For life sciences companies, a corporation’s effective tax rate (ETR) has long been an important indicator of financial and competitive health. Supply chain structures—the building blocks of supply chain management—are major factors contributing to a company’s ETR. Such factors may include facilities location, product and raw material sourcing, production (including internal and external), inventory management, and location of intellectual property (IP) ownership or usage rights, including development, enhancement, management, protection, and exploitation activities.

Just as DNA research in the 1990s and 2000s drove major changes in health care, the longstanding supply chain strategies of life sciences companies may be due for a makeover. Supply chain structures designed years ago for competitive advantage and operational and tax efficiency may not be the best prescription going forward.

The drivers of this change? In the United States, a significant driver is comprehensive tax reform, generally referred to as the Tax Cuts and Jobs Act (TCJA) of 2017. Major changes are also underway in the global tax landscape inspired by the OECD Base Erosion and

Life sciences executives need to know whether and how the DNA of their global supply chain might contain tax risk factors that could impact the company’s competitive and financial health and, if so, how to mitigate such risks.
The GILTI (Global Intangible Low-Taxed Income) tax is a new tax on certain income of US corporations earned through their foreign subsidiaries and previously eligible for deferral from US taxation until such time as the income was remitted to the United States (referred to as “deferral” hereafter). The provision effectively ensures that income in certain foreign entities is subject to a minimum worldwide tax rate (US and non-US). In practice, it will result in the effective end to the deferral of US tax on a substantial portion of the earnings, meaning that US multinationals generally will have their global income subject to current US taxation, with limited exceptions, less a potential foreign tax credit.

The FDII (foreign derived intangible income) deduction reduces the ETR on certain eligible income of a domestic corporation from 21 percent to 13.125 percent (16.4 percent starting in 2025), effectively creating a new preferential tax rate for income derived from foreign markets by domestic corporations. This lower tax rate applies to income based on a very formulaic calculation and is intended to incentivize ownership of intangible property and conducting business operations in the United States and not offshore.

The BEAT (base erosion and anti-abuse tax) is a provision that applies in certain cases to limit the deduction against US taxes. Essentially a new alternative minimum tax, the BEAT was designed as a mechanism to protect the US tax base from being eroded by large multinational companies. This provision applies, subject to some exceptions, even if such payments are for actual services received or intangibles used, and are set at arm’s-length levels, as if the parties were third parties.

US tax reform also codified certain transfer pricing principles, including a new, expanded definition of “intangible property” and rules impacting the valuation of those intangibles. Combined with the new BEPS principles emphasizing control of IP development risk from a non-US perspective, life sciences companies may want to revisit their transfer pricing methods for IP transactions and analyze more generally where might be the most tax-efficient place for their IP ownership and functions to be located.

Overall, these significant changes present catalysts for life sciences and other companies to reexamine their supply chains on a global basis, taking into account both commercial and tax considerations.

Where along the supply chain could these US tax impacts materialize?

One common structure historically is for companies to move operating headquarters, IP ownership, and/or manufacturing from the United States to somewhere that US taxation could potentially be deferred. Under the new GILTI provision, some of that formerly deferred income may become taxable in the United States, albeit at a reduced rate, and could become a substantial added tax liability. The FDII regime, although subject to numerous exceptions and limitations, as well as potential challenge by the World Trade Organization (WTO) and US trading partners, offers an incentive for domestic corporations to retain or relocate operations and profits to the United States as an alternative to incurring the GILTI tax.

Another common operating structure is for a domestic corporation to pay fees to a non-US related party located closer to offshore product or raw material sources. In the past, the US headquarters could then claim those costs as deductions from US income. Under the new BEAT provision, part of that cost may be denied, another potentially significant tax impact. The BEAT would prima facie apply to, for instance, R&D services being paid for by a US entity, subject to certain exceptions, including situations where the payments are included in cost of goods sold (COGS). Life sciences companies should analyze their intercompany payments to assess what payments to group entities overseas may be impacted by BEAT and identify whether any exceptions are applicable.

Similarly, many companies have established offshore related-party shared services centers or global management companies in favorable tax jurisdictions to centralize finance and accounting, human resources, IT, and logistics and distribution services.
These types of structures may be subject to GILTI provisions in terms of the affiliates’ income or BEAT provisions for the payments from the United States to those affiliates, although certain payments may fall within the Services Cost Method exception. In addition, certain structures may benefit from the FDII deduction.

Overall, the new US tax provisions may have positive or negative impacts, or both, depending on a company’s unique fact pattern. A company’s operating model and supply chain will be critical components in scoring the net impact. As a result, supply chain and tax departments have never had to work more closely together to properly analyze the impact of tax law changes. A broad-based understanding of the global supply chain and an ability to model the impacts of the new law is required given the ripple effects and interconnectivity between the provisions. Further, financial information that may not have been required in the past (e.g., ability to isolate payments being made from the United States to offshore affiliates for BEAT purposes) will be critical to successfully perform this analysis.

According to the Deloitte Center for Health Solutions survey, many life sciences CFOs indicated that their companies are significantly or somewhat more likely to move existing IP back to the United States (55%) or locate new IP there (57%) because of US tax law changes. Nearly half say US tax law changes have increased the likelihood of their companies moving existing manufacturing back to the United States (47%) or building new manufacturing there (48%). Whether these considerations will be acted upon and result in material investments remains to be seen, but many CFOs are weighing their options and performing the analysis.
What other tax-related factors might impact life sciences supply chains?

Many life sciences companies could have non-US tax risks arising from the OECD’s BEPS initiative, including its Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (the Multilateral Instrument, or MLI). The MLI, meant to adopt BEPS-related changes into existing bilateral tax treaties, is “an innovative convention that will swiftly implement a series of tax treaty measures to update the existing network of bilateral tax treaties and reduce opportunities for tax avoidance by multinational enterprises.”

More than 100 jurisdictions participated in negotiations on the MLI, and 76 countries and jurisdictions, not including the United States, elected to adopt the convention in July 2017, with related tax changes taking effect in July 2018.

Potential touchpoints have emerged between BEPS-related changes and the 2017 US domestic tax reforms. For example, the BEPS initiative has created an increased focus on economic substance, both among tax authorities and in the press. Increased functionality may be required in such a structure to align appropriate management of risk with where profits arise. In the European context in particular, this has also been emphasized in the alignment of taxing rights with the localities where substance and real economic activities occur. Moving IP ownership and/or activities to the United States may become a viable option where it might not have been in the past, given the potential for exposure to the GILTI tax and, conversely, the possibility of an FDII deduction. However, relocation of functions, assets, risks, and roles is a complex, time-consuming, and potentially costly process and needs to be balanced against the potential benefits of a move to the United States and the stability of the tax changes, given the political uncertainties and the global trading partner concerns with some of the provisions.

Some concepts debated as part of BEPS did not make their way into the final consensus drafts or the OECD Transfer Pricing Guidelines that are used by tax authorities in transfer pricing audits. Some countries, such as the UK, have acted unilaterally to include certain of those concepts in their legislation or audit approaches, such as anti-hybrid rules. These differences in rules and practices may take some time to align, creating additional risks and uncertainty for life sciences companies. It may also make it more important for supply chain and tax departments to work hand in hand to improve the alignment of the operating model with the economic and tax structure of the company.

Another touchpoint is tax information sharing between countries, including the United States, directed at increasing transparency. The US Internal Revenue Service (IRS) and Treasury Department, for example, issued regulations requiring annual “country-by-country reporting” by certain US-based companies that are the “ultimate parent entity of a multinational enterprise group,” effective June 30, 2016.

Many countries, both OECD and non-OECD member states, are imposing country-by-country reporting requirements as well, by which companies must disclose information about where their business activities take place, revenue and profits are generated, and taxes are paid. These requirements often follow guidelines provided by the OECD’s 2015 BEPS Report, Actions 8–10, Aligning Transfer Pricing Outcomes with Value Creation and Action 13, Transfer Pricing Documentation and Country-by-Country Reporting. With this information, tax authorities may seek to assert where economic value is created and, therefore, where and how much tax should be paid in their jurisdiction, which may be different than where and how much is currently paid.

In addition, there are various other areas of uncertainty that should be considered. For example, when will countries enact new tax laws and what impacts could they have on life sciences companies operating there?

How will tax authorities use the information obtained from a company’s country-by-country report, and where could challenges to a company’s tax positions materialize? In the United States specifically, how could future elections impact the US tax regime, including the sustainability of the TCJA, and what impact could potential tax law changes have on life sciences’ near-term structuring and supply chain decisions? One example is when the FDII deduction changes in 2025, which will increase a company’s ETR on affected income from 13.125 percent to 16.406 percent.

Much of this uncertainty is likely to persist for years to come, so supply chain flexibility will become increasingly important to the financial health of life sciences companies. Besides the tax uncertainty, life sciences companies are challenged with business environment changes that also affect supply chain decisions, such as the emergence of bio-equivalents, post-patent trademark continuations, changes to US R&D expensing provisions and the Orphan Drug Credit, and, increasingly, pricing and formulary inclusion policies.
How can life sciences companies address uncertainty?

One way is to stress-test the tax efficiency, risk, and potential longevity of existing and alternate supply chain structures. This means having visibility into how the supply chain and the nodes along it are performing, such as from IP development to commercialization and from sourcing and manufacturing through distribution. This in turn means being able to map out and model the physical and financial flows associated with the supply chain on an after-tax basis and in an integrated manner for all the US and international tax changes summarized above.

These calculations can be both complex and data intensive. (See our recent paper for more on the life sciences “data dilemma.”)

Life sciences companies can benefit from conducting a value chain assessment that delves into their supply chain DNA to identify pressure points in their operating model, develop a business-led response, and refine their business, tax, and legal structures in the new global tax environment. Elements of a value chain assessment include:

- **Value chain geomapping** that provides functional analysis of each value chain component, maps supply chain flow by product and country, and assesses transfer pricing methodology and documentation.

- **Value chain profit allocation** for each value chain component, involving executive interviews, analysis and comparison of profit allocation vs. industry peers, identification of risk management and profit allocation variability, and flagging of business model and tax inconsistencies.

- **Value chain gap analysis** that includes a financial assessment of business model and tax risks; modeling of impacts on metrics such as ETR, earnings before interest and tax (EBIT), and earnings per share (EPS); and visualization of results with a risk and opportunity heatmap.

Based on this assessment, companies can develop a business case that estimates benefits and costs of changes to business models and supply chain structures, as well as calculating potential return on the investment of any change.
Our take

In 2003, the Human Genome Project completed a 13-year effort to map the genes that make up human DNA. This feat, made possible in part through vast amounts of data and advanced analytics capabilities, has led to unprecedented new capabilities for understanding, treating, preventing, and curing diseases.

Life sciences companies may need to do the same for their supply chain DNA—but they don’t have 13 years. Many have long understood the fundamental need to analyze and optimize their supply chains for improved operational and tax efficiency. Many also have taken steps to provide the data and analytics foundations required for today’s complex tax and supply chain environment.

These elements now need to come together to align supply chain, economic, and tax structures. The new global tax landscape, including in the United States, requires new levels of sophistication in data management and quality, a comprehensive understanding of the interaction between new tax laws, the ability to analyze available data and model various outcomes, and the resources to implement changes across the supply chain. Life sciences companies that develop those capabilities—both strategic and tactical—can have a distinct competitive advantage.
The supply chain DNA question for life sciences companies

Endnotes

1. Deloitte Center for Health Solutions, “Life sciences companies more bullish on US investment post tax reform.”

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