

Corporate Strategy and Transfer Pricing: A Global Value Chain Framework for Best-Method Selection

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In this article, the authors explore transfer pricing disputes and the use of a global value-chain-based framework to fill potential gaps in the corporate transfer pricing method selection's evidentiary record to better evaluate method selection and realistic alternatives.

The views expressed in the article are solely those of the authors.

Transfer pricing disputes under section 482 are commonly framed as disputes over economic methods. Experts and courts often focus on whether the comparable profits method should

prevail over transactional approaches such as the comparable uncontrolled transaction method, whether a profit split is required, or whether an unspecified method is appropriate when the specified methods appear ill suited.

The long-running *Medtronic* litigation illustrates this pattern. Commentary following the Eighth Circuit's most recent decision (*Medtronic Appeal II*)¹ has likewise centered on the application of the best method rule and the comparability requirements associated with each method.²

Despite that focus, the persistent difficulty of applying those requirements in *Medtronic* across multiple trials and appeals suggests that the core problem may not be a lack of methodological tools or disagreement over economic theory. Rather, the difficulty may stem from the evidentiary record used to evaluate realistic alternatives and to support the selection of the best method. The Eighth Circuit's repeated insistence on further factual development — particularly regarding realistic alternatives — underscores this point.

Drawing on the multidisciplinary literature on global value chains (GVCs),³ which examines how multinational enterprises organize production and service delivery through global networks, this article proposes that a systematic, theory-guided review of MNEs' contemporaneous make-or-buy and location decision-making processes could

¹ *Medtronic v. Commissioner*, Nos. 23-3281 and 23-3063 (2025).

² See, e.g., Ryan Finley, "After Eighth Circuit's *Medtronic II* Decision, What Happens Now?" *Tax Notes Int'l*, Sept. 22, 2025, p. 1887; David G. Chamberlain, "*Medtronic*: Down Two Strikes: Can the Tax Court Come Through?" *Tax Notes Int'l*, Nov. 10, 2025, p. 879; J. Harold McClure, "*Medtronic III* and Profit Split: Is the Third Time the Charm?" *Tax Notes Int'l*, Nov. 3, 2025, p. 753; and Andrew Parsons, "Intangible Asset Profitability's Role in Deciding a Transfer Pricing Best Method," *Tax Notes Federal*, Oct. 13, 2025, p. 267.

³ Pol Antràs, "Conceptual Aspects of Global Value Chains," 34(3) *World Bank Econ. Rev.* 551-574 (2020).

inform the application of section 482 in litigation.⁴ MNEs often evaluate whether to internalize or outsource activities and where to locate them, especially when making investment decisions. As a result, business records related to these decision-making processes can illuminate whether comparable market supply was realistically available and how comparability should be assessed.⁵ Anchoring best method selections and “realistic alternatives” analyses more explicitly in this type of evidence could assist courts in grounding their analyses in actual business records and potentially reduce the protracted disputes exemplified by *Medtronic*.

The article proceeds as follows: It first revisits the factual record in *Medtronic* and the methodological challenges identified by the courts. It then reviews the literature on MNEs’ make-or-buy and location decisions within their GVCs. Finally, it proposes a GVC framework for incorporating contemporaneous make-or-buy and location evidence into transfer pricing analyses under the section 482 best method rule. More broadly, this article argues that expert analyses of MNEs’ contemporaneous make-or-buy and location decisions can provide probative evidence for evaluating realistic alternatives and the reliability of transfer pricing methods under section 482.

The *Medtronic* Conundrum

Before turning to corporate strategy and its implications for section 482, it is helpful to revisit what factual evidence the Tax Court found in *Medtronic* and what it did not address.⁶ Because the Eighth Circuit has twice required the Tax

Court to reconsider the applicability of the CPM, this article focuses on that issue.⁷

The Tax Court’s first decision in *Medtronic* (*Medtronic I*)⁸ devoted extensive attention to the nature of the manufacturing activities of Medtronic’s Puerto Rico affiliate, MPROC. The opinion described MPROC as producing complex implantable medical devices subject to stringent regulatory requirements and emphasized the difficulty of manufacturing those devices reliably on a commercial scale. As the court explained, “the device operations made complex pieces of electronic machinery that are extremely difficult to manufacture.”⁹

The court further noted that scaling production from development to high-volume commercial manufacturing posed particular challenges in the implantable medical device industry and that MPROC bore responsibility for that scale-up process.¹⁰ It also emphasized the centrality of quality to Medtronic’s business, observing that “quality is a key to [Medtronic’s] success”¹¹ and that Medtronic “was so concerned about quality, it never considered outsourcing the activities of MPROC” because it did not want to rely on external partners “for such a vital role.”¹²

These factual findings formed the foundation of the Tax Court’s rejection of the IRS’s application of the CPM in both *Medtronic I* and *Medtronic II*.¹³ In the court’s view, MPROC could not be treated as a “routine” manufacturer whose returns could be benchmarked statistically against publicly traded companies.

The Eighth Circuit, however, took issue with the Tax Court’s interpretation and application of the CPM. In vacating *Medtronic I*, the circuit court found that the Tax Court failed to make “a specific finding as to what amount of risk and product liability expense was properly attributable to

⁴ Although cost-sharing arrangements play a central role in modern transfer pricing, they raise distinct issues not addressed in this article. Cost-sharing arrangements are governed by a detailed regulatory framework and typically involve ex ante allocations of development costs and rights among related parties. They do not ordinarily arise from the same contemporaneous make-or-buy evaluation of third-party supply that underlies the “realistic alternatives” inquiry examined here.

⁵ The controlled transactions at issue in international transfer pricing disputes typically arise from cross-border internalization within an MNE. Arm’s-length transactions and purely domestic internalization do not give rise to international transfer pricing issues. Accordingly, the mere fact of offshore internalization cannot constitute evidence bearing on best method selection.

⁶ The discussion of *Medtronic* in this article relies exclusively on the published opinions of the Tax Court and the Eighth Circuit.

⁷ Although this article focuses on the CPM, the proposed framework is not method specific. It could likewise inform application of the CUT and profit-split methods, with its implementation adapted to reflect the distinct analytical roles those methods play.

⁸ *Medtronic Inc. v. Commissioner*, T.C. Memo. 2016-112.

⁹ *Id.* at 42.

¹⁰ *Id.* at 46-47.

¹¹ *Id.* at 117.

¹² *Id.* at 108.

¹³ *Medtronic Inc. v. Commissioner*, T.C. Memo. 2022-84.

Medtronic Puerto Rico.”¹⁴ In vacating *Medtronic II*, the Eighth Circuit also noted that the Tax Court “overemphasized the importance of product similarity under the comparable profits method” and failed to assess whether the proposed comparables were sufficiently similar or whether reliable adjustments could be made to account for any material differences.¹⁵

Although the record established that MPROC’s manufacturing was economically significant, the Tax Court’s analysis did not squarely address whether Medtronic’s decision to retain manufacturing in-house reflected the absence of viable market alternatives or the company’s strategic considerations — such as quality assurance, coordination, or supply chain management — in the presence of third-party alternatives. The critical questions are not whether MPROC’s manufacturing activities were complex or quality-critical, but (1) why Medtronic decided to reject outsourcing and (2) whether comparable manufacturing capabilities were available from independent suppliers on commercially feasible terms. These questions, along with the absence of a fully developed factual record addressing them, appear to underlie the methodological difficulties in *Medtronic*.

The repeated appellate remands thus suggest that resolution of the dispute may depend less on economic theory than on whether the factual record adequately develops and organizes evidence concerning realistic alternatives.

Make-or-Buy and Location as Strategic Choices

The methodological challenge exposed in *Medtronic* reflects a broader mismatch between MNEs’ international strategic and operational decisions — namely, how they organize and participate in GVCs — and tax compliance, including how transfer pricing arrangements are structured among affiliates across jurisdictions.

Extensive research shows that in moving products or services through successive cross-border stages, MNEs — especially large and profitable MNEs — deliberately design their GVCs by deciding where and when to internalize activities or source them from independent foreign suppliers. However, these decisions rarely feature prominently or systematically in the factual records on which experts and courts base their best method and comparability determinations.

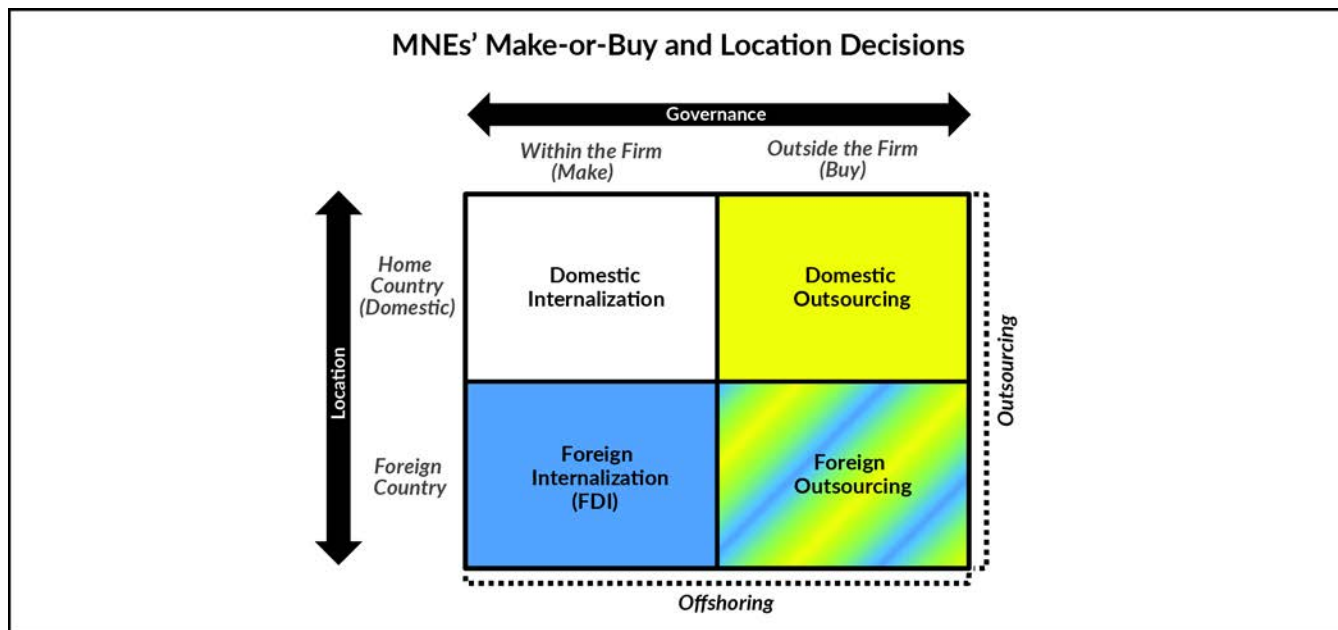
The rest of this section highlights MNEs’ strategies and patterns in GVCs. The next section discusses their implications for transfer pricing analysis.

MNEs’ Make-or-Buy and Location Strategy

Because MNEs play a central role in the modern economy, several overlapping strands of literature examine why they exist, how they gain and sustain competitive advantages, and how they shape global production. Across international business, strategy, and economics literature, a common focus is on two tightly linked decisions: (1) governance — whether to internalize an activity or rely on arm’s-length suppliers (make-or-buy); and (2) location — where to perform each value-creating activity (see figure). These decisions determine where functions are performed, how risks are allocated, and which entities control strategic assets. As such, they lie at the core of transfer pricing analysis.

¹⁴ *Medtronic v. Commissioner*, 900 F.3d 610 at 615 (8th Cir. 2018).

¹⁵ *Medtronic Appeal II*, Nos. 23-3281 and 23-3063, at 14.



International Business Literature (OLI Framework)

In international business literature, the ownership-location-internalization framework posits that firms become multinational when three conditions are satisfied¹⁶:

1. ownership advantages: the MNE possesses unique assets, such as technology, brands, or managerial capabilities, that allow it to compete abroad;
2. location advantages: country-specific characteristics (natural resources, labor, market, etc.) make it efficient for the MNE to deploy those assets in particular countries; and
3. internalization advantages: the MNE benefits from exploiting its assets internally rather than through arm’s-length transactions.

Strategy Literature (Value Chain Framework)

According to the strategy literature, make-or-buy and location choices are core elements of MNEs’ global strategies. Harvard Business School professor Michael Porter described the value chain framework as a fundamental tool “for diagnosing

competitive advantage and finding ways to enhance it,”¹⁷ and he explained that competitive advantage depends on how firms configure and coordinate discrete activities — design, production, marketing, and distribution — both internally or externally, and geographically.

Economics Literature (TCE and PRT)

In the economics literature, two related theories — transaction cost economics (TCE) and property rights theory (PRT) — have been used to explain MNEs’ existence, strategies, and organization. TCE explains make-or-buy decisions as responses to contractual frictions. When transactions involve highly specific assets — such as proprietary technology, specialized know-how, or relationship-specific investments — and contracts are incomplete, arm’s-length arrangements expose parties to ex post opportunism and hold-up risks.¹⁸ Internalization mitigates these risks by substituting hierarchical governance for market contracting, albeit at its own cost.

¹⁶ John H. Dunning, *International Production and the Multinational Enterprise* (1981).

¹⁷ Michael Porter, *Competitive Advantage: Creating and Sustaining Superior Performance* 27 (1985).

¹⁸ See, e.g., Jean-François Hennart, “Transaction Costs Theory and the Multinational Enterprise” in *The Nature of the Transnational Firm* 72-118 (2000).

PRT complements TCE by focusing on the ex ante allocation of residual control rights under incomplete contracts.¹⁹ Because contracts cannot specify every future contingency, ownership — defined as the right to control assets in unforeseen states of the world — shapes investment incentives and ex post bargaining power. A substantial body of theoretical and empirical research over the past two decades has applied these frameworks to global sourcing and GVCs, analyzing how asset specificity, control, and contractual incompleteness influence both the boundaries of the MNEs and the cross-border allocation of activities.²⁰

All the literature discussed above generally recognizes that MNEs' make-or-buy and location decisions are not static. They evolve over time as technologies mature, suppliers upgrade, institutions change, and shocks — such as pandemics, natural disasters, or geopolitical disruptions — occur.²¹ An MNE may initially outsource an activity to enter a jurisdiction quickly, establish relationships, and learn about local costs and capabilities. Over time, it may integrate that activity to protect intellectual property, stabilize quality, or capture margins.

Conversely, for nascent products or emerging industries, tighter integration of adjacent components across the value chain — that is, internalization — may be necessary to improve efficiency, coordinate development, manage uncertainty, or achieve scale.²² As technology matures and tasks become codified, firms may shift toward outsourcing to reduce fixed costs and access scale economies.

MNEs' Participation in GVCs

Consistent with the foregoing theories, market evidence indicates that MNEs' make-or-buy and location decisions are part of a continuous analysis process that spans both regular, periodic strategic reviews and event-driven reassessments triggered by changes in cost, risk, or competitive positioning.²³

MNE participation in GVCs is highly concentrated. According to the World Bank's World Development Report, only about 15 percent of firms both import and export, yet those firms account for nearly 80 percent of total global trade.²⁴ A substantial share of that trade occurs within multinational groups: Roughly 40 percent of U.S. goods trade flows and about one-third of global trade flows in 2016 involved related-party transactions.²⁵ At the same time, MNEs rely extensively on independent suppliers for intermediate inputs. Affiliates and arm's-length suppliers are therefore commonly combined within the same value chain rather than representing mutually exclusive organizational forms.

A defining feature of GVCs is the prevalence of long-term buyer-seller relationships rather than anonymous spot transactions.²⁶ These relationships are durable because firms incur substantial fixed costs in identifying suitable partners, undertake relationship-specific investments, and share proprietary information, including technology and trade secrets. They

¹⁹ See, e.g., Peter G. Klein and João Fernando Rossi Mazzoni, "The Make-or-Buy Decision Revisited" in *Handbook of New Institutional Economics* 447-474 (2025).

²⁰ For a recent survey of the economic literature, see Antràs and Davin Chor, "Global Value Chains" in *Handbook of International Economics* 297-376 (2022).

²¹ See, e.g., Gary Gereffi, John Humphrey, and Timothy Sturgeon, "The Governance of Global Value Chains," 12(1) *Rev. Int'l Pol. Econ.* 78-104 (2005). See also Caroline Freund et al., "Natural Disasters and the Reshaping of Global Value Chains," 70 *IMF Econ. Rev.* 590-623 (2022).

²² Teresa C. Fort, "The Changing Firm and Country Boundaries of US Manufacturers in Global Value Chains," 37(3) *J. Econ. Persp.* 31-58 (2023).

²³ Outsourcing agreements often span five to 10 years, with risk and disruption serving as triggers for interim reevaluation (Strategy&, "Make or Buy: Three Pillars of Sound Decision Making," originally published by Booz & Co. (2011)). Global supply chain leaders also reported in a survey that footprint and location decisions were revisited approximately annually during periods of disruption and continued to evolve thereafter: 92 percent of respondents said they had implemented physical changes to their supply chain footprints in the previous 12 months, and almost 90 percent said they expected to pursue some degree of regionalization over the next three years (Knut Alicke, Ed Barribal, and Vera Trautwein, "How COVID-19 Is Reshaping Supply Chains," McKinsey & Co. (2021); Alicke et al., "Taking the Pulse of Shifting Supply Chains," McKinsey & Co. (2022)).

²⁴ World Bank, "World Development Report: Trading for Development in the Age of Global Value Chains," at 30 (2020).

²⁵ *Id.* at 33.

²⁶ *Id.* at 31-32.

typically operate under contracts that are incomplete — unable to specify all future contingencies — and difficult to enforce across borders, particularly when the risk of knowledge leakage is significant. As a result, GVC relationships depend heavily on trust, sustained coordination, and mechanisms designed to align incentives and share risk.²⁷

Along this governance spectrum, at one extreme, MNEs may internalize production — often by employing cross-border foreign direct investment — to achieve vertical integration and replace market transactions with hierarchical control. The prevalence of intrafirm trade underscores the importance of this model in global production. At the other extreme, MNEs may rely on long-term bilateral relationships at arm's length — such as those between Apple and Foxconn, or between Nvidia and Taiwan Semiconductor Manufacturing Co. (TSMC) — which combine contractual independence with intensive coordination and mutual dependence.

To illustrate these patterns, the World Development Report distinguishes between two stylized types of GVCs²⁸:

1. Producer-Driven.

In producer-driven chains, the lead firm retains control over product design and often over manufacturing itself, either through affiliates or captive suppliers, while limiting the diffusion of proprietary technology. These arrangements are common in technology- and research-and-development-intensive industries such as electronics, automotive, aerospace, and pharmaceuticals, in which production requires the close coordination of thousands of customized components.

2. Buyer-Driven.

By contrast, buyer-driven value chains are more prevalent when production is

less complex or more easily modularized and when knowledge can be readily transferred. In those settings, lead firms typically own few production assets and rely on networks of independent suppliers, focusing instead on branding, marketing, and distribution, as seen in industries such as textiles and apparel.

Although stylized, these two categories of GVCs underscore how differences in asset specificity, technological complexity, and control requirements shape governance structures and the cross-border allocation of functions, assets, and risks — issues central to transfer pricing analysis.²⁹

GVC Implications for Transfer Pricing

The section 482 best method rule requires selection of the method that provides the most reliable measure of an arm's-length result while considering both the comparability and the reliability of data and adjustments. For transactions involving intangible property, U.S. transfer pricing regulations and recent case law also require consideration of realistic alternatives to the controlled transaction.

Although framed as regulatory, these inquiries are fundamentally economic: They ask (1) what strategies were realistically available to the MNE at the time, (2) what independent parties would have agreed to under similar circumstances, and (3) whether controlled transactions could be reliably evaluated using third-party benchmarks. If transactional or profit-based methods are rejected, that determination must rest on an established evidentiary basis rather than inference.

The following discussion explains how a GVC-based framework could help one organize and examine the taxpayer's contemporaneous make-or-buy and location evidence to inform the selection and application of the best method and

²⁷ Empirical evidence of durable buyer-supplier relationships involving relationship-specific investments suggests that, for some controlled transactions, differences in contract duration, degree of customization, and customer concentration may materially influence profitability. When data permits, CPM comparables exhibiting similar long-term, customized manufacturing relationships may therefore provide more reliable benchmarks.

²⁸ *Id.* at 31-32.

²⁹ More broadly, firms may refrain from integration, even in the presence of substantial relationship-specific investment, when legal or organizational separation enables them to limit exposure to risks that would otherwise accompany ownership. These risks may include regulatory compliance obligations, liability exposure, workforce-related responsibilities, or other jurisdiction-specific legal burdens. In these settings, nonintegration may represent an efficient organizational choice, notwithstanding deep operational interdependence between the parties.

the CPM comparability requirements. This proposed framework approach does not diminish the importance of traditional transfer pricing evidence, such as ex post comparability analysis and benchmarking against third-party comparables. Rather, contemporaneous evidence regarding governance structure and value chain configuration may serve as a complementary and potentially corroborative source of information.

In litigation, courts often find analyses most persuasive when conclusions are supported by multiple independent strands of evidence.

A GVC Framework for Transfer Pricing Analysis

From a transfer pricing perspective, the critical question is not whether an activity was internalized, but why it was internalized rather than outsourced. GVC analysis places this inquiry at the center. When internalization is driven by value creation that cannot be feasibly replicated by competitive third-party supply, identifying uncontrolled benchmarks may be difficult. Factors favoring internalization include protection of proprietary technology, creation and preservation of trade secrets and manufacturing know-how, close coordination between R&D and production, and cost synergies among adjacent GVC stages, among others.

When the MNE chooses internalization over outsourcing because of these factors, reliable uncontrolled benchmarks may be difficult to identify. In these cases, the absence of a comparable external supply is itself informative for evaluating method selection. Even in instances in which independent suppliers could replicate the tangible assets and acquire skilled labor for the production stage, for example, the full set of considerations that motivated internalization in the first place is unlikely to be fully addressed.

Conversely, if internalization is driven by cost considerations, dual sourcing preferences, capacity constraints, or legal and regulatory restrictions, the fact that production is internalized does not undermine the applicability of the CPM. In these cases, the taxpayer's own contemporaneous comparisons of external versus internal sourcing not only demonstrate that competitive supply was available and economically viable but also inform the identification of realistic alternatives under the

regulations and sharpen the application of the CPM.³⁰

This GVC framework may also guide the analysis of process intangibles. Taxpayers often cite proprietary manufacturing know-how as grounds for rejecting CPM, yet the economic significance of this know-how cannot be assessed in the abstract. Process know-how exists on a spectrum, ranging from widely codified and industry-standard practices to tacit, firm-specific capabilities. Make-or-buy analyses help locate a particular case on that spectrum by revealing whether comparable capabilities were available in the market, the terms on which they were offered, and the extent to which internalization was motivated by concerns over asset specificity and control.³¹

Make-or-Buy and Location Evidence in Litigation

The first step under the proposed framework is to identify, solicit, and organize the relevant internal evidence. This evidence may include:

- analyses of direct competitors, competing products, and market dynamics;
- evaluation of potential third-party suppliers relative to internal production; and
- documentation supporting the internalization decision, such as capital budgets for new facilities or expansions, hiring and training plans, and senior management approvals.

Because a taxpayer's make-or-buy and location decisions tend to be persistent once made, detailed analyses may be generated only

³⁰ For example, a taxpayer's internal records may document the expected construction costs and timelines of a new production facility, its production capacity and process complexity, workforce skill requirements, and applicable quality and regulatory standards. In implementing the CPM, these internal analyses can inform experts and courts regarding key screening criteria, including the nature of the products, the assets employed, the scale and scope of production, and the stage of the product life cycle.

³¹ TSMC's emergence as a leading independent foundry in the global semiconductor industry is a great example. Although advanced semiconductor manufacturing depends on highly specialized and continuously evolving process know-how, leading foundries such as TSMC have developed those capabilities as standalone services supplied to multiple unrelated customers, while some semiconductor firms remained vertically integrated and others decided to combine in-house manufacturing with selective outsourcing. See, e.g., Jennifer Kuan and Joel West, "Interfaces, Modularity and Ecosystem Emergence: How DARPA Modularized the Semiconductor Ecosystem," 52(8) *Rsch. Pol'y* (2023).

episodically — most notably when the strategy is first evaluated or materially revisited.

The second step is to apply the GVC framework to evaluate the key factors that drove the taxpayer's decision to internalize rather than outsource at the time the decision was made. The output should be a documented account of realistic alternatives and the comparability implications for method selection. If the relevant tax years differ from the decision year and material technological, regulatory, or market conditions have changed, it may be necessary to assess whether the original rationale remains informative for the period at issue. In high-stakes cases, experts with relevant industry experience and/or familiarity with GVC research can assist the parties and the court in interpreting this evidence.

Two forms of corroboration are also valuable. First, arguments grounded in internal analyses should be tested against the testimony of operational personnel. Decisions about whether to outsource or internalize manufacturing typically involve engineers, manufacturing managers, regulatory specialists, and operations and supply chain professionals. Their assessments of supplier capabilities, quality risks, scalability constraints, regulatory feasibility, and transition costs can provide an important factual check on the rationale offered for internalization.

Second, the taxpayer's internalization decision should be evaluated against observable

competitor behavior, as reflected in public disclosures and contemporaneous analyses by industry and equity analysts. If direct competitors routinely outsource activities that the taxpayer internalized under comparable conditions, claims that comparable market supply was absent warrant closer scrutiny. Conversely, if direct competitors consistently internalize those functions when facing comparable technological, regulatory, and market constraints, claims that competitive third-party supply was limited or nonexistent are strengthened.

Conclusion

By reconnecting transfer pricing disputes to the economic logic underlying MNEs' boundary and location decisions, a GVC-based framework may help bridge the gap between corporate strategy and tax litigation. In cases such as *Medtronic*, in which courts struggle to reconcile complex operational realities with regulatory method selection and evaluation of realistic alternatives, structured attention to contemporaneous make-or-buy and location evidence has the potential to sharpen the analysis of realistic alternatives and comparability.

Properly integrated with traditional benchmarking and financial analysis, this evidence can strengthen the reliability inquiry at the heart of the best method selection and potentially prevent protracted disputes. ■