transfer earnings from high-tax jurisdictions by leveraging subsidiaries with debt. Each of the three studies also concluded that the debt was lent by related entities, rather than third-parties.

Thin Capitalization/Interest Deduction Limits in the United States

U.S. corporate income taxes are among the highest in the world, rivaled only by Japan's 40% rate. The federal income tax rate is 35%, and most states also levy corporate income taxes, so the combined rate is approximately the same as Japan's.⁶ Given these high income tax rates and the size of the U.S. economy, the federal government should be alert to potential inbound thin capitalization activities.

U.S. thin capitalization rules were first implemented in 1989 when IRC section §163(j) was enacted. Section §163(j)(2)(A)(ii) applies when “the ratio of debt to equity of such corporation as of the close of such taxable years (or any other day during the taxable year as the Secretary may by regulations prescribe) exceeds 1.5 to 1.” When that condition is met, and the interest expense is greater than fifty percent of the adjusted taxable income of the business, that portion above fifty percent is not tax deductible. Thus both conditions must be met before tax deductible interest expenses are limited. Adjusted taxable income is calculated by adding back net interest expense, depreciation, amortization, depletion, and a net operating loss deduction to taxable income (Department of Treasury, 2007, p. 9). The excess interest is not deductible that year, but can be carried forward into future years. The initial rules only applied to debt extended from related parties, but in 1993 the law was expanded to include debt extended from unrelated parties, if guaranteed by a foreign or tax-exempt entity (Department of Treasury, 2007, p. 9).

The U.S. 1.5 to 1 debt-to-equity figure is a “safe harbor” rule. When the debt-to-equity ratio is below that figure, the IRS will not question whether the debt is excessive. If it is above the 1.5 to 1 ratio, the IRS may or may not determine the debt is excessive, based on an examination of

⁶ See tables on page 43-44 for income tax rates in the G-7 countries.

all relevant facts and circumstances. To describe rules in several other countries the Department of Treasury (2007) wrote, “A debt-to-equity ratio is often used, but sometimes it is a strict limit (e.g. interest on any debt that exceeds the ratio is disallowed) rather than only a safe harbor as it is in the United States” (pp. 10-11).

While the U.S. debt-to-equity ratio is lower than that imposed in other nations, this does not necessarily demonstrate the rules are effective at achieving their objective. If the limitations are ineffective, firms can still shift income overseas through excessive debt. The U.S. Congress became concerned that earnings stripping was depriving the U.S. Treasury of needed tax revenue, and in 2004 directed the Department of Treasury to study the impact of thin capitalization upon tax revenue.

To analyze this issue, the U.S. Treasury Department conducted two studies. The first compared the profitability of Foreign Controlled Domestic Corporations (FCDCs), which are owned 50% or more by foreign parties, and Domestically Controlled Corporations (DCCs). If FCDCs were less profitable than DCs, this might indicate earnings were being stripped out of the U.S. But this study did not reach a conclusion on that question.

The Department of Treasury study analyzed the 2004 tax returns for over 76,000 corporations, and determined DCCs were significantly more profitable than FCDCs.⁷ DCC profit levels averaged 4.3% of revenue, while FCDCs averaged 2.9% of revenue (Department of Treasury, 2007, p. 13). However the Department of Treasury study suggested this may be explained by the fact “that DCCs receive a substantial amount of income in the form of dividends and royalties, mainly from subsidiaries abroad” (Department of Treasury, 2007, p. 14). Comparisons of operating income, which exclude dividends, royalties, interest revenue and expenses, and depreciation and amortization, demonstrate that FCDCs are actually more profitable than DCCs, registering profits at 6.3% of revenue, versus 5.5% of revenue for DCCs (p. 15). Furthermore,

⁷ Partnerships, Real Estate Investment Trusts and S-Co’s (small, domestic corporations) were excluded from the study to facilitate consistent comparisons, though the Department of Treasury acknowledged these entities could sometimes be financed through excessive debt.

comparisons of interest paid/cash flow demonstrated that interest expenses for DCCs and FCDCs were roughly comparable (p. 18). Thus the study “did not find conclusive evidence that FCDCs have very high interest expense relative to cash flow compared to DCCs” (p. 21). Given these results, the Treasury Department reached no conclusion on earning’s stripping, but determined it needed to gather more information.

To analyze this topic further, in February 2009 the IRS released a new form, 8926, entitled *Disqualified Corporate Interest Expense Disallowed Under Section 163(j) and Related Information*. The purpose of the form is to collect more information to determine whether some FCDCs might be engaged in earning’s stripping activities. According to IRS Bulletin 2007-50, “Form 8926 solicits information relating to the determination and computation of a corporate taxpayer’s 163(j) limitation, including the determination of the taxpayer’s debt-to-equity ratio, net interest expense, adjusted taxable income, excess interest expense, total disqualified interest for the tax year and the amount of interest deduction disallowed under section 163(j), as well as certain information with respect to the related persons receiving disqualified interest.” The IRS plans to use this information to determine if earning’s stripping from the United States is occurring.

In the second study, the U.S. Department of Treasury analyzed the behavior of Inverted Corporations (ICs) to determine if they were engaged in earning’s stripping activities. An IC is a MNE that shifts its corporate headquarters from one country to another. A U.S. IC is relieved of the burden of the U.S. tax on worldwide earnings. In principle, taxes on U.S.-sourced income should not change. However the study determined, “data on ICs strongly suggest that these corporations are shifting substantially all of their income out of the United States, primarily through interest payments” (p. 21). Rules to combat thin capitalization were ineffective at controlling this activity. The Department of Treasury study relied primarily upon the previously cited analysis by Seida and Wempe (2004) that analyzed the tax impact of corporate inversions.

As mentioned, Seida and Wempe determined that ICs substantially reduced their effective tax rate by shifting their corporate headquarters abroad, leveraging the U.S. entity with substantial debt, and transferring earnings to low-tax jurisdictions. Over the course of the study they found ICs reduced their effective tax rate (ETR) by 11.57 points, while comparable firms reduced their tax rate by approximately four points. Seida and Wempe did a detailed analysis of four firms and concluded the ETR reduction was “attributable to the stripping of U.S. earnings via intercompany interest payments” (p. 825). They found that all four firms substantially increased total and long-term intercompany debt after the inversion, much of it incurred by the U.S.-based entity (p. 816-817). Furthermore, they found that thin capitalization rules were not effective in limiting earning’s stripping. Seida and Wempe analyzed publically-available information, and did not have access to the firms’ tax returns. However they concluded that at least three of the firms, and possibly all four, had U.S. debt-to-equity ratios less than 1.5 to 1, the thin capitalization limit in the United States (p. 821). They found the debt-to-equity ratio for the fourth firm may or may not be below 1.5 to 1, depending upon how the firm consolidated its financial results for tax purposes. That firm’s debt-to-equity ratio may have been as low as .9 to 1, if its “Other Subsidiaries” were consolidated into the parent’s tax return.⁸ Seida and Wempe (2004) did not specifically analyze whether the firm’s interest expenses exceeded 50% of EBITDA. However that limitation does not take effect if the debt-to-equity ratio is less than 1.5 to 1. Thus it is possible to strip all earnings from the US as long as the debt-to-equity ratio is not exceeded.

Congress passed legislation in 2004 (AJCA 2004) that addressed corporate inversions. It was specifically aimed at ICs in which “the former shareholders of the U.S. corporation hold (by reason of holding stock in the U.S. corporation) 80 percent or more (by vote or value) of the stock of the foreign-incorporated entity after the transaction” (Joint Committee on Taxation, 2009, p. 58). IRC §7874 has significantly reduced this activity in the United States. According

⁸ Seida and Wempe (2004) specifically focused upon ICs, but note that other MNEs may be motivated to strip earnings from the U.S., as well. However they believe the incentives may not be as strong, writing “Foreign-domiciled firms (whose foreign domicile was not established via an inversion) with tax rates less than the U.S. rate have incentives to strip U.S. earnings. U.S.-domiciled firms also have incentives to strip U.S. earnings. However, their ability to do so is severely limited by statutory interest expense allocation rules...U.S.-domiciled firms achieve only *deferral* of income when U.S. earnings are stripped; foreign-domiciled firms (including inverted firms) achieve *permanent exclusion* of income stripped from the U.S.” (p. 806).

to Nadal (2008) “Under section 7874, inversions are disregarded when a foreign corporation acquires substantially all the assets of a domestic entity such that after the transaction, at least 80 percent of the foreign corporation’s shares are owned by former shareholders of the domestic entity and the expanded affiliate group does not have substantial commercial activities in the foreign corporation’s country of incorporation” (p. 3). When those conditions are met, the firm continues to be treated as a U.S. corporation for tax purposes.

Earlier this year the Obama administration released proposals to change international tax rules in a variety of ways, including the tax deductibility of interest expenses in limited situations. Because the Department of Treasury study did not provide evidence that overseas firms with domestic CFCs were stripping earnings outside the U.S., no changes were proposed to those rules. However as the Seida and Wempe (2004) study demonstrated Inverted Corporations were stripping earnings from the U.S., Congress enacted IRC §7874, which taxes Inverted Corporations as domestic entities. But IRC §7874 only taxed ICs as domestic entities when the 80% ownership threshold was met. Thus the Obama administration proposed a to lower this threshold to situations in which 60% of the stock in the new entity is owned by former shareholders of that corporation (Joint Committee on Taxation, 2009, p. 58). As mentioned, the entire international proposal was withdrawn in October, 2009, including these additional tax rules governing those ICs.

The details of the withdrawn IC rules merit review, as they reflect the administration’s thinking on thin capitalization regulations, and thus may shape future proposals. According to the Joint Committee on Taxation (2009) proposal, the 1.5 to 1 debt-to-equity safe harbor would have been eliminated, and ICs would be able to deduct interest only up to 25 percent of adjusted taxable income, versus 50 percent today (Joint Committee on Taxation, 2009, page 59). However the rules would only have applied upon interest paid to related parties. The interest cap remained at 50 percent of adjusted taxable income for interest paid to third-parties, when the debt is guaranteed by a related-party. The Joint Committee on Taxation summarized the proposal by stating, “By eliminating the debt-equity safe harbor, reducing the adjusted taxable income

threshold from 50 percent to 25 percent for interest on related-party debt, limiting the carryforward of disallowed interest to 10 years, and eliminating the carryforward of excess limitation, the proposal significantly strengthens rules that appear ineffective in preventing certain recent earnings stripping arrangements in the context of corporate inversion transactions” (p. 61).

As mentioned previously, one way MNEs can avoid debt-to-equity constraints is by injecting both equity and debt into a subsidiary. If the MNE aims to reduce taxes, it can first calculate how much debt it wants to leverage on the subsidiary to strip earnings, and then calculate how much equity must be invested to comply with debt-to-equity limitations. While the worldwide enterprise’s external debt-to-equity ratio may be determined by the firm’s objective to balance shareholder risk and return, this is not necessarily the motivation for each internally-funded subsidiary. The optimal debt structure for a worldwide enterprise may not be the optimal debt structure for a subsidiary, particularly if that CFC operates in a country that imposes high income taxes.

Given these facts, it seems the United States may be too cautious in regulating earning’s stripping activities. The relationship between high income tax rates and debt has been demonstrated several times, and the U.S. corporate tax rates are among the highest in the world. Its current rules do not effectively limit earning’s stripping, as the Seida and Wempe (2004) study showed. Many other industrialized countries have taken more aggressive steps to control earning’s stripping, as later sections in this paper will demonstrate. As the United States looks to raise additional sources of tax revenue, it should aim to tighten existing rules which do not adequately control tax-motivated intercompany debt.

Thin Capitalization/Interest Deduction Limits in Germany

Germany initially implemented debt-to-equity limitations to control excessive financial leverage. Germany’s tax deductible debt-to-equity limit ratio was 1.5 to 1 in most situations; however, it

was 3 to 1 for holding companies (Strunin, 2003, p. 52). The rules were specifically aimed at combating situations in which a related party in another country extended loans to shift earnings from Germany. “The thin capitalization rules applicable until fiscal year 2003 were focussed specifically on the avoidance of abusive financing strategies in which the lender was a foreign shareholder or related party” (von Brocke and Perez, page 30). However Germany’s approach prompted legal challenges in the European Court of Justice (ECJ).

In the 2002 *Lankhorst-Hohorst* case the ECJ determined that German anti-abuse rules violated the freedom of establishment standard in Article 43 of the EC Treaty. In that case a Dutch firm lent EUR 1.5 million to its German subsidiary, Lankhorst-Hohorst GmbH, in which it owned 100% of the shares. As part of the loan, the parent wrote a letter of support which waived the right to repayment in the event third party creditors made claims against the German subsidiary. This loan enabled the subsidiary to reduce its bank borrowing and its interest expense. German tax authorities denied the interest deduction and deemed the interest payments to the Dutch owner a dividend distribution, reasoning that a third-party would not have made a loan under the same conditions, given the firm’s high level of indebtedness and the parent’s agreement to waive repayment in favor of other creditors (von Brocke and Perez, 2009, p. 30).

However the ECJ determined the German tax rules treated domestic and international firms inequitably. It rejected arguments from German, Danish, and U.K. tax authorities, as well as the EU Commission, supporting the German law. German tax authorities had characterized the interest payments as dividends, and German tax law treated dividend payments to German and international firms differently. If a German resident corporation had extended the loan and it was deemed a dividend distribution, the parent would have been entitled to claim a tax credit for additional taxes due. However if a non-resident corporation extended the loan, and it were deemed a dividend distribution, the additional income would be taxed at a 30% rate. No tax credits would apply. Thus domestic and international firms were treated differently, giving tax preferential treatment to domestically-owned German companies.

In response, the German government modified its article 8A by expanding scope so that it applied to all lending transactions, including German resident parent companies. Nonetheless, new German rules did not fully eliminate differences in treatment of domestic and international owners of German firms. von Brocke and Perez write “the deemed dividends appreciated in relation to German parent companies were 95% tax exempt, while if the lender were a foreign company, the deemed dividend would be subject to a withholding tax at the rate of 25%” unless a tax treaty offered a lower rate (p. 31). These rules again may not have complied with Article 43 of the EC treaty freedom of establishment clause, necessitating changes. In short, it appears that once the thin capitalization rules determined interest expenses should be treated as dividends, domestic and international parent companies were again taxed differently.

In addition, Germany sought to create a more attractive investment environment, and thus lowered income tax rates and simplified certain tax regulations. van Sapiro (2009) writes, “Germany has attempted to create an attractive tax jurisdiction by widening its tax base in the Corporate Tax Reform Act of 2008” (p. 6). This has been part of a longer term German strategy to make that country more attractive to investors. Becker, Fuest and Hemmelgarn (2006) write: “The main goals of the German Tax Reform 2000 were to improve the competitiveness of firms in Germany, to foster investment, to increase Germany’s attractiveness to foreign investors and to adapt the corporate tax system to the rules of the EC common market” (p. 6). As part of this longer term strategy, Germany has overhauled its tax legislation on thin capitalization, and has shifted from focusing on debt-to-equity ratios to an emphasis upon limiting interest expense deductions. An advantage of these rules is that they directly limit interest deductions, and thus sidestep the complexities of characterizing interest expenses as dividends.

Germany recently passed a General Interest Disallowance Rule, which was phased in during 2007 and 2008. The rule does not reference balance sheet debt, and it limits the net interest expense of a corporation to 30% of the taxable income before interest expense, taxes, depreciation and amortization expenses (EBITDA). Net interest expense is defined as interest revenue less interest expense. Bagel and Huning (2008) write “The scope of the new rules is far

broader than former thin capitalization rules, as any third-party debt financing (whether or not there is back-to-back financing) is included” (p. 310). The interest deduction rules apply when the business is part of a controlled group, which is defined as an enterprise that is or may be included in consolidated financial statements, prepared according to IFRS, U.S. GAAP or German GAAP standards. When interest expenses are disallowed they can be carried forward indefinitely.

The German rules offer three exceptions to these interest limitation rules. First, to be administratively efficient a *de minimis* rule states the interest limitation does not apply when firms incur net interest expenses less than EUR one million per year. Second, a “stand alone clause” provides an exception if the relevant business is not fully consolidated into the worldwide enterprise’s results, for either financial or business control reasons. Third, an exception is granted if the business belongs to a worldwide enterprise, and the ratio of equity-to-assets for the subsidiary is greater than or comes within one percentage point of the equity-to-assets ratio of the worldwide enterprise. In other words, if the subsidiary is less leveraged than the worldwide enterprise, or is no more than one percent more leveraged than the worldwide business, the firm is not constrained by the interest limitation rule (van Saparoea, 2009, p. 6).

The new German rules appear to have several advantages over their prior regulations. First, these rules may in part avoid the foreign neutrality problems inherent in their other laws. Limiting interest expense deductions may circumvent complexities in recharacterizing interest payments as dividends. Second, debt-to-equity ratio limitations may not always prevent earnings stripping. A related party might extend substantial debt and equity, comply with debt-to-equity ratio limitations, and still generate enough interest expense to strip earnings from one jurisdiction to another. Limiting interest deductions appears to be more effective by directly addressing the real concern of tax authorities: reduced tax receipts. Finally, the rules avoid the issue of whether one debt-to-equity ratio is correct for all businesses. Some industries rely on more debt to fund operations than do other firms, and the same debt-to-equity ratio limit for all firms may appear arbitrary.

While the interest limitation approach appears to resolve a number of the issues associated with thin capitalization rules, it is not clear the 30% interest expense limitation is the correct figure for all businesses. The third escape clause, which exempts CFCs that are less leveraged than the worldwide enterprise, may resolve part of this concern. If the consolidated firm is funded with substantial debt, and the CFC has a higher equity-to-assets ratio (or within one percentage point) the escape clause exempts that firm. However there is an alternative scenario to consider. If the worldwide enterprise incurred minimal debt and recognized low interest expenses, the 30% of EBITDA cap may permit the enterprise to fund subsidiaries with a far greater portion of debt than the enterprise would incur. This may permit the MNE to strip earnings from high-tax jurisdictions in ways inconsistent with the enterprise's funding strategy.

In addition, the new German rules may not avoid all challenges based on the freedom of establishment clause in the EC treaty. von Brocke and Perez write the rules "may also contravene the freedom of establishment and the free movement of capital by way of a hidden discrimination" (p. 34). If a German parent owns a German subsidiary it can be treated as one business under its tax laws, and thus could be exempted from the rules under the previously mentioned "stand alone" clause. This opportunity is not open to German firms owned by a foreign parent, so the rules could again be challenged. The German government is likely to argue these rules are within its authority, and it is not certain how the ECJ will rule.

Thin Capitalization/Interest Deduction Limits in the United Kingdom

The United Kingdom's tax regulators have struggled with the same challenge encountered by German tax authorities. To minimize earnings stripping their regulations have aimed to prevent MNEs from leveraging businesses with excessive debt extended from related foreign entities. But the rules also need to comply with requirements to treat domestic and internationally owned firms equally. Achieving both objectives has been a difficult challenge.

The United Kingdom has regulated highly leveraged financing structures since the 1990s. von Brocke and Perez (2009) write “the United Kingdom modified its thin capitalization rules three times between 1994 and 2004, in order to introduce the arms-length principle and to guarantee an equal treatment of UK resident companies, and companies resident in an EU Member State...” (p. 29). U.K. thin capitalization rules were challenged in the European Court of Justice (ECJ) in the *Test Claimants in the Thin Cap Group Litigation*⁹ case. As the regulations were modified several times, the court’s rulings addressed the different regulations in effect over that period. According to von Brocke and Perez (2009) “the ECJ concluded that even prior to 1995 and, in any case, between 1995 and 2004, when interest was paid by a resident company in respect of a loan granted by a related non-resident company, the tax position of the former company was less advantageous than that of a resident borrowing company which had been granted a loan by a related resident company” (p. 31). When interest expenses were recharacterized as distributions, the U.K. rules provided more favorable tax treatment when the lender was also subject to U.K. tax rules. Thus U.K.-owned enterprise’s had an advantage over internationally-owned businesses. As such, the ECJ determined “the U.K. thin capitalization rules contravened the freedom of establishment clause in Article 43 of the EC Treaty” (von Brocke and Perez, 2009, p. 31).

The U.K. now relies upon the arm’s length principle to regulate excessively leveraged financing structures. According to HMRC, “In tax terms a UK company (which may be part of a group) may be said to be thinly capitalized when it has excessive debt in relation to its arm’s length borrowing capacity, leading to the possibility of excessive interest deductions.”¹⁰ Furthermore: “The arm’s length borrowing capacity of a UK company is the amount of debt which it could and would have taken from an independent lender as a stand alone entity rather than as part of a multinational group.”¹¹

⁹ ECJ. Case C-524/04, 13 March 2007, ECR (2007) 2107.

¹⁰ See HMRC INTM541010—Introduction to thin capitalization (legislation and principles)

¹¹ Ibid

The U.K. rules then specify the process regulators should use to determine whether a firm is thinly capitalized. First, it is necessary to “ascertain how much the company or companies would have been able to borrow from an independent lender.”¹² This figure must be compared with “the amounts actually borrowed from group companies or with backing of group companies.”¹³ The regulations then deny tax deduction for interest expenses that exceed a firm’s arm’s length debt capacity.

These transfer pricing rules apply when one entity loans funds to another organization it controls, or when both organizations are controlled by the same party (Kyte, 2008, p. 348). According to HMRC, “the borrowing capacity of a UK company must be assessed on a stand alone basis, disregarding any relationship with other group companies...”¹⁴ Thus it is a hypothetical debt capacity. As a result, firms may be motivated to determine the maximum amount they could borrow, whether or not they would actually do so. In other words, the more firms can use the arm’s-length standard to demonstrate they could borrow large sums of money, the more earnings they can strip to another jurisdiction. According to HMRC: “It follows that in establishing the arm’s length borrowing capacity of a particular borrower, it is necessary to hypothesise that the borrower is a separate entity from the larger group of which it is part.”¹⁵

The U.K. legislation also applies when the entities engage in a series of related lending transactions, culminating in a third-party loan. In short, the rules specifically state they intend to apply the substance over form doctrine. The rules do not include any safe harbors, exceptions, or sourcing rules for interest expenses. They also exclude debt borrowed for an undefined “unallowable purpose” (van Sapiroea, p. 7).

¹² See INTM541020—Introduction to thin capitalization (legislation and principle)

¹³ Ibid

¹⁴ See HMRC INTM56100—Thin capitalization: FA 2004 legislation—main changes to the thin capitalization legislation.

¹⁵ See INTM541010: Introduction the thin capitalization (legislation and principles)

One key question with the U.K.'s approach is whether it gives taxpayers sufficient guidance to determine whether their debts or interest expenses are excessive. To comply with the U.K.'s requirements taxpayers may need more specific direction concerning how much debt violates the arm's length standard. Furthermore, it can be difficult to determine the CFC's stand-alone debt capacity, as this is a hypothetical exercise. CFCs have little experience doing this, and lenders have no incentive to evaluate the organization's hypothetical, stand-alone debt capacity. Lending rules of thumb may be helpful in determining a range of debt capacities, but actual loan agreements are often the result of detailed discussions between lender and borrower, in which trade-offs between debt limits, collateral, and loan covenants are negotiated. The U.K.'s approach gives taxpayers little guidance and conflicts with the certainty principle. The absence of clear regulations also increases the likelihood of costly litigation. This can also make the enforcing rules very inefficient. This may be why no other major country has chosen this approach.

Furthermore, many companies may have capacity to incur more debt than they actually choose to accept. Firms may consciously choose to minimize debt because they do not wish to incur the additional risks, interest expenses, or operating restrictions that may accompany debt. Some businesses believe avoiding debt gives them more freedom to manage their operations without intrusive loan covenants. A subsidiary may have the arm's length capacity to incur more debt, but this does not mean additional debt is consistent with the enterprise's business strategy. If a MNE's strategy includes keeping debt levels low, it may not make sense to permit subsidiaries to leverage themselves with intercompany debt to reduce the firm's worldwide tax expense.

A number of studies have demonstrated that many firms incur substantially less debt than they could borrow. Allen's study (2000) of Australian, British and Japanese firms demonstrated firms in those countries have spare debt capacity. Allen defined spare borrowing capacity as "mobile uncommitted pool of capital resources that a company possesses" (p. 300). He wrote it "may take the form of committed or uncommitted lines of credit and bank loans, or a level of current borrowing which is substantially below the upper limit that the company's management, bankers and creditors regard as being prudent" (p. 30).

Allen was not seeking to determine whether firms have spare debt capacity, as that had been demonstrated in a number of prior studies.¹⁶ However it is one of the most recent studies. Allen believed spare debt capacity was a signaling tool firms used to communicate to investors they had financial resources available. Because Japanese firms frequently are members of a keiretsu, in which firms have developed close and long-term banking relationships, Allen believed fewer Japanese firms would need to signal spare debt capacity to investors. He believed investors in Japanese firms understood those firms had banking relationships that could be counted on for financial support, should the need arise.

Allen said prior studies indicated that spare borrowing capacity was often maintained to signal investors the firm had the ability to tap into financial resources immediately should they need to do so. Allen surveyed Australian, British and Japanese firms to determine if they maintained spare borrowing capacity. They were asked how much spare borrowing capacity they kept, the reasons for maintaining unused lines of credit or spare borrowing capacity, and whether they had a target debt ratio, or an upper limit. Allen reported that 56% of Australian firms, 88% of British firms, and 32% of Japanese firms had a policy of maintaining spare borrowing capacity (p. 309). Firms reported they had a variety of unused bank lines of credit to support their needs, as well as overdraft facilities. Businesses reported a variety of reasons for spare borrowing capacity, including the desire to have funds available for special projects, reserves for crises, acquisitions, and unplanned circumstances and opportunities. Furthermore, Allen reported “The larger the company, the more likely it is to have such a policy” (p. 310). Allen also concluded that many firms could borrow significantly more without facing higher interest rates. “Some 63% of the Australian respondents and 89% of the British ones consider that they could borrow 20% or more than existing borrowings without increasing their average borrowing costs. The evidence suggests fairly extensive spare debt capacity existed at the time of the survey” (p. 314). Allen concluded that “spare borrowing capacity is a relatively common policy” (p. 318).

¹⁶ In his literature review, Allen cited a number of prior studies, including: Donaldson, G. (1961) *Corporate Debt Capacity*. Harvard University Press, Cambridge, MA. Also cited was Fama, E.F. (1990). Contract costs and financing decisions. *Journal of Business*. Vol. 63, 71-91. A third example was: Duan, J. & Yoon, S. (1993). Loan commitments, investment decisions, and the signaling equilibrium. *Journal of Banking and Finance*. Vol. 17, 645-661.

Industrialist David Packard, co-founder of Hewlett-Packard, explained his reasoning for avoiding debt. He said HP eschewed long-term debt, in large part because the founders feared loss of control to lenders. They also believed avoiding long-term debt imposed financial discipline on the firm. Co-founder David Packard (1995) wrote, “Bill (Hewlett) and I determined we would operate our company on a pay-as-you-go basis, financing our growth primarily out of earnings rather than by borrowing money” (p. 84). Commenting upon proponents of leveraged capital structures, Packard said “The advocates of this approach say you can make your profits go further by leveraging them. That may be, but at HP it was our firm policy to pay as we go and not incur substantial debt” (p. 85). The firm had the capacity to incur debt, but would not do so. If a business avoids commercial debt, should its subsidiaries be able to incur tax-deductible intercompany debt, simply because its subsidiaries have the capacity to accept loans? If intercompany debt is incurred only to minimize taxes, it could be argued this is inconsistent with the business purpose doctrine.

This information suggests that the U.K. approach on debt capacity may be too lenient. Limiting a CFC’s debt-to-equity ratio by referencing what the firm could have borrowed in external markets may sound logical, but Allen’s study showed that 88% of British firms had spare borrowing capacity. Firms were capable of borrowing more debt than they incurred. It may make more sense to limit debt by referencing what the worldwide enterprise actually chooses to borrow, rather than by what a CFC theoretically could borrow.

In a related development, HM Revenue and Customs (HMRC) has recently released a tax law that in certain situations may limit the tax deductibility of interest expenses in the United Kingdom. The legislation, commonly called the Worldwide Debt Cap, is still working its way through the legislative process, and is not finalized. However the general outlines of the proposal appear to be fairly well defined. The legislation is aimed at limiting tax deductible interest expense for companies that incur the great majority of their debt in the U.K. It is specifically aimed at large businesses, and applies to both U.K. and foreign headquartered firms, but Dodwell, Bird, Buck and Richards (2009) say “HMRC anticipates that the debt cap rules would apply to relatively few U.K. inbound groups” (p. 1).

The new proposal was first mentioned in a 2007 discussion paper¹⁷ in which the U.K. government suggested it favored a new approach, which van Sapoera said would limit debt “to the external borrowings of the group as a whole” (p. 7). According to Dodwell, Bird, Buck and Richards (2009) U.K. tax authorities’ proposal “would be capped by reference to the worldwide group’s net external borrowing costs in its consolidated accounts” (p. 1). The rules apply to companies that contain at least one U.K. firm (or a U.K. permanent establishment). “The rule is targeted at situations in which a UK group bears more debt than is required for the worldwide group to operate” (Dodwell, Bird, Buck and Richards, 2009, p. 1).

The Worldwide Debt cap legislation is specifically aimed at large businesses, and excludes all businesses defined as “micro, small and medium-sized enterprises as defined in the Annex to Commission Recommendation 2003/361/EC” (HMRC Draft Bill, 2009, p. 9). In short, HMRC believes it would not be cost-effective to apply the debt limitation to small firms. HMRC writes “A de minimis limit is introduced for purposes of excluding amounts that the government does not consider material for purposes of the debt cap” (HMRC, Worldwide Debt Cap Current Thinking, 2009, p.1).

Two figures must be calculated to determine if the interest limitations apply. Under the U.K. legislation, one figure is the “tested amount,” and the second figure is the “available amount.” According to HMRC “Worldwide Debt Cap Current Thinking” (7 April, 2009) the tested amount is “the total intra-group finance expenses in the UK” (p. 1). This must be compared with the available amount, which is “the net external finance expense of the worldwide group from consolidated accounts” (p. 1). The rule states that “Any excess of the tested amount over the available amount is disallowed, but the worldwide group may reduce the amount of UK taxable receipts to match the disallowance that arises” (p. 1). In brief, the limits apply when the internal finance costs of the U.K. firm exceed the external finance costs of the worldwide enterprise. If a subsidiary bears only a small portion of a firm’s worldwide debt, these rules would not apply.

¹⁷ HMRC, “Taxation of the foreign profits of companies: a discussion document,” (21 June 2007) Chapter 5.

However comparing a subsidiary's finance expense with that of the worldwide enterprise is an idea that has merit. As mentioned previously, Germany's current rules provide an exception for subsidiaries that are no more leveraged than the worldwide enterprise. In addition, Japan allows firms to measure their debt-to-equity ratio with similar Japanese firms to determine if they are excessively leveraged. Comparing a subsidiary's debt or interest expense to the worldwide business, or to a similar enterprise, may be a fairer and more efficient rule than uniform, somewhat arbitrary limitations. Some industries and firms choose to incur more debt than others as part of their funding strategy, and "fair" regulations should not penalize such firms.

Thin Capitalization/Interest Deduction Limits in Other G-7 Countries

Analysis of rules in Germany, the United Kingdom and the United States illustrate many of the challenges inherent in drafting effective thin capitalization/earning's stripping tax legislation. However rules in the other G-7 countries may help to demonstrate other difficulties economically powerful nations face when crafting these rules.

Italy's approach is closely modeled after Germany's. It also abandoned a debt-to-equity test in favor of income statement limitations, effective January 1, 2008. von Brocke and Perez (2009) say that Italy's rules were "inspired by the new German rules" (p. 33). The rules also restrict net interest expense to 30% of EBITDA, the same figure selected by German legislators (p. 34). Like the German rules, they also apply to interest paid to non-related parties, such as banks.

Italian legislators made several changes to the German law. According to Polombo (2008) the 30% interest limitation applies to financial statements prepared according to Italian GAAP (p. 319), not taxable income. Italian legislators also took additional steps to ensure their laws regulated domestic and international firms equitably. von Brock and Perez write "The Italian parliament has avoided one problem under the German rules by extending the benefits of group relief...to foreign companies of a group, provided that the foreign company meets all the condition foreseen under Italian law for the formation of a consolidated group except the

residence requirement” (p. 34). Italian legislators were concerned German regulations may be challenged once again under the freedom of establishment clause. Polombo also notes that disallowed interest deductions can be carried forward indefinitely into the future (p. 319).

France is the last G-7 European country currently relying upon the debt-to-equity ratio to limit excessive financial leverage. According to Galinier-Warrain (2008), France modified its thin capitalization policies, effective January 1, 2007, and they are described as “quite complex” (p. 307). The key elements to France’s thin capitalization/interest deduction rules are that they cap the debt-to-equity ratio at 1.5 to 1, and interest may be non-deductible when “the amount of interest exceeds 25% of the current pre-tax result, increased notably by intra-group loan interest and the depreciation considered to determine this pre-tax result” (p. 308).

Under France’s new law, the debt-to-equity ratio now is calculated based on a firm’s net equity, rather than contributed capital. The firm can elect to use either net equity at the beginning of the year or at the end. Debt now includes all debt extended from related parties, while prior rules included only loans extended from direct shareholders. Firms can carry forward non-deductible interest expenses, however after two years the carry-forwards are discounted by 5% per annum. In general France’s new rules tighten interest deductibility restrictions.

Canada began to evaluate thin capitalization legislation in 1969, when a White Paper on Tax Reform proposed limiting interest deductibility when a nonresident shareholder owns at least 25 percent of the Canadian corporation, lends money to that corporation, and the firm’s debt-to-equity ratio exceeds three to one (Nitikman, 2000, pp. 23-24). The rules were enacted in 1972 and they are contained in subsections 18(4) to 18(6) of Canada’s Income Tax Act.

The debt-to-ratio was reduced to two to one in 2001. This change was apparently motivated by a Canadian Department of Finance study which stated that other countries were reducing their debt-to-equity ratio below three to one. Farrar and Mawani (2008) believe very little analysis went into the decision to change the ratio, writing “no clear justification for this reduction

appears to have been given. Perhaps the Department of Finance relied on the recommendation from the Mintz Report,¹⁸ which suggested a reduction because at that time other (unidentified) countries had reduced their ratios to 2:1” (p. 6).

Farrar and Mawani (2008) conducted a study of 3,715 Canadian firms in 64 industries to determine their debt-to-equity ratios. They found the mean debt-to-equity ratio for Canadian firms was 1.06 to 1, and that four industries had debt-to-equity ratios that exceeded 2:1 (pp. 16-17). Of the four “only the real estate industry had a debt-equity ratio exceeding 2:1 with statistical significance,” but 7.1% of individual firms had debt-to-equity ratios exceeding 2:1. While Farrar and Mawani concluded Canada’s 2:1 ratio “seems reasonable,” (p. 2), the mean debt-to equity during 2001-2005 ranged from a high of 4.2 to 1 to a low of 0.15 to 1 (p. 35), which might also suggest that it is very difficult to determine one ratio that is fair and effective for all firms and industries. It could be argued that the 2:1 ratio is too low for 7.1% of businesses. But at the same time, it might be too high for the remaining businesses. If the worldwide enterprise firm chooses to keep its debt levels low, a 2:1 debt-to-equity ratio may encourage firms to incur intercompany debt for the sole purpose of reducing income taxes.

Japan’s first thin capitalization rules were introduced in 1992 and current rules have been in place since 2006, according to Nakamura (2008, pp. 321-322). In most cases Japan’s thin capitalization rules apply when a firm’s debt-to-equity ratio exceeds three to one. They phase out interest deductions when the ratio of “interest-bearing debt to foreign controlling shareholders and third parties in specified cases” (p. 323) is greater than three times the firm’s equity. The rules apply both to Japanese companies and foreign companies operating there. A two to one ratio applies in certain situations. If a company has engaged in large bond repurchase transactions, this debt can be excluded from the calculation, and the lower ratio applies.

Japanese thin capitalization rules also permit an alternative measure, in place of the debt-to-equity ratios above. Nakamura writes that “a company has the option to use the debt-to-equity

¹⁸ The Mintz Report was a 1998 Department of Finance Report which suggested changes to Canada’s thin capitalization rules.

ratio of a comparable Japanese company operating in the same business, and having similar characteristics as to size” (p. 323). Thus we see examples in Germany and Japan where rules reference market debt-to-equity ratios. Such approaches may be a more effective approach to arrive at an appropriate debt-to-equity ratio for a CFC. Identifying one debt-to-ratio for all businesses is inherently problematic, and can be viewed as “unfair” by certain businesses that tend to incur more debt, such as the 7.1% of Canadian firms mentioned. However, as pointed out previously, any debt-to-equity ratio may not be effective, as it does not limit the absolute level of debt, and thus interest expenses. It would be more effective to adopt the approach Germany and Italy have selected, and limit interest expenses to a percentage of EBITDA.

The following table provides a brief summary of thin capitalization/interest deduction rules in each of the G-7 countries:

TABLE I: Summary of Thin Capitalization/Interest Deduction Policies in G-7 countries:

| Country/ Max. 2009 Corp. Tax Rate ¹⁹ | 2006 Pop- ulation | Rules to limit financial leverage? | Approach to limit abuse | Financial Tests | Comments |
|--|-------------------------|---|---|--|--|
| Canada/ 31.32% | 32.6M | Yes | Balance Sheet Test | Debt to equity ratio not to exceed 2 to 1 | Original 3 to 1 ratio was modified in 2001 |
| France/ 34.43% | 60.7M | Yes | Balance Sheet and Income Statement Test | Debt to equity ratio should not exceed 1.5 to 1, and interest expenses should not exceed 25% of pre-tax income, after interest and depreciation are added back | Implemented new law January 1, 2007. The law has a broader definition of equity, and debt includes all debt extended from related parties, not only shareholders |
| Germany/ | 82.7M | Yes | Income | Net interest | Rules changed in |

¹⁹ Corporate tax rates for all G-7 countries were obtained from the OECD Tax Database <http://www.oecd.org/ctp/taxadatabase>. See Table II.1.

| | | | | | |
|--|--------|-----|--|--|--|
| 30.18% | | | Statement Test | expense limited to 30% of EBITDA | 2001, 2003 and 2008. Most recent change shifted from thin capitalization test to interest deduction limits |
| Italy/ 27.50% | 58.1M | Yes | Income Statement Test | Net interest expense limited to 30% of EBITDA | New laws implemented January 1, 2008. Changed from thin capitalization test to interest deduction limits |
| Japan/ 39.54% | 128.2M | Yes | Balance Sheet Test | Debt-to-equity ratio not to exceed 3 to 1 | Firms have the option of using the debt-to-equity ratio of a similar Japanese firm |
| United Kingdom/ 28% | 59.8M | Yes | Arms-length principle | No specific financial test or safe-harbor ratio | Rules changed three times between 1994 and 2004. Worldwide Debt Cap legislation in process |
| United States/ 39.10% ²⁰ | 301.0M | Yes | Balance Sheet test which limits interest expense deductibility | If debt-to-equity ratio exceeds 1.5 to 1, interest expenses > 50% of EBITDA not deductible | The 1.5 to 1 debt-to-equity ratio is a "safe harbor." The IRS will presume ratios below 1.5 to 1 are not excessively leveraged, but ratios above 1.5 to 1 may or may not be challenged |

²⁰ The maximum U.S. federal statutory tax rate is 35%, but the great majority of U.S. states also impose income taxes, pushing the combined rate to approximately 40%. It can be higher or lower than that figure depending upon the states in which the business operates.

Thin Capitalization/Interest Deduction Limits in Other Key Countries

In addition to the G-7 countries, there are a number of other countries that are concerned with the tax impact of leveraged financing structures, and have developed innovative regulations rules that deserve special attention. Three countries that have created ambitious thin capitalization/interest deduction limitations are Denmark, the Netherlands, and New Zealand. Each country has a smaller economy and population than the G-7 countries, yet each is also a prosperous nation that has developed advanced social programs dependent upon generating tax revenue.

Denmark has developed sophisticated thin capitalization rules that are considered “very complicated and detailed” (Lund and Korsgaard, 2008, p. 302). Denmark’s approach is to limit interest deductions by a series of three limitations, each of which can successively reduce tax deductible interest expenses. The first restriction limits the deductibility of debts extended from related parties. The second limitation establishes a limit based on the value of a firm’s qualifying assets. And the third limitation caps net financing expenses based on the firm’s Earnings Before Interest and Taxes (EBIT).

According to Lund and Korsgaard (2008), under the first limitation “interest expenses on controlled debt are not deductible to the extent that the debt-to-equity ratio exceeds 4:1” (p. 302). The rules do not apply to interest on debts less than DKK 10 million, or to loans extended by private individuals. If a company can document that a similar loan could be obtained from an independent party, the four to one debt-to-equity limitation may not apply. However the rules apply both to loans extended by related parties, and to loans extended by third parties if they are collateralized by related party assets.

Under the second limitation, “companies may deduct net financing expenses only to the extent that the expense does not exceed a standard rate of interest...on certain qualifying assets” (Lund and Korsgaard, 2008, p. 302). In 2009 that interest rate was 6.5% (Bundgaard and Tell, 2010, p. 7). The interest rate is applied upon the tax value of assets at year end to determine the interest

ceiling limitation. Fixed assets are valued net of accumulated depreciation; non-depreciable assets are valued at cost plus the cost any improvements; internally developed intangible assets are not valued unless the costs are capitalized for tax purposes; and inventory, receivables and work-in-process are valued net of any reserves. That figure is compared with net financing expenses, which are defined as the sum of taxable interest income less deductible interest expenses, excluding interest on trade accounts payable and trade receivables, trading losses, loan losses, and gains and losses on foreign exchange gains and losses. The rules apply both to debts extended from both related and third parties. Interest expenses above the limitation are not deductible and cannot be carried forward. The rules only apply when net financing expenses exceed 21.3 million DKK (Bundgaard and Tell, 2010, p. 9). This *de minimis* figure is adjusted annually.

Finally, a third Danish interest limitation rule restricts interest to a percentage of Earnings Before Interest and Taxes (EBIT). Kaserer (2008) writes, “Most prominently, Denmark extended its thin capitalization rule by an interest stripping rule restricting a firm’s interest deductions to 80% of EBIT” (p. 3). Kaserer notes that similar rules were adopted in Germany and Italy, but those rules limit interest expenses to 30% of EBITDA. The U.S. limits interest expenses to 50% of adjusted taxable income, but only if the 1.5 to 1 debt-to-equity ratio is exceeded.

Similar to the G-7 countries, the Netherlands attempts to balance the competing goals of raising tax revenue and creating an attractive investment environment. van Saparoea (2009) comments, “For Asian and American companies in particular, the Netherlands has long been one of the preferred jurisdictions in Europe in which to develop a base. Numerous international operations have derived significant tax benefits from using the Netherlands as an international base; thereby contributing to a reduction in their worldwide tax burden” (p. 5). Not only do MNEs reduce their tax rate, the Netherlands generates tax revenue from the MNEs, so its tax policies are mutually advantageous.

The Netherlands' current rules were implemented effective January 1, 2004. These rules identify two tests to determine whether interest expenses are tax deductible. Sporken (2004) says "The first test concerns the debt-to-equity ratio of the taxable company itself, which may be 3:1 at a maximum" (p. 329). Debt is defined as average payables less average receivables, so the rules measure net debt, rather than gross obligations. This figure is compared to average equity for tax purposes. The rules also specify that firms must use an equity figure of at least one EUR, even if average equity is determined to be less than that figure. If the debt-to-equity ratio exceeds 3:1 and the excess is greater than 500,000 EUR, the associated interest expense is not tax deductible. However "The amount of interest that is not deductible cannot, however, be greater than the amount of interest on loans payable to entities that are related to the taxpayer less the amount of interest on loans payable by the entities to the taxpayer" (van Saparoea, 2009, p. 4).

The second option is to use the worldwide enterprise's debt-to-equity ratio. van Saparoea (2009) writes, "Specifically, if the taxpayer in its tax return opts for this group ratio (the second ratio), its excess debt is held to be the amount by which its average debt:equity ratio exceeds the average debt:equity ratio of the group to which it belongs" (p. 4). If the taxpayer belongs to more than one group the highest debt-to-equity ratio applies. The taxpayer can select whether it wants the three to one ratio or the worldwide enterprise's debt-to-equity ratio to apply, and firms are annually permitted to select the measure by which its debts will be tested.

To prevent abuse and maintain tax revenue, the Netherlands' rules also identify a number of specific cases in which interest is not tax deductible. According to Sporken (2008) interest is deductible "unless the expense cannot be considered a business expense or when specific anti-abuse rules apply" (p. 328). If a Netherlands corporation incurs debt to fund profit distributions, fund investments in related entities, or acquire a related-entity the associated interest expense may not be tax deductible. However the rules also provide two exceptions to these limitations. If the loans are taken for sound business reasons, or if the income is taxed at a reasonable level, which is generally defined as 10% of income, these rules do not apply (van Saparoea, 2009, p. 5).

In January of 2008 the Netherlands amended these regulations. Specifically, the exception that allowed firms to incur debt, as long as the associated interest income was taxed at 10%, was modified. According to van Saparoea, legislators in the Netherlands “feared that maintaining the second exception...without amendment would have adverse budgetary consequences” (p. 5). For example, since Cyprus’s income tax rate is 10%, and the Netherlands’ is 25.5%, a MNE could establish a subsidiary in Cyprus, extend debt to a related-entity in the Netherlands, and substantially reduce income taxes. van Saparoea (2008) writes “The amended law states that, in situations in which a taxpayer can sufficiently demonstrate that its interest income is taxable at a rate of at least 10%, it would nevertheless remain possible for a tax inspector to substantiate that either a debt itself or a transaction that corresponds to it lacks a sound business reason” (p. 5). In short, legislators wanted to maintain the power to tax such income in the Netherlands, even if the profits were shifted to a jurisdiction taxing the income at 10% or more.

According to van Saparoea (2008) the Netherlands is already considering changing this rule “because the current rules could damage the attractiveness of the Netherlands as a business location” (p. 3). van Saparoea says the amended rules have increased uncertainty for MNEs, as they do not know whether tax authorities will challenge interest deductions in many situations. MNEs are also concerned their profits could be taxed twice. Beyond this, three Netherlands tax professors have written the amendment may not comply with the EC freedom of establishment clause.²¹ Thus it is possible the 2008 amendment may be relaxed, though no changes have been enacted at this time.

New Zealand has also developed creative rules to limit thin capitalization/earning’s stripping activities. Smith and Dunmore (2003) write that New Zealand’s rules were implemented in 1996, noting, “The reason for introducing the thin capitalization rules then was to complement the new transfer pricing rules being enacted at the same time. It was believed that the absence of any formal thin capitalization rules when the new transfer pricing rules were being introduced

²¹ Prof. Mr. F.A. Englen, Prof. Dr. H. Vording and Prof. Mr. S. Weeghel, “Wijzinking van belastingwetten met het oog op het tegengaan van uitholling van de belastinggrondslag en het verbeteren van het fiscale vestigingsklimaat.” *Weekblad Fiscaal Recht* 6777, 28 August 2008.

could give rise to opportunities for tax avoidance and create uncertainty in the minds of foreign investors as to New Zealand's stance on thin capitalization. It was also thought that clarity of the tax policy and of the tax regime was essential to promote foreign investment in New Zealand" (p. 505). In short, they recognized that taxpayers desire certainty when calculating tax obligations.

New Zealand's thin capitalization rules apply only to firms that meet an ownership test. They specifically apply to taxpayers in three categories. The rules affect: 1) non-residents; 2) a New Zealand resident company in which a non resident owns 50% or more of the firm; and 3) trustees of a non-qualifying trust, controlled 50% or more by a non-resident (Smith and Dunmore, 2003, pp. 505-506). If the taxpayer falls into one of those categories at any point during the year, the rules apply. Thus the rules do not apply to New Zealand residents, and they would fail to meet the freedom of establishment clause in the EU treaty, were New Zealand a member.

If the ownership test is met, two further tests are applied to determine if the debt is excessive. The first is a "safe-harbour debt percentage of 75%" (Smith and Dunmore, 2003, p. 505). In other words, if a firm's debt-to-equity ratio is less than three to one, the debt is not considered excessive. According to Smith and Dunmore, "The safe-harbour debt percentage is designed to reduce compliance costs of taxpayer who operate with moderate levels of debt" (p. 506). Writing in 2003, Smith and Dunmore said that while this limit appeared similar to debt-to equity ratio caps in other countries, it is in fact more stringent. "While a 75% safe-harbour debt percentage appears comparable to the safe-harbour debt/equity ratios adopted in the thin capitalization rules of Canada, Japan and Germany, the New Zealand debt percentage is effectively lower because the ratios of those other countries take into account only related-party interest-bearing debt, while New Zealand's debt percentage takes into account all interest-bearing debt" (p. 506).

However New Zealand's rules also permit taxpayers to exceed the three to one ratio in certain situations. If the worldwide business has a debt-to-equity ratio that exceeds three to one, the New Zealand entity is also permitted to have a higher debt ratio. Smith and Dunmore write, "In addition, there is a provision allowing taxpayers to maintain a debt percentage above 75%

without suffering a penalty under the rules if the worldwide group debt of which the New Zealand taxpayer is part also has a debt percentage above 75%” (p. 505). If a New Zealand taxpayer’s debt ratio exceeds three to one, it is permitted to have a debt percentage up to 110% of the worldwide enterprise’s debt percentage. Thus the New Zealand entity can exceed the parent company’s debt-to-equity ratio. The 110% rules apply to companies and trusts, but not individuals.

New Zealand’s approach requires it to define how the worldwide enterprise’s group debt percentage is calculated. Smith and Dunmore write, “A taxpayer’s ‘group debt percentage’ is defined as the proportion of the total interest-bearing debt to the total assets of the taxpayer’s New Zealand group for the income year. Thus, interest-free loans are excluded and are essentially treated as equity, as are accrual accounting provisions, deferred tax, and other similar liabilities or provisions” (p. 506). New Zealand’s rules also allow taxpayers to exclude debt for funds lent to non-related organizations and individuals. The worldwide debt percentage is calculated annually, at the end of the firm’s fiscal year.

A summary of thin capitalization/interest deduction regulations in Denmark, the Netherlands, and New Zealand follows:

TABLE II: Summary of Thin Capitalization/Interest Deduction Policies in Denmark, the Netherlands and New Zealand:

| Country/ Max. 2009 Corp. Tax Rate ²² | 2006 Pop- ulation | Rules to limit financial leverage? | Approach to limit abuse | Financial Tests | Comments |
|--|-------------------------|---|---|--|---|
| Denmark/ 25.0% | 5.4M | Yes | A series of three rules that progressively limit interest deductions | 1) Related party debt-to-equity ratios not to exceed 4:1 2) Interest expenses not to exceed a percent (currently 7%) of qualifying assets 3) Interest | <i>De minimis</i> rules apply. Rules are considered complex. |

²² Corporate tax rates for all G-7 countries were obtained from the OECD Tax Database <http://www.oecd.org/ctp/taxadatabase>. See Table II.1.

| | | | | | |
|-----------------------|-------|-----|---------------------|---|--|
| | | | | expenses not to exceed 80% of EBIT | |
| Netherlands/ 25.5% | 16.3M | Yes | Balance sheet tests | 1) Net debt-to-equity ratio not to exceed 3:1 2) Firm can opt to be limited by the worldwide enterprise's debt-to-equity ratio | Current rules implemented January 1, 2004. Firm can determine each year by which limit which limit will apply. Revisions are being discussed |
| New Zealand/ 30.0% | 4.1M | Yes | Balance sheet tests | Taxpayer's limited by the higher of: 1) 3:1 debt to equity ratio, or 2) 110% of the worldwide enterprise's debt-to-equity ratio. | The 3:1 debt-to-equity ratio includes all interest-bearing debt. The 110% worldwide enterprise debt cap excludes the worldwide enterprise's deferred tax liabilities and other accruals. |

Thin Capitalization/Interest Deduction Regulations in EU's Least Populous Countries

While all of the G-7 countries may want to limit highly leveraged financing structures, not all countries view thin capitalization as a priority. As previously mentioned, some countries view low income tax rates and more lenient tax policies as an opportunity to attract FDI. In particular, small, less economically powerful countries may want to lower taxes to entice MNEs to site operations there. Those countries may have fewer globally-successful MNEs headquartered there, and thus low tax rates may have less impact upon government finances. They may see the potential to attract FDI through lower income tax rates and more lenient thin capitalization and/or interest deduction regulations.

Haufler and Runkel (2008) explain this by saying, "the country with the smaller population size not only chooses the lower tax rate but also the more lenient thin capitalization rule. This is

because the smaller country faces the more elastic tax base for internationally mobile capital, but the same is not true for internationally immobile capital” (p. 3-4).

To illustrate this point, the thin capitalization/interest deduction limitations of the eight smallest EU members will be reviewed. These countries have been selected as information is readily available and all are in Europe. As the majority of the G-7 countries are in Europe, comparisons are relevant. While the G-7 countries have populations ranging from 33-301 million, the eight least populous European countries have populations ranging from 400 thousand to 4.2 million. With one exception, each also has a population smaller than Denmark, the Netherlands and New Zealand. Ireland’s population is 4.2 million, while New Zealand’s is 4.1 million.

A summary of the thin capitalization policies of these EU members is included in Table III. Half of these countries have no thin capitalization policies; the others rely on debt-to-equity ratios. The debt-to-equity ratios in the smaller countries are more lenient than restrictions found in the countries previously cited. In addition, the regulations in these countries also appear to be somewhat more stable than in the G-7 countries; only one of the eight countries plans to make any changes to their limit.

Cyprus, Estonia, Ireland and Malta do not currently have any thin capitalization or interest deduction rules. Latvia and Lithuania limit debt-to-equity ratios to four to one. Interest expenses for debt above this level are not tax deductible. Luxembourg and Slovenia cap debt-to-equity ratios at six to one. Slovenia plans to reduce its limitation from six to one to four to one in 2012. The four countries with thin capitalization policies have not changed their policies since they were first implemented.

Haufler and Runkel (2008) observed similar results, commenting “large countries, such as Germany, France or the United States have rather elaborate rules limiting the interest-deductibility of internal debt, whereas small countries such as Ireland, Luxembourg and many countries in Eastern Europe have either no thin capitalization rules at all, or very permissive ones” (p. 4). Given that debt-to-equity ratio ratios of 1.5 to 1 in the U.S. have been ineffective at

constraining Inverted Corporations there, it is unlikely that four to one or six to one ratios will limit earning's stripping. The study of Canadian firms found only 7.1% had debt-to-equity ratios exceeding 2:1. It is likely these smaller countries have maintained stable rules because their regulations have not discouraged FDI. As their current rules impose few restrictions on thin capitalization strategies, they have little motivation to modify their regulations. A summary follows:

TABLE III: Summary of Policies in the EU's Eight Least Populous Countries

| Country/ Max. 2009 Corp. Tax Rate ²³ | 2006 Population | Rules to limit thin Capitalization | Approach to limit abuse | Financial Test ²⁴ | Changes to Law |
|--|--------------------|--|-------------------------------|---|--|
| Cyprus/ 10% | 780K | No rules to restrict thin capitalization | N/A | N/A | N/A |
| Estonia/ 21% | 1.3M | No rules to restrict thin capitalization | N/A | N/A | N/A |
| Ireland/ 12.5% | 4.2M | No rules to restrict thin capitalization | N/A | N/A | N/A |
| Latvia/ 15% | 2.3M | Yes | Balance Sheet Test | Debt to equity ratio limit is 4 to 1 | No changes made since implemented |
| Lithuania/ 15% | 3.4M | Yes | Balance Sheet Test | Debt to equity ratio limit is 4 to 1 | No changes made to law since implemented 1/1/2004 |
| Luxembourg 29.63% | 470K | Yes | Balance Sheet Test | Debt to equity ratio limit is 6 to 1 | No changes made to law since implementation |
| Malta/ 10% | 400K | No | N/A | N/A | N/A |

²³ Corporate tax rates for Ireland and Luxembourg were obtained from the OECD Tax Database <http://www.oecd.org/ctp/taxadatabase>. See Table II.1. All others were drawn from the *International Transfer Pricing Journal*, November/December 2008, p. 352.

²⁴ All of the information on thin capitalization policies in these countries comes from a series of articles introduced Lund, H., Korsgaard, C., & Albertsen, M. *International Transfer Pricing Journal* (2008, November/December). Financing: a global survey of thin capitalization and thin capitalization rules in 35 selected countries, pp. 283-352.

| | | | | | |
|------------------|------|-----|--------------------------|--|--|
| 35% | | | | | |
| Slovenia/ 22% | 2.0M | Yes | Balance Sheet Test | Debt to equity ratio limit 6 to 1 | No changes made to law yet, but Debt to Equity ratio cap will drop to 4 to 1 in 2012 |

Ireland's population is slightly larger than New Zealand's, and it imposes no thin capitalization rules. While Haufler and Runkel have noted smaller countries tend to enact lower tax rates and more lenient thin capitalization rules, the political process and tax policies are not an exact science. There may be other considerations. Ireland's close proximity to countries imposing high income rates may have led it to conclude it could succeed at tax competition, while New Zealand's remoteness from many MNEs and large markets may have led that nation in another direction.

As Haufler and Runkel (2008) noted, countries that impose lax or no pose thin capitalization policies often have low income tax rates as well:

Table IV: Corporate Income Tax Rate Comparisons

| 2009 Corporate Income Tax Rate | 10- 20% | 20-24.99% | 25-30% | 31-35% | 36%+ |
|--|---|--------------------------|--|-----------------------|-----------------------------|
| G-7 Countries | 0 | 0 | 3 Italy United Kingdom Germany | 2 Canada France | 2 Japan United States |
| Other countries addressing thin capitalization | 0 | 0 | 3 Denmark Netherlands New Zealand | 0 | 0 |
| Small EU Countries | 4 Cyprus Ireland Latvia Lithuania | 2 Estonia Slovenia | 1 Luxembourg | 1 Malta | 0 |

Evaluation of Thin Capitalization/Interest Deduction Regulations

The G-7 countries and other nations attempting to regulate thin capitalization have a challenging task. They must balance their short-term tax revenue goals against the need to create an attractive investment environment. Countries such as Germany, France, the United Kingdom and Italy have all modified their regulations in recent years as they seek to achieve both objectives. Denmark, the Netherlands and New Zealand have crafted sophisticated rules designed to generate tax revenue and still attract FDI.

All G-7 countries began their regulatory efforts by limiting the debt-to-equity ratio of CFCs operating within their borders. This appears to be a logical approach, since it is the high debt which generates the intercompany interest expenses, shifting earnings to low-tax jurisdictions. However experience has shown that countries cannot rely exclusively upon debt-to-equity ratios to prevent earning's stripping. There are several problems with employing debt-to-equity ratios in this context. One is the foreign neutrality tax doctrine, at least within the EU. As discussed, both the United Kingdom and Germany found its laws violated the freedom of establishment clause in the EC treaty. Both found it difficult to craft laws that were specifically designed to prevent MNEs from leveraging corporations with excessive intercompany debt, while treating domestic and internationally-owned firms equally. Each lost cases in the ECJ and has adopted a different strategy.

In addition, thin capitalization rules may not achieve their objectives. A debt-to-equity ratio does not limit absolute debt levels, and thus it may not prevent earning's stripping. If the MNE's objective is to reduce income taxes, it can determine how much debt is necessary to shift earnings from a country, inject sufficient debt and equity to comply with limitations, and transfer profits. As von Brocke and Perez (2009) wrote, "In a first stage, the majority of these thin capitalization rules established the existence of safe harbours (e.g. debt-to-equity ratio) in order to force related companies to apply normal market conditions in their intra-group transactions. However, as it was very simple for companies to circumvent the limit established by debt-to-equity ratio by increasing the equity of the financed subsidiary in a manner sufficient to push down as much debt as necessary..." (p. 29). Seida and Wempe (2004) also determined a 1.5 to

1 debt-to-equity ratio was ineffective at preventing ICs from stripping earnings from the United States. They wrote “we conclude that inverted firms’ (presumed) *technical* compliance with current, rule-based impediments to earnings stripping is producing U.S. tax outcomes (liabilities) that bear very little resemblance to underlying economic events and circumstances” (p. 826). In fact, the behavior they documented was so egregious they believed both the substance over form tax standard and the fairness principle were violated. They wrote, “it seems implausible that the earnings stripping behavior we document is consistent with the notion that a fair tax system must favor substance over form, and that the tax treatments of income and expense items should produce as a result that clearly reflects an entity’s income” (p. 826). In short, capping the debt-to-equity ratio may conflict with both the effectiveness and fairness principles. As a result some nations, such as France and Denmark, have supplemented debt-to-equity limitations with other regulations to limit interest deductions.

Beyond this, it may also be difficult to determine one debt-to-equity ratio limit that is fair and appropriate for all businesses. Based on their risk appetite, capital needs and the vicissitudes or credit markets, businesses establish and negotiate capital structures designed to achieve their business objectives. As a result, studies trade debt-to-equity ratios vary widely in practice. Farrar and Mawani (2008) found Canadian trade debt-to-equity ratios ranged from 4.2:1 to 0.15:1. The United States Department of Treasury (2007) found many debt-to-equity ratios above the 1.5 to 1 safe harbor. It stated, “Commentators have noted, however, that many U.S. corporations have debt-to-equity ratios that exceed 1.5 to 1. For example, the capital structure of multinational businesses may vary based on their lines of business and what the market will bear with respect to such a business. Consequently, some commentators have argued that the debt-to-equity safe harbor should not be eliminated but should be modified to reflect this reality” (p. 29). However determining appropriate debt-to-equity ratios for various industries is not an easy task. It may be very difficult to determine “fair” debt-to-equity limits for a range of industries.

The Department of Treasury (2007) determined “modifying the debt-to-equity safe harbor to take into account different levels of leverage supportable by different assets was too complex and that

almost any generalization regarding the ability of the assets of a corporation to support debt, even within limited classes of assets, meant that at least some taxpayers would believe the test was insufficiently precise” (p. 30). While that may be correct, this argument does not support existing regulations, which specify one debt-to-equity safe harbor for all firms. And there are other regulatory approaches that could be effective. In certain situations New Zealand and the Netherlands reference the worldwide enterprise’s debt-to-equity ratio when regulating a CFC’s leverage. Denmark establishes an interest deduction limit based on a percentage of qualifying assets.²⁵ The Department of Treasury study showed no evidence it considered more effective regulatory strategies in other nations.

In the last two years both Germany and Italy have implemented regulations directly limiting interest deductions to 30% of EBITDA. This approach has several advantages over debt-to-equity caps. First, interest deduction rules directly address the real issue that concerns tax authorities, which is lost tax revenue. The most straightforward way to retain tax revenue is through limiting tax deductible interest, not controlling the capital structure of the firm. Interest deduction limits also support compliance with the capital import neutrality standard. As discussed, Italian legislators have taken more precautions than Germans to ensure their new rules treat domestic and foreign corporations equally.

However interest deduction limitations share a problem with debt-to-equity ratios, as it is very difficult to determine one limitation that is appropriate for all businesses and industries. If a country establishes a high interest expense limit few taxpayers will contend the restriction is unfair, but the rule will not limit excessive financial leverage. Tighter regulations may limit abuse, but may also unfairly constrain other businesses that depend upon debt. Such rules may also be incompatible with the arm’s length standard. A single figure regulating all businesses is arbitrary and may be too restrictive for some firms, and too lax for others. When debt-to-equity

²⁵ As mentioned, Denmark has three limitations that successively reduce interest deductions. The second limitation applies an interest rate on qualifying assets to limit deductible interest expenses. The interest rate for 2009 was 6.5% (Bundgaard and Tell, 2010, p. 7).

ratios vary widely in practice, “one size fits all” limitations may fail to satisfy both the fairness principle and the effectiveness principle.

The U.K. is the only country today that relies exclusively upon the arm’s length standard. This approach fails to satisfy the certainty principle. Unlike any other major country analyzed, the U.K. gives taxpayers no quantitative guidance to determine how much debt or interest expense might be considered excessive. Furthermore, the CFC has to determine its debt capacity as a stand-alone business, ignoring its function within the larger enterprise. This is inherently difficult. These ambiguities can also make administration of these rules inefficient, as regulators and tax authorities litigate their differences.

Beyond this, the U.K.’s approach may be too lenient. As van Sapiro (2009) writes, “The arms-length debt capacity of a UK business is defined as the level of indebtedness the UK business could have handled from an independent lender, without considering any larger enterprise to which the firm may belong” (p. 6). By focusing on what a subsidiary “could have borrowed,” the UK’s approach may permit excessive leverage. In practice, many firms borrow substantially less than they could. The U.K. approach encourages CFCs to define their maximum borrowing capacity, though the MNE may have no intention of assuming such leverage.

Proposal: Limit Interest Expenses to the WW Enterprise’s Interest Expense Ratio

Nations have attempted a variety of regulatory strategies to control highly leveraged financing structures. Based upon this paper’s analysis of such tax regulations, several conclusions can be reached concerning the most effective ways to control this activity.

One conclusion is that debt-to-equity limits are not always effective at preventing firms from stripping earnings from one country to another. If the MNE has sufficient capital, it can inject debt and equity into the CFC, comply with debt-to-equity limits, and still strip earnings from one country to another. MNEs have been able to work around these restrictions, as several studies

have shown. The comparatively strict U.S. 1.5 to 1 debt-to-equity ratio was completely ineffective at preventing Inverted Corporations from shifting earnings abroad. It is very easy to inject both debt and equity into a subsidiary, comply with regulatory restrictions, and strip earnings. For this reason several countries, such as Germany and Italy, have adopted interest deduction limitations, and this is a more effective approach.

Second, it is inherently difficult to identify one debt-to-equity ratio, or one interest deduction limitation, that is fair and appropriate for all businesses. As mentioned, a Canadian study found trade debt-to-equity ratios there ranged from 4.2 to 1 to 0.15 to 1. Thus some firms were leveraged with twenty-eight times the debt ratio as other businesses. In addition, the U.S. Department of Treasury (2007) considered establishing different debt-to-equity limits for various industries, but determined this was too difficult to accomplish with any precision. So it continues to limit all firms with one debt-to-equity ratio, which is an unfair and inefficient regulation, disconnected from market place realities.

Several countries have implemented rules that link a firm's capital structure to the worldwide enterprise's debt-to-equity ratio, or to that of similar firms in the same industry. The third escape clause in Germany's current interest deduction rule exempts firms that are no more leveraged than the consolidated firm. Japanese thin capitalization rules allow firms to use the debt-to-equity ratio of a similar Japanese firm to determine their maximum debt-to-equity ratio. The Netherlands' rules limit a subsidiary's debt-to-equity ratio to that of the worldwide enterprise. New Zealand's rules limit a subsidiary's debt-to-equity ratio to 110% of the consolidated business. Thus several countries impose thin capitalization rules that reference the debt level of the worldwide enterprise, or similar firms in like industries.

Rules in these countries demonstrate that limiting a firm's financing structure by referencing the worldwide enterprise's financial metrics, or that of a comparable firm, is a legitimate regulatory approach. However, it should be noted that in all of these cases countries were using market-based measures as a backup strategy, in the event the primary rules were too stringent. If the

country's primary limits were too restrictive, they provided firms an alternative to demonstrate their leverage was similar to the worldwide enterprise's, and thus not a tax-motivated strategy. This paper proposes that the best approach to controlling excessively leveraged funding strategies is to limit a CFC's tax deductible interest expenses to the worldwide enterprise's ratio of interest expense to earnings. This should be the primary strategy to combat excessively leveraged financing structures. While it makes sense to establish market-based financial measures to control financial leverage, debt-to-equity limitations are not always effective. As Germany, Italy and the United States currently reference EBITDA (or a close approximation) to limit tax deductible interest expenses, it makes sense to continue to use that earnings measure. The following table demonstrates how the worldwide enterprise's ratio of interest expense can be used to determine the maximum tax deductible expense for a subsidiary:

Table V: Proposal to Limit a CFC's tax deductible interest expense by the worldwide enterprise's ratio of interest expense to EBITDA

| Financial Measures | WW Enterprise Financial Results | Financial Measures | CFC Financial Results/Limit |
|--|---------------------------------|---|-----------------------------|
| Total Trade Interest Expense | \$15,000,000 | Limit of Tax Deductible Interest Expense to EBITDA | 7.5% |
| WW EBITDA | \$200,000,000 | CFC EBITDA | \$10,000,000 |
| WW Ratio of Trade Interest Expense to EBITDA | 7.5% | Tax Deductible Limit for Trade/Intercompany Interest Expenses | \$750,000 |

In the above example, the worldwide enterprise reported \$15,000,000 in trade interest expenses, and EBITDA totaled \$200,000,000. Thus its ratio of interest expense to EBITDA is 7.5%. This establishes the subsidiary's tax deductible limit. The subsidiary earned \$10,000,000. The CFC's tax deductible interest expense limit is determined by multiplying the 7.5% figure times its EBITDA of \$10,000,000, which is \$750,000. Interest expenses up to that figure are tax deductible. Interest expenses above that figure are disallowed, and perhaps carried forward into a future tax year.

This proposal supports the certainty principle. Calculating the worldwide enterprise's ratio of interest expense to earnings is a straightforward task, and it provides taxpayers and regulators with a clear, unambiguous rule. It provides much more certainty than the U.K.'s approach, which relies on the vagaries of the arm's-length standard. It also provides more certainty than safe harbors. These upper limits offer certainty for taxpayers operating below the safe harbor limit. But leveraged taxpayers may exceed the safe harbor boundary as part of their normal business activities, not as a tax minimization strategy. They have no assurance their financing structure will not be challenged by tax authorities.

Many international tax issues are filled with uncertainty, so establishing clear rules for all parties benefits both MNEs and governments. As Smith and Dunmore (2003) wrote, "In the case of thin capitalization, it is likely that arm's length debt/equity ratios of comparable enterprise's will be easier to obtain than appropriate CUPs for transfer pricing investigations, given that debt/equity ratios can be simply calculated from companies' financial statements" (p. 504). However this proposal creates even more certainty, as the MNE would use its own financial results to establish limits, rather than search for comparable firms.

Because this proposal provides taxpayers and tax authorities with certainty, it also supports the efficiency principle. Both the taxpayer and tax authorities can quickly determine their limits by reviewing the worldwide enterprise's income statement. In contrast, complying with France's or Denmark's complicated rules can be difficult, expensive and time-consuming. The U.K. rules encourage taxpayers to determine their arm's-length borrowing capacity, viewed as a stand-alone enterprise, which can also be a costly and lengthy process.

Not only does this approach support efficient tax collection, it supports market efficiency. As Musgrave and Musgrave (1976) wrote: "Taxes should be chosen so as to minimize interference with economic decisions in otherwise efficient markets" (p. 210). Tax rules that establish "one size fits all" debt limitations do not support market efficiency, as they may encourage tax-motivated decisions. Interest limitations that are consistent with the worldwide enterprise's funding decisions support market efficiency. The motivations of the MNE and its subsidiaries

become aligned. The CFC's limit is established by the WW enterprise's own financing decisions. Subsidiaries in countries imposing high income taxes would lose their incentive to incur excessive intercompany debt.

While "fairness" is difficult to define, in some ways this proposal appears to be fairer than the "one size fits all" rules adopted by many countries. Tax authorities would not create limitations inconsistent with firm's own funding strategy. In fact, tax authorities would not be regulating an appropriate capital structure for the CFC. The business would be establishing its own financial limit, through its own funding decisions. In contrast to uniform regulations, it sets a fair and appropriate interest expense limit for each firm, neither too strict nor too lenient. In certain cases a subsidiary may be engaged in a fundamentally different line of work than the worldwide enterprise. In those cases fairness would dictate establishing an interest expense limit consistent with other firms in that industry, as Japanese rules permit today.

Finally, this proposal improves effectiveness. As demonstrated previously, current debt-to-equity limitations are often ineffective at halting abuse. Interest deduction limits are more effective, but they only establish an upper limit for tax deductible interest expenses. As long as the MNE is careful not to exceed the regulatory maximum, it is free to pursue tax-driven financing decisions. For example, suppose a MNE consciously chose to keep debt and interest expenses low. Today it is permitted to increase deductible interest expenses to 30% of EBITDA in Germany and Italy. These countries may be depriving themselves of tax revenue because they permit MNEs to structure intercompany loans for the sole purpose of stripping earnings to the law's limit. This proposal would establish a fair and reasonable limit for each company by basing it on the worldwide enterprise's own funding decisions.

To evaluate this proposal's effectiveness, we should also ask if there are ways MNEs could work around these rules to achieve tax-advantaged results. It is true MNEs that incur higher trade interest expenses can allow their CFCs to deduct more intercompany interest under this proposal. So it is possible MNEs could increase trade interest expenses, and this would allow them to leverage certain subsidiaries more intercompany debt, and thus more earnings could be stripped from high-tax to low-tax jurisdictions. However to do this, the MNE would be reducing its pre-

tax earnings by increasing additional trade debt expenses, which would moderate such actions. In addition, banks and other lenders will not want to extend more debt than a firm can be expected to repay. Lenders are also more likely to demand loan collateral or covenants that can place limits on a firm's freedom to conduct its business operations. So there are several forces that constrain such a tax strategy. In addition, these are marketplace forces that may act to limit a firm's debt. Market forces that constrain debt can frequently be more effective than tax rules, which can sometimes be evaded or become dated.

Conclusion

The U.S. federal government is facing some of the largest budget deficits in its entire history. The Congressional Budget Office has said the projected budget deficits are unsustainable, and that the federal government needs to close the budget gap through reduced spending and/or increased revenue. One way in the U.S. government could increase tax revenue is through tightening its thin capitalization/interest deduction rules. Experience has demonstrated that existing U.S. thin capitalization rules can be avoided. U.S. tax authorities should be concerned with thin capitalization/interest deduction rules, as the U.S. income tax rate is one of the highest in the world, and thus the country is an attractive target for earning's stripping activities. In addition, the U.S. has left its thin capitalization/interest deduction rules essentially unchanged since 1989, while many other countries have been regularly reviewing and modifying these rules to ensure they strike the right balance between raising tax revenue and attracting FDI.

This paper has reviewed a number of regulatory approaches to control excessively leveraged financing structures, and proposes that the worldwide enterprise's ratio of interest expense to EBITDA should determine a subsidiary's tax deductible interest expense limit. This approach achieves many of the objectives that define a high quality tax law by supporting the certainty principle, the efficiency principle, the fairness principle, capital import neutrality, and the effectiveness principle. As tax authorities in the United States look for ways in which to increase tax revenue, they should consider this proposal. Other countries may want to consider this regulatory approach as well, as they seek to control excessively leveraged financing structures of firms operating within their borders.

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