Effect of the Medical Device Excise Tax on the Federal Tax Liability of the Medical Device Industry

Prepared on behalf of the Advanced Medical Technology Association

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Executive Summary

The Health Care and Education Reconciliation Act of 2010 (P.L. 111-52) included a provision for a new 2.3% excise tax on the sale and use of medical devices beginning in 2013. The staff of the Joint Committee on Taxation (JCT) estimated this new tax to increase Federal tax revenue by $29 billion over the next ten years.¹

This report estimates the Federal income tax liability and medical device excise tax (MDET) liability of the medical device industry. Both the Federal income tax liability on medical device activity by C corporations and by individual owners of flow-through businesses is included.² These companies also pay other Federal taxes, such as payroll taxes (employer share) and unemployment insurance taxes, and investors may pay individual income taxes on company dividends and realized capital gains. If included, these additional taxes would add to the Federal tax liability of the industry.

This report estimates that the medical device industry will have an estimated Federal income tax liability of approximately $8.7 billion for 2013. Based on estimates by the Joint Committee on Taxation, this industry will have an MDET liability of roughly $2.5 billion in tax year 2013. This equals approximately 29% of the industry’s current federal income tax liability.

This report is only intended to present estimates of the Federal income tax liability and MDET liability (i.e., the statutory incidence) by the medical device industry. This report does not consider the economic incidence of either the Federal income tax or the medical device excise tax.

Analysis

Medical device excise tax

An excise tax is a sales tax imposed on a specific product, while a sales tax is typically imposed on a wide range of consumption goods and services. Policymakers commonly use excise taxes to target specific products such as alcohol, cigarettes, or gasoline. Excise taxes are often imposed to address a negative externality (e.g., taxing cigarettes because of public health concerns) or to act as a user fee for a government-provided good or service (e.g., taxing gasoline as a service charge for road use).³ In the context of the health insurance reform legislation, the Congress imposed several new excise taxes or fees – including the MDET – to raise revenue to aid in offsetting the cost of new insurance coverage provisions.⁴ However, now that the law has been passed, the revenue raised by the MDET is part of the general revenues of the Treasury.

This new tax in section 4191 of the Internal Revenue Code applies to most medical devices as defined by the Food and Drug Administration (FDA) and sold or used in the United States.⁵ The tax is levied on sales without regard to the profitability of the company paying the taxes. Both C corporations and flow-through businesses are subject to the MDET. The statute excludes eyeglasses, hearing aids, and contact lenses, and proposed regulations exempt medical devices that are both available through retail sales outlets and are not primarily intended for use in a medical facility.
Estimating the Federal income tax liability of the medical device industry

While the staff of the Joint Committee on Taxation has estimated the revenue effect of the MDET, no publicly available estimates have been prepared of the Federal income taxes of the medical device industry. Although some companies are engaged primarily in the medical device industry, estimating the income taxes of this industry is difficult because a significant amount of medical device activity is performed by diversified companies that operate not only in the medical device business, but in other industries as well, such as the pharmaceutical industry or the personal care product industry. The classification and estimation of the income taxes of these companies that is attributable to the medical device industry cannot rely on public tabulations of income taxes by industry or the financial statement reports of public diversified companies, but must instead be estimated using supplementary data sources to allocate the income taxes of diversified companies to their medical device activities.

For many industries, income taxes at the industry-level can be obtained through the Internal Revenue Service’s Statistics of Income (SOI). This approach, however, is inadequate for the medical device industry because of the significant proportion of medical device sales by companies which do not operate exclusively in the medical device industry (i.e., “non-pure plays”). This is significant because if, for example, a business manufactures surgical equipment (medical devices) and pharmaceuticals (not medical devices), the company can only identify itself on its tax return as either a surgical equipment manufacturer or a pharmaceutical manufacturer. Thus, if it identifies itself as a pharmaceutical manufacturer, then this business is classified as a pharmaceutical manufacturer in the tax return data, not as a medical device manufacturer. Consequently, this approach could exclude a significant segment of the medical device industry that relates to diversified companies.

The approach taken by this report to estimate the Federal income tax liability of the industry is to use publicly available tax return data from the SOI to estimate the income taxes of those companies that are primarily in the medical device industry. These data are then augmented with establishment-level data from the US Bureau of the Census’ Annual Survey of Manufacturers (ASM) to include the medical device activity and associated Federal income taxes of diversified companies that would otherwise be excluded. Various adjustments are made in these calculations such as including the income tax liability of medical device activity in the flow-through business form and excluding foreign income and taxes.

Due to the volatility of some of the relationships used in these calculations, the estimate is constructed for three years (i.e., 2006, 2007, and 2008) and projected to 2013. The resulting estimates are then averaged to yield the final estimate. While 2008 is the latest year for which the data from all of the various sources is available, 2008 was significantly impacted by the financial crisis and the ensuing recession. Thus, the approach of using the average of the three years includes 2008 in the calculations but, because of the averaging, gives greater weight to the two years prior to the financial crisis (i.e., 2006 and 2007) in the final estimate.

The North American Industry Classification System (NAICS) contains seven industry categories that include medical device activity:
The tax return data that are publicly available from the SOI, however, only include these seven NAICS classifications under three aggregated SOI industry categories:

<table>
<thead>
<tr>
<th>NAICS code</th>
<th>Industry category</th>
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<tbody>
<tr>
<td>3254</td>
<td>Pharmaceutical and Medicine Manufacturing</td>
</tr>
<tr>
<td>3345</td>
<td>Navigational, Measuring, Electromedical, and Control Instruments Manufacturing</td>
</tr>
<tr>
<td>3391</td>
<td>Medical Equipment and Supplies Manufacturing</td>
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While the majority of the SOI classification Medical Equipment and Supplies Manufacturing (SOI industry code 3391) consists of firms in the medical device industry (i.e., NAICS codes 339112 through 339115), the medical device industry’s presence both in Pharmaceutical and Medicine Manufacturing (i.e., NAICS code 325413) as well as in Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (i.e., NAICS codes 334510 and 334517) is modest.

Because SOI data are not publicly available at a more disaggregated level, these data are not specific enough to estimate income taxes for the medical device industry. Accordingly, the ASM is used to fill this gap in the publicly available SOI data. Specifically, the ASM is useful because it is at the establishment-level. This unit of measurement is in contrast to that used in the SOI: for a business that manufactures both medical devices and pharmaceuticals at different establishments, both their medical device and pharmaceutical manufacturing will be classified under the correct category.

While the ASM does not contain information on the income taxes of medical device establishments, the ASM does provide medical device sales for the US medical device industry. Tax liability for the industry can then be approximated using the publicly available tax return data from the SOI that relates taxes to sales. Specifically, the SOI category of Medical Equipment and Supplies Manufacturing, though it does not contain the entire medical device industry, is a reasonable proxy from which the medical device industry’s income tax liability can be calculated. This is because the ASM data reports that US establishments classified under NAICS codes 339112 through 339115 – within the aggregated SOI category Medical Equipment and Supplies Manufacturing – contains 63% of revenue from the medical device industry from 2006 through 2008.

An additional complication in estimating the corporate income taxes of the US medical device industry is that under the Internal Revenue Code businesses in the United States are taxed on both their domestic-income and that of their foreign subsidiaries. Businesses, however, can
credit their foreign taxes on foreign-source income against their corporate income tax. In order to calculate corporate income taxes on the US economic activity of the medical device industry, foreign earnings and the US tax on foreign earnings are removed from the estimates. This is accomplished by using publicly available tax return data from Form 1118.8

**Figure 1. Medical device industry sales by NAICS code, 2010**

![Pie chart showing medical device industry sales by NAICS code, 2010](image)

- In-vitro diagnostic substance manufacturing
- Electromedical and electrotherapeutic apparatus manufacturing
- Irradiation apparatus manufacturing
- Surgical and medical instrument manufacturing
- Surgical appliance and supplies manufacturing
- Dental equipment and supplies manufacturing
- Ophthalmic goods manufacturing

Source: US Bureau of the Census, Annual Survey of Manufacturers; computations by Ernst & Young LLP.

Individual taxes of owners of flow-through businesses in the medical device industry are calculated in three steps. First, the average marginal tax rate on partnership and S corporation income reported on owners’ individual tax returns is estimated from the EY Individual Tax Microsimulation Model. Then, this average marginal tax rate is applied to the net income of medical device business in the four industries that are primarily pure plays in the medical device industry as reported on the business entities’ tax returns. For these industry groupings, the net income of the flow-through businesses comprise about 33% of total net income (i.e., C corporations plus flow-through businesses) from 2006 through 2008. Finally, corporate-owned partnerships are removed from these data to avoid double counting because partnerships may be owned by corporations in the medical device industry.9 This estimate of Federal income tax liability for owners of flow-through businesses is then combined with the estimate of Federal income tax liability described above for C corporations. The result of this computation is an estimate of the Federal income tax liability of the medical device businesses in the four industries that are primarily pure plays.

The Federal income tax liability of the medical device industry in the ASM data is then estimated by applying the ratio of Federal income taxes from both the corporate and noncorporate business form to sales in the SOI data to sales in the ASM data. This approach assumes that
this ratio is representative of the Federal income tax liability of all medical device companies.\textsuperscript{10} An estimate of the Federal income tax liability of the medical device industry in 2013 is estimated using the forecasted growth in national health expenditures from the Centers for Medicare & Medicaid Services (CMS).\textsuperscript{11}

Federal income tax and MDET remitted by the medical device industry

The estimate resulting from the above methodology is a 2013 Federal income tax liability of $8.7 billion for the US medical device industry.\textsuperscript{12} The Joint Committee on Taxation (JCT) provides revenue estimates for the MDET (Table 1). These estimates, however, are on a fiscal year basis reflecting the cash flow of the tax to the Federal government during the fiscal year (i.e., October 1\textsuperscript{st} through September 30\textsuperscript{th} of the following year).

Table 1. Revenue raised by the medical device excise tax

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<tbody>
<tr>
<td>2013</td>
<td>1,742</td>
<td>2,562</td>
<td>2,668</td>
<td>2,771</td>
<td>2,889</td>
<td>3,012</td>
<td>3,143</td>
<td>3,280</td>
<td>3,428</td>
<td>3,582</td>
<td>12,631</td>
<td>29,076</td>
</tr>
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Note: Original JCT estimates were for repeal of the MDET. The revenue estimates are reported here as positive amounts to indicate the revenue that would be raised by the MDET. Source: Joint Committee on Taxation, Description of H.R. 436, the “Protect Medical Innovation Act of 2011,” (JCX-45-12), May 29, 2012.

While the JCT estimates show the fiscal year effect of the MDET to be $1.7 billion in fiscal year 2013 (ending September 30, 2013), some of the revenue associated with tax year 2013 is included in the estimate for fiscal year 2014 because it will be received between October and December of 2013. The 2013 fiscal year estimate is adjusted to include all of the revenue associated with tax year 2013.\textsuperscript{13} This adjustment is needed so that both the estimate of Federal corporate income taxes and MDET liability are estimated on a consistent basis. After this adjustment, the MDET liability for tax year 2013 is estimated to be $2.5 billion, which equals approximately 29% of the industry’s current Federal income tax liability.

\textsuperscript{1} Joint Committee on Taxation, Description of H.R. 436, the “Protect Medical Innovation Act of 2011” (JCX-45-12), May 29, 2012.
\textsuperscript{2} Based on Internal Revenue Service tax return data, flow-through businesses – S corporations, partnerships, and limited liability companies – comprised roughly 33% of net income in the medical device industry from 2006 through 2008. Very little medical device activity is performed by sole proprietorships.
\textsuperscript{3} A negative externality is when the cost to society of a product is not fully embodied by the price charged to the purchaser of the product and, consequently, the product is oversupplied.
\textsuperscript{5} §201(h) of the Federal Food Drug and Cosmetic Act.
\textsuperscript{6} An establishment is defined by the US Bureau of the Census as “a single physical location at which business is conducted and/or services are provided.”
Active foreign earnings of US corporations are generally only taxed when repatriated back to the United States. While Form 1118 foreign-source income data is only available one level of aggregation above Medical Equipment and Supplies Manufacturing (Miscellaneous Manufacturing), it can be estimated using the relationship between the foreign tax credit and foreign source income as reported for the Miscellaneous Manufacturing industry, of which the medical device industry represents more than half. Specifically, the ratio of foreign tax credit to foreign-source income in Miscellaneous Manufacturing is multiplied by the foreign tax credit for Medical Equipment and Supplies Manufacturing. Foreign source income is then removed from taxable income, the statutory corporate income tax rate of 35% is applied, and other tax credits (to lower the tax rate from the statutory 35%) are applied to provide an approximation of the taxes on domestic-source income by the Medical Equipment and Supplies Manufacturing SOI category.

Based on partnership tax return data from 2006 to 2008, about 24% of partnership income was allocated to corporate partners. For example, see Tim Wheeler and Nina Shumofsky, Partnership Returns, 2008, Statistics of Income Bulletin, Fall 2010.

The ratio between receipts and domestic-source corporate income taxes reported in the SOI data is multiplied by receipts from medical device manufacturing in the ASM data (where ASM receipts are adjusted such that the Medical Equipment and Supplies Manufacturing receipts from SOI represent 63% of ASM receipts from 2006 through 2008).

Medical device sales have remained at roughly 6% of total health expenditures for the past decade based on data from the ASM and CMS. Thus, the forecast for total health expenditure were used to project the estimate of tax liability to 2013.

Data from the SOI suggest that approximately 67% of net income in the medical device industry were from C corporations between 2006 through 2008. For businesses in the medical device industry, C corporations (including partnerships owned by C corporations) are estimated to have $6.7 billion in tax liability and flow-through businesses (excluding partnerships owned by C corporations) are estimated to have $2.0 billion in tax liability.

This adjustment approximates the tax liability for tax year 2013 that is projected to be received by the Federal government outside of fiscal year 2013 and includes this amount in the estimate of MDET liability for tax year 2013. The estimate turns out to be $2.5 billion, which is slightly lower than the fiscal year 2014 revenue effect estimated by the staff of the Joint Committee on Taxation.