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Weighing The Patent Box: An Evaluation Of The Ex Post Tax Incentive Of a Lower Tax Regime For Products That Incorporate Patents

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WEIGHING THE PATENT BOX: AN EVALUATION OF THE *EX POST* TAX INCENTIVE OF A LOWER TAX REGIME FOR PRODUCTS THAT INCORPORATE PATENTS

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I. INTRODUCTION

From the founding of the United States, the role of fostering progress has been such an important priority and role for the federal government that, in the founding document that laid out the limited instances and manner in which federal power could be exercised, one of the powers granted was the power to promote progress in science and the useful arts.¹ The United States has carried out this power by, for instance, granting a patent to an inventor, which gives the inventor exclusive rights to the patented invention for a limited amount of time in exchange for publicly disclosing the invention.² The limited monopoly, a way for an inventor to exclusively reap the profits of commercializing an invention, serves as the means Congress has chosen to incentivize the up-front investment of time and money in the invention process.³

1. U.S. CONST. art. I, § 8, cl. 8.

2. 35 U.S.C. § 154 (1952). The limited monopoly is considered the quid pro quo for disclosing the description of the invention and its best mode. The invention's disclosure to the public makes it part of the storehouse of knowledge available to the public from which the public can incorporate and build from.

3. See Jay Dratler Jr., *Incentives for People: The Forgotten Purpose of the Patent System*, 16 HARV. J. LEGIS. 129, 136–38 (1979).

Compared to other countries' patent systems, the United States patent system has generally been a more accessible system of which individuals across socioeconomic and educational backgrounds have been able to take advantage.⁴ However, the world has become more interconnected between the time the United States' patent laws were first written and the present day. Inventors are able to take advantage, not only of global markets for the sale of their goods, but also of global patenting systems to protect their invention. The available incentives that exist beyond the patent monopoly are also much more widely recognized and appreciated.⁵

A common perception is, in a world with an ever-more-globalized economy, international competition for development of innovative technology and its related benefits has become a heightened concern, with many countries focusing more on the situation and enacting policy to attract innovators. Meanwhile, the United States has not adapted its patent-related laws, but needs to, in order to compete for the development of innovative technology and the benefits that flow from that development.⁶ One area where countries have taken action to position themselves competitively is by heeding the popular maxim that a higher tax leads to less of the taxed activity, and have made the tax treatment of innovative activities more favorable, thereby making it less expensive and more attractive to locate innovative activities in the country.⁷

This comment will review the ways in which countries incentivize innovation and encourage companies to engage in those innovative activities within their borders in order to harness various benefits that derive from those

4. B. Zorina Khan, *Premium Inventions: Patents and Prizes as Incentive Mechanisms in Britain and the United States, 1750–1930*, in UNDERSTANDING LONG-RUN ECONOMIC GROWTH: GEOGRAPHY, INSTITUTIONS, AND THE KNOWLEDGE ECONOMY 205, 210–11 (Dora L. Costa & Naomi R. Lamoreaux eds., University of Chicago Press 2011).

5. Lisa Larrimore Ouellette, *Patentable Subject Matter and Nonpatent Innovation Incentives*, 5 U.C. IRVINE L. REV. 1115, 1125 (2015) (quoting briefs in various cases before the Supreme Court). Examples of private non-patent incentives are “[f]irst-mover advantages,” “[n]etwork effects,” “personal satisfaction,” and “reputation.” Many other incentives across a wide array of governmental areas can also be implemented. *Id.* at 1126.

6. W. Wesley Hill, *The Patent Box as the New Innovation Incentive for the Several States: Lessons from Intellectual Property-Tax Competition*, 42 AIPLA Q. J. 13, 14 (2014). The main benefits of attracting development of innovative technology are increased employment, which includes both the jobs related to the research and design activities as well as manufacturing jobs to commercialize inventions, tax revenue, typically in the form of both income tax on the profits of the business as well as the income tax on the those working on development and manufacturing inventions. See Savannah Story, *Extraordinary Ideas Now Ordinary Income: Incentives Created by the Tax Cut and Jobs Act's New Treatment of Self-Created Intellectual Property*, 26 J. INTELL. PROP. L. 329, 336 (2019).

7. See Hill, *supra* note 6, at 22–23. Tax treatment related to the system of patent laws has become an especially important focus due to the relative ease of organizing a business to take advantage of the most favorable tax conditions in one country while avoiding the large cost and burden of locating and building a new factory in that country in order to take advantage of favorable taxes.

activities. Part Two of this comment will discuss historical methods employed at the front end and back end of research and development activities to incentivize innovation, including the relatively more recent implementation of provisions in taxation systems to treat research and development more favorably. This part will also discuss efforts in the United States to implement provisions in tax codes related to innovative activities. Parts Three and Four will discuss the benefits and drawbacks of patent box systems. Part Five will conclude with a proposal to amend tax laws in the United States to spur innovation within the country.

II. HISTORICAL EFFORTS TO INCENTIVE INNOVATION

There are two points of technological development when incentives to spur innovation can be applied: incentives applied at the front-end of innovative activities before a result is achieved (*ex ante*) and incentives applied at the back end after a result is achieved (*ex post*).⁸

A. *Ex Ante Incentives*

The first is by incentivizing research and development at the front end of the development lifecycle by reducing the cost of development, which reduces the time to recoup the up-front cost, and increasing the time period over which profit is collected if and when a product is commercialized.⁹ These *ex ante* incentives generally involve outlays of money in one form or another, such as research grants, contracts with private labs for research activities, and funding of national labs.¹⁰ Another form of *ex ante* incentive is a tax deduction for qualifying research and development expenditures.¹¹

8. Ouellette, *supra* note 5, at 1127–28.

9. This is the typical method employed in North America. W. Wesley Hill & J. Sims Rhyne III, *Opening Pandora's Patent Box: Global Intellectual Property Tax Incentives and Their Implications for the United States*, 53 *IDEA* 371, 375-76 (2013).

10. Ouellette, *supra* note 5, at 1128.

11. See Hill & Rhyne III, *supra* note 9, at 376; see also Jacob Nussim & Anat Sorek, *Theorizing Tax Incentives for Innovation*, 36 *VA. TAX REV.* 25, 49 (2017). Two significant tax breaks for research and development activities are sections 41 and 174 of the Internal Revenue Code (I.R.C.). Section 41 provides a tax credit for increasing research and development activities. Under section 41, the credit considers certain qualified research and the expenses, basic research payments, and the amounts paid to energy consortiums for energy research that are made in areas of qualified research. I.R.C. § 41. Research expenses include wages paid to employees performing research activities, costs of supplies, and certain amounts paid for the use of computers. *Id.* The qualified research to which this section applies is technological research (excluding research in the arts, social sciences, and humanities) that is undertaken to discover technological information that is intended to be useful in developing a new or improved business component. *Id.* Business components are broadly defined, covering “any product, process, computer software, technique, formula, or invention” for any purpose such as “a new or improved function, performance, or reliability or quality”; the only exclusion is purely aesthetic

A benefit of *ex ante* incentives is related to the time value of money: a person who has money in-hand today can invest that money in a way that will provide a return over time; a person who delays receiving money until a later date is not able to take advantage of the time over which the money could be invested and realize a return on that investment.¹²

A major drawback of these *ex ante* incentives is that they are not guaranteed to produce a desired result.¹³ Often, *ex ante* incentives are predicated only on undertaking a certain activity or achieving certain deliverables without regard to whether a desired end result is achieved by the activity.¹⁴ Without a requirement for success in order to realize the benefits of an up-front reward, the incentive to succeed is lower and the stakes of failure are lower, making the incentive somewhat less efficient.¹⁵

Taking into account that research and development is often a speculative activity with no guarantee of success coupled with the time-value-of-money-based preference of having money to invest today instead of later, *ex ante* incentives can be valuable in incentivizing a person to begin to undertake research and development.¹⁶

B. Ex Post Incentives

The other form of incentive structure that is available is applied at the back end of the research and development process after a result has been achieved, the *ex post* incentive.¹⁷ The various forms of *ex post* incentives seek to reward the completion of a task or the commercialization of a product or process.¹⁸ Two of the most well-known forms of *ex post* incentives are prizes and patents.¹⁹

purposes. *Id.* The tax credit is limited to front-end activities; activities after commercialization, adaptation or duplication of existing components do not qualify. *Id.* The tax credit seeks to incentivize activity in the United States by denying the tax credit to activities conducted outside of the United States. *Id.* Section 174 treats reasonable expenses paid for research and experiments as ordinary expenses instead of as capital expenses. I.R.C. § 174. By applying the expenses against ordinary income instead of against capital income, the taxpayer is able to reduce the amount of ordinary income instead of reduce capital gains. This is beneficial because ordinary income is generally taxed at a higher rate than capital income.

12. See Ouellette, *supra* note 5, at 1127.

13. See *id.*

14. Hill & Rhyne III, *supra* note 9, at 377-78. Another benefit of front-end incentives is that non-practicing entities, so-called “trolls,” cannot use these incentives to their advantage. Ouellette, *supra* note 5, at 1128.

15. See Ouellette, *supra* note 5, at 1127.

16. See *id.*

17. Hill & Rhyne III, *supra* note 9, at 380.

18. See Hill, *supra* note 6, at 18.

19. Ouellette, *supra* note 5, at 1133-34.

Prizes are generally implemented as a monetary reward for completion of some desired goal.²⁰ Historically, the prize system of incentivizing innovation was popular in Europe.²¹ The prize method of incentivizing innovation is maligned for various reasons, including the inability to accurately value the innovation in order to determine and assign a prize amount that is proper, and corruption in various forms.²² Winners of prizes in the British system were more likely to be members of the elite class who had received an education at an elite institution.²³ In the United States, a prize system was discussed at the country's founding as one incentive structure to implement, but it ultimately lost out to the patent system; prizes have not gone entirely unused in the United States and have seen a slight re-emergence.²⁴

The other main form of incentive for innovation, a patent system, generally grants a monopoly on the patented invention for a limited period of time to a person who has invented or discovered some new and useful innovation.²⁵ Patent systems vary significantly in their implementation.²⁶ The patent system as implemented in the United States, as compared to patent systems elsewhere, especially that of Great Britain prior to some significant overhauls, provided a more accessible system due to its lower fees, which allowed the inventor of lesser means the same access to the system as the wealthy inventor.²⁷ Another distinguishing factor is the level of scrutiny that is given to a patent application. The United States has implemented an examining system to compare applications to prior disclosures to determine the novelty and non-obvious character of the claimed invention; the historical British system did not scrutinize an application at the level of the United States' system.²⁸ The United States' tax code provides further incentive to the exchange of intellectual

20. Daniel J. Hemel & Lisa Larrimore Ouellette, *Beyond the Patents-Prizes Debate*, 92 TEX. L. REV. 303, 317, n. 45 (2013). A reward granted for completion of a goal is an inducement prize; in contrast, a recognition prize is granted to recognize the accomplishments of a person, not necessarily tied to a specific goal.

21. Khan, *supra* note 4, at 207. Great Britain offered patents in addition to prizes, but until the patent system was reformed in the 1880s, fees for obtaining a patent and its attendant monopoly were so high that the cost was often not worth the benefit it would confer. *Id.* at 208, 210. Private and public prizes have become more widely suggested in the United States. *Id.* at 206.

22. *Id.* at 223, 225.

23. This phenomenon is described as "capture," where members of a group give prizes to members of that same group. *Id.* at 231. As Ms. Khan suggests, this likely led to a suppression of inventive activity by the inventors of lesser means, who would choose not to attempt to claim a prize due to the likelihood that he would not collect on his efforts. *Id.* at 207, 225.

24. *Id.* at 227–28.

25. See 35 U.S.C. § 154 (1952).

26. See generally, Khan, *supra* note 4, 207–14.

27. *Id.* at 210–11.

28. *Id.* at 212.

property assets, especially patents, as a way to spur exchanges and encourage bringing patentable inventions to market.²⁹

The major benefit of these *ex post* incentives is that they are available only to the person who has succeeded in her efforts at innovation.³⁰ One of the drawbacks of *ex post* incentives is the speculative nature of the benefit: a person is expending significant time and capital on research and development with no guarantee that the person will be able to realize a return on the investment.³¹

C. The Patent Box Taxation System

Another *ex post* incentive of a more recent vintage implemented by various countries is a patent box taxation system, often simply referred to as a patent box.³² In its most basic form, a patent box system allows a taxpayer to claim income from the sale of products that incorporate a patented invention (or other forms of intellectual property) at a lower tax rate than the rate at which the taxpayer would normally claim the income.³³ The income is designated as being subject to the patent box taxation system by marking a box (the patent box) on income tax filing forms.³⁴ By lowering the tax burden, the patent box system is believed to increase the incentive to a patentee to incorporate patented inventions into products that produce income and wind up in the hands of consumers.³⁵ Two main purposes for implementing a patent box system are to incentivize innovation in that country and to encourage companies to locate their intellectual property assets in the country.³⁶ One mechanism by which a patent box incentivizes innovation is that the lower tax rate offered by a patent box taxation system would encourage a company to locate its manufacturing activity in the country, which brings along with it the engineering knowledge base related to engineering of the products.³⁷ A patent box taxation system

29. Income from the sale of patents is treated as a capital gain, typically subjecting the income derived from the sale to a lower tax rate under I.R.C. § 1235. Nussim & Sorek, *supra* note 11, at 49; I.R.C. § 1235 (1954).

30. See Ouellette, *supra* note 5, at 1127.

31. *Id.*

32. Hill & Rhyne III, *supra* note 9, at 380.

33. Hill, *supra* note 6, at 19.

34. Jason M. Brown, *Patent Box Taxation: A Comparison of Four Recent European Patent Box Tax Regimes and an Analytical Consideration of If and How the United States Should Implement Its Own Patent Box*, 46 INT'L LAW. 913, 914 (2012).

35. See Hill & Rhyne III, *supra* note 9, at 405–06.

36. Story, *supra* note 6, at 336.

37. See Bernard Knight & Goud Maragani, *It Is Time for the United States to Implement a Patent Box Tax Regime to Encourage Domestic Manufacturing*, 19 STAN. J. L. BUS. & FIN. 39, 43–48 (2013).

attracts assets by making it more tax-friendly to locate income from sales of products in one country.³⁸

The patent box *ex post* incentive has been utilized in many European countries starting in the 1970s and has been implemented outside Europe as well.³⁹ There are four main levers that a government can operate to tailor its patent box system to its unique preferences and goals: (1) it can set the preferential (lower) tax rate at which intellectual property asset income is taxed, (2) it can designate the forms of intellectual property that qualify for the preferential tax rate, (3) it can designate the types of income to which the preferential tax rate applies, and (4) it can designate whether the applicability of the preferential rate must be tied to commercialization.⁴⁰ Within those parameters, the specifics that countries have selected vary depending on how the country has chosen to implement its own systems, resulting in many different individual systems.⁴¹ Some of the variations in other countries' patent box systems include taxation of a percentage of patent-inclusive products at the normal tax rate with a lower, or no tax rate applied to the remainder of the income.⁴² Alternatively, some countries graduate the tax rate for a more progressive system: expanding the eligible matter to include income attributable to manufacturing processes, applying a lower tax rate not just to inventions made by the company but also to those it acquires from others, and placing requirements on the minimum amount of certain research and development activities that must be completed in the country.⁴³

D. The Patent Box System in the United States

In the United States, legislators have had their eyes on the patent box systems in European countries but have thus far resisted the temptation to lift the lid on a patent box to see whether it holds innovative incentive for the United States. The first efforts to implement a patent box taxation system in the United States took place not at the national level, but at the state level. Legislators in California drafted a bill to implement a patent box taxation

38. See Hill, *supra* note 6, at 20–24. One way a company takes advantage of patent box systems and lower taxes in general, is a company will develop IP in the United States, transfer the IP asset to another country with lower tax rates through licensing agreements, and then complete development and commercialization. Income is then earned in that country and taxed at a lower rate. The author points out that while this method is effective, there are still inefficiencies in this method and it would be easier to simply locate innovative activity in the country with lower tax rates instead of relying on multiple layers of development and transfers in order to take advantage of a lower tax rate.

39. Hill & Rhyne III, *supra* note 9, at 381–84.

40. Hill, *supra* note 6, at 33–36.

41. See Knight & Maragani, *supra* note 37, at 48–54.

42. *Id.*

43. *Id.*

system for state tax collection that was first introduced in early 2012.⁴⁴ Despite the first attempt's failure to gain traction, a second attempt was made the following year in the new legislative session.⁴⁵

The California patent box system took a very limited approach. The lower tax rate of its patent box would have applied to a very narrowly tailored subset of intellectual property that would have been available for more favorable tax treatment: intellectual property that involved development by the University of California system.⁴⁶ California's patent box system would have allowed for a fifteen percent credit for royalties paid to license a patent owned by the University of California system, provided that the patent was commercialized for a period of five consecutive years.⁴⁷ California also would have provided a tax credit for corporate taxes at a similar fifteen percent rate on royalty payments for commercialization within the state for five consecutive years.⁴⁸ California took a broad approach to what it considered to be commercialization, with some of the activities that qualified including incorporating into tangible items, using within a manufacturing process, or any other manner in which its incorporation "serve[d] a significant commercial purpose."⁴⁹

At the federal level, Congress was also considering various proposals for patent box systems, when three bills were introduced in 2012 and 2013 in the House of Representatives to implement a patent box system.⁵⁰ Another proposal has been made by a member of the Senate with a different tax rate.⁵¹

44. Hill, *supra* note 6, at 31-32; *See* A.B. 1818, 2012 Assemb., 2011-2012 Reg. Sess. (Cal. 2012).

45. *See* A.B. 33, 2013 Assemb., 2013-2014 Reg. Sess. (Cal. 2013).

46. Brown, *supra* note 34, at 931. California's attempt to implement a patent box system at the state level has to this point proven to be unsuccessful. Bills were introduced during several successive legislative sessions, however, the bills were never enacted. *See* A.B. 1818, 2012 Assemb., 2011-2012 Reg. Sess. (Cal. 2012), which would have added CAL. REV. & TAX. CODE sections 17053.99 and 23699.

47. A.B. 1818 § 17053.99(a), 2012 Assemb., 2011-2012 Reg. Sess. (Cal. 2012).

48. *Id.*

49. *Id.*

50. The bills were House Bill 6353 (introduced Aug. 2, 2012), House Bill 6544 (introduced Sept. 21, 2012), and House Bill 2605 (introduced June 28, 2013). *See* H.R. 6353, 112th Cong. (2d Sess. 2012); *see also* H.R. 6544, 112th Cong. (2d Sess. 2012); *see also* H.R. 2605, 113th Cong. (1st Sess. 2013). All three bills provided for a 71% deduction of qualifying income leading to an effective tax rate of 10%. *See* Knight & Maragani, *supra* note 37, at 57, n. 107. All three bills were referred to the House Ways and Means Committee but were not debated or advanced for consideration. One of the proposals was later revived in 2015, with the same 10% proposed effective tax rate. Stephen E. Shay, J. Clifton Fleming Jr., & Robert J. Peroni, *R&D Tax Incentives: Growth Panacea or Budget Trojan Horse*, 69 TAX. L. REV. 419, 452-53 (2016).

51. Knight & Maragani, *supra* note 37, at 57. Sen. Dianne Feinstein's proposal, Putting America Back to Work, set the effective tax rate at 15%.

III. THE BENEFITS INSIDE THE PATENT BOX

The biggest benefit typically associated with patent box systems is the enticement of business to locate facilities in the adopting country. A company can pay a lower tax on income derived from its products that incorporate intellectual property and will seek those lower taxes that would be applied to the income derived from the intellectual property, further incentivizing creation or maintenance of research and development facilities in that country, as well as maintaining its manufacturing facilities there.⁵² In maintaining both research and manufacturing facilities in the country, personnel would be needed to staff those facilities and jobs in the area would be created. The company would likely pay property taxes to the municipality and the personnel hired to work at those facilities would receive an income which would also generate money for the state's treasury.⁵³

Another benefit of a patent box system is that it encourages not just the protection of intellectual property, but the development and production of goods that incorporate those intellectual property assets. Thus it not only spreads the knowledge of the invention, but also its availability and use by the public.⁵⁴ Because the patent box rewards with lower taxes the commercialization of an innovation, that benefit is not available to the public unless the product is produced.⁵⁵ If commercialization is required, that strategy also has the benefit of rewarding only the producers, and not non-practicing entities; however, depending on the types of income that are eligible, the non-practicing entity may still stand to gain under a patent box system.⁵⁶ If the patent box system is tailored to incentivize licensing by including in its program as eligible for the favorable tax rate the income derived from sales or licensing of intellectual property assets, a non-practicing entity could gain the benefit of having a lower tax rate applied to the income the entity received as a result of the licensing agreement or sale.⁵⁷

52. The thought process is that if a company has a research and development facility, it will want that facility near its manufacturing facility so that research and development personnel are able to more easily work with others in the manufacturing facility to troubleshoot problems and that collaboration between the different groups is not as burdensome to the company. *See, e.g., id.* at 42.

53. *Id.* at 42–43.

54. Hill, *supra* note 6, at 31.

55. *See id.*

56. Hill & Rhyne III, *supra* note 9, at 395–96.

57. *See id.*

Yet another benefit of a patent box system is the additional spending and the associated economic stimulus a holder of an intellectual property asset will undertake related to its efforts to commercialize a product.⁵⁸

There are two types of entities that benefit from the patent box system: the patentee and the government. The patentee benefits through the lower tax rate: a lower rate means that more of the income remains in the hands of the taxpayer instead of being passed to the government, yielding a higher return on the research and development investment. The other beneficiary of this type of system tends to be the government, which would continue to collect tax revenue, which is expected to increase. The thought process behind this is that a company is more likely to locate more of its research and development activities and its manufacturing and commercialization activities in the country due to the lower rate. In addition, the country would benefit not only from the increase in income from an increase in products sold (despite the lower tax rate), but it would also benefit from the income taxes paid by individuals who would be newly employed to work in industries with expanded research, development and commercialization activities.⁵⁹

IV. PATENT BOX SYSTEM SHORTCOMINGS

The biggest shortcoming of a patent box system is that it only incentivizes a certain subset of research, design, and manufacturing activity; any product that does not incorporate the designated subset of intellectual property assets is not subject to the preferential tax rate.⁶⁰

Another downside to providing a preferential tax rate for products that incorporate intellectual property is that the decline in income tax revenue due to the lower preferential tax rate may not be offset by the increase in fees paid.⁶¹

58. Knight & Maragani, *supra* note 37, at 47. The extent of that benefit has been difficult to quantify. Daniele Fabris, *To Open the Box or to Close the Box: Patent Box Regimes in the EU between R&D Incentives and Harmful Tax Practices*, 11 AMSTERDAM L.F. 33, 42–44 (2019).

59. Knight & Maragani, *supra* note 37, at 42–43.

60. See Hill & Rhyne III, *supra* note 9, at 400–01. For instance, a company may have a copyright on software that is incorporated into its product, but if copyrighted material is not subject to the preferential lower tax rate, the tax-paying entity would not gain the benefit of the patent box system. Another example where a company is not able to take advantage of a lower tax rate is where a company opts to maintain information as a trade secret where the company derives value through the competitive advantage it gains by utilizing information that is not known to the public, especially its competitors. See Defend Trade Secrets Act, 18 U.S.C. § 1836 (1996).

61. Data suggests that a patent box may lead to a greater number of filed applications for patents by entities who want to take advantage of a preferential tax rate, which leads to an increase in revenue from the patent fees paid by applicants. Those additional fees may not make up for the decline in tax revenue that results from the lower tax rate on income derived from products that incorporate intellectual property assets. Story, *supra* note 6, at 335–36. For an entity like the United States Patent and Trademark Office that funds its operation with the fees paid to it, the increase in

A related criticism is that a patent box system creates a so-called “innovative race to the bottom,” where countries seek to outdo one another which leads to an escalating contest to lower tax rates to the point where countries so significantly reduce their tax rates to the point that countries deprive themselves of the tax revenue required to fund the government’s operation.⁶² Yet another tax-related criticism is that the United States Tax Code is already very complicated and incorporating a patent box taxation system only adds another complication to the system.⁶³

V. A COMPETITIVE PROPOSAL

The goal of the patent and copyright laws of the United States, as outlined in the Constitution, is to promote the progress of science and the useful arts in the United States, and a patent box system can operate to further fulfill that goal. There are two portions of that goal that should be focused on: promoting research and development and promoting commercialization. Any patent box system should focus on promoting both portions.

In proposing a patent box system, a comparison to current United States tax practices and to the patent boxes that exist elsewhere provides considerations for baseline proposals. Research and development expenses are deductible against ordinary income, that is, research and development expenses can be subtracted from ordinary income to reduce the amount of ordinary income that is subject to a higher tax than, say, income from capital gains.⁶⁴

Considering that the point of a patent box system is to further incentivize the progress of science and the useful arts and to make a country’s tax code competitive to fulfill that goal, other countries’ tax rates should also be taken into consideration. The range of effective tax rates for patent box systems is zero percent to fifteen percent.⁶⁵ Countries with patent box systems have a broad range of products that incorporate intellectual property to which their preferential tax rates are applicable.⁶⁶

applications/renewals and related fees is beneficial. The United States Treasury, on the other hand, sees the decline in revenue, but not the revenue increase related to an increase in fees paid for applications and renewals. This would not have an impact on the incentive to entities that would seek to establish or maintain a research and design footprint in a country, it would disincentivize a country’s government from implementing a patent box system due to the loss of revenue that may result.

62. See Hill, *supra* note 6, at 19.

63. *Id.* Considering that the United States already provides preferential tax rates on research and development expenditures, adding a preferential tax rate for incorporation of intellectual property assets would likely be something within the capability of experienced tax professionals.

64. I.R.C. §§ 41, 174 (West 2017).

65. Knight & Maragani, *supra* note 37, at 49–53.

66. See *id.*

The main proposal in the House of Representatives provided for a seventy-one percent deduction which would essentially reduce the effective tax rate from thirty-five percent to ten percent for patent box profits formerly taxed at the thirty-five percent rate.⁶⁷ The patent box profit equals the intellectual property profit multiplied by the ratio of qualifying research and development expenses to total expenses.⁶⁸

$$\text{Patent Box Profit} = \frac{\text{R\&D Expenses in previous five years}}{\text{Total expenses in previous five years}} \times \text{IP Profit}^{69}$$

The proposal in the House of Representatives limited the profit that is subject to a lower tax rate to the research and development expenses-to-total expenses ratio.⁷⁰

The H.R. 2605 bill focused on the relationship of intellectual property asset profit to research and development, by limiting the amount subject to the preferential tax treatment to the ratio of research and development expenses to total expenses.⁷¹ However, the bill provided stringent requirements that limited a licensee's ability to take advantage of a preferential tax rate in that a licensee could only recognize intellectual property profit where the licensor maintained substantial control over the use of the patent.⁷² This aspect of the bill reduces the incentive to a licensee who may desire to produce a product with an intellectual property asset. The H.R. 2605 patent box proposal is applicable only to "qualified patent property."⁷³ Compared to other countries, this is a relatively narrow subset of property to which the preferential tax rate would be applicable.⁷⁴

In keeping the H.R. 2605 bill as a baseline for the treatment of profit from intellectual property assets, I propose the following changes. First, I would set

67. H.R. 2605, 113th Cong. § 200(b)(1) (1st Sess. 2013).

68. *Id.*

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.*

73. *Id.* § 200(b)(7)(A). Qualified patent property is defined as "a product which incorporates a qualified patent or patents (i) if more than a substantial percentage of the value of the product is derived from the direct or indirect use of one or more qualified patents, and (ii) the gross receipts of the taxpayer from the sale, lease, license, or other disposition of the product are domestic production gross receipts under section 199(c)(4)."

74. See Knight & Maragani, *supra* note 37, at 49–53. While most countries have preferential tax rates applicable to "qualified IP," some countries do not limit the preferential rate to only those products manufactured in the country. Other countries extend the preferential rate to industrial manufacturing processes. Luxembourg extends application of its preferential tax rate to income attributable to such things as trademarks and brands, designs, and even personal likeness and image.

the preferential tax treatment at an effective fifteen percent rate, in line with Sen. Feinstein's proposal discussed above,⁷⁵ instead of the ten percent rate of the H.R. 2605 bill.⁷⁶ While the tax rate would be slightly higher than the previous proposal and would be at the top end of the range of patent box preferential rates in the world, it would still be more in line with the tax rates of other countries than the current corporate tax rates, while seeking to avoid the great concern of depriving the United States Treasury of much-needed revenue that would occur at a ten percent tax rate. A second change would be to adopt the California patent box system's fifteen percent tax rate on income earned by a licensor from licensing and royalties.⁷⁷ This would incentivize intellectual property asset holders to transfer assets to those who are interested in commercialization. At the same time, the requirement of licensor control over licensee activity is too strict and should be eased by not requiring the level of control by the licensor, in order to provide more incentive to both licensors and licensees to transfer intellectual property assets and subsequently commercialize them. By applying a fifteen percent rate on that income, instead of an ordinary income tax rate, potential licensors may be more inclined to license intellectual property assets.

Another change would be to broaden the qualifying property from property whose value is substantially based on incorporation of a patent to simply any property that incorporates a patent. A final change I would propose is to remove the limitation of the ratio of research and development expenses-to-total expenses ratio. While the limit seeks to link the profit to an entity's actual performance of research and development in the United States, it fails to incentivize those companies that may have a significant research and development footprint outside of the United States but may seek benefits of manufacturing products in the United States. With the trend away from manufacturing in the United States, some additional incentive would help stem the tide of manufacturing job loss.

75. *Id.* at 57.

76. H.R. 2605, 113th Cong. (1st Sess. 2013).

77. Brown, *supra* note 34, at 931; see A.B. 1818 § 17053.99(a), 2012 Assemb., 2011–2012 Reg. Sess. (Cal. 2012).

