Effect of the medical device excise tax on the federal tax liability of the medical device industry

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Summary

The Patient Protection and Affordable Care Act (P.L. 111-148) imposed a 2.3% excise tax on the sale of medical devices in the United States. However, there is a moratorium on the payment of the medical device excise tax through 2019. This report estimates the federal income tax liability of the medical device industry over the 2018-27 period and compares it to the estimated medical device excise tax liability of the industry over this same 10-year period.

This report estimates that the medical device industry will have federal income tax liability of approximately $65.2 billion over the 2018-27 period, accounting for the effects of the Tax Cuts and Jobs Act (TCJA). This compares to $16.7 billion in medical device excise tax liability over this same period. That is, the medical device excise tax liability is equivalent to approximately 26% of the industry’s federal income tax liability. As a point of comparison, the medical device industry is estimated to receive a $9.9 billion decrease in federal income tax liability over the 2018-27 period from the TCJA. This is equivalent in magnitude to approximately 59% of the industry’s medical device excise tax liability.

Figure 1. Medical device industry’s federal income tax liability compared to industry’s medical device excise tax liability (2018-27)

$Billions of dollars

Federal income tax liability $65.2b
Medical device excise tax liability $16.7b
Reduction in tax liability from the TCJA $9.9b

Note: Federal income tax liability includes the impact of the reduction in tax liability from the TCJA. Under current law there is a moratorium on the medical device excise tax until January 1, 2020.
Source: EY analysis.
Federal income taxes on the medical device industry

This report defines the medical device industry following the North American Industry Classifications System (NAICS), which is the system commonly used in government statistics. In particular, the medical device industry is defined as the following seven NAICS codes:

► 325413: In-vitro diagnostic substances manufacturing
► 334510: Electro-medical and electrotherapeutic apparatus manufacturing
► 334517: Irradiation apparatus manufacturing
► 339112: Surgical and medical instrument manufacturing
► 339113: Surgical appliances and supplies manufacturing
► 339114: Dental equipment and supplies manufacturing
► 339115: Ophthalmic goods manufacturing

This analysis estimates the federal income tax liability of the medical device industry under pre-TCJA law, and then accounts for the changes made by the TCJA. The federal income tax liability of the medical device industry excluding the effects of the TCJA is projected based on publicly available tax return data from the Internal Revenue Service (IRS) supplemented by Census Bureau data. Joint Committee on Taxation (JCT) revenue estimates are used to impute the effect of the TCJA on the medical device industry.

The federal income tax liability measured here includes both corporate income tax liability and the individual income tax liability of owners of medical device companies organized as pass-through businesses on their pass-through income. Other federal taxes paid by these companies (e.g., payroll taxes (employer share) and unemployment insurance taxes) and their shareholders (e.g., individual income tax on dividends and realized capital gains) are excluded. If included, these additional taxes would add to the federal tax liability of the industry.

As seen in Figure 2, this report estimates that over the 2018-27 period, the medical device industry would have paid $75.1 billion in federal income taxed had TCJA not been enacted. This report estimates that the TCJA will reduce this tax liability to $65.2 billion (a 13% or $9.9 billion reduction). The $9.9 billion reduction is the net effect of an estimated gross tax increase of $26.1 billion (primarily due to the one-time transition tax on unrepatriated foreign earnings, net interest expense limitation, base erosion and anti-abuse tax, amortization of research and experimentation expenditures, and mandatory annual inclusion of global intangible low-taxed income) and estimated gross tax decrease of $36.0 billion (primarily due to the reduced corporate income tax rate and 100% deduction for the foreign-source portion of dividends received from 10%-owned foreign subsidiaries).
Figure 2. Estimated impact of the TCJA on the federal income tax liability of the medical device industry (2018-27)

Billions of dollars

|$75.1b$ | $+$26.1b | $-$36.0b |
---|---|---|---|
Federal income tax liability excluding the TCJA | Gross tax increase | Gross tax decrease | Federal income tax liability including the TCJA |

$65.2b$

Source: EY analysis.
Medical device excise tax

The Patient Protection and Affordable Care Act (P.L. 111-148) imposed a 2.3% excise tax on the sale of medical devices in the United States effective January 1, 2013. Currently, however, there is a moratorium on the payment of the medical device excise tax first put in place for 2016-17 (via the Consolidated Appropriations Act, 2016 (P.L. 114-113)) and extended through 2019 (via H.R. 195 (P.L. 115-120)). Under current law the medical device excise tax will resume on January 1, 2020.

The medical device excise tax applies to most medical devices as defined by the Food and Drug Administration (FDA) and sold in the United States. The tax is levied on sales without regard to the profitability of the company paying the taxes. The medical device excise tax excludes eyeglasses, hearing aids, and contact lenses as well as other medical devices that are both available through retail sales outlets and are not primarily intended for use in a medical facility. The significant revenue from the medical device excise tax, despite its low tax rate as compared to the corporate income tax, reflects its base of sales rather than income.

As seen in Figure 3, the JCT estimates that the medical device excise tax will raise $19.4 billion over the 2018-27 period. Notably, not all of this tax liability would be paid by the US medical device industry because the tax applies to imports, but excludes exports. Based on an analysis of Census Bureau data and the financial statements of the largest medical device companies, this report estimates that approximately 42% of US consumption of medical devices is from imports, but two-thirds of these imports are from foreign subsidiaries of US medical device companies. Accordingly, 86% of the medical device excise tax is estimated to be tax liability of the US medical device industry. This suggests that the medical device excise tax will result in $16.7 billion ($19.4 billion x 86%) of tax liability for the US medical device industry.

Figure 3. Estimated revenue raised by the medical device excise tax over 2018-27 period

<table>
<thead>
<tr>
<th>Billions of dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018: $0.0b</td>
</tr>
<tr>
<td>2018-27 total: $19.4b</td>
</tr>
</tbody>
</table>

Note: Figures are rounded. Under current law there is a moratorium on the medical device excise tax until January 1, 2020.
Appendix

Impact of the TCJA on the federal income tax liability of the medical device industry

The federal income tax liability of the medical device industry excluding the effects of the TCJA is projected based on publicly available tax return data from the IRS supplemented by Census Bureau data. JCT revenue estimates are used to impute the effect of the TCJA on the medical device industry.

The publicly available industry-level tax return data from the IRS have at least two significant limitations. First, the most recent data available are for 2013. Second, data for C and S corporations are generally only available at the 4-digit NAICS level and for pass-through businesses (other than S corporations) at the 3-digit NAICS level. Accordingly, the IRS data are supplemented with data from the Census Bureau: the Annual Survey of Manufacturers and County Business Patterns. In particular, these supplemental data are used to allocate the aggregated tax return data to the various 6-digit NAICS codes comprising 3- and 4-digit NAICS codes for which data are available. Once the tax return data are disaggregated to the 6-digit NAICS codes, these data can be used to estimate the 2013 federal income tax liability of the medical device industry.

The federal income tax liability of the medical device industry excluding the effects of the TCJA is then projected through 2027. First, the 2013 federal income tax liability is forecast to 2018 using the growth rate of national health expenditures as reported and forecast by the Centers for Medicare & Medicaid Services. Second, the 2018 federal income tax liability is forecast through 2027 using the growth rate in medical device sales implied by the JCT revenue estimate for the medical device excise tax. Overall, this report estimates that over the 2018-27 period the medical device industry will – excluding the effects of the TCJA – have $75.1 billion of federal income tax liability.

To estimate the impact of the TCJA on the medical device industry, this analysis uses JCT revenue estimates of the TCJA that are then allocated to industries by organizational form through use of publicly available data. The allocation of the JCT revenue estimates by provision generally rely on closely related tax items publicly available from the IRS in such publications as the annual Corporation Sourcebook and various other IRS data releases. IRS data releases for Form 1118 (Foreign Tax Credit—Corporations), Form 5471 (Information Return of U.S. Persons With Respect To Certain Foreign Corporations), and Form 5472 (Information Return of a 25% Foreign-Owned U.S. Corporation or a Foreign Corporation Engaged in a U.S. Trade or Business) are used to help allocate the provisions affecting the taxation of multinational corporations. The analysis generally uses 2013 IRS data, which are the most recent publicly available data.

The estimates are produced in stages. In particular, because there are often more detailed publicly available tax return data at higher levels of industry aggregation, JCT revenue estimates are allocated to broad industry groupings (e.g., 2-digit NAICS industries) and the tax liability impacts of these broad industry groupings are then disaggregated to their subindustries. This process is used to mitigate potential error introduced by less detailed tax return data being available at more disaggregated industry levels.
Share of US medical device consumption from imports

A substantial share of US consumption of medical device sales comes from imports, overall about 42%. Table 1 displays the estimated share of US medical device consumption from imported medical devices by type of medical device. US medical device consumption is defined as US production of medical devices plus US imports of medical devices less US exports of medical devices. Import’s share varies by product and ranges from 32% for dental equipment and supplies to 69% for ophthalmic goods.

Table 1. Estimated share of US medical device consumption from imported medical devices, by type of medical device

<table>
<thead>
<tr>
<th>Medical device description</th>
<th>Share of US consumption from imported medical devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-vitro diagnostic substances</td>
<td>44%</td>
</tr>
<tr>
<td>Electromedical and electrotherapeutic apparatus</td>
<td>40%</td>
</tr>
<tr>
<td>Irradiation apparatus</td>
<td>57%</td>
</tr>
<tr>
<td>Surgical and medical instrument</td>
<td>36%</td>
</tr>
<tr>
<td>Surgical appliance and supplies</td>
<td>42%</td>
</tr>
<tr>
<td>Dental equipment and supplies</td>
<td>32%</td>
</tr>
<tr>
<td>Ophthalmic goods</td>
<td>69%</td>
</tr>
<tr>
<td>Medical devices, average</td>
<td>42%</td>
</tr>
</tbody>
</table>

Note: Calculations are for 2016, which is the most recent year all data sources are available. US medical device consumption is defined as US production of medical devices plus US imports of medical devices less US exports of medical devices. The share of consumption from imported medical devices is computed as US imports of medical devices divided by US medical device consumption. The average for medical devices is a weighted average with the weights being the US consumption of each medical device type.

Source: Annual Survey of Manufacturers; Census Bureau USA Trade Online; EY analysis.

The 42% overall import share includes the medical devices imported from foreign subsidiaries of US medical device companies. Based on an analysis of the financial statements of the largest medical device companies, this report estimates that approximately two-thirds of these imports are from foreign subsidiaries of US medical device companies. Accordingly, 86% of the medical device excise tax is estimated to be tax liability of the US medical device industry.
Endnotes

1 This definition of the medical device industry has been used in other analyses of the medical device excise tax. See, for example, Jane Gravelle and Sean Lowry, The Medical Device Excise Tax: Economic Analysis, Congressional Research Service, April 17, 2015.

2 Data on the geographic sales of medical devices are not reported on all financial statements. Such that a larger number of medical device companies can be included, this analysis uses medical device sales from US-headquartered companies as a share of total medical device sales as a high-level measure of the share of imported medical devices that would come from foreign subsidiaries of US companies. An examination of twenty of the largest medical device companies results in an estimate that two-thirds of medical device sales are from US-headquartered companies. The companies examined were: 3M Health Care, Abbott Labs, Alcon, B. Braun, Baxter International, Becton Dickinson, Boston Scientific, Cardinal Health, Danaher, Essilor, Fresenius, GE Healthcare, Johnson & Johnson, Medtronic, Olympus, Philips Healthcare, Siemens Healthcare, Smith & Nephew, Stryker, and Zimmer Biomet.

3 That is, even though 42% of US consumption of medical devices is from imported medical devices, only one-third of this is imported from companies that are not foreign subsidiaries of US companies. One-third of 42% is 14%, which results in an estimate of 86% of the medical device excise tax is paid by the US medical device industry.

4 Data on the geographic sales of medical devices are not reported on all financial statements. Such that a larger number of medical device companies can be included, this analysis uses medical device sales from US-headquartered companies as a share of total medical device sales as a high-level measure of the share of imported medical devices that would come from foreign subsidiaries of US companies. An examination of twenty of the largest medical device companies results in an estimate that two-thirds of medical device sales are from US-headquartered companies. The companies examined were: 3M Health Care, Abbott Labs, Alcon, B. Braun, Baxter International, Becton Dickinson, Boston Scientific, Cardinal Health, Danaher, Essilor, Fresenius, GE Healthcare, Johnson & Johnson, Medtronic, Olympus, Philips Healthcare, Siemens Healthcare, Smith & Nephew, Stryker, and Zimmer Biomet.

5 That is, even though 42% of US consumption of medical devices is from imported medical devices, only one-third of this is imported from companies that are not foreign subsidiaries of US companies. One-third of 42% is 14%, which results in an estimate of 86% of the medical device excise tax is paid by the US medical device industry.