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PUBLIC FINANCE

“Who Owns Human Capital?”

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April 12, 2016
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SCHEDULE FOR 2016 NYU TAX POLICY COLLOQUIUM
(All sessions meet on Tuesdays from 4-5:50 pm in Vanderbilt 208, NYU Law School)

1. January 19 – Eric Talley, Columbia Law School. “Corporate Inversions and the unbundling of Regulatory Competition.”
2. January 26 – Michael Simkovic, Seton Hall Law School. “The Knowledge Tax.”
3. February 2 – Lucy Martin, University of North Carolina at Chapel Hill, Department of Political Science. “The Structure of American Income Tax Policy Preferences.”
4. February 9 – Donald Marron, Urban Institute. “Should Governments Tax Unhealthy Foods and Drinks?”
5. February 23 – Reuven S. Avi-Yonah, University of Michigan Law School. “Evaluating BEPS”
6. March 1 – Kevin Markle, University of Iowa Business School. “The Effect of Financial Constraints on Income Shifting by U.S. Multinationals.”
7. March 8 – Theodore P. Seto, Loyola Law School, Los Angeles. “Preference-Shifting and the Non-Falsifiability of Optimal Tax Theory.”
8. March 22 – James Kwak, University of Connecticut School of Law. “Reducing Inequality With a Retrospective Tax on Capital.”
9. March 29 – Miranda Stewart, The Australian National University. “Transnational Tax Law: Fiction or Reality, Future or Now?”
10. April 5 – Richard Prisinzano, U.S. Treasury Department, and Danny Yagan, University of California at Berkeley Economics Department, et al. “Business In The United States: Who Owns It And How Much Tax Do They Pay?”
11. **April 12 – Lily Kahng, Seattle University School of Law. “Who Owns Human Capital?”**
12. April 19 – James Alm, Tulane Economics Department, and Jay Soled, Rutgers Business School. “Whither the Tax Gap?”
13. April 26 – Jane Gravelle, Congressional Research Service. “Policy Options to Address Corporate Profit Shifting: Carrots or Sticks?”
14. May 3 – Monica Prasad, Northwestern University Department of Sociology. “The Popular Origins of Neoliberalism in the Reagan Tax Cut of 1981.”

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WHO OWNS HUMAN CAPITAL?

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WHO OWNS HUMAN CAPITAL?

ABSTRACT

This Article undertakes an equity-based analysis of the tax law’s capital income preference from a new perspective. It first charts the ascendance of an emerging form of capital whose value derives primarily from workers’ knowledge, experience and skills—intellectual capital. It then analyzes how business owners increasingly are able to “propertize” labor—to control their workers and appropriate the returns on their labor through the expansive use of intellectual property laws, contract and employment laws and other legal mechanisms. The Article then shows how the tax law provides significant subsidies to the process of propertization and thereby contributes to the inequitable distribution of returns between business owners and workers. The Article’s analysis further reveals the tax law’s fundamental capital-labor distinction to be questionable, perhaps even illusory, an insight which has profound implications for the tax law.

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Introduction

The U.S. income tax makes a fundamental distinction between income from labor and income from capital, upon which substantially different tax treatment depends. Originally, the income tax targeted wealthy capital owners and most wage earners were exempt from it.¹ However, the advent of World War II shifted its impact to labor income, transforming it from “class tax to mass tax.”² Today, we tax capital income preferentially in a variety of ways, most prominently through a reduced rate of tax on capital gains.³

¹ See JOHN WITTE, THE POLITICS AND DEVELOPMENT OF THE FEDERAL INCOME TAX 77 (1985). Income from labor was thought to be morally superior to income from capital because it embodied the Protestant work ethic and the democratic ideal of meritocracy. See Marjorie E. Kornhauser, *The Morality of Money: American Attitudes Toward Wealth and the Income Tax*, 70 IND. L.J. 119, 128–29 (1994). Moreover, as John Stuart Mill argued, those who work for a living have less ability to pay taxes than those who live off accumulated capital because they have only a finite period of time in which they can work and must save for retirement and illness. See 2 JOHN STUART MILL, PRINCIPLES OF POLITICAL ECONOMY 315 (The Colonial Press 1899) (Bk. V, Ch II).

² Carolyn C. Jones, *Class Tax to Mass Tax: The Role of Propaganda in the Expansion of the Income Tax During World War II*, 37 BUFF. L. REV. 685 (1989); see also Lily Kahng, *Investment Income Withholding in the United States and Germany*, 10 FLA. TAX REV. 316-20 (2010); Ajay Mehrotra & Julia Ott, *Labor to Capital: The Forgotten History of the Tax Preference for “Earned” Income* (unpublished manuscript) (on file with author).

³ The maximum capital gains rate is 20 percent; the maximum rate on ordinary income is 39.6 percent on ordinary income. I.R.C. § 1 (2012). These maximum rates do not include ACA surtaxes. The capital gains rate is applicable to long term capital gains and dividends. Other forms of income from capital, such as interest, rents and royalties, are subject to tax at ordinary income rates.

Income from capital is treated favorably in a variety of other ways. Notably, we also subject only labor income, and not capital income, to additional payroll taxes. During the last thirty years, payroll taxes have accounted for one-third or more of annual total tax revenues. OFFICE OF MGMT. & BUDGET, *Historical Tables: Table 2.2 – Percentage Composition of Receipts by Source: 1934–2001*, <https://www.whitehouse.gov/omb/budget/Historicals> (last visited Mar. 20, 2016). See generally Patricia E. Dilley, *Breaking the Glass Slipper – Reflections on the Self-Employment Tax*, 54 TAX LAW. 65 (2000); Deborah A. Geier, *Integrating the Tax Burdens of the Federal Income and Payroll Taxes on Labor Income*, 22 VA. TAX REV. 1 (2002); Linda Sugin, *Payroll Taxes, Mythology, and Fairness*, 51 HARV. J. LEGIS. 113 (2014).

The preference for capital income has been the subject of intense study and debate for many years.⁷ For the past couple of decades, efficiency-based arguments in favor of a capital income preference have dominated the debate.⁸ In recent years, however, concerns about rapidly growing economic inequality have brought equity considerations to the forefront of the debate. In particular, Thomas Piketty's book, *Capital in the Twenty-First Century*,⁹ has focused renewed scholarly attention on the widening economic gulf between capital owners and

Furthermore, capital owners can defer gains until realization or avoid taxation entirely through basis step up at death. I.R.C. § 1014 (2012). Edward McCaffery formulated a memorable summary of all a taxpayer needs to do to avoid income and estate tax on financial capital: "Buy, Borrow, Die." Edward J. McCaffery, *A New Understanding of Tax*, 103 MICH. L. REV. 807, 890 (2005). See generally William J. Turner, *Theory Meets Reality: The Case of the Double Tax on Material Capital*, 27 VA. TAX REV. 83 (2007) (detailing comprehensively ways in which income from capital and income from labor are treated differently).

Capital income is not always treated more favorably than labor income. It is easy to come up with examples to the contrary. Thus, for example, dividend income is nominally taxed twice under our classical system of corporate taxation, first at the corporate level when earned, and then at the shareholder level when distributed. See generally Jennifer Arlen & Deborah M. Weiss, *A Political Theory of Corporate Taxation*, 105 YALE L.J. 325 (1995); Terrence R. Chorvat, *Apologia for the Double Taxation of Corporate Income*, 38 WAKE FOREST L. REV. 239 (2008). An example of a labor income preference is the earned income tax credit, which results in a negative tax rate for low income taxpayers. See generally Anne L. Alstott, *The Earned Income Tax Credit and the Oversimplified Case for Tax-Based Welfare Reform*, 108 HARV. L. REV. 533 (1995). On balance, however, the tax law treats capital income more favorably than labor income. See John Buckley, *Tax Changes Since Woodworth's Time: Implications for Future Tax Reform*, 34 OHIO N.U. L. REV. 1, 7–8 (2008); Turner, *supra*, at 125.

⁷ See, e.g., Noel B. Cunningham & Deborah H. Schenk, *The Case for a Capital Gains Preference*, 48 TAX L. REV. 319 (1993); Daniel Halperin, *A Capital Gains Preference Is Not Even a Second-Best Solution*, 48 TAX L. REV. 381 (1993); Daniel Shaviro, *Uneasiness and Capital Gains*, 48 TAX L. REV. 393 (1993).

⁸ For example, Edward Kleinbard's proposal for a dual income tax system is based on the premise that capital is more mobile than labor, and that it is therefore efficient to tax capital at lower rates than labor. See Edward D. Kleinbard, *An American Dual Income Tax: Nordic Precedents*, 5 NW. J. L. & SOC. POL'Y. 41, 45–47 (2010); see also Reuven S. Avi-Yonah, *And Yet It Moves: Taxation and Labor Mobility in the 21st Century*, TAX L. REV. (forthcoming).

More recently, much of the debate about capital income preferences has focused on whether a consumption tax, which completely exempts capital from tax, would be superior to an income tax, a question which is beyond the scope of this Article. See, e.g., Joseph Bankman & Thomas Griffith, *Is the Debate Between an Income Tax and a Consumption Tax a Debate About Risk? Does it Matter?* 47 TAX L. REV. 377 (1992); Joseph Bankman & David A. Weisbach, *The Superiority of an Ideal Consumption Tax Over an Ideal Income Tax*, 58 STAN. L. REV. 1413 (2006); Daniel N. Shaviro, *Beyond the Pro-Consumption Tax Consensus*, 60 STAN. L. REV. 745 (2007); Chris William Sanchirico, *A Critical Look at the Economic Argument for Taxing Only Labor Income*, 63 TAX L. REV. 867 (2010).

⁹ THOMAS PIKETTY, *CAPITAL IN THE TWENTY-FIRST CENTURY* (2014).

workers.¹⁰ Piketty's central thesis is that the return on capital tends to exceed significantly the growth rate of the economy, which leads to increasing concentrations of wealth in the hands of the few and extreme inequality.¹¹

This Article undertakes an equity-based analysis of the tax law's capital-labor distinction from a new perspective. It looks beyond explicit tax preferences for income from capital such as the capital gains rate and examines less transparent but equally significant ways in which the tax law contributes to the growing inequality between capital owners and workers.¹³

The Article begins with an exploration of intellectual capital, a growing form of capital that includes not only legally protected intangible asset such as patents and copyrights but also other sources of value such as goodwill and organizational processes and know-how. The creation of intellectual capital enables capital owners to "propertize" labor: through the use of intellectual property laws, contract and employment laws, and other legal and organizational mechanisms, capital owners are able to capture the returns from their workers' economic productivity. The Article discusses how the legal landscape is rapidly evolving to facilitate and expand the propertization of labor.

The Article then turns to the ways in which the tax law subsidizes the process of propertization. Specifically, the tax law allows capital owners to deduct most costs of creating intellectual capital, which in effect exempts from tax their returns from intellectual capital. Furthermore, the tax law is also overly generous to capital owners with respect to their investments in human capital, while at the same time, denying workers recognition of similar investments. In these ways, the tax exacerbates the widening economic gap between capital owners and workers.

¹⁰ See, e.g., Joseph Bankman & Daniel N. Shaviro, *Piketty in America: A Tale of Two Literatures*, 68 TAX L. REV. 453 (2015); Paul L. Caron, *Thomas Piketty and Inequality: Legal Causes and Tax Solutions*, 64 EMORY J. ONLINE 2073 (2015); James Puckett, *Wealth Inequality and Progressive Taxation* (March 20, 2016) (unpublished manuscript) (on file with author).

¹¹ See PIKETTY, *supra* note __, at 26–27; 77.

¹³ The Article takes as its starting point the growing inequality between capital owners and workers, but acknowledges that neither workers nor capital owners are a monolithic group. There are wide variations within each as to their socioeconomic standing. Capital owners range from a person with \$200 in a savings account to Warren Buffett. Workers range from low-wage unskilled to highly compensated executives. The Article does not address the growing inequality among workers that is particularly pronounced in the United States. See PIKETTY at 298–300; 315–21 (describing how the increase in inequality in the U.S. since the 1970 is largely due to wage inequality). However, the Article does have some bearing on this inequality as well, to the extent that very highly compensated workers tend to receive a substantial portion of their pay in forms that they are able to treat as capital gains. See *infra* Part III.

The Article concludes with reflections about the porous and changeable boundary between labor and capital. It questions whether the tax law distinction between labor income and capital income is useful or even meaningful, and considers the implications of challenging the labor-capital distinction. Finally, the Article offers an overview of specific reform proposals.

I. Intellectual Capital and the Propertization of Labor

A. The Rise of Intellectual Capital

Capital encompasses forms of wealth including “land, buildings, machinery, firms, stocks, bonds, patents, livestock, gold, natural resources, etc.”¹⁴ The definition includes physical capital, such as land, buildings and other material goods.¹⁵ It also includes intangible assets such as patents or copyrights and financial assets such as bank accounts, corporate stock, and pension funds.¹⁶

The composition of capital has changed significantly over the last several centuries. Agricultural land, which three centuries ago, accounted for more than one-half of total capital, today comprises only a minimal fraction of total capital, and has been supplanted by industrial and financial capital.¹⁷

Of these new types of capital, financial capital, and in particular corporate stock, is comprised of the underlying assets owned by corporations. As Piketty observes, much of the value of corporate stock is attributable to what he calls immaterial capital:

[M]any forms of immaterial capital are taken into account by way of the stock market capitalization of corporations. For instance, the stock market

¹⁴ PIKETTY, *supra* note 9, at 113. Some commentators have criticized Piketty's definition of capital and his measurement of it. See, e.g. Matthew Rognlie, *Deciphering the Rise and Fall of Net Capital Share* (Brookings Papers on Econ. Activity, 2015), available at http://www.brookings.edu/~media/projects/bpea/spring-2015/2015a_roglnie.pdf (observing that most of the increasing returns to capital are attributable to the housing sector and that outside of that sector, the relative return to capital relative to labor is not increasing, contrary to Piketty's assertion. Other commentators seem to think Piketty's definition of capital is not particularly problematic. See, e.g., Robert M. Solow, *Thomas Piketty Is Right*, NEW REPUBLIC (Apr. 22, 2014), <https://newrepublic.com/article/117429/capital-twenty-first-century-thomas-piketty-reviewed>.

¹⁵ PIKETTY, *supra* note 9, at 49.

¹⁶ *Id.* at 48–49.

¹⁷ *Id.* at 42, 116, 117, 151. Housing continues to be substantial component of today's capital. See *id.* at 116, 117, 151; ROBERT B. REICH, *SAVING CAPITALISM* 16–22 (2015) (describing the change in capital from agricultural land to industrial capital and intellectual property).

value of a company often depends on its reputation and trademarks, its information system, and modes of organization, its investments, whether material or immaterial, for the purpose of making its products and services more visible and attractive.¹⁸

This article uses the term “intellectual capital” to refer to these forms of immaterial capital. Intellectual capital is broadly defined to be “nonphysical sources of value (claims to future benefits) generated by innovation (discovery), unique organizational designs, or human resources practices.”¹⁹ Intellectual capital includes not only separable, identifiable, and legally protected assets such as patents, trademarks, and copyrights, but also less distinct assets such as information systems, administrative structures and processes, market and technical knowledge, brands, trade secrets, organizational know-how, culture,

¹⁸ PIKETTY, *supra* note 9, at 49.

¹⁹ BARUCH LEV, INTANGIBLES: MANAGEMENT, MEASUREMENT, AND REPORTING 7 (2001). Lev cites Merck's pharmaceutical advances as an example of discovery, Cisco's internet-based product installation and maintenance system as an example of unique organizational design, and Xerox's information-sharing system for employees as an example of human resources. *Id.* at 6. Lev notes that a combination of these sources can produce intellectual capital: the valuable brand Coke combines innovation (the secret Coke formula) and organizational structure (exceptional marketing savvy). *See id.*

The concept of intellectual capital is not new. As early as the mid-nineteenth century, economists recognized that value inheres in more than just tangible assets and that knowledge and innovation are essential components of economic activity. *See* Mie Augier & David J. Teece, *An Economics Perspective on Intellectual Capital*, in PERSPECTIVES ON INTELLECTUAL CAPITAL 3–4 (Bernard Marr ed., 2005); Bernard Marr, *The Evolution and Convergence of Intellectual Capital as a Theme*, in PERSPECTIVES ON INTELLECTUAL CAPITAL, *supra*, at 213–14; *see also* Peter Hill, *Tangibles, Intangibles and Services: A New Taxonomy for the Classification of Output*, 32 CANADIAN J. ECON. 426, 428–37 (1999).

Intellectual capital is not easy to define. It has also been likened to dark matter—the essential substance that binds together the universe but is not directly observable. *See* Ricardo Hausmann & Federico Sturzenegger, U.S. and Global Imbalances: Can Dark Matter Prevent a Big Bang? (Nov. 13, 2005) (unpublished manuscript), *available at* www.cid.harvard.edu/cidpublications/darkmatter_051130.pdf (theorizing that the omission of valuable assets such as know-how, brand recognition, expertise, and research and development skews estimates of trade imbalances). Despite the difficulty of precisely defining intellectual capital, the concept is easy to grasp intuitively, and its many definitions are similar at their core. In their survey of numerous definitions of intellectual capital, Leandro Cañibano, Manuel García-Ayuso Covarsí, and M. Paloma Sánchez find most definitions agree that intellectual capital refers to “sources of probable *future economic profits, lacking physical substance, which are controlled by a firm as a result of previous events or transactions* (self-production, purchase or any other means of acquisition).” LEANDRO CAÑIBANO, MANUEL GARCÍA-AYUSO COVARSÍ & M. PALOMA SÁNCHEZ, THE VALUE RELEVANCE AND MANAGERIAL IMPLICATIONS OF INTANGIBLES: A LITERATURE REVIEW 14 (1999), *available at* <http://www.oecd.org/sti/ind/1947974.pdf>.

strategic capabilities, and customer satisfaction.²⁰ Examples of this broader definition of intellectual capital include Wal-Mart's computerized supply chain, Amazon's customer service reputation, and Google's unique business model.²¹

The growing importance of intellectual capital is indisputable.²³ Companies such as Google, Amazon, and Apple exemplify the new business model. Their most valuable assets are not physical plant and equipment, but rather operating systems, product designs, organizational structures, and their reputation among customers.²⁴ Intellectual capital is also dominant in more traditional companies. For example, the physical assets of Nestle, the world's largest food company, comprise only 13 percent of its total value.²⁵

The value of intellectual capital relative to total capital is difficult to estimate, in part because its value can be inferred only indirectly from the value of the corporations who own much it, combined with the fact that financial and national accounting systems have historically undervalued or excluded intellectual capital from measures of economic productivity and wealth.²⁶ For example, Calvin Johnson cites Google and Microsoft as examples of companies whose self-created intangible assets, as evidenced by market capitalization, are worth hundreds of billions of dollars, but he also notes that their balance sheets show none of these assets.²⁷ Other scholars have observed a similar anomaly with respect to pharmaceutical companies: their investments in research and development are not recorded as assets on their balance sheets, but their market capitalizations clearly demonstrate the value of these assets.²⁸ Economists

²⁰ See Farok J. Contractor, *Intangible Assets and Principles for Their Valuation*, in VALUATION OF INTANGIBLE ASSETS IN GLOBAL OPERATIONS 3, 7 fig.1.1, 8 (Farok J. Contractor ed., 2001); JUERGEN H. DAUM, INTANGIBLE ASSETS AND VALUE CREATION 17 (2003); LEV, *supra* note 19, at 5–7.

²¹ See ORG. FOR ECON. CO-OPERATION & DEV., NEW SOURCES OF GROWTH: KNOWLEDGE-BASED CAPITAL—KEY ANALYSES AND POLICY CONSIDERATIONS—SYNTHESIS REPORT 8, 17 (2013) [hereinafter OECD REPORT].

²³ See generally *id.* (documenting the global increase in business investment in intellectual capital and the resulting increasing productivity gains).

²⁴ See *id.* at 8, 17. Intellectual capital is also dominant in more traditional companies. For example, the physical assets of Nestle, the world's largest food company, comprise only 13% of its total value. See *id.* at 9.

²⁵ See *id.* at 9.

²⁶ See Hill, *supra* note 19, at 436–37, 445; Leonard Nakamura, *Intangibles: What Put the New in the New Economy?*, BUS. REV., July–Aug. 1999, at 3, 4, 6–10.

²⁷ See Calvin H. Johnson, *Organizational Capital: The Most Important Unsettling Issue in Tax*, 148 TAX NOTES 667, 676 (2015).

²⁸ These scholars cite the expensing of self-created R&D to explain why the earnings and assets of companies, such as pharmaceutical manufacturers, seem very low relative to their stock prices. They argue that the expensing of self-created R&D depresses the earnings of these companies and that the failure to capitalize self-created R&D undervalues the assets of these companies. See

estimate that official measures of gross domestic product in recent years omitted as much as one trillion dollars per year of investments in intellectual capital.²⁹

To remedy the failure of most accounting systems to adequately measure intellectual capital, Carol Corrado, Charles Hulten, and Daniel Sichel developed a framework for quantifying intellectual capital and its impact on the national economy.³⁰ Their widely accepted model is the most theoretically advanced and comprehensive to date, according to the Organisation for Economic Co-operation and Development (OECD).³¹ Based on this model, Corrado, Hulten, and Sichel find that in recent years, intellectual capital accounted for 27 percent of economic growth, putting it on par with tangible capital in importance as a source of growth.³²

In response to the work of economists such as Corrado, Hulten and Sichel, government agencies and non-governmental organizations are beginning to recognize more fully the role of intellectual capital in economic activity. For example, in 2013, the U.S. Bureau of Economic Analysis (BEA) for the first time included research and development (R&D), as well as artistic creations such as films, music, and books, in its measures of national economic productivity and wealth, which added \$569 billion to the size of the U.S. economy.³³ A 2013 report of the OECD documented intellectual capital's ascendance to a global phenomenon and urged policy reforms in taxation, innovation, entrepreneurship, education, competition, corporate reporting, and intellectual property in order to

Nakamura, Leonard Nakamura, *Investing in Intangibles: Is a Trillion Dollars Missing from GDP?*, BUS. REV., Q4 2001, at 30–31; Charles Hulten, *Accounting for the Knowledge Economy* 7–10 (The Conference Bd. Econ. Program Working Paper No. 08-13, Jan. 2008), available at http://www.conference-board.org/pdf_free/workingpapers/E-0040-08-WP.pdf; see also William Hubbard, *The Debilitating Effect of Exclusive Rights: Patents and Productive Inefficiency*, 66 FLA. L. REV. 2045, 2046–47 (2014) (discussing other oddities in the pharmaceutical industry).

²⁹ See Nakamura, *supra* note 28, at 27, 36.

³⁰ See Carol Corrado, Charles Hulten & Daniel Sichel, *Intangible Capital and U.S. Economic Growth*, 55 REV. INC. & WEALTH 661, 662, 682 (2009) [hereinafter Corrado et al., *Intangible Capital*]; Carol Corrado, Charles Hulten & Daniel Sichel, *Measuring Capital and Technology: An Expanded Framework*, in MEASURING CAPITAL IN THE NEW ECONOMY 11, 12, 30 (Carol Corrado et al. eds., 2005) [hereinafter Corrado et al., *Measuring Capital and Technology*].

³¹ OECD REPORT, *supra* note 21, at 12.

³² See Corrado et al., *Intangible Capital*, *supra* note 30, at 680.

³³ See Peter Coy, *The Rise of the Intangible Economy: U.S. GDP Counts R&D, Artistic Creation*, BLOOMBERG BUSINESSWEEK (July 18, 2013), <http://www.businessweek.com/articles/2013-07-18/the-rise-of-the-intangible-economy-u-dot-s-dot-gdp-counts-r-and-d-artistic-creation>. The BEA restated GDP for each year retroactive to 1929, the first year of measurement. *Id.* These additions increased the size of the U.S. economy in 2013 by \$569 billion, or 3.6%. See Jared Bernstein & Dean Baker, *What is 'Seinfeld' Worth?*, N.Y. TIMES (July 31, 2013), <http://www.nytimes.com/2013/08/01/opinion/what-is-seinfeld-worth.html>.

realize fully the potential gains of this key economic driver.³⁴ The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IAS) have acknowledged the need to require additional qualitative and quantitative disclosure about self-created intangible assets.³⁵ In sum, intellectual capital is indubitably a major and increasing driver of economic productivity and evidences the way in which the capital composition has changed substantially over time.

B. The Centrality of Labor in Intellectual Capital

Capital almost always requires labor to be created or enhanced.³⁶ This is true of traditional forms of capital, such as agriculture and other real estate. Owners of farmland, for example, require workers to cultivate and harvest crops and raise livestock in order for the farmland to be productive. Owners of other real estate need workers to build and maintain the structures from which owners derive income and gain. Capital in the form of natural resources, such as gold or oil, requires workers to extract and process them into marketable forms. Industrial capital, say, a widget factory, requires needs workers to run operate and maintain the machinery that produces the widgets. The widget producer also needs workers to advertise and market the widgets.

In contrast to some of the examples above, intellectual capital is particularly labor-intensive and often requires workers' knowledge, experience and skills.³⁷ For example, strategic planning requires primarily the time and effort of managers. Likewise, the creation of a consumer products brand results primarily from the work effort of design and marketing personnel. Similarly, scientific R&D requires primarily the time and effort of scientists, although it also

³⁴ See OECD REPORT, *supra* note 21, at 6–7.

³⁵ The FASB and IAS considered a joint project to expand disclosure guidelines for intangibles, as part of a broader and ongoing convergence project in 2002. See AM. INST. CERTIFIED PUB. ACCOUNTANTS, INTERNATIONAL FINANCIAL REPORTING STANDARDS 5–6 (2011), available at http://www.ifrs.com/pdf/IFRSUpdate_V8.pdf. Due to resource constraints, they decided not to move forward with it. See *Action Alert No. 07-52*, FIN. ACCT. STANDARDS BOARD (Dec. 28, 2007), <http://www.fasb.org/action/aa122807.shtml>. However, more recently, the financial accounting community has shown a renewed interest in reforming financial reporting for intangibles. See Emily Chasan, *FASB's Future Priorities Start to Take Shape*, WALL ST. J. (Sept. 17, 2013, 1:00 PM), <http://blogs.wsj.com/cfo/2013/09/17/fasbs-future-priorities-start-to-take-shape/> (noting that accounting for intangible assets is among the top reform priorities).

³⁶ There are certainly cases where labor inputs are minimal.

³⁷ For this reason, some scholars refer to it as knowledge-based capital. See, e.g., ORG. FOR ECON. CO-OPERATION & DEV., NEW SOURCES OF GROWTH: KNOWLEDGE-BASED CAPITAL—KEY ANALYSES AND POLICY CONSIDERATIONS—SYNTHESIS REPORT (2013); KARL ERIK SVEIBY, THE NEW ORGANIZATIONAL WEALTH: MANAGING AND MEASURING KNOWLEDGE-BASED ASSETS (1997).

requires expenditures for labs and equipment. Not all labor expenditures produce intellectual capital. For example, a fast food server or an office receptionist serves the current needs of their employer, but their services do not provide significant long-term benefits to their employer.

With respect to legally distinct assets such as patents or copyrights, the contribution of labor to the creation of intellectual capital becomes embedded in the asset, in what Rob Merges calls the “propertization of labor.”³⁸ Legally enforceable patent or copyright protections enable the owner of the asset (that is, the capital owner) to appropriate and control the knowledge contributions of workers.³⁹

Other types of intellectual capital are not distinct, legally protected assets. However, businesses rely upon mechanisms other than intellectual property laws to capture and control the labor of their workers. Many of these are legal in nature, such as covenants not to compete, nondisclosure agreements, and trade secrets laws.⁴⁰ Covenants not to compete prohibit workers from employing their training, skill and experience elsewhere.⁴¹ Nonsolicitation, nondealing and nonpoaching prohibit an employee, after leaving a company, from soliciting or dealing with the company's clients or customers or from hiring former co-

³⁸ ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 197 (2011); Robert P. Merges, *Intellectual Property and the Costs of Commercial Exchange*, 93 MICH. L. REV. 1570, 1575 (1995).

³⁹ See Catherine L. Fisk, *Working Knowledge: Trade Secrets, Restrictive Covenants in Employment, and the Rise of Corporate Intellectual Property, 1800-1920*, 52 HASTINGS L.J. 441, 445-46 (2001); Érica Gorga & Michael Halberstam, *Knowledge Inputs, Legal Institutions and Firm Structure: Towards a Knowledge-Based Theory of the Firm*, 101 NW. U. L. REV. 1123, [TAN 92-93] (2007); see also Oren Bar-Gill & Gideon Parchomovsky, *Law and the Boundaries of Technology-Intensive Firms*, 157 U. PA. L. REV. 1649, 1671-87 (discussing the organizational effects of patent, copyright, trade secret and other legal protections for innovation and information); Dan L. Burk & Brett H. McDonnell, *The Goldilocks Hypothesis: Balancing Intellectual Property Rights at the Boundary of the Firm*, 2007 U. ILL. L. REV. 577 (analyzing how the strength of intellectual property protections affects inter- and intra-firm transactions costs).

⁴⁰ See ORLY LOBEL, TALENT WANTS TO BE FREE 49-75; 98-120 (2013); Orly Lobel, *The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property*, 93 TEXAS L. REV. 789, 791 (2015); Gorga & Halberstam, *supra* note 39, at 39-41 [pincites refer to draft form].

In addition to legal mechanisms, businesses also use “organizational strategies,” as Érica Gorga and Michael Halberstam call them, to control knowledge and information. For example, a business might restrict critical knowledge to a small number of insiders or isolate the business geographically. See Gorga & Halberstam, *supra* note 39, at 38.

⁴¹ See Gorga & Halberstam, *supra* note 39, 23 tbls. A&B, 41; Katherine V.W. Stone, *Knowledge at Work: Disputes over the Ownership of Human Capital in the Changing Workplace*, 34 CONN. L. REV. 721, 738 (2002).

workers.⁴² Nondisclosure agreements and trade secret laws enable business owners to protect valuable organizational capital—for example, information relating to suppliers and customers, organizational routines and business practices, decision-making processes, quality control procedures, coordination and division work.⁴³

In recent decades, there has been a significant expansion of business owners' ability to capture and control workers' contributions to the creation and enhancement of intellectual capital.⁴⁴ This is true for more traditional forms of intellectual property such as patents and copyrights. Bar-Gill and Parchomovsky describe the trend with respect to patent law:

This trend manifested itself in various aspects of patent law, including the broadening of the definition of patentable subject matter to include, among others, business-method patents, the encouraging of government-subsidized bodies (such as universities) to claim patent protection, and the increasing tendency of the legal system to uphold patents. As part of this trend, patent law has expanded to tolerate even merely embryonic innovation....Patent law provides an impressive array of remedies to successful plaintiffs, including injunctive relief, actual damages, treble damages for willful infringement, and attorneys' fees in exceptional cases.⁴⁵ [citations omitted]

⁴² See Lobel, *supra* note 40, at 827–30.

⁴³ See Gorga & Halberstam, *supra* note 39, Tables A & B at 23, 41; Stone, *supra* note 41, at 738. Other legal controls based on breach of duty of loyalty and industrial espionage claims also restrain workers from using knowledge or information to benefit a competitor. See Stone, *supra* note 41, at 738.

⁴⁴ See Lobel, *supra* note 40, at 790–91. Intellectual property laws have experienced several periods of growth and expansion in the United States. See generally William W. Fischer, III, *The Growth of Intellectual Property: A History of the Ownership of Ideas in the United States*, in EIGENTUM IM INTERNATIONALEN VERGLEICH 265-91 (1999), reprinted in 1 INTELLECTUAL PROPERTY RIGHTS 72–94 (David Vaver ed., 2006); Fisk, *supra* note 39. In her analysis the development of the intellectual property laws and the laws governing restrictive covenants from 1800 to 1920, Catherine Fisk documents the “gradual shift to recognizing knowledge, especially inchoate knowledge, as a form of property, and then recognizing that property as belonging to someone other than the employee who possessed it.” *Id.* at 446. Fisk describes the legal developments during this period as reflecting “the growing conflict between the free labor ideology and demands of industrialization which increasingly called for corporate control of every tangible and intangible product of work” which “witnessed in its last days unprecedented formalization of corporate power over all aspects of employment and production.” *Id.* at 535.

⁴⁵ Bar-Gill & Parchomovsky, *supra* note 39, at 1672–73. They note that the trend may be reversing somewhat in recent years on the basis of recent judicial decisions raising the bar of patentability and narrowing the scope of protection. See *id.* at 1673–75.

In the area of copyright law, Lawrence Lessig describes an even more dramatic expansion of business owners' ability to capture the returns from intellectual property:

So copyright's duration has increased dramatically—tripled in the past thirty years. And copyright's scope has increased as well—from regulating only publishers to now regulating just about everyone. And copyright's reach has changed, as every action becomes a copy and hence presumptively regulated. And as technologists find better ways to control the use of content, and as copyright is increasingly enforced through technology, copyright's force changes, too. Misuse is easier to find and easier to control.⁴⁶

The trend toward expansion of business owners' intellectual property rights is equally pronounced with respect to restrictive covenants and other employment law restrictions on workers.⁴⁷ The use of covenants not to compete and nondisclosure agreements has become widespread.⁴⁸ Courts have expanded the power and scope of these restrictive covenants by liberalizing what constitutes reasonable temporal and geographic constraints; more freely upholding them in the at-will context; and either revising or partially enforcing invalid covenants.⁴⁹

⁴⁶ LAWRENCE LESSIG, *FREE CULTURE* 161-62 (2004).

⁴⁷ See Lobel, *supra* note 40, at 793-833 (describing the expansion of regulatory and contractual controls on human capital, including noncompetition contracts, pre-invention assignment agreements, nonsolicitation, nonpoaching, and antidealing agreements, nondisclosure agreements, and trade secret laws); Stone, *supra* note 41, at 737-62 (describing doctrinal expansions in the ability of employers to restrain former employees from using knowledge obtained at their firms).

⁴⁸ See Stone, *supra* note 41, at 738-39; Sampsa Samila & Olav Sorenson, *Noncompete Covenants: Incentives to Innovate or Impediments to Growth*, 57 *MGMT. SCI.* 425, 425 (2011); Mark J. Garmaise, *Ties That Truly Bind: Noncompetition Agreements, Executive Compensation, and Firm Investment*, 27 *J. L. ECON. & ORG.* 376, 378, 396 (2011) (most companies requires some of their employees to sign covenants not to compete and nearly 90 percent managerial and technical employees have signed them); Norman D. Bishara, Kenneth J. Martin & Randall S. Thomas, *An Empirical Analysis of Noncompetition Clauses and Other Restrictive Post-Employment Covenants*, 68 *VAND. L. REV.* 1, 24, 28 (2015) (finding that in a randomly selected sample of 500 S&P 1500 public companies, 82 percent of CEO contracts contained restrictive covenants during the period 2001-2010).

⁴⁹ See Stone, *supra* note 41, at 744. See generally Norman D. Bishara, *Fifty Ways To Leave Your Employer: Relative Enforcement of Covenants Not To Compete, Trends, and Implications for Employee Mobility*, 13 *U. PA. J. BUS. L.* 751, 780 (2011) (analyzing the changes in the strength of enforceability of covenants not to compete in all states and finding "a measurable drift of the aggregate policies in the United States toward greater enforcement"); Michael J. Garrison & John T. Wendt, *The Evolving Law of Employee Noncompete Agreements: Recent Trends and an Alternative Policy Approach*, 45 *AM. BUS. L.J.* 107, 122-48 (2008) (analyzing enforcement of

In addition, courts have expanded the type of interest that is considered protectable by a restrictive covenant to include customer lists and knowledge obtained by employer-provided training.⁵⁰

The law of trade secrets has also expanded significantly in recent years to empower business owners to control workers.⁵¹ The definition of trade secret has expanded dramatically to extend trade secret protection beyond the technical realm to all commercially valuable information.⁵² It has become standard practice for employment contracts to include expansive lists of confidential information beyond the statutory definition of trade secrets.⁵³ In addition, even in the absence of a protectable trade secret or a restrictive covenant, business owners have the power to restrict workers' use of knowledge under the expanding doctrine of inevitable disclosure.⁵⁴ Furthermore, trade secret law has become increasingly criminalized under the Economic Espionage Act and the National Stolen Property Act.⁵⁵

To summarize, on all relevant fronts, the law has expanded in scope and strength to increase the ability of capital owners to propertize labor into intellectual capital.

C. Who Gains from Propertization?

The enhanced ability of capital owners to propertize labor into intellectual capital through the legal mechanisms described above does not necessarily mean that they capture a larger share of the returns from that intellectual capital. It may be that workers are able to extract higher compensation in exchange for transferring their expertise for the exclusive benefit of their employer. Most intellectual property and corporate law scholars do not address the issue of how

covenants not to compete and finding a general trend in the common law and legislation toward greater restrictions on employees).

⁵⁰ See Stone, *supra* note 41, at 746–56.

⁵¹ See Lobel, *supra* note 40, at 803–12.

⁵² See Stone, *supra* note 41, at 757; see also Bar-Gill & Parchomovsky, *supra* note __, at 1675–78.

⁵³ See Lobel, *supra* note 40, at 809.

⁵⁴ See Stone, *supra* note 41, at 757–58. See generally David Lincicum, *Inevitable Conflict?: California's Policy of Worker Mobility and the Doctrine of "Inevitable Disclosure,"* 75 S. CAL. L. REV. 1257 (2002); Joseph F. Phillips, *Inevitable Disclosure Through an Internet Lens: Is the Doctrine's Demise Truly Inevitable?*, 45 WM. & MARY L. REV. 395 (2003); Jennifer L. Saulino, *Locating Inevitable Disclosure's Place in Trade Secret Analysis*, 100 MICH. L. REV. 1184 (2002); Brandy L. Treadway, *An Overview of Individual States' Application of Inevitable Disclosure: Concrete Doctrine or Equitable Tool?*, 55 SMU L. REV. 621 (2002).

⁵⁵ See Lobel, *supra* note 40, at 803–12 (describing the prosecution and conviction of computer programmer Sergey Aleynikov for stealing source code and computer code from Goldman Sachs).

returns from intellectual capital are shared between capital owners and workers. Instead, they analyze intellectual property laws and employment restrictions through an efficiency lens that seeks to allocate rights so as to optimize overall productivity and maximize positive externalities, such as knowledge spillovers and information flows that fuel innovation and entrepreneurial growth.⁵⁶ Dan Burk and Brett McDonnell allude to the possibility that workers get the short end of the stick in their analysis of intellectual property rights: “[I]t is even possible that the law rather pervasively and systematically provides too little protection for employees vis-à-vis firms...[T]his leaves employees to exploitation.”⁵⁷ Unfortunately, they leave exploration of this possibility to future research.⁵⁸

The tenor of employment law scholars such as Kathy Stone and Catherine Fisk suggests they, too, believe workers are on the losing end of the bargain.⁵⁹ However, they tend to express their normative evaluations in terms of workers’ right be free of unfair employer constraints on their ability to work, and do not address explicitly how these constraints affect the distribution of economic returns between workers and capital owners.⁶⁰ Norman Bishara notes the dearth of

⁵⁶ See, e.g., Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial District: Silicon Valley, Route 128 and Covenants Not To Compete*, 74 N.Y.U. L. REV. 575 (1999) (hypothesizing that Silicon Valley companies benefit from knowledge spillovers that occur in the absence of covenants not to compete); Lobel, *supra* note 40, at 350 (“[E]xcessive controls over mobility and inventiveness are harmful to careers, regions, and innovation [I]t stymies the entry of new competitors into the market and suppresses the spirit of entrepreneurship, which is vital to any economy.”); Norman D. Bishara, *Covenants Not to Compete in a Knowledge Economy: Balancing Innovation from Employee Mobility Against Legal Protection for Human Capital Investment*, 27 BERKELEY J. EMP. & LAB. L. 289, 303–11 (2006) (describing the law and economics approach of many scholars in analyzing restrictive covenants);

⁵⁷ Burk & McDonnell, *supra* note 39, at 633-34.

⁵⁸ See *id.* at 633.

⁵⁹ Stone argues that courts should interpret restrictions on employees narrowly because the implicit psychological contract between business owners and workers has changed from a long-term relationship, in which a business owner “gave the worker an implicit promise of lifetime job security and opportunities for promotion along clearly-defined job ladders,” to a temporary, contingent relationship “with no set path, no established expectations, and no tacit promises of job security. Employees are expected to chart their own path, face their own fortunes, and manage their own careers in a boundaryless workplace.” Stone, *supra* note 41, at 725, 732.

Fisk argues that “by transforming employee knowledge into corporate property, law has consecrated a power relationship and has justified right to control employee mobility in significant ways.” See Catherine L. Fisk, *Knowledge Work: New Metaphors for the New Economy*, 80 CHL-KENT L. REV. 839, 856 (2005).

⁶⁰ See, e.g., Fisk, *supra* note 39, at 535 [Working Knowledge] (stating that the nineteenth century development of trade secrets and restrictive “reflected a growing conflict between the free labor ideology and demands of industrialization which increasingly called for the corporate control of every tangible and intangible product of work”); Stone, *supra* note 41, at 762 (arguing that courts should narrowly construe trade secrets law and restrictive covenants and “thereby give employees broad rights to acquire, retain, and deploy their human capital”); see also Bishara, *supra* note 56,

research “focused on the normative arguments about the propriety of noncompetes when it comes to workers’ rights and issues such as bargaining power asymmetries.”⁶¹

Whether workers receive higher pay in exchange for agreeing to employer restrictions is a question that needs much additional research. However, one scholar, Mark Garmaise, finds the opposite to be true—employees are actually paid *less* when they are subject to employer restrictions.⁶² Garmaise analyzes the effects of noncompete covenants on executive employment based on state-by-state variances in the strength of enforcement. He finds that stronger enforcement of noncompete covenants results in lower executive compensation.⁶³

Garmaise also considers the effect of noncompete covenants on employers’ human capital investments—for example, employee training or the revelation of trade secrets—and employees’ investments in their own human capital—for example, networking with managers at other firms or taking on leadership positions in industry associations. He finds that covenants not to compete encourage firm investments in managerial human capital and discourage individuals’ investments in their own human capital.⁶⁴

What little evidence there is at this point suggests that workers lose out when their labor is propertized into intellectual capital. It is also reasonable to

at 312 (describing an employees’ right approach to analyzing restrictive covenants, which “emphasizes the sovereignty of the employee and challenges the firm’s ability to control the individual’s labor post-employment”); *see also* Stefan Lücking & Susanne Pernicak, *Knowledge Work and Intellectual Property Rights: New Challenges for Trade Unions*, 14 J. WORKPLACE RIGHTS 311, 316 (2010) (noting that intellectual property rights affect the balance of power between knowledge workers and their employers; also noting parallels to Marx’s theory of primitive accumulation, the process of transforming public good into private property and expropriating workers from their means of production).

⁶¹ Bishara, *supra* note 49, at 762 n.40.

⁶² Garmaise, *supra* note 47, at 413.

⁶³ *See id.* at 401–02. This finding seems somewhat counterintuitive but the explanation appears to be as follows: executives in states where noncompete covenants are strongly enforced initially bargain for higher compensation, perhaps in the form of a signing bonus, but once they are locked into a firm, their pay increases diminish over time relative to pay increases for executives in states without strong enforcement of noncompete covenants. Over time, it appears that pay in the low-enforcement states outstrips pay in the high-enforcement states. *See id.*

In addition, Garmaise finds that strong enforcement of noncompete covenants also leads to more salary-based, as opposed to incentive-based, compensation, and lower pay increases for executives who change jobs. *See id.* at 402–07. He also finds that strong enforcement leads to longer job tenure and reduced mobility. *See id.* at 400, 413.

⁶⁴ *See id.* at 413–14. This a little more ambiguous than stated in the text. *See* On Amir & Orly Lobel, *Driving Performance: A Growth Theory of Noncompete Law*, 16 STAN. TECH. L. REV. 833, 846 (2013) (observing that covenants not to compete cause employees to perform less well and invest less in their own human capital).

surmise that business owners benefit from this propertization. On the other hand, it is possible that business owners end up no better off, or even worse off, because, for example, their workers perform less well when their mobility is restricted,⁶⁵ or because they lose out on the benefits of information spillovers.⁶⁶ But whether, as a result of propertization, the pie is bigger, smaller, or the same size, it seems likely business owners end up with a bigger piece relative to the workers.

II. Tax Subsidies of Propertization

The rise of a new form of capital—intellectual capital—illustrates how labor contributes to the creation or enhancement of capital and becomes embedded in capital. The conversion of labor into intellectual capital—its propertization—enables capital owners to capture a greater share of the economic gains derived from the combined efforts of labor and capital. This section shows how the tax law subsidizes propertization and thereby magnify the distributional effects of propertization as between capital owners and workers.

A. Deductions for Intellectual Capital

Capital owners two ways to acquire ownership of intellectual capital. First, they can acquire it from third parties by purchasing a specific asset such as a patent or by purchasing an ongoing business, thereby acquiring intellectual capital such as good will, workforce in place, and other types of organizational capital. The second way that capital owners acquire intellectual capital is to create it themselves. Self-created intellectual capital entails a variety of expenditures including computer software development, scientific research and development (R&D); nonscientific R&D such as development and design of products by the publishing, entertainment, and financial services industries; advertising and

⁶⁵ See Amirr & Lobel, *supra* note 64, at 863 (finding that individuals' quality of work declined when they were subject to restrictions their mobility).

⁶⁶ See Garmaise, *supra* note 47, at 411–12 (finding that enforcement of covenants to compete has no significant effect of firm value or profitability and theorizing that the positive spillovers from low enforceability may balance out the disadvantages at the individual firm level); Samila & Sorenson, *supra* note 47, at 436 (finding that noncompete covenants limit entrepreneurship and impedes innovation); Kenneth A. Younge, *Employee Mobility and the Appropriation of Value from Knowledge: Evidence from Three Essays 8* (2012) (unpublished Ph.D. dissertation, University of Colorado), available at <http://gradworks.umi.com/35/27/3527377.html> (finding that constraints on employee mobility initially boost firm value but that the effect is eventually undone as firms are harmed by the slower circulation of talent and ideas).

market research used to develop and maintain brands; workforce training and education; and organizational strategic planning.⁶⁷

Under the principle of capitalization, whose foundational importance the Supreme Court has affirmed in its jurisprudence, capital owners ought to capitalize expenditures they incur in acquiring or created intellectual capital. As the following discussion indicates, the treatment of intellectual capital acquired from third parties is consistent with this principle: capital owners must capitalize the acquisition costs. In contrast, the treatment of self-created intellectual capital contravenes the capitalization principle: capital owners can deduct almost all costs of self-created intellectual capital.⁶⁸

⁶⁷ This list of intellectual capital expenditures is based on Corrado, Hulten and Sichel's taxonomy of the various types of investments in intellectual capital. They identify three major areas of business investment in intellectual capital: (1) computerized information software, (2) innovative property (scientific and nonscientific research and development), and (3) economic competencies (brand-related investment such as advertising and organizational investments such as training and strategic planning). See Corrado et al., *Intangible Capital*, supra note 30, at 669–70; Corrado et al., *Measuring Capital and Technology*, supra note 30, at 22–29.

Of particular note is the expansive research and development (R&D) category, which includes nonscientific R&D—the development and design of products by the publishing, entertainment, and financial services industries—as well as scientific R&D, which includes work in the physical sciences, the biological sciences, and mineral exploration. See Corrado et al., *Intangible Capital*, supra note 30, at 670, 674; Corrado et al., *Measuring Capital and Technology*, supra note 30, at 24–28. Corrado, Hulten, and Sichel estimate that by the late 1990s, nonscientific R&D was at least as large as traditional scientific research. See Corrado et al., *Intangible Capital*, supra note 30, at 670; Corrado et al., *Measuring Capital and Technology*, supra note 30, at 26.

Also noteworthy is their expansive economic competencies category, which includes advertising and market research used to develop and maintain brands, costs of developing and launching new products and developing customer lists, workforce training and education, and organizational change and development. See Corrado et al., *Measuring Capital and Technology*, supra note 30, at 28–29; see also Corrado et al., *Intangible Capital*, supra note 30, at 670. They estimate that from 2000 to 2003, the most recent period for which they have data, total investment in economic competencies was nearly as large as the other two major categories combined. See Corrado et al., *Intangible Capital*, supra note 30, at 670.

⁶⁸ See generally Lily Kahng, *The Taxation of Intellectual Capital*, 66 FLA. L. REV. 2229 (2014).

Several tax scholars have analyzed and critiqued the taxation of intangibles, most notably Calvin Johnson. See Calvin H. Johnson, *First Do No Harm: The Senate Staff Discussion Draft on Cost Recovery*, 142 TAX NOTES 549 (2014) [hereinafter Johnson, *First Do No Harm*], available at <http://www.ssrn.com/abstract=2394912>; Calvin H. Johnson, *Extend the Life for Acquired Intangibles to 75 Years*, 135 TAX NOTES 1053, 1053–56 (2012), available at <http://www.ssrn.com/abstract=2070101>; Calvin H. Johnson, *Accurate and Honest Tax Accounting for Oil and Gas*, 125 TAX NOTES 573 (2009), available at <http://www.ssrn.com/abstract=1503574> (discussing the taxation of intangible drilling costs); Calvin H. Johnson, *Capitalize Costs of Software Development*, 124 TAX NOTES 603 (2009), available at <http://www.ssrn.com/abstract=1516809>; Calvin H. Johnson, *The Effective Tax Ratio and the Undertaxation of Intangibles*, 121 TAX NOTES 1289 (2008) [hereinafter Johnson, *Undertaxation of Intangibles*], available at <http://www.ssrn.com/abstract=1315477>; Calvin H. Johnson, *Destroying*

1. In Principle: The “Norm of Capitalization”⁶⁹

Tax law generally provides for the deduction or capitalization of business expenditures. I.R.C. § 162 allows businesses to deduct “all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business.”⁷⁰ I.R.C. § 263 provides that businesses cannot deduct capital expenditures—“amount[s] paid out for new buildings or for permanent improvements or betterments made to increase the value of any property or estate.”⁷¹

The idea that businesses should capitalize expenditures that produce future benefits is integral to the concept of income,⁷² and tax law has required this

the Tax Base: The Proposed INDOPCO Capitalization Regulations, 99 TAX NOTES 1381 (2003) [hereinafter Johnson, *Destroying the Tax Base*], available at <http://www.ssrn.com/abstract=412728>; Calvin H. Johnson, *Capitalization After the Government's Big Win in INDOPCO*, 63 TAX NOTES 1323 (1994) [hereinafter Johnson, *Big Win*], available at <http://www.utexas.edu/law/faculty/calvinjohnson/63tn1323.htm>; Calvin H. Johnson, *The Expenditures Incurred by the Target Corporation in an Acquisitive Reorganization Are Dividends to the Shareholders: (Pssst, Don't Tell the Supreme Court)*, 53 TAX NOTES 463, 478 (Oct. 28, 1991) [hereinafter Johnson, *Dividends*], available at <http://www.utexas.edu/law/faculty/calvinjohnson/acqreorg.htm>; see also Don Fullerton & Andrew B. Lyon, *Tax Neutrality and Intangible Capital*, in 2 TAX POLICY AND THE ECONOMY 63 (Lawrence H. Summers ed., 1988); Jane G. Gravelle & Jack Taylor, *Tax Neutrality and the Tax Treatment of Purchased Intangibles*, 45 NAT'L TAX J. 77 (1992); John W. Lee, *Transaction Costs Relating to Acquisition or Enhancement of Intangible Property: A Populist, Political, but Practical Perspective*, 22 VA. TAX REV. 273, 276–77, 311–20 (2002) [hereinafter Lee, *Transaction Costs*]; John Lee et al., *Restating Capitalization Standards and Rules: The Case for Rough Justice Regulations (Part One)*, 23 OHIO N.U. L. REV. 631 (1997) [hereinafter Lee et al., *Rough Justice (Part One)*]; John Lee et al., *Restating Capitalization Standards and Rules: The Case for Rough Justice Regulations (Part Two)*, 23 OHIO N.U. L. REV. 1483 (1997) [hereinafter Lee et al., *Rough Justice (Part Two)*]; George Mundstock, *Taxation of Business Intangible Capital*, 135 U. PA. L. REV. 1179 (1987); Xuan-Thao Nguyen & Jeffrey A. Maine, *Equity and Efficiency in Intellectual Property Taxation*, 76 BROOK. L. REV. 1 (2010); David A. Weisbach, *Measurement and Tax Depreciation Policy: The Case of Short-Term Intangibles*, 33 J. LEGAL STUD. 199 (2004); Ethan Yale, *The Final INDOPCO Regulations*, 105 TAX NOTES 435 (2004) [hereinafter Yale, *INDOPCO Regulations*]; Ethan Yale, *When Are Capitalization Exceptions Justified?*, 57 TAX L. REV. 549 (2004) [hereinafter Yale, *Capitalization Exceptions*]; Timothy E. Johns, Note, *Tax Treatment of the Costs of Internally Developed Intangible Assets*, 57 S. CAL. L. REV. 767 (1984); Glenn Walberg, Note, *Everything Old Is New Again: Reaching the Limits of INDOPCO's Future Benefits with the Just-in-Time Management Philosophy*, 38 WM. & MARY L. REV. 1257 (1997).

⁶⁹ INDOPCO, Inc. v. Comm'r, 503 U.S. 79, 84 (1992).

⁷⁰ I.R.C. § 162(a) (2012).

⁷¹ *Id.* § 263.

⁷² As Calvin Johnson states:

A strong law of capitalization is extraordinarily important to an income tax. Under the norms of an income tax, costs that constitute investments, generating

capitalization since its inception.⁷³ As the Supreme Court explained in *INDOPCO v. Commissioner*, capitalization “endeavors to match expenses with the revenues of the taxable period to which they are properly attributable, thereby resulting in a more accurate calculation of net income for tax purposes.”⁷⁴

The Court has interpreted the capitalization requirement of I.R.C. § 263 in a decidedly expansive manner, starting with the proposition that “deductions are exceptions to the norm of capitalization”⁷⁵ and are guided by the principle that “a taxpayer’s realization of benefits beyond the year in which the expenditure is incurred is undeniably important in determining whether the appropriate tax treatment is immediate deduction or capitalization.”⁷⁶

With respect to tangible property, the Court’s expansive view of capitalization reached its zenith in *Commissioner v. Idaho Power Co.*,⁷⁷ where the Court held that depreciation allowances for equipment used to construct new facilities were not deductible, but rather must be capitalized—that is, added to the basis of the new facilities.⁷⁸ Congress subsequently enacted I.R.C. § 263A, a far-

future income for the taxpayer, are capitalized and may not be deducted so long as the costs continue to generate income The thesis that expensing an investment, that is, deducting it immediately, is equivalent to exempting the subsequent income from the investment from tax, is one of the bulwarks of modern tax economics, but it is not generally known or appreciated within the tax law community.

Johnson, *Dividends*, *supra* note 68, at 478. For a comprehensive overview of capitalization in general, see Lee et al., *Rough Justice (Part One)*, *supra* note 68; see also Lee et al., *Rough Justice (Part Two)*, *supra* note 68.

⁷³ See I.R.C. § 263(a); *Woodward v. Comm’r*, 397 U.S. 572, 574–75 (1970).

⁷⁴ *INDOPCO*, 503 U.S. at 83–84 (citations omitted).

⁷⁵ *Id.* at 84.

⁷⁶ *Id.* at 87. See generally John W. Lee, *Transaction Costs Relating to Acquisition or Enhancement of Intangible Property: A Popular, Political, but Practical Perspective*, 22 VA. TAX REV. 273, 311–19 (2002) (analyzing Supreme Court capitalization jurisprudence).

As an example of the Court’s expansive interpretation of the capitalization principle, it has in several cases required capitalization of expenses such as legal fees that might be viewed as quintessentially deductible expenses. See, e.g., *INDOPCO*, 503 U.S. at 88–90 (holding that investment banking, legal, and accounting fees paid in connection with the taxpayer’s being acquired by another company were capital; creation or enhancement of a separate and distinct asset was not necessary); *Comm’r v. Lincoln Sav. & Loan Ass’n*, 403 U.S. 345, 347–49, 354 (1971) (concluding that mandatory premium payments made by bank to Federal Savings and Loan Insurance Corporation were capital, and created or enhanced a “separate and distinct additional asset” (i.e., rights in a secondary reserve fund), and were therefore, not ordinary); *Woodward*, 397 U.S. at 573–74, 579 (holding that legal, accounting, and appraisal expenses incurred in acquiring minority stock interest were capital); *United States v. Hilton Hotels Corp.*, 397 U.S. 580, 582–83, 585 (1970) (holding that legal, consulting, and other fees paid by acquiring firm in connection with minority appraisal rights were capital).

⁷⁷ 418 U.S. 1 (1974).

⁷⁸ See *id.* at 19.

reaching extension of *Idaho Power* that requires businesses to capitalize the direct and indirect costs of constructing or producing *tangible* property.⁷⁹

With respect to *intangible* property (which the tax law defines in a manner similar to intellectual capital as defined in this Article), the Court, in *INDOPCO*, further expanded its sweeping capitalization principle. In *INDOPCO*, the taxpayer, the National Starch Corporation, paid investment banking, legal, and accounting fees in connection with a merger in which Unilever acquired the stock of National Starch.⁸⁰ National Starch claimed the majority of these expenses as deductions under I.R.C. § 162; the government argued that the expenses were capital in nature.⁸¹

Rejecting the taxpayer's argument that a capital expenditure must relate to the acquisition or enhancement of a "separate and distinct asset", Court found that National Starch's expenses were capital, even though National Starch was the target of a takeover by Unilever and therefore, had not acquired anything.⁸² The Court reasoned that by becoming a subsidiary of Unilever, National Starch would realize long-term benefits in the form of synergies with Unilever product lines and customer bases, access to Unilever's R&D resources, and the elimination of separate reporting requirements and governance procedures.⁸³ In light of these long-term benefits, the Court held that National Starch's expenditures to facilitate the acquisition were capital.⁸⁴

INDOPCO established a strong capitalization principle for expenditures related to a broad conception of intellectual capital including brand and customer

⁷⁹ See Treas. Reg. §§ 1.263A-1 to -6 (2013). Due to a definitional divergence between "intangibles" and "intellectual capital" for tax purposes, certain types of intellectual capital are also subject to § 263A of the Internal Revenue Code. I.R.C. § 263A (2012). See *infra* notes ___ and accompanying text.

⁸⁰ *Id.* at 80–82.

⁸¹ See *id.* at 82.

⁸² See *id.* at 85–87 (internal quotations omitted). National Starch was the target of the acquisition and therefore did not itself acquire any asset. See *id.* at 80. The taxpayer's argument was based on the Court's prior decision in *Comm'r v. Lincoln Sav. & Loan Ass'n*, 403 U.S. 345, 347–49, 354 (1971).

⁸³ *Id.* at 88–89.

⁸⁴ *Id.* at 89–90. *INDOPCO* raised taxpayer concerns about the possibility of a greatly expanded capitalization requirement, but these have proved to be unfounded. See Joseph Bankman, *The Story of INDOPCO: What Went Wrong in the Capitalization v. Deduction Debate?*, in *TAX STORIES*, 238–45 (Paul L. Caron ed., 2d ed. 2009). Subsequent case law and regulatory guidance imposes a considerably diminished capitalization requirement. See *infra* notes and accompanying text; Bankman, *supra*, at 240–45.

enhancement, research capabilities, and corporate organization.⁸⁵ Indeed, in the aftermath of *INDOPCO*, many scholars and practitioners speculated that *INDOPCO* would vastly expand the capitalization requirement.⁸⁶ However, as discussed in the next Section, the speculation proved unfounded. On the contrary, the capitalization requirement has been nearly eliminated for self-created intellectual capital.

2. In Practice: “Deductibility as the Default Rule”⁸⁷

Consistent with *INDOPCO*, acquired intellectual capital must generally be capitalized under current law. However, the current law treatment of self-created intellectual capital defies the sweeping capitalization principle articulated by the Supreme Court in *INDOPCO*, and instead, most expenditures related to self-created intellectual capital are deductible.⁸⁸

a. Acquired Intellectual Capital⁸⁹

Where a business acquires intangible assets, as defined in I.R.C. § 197,⁹⁰ from a third party as part of a taxable acquisition of a larger business,⁹¹ the

⁸⁵ This broad conception of intellectual capital tracks closely with Corrado, Hulten, and Sichel's expansive taxonomy of intellectual capital investments. *See supra* note __ [discussing computer software, R&D and economic competencies]. The Court in effect held that National Starch's expenditures related to it being acquired by Unilever were capital enhancements to National Starch's goodwill. *See Johnson, Dividends, supra* note 68, at 466–67, 476.

⁸⁶ *See, e.g., Johnson, Big Win, supra* note 68, at 1332–38 (predicting capitalization of a variety of other previously deductible expenses including prepaid fees, business expansion costs, environmental cleanup costs, and remedial costs). Johnson is one of the few who wrote approvingly of *INDOPCO*'s expansive view of capitalization. *See, e.g., id.* at 1340–41. Many practitioners and lobbyists were highly critical of it. *See Bankman, supra* note_84, at 238–40 (describing the negative reactions to the decision).

⁸⁷ James L. Atkinson, *The Final INDOPCO Regulations: A Primer*, 56 TAX EXECUTIVE 222, 224 (2004).

⁸⁸ *See Bankman, supra* note 84, at 240–250 (describing subsequent judicial decisions on capitalization and the administrative response and concluding that the *INDOPCO* decision was a failure); Lee, *Transaction Costs, supra* note 68 (describing the audit and litigation challenges faced by the Internal Revenue Service (IRS) in attempting to implement a broad capitalization principle, the congressional and judicial resistance to such efforts, and the IRS's retreat).

⁸⁹ Tax law does not use the term “intellectual capital.” Rather, it uses “intangibles” and “intangible assets,” as defined in a variety of statutory provisions and regulations. There is a fair amount of overlap between these tax terms and intellectual capital as defined in this Article. The following discussion generally uses the tax terms “intangibles” and “intangible assets” interchangeably with the term “intellectual capital” and notes where the two terms diverge.

⁹⁰ The definition of intangibles under I.R.C. § 197 includes (but is not limited to): goodwill; going concern value; workforce in place; business books and records; operating systems or other information bases including customer lists; patents; copyrights; formulas; processes; designs; knowhow; customer-based intangibles; supplier-based intangibles; licenses; permits; other rights

purchaser capitalizes and amortizes most of those intangible assets ratably over fifteen years.⁹² Where intangible assets are purchased separately and not as part of a larger business, their treatment is quite varied. Some of them, such as customer lists, are subject to the fifteen-year amortization rule of I.R.C. § 197.⁹³ Others, such as patents and copyrights, are excluded from the fifteen-year amortization rule and instead are treated under other applicable tax laws.⁹⁴ For example, the acquirer of a patent amortizes its cost over the remaining legal life of the patent.⁹⁵

b. Self-Created Intellectual Capital

Under Treasury regulations issued in 2004—known as the *INDOPCO* regulations because they address many of the questions and uncertainties raised by that case—taxpayers may deduct most investments in self-created intellectual capital.⁹⁶ The *INDOPCO* regulations set forth an exclusive list of eight relatively

granted by a governmental unit; covenants not compete; franchises; trademarks; and trade names. I.R.C. § 197(d) (2012). Certain intangibles such as computer software, oil and gas exploration, and financial intangibles are excluded from the general treatment of intangibles under I.R.C. § 197, but they are still considered intangibles for other tax purposes. *See id.* § 197(e).

⁹¹ In general, an acquisition is taxable when cash or other property is the sole or primary consideration for the acquisition; an acquisition is tax free when equity of the acquiring party is the sole or primary consideration for the acquisition. *See* I.R.C. §§ 354, 368; Michael L. Schler, *Basic Tax Issues in Acquisition Transactions*, 116 PENN ST. L. REV. 879, 882 (2012). I.R.C. § 197 applies to taxable acquisitions (i.e., purchases) but not to tax-free acquisitions. *See* Jack S. Levin & Donald E. Rocap, *A Transactional Guide to New Code Section 197*, TAX NOTES, Oct. 1993, at 462. Where intangible assets are acquired in a tax-free acquisition, the acquiring party generally “steps into the shoes” of the selling party to determine treatment of the intangibles.⁹¹ *See* I.R.C. § 197(f)(2); Mark J. Silverman, *Purchase Price Allocation Rules: Sections 1060, 338, and 197*, STEPTOE & JOHNSON 1, 55 (2013), available at <http://www.steptoec.com/publications-1630.html>.

⁹² *See* I.R.C. §§ 197, 338, 1060. *See generally* MARTIN D. GINSBURG ET AL., *MERGERS, ACQUISITIONS AND BUYOUTS* ¶¶ 403.4.1.1–403.4.2 (2012); Levin & Rocap, *supra* note 91, at 461, 462; Michael L. Schler, *Basic Tax Issues in Acquisition Transactions*, 116 PENN ST. L. REV. 879, 887, 896 (2012); Silverman, *supra* note 91, at 41–43, 45–52.

Certain intangible assets are eligible for amortization over shorter time periods or outright deduction. *See* Levin & Rocap, *supra* note 91, at 463–66. For example, taxpayers amortize off the shelf computer software purchased as part of a business over three years rather than fifteen. *See* I.R.C. §§ 167(f), 197(e)(3). Taxpayers may deduct the cost of a franchise, trademark, or trade name where the purchase price is contingent on its use or productivity. *See id.* §§ 197(f)(4)(C), 1253(d)(1).

⁹³ *See* I.R.C. § 197(d)(1)(c)(iv); Levin & Rocap, *supra* note 91, at 466.

⁹⁴ *See* I.R.C. § 167(g); Treas. Reg. § 1.167(a)-3, -14; Nguyen & Maine, *supra* note 68, at 19–21.

⁹⁵ *See* Treas. Reg. § 1.167(a)-14(c).

⁹⁶ *See* Treas. Reg. § 1.263(a)-4 (2004). The regulations set forth an exclusive list of eight relatively narrow types of intangible assets whose development or creation costs are subject to capitalization: (1) financial interests such as stock, debt and other financial instruments, and annuities; (2) prepaid expenses such as prepaid insurance or rent; (3) membership or privileges such as a doctor's payment to a hospital for lifetime staff privileges; (4) payments to governments

narrow types of intangible assets whose development or creation costs businesses must capitalize.⁹⁷ Even though other self-created intangibles in theory might be subject to capitalization, in practice, the *INDOPCO* regulations permit taxpayers to deduct all other self-created intangibles “without hesitation.”⁹⁸ One commentator characterizes the *INDOPCO* regulations as a “reversal of the notion that ‘capitalization is the norm,’ with deductibility—at least in the context of created intangibles—now being the default rule.”⁹⁹ Another has suggested that a more apt name for the regulations is the “Anti-*INDOPCO* regulations.”¹⁰⁰

Both prior to and after the Supreme Court's decision in *INDOPCO*, an extensive body of case law and administrative guidance allowed deductions for many specific types of intellectual capital investments.¹⁰¹ For example, computer

for trademarks, copyrights, permits, licenses, and franchises; (5) contract rights to use or be compensated for the use of property, covenants not to compete, stand-still agreements, insurance policies, endowments, or annuities; (6) contract terminations; (7) amounts paid for real property where the taxpayer transfers ownership but retains significant economic benefits; and (8) defense or perfection of title of intangible property. See Treas. Reg. § 1.263(a)-4(d); Yale, *INDOPCO Regulations*, *supra* note 68 at 440; Johnson, *Destroying the Tax Base*, *supra* note 68, at 1382; Atkinson, *supra* note 87, at 229 (stating that the final *INDOPCO* regulations have made deductibility the norm for self-created intangibles).

⁹⁷ See Treas. Reg. § 1.263(a)-4(d) (2004). The regulations require capitalization for: (1) financial interests such as stock, debt and other financial instruments, and annuities; (2) prepaid expenses such as prepaid insurance or rent; (3) membership or privileges such as a doctor's payment to a hospital for lifetime staff privileges; (4) payments to governments for trademarks, copyrights, permits, licenses, and franchises; (5) contract rights to use or be compensated for the use of property, covenants not to compete, stand-still agreements, insurance policies, endowments, or annuities; (6) contract terminations; (7) amounts paid for real property where the taxpayer transfers ownership but retains significant economic benefits; and (8) defense or perfection of title of intangible property. See *id.*; Yale, *INDOPCO Regulations*, *supra* note 68, at 440. See generally Atkinson, *supra* note 87; Johnson, *Destroying the Tax Base*, *supra* note 68, at 1382.

Excluded from the scope of the *INDOPCO* regulations are two types of self-created intellectual capital. First, costs related to business acquisitions, restructuring, and recapitalizations must be capitalized in some cases. See Treas. Reg. § 1.263(a)-5 (2013); Atkinson, *supra* note 87, at 228–29; Silverman, *supra* note 91, at 62–64; Yale, *INDOPCO Regulations*, *supra* note 68 at 454–55. Second, costs of developing films, sound recordings, video, and books, which are subject to the more expansive capitalization rules applicable to tangible property. I.R.C. § 263A(a)–(b) (2012); *supra* note 79 and accompanying text. Writers, photographers and artists are exempt from these capitalization requirements. See I.R.C. § 263A(h).

⁹⁸ Yale, *INDOPCO Regulations*, *supra* note 68, at 437; see *id.* at 438 (speculating that the *INDOPCO* regulations might be invalid and be supplanted by the more expensive capitalization required under *INDOPCO* and other legal precedent but concluding that as a practical matter, taxpayers can rely on the regulations); see also Atkinson, *supra* note 87, at 224.

⁹⁹ Atkinson, *supra* note 87, at 229.

¹⁰⁰ See Yale, *INDOPCO Regulations*, *supra* note 68, at 436.

¹⁰¹ Although the *INDOPCO* regulations could be interpreted to preempt prior law relating to the capitalization of intangibles, they do not explicitly do so. Furthermore, there is the possibility that

software development costs are generally deductible,¹⁰² as are scientific R&D¹⁰³ and mineral exploration such as intangible drilling costs and mining exploration costs.¹⁰⁴ Several courts allowed financial services businesses to deduct market research related to new product development,¹⁰⁵ and one case upheld a bank's deduction for employee compensation and overhead attributable to loan origination.¹⁰⁶ Advertising is generally deductible,¹⁰⁷ as are employer-provided worker training costs.¹⁰⁸ The IRS ruled that businesses could deduct severance payments related to a corporate downsizing.¹⁰⁹ A federal appeals court held that a bank could deduct compensation, legal fees and investigatory fees paid in connection with its acquisition another bank.¹¹⁰ The IRS also ruled that a utility

the *INDOPCO* regulations might be invalid and supplanted other legal precedent. *See* Yale, *supra* note __, 15 438.

¹⁰² *See* Rev. Proc. 69-21, 1969-2 C.B. 303 (holding that the IRS will not challenge a taxpayer's decision to currently deduct costs attributable to software development), *superseded on other grounds* by Rev. Proc. 2000-50, 2000-1 C.B. 601, *modified in part* by Rev. Proc. 2007-16, 2007-1 C.B. 358.

¹⁰³ *See* I.R.C. § 174(a)(1).

¹⁰⁴ *See id.* §§ 263(c), 617.

¹⁰⁵ *See, e.g.,* NCNB Corp. v. United States, 684 F.2d 285, 294 (4th Cir. 1982). However, one case required a financial services business to capitalize market research where it related to a possible business expansion, i.e., the opening of a new branch. *See* Cent. Tex. Sav. & Loan Ass'n v. United States, 731 F.2d 1181, 1182, 1185 (5th Cir. 1984). This is consistent with the treatment of "start-up costs"—costs incurred before the taxpayer is actually engaged in a trade or business—which generally must be capitalized. *See* I.R.C. § 195(a). *See generally* John W. Lee, *Start-Up Costs, Section 195, and Clear Reflection of Income: A Tale of Talismans, Tacked-On Tax Reform, and a Touch of Basics*, 6 VA. TAX REV. 1 (1986) (providing an in-depth analysis of I.R.C. § 195, particularly the conflict between the definitional and functional tests for the capitalization of start-up business costs, as well as the judicial development and practical impact of the provision).

¹⁰⁶ *See* PNC Bancorp Inc. v. Comm'r, 212 F.3d 822, 824 (3d Cir. 2000). However, in another case, the court required a financial services business to capitalize employee compensation related to the acquisition of installment obligations. *See* Lychuk v. Comm'r, 116 T.C. 374, 375 (2001). The *INDOPCO* regulations require capitalization of costs related to the creation of financial intangibles such as loans, but because of the exceptions for employee compensation, overhead, and *de minimis* expenses, loan origination costs are generally not subject to capitalization under the regulations. *See* Treas. Reg. § 1.263(a)-4(e)(4) (2013).

¹⁰⁷ *See* Rev. Rul. 92-80, 1992-2 C.B. 7. There are some limited cases where capitalization of advertising expenses has been required. *See, e.g.,* Cleveland Elec. Illuminating Co. v. United States, 7 Cl. Ct. 220, 231–33 (1985) (requiring capitalization of advertising to defuse opposition to the taxpayer's application for a license to construct a nuclear plant where the expansion to nuclear power represented a new business).

¹⁰⁸ *See* Rev. Rul. 96-62, 1996-2 C.B. 9. A few cases have held that worker training costs had to be capitalized. *See, e.g.,* Cleveland Elec., 7 Cl. Ct. at 227–29 (holding that a utility's expansion from coal powered electricity to nuclear power was a new business, and therefore, costs related to it were capital).

¹⁰⁹ *See* Rev. Rul. 94-77, 1994-2 C.B. 19.

¹¹⁰ *Wells Fargo & Co. v. Comm'r*, 224 F.3d 874 (8th Cir. 2000).

company could deduct costs incurred to improve energy conservation and efficiency.¹¹¹

To summarize, notwithstanding the Supreme Court's decision in *INDOPCO*, which affirmed capitalization as a fundamental principle of income tax law and held that taxpayers must capitalize investments in intellectual capital, other provisions of the tax law allow capital owners to deduct almost all costs of self-created intellectual capital.

3. The Magnitude of the Subsidy for Intellectual Capital

The tax subsidy for self-created intellectual capital makes it less costly for capital owners to propertyize labor, which magnifies their ability to capture a greater share of the returns from their workers.¹¹² As Cary Brown demonstrated, a deduction for an investment is equivalent to a tax exemption on the income from that investment.¹¹³ Thus, the deduction for self-created intellectual capital effectively imposes a zero rate of tax on returns from this capital, providing a substantial subsidy to capital.¹¹⁴ The exact magnitude of the subsidy is difficult to ascertain. Self-created intellectual capital likely constitutes significant proportion of total investments in intellectual capital. Businesses can either purchase intellectual capital—computer software or a patent, for example—or create their own, and many businesses engage in a mix of these strategies. However, most organizational capital such as good will is self-created.¹¹⁵

¹¹¹ See Rev. Rul. 95-32, 1995-16 I.R.B. 8.

¹¹² It also results in misallocations of resources and inefficiencies. See Kahng, *supra* note __, at 2263-67; Johnson, *supra* note 27.

¹¹³ See E. Cary Brown, *Business-Income Taxation and Investment Incentives*, in *INCOME, EMPLOYMENT AND PUBLIC POLICY: ESSAYS IN HONOR OF ALVIN H. HANSEN* 300 (1948).

¹¹⁴ See Johnson, *Undertaxation of Intangibles*, *supra* note 68, at 1289-91; Weisbach, *supra* note 68, at 200 (“[T]ax law . . . allows an immediate deduction, effectively choosing not to tax the return to [intangible benefit] activities at all.”); Yale, *Capitalization Exceptions*, *supra* 68, at 555 (describing that misidentifying a capital cost as a deductible can cause over or under taxation).

Chris Sanchirico makes a similar observation about the deductibility of self-created goodwill, brand names, and other intangibles in his analysis of carried interest. See *infra* notes 157-158 and accompanying text.

¹¹⁵ I am indebted to Daniel Sichel for insights and information about the mix of acquired and self-created intellectual capital.

With respect to organizational capital, businesses do sometimes acquire it through the acquisition of an ongoing business. However, this is likely a small fraction of total organizational capital investments because only a small proportion of all companies change hands during a given time period. Experts estimate that mergers and acquisitions volume has averaged 6.5% of total global market capitalization over the last thirty years. See STEFANO GATTI & CARLO CHIARELLA, *M&A IN UNCERTAIN TIMES: IS THERE STILL VALUE IN GROWING?* 1 (2013), available at <http://www.goldmansachs.com/our-thinking/archive/bocconi-conference-2013/bocconi-report.pdf>.

To provide a sense of the magnitude of the tax subsidy for self-created intellectual capital, economists estimate that the BEA, in its measures of economic productivity, expenses, rather than capitalizes, \$1 trillion or more of yearly investments in intellectual capital.¹¹⁶ Assuming a comparably large amount is deducted for tax purposes, the subsidy is substantial. Another indication of the magnitude of the subsidy: In 2014, the Finance Committee and House Ways & Means Committee proposed to require capitalization of just two types of costs—scientific R&D and advertising—and estimated that such a change would raise \$362 billion in tax revenues over ten years.¹¹⁷ Because these two types of costs comprise only a fraction of all intellectual capital investments, a more comprehensive capitalization requirement for self-created intangibles would increase tax revenues by several times that estimate.¹¹⁸

B. Human Capital Investments

Scholars such as Katherine Stone argue that employers, by controlling their workers through restrictive covenants and other legal mechanisms, in effect acquire ownership of human capital.¹¹⁹ These scholars acknowledge this claim is somewhat metaphorical because except for the case of slavery, human capital, unlike other forms of capital, is not entirely marketable and controllable.¹²⁰ As Gary Becker states, “you cannot separate a person from his knowledge, skills,

¹¹⁶ See *supra* note __ and accompanying text.

¹¹⁷ See U.S. S. COMM. ON FINANCE, 113TH CONG., SUMMARY OF STAFF DISCUSSION DRAFT: COST RECOVERY AND ACCOUNTING 8 (2013) [hereinafter U.S. S. COMM. ON FINANCE, COST RECOVERY]; Tax Reform Act of 2014, 113th Cong. § 3108 (Discussion Draft 2014) 55-56 [hereinafter Tax Reform Act of 2014 Discussion Draft], available at http://waysandmeans.house.gov/uploadedfiles/statutory_text_tax_reform_act_of_2014_discussion_draft__022614.pdf (proposing to capitalize and amortize over five years R&D and 50% of advertising).

¹¹⁸ Economists estimate scientific R&D to comprise less than one-fifth of all investments in intellectual capital. See Corrado et al., *Intangible Capital*, *supra* note 30, at 671 tbl.1. For the years 2000–2003, they estimate total annual investment in intellectual capital to be \$1.226 trillion and scientific R&D to be \$230.5 billion. *Id.*

¹¹⁹ See Stone, *supra* note 41; Joellen Riley, *Who Owns Human Capital? A Critical Appraisal of Legal Techniques for Capturing the Value of Work*, 18 J. AUSTRAL. LABOUR L. 1, 24 (2005) (describing the term “human capital” as a “colourful metaphor for the contribution that people’s work and talent make to commercial enterprise”). But see PIKETTY, *supra* note 9, at 223 (questioning whether human capital is illusory).

¹²⁰ See Riley, *supra* note 119, at 24.

health, or values the way it is possible to move financial and physical assets while the owner stays put.”¹²¹

Metaphor or not, what is literally true is that business owners make human capital investments in their workers¹²² and treat them as valuable, albeit intractable, assets.¹²³ As discussed above, they are particularly inclined to make

¹²¹ GARY S. BECKER, *HUMAN CAPITAL: A THEORETICAL AND EMPIRICAL ANALYSIS WITH SPECIAL REFERENCE TO EDUCATION* 16 (3rd ed. 1993).

¹²² Intellectual capital and human capital are closely related but not coterminous. Broadly speaking, human capital refers to resources in people or human capabilities that produce future monetary and psychic income. See GARY S. BECKER, *HUMAN CAPITAL: A THEORETICAL AND EMPIRICAL ANALYSIS WITH SPECIAL REFERENCE TO EDUCATION* 11, 15–16 (3d ed. 1993). Intellectual capital focuses on businesses' investment in and production of intangible sources of future value, which often require a high proportion of labor inputs. Human capital focuses on an individual's capabilities to produce future value. Both capital owners can make human capital investments in their workers—training, for example—and workers can also make human capital investments in themselves. Investment in human capital include formal education, on-the-job training, healthcare, and migration. Theodore W. Schultz, *Investment in Human Capital*, 51 AM. ECON. REV. 1, 9–13 (1961). But see PIKETTY, *supra* note 9, at 223 (questioning whether human capital is illusory).

Scholars typically measure returns to human capital by reference to individuals' increased income resulting from investments in education, healthcare, and the like. See generally BECKER, *supra* note 121, at 147–200 (providing an empirical analysis of the effect of college education on earnings and productivity); Dale W. Jorgenson & Barbara M. Fraumeni, *The Accumulation of Human and Nonhuman Capital, 1948–84*, in *THE MEASUREMENT OF SAVING, INVESTMENT, AND WEALTH* 227 (Robert E. Lipsey & Helen Stone Tice eds., 1989) (estimating, *inter alia*, the effect of education on lifetime labor income); Luca Benzoni & Olena Chyruk, *The Value and Risk of Human Capital*, 7 ANN. REV. FIN. ECON. 179 (2015) (surveying the theoretical and empirical approaches to valuing human capital).

¹²³ See BECKER, *supra* note 121, at 20–21; Rita Almeida & Pedro Carneiro, *The Return to Firm Investments in Human Capital*, 16 LABOUR ECON. 97 (2009). As Mousumi Battacharya and Patrick Wright state, in describing the challenges of managing what they call “human capital assets”:

[H]uman capital is different from other real assets in a few ways. First, human capital is almost entirely intangible and is difficult to quantify. . . . Second, unlike other forms of asset, a firm never fully ‘owns’ its human capital. The knowledge, skills, and abilities reside in the people, and are lost when people leave the firm. Therefore there is a unique risk associated with human capital, the risk of capital loss or turnover (i.e., the asset “walking away”) Third, non-financial investments like time, communication, and leadership constitute a major part of investments that generate returns from human capital through eliciting commitment and competency of employees over the long run. These combined with the fact that human capital is almost never tradable in the market, makes management of this form of asset a more difficult task.

human capital investments in their workers when propertization enables them to capture the return on these investments.¹²⁴ Workers similarly make human capital investments in themselves, although, as discussed above, they are less likely to do so when the returns are likely to redound to the benefit of their employers.¹²⁵

The tax law treats human capital investments very differently depending on who makes the investments, as Mary Louise Fellows and I have argued.¹²⁶ When capital owners make investments in human capital and otherwise incur human-capital related expenses in their production of income, the law recognizes these are legitimate costs of economic production and allows them to be offset in the computation of taxable income.¹²⁷ In contrast, when workers make the same investments and incur the same expenses in their production of income, the law either treats these costs as entirely personal expenses or otherwise limits the ability of workers to offset them against taxable income. In this way, the tax law undertaxes capital owners and overtaxes workers.¹²⁸

Education is the most important example of the disparate treatment of business owners and workers' investments in human capital. Gary Becker cites education and training as "the most important investments in human capital."¹²⁹

Mousumi Battacharya & Patrick M. Wright, *Options for Human Capital Acquisition*, in *THE ROUTLEDGE COMPANION TO STRATEGIC HUMAN RESOURCES MANAGEMENT* (John Storey et al. eds., 2008).

¹²⁴ See Garmaise, *supra* note 47, at 413-14 (finding that employers invest more in their employees' human capital when they can restrict their employees' mobility through the use of covenants not to compete).

¹²⁵ See *id.* (finding that employees invest less in their own human capital when they are bound to their employers by restrictive covenants).

¹²⁶ See Mary Louise Fellows & Lily Kahng, *Costly Mistakes: Undertaxed Business Owners and Overtaxed Workers*, 81 *GEO. WASH. L. REV.* 329 (2013).

¹²⁷ See *id.* at 370-80.

¹²⁸ See *id.*

¹²⁹ Gary Becker cites education and training as "the most important investments in human capital." BECKER, *supra* note 121, at 17; see also PIKETTY, *supra* note 9, at 306-07.

Education unquestionably contributes to workers' productivity. See Sandra E. Black & Lisa M. Lynch, *Human Capital Investment and Productivity*, 86 *AM. ECON. REV.* 263 (1996). Economists and policy makers perennially bemoan the future of the under-educated U.S. workforce and call for more government investment in education, particularly in light of the economy's shift from manufacturing to services and technology. See DALE NEEF, *THE KNOWLEDGE ECONOMY* (1997); ROBERT REICH, *THE WORK OF NATIONS: PREPARING OURSELVES FOR 21ST CENTURY CAPITALISM* (1992); Walter W. Powell & Kaisa Snellman, *The Knowledge Economy*, 30 *ANN. REV. SOC.* 199, 199-201 (2004); Task Force on the Future of American Innovation, *The Knowledge Economy: Is the United States Losing its Competitive Edge?* (Feb. 16, 2005), <http://futureofinnovation.org/PDF/Benchmarks.pdf>; JOSEPH E. STIGLITZ, *PUBLIC POLICY FOR KNOWLEDGE ECONOMY* (1999), available at [28](http://akgul.bilkent.edu.tr/BT-BE/knowledge-</p></div><div data-bbox=)

Yet, from the earliest days of the income tax, the courts and IRS have treated workers' educational expenses as personal expenses.¹³⁰ The IRS acknowledges that education might be a human capital investment, but allows no deduction or capitalization of educational expenses because they are "an inseparable aggregate of personal and capital expenditures."¹³¹ In contrast, business owners'

economy.pdf. Another metric demonstrating the income-producing value of education is the link between higher educational levels and higher incomes. For example, in 2010, those with a college degree earned about sixty-six percent more than those with a high school degree; those with a professional or doctoral degree earned more than two and a half times the amount earned by high school degree holders. U. S. DEP'T. OF LABOR, BUREAU OF LABOR STATISTICS, EMPLOYMENT PROJECTIONS, EDUCATION PAYS (2011), available at http://www.bls.gov/emp/ep_chart_001.htm. The correlation between levels of education and income is strong and persistent. See Stuart Lazar, *Schooling Congress: The Current Landscape of the Tax Treatment of Higher Education Expenses and a Framework for Reform*, 2010 MICH. ST. L. REV. 1047, 1049–51 (2010); SANDY BAUM ET AL., COLLEGE BOARD ADVOCACY AND POLICY CENTER, EDUCATION PAYS 2010: THE BENEFITS OF HIGHER EDUCATION FOR INDIVIDUALS AND SOCIETY 11–17 (2010), available at <http://trends.collegeboard.org/downloads/EducationPays2010.pdf>.

¹³⁰ See, e.g., I.T. 1520 I-2 C.B. 145 (1922), *revoked by* I.T. 2688, XII-1 C.B. 250 (1933) (holding that research expenses by a college professor were personal, nondeductible expenses); Appeal of Driscoll, 4 B.T.A. 1008 (1926) (holding that voice lessons in preparation for a professional singing career were personal). For a detailed account of the history of the tax treatment of educational expenses, see Jay Katz, *The Deductibility of Education Costs: Why Does Congress Allow the IRS to Take Your Education So Personally?*, 17 VA. TAX REV. 1, 17-37 (1997); Lazar, *supra* note 110, at 1057–68; James L. Musselman, *Federal Income Tax Deductibility of Higher Education Costs: The Good, the Bad and the Ugly*, 35 CAP. U. L. REV. 923, 927–34 (2007).

¹³¹ Treas. Reg. § 1.162-5(b)(1) (as amended in 1967); see Lazar, *supra* note 111, at 1059, 1072.

Only under limited circumstances is a worker allowed to deduct higher educational expenses—(1) the education must maintain or improve her skills in her trade or business or (2) it must be required by her employer or by law. In any case, the education acquired cannot be necessary to meet the minimum qualifications for the worker's trade or business and it cannot qualify the worker for a new trade or business. Treas. Reg. § 1.162-5 (as amended in 1967).

In addition to this limited I.R.C. § 162 deduction for the costs of higher education, the tax law provides several tax preferences for education, including the I.R.C. § 25A American Opportunity Credit and Lifetime Learning Credit, the I.R.C. § 221 deduction for educational loan interest, the I.R.C. § 527 exclusion for employer-provided educational assistance, the I.R.C. § 529 exclusion for qualified tuition programs, and the I.R.C. § 530 exclusion for "Coverdell" education savings accounts. For a complete list of tax preferences for education, see Lazar, *supra* note __, at 1074–1107. However, all of these provisions are classified as tax expenditures—that is, preferences that purposely reduce tax liability below "normal" levels in order to advance social policy goals—rather than as legitimate costs of producing income under the Schanz-Haig-Simons definition of income. See U.S. CONG., J. COMM. ON TAXATION, ESTIMATES OF FEDERAL TAX EXPENDITURES FOR FISCAL YEARS 2011–2015, at 10, 12, 13, 14 (2012).

Many scholars have criticized the current law treatment of educational expenses and have argued that they ought to be at least partially deductible or capitalized and recoverable in future years in order to measure income from labor accurately. See, e.g., David S. Davenport, *Education and Human Capital: Pursuing an Ideal Income Tax and a Sensible Tax Policy*, 42 CASE W. L. REV. 793 (1992); Katz, *supra* note 130; Lazar, *supra* note 130; Michael Simkovic, *The Knowledge*

expenditures for worker training or education are usually deductible immediately as I.R.C. § 162 trade or business expenses. At worst, business owners may have to capitalize these expenditures and amortize them over some period of years.¹³²

As with education, the tax law characterizes as purely personal many other expenditures that are in part human capital investments or costs related to workers' production of income. For example, two other major categories of expenditures that are integral to workers' productivity are health care and child care costs. As with education, both of these suffer from having personal and social dimensions that do not fit comfortably within the business model of economic productivity. Because businesses do not literally own human capital, absent slavery, they do not incur child care and medical expenses in the production of income.¹³³ Workers' childcare expenses are viewed as personal because it is a personal decision whether to have children. Workers are eligible for a modest credit for childcare expenses or can exclude from income a relatively small value of employer-provided childcare.¹³⁴ Congress treats these provisions as special tax preferences for personal expenses, as opposed to allowances that account for legitimate costs in the production of income.¹³⁵ Similarly, Congress

Tax, 82 U. CHI. L. REV. 1981 (2015). *But see* Joseph M. Dodge, *Taxing Human Capital Acquisition Costs—Or Why Costs of Higher Education Should Not Be Deducted or Amortized*, 54 OHIO ST. L.J. 927 (1993).

¹³² See *supra* note 108 and accompanying text.

¹³³ It's interesting to contemplate how the tax law would tax slave owners if legal slavery existed today. There is little historic guidance because in pre-Civil War era, slave owners paid primarily property and excise taxes on their slaves. *See generally* ROBIN EINHORN, *AMERICA TAXATION, AMERICAN SLAVERY* (2008); Joel S. Newman, *Slave Tax as Sin Tax: 18th and 19th Century Perspectives*, TAX NOTES, Nov. 21, 2003. States that had income taxes, such as Virginia, exempted slave owners from tax. *See* CHARLES NORDHOFF, *AMERICA FOR FREE WORKING MEN!* 14–16 (1865). However, there is evidence that slave owners considered their slaves to be valuable investments and kept meticulous records of their value and productivity. *See* Caitlin Rosenthal, *From Slavery to Scientific Management: Capitalism and Control in America, 1754-1911*, in *SLAVERY'S CAPITALISM* (forthcoming) (finding that slave owners kept highly detailed records of the value and productivity of slaves and depreciated them over time, foreshadowing modern management practices). If one imagines the unimaginable—a world in which slavery existed legally in the United States today—it seems quite plausible that slave owners would be allowed to deduct or capitalize costs of providing shelter, training, healthcare, food, and childcare to their slaves, expenses that are all disallowed as personal expenses when free workers incur them.

¹³⁴ See I.R.C. §§ 21 (2012) (childcare credit); I.R.C. § 129 (exclusion for employer provided child care).

¹³⁵ See U.S. CONG., J. COMM. ON TAXATION, *ESTIMATES OF FEDERAL TAX EXPENDITURES FOR FISCAL YEARS 2011-2015*, at 14 (2012) (listing the child care credit and exclusion for employer-provided child care as tax expenditures).

Many scholars have criticized the tax law's treatment of child care expenses and posited that they ought to be at least partially deductible under a Schanz-Haig-Simons definition of income. *See, e.g.*, Grace Blumberg, *Sexism in the Code: A Comparative Study of Income Taxation*

allows workers to deduct medical expenses and provides additional special tax preferences related to healthcare, but in all cases, characterizes health care expenditures as personal, and not investments in human capital.¹³⁶

In addition to education, child care, and health care, workers incur a variety of expenditures related to their work, outlays for commuting, clothing, and food and lodging, to name a few noteworthy examples. These are often described as “mixed personal and business” expenses, which reflects the reality that they have an element of consumption but are also connected to the worker’s trade or business.¹³⁷ Yet the tax law generally treats these outlays as purely personal. The

of Working Wives and Mothers, 21 BUFF. L. REV. 49 (1971); Mary Louise Fellows, *Rocking the Tax Code: A Case Study of Employment-Related Childcare Expenditures*, 10 YALE J.L. & FEMMINISM 307 (1998); Mary L. Heen, *Welfare Reform, Child Care Costs, and Taxes: Delivering Increased Work-Related Child Care Benefits to Low-Income Families*, 13 YALE L. & POLY REV. 173 (1995); Alan J. Samansky, *Childcare Expenses and the Income Tax*, 50 FLA. L. REV. 245 (1998); Staudt, *supra* note 125; Lawrence Zelenak, *Children and the Income Tax*, 49 TAX L. REV. 349 (1994). *But see* Tsilly Dagan, *Ordinary People, Necessary Choices: A Comparative Study of Childcare Choices*, 11 THEORETICAL INQ. L. 589 (2010) (arguing that the Schanz-Haig-Simons definition is incapable of adequately reflecting outlays, such as child care, and advocating for the adoption of additional norms into the definition of income).

¹³⁶ Medical expenses are deductible under I.R.C. § 213, but are classified as personal deductions rather than costs related to the production of income. *See* STAFF OF J. COMM. ON TAXATION, 99TH CONG., GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1986, at 50 (Comm. Print 1987) (stating that “medical expenses essentially are personal expenses and thus, like food, clothing, and other expenditures of living and other consumption expenditures, generally should not be deductible in measuring taxable income”). In addition, the medical expense deduction has always been limited by a significant “floor” tied to adjusted gross income—that is, a taxpayer can deduct only those medical expenses in excess of a percentage (currently 10 percent) of her adjusted gross income. *See* I.R.C. § 213(a). In addition, the medical expense deduction a “below-the-line,” so only those taxpayers who itemize their deductions can deduct any of their medical expenses. I.R.C. § 62(a)(1).

In addition to I.R.C. § 213, there are other tax provisions related to health care. The law excludes from income employer-provided health insurance. I.R.C. § 106. It also excludes from income medical expenses paid from Flexible Spending Accounts, I.R.C. § 125, and Health Reimbursement Accounts, I.R.C. §§ 105, 106. In addition, I.R.C. § 106 provides for tax deferred treatment of amounts invested in Medical Savings Accounts. As is true for tax provisions on education and child care, all of these health care provisions are treated as tax expenditures. *See* U.S. CONG., J. COMM. ON TAXATION, ESTIMATES OF FEDERAL TAX EXPENDITURES FOR FISCAL YEARS 2011-2015, 42 (2012) (listing the medical expense deduction, employer-paid health insurance, medical savings accounts, and other related items as tax expenditures).

¹³⁷ *See, e.g.*, Thomas D. Griffith, *Efficient Taxation of Mixed Personal and Business Expenses*, 41 UCLA L. REV. 1769, 1770 (1994). In measuring poverty, the National Academy of Sciences recommended that work-related expenses such as commuting, child care, and the purchase of tools and uniforms, be treated as nondiscretionary expenses and subtracted from resources. *See* MEASURING POVERTY: A NEW APPROACH 5 (Constance F. Citro & Robert T. Michael, eds., 1995). In 2011, an interagency task force including the U.S. Census Bureau, the Bureau of Labor

cost of commuting, for example, has long been held to be nondeductible on the grounds that it is the taxpayer's personal choice whether, and how far, to live from his place of work.¹³⁸ Similarly, clothing is considered a purely personal expense except in rare instances, even when such clothing is required as condition of employment and is worn exclusively at work.¹³⁹ Food and lodging expenses are treated as nondeductible personal expenses except in limited circumstances.¹⁴⁰

With respect to mixed personal and business expenses, business owners enjoy a greater ability than workers to deduct their costs of producing income under section 162. For example, business owners can deduct business-related travel, lodging and meal expenses paid on behalf of their workers, and these amounts are also fully excluded from the income of their workers.¹⁴¹ In contrast, when workers incur their own business-related travel, lodging and meal expenses, the expenses are more likely to be treated as personal, nondeductible expenses.¹⁴² Furthermore, even if the expenses qualify as business-related deductions, there are structural limitations such as the two percent floor that limit workers' ability to make use of these deductions.¹⁴³

In sum, the tax law, by allowing capital owners to deduct the costs of self-created intellectual capital, subsidizes the propertization of labor and enhances capital owners' ability appropriate a greater share of the return at the expense of their workers share. In addition, the tax law's disparate treatment of capital owners' and workers' human capital investments adds to capital owners' tax advantages

Statistics, the Council of Economic Advisers, U.S. Department of Health and Human Services, and the Office of Management and Budget adopted this recommendation. See KATHLEEN S. SHORT, U.S. CENSUS BUREAU CURRENT POPULATION REPORTS, THE RESEARCH SUPPLEMENTAL POVERTY MEASURE: 2010, at 21 (2011), http://www.census.gov/hhes/povmeas/methodology/supplemental/research/Short_ResearchSPM2010.pdf

¹³⁸ *Comm'r v. Flowers*, 326 U.S. 465 (1946). See generally Tsilly Dagan, *Commuting*, 26 VA. TAX REV. 185 (2006); William A. Klein, *Income Taxation and Commuting Expenses: Tax Policy and the Need for Nonsimplistic Analysis of "Simple" Problems*, 54 CORNELL L. REV. 871 (1969).

¹³⁹ *Pevsner v. Comm'r*, 628 F.2d 467 (5th Cir. 1980). Clothing expenses are deductible only if the clothing is worn exclusively at work, as a condition of employment, and is not adaptable for general usage as ordinary clothing. *Id.* at 262.

¹⁴⁰ See I.R.C. § 119 (providing an exclusion from income for meals and lodging provided to an employee by the employer "for the convenience of the employer"); I.R.C. § 162(a)(2) (allowing deduction for food and lodging "while away from home in pursuit of a trade or business"); *infra* notes 144–66 and accompanying text for a more detailed discussion of meals.

¹⁴¹ See Fellows & Kahng, *supra* note 126, at 372–76.

¹⁴² See *id.*

¹⁴³ See *id.* at 370–72.

relative to workers.¹⁴⁵ In these heretofore unexamined ways, the tax law puts a heavy thumb on the scale in favor of capital owners; a scale, as Piketty has shown, that already tilts in their favor.

III. Reconsidering the Boundary between Labor and Capital

A. A Porous and Changeable Boundary

The foregoing analysis of intellectual capital describes changes in intellectual property law, contract law and employment law that are expanding the ability of capital owners to propertize labor inputs into the creation of intellectual capital. It shows how the boundary between labor and capital is shifting as a result of the evolving legal landscape, and illustrates that the boundary is not fixed and immutable, but instead porous and changeable.¹⁴⁶ This Part explores the tax implications of a boundary of this nature.

The boundary between labor and capital has been extensively analyzed in the scholarly debate about “carried interest”—the profits interest received by a private equity fund manager as compensation for managerial services.¹⁴⁷ Under

¹⁴⁵ These subsidies for capital owners also result in misallocations of resources and inefficiencies. See Fellows & Kahng, *supra* note 126, at 380–87; Johnson, *supra* note 27; Kahng, *supra* note 68, at 2263–67.

¹⁴⁶ See Bankman & Shaviro, *supra* note 10, at 458 (observing that “‘labor’ and ‘capital’ are not nearly as distinct, economically or socially, as [Piketty] may appear to suggest”); Victor Fleischer, *Job Creationism*, FORDHAM L. REV. (forthcoming) (unpublished manuscript reference 6, 10) (referring to a blurring of the distinction between income from labor income from capital in his analysis of what he calls “alpha income”, that is, carried interest, founders stock, and equity-based executive compensation). In contrast, Piketty believes the distinction between capital income and labor income is becoming sharper: “[T]he growing sophistication of capital markets and financial intermediation tends to separate owners from managers more and more and thus to sharpen the distinction between pure capital income and labor income.” PIKETTY, *supra* note 9, at 424.

¹⁴⁷ See Bradley T. Borden, *Profits-Only Partnership Interests*, 74 BROOK. L. REV. 1283 (2009); Victor Fleischer, *Two and Twenty: Taxing Partnership Profits in Private Equity Funds*, 83 N.Y.U. L. REV. 1 (2008); Chris William Sanchirico, *The Tax Advantage to Paying Private Equity Fund Managers with Profits Interests: What Is It? Why Is It Bad?* 75 U. CHI. L. REV. 1071 (2008) [hereinafter Sanchirico, *Tax Advantage*]; Chris William Sanchirico, *Taxing Carry: The Problematic Analogy to ‘Sweat Equity’*, 117 TAX NOTES 239 (2007) [hereinafter Sanchirico, *Taxing Carry*]; Gregg D. Polsky, *Private Equity Management Fee Conversion*, 122 TAX NOTES 743 (2009); Adam H. Rosenzweig, *Not All Carried Interests are Created Equal*, 29 NW. J. INT’L L. & BUS. 713 (2009); David A. Weisbach, *The Taxation of Carried Interests in Private Equity*, 94 VA. L. REV. 715 (2008); see also Laura Cunningham, *Taxing Partnership Interests Exchanged for Services*, 47 TAX L. REV. 247 (1991); Mark P. Gergen, *Pooling or Exchange: The Taxation of Joint Ventures Between Labor and Capital*, 44 TAX. L. REV. 519 (1989) [hereinafter Gergen, *Pooling*]; Mark P. Gergen, *Reforming Subchapter K: Compensating Service Partners*, 48 TAX L.

the partnership tax rules, the fund manager includes the profits interest in income in the future as the fund realizes those profits, and the character of those profits—usually capital gain—flows through to the fund managers. The debate about this result focuses on two questions: (1) whether fund managers should be taxed immediately upon receipt of the profits interest, rather than being able to defer the tax until the fund realizes profits;¹⁴⁸ and (2) whether all or a portion of the income should be taxed as ordinary income, like most other compensation income, rather than as capital gain.

This second question relates to the demarcation between income from labor and income from capital.¹⁵¹ Critics of the current law tax treatment of carried interest argue that some or all of the service partner's income represents

REV. 69 (1992) [hereinafter Gergen, *Service Partners*]; Henry Ordower, *Taxing Service Partners to Achieve Horizontal Equity*, 46 TAX LAW. 19 (1992); Leo L. Schmolka, *Taxing Partnership Interests Exchanged for Services: Let Diamond/Campbell Quietly Die*, 47 TAX L. REV. 287 (1991).

¹⁴⁸ The first question relates primarily to determining the cost of the labor inputs provided by a service partner whose compensation takes the form of a profits interest that is speculative and illiquid. See Fleischer, *supra* note 147, at 31 (“[T]he strongest argument for deferral is the difficulty of measuring a partner's income on an accrual basis. This argument is especially strong in the context of venture capital and private equity funds, where the underlying investments are illiquid.”)

Beyond the specific situation of carried interest, determining the cost of labor inputs is often difficult, especially for intellectual capital. This difficulty is addressed in the extensive literature devoted to “knowledge management,” that is how businesses can best account for and deploy their human capital assets. See generally THOMAS H. DAVENPORT & LAURENCE PRUSAK, *WORKING KNOWLEDGE: HOW ORGANIZATIONS MANAGE WHAT THEY KNOW* (1998); IKUJIRO NONAKA & HIROTAKA TAKEUCHI, *THE KNOWLEDGE-CREATING COMPANY: HOW JAPANESE COMPANIES CREATE THE DYNAMICS OF INNOVATION* (1995); SVEIBY, *supra* note 36. The vast literature on intellectual capital and knowledge management is evidenced by several journals dedicated to the subject, including the *Journal of Intellectual Capital*, the *Journal of Knowledge Management*, and *Knowledge and Process Management*. In addition, there are innumerable books, articles, and reports on the subject.

For example, the creation of a new inventory system might involve the efforts of many different employees whose work effort is spread among many tasks and projects. It might also include investing in new computer software and hardware. It would be difficult to determine how much of each worker's labor should be allocated to the creation of the new inventory system. However, the difference between the carried interest situation and this example is that there is no need to allocate an employee's salary among the assets she helps to create or enhance in order to determine the amount of compensation she receives, assuming she is paid in cash.

¹⁵¹ This question also arises in connection with so-called entrepreneurial income—that is, income of a sole proprietor who contributes both labor and capital to her business. Piketty gives the example of a radiologist, whose income derives from both her labor and the equipment she uses. See PIKETTY, *supra* note 9, at 204; see also Kleinbard, *supra* note 8. However, according to Piketty, entrepreneurial income accounts for a very small proportion of income—one to two percent. See PIKETTY, *supra* note 9, at 204.

compensation for services and as such, should be taxed as ordinary income.¹⁵² In response, other scholars have pointed out that the tax system often allows such a conversion of labor income into capital gain, specifically in the case of so-called sweat equity.¹⁵³ Sweat equity arises when an individual provides labor to his own business, drawing no salary or a below-market salary. If he ultimately sells the business, he will in many cases realize a capital gain, thereby converting his foregone salary, which would have been taxed as ordinary income, into capital gain.¹⁵⁴ Examples of sweat equity often involve sole proprietors such as grocers or dry cleaners, but as David Weisbach points out, Bill Gates is an owner of sweat equity: his fortune is attributable to services he performed for Microsoft, but most of his earnings will be taxed as capital gains.¹⁵⁵ In light of this widespread ability to convert self-supplied labor into capital gain, Weisbach argues, it is irrational to single out carried interest as objectionable.¹⁵⁶

It is beyond the scope of this Article to undertake a full analysis of the carried interest debate. Rather, the Article extends the debate's insights about how self-supplied labor is converted into capital gain beyond the limited situation of self-supplied labor. More broadly, as the discussion of intellectual capital shows, capital owners convert other people's labor—that of their workers—into capital through the process of propertization. Furthermore, the tax law subsidizes this process by allowing capital owners to deduct the costs of creating intellectual capital.

Chris Sanchirico makes this same observation about this broader phenomenon of the conversion of labor into capital gain in his analysis of carried interest. He argues that it is fruitless to analogize carried interest to sweat equity on the grounds that both allow for the tax-advantaged conversion of labor income into capital gain. It is fruitless, he argues, because virtually everyone enjoys this tax-advantaged conversion of labor into capital gain, even capital owners who do

¹⁵² See Fleischer, *supra* note 147, at 37; Gergen, *Service Partners*, *supra* note 147, at 103–11.

¹⁵³ See Fleischer, *supra* note 147, at 28; Weisbach, *supra* note 147, at 744.

¹⁵⁴ See Fleischer, *supra* note 147, at 35–36.

¹⁵⁵ Weisbach, *supra* note 147, at 744 n.70. Weisbach identifies two factors that determine when labor income will be converted into capital gain: “First, the more entrepreneurial the activity, the more likely the treatment will be capital. Second, the more that labor and capital are combined into a single return, the more likely it will be treated as capital.” *Id.* As discussed below, I disagree with him with regard to the second factor. Capital owners are able to convert labor of workers into capital all the time.

¹⁵⁶ Weisbach argues further that the line between capital gains and ordinary income exemplifies the sort of arbitrary line drawing found in tax law, do many aspects of partnership taxation. *Id.* at 743–63.

not provide their own labor, by reason of the immediate deductibility of labor costs:

“[J]udging from how the suppose sweat equity tax advantage has been described, one its seemingly essential features is that it accrues specifically to services that are self-provided. Yet the tax benefit of premature labor cost recovery is hardly dependent on labor's being self-provided. The salaries a business pays to employees who work in the marketing department building a brand name are likely expensed, even though the brand name may eventually garner long-term capital gains income. Indeed, the salary of every employee whose services help to keep the concern going is to some extent an investment in going concern value.¹⁵⁷

Sanchirico does not refer to propertization or intellectual capital, but his argument is premised on the immediate deductibility of labor costs. As discussed above, immediate deductibility is available only for self-intellectual capital and not for acquired intellectual capital or tangible capital. Furthermore, the examples he cites—brand names and going concern value—are both forms of intellectual capital.¹⁵⁹

The carried interest debate, with its interrogation of the boundary between labor and capital, reinforces the claims of this Article that labor can be converted into capital, and that, particularly in the case of intellectual capital, the tax law operates to subsidize this process.

B. Returns on Human Capital

As Part II discusses, the changing legal landscape related to intellectual capital causing the boundary between labor and capital to shift, and enabling enables capital owners to capture a greater share of economic returns. This suggests that capital owners are in some sense able to capture some of the returns to labor.¹⁶⁰ This is a somewhat confusing statement because purely as a

¹⁵⁷ Sanchirico, *Taxing Carry*, *supra* note 147, at 242.

¹⁵⁹ Sanchirico goes on to argue that supposed tax benefit that all these parties enjoy—the ability to convert labor income into capital gain—is illusory when one takes into account the aggregate tax paid by all participants, and that the true tax advantage to carried interest inheres in exploiting the tax rate differentials of fund managers and investors. *See* Sanchirico, *Tax Advantage*, *supra* note 147, at 1076.

¹⁶⁰ Employment law scholars who criticize employer restrictions on employees frame the analysis in terms of who should be entitled to reap the benefits of the worker's labor, employer or worker. *See e.g.*, Stone, *supra* note 41, at 721–23.

definitional matter, “returns to labor” describes the amount received by workers and “returns to capital”, the amount received by capital owners.¹⁶¹ However, the process of propertization shows how capital owners capture returns to labor. Furthermore, capital owners make investments in human capital, and presumably they receive returns on these investments.¹⁶² Therefore, it is reasonable to say that capital owners receive some of the returns to labor.

If it is true that capital owners capture some of the returns to labor, this calls into question the tax law distinction between income from labor and income from capital, along with its disparate treatment of the two categories. Not all income from labor is subject to onerous taxation relative to income from capital. Rather, income from labor *paid to workers* is taxed heavily. Income paid to capital owners, whether attributable to labor or capital, is taxed lightly. Thus, income from labor is taxed very differently depending on *who* receives the return from the labor.

Under this view, one could reframe the tax treatment of capital owners and workers to say that they are taxed differently on their respective shares of income from labor.¹⁶³ This reframing matters because it requires us to re-evaluate the rationales for taxing income from labor so differently from income from capital.¹⁶⁴ On an intuitive level, it seems irrational and unfair that the tax disparate treatment should turn on the identity of the person who is deriving the income from labor.¹⁶⁵

¹⁶¹ See, e.g., PIKETTY, *supra* note 9, at 203 (discussing the clear distinction between remuneration of labor (wages, salaries, bonuses, and other payments to employees, including managers, who contribute labor to the company's activities) and remuneration of capital (dividends, interest, profits reinvested to increase the value of the firms' capital, etc.); Kleinbard, *supra* note 8, at 47 (“[T]he suppliers of labor and capital can be expected to define for themselves the relative contributions of each through the process of setting wages; the post compensation remainder by definition must be capital income.”)).

¹⁶² Knowledge management scholars frame questions of employee mobility around the idea of protecting firms from expropriation of value and or ensuring that firms protect their human capital investments and garner the returns from those investments. See, e.g., Younge, *supra* note 66, at 2–6.

¹⁶³ Conversely, one might also characterize part of workers' income as a return on capital, as in the case of entrepreneurial income or carried interest.

¹⁶⁴ Victor Fleischer makes a related argument in the context of what he calls “alpha income”—carried interest, founders stock, and equity-based executive compensation. He argues that alpha income is labor income disguised as capital income and that the best way to achieve an equitable tax result of this disguised labor income would be to repeal the capital gains preference. See Victor Fleischer, *Labor Is the New Capital*, TAX L. REV. (forthcoming). Fleischer's argument differs from the views advanced in this Article in that Fleischer accepts the assumption that labor income and capital income are fixed and distinct categories.

¹⁶⁵ On the other hand, we treat trade or business income differently from investor gains, so the identity of the person who derives the income does matter sometimes. However, this example may

Beyond intuition, taxing the workers more heavily than capital owners on their respective share of returns to labor would clearly seem to exacerbate Piketty's "rich-get-richer dynamic."¹⁶⁶

C. Workers and Capital Owners as Joint Venturers

The tax law's distinct treatment of income from labor and income from capital assumes that the economic production can be disaggregated into these two types of income.¹⁶⁷ However, the discussion of intellectual capital highlights the interdependent relationship between labor and capital in economic productivity. This interdependence raises the question whether labor income and capital income can or should be viewed as separate types of income.

Carried interest provides is a useful jumping off point to consider this question. In their analysis of carried interest, scholars argue that at least part of what the service partner receives is compensation for his labor, and should therefore be taxed as such.¹⁶⁸ The difficulty lies in determining how much of what the services partner receives should be treated this way. As Victor Fleischer puts it, "the key challenge is disaggregating the relative value of the returns on human capital, which we would presumably like to tax currently as the services are performed, from the returns on investment capital, which we would like to tax only when the income is realized."¹⁶⁹

In response to challenges of disaggregation idea, Bradley Borden argues that it is impossible to disaggregate returns on labor and returns on capital where partners contribute a mix of labor and capital:

The co-ownership of partnership property and services makes tracing income from either the contributed property or services to the contributor impossible. A tax partnership's income flows from the combined output of partnership property and services, over both of which the partners share control. Sharing control and the residual claims of integrated property and services gives partnerships their distinctive nature. In particular, the parties

devolve back to the same suspect classifications of labor income and capital income because trade or business income implies a requisite level of labor activity in its production.

¹⁶⁶ Robert Solow coined this term to describe Piketty's thesis. Solow, *supra* note __.

¹⁶⁷ According to Fleischer, public finance economists also regularly make this assumption. See Fleischer, *supra* note 146, at XX.

¹⁶⁸ See Fleischer, *supra* note 147, at 47; Gergen, *Service Partners*, *supra* note 147, at 103–11.

¹⁶⁹ Fleischer, *supra* note 147, at 33.

cannot trace income from its source to a single owner of the source.¹⁷⁰

In Borden's view, this inability to disaggregate explains why income from the combined sources should be treated as partnership income, to be characterized at the partnership level: "The partners cannot separately trace income from property and services. The income from one source fuses with the income from the other source. The income from the combined sources becomes partnership income and flows to the partners with the character determined at the partnership level."¹⁷¹

Borden's observation about the inseparability of labor income and capital income has a broader applicability, particularly as it relates to intellectual capital, where labor and capital are deeply intertwined.¹⁷³ In view of the increasing prevalence of intellectual capital, one can question more generally whether the tax law's distinction between labor income and capital income is useful, or even meaningful. As alternative, analogizing to Borden, we could conceptualize capital owners and workers as participants in a joint venture who share in an inseparable, unitary return derived from their combined resources. This conception reflects the interdependent relationship between capital and labor in economic production and

¹⁷⁰ Borden, *supra* note 147, at 1300. More generally, other scholars have explored at length whether and to what extent the tax law should treat a partnership as a pooling of partners' services and property, or alternatively, as an exchange of their services and property. *See, e.g.*, Gergen, *Pooling*, *supra* note 147.

¹⁷¹ Borden, *supra* note 147, at 1301. In Borden's view, the inability to disaggregate is at the heart of the partnership rules allowing partners to allocate income freely among themselves, seemingly in contravention of assignment of income principles:

Partnership tax law recognizes the inability to trace partnership income from its source and allows partners to allocate partnership tax items in any reasonable manner. Normally any income from the property should be income to the property owner and income from services should be income to the service provider. Tax law cannot impose that rule in the partnership context because it cannot trace income from property and services. The allocation rules are, therefore, a compromise between the assignment-of-income doctrine and the inability to trace.

Id. at 1302-03 (footnotes omitted).

¹⁷³ Borden limits his claim about the inseparability of labor income and capital income to the context of partnership carried interest. He further limits his analysis to services partnerships in which tracing problems are unavoidable. Thus, for example, he believes pure investment partnerships do not have tracing problems and should therefore be accorded less flexibility than service-property partnerships. *See id.* at 1303. Furthermore, he explains at length that his rationale for supporting the current law treatment of carried interest does not extend to equity-based corporate compensation. *See id.* at 1304-10.

acknowledges the difficulty, perhaps impossibility, of disaggregating this collaborative return into two streams of income, one deriving from labor and the other, from capital.¹⁷⁴ Under a joint venture conception of workers and capital owners, the terms “labor income” and “capital income” would not refer to distinct, qualitatively different types of income, but rather would describe how workers and capital owners divide up the return derived from their collaboration.¹⁷⁵

A joint venture conception of workers and capital owners would also align the tax law with efforts in other legal fields to reframe doctrinal and policy analysis to recognize the centrality of workers in economic production.¹⁷⁶ Scholars in fields outside of tax have proposed a similar joint venture model of workers and capital owners. For example, in her work about how legal doctrines empower employers to control and appropriate returns on knowledge workers' labor, Catherine Fisk suggested a new metaphor for intellectual property, which would conceptualize employees and employers as “joint authors” of proprietary knowledge, human capital, or firm intellectual property.¹⁷⁷ Margaret Blair and Lynn Stout theorized a “team production” model of corporate governance which conceptualizes the public corporation as a team of stakeholders including shareholders, workers, creditors, and communities. The premise of their model is that all the stakeholders contribute to a product of corporate enterprise that is nonseparable and nontraceable to the individual team members' contributions.¹⁷⁸

¹⁷⁴ This is not to say that a disaggregation scheme couldn't be devised. Rather, my point is that joint venture conception leads to different policy choices. For a recent disaggregation proposal, see Note, *Taxing Partnership Profits Interest: The Carried Interest Problem*, 124 HARV. L. REV. 1773 (2011); see also Kleinbard, *supra* note 8, at 49–51 (discussing the “labor-capital income centrifuge” for disaggregating entrepreneurial income into labor and capital components). Rather, my point is that joint venture conception leads to different policy choices.

¹⁷⁵ The terms “income from labor” and “income from capital” are misleading because they imply that income can be disaggregated.

¹⁷⁶ See, e.g., Kent Greenfield, *The Place of Workers in Corporate Law*, 39 B.C. L. REV. 283 (1998); Marleen A. O'Connor, *The Human Capital Era: Reconceptualizing Corporate Law to Facilitate Labor-Management Cooperation*, 78 CORNELL L. REV. 899 (1993); Katherine Van Wezel Stone, *Employees as Stakeholders Under State Nonshareholder Constituency Statutes*, 21 STETSON L. REV. 45 (1991).

¹⁷⁷ See Fisk, *supra* note 59, at 862–63.

¹⁷⁸ Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 265-66 (1999). Their theory is grounded on Armen Alchian and Harold Demsetz's definition of team production as “production in which 1) several types of resources are used . . . 2) the product is not a sum of separable outputs of each cooperating resource . . . [and] 3) not all resources used in team production belong to one person.” Armen A. Alchian & Harold Demsetz, *Production, Information Costs, and Economic Organization*, 62 AM. ECON. REV. 777 (1972); see also Matthew T. Bodie, *Employees and Boundaries of the Corporation*, in RESEARCH HANDBOOK ON THE ECONOMICS OF CORPORATE LAW 85–105 (2011) (describing developments in an

Conclusion

This Article has endeavored to challenge the tax law's foundational, yet mostly unexamined, distinction between labor and capital by focusing on the process by which workers and capital owners collaborate in economic production and the ways in which legal rules, including the tax law, shape their entitlements to the rewards of that collaboration. It argues that the labor-capital distinction is at best changeable and porous, and perhaps even illusory.

This revised view of the labor-capital distinction has profound implications for the tax law, a full exploration of which the Article leaves for future research. However, in contrast to proposals such as Piketty's for a new global wealth tax, many of the specific reform prescriptions that flow from this Article would not require drastic changes to our tax laws. Rather, the problematic tax subsidies for capital owners and incongruities in the taxation of capital and workers identified in the Article are remediable within the strictures of the current law. For example, we could reform the law to require capitalization of the costs of creating intellectual capital, as was recently proposed by the Senate Finance Committee and the House Ways and Means Committee.¹⁷⁹ This change could even be implemented through an executive reversal of the INDOPCO regulations. Similarly, we could introduce reforms that would treat more uniformly and equitably capital owners' and workers' investments in human capital.¹⁸⁰ Although these changes seem modest on their face, they would have an immediate and significant impact in the distribution of taxes between capital owners and workers. Furthermore, they would represent a major step toward recognizing the centrality of workers in economic productivity and reconceptualizing the relationship between capital owners and workers, not as between master and servant, but as partners.

employee-centered theory of the firm using examples from tort law, intellectual property law, and tax law); Brett McDonnell, *Employee Primacy, Or Economics Meets Civic Republicanism at Work*, 13 STAN. J.L. BUS. & FIN. 334 (2008); Edward B. Rock and Michael L. Wachter, *Tailored Claims and Governance: The Fit between Employees and Shareholders*, in EMPLOYEES & CORPORATE GOVERNANCE (Margaret M. Blair & Mark J. Roe eds., 1999) (questioning the prevailing view that employees have no residual claims to corporations and finding instead that they have significant ownership and governance rights).

¹⁷⁹ See *supra* note 117 and accompanying text; Kahng, *supra* note 68, at 2274–77.

¹⁸⁰ See Fellows & Kahng, *supra* note 126, at 394–99.