

SPECIAL REPORT

Corporate Inversion Transactions: Valuation Considerations

by Michael Cragg, Jehan deFonseka, Ryan Tholanikunnel, and Evan Cohen



Michael Cragg



Jehan deFonseka

Michael Cragg, Jehan deFonseka, Ryan Tholanikunnel, and Evan Cohen are with the Brattle Group in Cambridge, Massachusetts.



Ryan Tholanikunnel



Evan Cohen

Various valuation considerations will arise when tax authorities scrutinize whether corporate inver-

sions meet U.S. federal requirements. In this article, the authors discuss some of those considerations, including book values versus market values, merger valuation, the value of hook stock, intercompany debt, and guarantees.

The general policy trend to free trade has increased competition for corporations to adopt more efficient production as previously closed economies reduce tariffs and other trade barriers. That competition has also led multinationals to acquire productive assets around the world in an ever greater search for reduced costs. Countries have responded by also reducing corporate tax rates, leaving some countries, such as the United States, with significantly higher rates.

A natural consequence of that trend is that merger candidates in low-tax jurisdictions have become more attractive. The result is tax base erosion as mergers shift corporate headquarters away from high-tax jurisdictions through the use of corporate inversions. These transactions have led to scrutiny by tax authorities around the world. This article examines economic issues that arise when tax authorities examine corporate inversions.

Around 50 former U.S. corporations have inverted, in large part between 1996 and 2014. (See Appendix, tables 1 and 2 for a summary of inversions by country and a full list of inversions.) Inversions generally involve reincorporation in a country such as Ireland or Bermuda that subjects the corporate parent to a lower statutory corporate tax rate or different tax regulations.

Figure 1 shows that for the six countries where most inverted companies reincorporate, inversions tend to occur when a country's tax rate has fallen (or has always been) significantly below the U.S. statutory tax rate.

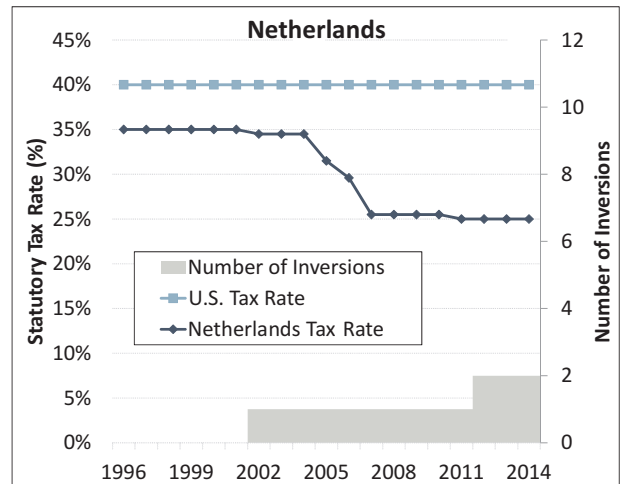
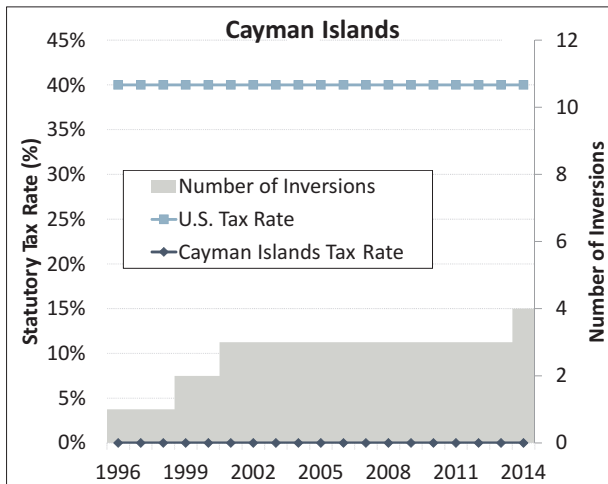
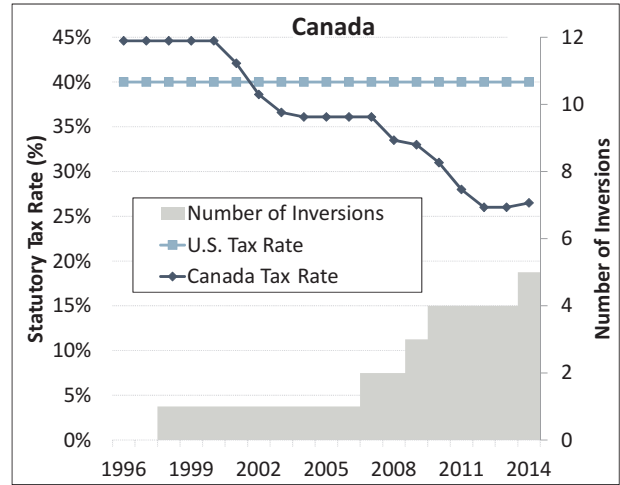
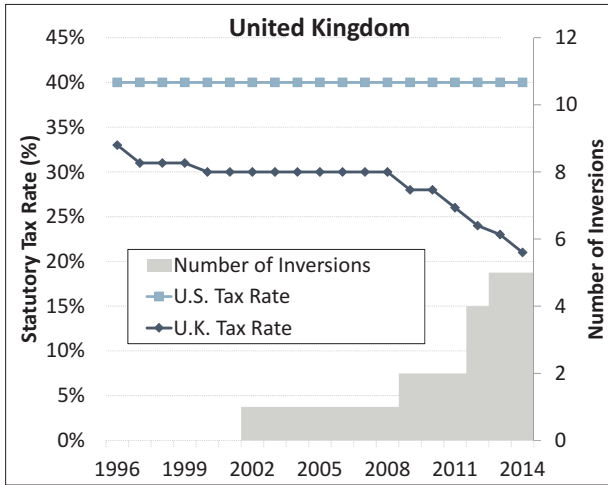
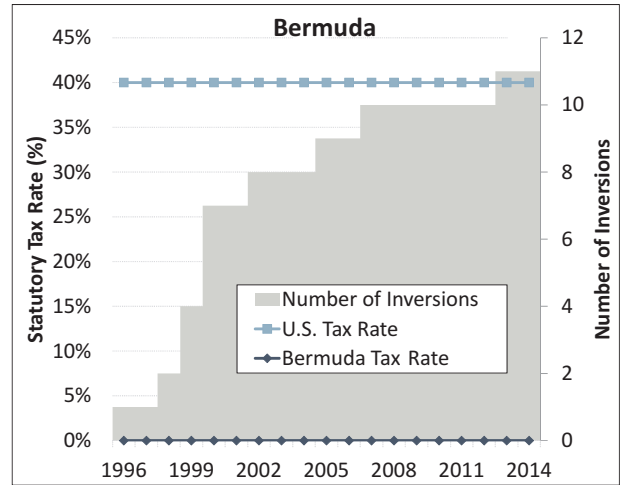
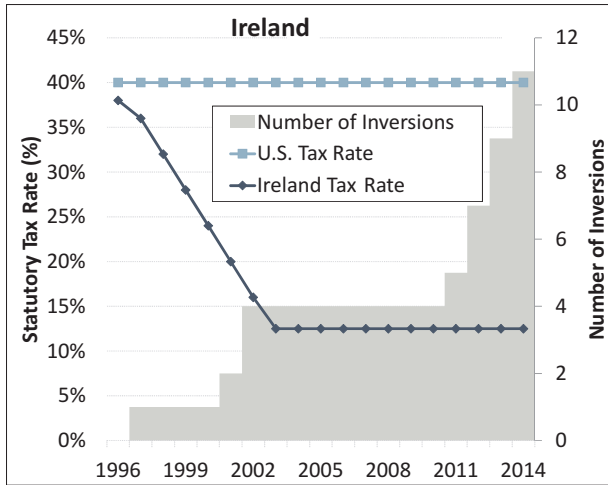
IRS Requirements for Corporate Inversion

For the inverted corporation to avoid taxation as a U.S. corporation, the resulting structure must fail specific anti-inversion criteria, defined in IRC sections 7874 and 367.

Section 7874 specifies two criteria that if met, result in adverse tax consequences:

- less than 25 percent of the new multinational entity's business activity is in the home country of the new foreign parent; and
- the shareholders of the old U.S. parent end up owning at least 60 percent of the shares of the new foreign parent.

Figure 1. Historical Statutory Tax Rates and Cumulative Number of U.S. Corporate Inversions (1996-2014)



Sources: See sources for Table 1.

If the continuing ownership stake is at least 80 percent, the new foreign parent would be treated as a U.S. corporation for U.S. tax purposes.¹ In September 2014 the U.S. Treasury Department further restricted inversions by not including the value of passive assets in valuing a foreign acquirer and preventing U.S. companies from reducing their size by making extraordinary dividends.²

Section 367 applies at the shareholder level. Gains or losses are recognized by U.S. shareholders if any of three conditions are met:

- previous shareholders receive more than 50 percent by vote or value of the stock in the new parent;
- U.S. persons who are officers or directors of the old corporation receive more than 50 percent by vote or value of the stock in the new parent; or
- the new corporation (or its subsidiaries) does not engage in active business outside the U.S. for at least 36 months before the transaction, or there is an intent to discontinue that trade or business.³

Because of those strict ownership requirements, a precise valuation of entities becomes of central importance for:

- an ex ante analysis to determine the structure;
- the execution of the transactions; and
- an after-the-fact valuation analysis, which may be necessary if the IRS challenges the validity of the inversion.

The analysis is complicated by various factors regarding the complexities of inversion transactions, subsidiary valuation, and the timing of the transaction comprising the restructuring, which may be spread over several months. This article seeks to explain issues that may arise and provide a framework for analyzing those issues.

Valuation Considerations in Inversions

Each inversion has a unique structure and so has unique valuation challenges.

Book Value Versus Market Value

On occasion, for the sake of expediency, the transactions involved in an inversion are planned using the book value of equity, an accounting construct equal to the book value of assets less the book value of liabilities. However, the book value of assets and liabilities generally reflects the historical costs of those line items and not the fair market value of those assets. Regula-

tions require that transactions occur at an FMV equal to the value exchanged between a hypothetical buyer and a hypothetical seller, each with complete information, in an arm's-length transaction. The book value of equity can vary considerably from the FMV of equity because of, for example, the presence of various intangible going concern assets that are not typically captured on the balance sheet by standard accounting practices. Hence, an inversion that may meet the criteria of sections 367 and 7874 on a book equity basis may not be successful on an FMV basis.

Another consideration when using the FMV of an asset is that that value can change significantly over a few months — for example, between the design of a restructuring and its closing. Since the “as of” date of the valuation must be on or near the actual transaction date, the relevant valuation will be affected by any changes in market conditions during that period. For example, if one valuation method involves a comparables method using comparable companies, those multiples may change significantly during a volatile stock market period.

Merger Valuation

An inversion often involves the merger of a U.S. corporation with a foreign corporation. Equity from both the U.S. and foreign corporations are exchanged for equity in a new foreign parent (see Figure 2). The success of the inversion is contingent on the appropriate ratio of new parent ownership between old U.S. shareholders and old foreign shareholders.

Despite readily ascertainable values for the publicly traded equity market capitalization of the old parents, an independent valuation using one or more standard valuation methods (for example, a discount cash flow or comparables method) is still necessary to determine whether an inversion was successful. Those publicly traded equity values are not always sufficient for several reasons:

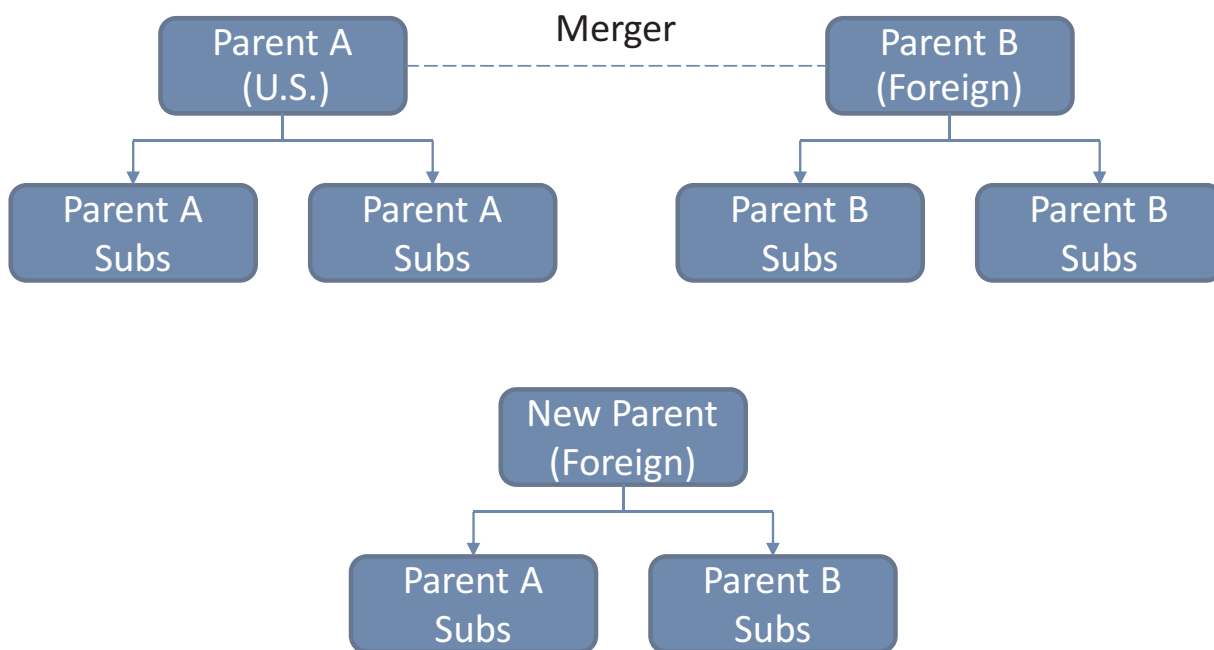
- The structure of the merger may be such that some subsidiaries, rather than the entire U.S. corporation or foreign corporation, may be involved in the inversion transactions. In that case, separate subsidiary valuations are required to determine the ownership share of the resultant new parent.
- Publicly traded equity prices may reflect the idiosyncratic nature of the merger itself, rather than the equity values on a stand-alone basis, which should not be taken into account in a hypothetical buyer-seller framework.
- As a related matter, in some cases, a valuation must address the value of synergies — that is, the valuation benefits of a merger, some of which may be tax related — and how those benefits are allocated between buyer and seller in a valuation framework. The valuation and allocation of synergies is specific to the context of the valuation assignment.

¹U.S. Treasury, “Fact Sheet: Treasury Actions to Rein in Corporate Tax Inversions” (Sept. 22, 2014).

²*Id.*

³The University of Chicago Law School, “Corporate Inversions” (Nov. 8, 2013), at 21-23.

Figure 2. Sample Merger Structure



Notes: Merger between Parent A and Parent B. New Parent is formed to hold all entities. Shareholders of Parent A and Parent B receive shares of New Parent.

Hook Stock

Hook stock — that is, the partial ownership of a legal entity by its own indirect subsidiary — is a common feature in corporate structuring. Hook stock can arise for various reasons, such as in the context of an inversion transaction if a foreign subsidiary were to purchase equity in its indirect U.S. parent (see Figure 3).

The concept of hook stock is inherently circular; as a result, its valuation is counterintuitive. An increase in the value of the subsidiary increases the value of the parent, which again increases the value of the subsidiary, and so forth. By further understanding that feedback loop, one can accurately determine the value of the relevant subsidiary and the hook stock itself.

One can derive an equation to determine the value of the subsidiary, parent, and hook stock. For a parent (Parent B) whose equity value, not including the hook stock, is P_{B0} , and hook stock ownership percentage $H\%$, the ownership percentage gained from a hook stock investment (H_v) is:

$$H\% = \frac{H_v}{P_{B0} + H_v}$$

The formula is intuitive, because it is the same ownership percentage that a third party would receive for the same investment of H_v in Parent B: the ratio of the

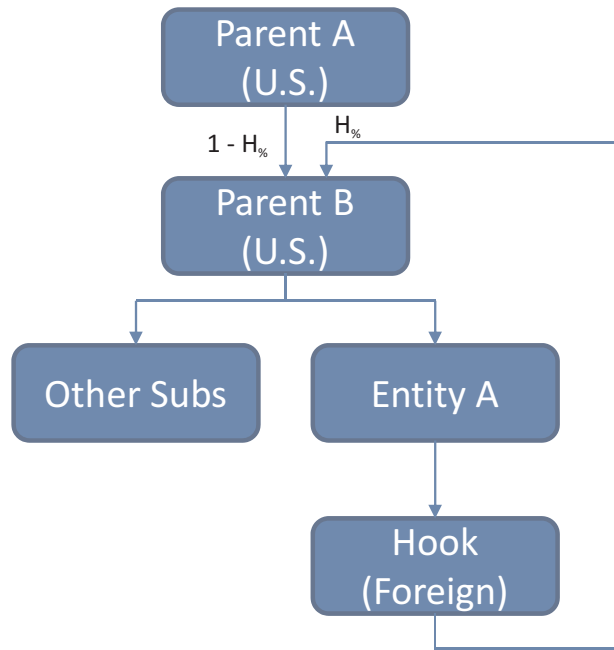
value of the new investment to the value of total ex post equity investments (often called a post-money valuation) (see Figure 4). The value of the subsidiary on a stand-alone basis is irrelevant to the consolidated value of the hook stock — all that matters is the value of B. Similarly, to determine the value of hook stock given a specific ownership percentage $H\%$, one can solve for H_v in the above formula, resulting in⁴:

$$H_v = \frac{H\%}{1 - H\%} \times P_{B0}$$

Based on that, the equity value of the subsidiary equals its stand-alone value plus the value of the hook stock. The total equity value of B (P_B) is similarly its stand-alone value (P_{B0}) plus the value of the hook stock. However, one must keep in mind that Parent A only owns the remaining $1 - H\%$ of B. Because of that, mathematically, A's value (P_A) is not affected by the hook stock at all, but rather, equals the value of B without hook stock plus any incremental value of assets within the A legal entity not already captured in B's value (P_{A0-inc}):

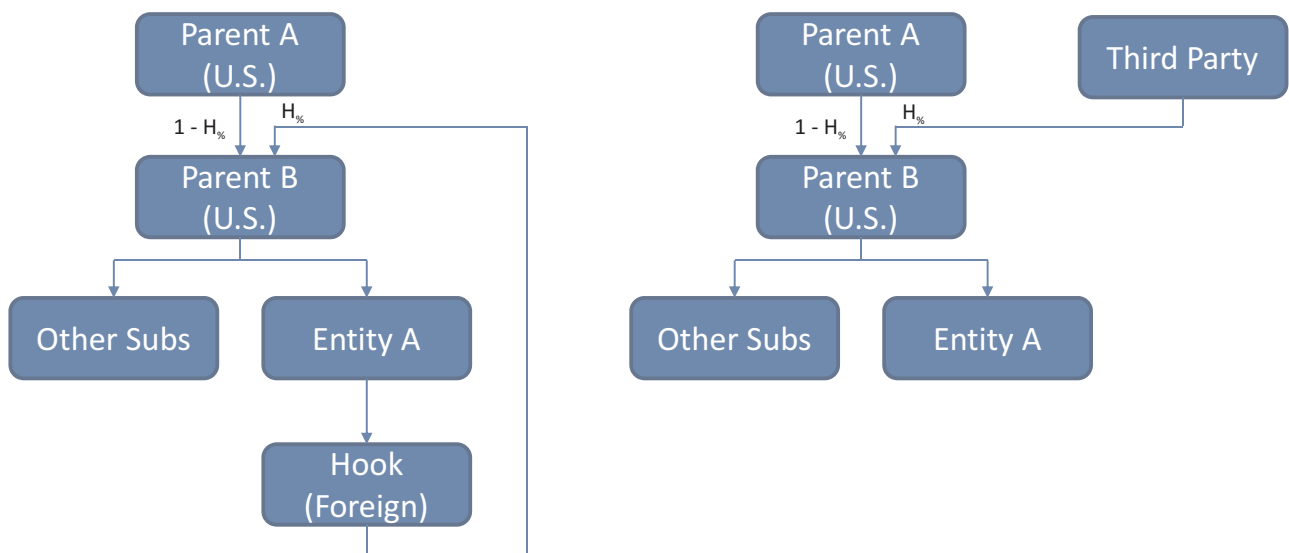
⁴A generalized form of that formula can be found in Pawel Cyganski, "Valuation of Entities With Cross-Shareholding Ownership," *Bus. Valuation Rev.* (Dec. 2004), at 197-200.

Figure 3. Sample Hook Stock Structure



Notes: Entity A creates a foreign domiciled entity, Hook. Hook purchases shares of Parent B to become a partial holder of the company.

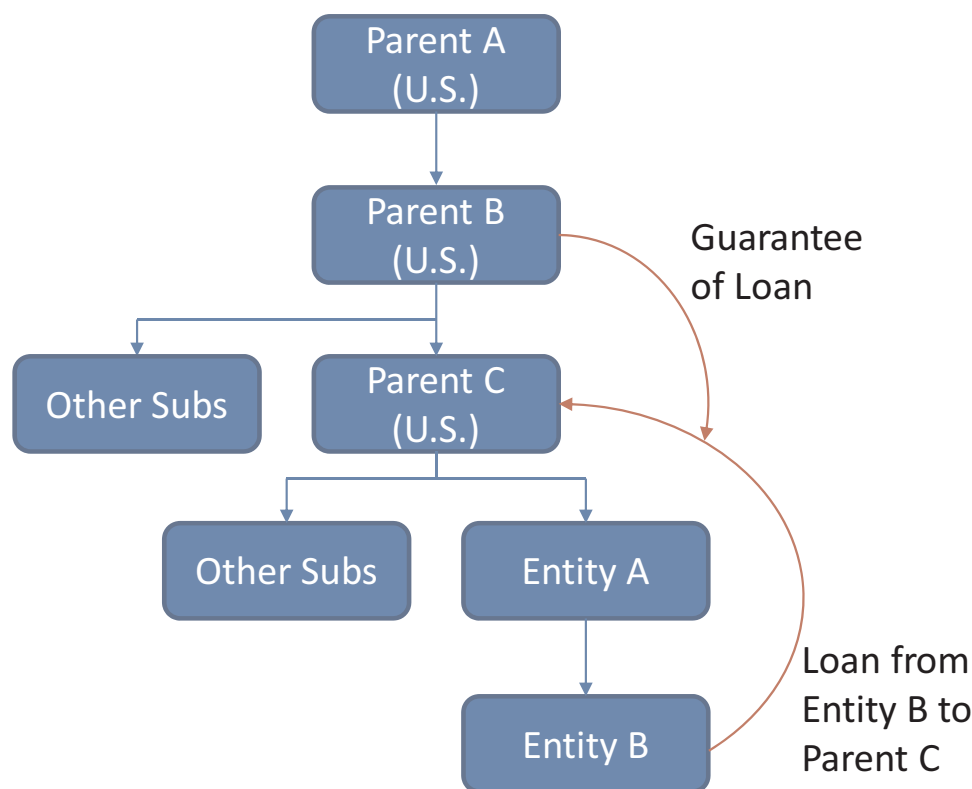
Figure 4. Hypothetical Sale of Hook Stock Investment



Notes: Entity A sells its ownership interest in Hook to a hypothetical Third Party. The value of this hypothetical sale is the value of the hook stock.

© Tax Analysts 2015. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Figure 5. Guarantee of Intercompany Debt



Notes: Entity B makes a loan to Parent C. Parent B issues a guarantee on the loan, saying that it will pay if Parent C defaults. The guarantee is backed by Parent B's and its subsidiaries' assets, including those not related to Parent C.

$$\begin{aligned}
 P_A &= P_B \times (1 - H_{\%}) + P_{A0-inc} \\
 &= (P_{B0} + H_{\%}) \times (1 - H_{\%}) + P_{A0-inc} \\
 &= \left(P_{B0} + \frac{H_{\%}}{1 - H_{\%}} \times P_{B0} \right) \times (1 - H_{\%}) + P_{A0-inc} \\
 &= (P_{B0} \times (1 - H_{\%}) + H_{\%} \times P_{B0}) + P_{A0-inc} \\
 &= P_{B0} + P_{A0-inc}
 \end{aligned}$$

Thus, A should be valued as if the hook stock does not exist.

Intercompany Debt and Guarantees

Intercompany debt is frequently used within corporate structures, and it comes with its own set of valuation challenges. In a typical valuation, a valuation expert would first calculate the enterprise value of a consolidated entity, representing the present value of cash flows that the entity is expected to generate. The expert would then subtract liabilities such as debt from the enterprise value to calculate the equity value, because equity is a claim on the residual cash flows of a company after liabilities have been paid.

Some valuation challenges can arise because of intercompany debt between subsidiaries. That can be a significant liability for some entities and a significant source of value for others. In analyzing the value of those liabilities, one must consider the following:

- If the debt outstanding is large enough that equity value is insignificant or even negative (implies that the entity being valued is insolvent), one could make the argument that the debt is not actually debt at all, but instead behaves more like equity. Thus, the validity of the debt can be challenged from a fundamental economic substance perspective.
- If the terms of the debt were set at non-market interest rates, which do not reflect appropriate compensation for the debt risk in a hypothetical framework involving a willing buyer and willing seller, the market value of the debt may not equal its face value and must be revalued.
- If the debt is either explicitly or implicitly guaranteed by other entities or pools of assets, the guarantee affects the value of that debt. If that guarantee comes from a parent entity, the incremental

security of that guarantee is the value of equity or assets not already captured by the priority of the debt itself. For example, in Figure 5, the incremental benefit of the guarantee comes from the extra security provided by Parent B and its subsidiaries that are not related to Parent C, rather than from the value of Parent C.

Conclusion

Given the scrutiny on inversions, it is vital, especially for U.S. corporations, to keep these valuation considerations in mind before, during, and after any corporate inversion in order to verify compliance with the IRS requirements for corporate inversions.

Appendices

Table 1. U.S. Corporate Inversions and Selected Statutory Tax Rates

	Number of Inversions (1982-Present)	1996 Statutory Tax Rate	2009 Statutory Tax Rate	2014 Statutory Tax Rate
United States		40.0%	40.0%	40.0%
New Country of Incorporation				
Ireland	12	38.0%	12.5%	12.5%
Bermuda	12	0.0%	0.0%	0.0%
United Kingdom	5	33.0%	28.0%	21.0%
Canada	5	44.6%	33.0%	26.5%
Cayman Islands	4	0.0%	0.0%	0.0%
Netherlands	2	35.0%	25.5%	25.0%
Luxembourg	2	40.3%	28.6%	29.2%
Switzerland	2	28.5%	19.0%	17.9%
Australia	1	36.0%	30.0%	30.0%
Panama	1	34.0%	30.0%	25.0%
Israel	1	36.0%	26.0%	26.5%
Denmark	1	34.0%	25.0%	24.5%

Sources: Bloomberg Visual Data, "Tracking Tax Runaways," available at <http://www.bloomberg.com/infographics/2014-09-18/tax-runaways-tracking-inversions.html> (accessed Apr. 6, 2015). KPMG, "KPMG's Corporate Tax Rate Survey: An international analysis of corporate tax rates from 1993 to 2006," available at <https://www.lib.uwo.ca/files/business/KPMGCorporateTaxRateSurvey.pdf> (accessed June 2, 2015). KPMG, "Corporate tax rates table," available at <http://www.kpmg.com/global/en/services/tax/tax-tools-and-resources/pages/corporate-tax-rates-table.aspx> (accessed Apr. 6, 2015). Peter O'Dwyer, "Taxation aspects of International Funds Management," Fund Management & Administration, Sept. 1996, available at <http://www.offshoreinvestment.com/media/uploads/1114ODwyer.pdf> (accessed June 11, 2015). U.S. Department of State, "1996 Country Commercial Guide: Panama," available at http://dosfan.lib.uic.edu/ERC/economics/commercial_guides/Panama.html (accessed June 11, 2015). Israeli Ministry of Finance, Excerpts from the Annual State Revenue Report for 1997, Table XVI-6, "Corporate-Tax Rates, Selected Countries," available at http://ozar.mof.gov.il/hachnasot/state1/98217_16c.htm (accessed June 11, 2015).

Note: Inversions listed include only corporate inversions from the United States to other countries.

Table 2. U.S. Corporate Inversions (1982-Present)

Former Name	Previous U.S. Headquarters	New Incorporation	Year Completed
Wright Medical Group Inc.	Tennessee	Netherlands	Pending
Steris Corp.	Ohio	England	Pending
Civeo Corp.	Texas	Canada	Pending
Mylan Inc.	Pennsylvania	Netherlands	Pending
Applied Materials Inc.	California	Netherlands	Pending
Medtronic Inc.	Minnesota	Ireland	2015
Burger King Worldwide Inc.	Florida	Canada	2014
Horizon Pharma Inc.	Illinois	Ireland	2014
Theravance Biopharma Inc.	California	Cayman Islands	2014
Endo International Plc	Pennsylvania	Ireland	2014
Tower Group International Ltd.	New York	Bermuda	2013
Liberty Global Plc	Colorado	England	2013
Perrigo Co. Plc	Michigan	Ireland	2013
Actavis Plc	New Jersey	Ireland	2013
Tronox Ltd.	Oklahoma	Australia	2012
Rowan Cos. Plc	Texas	England	2012
Aon Plc	Illinois	England	2012
Eaton Corp. Plc	Ohio	Ireland	2012
Jazz Pharmaceuticals Plc	California	Ireland	2012
Stratasys Ltd.	Minnesota	Israel	2012
DE Master Blenders 1753 NV	-	Netherlands	2012
Alkermes Plc	Massachusetts	Ireland	2011
Valeant Pharmaceuticals Intl. Inc.	California	Canada	2010
Altisource Portfolio Solutions	-	Luxembourg	2009
Tim Hortons Inc.	Canada	Canada	2009
Invitel Holdings A/S	Washington	Denmark	2009
Ensco Plc	Texas	England	2009
Altisource Portfolio Solutions SA	-	Luxembourg	2009
Argo Group International Holdings Ltd.	Texas	Bermuda	2007
Western Goldfields Inc.	Canada	Canada	2007
Lazard Ltd.	New York	Bermuda	2005
Nabors Industries Ltd.	Texas	Bermuda	2002
Noble Corp. Plc	Texas	England	2002
Weatherford International Ltd.	Texas	Ireland	2002
Cooper Industries Plc	Texas	Ireland	2002
Vistaprint NV	Massachusetts	Netherlands	2002
GlobalSantaFe Corp.	Texas	Cayman Islands	2001
Ingersoll-Rand Plc	New Jersey	Ireland	2001
Foster Wheeler AG	New Jersey	Switzerland	2001

Table 2. U.S. Corporate Inversions (1982-Present) (continued)

Former Name	Previous U.S. Headquarters	New Incorporation	Year Completed
APW Ltd.	-	Bermuda	2000
Everest Re Group Ltd.	New Jersey	Bermuda	2000
Arch Capital Group Ltd.	Connecticut	Bermuda	2000
PXRE Group Ltd.	New Jersey	Bermuda	1999
White Mountains Insurance Group Ltd.	Vermont	Bermuda	1999
Fruit of the Loom Ltd.	Kentucky	Cayman Islands	1999
Transocean Ltd.	Texas	Switzerland	1999
XOMA Ltd.	California	Bermuda	1998
Gold Reserve Inc.	Washington	Canada	1998
Tyco International Plc	New Hampshire	Ireland	1997
Loral Space & Communications Ltd.	New York	Bermuda	1996
Triton Energy Ltd.	Texas	Cayman Islands	1996
Helen of Troy Ltd.	Texas	Bermuda	1994
McDermott International Inc.	Louisiana	Panama	1982

Sources: Bloomberg Visual Data, "Tracking Tax Runaways," available at <http://www.bloomberg.com/infographics/2014-09-18/tax-runaways-tracking-inversions.html> (accessed Apr. 6, 2015). Medtronic, Inc., Form 8-K, Jan. 26, 2015.