

[Note to Readers: This is an early-stage draft. Please forgive any gaps in the analysis. The next step on my agenda is to figure out the best way to synthesize more of the existing empirical research that may shed light on the magnitude of the effects I discuss. But, in addition, I certainly welcome any insight into how to make my framework more accurate, insightful, and useful. I look forward to learning from your comments and questions. –Vic]

ESSAY

TAX AND THE BOUNDARIES OF THE FIRM

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INTRODUCTION

How does tax policy affect the behavior of corporations? In the midst of national debates about the corporate tax rate, job creation, and international competitiveness, the dizzying complexity of the tax code can make it difficult to see the jungle through the vines. Does tax policy make U.S. firms grow or shrink? Do firms respond mainly to economic forces or tax incentives? This Essay goes back to foundational ground—Coase’s inquiry¹ into why firms exist at all—to gain some traction on these important questions. I make two main claims. First, tax law incentivizes firms to expand the boundaries of the firm beyond what we would observe in a world without taxes. Second, firms often respond to this pressure by expanding the legal boundaries of the firm while leaving the underlying economic relationships largely undisturbed. What we observe is an expansion of the legal boundaries of firms and a smaller (but still significant) distortion of economic production.

In *The Nature of the Firm*, Coase described how transaction costs define the boundaries of the firm.² In the Coasean framework,

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¹ Coase, *The Nature of the Firm* (1937).

² Coase (1937).

an entrepreneur or manager decides whether to make or to buy the inputs that the firm will use to produce goods or services. In market transactions, where the entrepreneur buys inputs in the marketplace, the entrepreneur relies on the price mechanism of the market—the invisible hand—to help allocate resources efficiently. Within a firm, by contrast, the entrepreneur substitutes a hierarchy of managers and employees in place of market transactions. The entrepreneur directs production, relying on internal decision-making to substitute for a market price in determining the allocation of resources.

The boundaries of the firm are set at the point at which overall transaction costs are minimized. Production takes place within a firm when the costs of transacting in the marketplace are higher than the costs of producing the same goods or services within the firm. Transaction costs such as asymmetric information, the costs of negotiating, designing, and enforcing contracts, policing against fraud, and protecting against ex post opportunism thus explain the existence of, and boundaries of, the firm. When these Coasean transaction costs are low, the entrepreneur buys inputs from the market. When transaction costs are high, the firm produces goods and services within the firm. Directing production within the firm carries its own costs, of course. (Somewhat confusingly, these costs are often called “intrafirm transaction costs.”) Employees may shirk their duties. Managers may make self-interested decisions. And, deprived of market information, managers may simply make bad decisions, allocating rewards or resources within the firm in an inefficient way. The boundary of the firm is where the two sets of costs—the costs of transacting in the marketplace and the costs of directing production inside the firm—are equal.

This Essay investigates how tax law and policy shapes the nature and boundaries of the firm. I make two principal claims. The first is that tax exerts a direct marginal effect on the “make or buy” decision. Our realization-based income tax system often relies on market transactions to measure the timing and amount of tax liability. Firms can more easily manipulate intrafirm transactions to defer income, allocate taxable income to a low-tax jurisdiction, allocate deductions to a high-tax jurisdiction, or convert ordinary income into capital gain. The key theoretical intuition is that managers shape the boundaries of the firm, on the margin, to avoid market transactions if it is tax-efficient to do so, even in some situations where it would be more efficient (in a pre-tax world) to use a market transaction. Firms would be smaller, and the boundaries of the firm tighter, in a world without taxes.

Tax systematically distorts the boundaries of the firm because the price mechanism of the market is useful to the tax collector as well as the entrepreneur. So long as the added costs of keeping economic activity within the firm are less than the tax savings, the firm grows at the margin.³ For example, U.S. corporations may open subsidiaries overseas to take advantage of transfer pricing instead of engaging in international trade with an offshore supplier. Similarly, on the margins it may be more (tax) efficient to acquire a startup rather than license its technology.

The implications of this tax distortion—the *price mechanism distortion*—are potentially vast.⁴ Recall that, in a Coasean world without transaction costs, the boundary of the firm is set at the place where transaction costs outside the firm and the costs of directing production inside the firm are minimized overall. A realization-based tax system systematically puts market transactions at a disadvantage. The tax distortion creates private costs, as firms accept higher agency costs, shirking, information costs, and other costs within the firm as the price for reducing taxes. And the tax distortion creates social costs in the form of inefficient allocation of economic resources and reduced tax revenue.

³ In some cases, tax could cause a firm to shrink at the margins. For example, a corporation might sell a depreciated asset in order to realize a tax loss.

⁴ Coase explored this possibility in *The Nature of the Firm* (p. 391):

Another factor that should be noted is that exchange transactions on a market and the same transactions organized within a firm are often treated differently by Governments or other bodies with regulatory powers. If we consider the operation of a sales tax, it is clear that it is a tax on market transactions and not on the same transactions organized within the firm. Now since these are alternative methods of organization—by the price mechanism or by the entrepreneur—such a regulation would bring into existence firms which otherwise would have no *raison d'être*. It would furnish a reason for the emergence of a firm in a specialized exchange economy. Of course, to the extent that firms already exist, such a measure as a sales tax would merely tend to make them larger than they would otherwise be. Similarly, quota schemes, and methods of price control which imply that there is rationing, and which do not apply to firms producing such products for themselves, by allowing advantages to those who organize within the firm and flow through the market, necessarily encourage the growth of firms. But it is difficult to believe that it is measures such as have been mentioned in this paragraph which have brought firms into existence. Such measures would, however, tend to have this result if they did not exist for other reasons.

My second principal claim in this paper, however, is that the real situation is not quite as dire as the initial theoretical intuition would suggest. The legal boundaries of the firm and the economic boundaries of the firm are not one and the same. In many cases, regulatory arbitrage and other tax planning techniques allow firms to approximate (but not replicate) the economic arrangements that they would have had in a world without taxes.⁵ The first-order effect of the tax distortion is an expansion of the legal boundaries of the firm. Expansion of the economic boundaries of the firm is a second order effect that occurs only when regulatory arbitrage strategies are unavailable. The gap between the economics of a transaction and its legal treatment for tax purposes creates a *regulatory arbitrage effect* where parties manipulate the legal structure of transactions to achieve a different tax treatment while disrupting the underlying economic relationships as little as possible.

An example may help. Suppose the U.S.-based technology company Apple wants to assemble phones in China, where engineers and factory workers are plentiful, talented, and cheap. But Apple also wants to reduce its U.S. tax liability. In a world without taxes, assume that Apple would simply buy the assembled phones from a manufacturer in China at a low price. This market-based option is, by assumption, economically efficient, but it is tax-inefficient because much of the income will be sourced and taxed in the United States. In response to tax distortions, it could create a new corporate subsidiary in China to manufacture the new iPhone, which would allow it to manipulate transfer prices to ensure that more profits were located in China. The creation of a manufacturing subsidiary in China would be a real tax-induced change in the economic boundaries of the firm, and again by assumption, less economically efficient than simply buying the phones on the market. But there is a third alternative. Rather than opening a subsidiary in China, Apple could create a sourcing subsidiary in Singapore that contracts with a manufacturing company in China. The Singapore subsidiary marks up the price of the phones before reselling to its U.S. and overseas affiliates, and Apple uses other planning techniques (like interest stripping) to reduce both its U.S. and global effective tax rate.⁶ The Singapore subsidiary is legally part of Apple, and Singapore is the legal source of a portion of its income. But from an economic point of view, the production input in

⁵ Fleischer, *Regulatory Arbitrage* (Texas L Rev 2010).

⁶ Kleinbard, *Stateless Income*. In this case, it would be necessary to transform the income from Singapore (where it might be foreign base company sales income and subject to current inclusion under subpart F) into deferred income.

question—assembling the phones—remains outside the boundaries of the firm.

Tax law creates a second distortion on firms, the *agglomeration distortion*. As a doctrinal matter, the existence of a separate, entity-level tax on corporations requires a tax on certain distributions to shareholders, which on balance tends to make firms larger than they would otherwise be. On the margins, acquisitions are more tax-efficient than divestitures, and retaining earnings is more tax-efficient than distributing dividends to shareholders.⁷ As with the price mechanism distortion, effective tax planning can mitigate the economic distortion. For example, firms may issue hybrid instruments that function like equity from an economic perspective but have payments that are treated like interest, not dividends.

Unlike the price mechanism distortion, the agglomeration distortion is a creature of U.S. tax doctrine; it is not intrinsic to any realization-based income tax. For example, consider the relative tax difficulty of divesting a business compared to acquiring a business. It is easy to incorporate a business without triggering tax liability, and it is relatively easy to acquire another company using stock as acquisition currency without triggering shareholder or corporate-level taxes. By contrast, it is more difficult to break apart companies without realizing shareholder or corporate-level gains. The reasons are purely doctrinal: in the absence of our desire to enforce an entity-level tax, there would be no need to police against the bailout of corporate earnings and profits in a spin-off or other distribution to shareholders.

To summarize briefly, this theoretical framework suggests that we should observe tax exerting three primary pressures on the boundaries of the firm: (1) a *price mechanism* distortion, where firms expand the firm to hide market transactions from the tax collector, (2) an *agglomeration* distortion, where firms expand (or, more precisely, fail to shrink) on the margin as a result of the separate entity-level tax, and (3) a *regulatory arbitrage* effect, where firms engage in tax planning that allows the legal boundaries of the firm to expand while the economic boundaries of the firm remain closer to what would be optimal in a world without taxes.

⁷ An important caveat: the existence of a corporate tax encourages entrepreneurs to avoid or defer incorporation of a business. But practical constraints lead most large firms to incorporate. I address the timing of the incorporation decision in a related paper, jointly authored by Mihir Desai and Dhammika Dharmapala.

This Essay makes two contributions to the literature. First, I draw on various strands of the legal, finance, accounting, public finance, and economics literature to identify how tax fundamentally distorts the boundaries of the firm. To my knowledge no one has previously synthesized the work into a more comprehensive theory of tax and the boundaries of the firm. Second, I draw on my work as a legal scholar to highlight how regulatory arbitrage moderates the tax distortion. The economics literature, by contrast, largely treats the legal firm as coterminous with the boundaries of the economic firm. The tax distortions discussed here both identify the cause of pressures to expand the firm and help explain the byzantine nature of modern tax planning: regulatory arbitrage helps firms minimize the economic distortions that tax policy causes.

To examine the usefulness of this theoretical framework in explaining firm behavior, the remainder of this Essay maps out the tax distortions and common responses by firms. Following this Introduction, Part II reviews the relevant literature. Part III focuses on the price mechanism distortion. Part IV focuses on the agglomeration distortion. Part V discusses implications. Part VI concludes.

II. LITERATURE REVIEW

A. Theory of the Firm Literature

In the decades following *The Nature of the Firm*, economic scholars have expanded on Coase's framework. While a complete literature review is impractical, a brief discussion may be useful to show how this Essay fits in with prior work. While theories of the firm vary in important ways, there remains a consistent theme that firm boundaries vary depending on transaction costs within and outside the firm. Firms exist to economize on transaction costs. For purposes of this Essay, it is not critical that I adopt (or defend) a particular theory of the firm, as tax exerts a similar effect under any of the theories discussed here.

Harold Demsetz and Armen Alchian extended Coase's work by focusing on the importance of team production.⁸ Firms exist because output is often increased by team production rather than individual production. Because information costs limit the ability to perfectly

⁸ Alchian & Demstesz 1972.

match (or “meter”) rewards to productivity, incentivizing close monitoring is critical. It is often efficient to give the residual earnings of the firm to the monitor herself. The boundaries of the firm are set at the point when the marginal benefits of team production are equal to the marginal costs of monitoring behavior inside the firm.

Jensen & Meckling also emphasize the importance of the firm as a centralized monitor of production.⁹ The firm, according to Jensen & Meckling, is little more than a nexus of contracts. Locating production inside the firm creates a principal-agent problem, as the managers who direct production are often different from the principals who own the firm. The boundaries of the firm are set when the agency costs—the monitoring costs, bonding costs, and residual loss—become so high that it is cheaper to contract in the market.

The New Institutional Economics literature is perhaps closest to the spirit of Coase’s original paper. Oliver Williamson highlighted the importance of the firm as a governance structure to solve the problem of ex post opportunism.¹⁰ In spot transactions on the market, buyers can often examine what they are buying and use the threat of withholding future business to help provide quality control. In long-term contracts, however, a party may have an incentive to hold up the other and extract additional concessions over time. In a long-term supply contract, for example, the buyer might have an incentive to renegotiate the price of the contract after the supplier has re-tooled its factory to build to the buyer’s specifications. The more relationship-specific the investment, the greater the opportunity for hold up.¹¹

Where opportunistic behavior is severe, it may be more efficient for the buyer to simply buy the supplier and move its production within the boundaries of the firm. The boundaries of the firm depend on the specificity of assets used in production and institutional constraints on opportunistic behavior.

Property rights theories of the firm focus on incomplete contracting. Because parties have imperfect information, and because information is costly to obtain, contracts are necessarily incomplete and cannot contemplate every contingency that might arise. Property

⁹ Jensen & Meckling (1976).

¹⁰ Oliver E. Williamson, *THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING* (1985).

¹¹ Benjamin Klein et al., *Vertical Intergation, Appropriable Rents, and the Competitive Contracting Process*, 21 *J.L. & ECON.* 297 (1978).

rights fill the gaps that contracts cannot.¹² Property rights, moreover, can facilitate information exchange among potential users of innovation.¹³ The boundaries of the firm are set at the point where making the firm the residual owner of more property is equal to the costs associated with holding that property.

B. Legal Scholarship

Corporate law, of course, has long referenced the nature of the firm literature.¹⁴ This literature has mostly focused on the relationship between shareholders and managers, and debates about the proper goals of corporate governance.¹⁵ Only a few legal scholars devoted more attention to hybrid forms of organization, like relationships with outsourcing firms.¹⁶

More recently, legal scholars outside corporate law have begun to examine how specific doctrinal areas of law affect the boundaries of the firm. For example, scholars such as Ed Kitch, Dan Burk, Brett McDonnell, Oren Bar-Gill, and Gideon Parchomovsky have drawn on the property rights theory of the firm literature to make normative arguments about intellectual property law.¹⁷

¹² Sanford Grossman & Oliver Hart, *The Costs and Benefits of Ownership: A Theory of Lateral and Vertical Integration*, 94 J. POL. ECON. 691 (1986); Oliver Hart & John Moore, *Property Rights and the Nature of the Firm*, 98 J. POL. ECON. 1119 (1990).

¹³ Arrow, *Vertical Integration and Communication* (1975).

¹⁴ See literature review in Jason Scott Johnston, *The Influence of the Nature of the Firm on the Theory of Corporate Law*, 18 J. Corp. L. 213 (1993).

¹⁵ E.g., D. Gordon Smith, *The Critical Resource Theory of Fiduciary Duty*, 55 Vand. L. Rev. 1399, 1444-47 (2002).

¹⁶ George S. Geis, *The Space Between Markets and Hierarchies*, 95 Va. L. Rev. 99, 121-26 (2009) (offering a theoretical justification for hybrid organizational contracting); George S. Geis, *An Empirical Examination of Business Outsourcing Transactions*, 96 Va. L. Rev. 241 (2010).

¹⁷ See Dan L. Burk & Brett H. McDonnell, *The Goldilocks Hypothesis: Balancing Intellectual Property Rights at the Boundary of the Firm*, 2007 U. ILL. L. REV. 575 (2007); Dan L. Burk & Brett H. McDonnell, *Patents, Tax Shelters, and the Firm*, 26 VA. TAX REV. 981 (2007); Dan L. Burk & Brett H. McDonnell, *Trademarks and the Boundaries of the Firm*, 51 WM. & MARY L. REV. 345 (2009), Dan L. Burk, *Intellectual Property and the Firm*, 71 U. Chi. L. Rev. 3 (2004), Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J. L. Econ. 265 (1977), Oren Bar-Gill & Gideon Parchomovsky, *Intellectual Property Law and the Boundaries of the Firm*, David McGowan, *Legal Implications of Open Source Software*, 2001 U. Ill. L. Rev. 241.

A few others have noted the distinction between the economic and legal boundaries of the firm.¹⁸ Iacobucci & Triantis argue that legal partitions within an economically integrated firm, such as subsidiaries, may be explained as an efficient method of obtaining asset-specific or industry-specific financing.¹⁹ Iacobucci and Triantis fail to account for tax as an explanation for partitions within the firm, nor do they address how tax policy affects hybrid vehicles like special purposes entities used in project finance or securitizations. Most practitioners would readily acknowledge the first-order importance of tax in this context.

C. Finance and Accounting Literature

[*M&M*
Harberger
Auerbach & Dividends
Accounting Literature]

D. Tax Law Literature

Finally, Dan Shaviro and other legal scholars have examined how the presence of the corporate tax distorts economic behavior.²⁰ Ed Kleinbard's recent work on "stateless income" focuses on how firms exploit cross-border planning techniques to reduce both U.S. and global tax rates.

III. PRICE MECHANISM EFFECT

Imagine a closed economy with a single firm, a conglomerate that controls all the corporations in the economy. The tax collector would find it challenging to collect the right amount of tax.²¹ When subsidiary A sells a product to subsidiary B, who is to say if the transfer price is appropriate? There are no comparable arms-length

¹⁸ Scott E. Masten, *A Legal Basis for the Firm*, 4 J.L. ECON. & ORG. 181, 185-94 (1988) (arguing that legal agency relationships in employment are central to the theory of the firm). Eric W. Orts, *Shirking and Sharking: A Legal Theory of the Firm*, 16 YALE L. & POL'Y REV. 265, 291 (1998) ("Firms are creatures of law as well as transaction costs.").

¹⁹ Edward M. Iacobucci & George G. Triantis, *Economic and Legal Boundaries of Firms*, 93 VA. L. REV. 515, 521 (describing tradeoff between economic integration and tailoring capital structure to specific asset types).

²⁰ Shaviro book, Schlunk, Weisbach, Steven A. Bank, *A Capital Lock-In Theory of the Corporate Tax*.

²¹ I am indebted to Joel Slemrod for this example.

transactions to compare it to. Market transactions are necessary to accurately measure income, and in the absence of a market transaction, the tax collector is at a disadvantage.

By contrast, life would be easier for the tax collector in an economy with no firms at all. The value of each non-human economic input would be broken down into its component parts. Each step of the supply chain can be observed and value attributed accordingly. Human capital would remain difficult to sort out.²² For example, where an individual contributes both labor and capital, it would remain difficult to separate the two activities for tax purposes.²³ But eliminating firms—the common ownership of assets—would allow the tax collector to observe far more market transactions and enforce the law more accurately.

The Coasean framework assumes that when transaction costs define the boundaries of the firm, the result is not only privately optimal, but socially optimal as well. Tax shows that this basic assumption is flawed in two significant ways. First, firms may expand the boundaries of the firm to reduce the number of market transactions visible to the tax collector, incurring higher agency costs within the firm than the transaction costs outside the firm that they would incur in a world without taxes. Second, the tax avoidance that follows reduces tax revenue, which requires higher overall tax rates and further distorts behavior, assuming constant government spending.²⁴

To get a sense of the magnitude and importance of the price mechanism distortion, this Part of the Essay examines three areas where the price mechanism effect is likely to be powerful: (1) transfer pricing, (2) joint contributions of services and capital, and (3) family-owned firms.

A. Transfer Pricing

²² Even in a world with no legal firms, humans would become a one person “firm” that provided a bundle of services and capital to another contracting party.

²³ The capital gains preference often makes this distinction important. For extended discussion of the human capital problem, see Fleischer, *Taxing Founders’ Stock*; Fleischer, *Two and Twenty*.

²⁴ The first type of cost—the private cost of distorting firm boundaries—can often be mitigated through regulatory arbitrage, as firms manipulate legal boundaries while keeping economic activity mostly unchanged. The second type of cost—the social cost of reduced tax revenue—is not mitigated by regulatory arbitrage.

Transfer pricing is the pricing of goods, services, and intellectual property between affiliated companies or subsidiaries. When two companies are under common control, the managers must reach an agreement on the transfer price in the absence of an arms-length relationship.²⁵ Transfer pricing can be used to finance subsidiaries by overpaying for goods, or to repatriate funds by underpaying for goods. From a tax perspective, the transfer price can be manipulated to minimize profit in high tax jurisdictions and shift it to lower-tax jurisdictions.

Section 482 of the Internal Revenue Code gives the IRS the authority to reallocate income, deductions, credits or allowances between related corporations in order to more accurately reflect income. Under the traditional approach, the ideal is an arm's length price, i.e., the price that would be reached if the buyer and seller had a straightforward market relationship. Because of differences in quality, quantity, timing of sales, long-term relationships, custom-designed items, and intellectual property, however, in practice it is difficult to determine the arm's length price. Evidence of a correct transfer price may be inferred from resale prices (less appropriate markups for distribution and value added), or a "cost-plus" method that estimates the value added by the subsidiary. While the IRS often negotiates advanced pricing agreements, the wiggle room in the system allows a great deal of income to be shifted to lower-tax jurisdictions.

From a Coasean perspective, the use of comparable market transactions to determine the appropriate transfer price is fundamentally flawed.²⁶ The firm incurs an increase in intrafirm transaction costs precisely because there are higher costs (search costs, negotiation costs, holdup risk, etc.) associated with comparable market transactions. The use of market transactions to set the transfer price understates the true cost of buying those inputs from the market. All else equal, accurate enforcement of an arms-length standard (but one that excludes transaction costs) by an omniscient

²⁵ The transfer pricing rules of section 482 may apply in situations beyond where the U.S. corporation controls the foreign business venture. Wayne M. Gazur, *The Forgotten Link: "Control" in Section 482*, 15 NW. J. INT'L L & BUS. 1, 64-69 (discussing possibility of control definition including compulsion or influence over a supplier). Purely contractual relationships, however, are unlikely to be construed as "control" for purposes of section 482. *Id.* at 71 (Noting that while contractual alliances can show elements of compulsion or influence over pricing similar to an ownership relationship, "the enforcement of an even broader standard [defining control] would be difficult to administer.").

²⁶ Langbein.

tax collector would discourage intrafirm transactions. But firms put tax collectors at a severe information disadvantage when they move economic activity inside the firm. The tax advantages of multinational tax planning more than offset the increase in intrafirm transaction costs. Tax favors expansion of the firm across borders.

What is less clear is whether the expansion overseas is always a true expansion of the economic boundaries of the firm, or merely an expansion of the legal boundaries of the firm. That firms are able to reduce their global tax rates through transfer pricing shows that regulatory arbitrage techniques more than offset the implicit costs associated with transfer pricing. As Ed Kleinbard and others have emphasized, firms manipulate transfer prices, engage in interest stripping, and use other planning techniques to reduce both U.S. and foreign tax liability.

To choose a common example, consider the common inclusion of a Cayman islands “blocker” corporation by U.S. private equity funds. If U.S. tax-exempt investors like pension funds and endowments invested directly into a private equity fund, and the fund’s investment in portfolio companies generates active business income, the tax-exempt investors would be subject to tax on this unrelated business income, or UBTI. Similarly, foreign investors could risk paying tax on that active business income, which could be treated as effectively connected (ECI) with a U.S. trade or business. The fund’s creation of a Cayman Islands entity, which checks the box to be treated as a corporation for U.S. tax purposes, transforms the active business income into passive income for these tax-exempt and foreign investors. It also may provide deferral benefits for the U.S. managers of the fund.²⁷ The fund has expanded its boundaries offshore.

But has tax really distorted the boundaries of the firm in the Coasean sense? The legal boundaries of the firm now include a Cayman Islands corporation. But the economic activity is almost entirely unchanged. The private equity firm, based in the United States, continues to employ managers in New York, Boston, or Greenwich to make investments in the United States.²⁸

²⁷ See 457A (restricting deferral benefits under certain conditions).

²⁸ From a Coasean perspective, the firm has increased its intrafirm transaction costs slightly, as it has to maintain separate books for the two “brother-sister” funds, and agency costs might increase slightly as compensation of the U.S.-based managers becomes more complicated.

B. Joint Contributions of Services and Capital

Entrepreneurs often contribute both services and capital to the firm. In theory, many entrepreneurs could contribute only services. Equity provides important incentives to the entrepreneur, but in many cases these incentives could be replicated with cash-settled contracts, which would generate better tax treatment for the firm in many cases.²⁹ Mixing the entrepreneurs' services with a capital contribution makes it easier to convert income from ordinary income into capital gain, which is particularly useful when the firm is tax-indifferent. The carried interest "loophole" provides a clear example. Investment managers could be compensated with cash payments rather than an allocation of profits from the partnership. Indeed, this is precisely how managers of the Cayman islands blocker corporations are compensated: they receive an "incentive fee" cash payments that tracks the amount they would have received if they received a traditional carried interest. But because the investment manager contributes a small amount of capital to the fund, it becomes a partner of the fund and can take advantage of the partnership tax rules that allow allocations of income to be taxed at capital gains rates if the partnership holds capital assets.

From a Coasean perspective, one might be concerned that this tax distortion—favorable treatment of partners compared to similarly situated service providers—might be distorting economic behavior. Firms might expand to include joint providers or services and capital rather than merely contracting with employees or outside managers.

Again, however, tax planning allows the firms to achieve the desired tax results without significantly changing economic behavior. Founders can achieve capital gains treatment without contributing any capital at all. Service providers can achieve partner status by contributing one percent or less of the firm's capital.

C. Family Firms

Why are so many businesses family affairs? There are both economic and tax reasons. From an economic perspective, the inclusion of family members may reduce agency costs. You may be less likely to shirk, self-deal, or steal from kin than from a stranger. Family investors may be more patient investors than outsiders.

²⁹ Poslky & Hellwig.

But the price mechanism effect also provides a tax incentive to include family members inside the boundaries of the firm. If family members have different tax rates, it may be possible to shift income among them. If one is planning to bequest wealth to one's heirs, including family members in the business can be efficient from both income and estate tax purposes. If the firm plans to aggressively hide income from the taxing authorities—say, by failing to report some cash transactions—family members may be more likely to keep a secret than other employees.

The price mechanism effect here is less likely to cause an expansion of the size of the firm as it is to create a survivorship bias in favor of family firms. Tax creates an incentive to keep businesses in the family.

IV. AGGLOMERATION EFFECT

The existence of a separate, entity-level corporate tax creates tax incentives that distort the boundaries of the firm. Broadly speaking, tax causes firms to expand at the margins. The “trap” of corporate tax is sometimes referred to as the lobster pot effect: corporations are easy to get into, painful to live in, and difficult to get out of. While a comprehensive survey of each distortion is beyond the scope of this paper, I detail below a few of the more significant incentives to expand the boundaries of the firm.

A. Doctrinal Distortions

1. *Corporate formation vs. liquidation.*—Corporate formation is normally not a taxable event. Section 351 allows shareholders to contribute property to the corporation without triggering realization of any unrealized gains, so long as the contributing shareholders control the corporation immediately after the contribution. Corporate liquidations, by contrast, usually trigger gains at the corporate level or shareholder level. This creates a lock-in effect, where cash and assets that might be put to better use by shareholders remain in corporate solution.

2. *Acquisitions vs. Divestitures.*—Corporate acquisitions are tax-efficient. It is relatively easy to acquire another company using stock as acquisition currency without triggering shareholder or corporate-level taxes. By contrast, it is more difficult to break apart companies without realizing shareholder or corporate-level gains.

Tax also distorts the form of divestitures. Legendary tax lawyer Martin Ginsburg invented “tracking stock,” a corporate security that is technically stock of a parent corporation but whose financial performance “tracks” the performance of a subsidiary. Tracking stock offers tax-related benefits relative to a similar restructuring alternative, a spin-off. For example, the issuance of tracking stock allows an unprofitable parent corporation to use its tax losses to shelter the income of a profitable subsidiary.³⁰

3. *Retained Earnings vs. Distributions.*—Many corporations have a large amount of cash on hand. A corporation can distribute the cash to shareholders as a dividend (or buy back stock as a redemption), or it can hold on to the cash and invest it in a new project. Because dividends are taxed to shareholders but not deductible by the corporation, tax encourages managers to prefer reinvestment over distributions, even if the corporation’s rate of return is slightly lower than shareholders would be able to achieve.

4. *Repatriation Tax.*—Under current law, U.S. multinationals can defer income earned overseas indefinitely, but they pay tax if they repatriate funds to the U.S. On the margins, firms have an incentive to reinvest those funds overseas—expanding the firm—rather than bringing the cash onshore, where it could potentially be distributed to shareholders. I discuss this distortion in more detail below in section x.

5. *Hiring vs. Domestic Outsourcing.*—In many cases, hiring employees within the firm is more tax-efficient than hiring labor from outside the firm. Within the firm, employers can offer tax-advantaged fringe benefits, like health insurance, and tax-advantaged compensation, like incentive stock options.³¹ On the other hand, hiring employees rather than independent contractors can increase payroll tax liability; independent contractors have greater ability to avoid payroll taxes.³²

³⁰ Thomas J. Chemmanur & Imants Paeglis, *Why Issue Tracking Stock? Insight from a Comparison With Spin-Offs and Carve-Outs*, 14 J. APPLIED CORP. FIN. 102, 108 (2001) (discussing preservation of joint tax benefits in USX issuance of Marathon Oil tracking stock).

³¹ Note, however, that while the corporate income tax encourages hiring employees, payroll taxes favor hiring independent contractors.

³² For example, by using the so-called “Sub S” payroll tax shelter, where a service provider creates a Subchapter S corporation to provide the services, but pays himself only a small salary as an employee of that corporation. See, e.g., John Edwards, Newt Gingrich.

6. *Diversification.*—Parent companies often own subsidiaries or divisions in different lines of business, which reduces the volatility of earnings and increases debt capacity. Because debt is tax-favored, companies may expand and diversify more than they would in a world without taxes (or a world without a debt-equity tax distortion).

B. Responses to Distortions

The combination of distortions creates an agglomeration effect. On the margins, tax discourages making firms smaller by distributing cash or assets. This has the predictable effect of making firms larger than they would be without the presence of a corporate tax. As with the price mechanism effect, however, tax planning techniques mitigate the effect.

One example is the thin distinction between debt and equity. The classical corporate tax precludes deductions for dividends, but not for interest paid. New financial products have been constructed to have numerous equity-like features, but nonetheless generate an interest deduction for tax purposes. To the extent that firms can substitute these hybrid instruments in place of equity instruments, then, the effect on real economic behavior is muted.

For U.S.-based multinational corporations, effective tax planning can not only minimize taxes overseas, it can reduce the U.S. tax rate as well. For example, by transferring intangible assets to an overseas affiliate, the U.S. firm can make royalty payments that generate tax deductions. Again, the transfer of the intangible overseas is mainly a transfer that takes place in the legal imagination; the U.S. parent retains control over the assets (through its control of the subsidiary) and can effectively continue to manage the asset as it sees fit.

The slow erosion of the U.S. corporate tax base suggests that firms are quite effective at using regulatory arbitrage techniques to mitigate the doctrinal distortions of the corporate tax. This is not to say that the agglomeration effect is entirely eliminated. Unless a firm has so many techniques available that it becomes tax-indifferent, it remains sensitive to tax on the margins.

V. IMPLICATIONS

A. Implicit Cost of the Corporate Tax

Debate about the US corporate tax rate often focuses on its explicit cost—revenue paid by U.S. corporations to the Treasury—and a couple of implicit costs, such as the incentive to incorporate overseas and vague notions that a high corporate tax rate reduces U.S. competitiveness.

Expansion of the real boundaries of the firm beyond what would occur in a no-tax world creates a hidden cost. Firms burden themselves with higher agency costs and other intrafirm transaction costs when market transactions would be more efficient. The design of the corporate tax should consider this implicit cost.

Some empirical research, however, suggests that the distortions of real economic behavior are less significant than the theoretical analysis suggests. One explanation is rooted in the “frictions” framework of Scholes & Wolfson. To return to the example of Apple, recall that opening a subsidiary in China to assemble phones was unappealing. Perhaps it would be impossible to direct team production in China in the same way that Apple’s U.S. managers are accustomed to. Faced with high intrafirm transaction costs if they expand the boundaries of the firm, Apple might stay put, forgoing an opportunity to reduce its U.S. tax liability but enjoying the lower transaction costs of contractual market transactions in China. A second explanation, which I have focused on above, is that arbitrage techniques may allow firms to get the best of both worlds. The legal boundaries of the firm expand, but the economic boundaries of the firm are more or less unchanged. This regulatory arbitrage effect also imposes some implicit costs, like the challenge of accurately rewarding managers of tax-motivated subsidiaries.³³

There is some reason to think that the regulatory arbitrage effect dominates. As the U.S. corporate tax rate has risen relative to other jurisdictions, the creation of “firms” in Bermuda, the Cayman

³³ Desai & Dharmapala paper.

Islands, Ireland, Singapore, and other tax havens or low-tax jurisdictions has increased substantially.³⁴

B. Evidence from “Permanently Reinvested Earnings”

- Many large U.S. corporations, especially tech companies, have enormous amounts of cash sitting offshore. This cash has been generated in large part through effective tax planning. Foreign source income is deferred overseas, and what would otherwise be U.S. source income is effectively transferred overseas through planning techniques.
- Apple, for example, has \$60 billion in cash, mostly offshore.
- Others include Microsoft, Google, Cisco, Pfizer, GE, Conoco Philips.
- This is likely evidence of a tax distortion – price mechanism effect (transfer pricing) combined with the repatriation tax locking in earnings – and a useful case study to determine which effect dominates: (1) regulatory arbitrage, or (2) the price mechanism and doctrinal distortions.
- If this were pure regulatory arbitrage, one would expect to see large cash holdings (which we indeed observe), waiting for another repatriation tax holiday.
- But we also see real investments in overseas assets and an increase in foreign acquisitions by cash-rich firms.
- Accounting drives part of this; to avoid recognizing a deferred tax liability on the balance sheet, companies want to treat the earnings as “permanently reinvested” overseas. This appears to drive some overseas investment activity. (Blouin et al, 2012).
- There is also evidence that these acquisitions perform badly. (Edwards et al 2011).
- In sum, this is the worst of all worlds. Companies respond to taxes by shifting income overseas and then make economically inefficient investments overseas to avoid paying tax on distributions to the U.S.

C. Corporate Tax Reform

A near consensus exists for reducing the U.S. corporate tax rate. Doing so would tend to reduce the price mechanism distortion, as firms would have less marginal incentive to expand the firm. To

³⁴ See evidence cited in Kleinbard, *Stateless Income*.

the extent that firms are engaging in regulatory arbitrage to mitigate the distortion, the need for tax planning strategies would be reduced as well.

[explore possibility of greatly lowered corporate tax rate, say, 20%, perhaps combined with worldwide system with no deferral for foreign subs].

Reducing the corporate tax rate would amplify the agglomeration distortion, however. If we re-create a differential between high personal income tax rates and lower corporate tax rates, the lock-in effect is magnified. Shareholders will be reluctant to distribute earnings from the corporation, which acts as a deferral device for the shareholders.

VI. CONCLUSION

[to come]