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THE INCOME-BASED REPAYMENT SWAP:  
A NEW METHOD FOR FUNDING LAW SCHOOL EDUCATION

By  
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*The high cost of legal education and corresponding student debt levels is a subject of robust debate. Yet too few critics of degree cost show creativity in thinking about the optimal mechanism for funding a legal education. The traditional model for financing a legal education is that students borrow with (mostly) fixed-rate loans repayable soon after graduation. The federal government supplements loans with income-based repayment and loan forgiveness programs to protect students who have borrowed more than they can afford to pay back. The reach of these programs has expanded dramatically in recent years, with the programs covering 1.3 million graduates owing around \$72 billion as of the first quarter of 2014, with every indication that those figures will grow dramatically unless the programs are modified. A significant segment of those who depend on income-based repayment and loan forgiveness programs will be law students, because those are among the students with the highest levels of qualifying debt.*

*For over half a century, some critics have argued that private income-based repayment instruments, traditionally called “human capital contracts,” would do a better job than debt in creating a market for education financing, especially for graduate professional schools. Recently, proponents of human capital contracts have been arguing not only that such instruments would do a better job than debt of raising capital for students wishing to obtain an education, but that a vibrant market for human capital contracts (sometimes called “income share agreements”) could provide benefits that governmental IBR programs fail to provide. For example, they argue that human capital contracts could remove incentives for students to over-borrow, diminish law schools’ price insensitivity, and provide market data to students about the financial value of their education. But proponents of human capital contracts point out that there are legal and practical impediments to the development of a market for human capital contracts.*

*This Article proposes—and explores the implications of—a new model of law-school financing called an income-based repayment swap (“IBR Swap”). Under an IBR Swap, students still borrow money from a bank or the government to pay for their legal education. But students then enter into contracts with a financial institution under which the institution agrees to make the students’ loan payments and the student agrees to pay the institution a percentage of his or her income. The IBR Swap is a student’s exchange of a fixed obligation to lenders for an income-based obligation to a financial institution. No money is exchanged between the parties upfront.*

*The IBR Swap has all the benefits of human capital contracts, but does not suffer from the same legal barriers and greatly diminishes the primary practical impediment: repayment risk. Thus, unlike a human capital contract or income share agreement, a market for IBR Swaps could be created with no changes to current law. However, the IBR Swap (like human capital contracts) raises concerns as well, including legal, distributional, and ethical ones. This Article presents and discusses the IBR Swap concept in order to advance the debate about the quality and accessibility of legal education.*

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## I. INTRODUCTION

By this point, it's hard to argue that there is not a crisis in legal education, and that the crisis has at least something to do with the *cost* of such education. While the data we have is incomplete at best, our best estimates are that the average law school graduate with a job makes approximately \$78,205,<sup>1</sup> and the debt load of a student who attends a private law school is over \$125,000.<sup>2</sup> At the prevailing government interest rate, servicing that debt load in the standard ten-year repayment period costs a student \$1,438 per month,<sup>3</sup> a whopping 22% of her pretax gross income, assuming that she has no other debt.<sup>4</sup> But if the situation is this dire for the average student, the situation for most students is worse, since the distribution of earnings among recent law school graduates is so variable. If one were to chart starting salaries of law school graduates, the distribution of earnings is bi-modal, with one peak (representing about 16% of students) making approximately \$160,000 and a second peak (representing about 51% of students) making between \$40,000 and \$65,000.<sup>5</sup> A student who

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<sup>1</sup> See National Association of Law Schools (NALP) self-reported data for 2013 ([http://www.nalp.org/class\\_of\\_2013\\_bimodal\\_salary\\_curve](http://www.nalp.org/class_of_2013_bimodal_salary_curve).) This data excludes graduates working part-time and graduates who are not employed.

<sup>2</sup> 2012 ABA data.

<sup>3</sup> Assuming 6.8% interest amortized over 120 months. Of course, if the payment period is extended to twenty years the burden of repayment is less impressive. If we assume the same 6.8% interest rate and \$125,000 of debt, a student's repayment amortized over 240 months is \$954.17, which is a more manageable 14.6% of \$78,205. In addition \$78,205 no doubt underestimates the average student's annual income over the course of twenty years since it is the average salary of a recent graduate.

<sup>4</sup> Brian Tamahana says this pretty succinctly (if inflammatorily) in *The Problem with Income Based Repayment, and the Charge of Elitism: Responses to Schrag and Chambliss*: (at 8, if he had bothered to include page numbers) "Legal education has created a systemic mismatch between cost and return: a law graduate with the average debt, earning the median salary, cannot manage her monthly salary. This astonishing implication merits repeating: the cost of a law degree is so high relative to income that thousands of law graduates would be in financial hardship were it not for the assistance of a government welfare program." For another very inflammatory description of the ways that government IBR exacerbates the law school cost crisis, see Michael C. Macciarola & Arun Abraham, *Options for Student Borrowers: A Derivatives-Based Proposal to Protect Students and Control Debt-Fueled Inflation in the Higher Education Market*, 20 CORNELL J.L. & PUB. POL'Y 67 (2010).

<sup>5</sup> NALP 2012 Distribution Curve ([http://www.nalp.org/class\\_of\\_2012\\_salary\\_distribution\\_curve](http://www.nalp.org/class_of_2012_salary_distribution_curve)). This data is based on student-reported salaries of law school graduates nine months after graduation. Salary data was collected from 65% of students with full-time jobs; students without full-time employment are not counted in the salary data.

borrowed \$125,000 and who is earning \$50,000 (the summit of the lower peak) must pay 35% of her pre-tax income to service her debt under the standard ten-year repayment plan.

Until recently, the primary solution to the problem of variability of income among law-school graduates has been for the federal government to guarantee or directly originate student loans for education, with no impediment to students borrowing the full amount they need to attend law school, and with no assessment of their ability to repay the loans after graduation. As law school tuition has grown in the past decades, this has resulted in an ever-increasing debt burden on law school graduates. The traditional debt model is ill-suited to variable income since all students pay the same rate on the money they borrow regardless of how much they earn during the repayment period.

Recently, the federal government has expanded its income-based repayment programs,<sup>6</sup> under which the federal government guarantees that debt payments on qualifying debt cannot exceed a certain percentage of a student's income, so long as that student extends the period of repayment.<sup>7</sup> Under the most recent iteration of the program, students' repayment is capped at 10 percent of income, so long as they extend their repayment period to twenty years.<sup>8</sup> Any balance remaining after the twenty-year repayment period is forgiven.<sup>9</sup> These government income-based repayment programs are essentially a form of partial insurance against under-earning for those students who borrowed the most and earn the least.<sup>10</sup> While the purpose of government income-based repayment is to increase access to higher education, some are concerned that it distorts the incentives of students and schools and that Congressional support for it may wane as the cost becomes more salient.<sup>11</sup> This concern may be especially apt in the law

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<sup>6</sup> The government offers a number of such programs, such as IBR ("income-based repayment") and PAYE ("pay as you earn"). *See* [government website; other sources describing these].

<sup>7</sup> If the student works for ten years for the government or for a qualified nonprofit organization, the debt can be forgiven after ten years.

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<sup>9</sup> Although the balance that is forgiven is subject to federal income tax.

<sup>10</sup> The average amount of college debt is \$\_\_\_\_, and so only students who earn under \$\_\_\_\_ will qualify. Students who attend law school, however, because their average debt is so much higher, are extremely likely to qualify. A student who borrows \$125,000 will qualify for government IBR until her gross income exceeds \$172,560, and so almost every single student who borrows the average amount will qualify when she first graduates, and the vast majority of lawyers will qualify for their whole careers.

<sup>11</sup> *See, e.g.:* Paul Caron's WSJ article (posted on taxprof 4/22/14) ([http://taxprof.typepad.com/taxprof\\_blog/2014/04/wsj-skyrocketing.html](http://taxprof.typepad.com/taxprof_blog/2014/04/wsj-skyrocketing.html)); also ABA just set up a task force and it was announced in Taxprof 5/7/14 ([http://taxprof.typepad.com/taxprof\\_blog/2014/05/aba-forms.html](http://taxprof.typepad.com/taxprof_blog/2014/05/aba-forms.html)).

school context in which before long the *majority* of graduates are likely to be receiving government assistance to repay their loans.<sup>12</sup>

For more than half a century, some economists have dreamed of another way to fund higher education. Instead of using traditional debt (backed up by a government-subsidized repayment program for those graduates who borrowed the most and earn the least), private investors could provide capital to students to use for their education in exchange for a percentage of the student's future earnings. These so-called "human capital contracts" would arguably decrease the cost of capital for the average student borrower because the investor would capture some of the upside gain of those students who earn more than the average to subsidize their losses from students who earn less than average.

Recently, interest in human capital contracts and similar instruments has blossomed. Companies such as Lumni, Upstart, My Rich Uncle, and Pave have sprung up to provide funding for students in human-capital-like structures.<sup>13</sup> Human capital contracts have been described as a sort of "equity" interest in a person's earnings, and their proponents argue that they are a better instrument to fund an education than traditional debt since outcomes from such investments are so variable. They argue that in the business context, "equity" is often the investment vehicle of choice when a venture is unproven and so outcomes are widely variable, and an equity-like investment in an individual's earnings is similarly more efficient than debt.

But, for decades, proponents of human capital contracts have complained that significant impediments prevent a market for human capital contracts to develop, despite their potential benefits. Some of these impediments are practical, in the sense that they arise out of market conditions surrounding human capital contracts. Other impediments are legal: supporters of these new ventures argue that a significant impediment to the development of this market is legal uncertainty. Academics have expressed significant interest in human capital contracts, risk-based loans,<sup>14</sup> income-linked loans,<sup>15</sup> and other similar structures, but they too have argued that markets cannot develop for such instruments without changes to the law. First, because there is no such thing as an equity interest in a person, it is not at all clear what law would apply to such an instrument if it were created. Second, enforcing the payment obligations could prove

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<sup>13</sup> Lumni, Upstart and My Rich Uncle focus on students (My Rich Uncle is apparently currently defunct); Pave is not exclusively focused on students. Commentators on Human Capital Contracts often also point to Fantex, a company that focuses exclusively on professional athletes, as an example of the recent proliferation of human capital contracts.

<sup>14</sup> Simkovic

<sup>15</sup> Robert J. Shiller, *THE NEW FINANCIAL ORDER: RISK IN THE 21ST CENTURY* (2003) at 139-148.

difficult if a student were to default or declare bankruptcy. The obligation is unsecured and any attempt to force someone to work and repay the investment would run afoul of prohibitions on debt servitude.<sup>16</sup>

Lawmakers and academics have been exploring and proposing ideas for law reform to accommodate human capital contracts for several years. For example, Senator Marco Rubio and Representative Tom Petri have proposed legislation that would make what they call “income share agreements” enforceable.<sup>17</sup> Academics have put forth other approaches to make income-share arrangements (beyond the governments’ current offerings) a reality for students.<sup>18</sup>

This article introduces a novel type of income share agreement, an Income-Based Repayment Swap (“IBR Swap”), that uses a derivative structure to overcome many of the practical and legal impediments to human capital contracts. The IBR Swap is substantially similar to common derivatives widely traded all over the world. Unlike other income share agreements, IBR Swaps coordinate with existing traditional student loans and so the investors who provide the IBR Swap to students do not have to provide up-front capital as part of the transaction. Instead, every month an institutional counterparty makes a fixed payment to a student that the student uses to pay off her student loans, and the student makes a reciprocal payment to the institutional counterparty of a percentage of her income. Because the IBR Swap does not involve an initial disbursement to the student (like human capital contracts or loans do), it side-steps major pitfalls of human capital contracts and regulation pertaining to debt. It is not “equity” in a person if there is no capitalization or up-front disbursement, and investors are not in the position of trying to enforce an unsecured payment obligation for return on a sizable initial investment. Rather, if students default on IBR Swaps, they are still obligated to lenders. Because of the relatively settled treatment of swaps under current law, it is possible that IBR Swaps could become a reality without new legislation or other law reform.

The IBR Swap combines structural and financial advantages of derivatives with the appeal of income-based approaches to financing law school. IBR Swaps are superior financial instruments to human capital contracts, and are less likely to be impeded by existing regulation. But it is not necessarily a good thing to leave IBR Swaps unregulated.<sup>19</sup> Like other

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<sup>16</sup> Part IV discusses enforceability and regulatory concerns in more detail. *See infra* TAN [ ].

<sup>17</sup> *See* Sen. Marco Rubio and U.S. Rep. Tom Petri, Investing in Student Success Act, H.R. 4436, 113<sup>th</sup> Cong. 2<sup>nd</sup> Sess. (April 9, 2014).

<sup>18</sup> Oei/Ring, Schwartz.

<sup>19</sup> This Article (i) situates the IBR Swap in relation to derivatives regulation and

income share agreements, IBR Swaps raise a host of serious concerns about differential treatment of prospective students based on criteria related to assumptions about earning power. Many object to human capital contracts on the grounds that they encourage a market in which, if unregulated, men might get access to capital on more favorable terms than women and students from more privileged backgrounds might get access to capital on more favorable terms than students from less privileged backgrounds, just because some investor determined that the more privileged student is a better investment. In addition, income-share agreements obscure and suppress the non-financial value of higher education to the individual, and the collective value of higher education to society. The IBR Swap does not alleviate these concerns. If anything, it compounds them by introducing a derivative structure that adds efficiency to the income-share agreement concept, potentially generating a market in financial instruments backed by student payment obligations.

In other words, people who like human capital contracts should love the IBR Swap. Conversely, people who find human capital contracts problematic might react very negatively to the IBR Swap. This Article presents the IBR Swap as an innovative improvement on the concept of human capital contracts. It identifies—but does not set out to solve—the problematic implications of income-sharing approaches to financing legal education. Ultimately, the IBR Swap concept—by magnifying concerns surrounding human capital contracts—should incite more rigorous articulation of the need for government involvement in higher education finance and the importance of tailoring commitments of public funds to their best possible uses. A private market mechanism like the IBR Swap has the great benefit of relieving taxpayers of the burden of paying on government income-share programs for students that could have simply made better choices. But this is not to say that the public should have no obligation to support students' choices to attend law school. The fact that human capital contracts have problematic implications is no reason to cling to a government student loan and repayment assistance model that creates perverse incentives for students and schools. The IBR Swap forces consideration of both the potential and the limitations of private-market mechanisms for law school finance. As such, it should inspire critical assessment of what is the best and most impactful role for the government in ensuring access to law school.

This article proceeds in three parts. Part II introduces human capital

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insurance regulation, considering the specific concerns that this particular type of swap raises and what kind of regulation may be appropriate, and (ii) identifies a range of concerns, including problematic forms of discrimination, that the model raises. *See infra* TAN [ ].

contracts and then presents the IBR Swap concept. It explains the IBR Swap and how it is structurally similar to existing swaps in the market. Part III presents benefits of IBR Swaps, explaining how these contracts can—better than the current student loan model—align costs with benefits, generate information, discipline schools with respect to costs, and relieve taxpayers of higher education costs. Part IV considers the regulatory environment, both identifying the current state of affairs under existing law, and examining important issues that should be addressed in any future regulation of IBR Swaps and other income share agreements. Under current law, the IBR Swap structure removes regulatory uncertainty and clears the way for a market in income share agreements, even without new legislation. But, ethical, distributional, and other questions surrounding the IBR Swap concept remain and warrant careful consideration. We believe that experimentation with income share agreements of some sort is likely to expand in the near future. It is crucial that we bring both creativity and detailed attention to the practical, legal, and ethical realities of income-share arrangements and the financial possibilities that they present. It is beyond the scope of this paper to exhaustively address the regulatory tradeoffs that are triggered by moving from a debt-based system of financing higher education to one that interacts meaningfully with students' post-graduate income, but we address one important issue – differential pricing of income share agreements – to give a flavor of the regulatory challenges that are likely to arise. Now is the time to explore innovations like the IBR Swap, as legal education strives to better match costs and capital to educate the next generation of lawyers.

## II. HUMAN CAPITAL CONTRACTS AND INCOME-BASED REPAYMENT SWAPS

Higher-education financing is currently dominated by a model in which the government is both the primary lender or guarantor of student loans and the provider of subsidized insurance against extreme under-employment. But some economists have long dreamed of another possibility in which private markets supplied students with funding for their education in a way that is more efficient than loans. A “human capital contract” is a kind of “equity-like” interest in a person’s future earnings. In a human capital contract, “a student who wants to attend college, but does not have the resources to do so, signs a contract with an investor in which [the student] commits to pay [a percentage] of his income for [a period of time] after graduation in exchange for [an upfront payment] received today to pay for tuition fees and living expenses.”<sup>20</sup>

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<sup>20</sup> Miguel Palacios Lleras, *INVESTING IN HUMAN CAPITAL 1* (Cambridge 2004).

In recent years, commentators have discussed a variety of financial instruments that are human-capital-contract-like in their structure. For example, the Nobel-prize-winning economist Robert Shiller introduced an instrument he called an “income-linked loan,”<sup>21</sup> which is very much like a human capital contract. In this Article, we use the term “income share agreement” to refer to the whole range of instruments that resemble human capital contracts, including the IBR Swap. Proponents of income share agreements go to great pains to explain why a financial instrument with so much potential barely exists. They tend to do so by pointing to both unfavorable laws (thus the Rubio/Petrie legislation<sup>22</sup>) and some practical issues like the risk of nonpayment by students.<sup>23</sup> This Part discusses the history of human capital contracts and other recent variations of income share agreements. It then presents the IBR Swap— an innovative type of income share agreement that solves, or dramatically reduces, a significant number of the legal and practical problems that allegedly prevent the development of a robust market for human capital contracts.

#### A. *Human Capital Contracts*

Economists point to a footnote in a 1945 article by Milton Friedman and Simon Kuznets as the origin of the idea of using “human capital contracts” to finance higher education.<sup>24</sup> Friedman and Kuznets were complaining that “investment in training is not governed by the usual profit incentives” because investors could not capture the expected return on an investment in the education of stranger.<sup>25</sup> Because future income is so variable, advancing a student money to finance her education is risky. She may earn enough to pay you back with interest, but she may well *not* earn enough and default on her obligation to you. If that happens, the lender has very little recourse, since the student has no property to offer as security in the case of default. Because of the variability of future income, debt is an ill-suited mechanism for financing education. When business ventures are risky, and when they have little property to offer as collateral, it is common for them to raise capital by offering investors an ownership interest in exchange for their investments. That way, while the risk of loss is greater than in the case of debt, it is balanced by an ability to receive higher returns if the business venture is successful. Friedman’s and Kuznets’ footnote describes “an analogy that at first blush may seem fantastic” – “if

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<sup>21</sup> Robert J. Shiller, *THE NEW FINANCIAL ORDER: RISK IN THE 21ST CENTURY* (2003) at 139-148.

<sup>22</sup> See Sen. Marco Rubio and U.S. Rep. Tom Petri, Investing in Student Success Act, H.R. 4436, 113<sup>th</sup> Cong. 2n Sess. (April 9, 2014).

<sup>23</sup> *Id.* at 105-122.

<sup>24</sup> Milton Friedman & Simon Kuznets, *Income in the Professions and in Other Pursuits*, in *INCOME FROM INDEPENDENT PROFESSIONAL PRACTICE* 90 n. 20 (NBER 1945).

<sup>25</sup> *Id.* at 89.

individuals sold ‘stock’ in themselves, i.e., obligated themselves to pay a fixed proportion of future earnings, investors could ‘diversify’ their holdings and balance capital appreciation against capital losses.”<sup>26</sup> In other words, if investors could participate in the upside gain of very successful students, they could use that money to offset losses caused by unsuccessful students, and the result should be a lower cost of capital for the average student.

Friedman was not done with the idea in 1954. He returned to it in 1955 in an article that was influential in Congress’s later decision to offer federal guarantees in order to foster a student loan industry.<sup>27</sup> This time Friedman argued more fully that this problem with fixed-rate debt as the sole source of capital for education would not exist if it were possible for investors to take an “equity interest” in the future earnings of a student.<sup>28</sup> So why don’t students find such “equity” investors? Friedman concedes that “[t]here seems no legal obstacle to private contracts of this kind, even though they are economically equivalent to the purchase of a share in an individual’s earning capacity, and thus to partial slavery.”<sup>29</sup> But Friedman recognized a host of difficulties with such a contract. Primary among them, according to Friedman, is the fact that they might be hard to enforce, since there is no property to use as collateral and the person subject to the contract may well move around avoiding collection.<sup>30</sup> But he also commented that,

I have never been able to persuade myself that a major role has not also been played by the cumulative effect of such factors as the novelty of the idea, the reluctance to think of investment in human beings as strictly comparable to investment in physical assets, the reluctant likelihood of irrational public

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<sup>26</sup> *Id.* at note 20.

<sup>27</sup> See Milton Friedman, *The Role of Government in Education*, ECONOMICS IN THE PUBLIC INTEREST (Rutgers University Press 1955). But see J.R. Walsh, *Capital Concept Applied to Man*, 49 Q. J. OF ECON. 255 (1935)(purporting to show that there was no underinvestment in “vocational” education in medicine, engineering, academics, or masters degrees, and that law was the one area in which it appeared that there was underinvestment). See, also Friedman (1955), *supra* note \_\_\_ at [10 of 14] (“Such investment necessarily involves much risk [because of] differences in ability, energy, and good fortune.... The result is that if fixed money loans were made ... the nominal interest rate charged on all loans would have to be sufficiently high to compensate for the capital losses on the defaulted loans. The high nominal interest rate would conflict with usury laws and make the loans unattractive to borrowers....”).

<sup>28</sup> *Id.* (“The device adopted to meet the corresponding problem for other risky investments is equity investment.... The counterpart for education would be to ‘buy’ a share in an individual’s earning prospects: to advance him the funds needed to finance his training on condition that he agree to pay the lender a specified fraction of his future earnings.”)

<sup>29</sup> Friedman (1955), *supra* note \_\_\_ at [10 of 14].

<sup>30</sup> *Id.* at [10 of 14].

condemnation of such contracts, ... and legal and conventional limitation on the kind of investments that may be made by the financial intermediaries that would be best suited to engage in such investments[.]<sup>31</sup>

In other words, it may be that the impediments to these human capital contracts are not inherent in the market, but are external, caused either by “irrational” conventional attitudes or laws.

If the concept of human capital contracts has a long history, actual human capital contracts have only begun to appear in the market very recently.<sup>32</sup> But their modest appearance has been accompanied by a significant amount of attention by investors,<sup>33</sup> academics,<sup>34</sup> and (most recently) lawmakers.<sup>35</sup> While observers of the contemporary explosion of human-capital-contract-like financial innovation disagree about many things, they all appear to agree that the current legal and regulatory environment creates significant uncertainty, and is therefore an impediment to the development of a market for human capital contracts or similar financial products.<sup>36</sup>

Perhaps the most vocal recent advocate of human capital contracts is

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<sup>31</sup> *Id.*

<sup>32</sup> Companies that have recently begun to offer investments that are arguably human capital contracts include Fantex (<https://fantex.com/>), Upstart (<https://www.upstart.com/>, no longer offering HCC-like loans), Lumni (<http://www.lumni.net/>), Pave (<https://www.pave.com/>), and the recently dissolved My Rich Uncle (<http://en.wikipedia.org/wiki/MyRichUncle>).

<sup>33</sup> Lumni, Pave, My Rich Uncle, Upstart, [Fantex?].

<sup>34</sup> See **Bas Jacobs & Sweder J.G. van Wijnbergen**, *Capital-Market Failure, Adverse Selection, and Equity Financing of Higher Education*, 63 FINANZARCHIV/PUBLIC FINANCE ANALYSIS 1 (Mar. 2007); **Michael C. Macciarola & Arun Abraham**, *Options for Student Borrowers: A Derivatives-Based Proposal to Protect Students and Control Debt-Fueled Inflation in the Higher Education Market*, 20 CORNELL J.L. & PUB. POL’Y 67 (2010); **Shu-yi Oei & Diane Ring**, *The New “Human Equity” Transactions*, 5 CAL. L. REV. CIRCUIT 266 (2014); **Shu-yi Oei & Diane Ring**, *Human Equity? Conceptualizing and Regulating the New Income Share Agreements*, DRAFT (posted on SSRN July 23, 2014); **Miguel Palacios**, *Human Capital Contracts: “Equity-Like” Instruments for Financing Higher Education*, 462 POL’Y ANALYSIS (December 16, 2002); **Miguel Palacios Lleras**, *INVESTING IN HUMAN CAPITAL* (Cambridge 2004); **Miguel Palacios, Tonio DeSorrento, Andrew P. Kelly**, *Investing in Value, Sharing Risk: Financing Higher Education Through Income Share Agreements*, AMERICAN ENTERPRISE INSTITUTE’S CENTER ON HIGHER EDUCATION REFORM (Feb. 2014); **Jeff Schwartz**, *The Corporatization of Personhood*, 2015 U. ILL. L. REV. \_\_\_\_ (forthcoming 2015)(“Financial Innovation has brought us something once confined to the realm of dystopian science fiction.”).

<sup>35</sup> See Sen. Marco Rubio and U.S. Rep. Tom Petri, *Investing in Student Success Act*, H.R. 4436, 113<sup>th</sup> Cong. 2<sup>nd</sup> Sess. (April 9, 2014).

<sup>36</sup> For example, the Upstart blog, in explaining why Upstart discontinued its income-based funding operations, stated, “while many regulatory and policy efforts are underway to facilitate the development of the market, these efforts will likely take many years.” (quoted in Oei/Ring, *Human Equity*, at note 24.)

Miguel Palacios, a professor of finance at Vanderbilt University's business school and a founder of one of the first human-capital contract providers, Lumni.<sup>37</sup> Lumni offers traditional human capital contracts providing capital upfront in exchange for a percentage of future income for students who show unusual promise. Lumni purports to be currently financing students in the U.S., but Lumni started in Chile, where apparently the legal environment is less uncertain, and Palacios has complained that legal uncertainty is a significant barrier to the development of a market for human capital contracts in the U.S.<sup>38</sup> But Palacios is not alone in believing that the time is ripe for the development of a market for human capital contracts or other similar financial instruments. Nobel-prize-winning economist Robert Shiller touted what he calls "income-linked loans" in a 2003 book, and he argued that "It is time to consider income-linked loans."<sup>39</sup> Finally, members of both houses of Congress have noticed the potential for what they call "income share agreements," proposing legislation in both the House and Senate to "provide the legal framework necessary for the growth of innovative private financing options for students to fund postsecondary education[.]"<sup>40</sup> The premise of the legislation is that various types of income share agreements are potentially beneficial, but that the current legal environment does not permit them, or is uncertain enough to raise their cost unnecessarily.

### B. *The IBR Swap*

Human capital contracts have numerous potential benefits, which is why Milton Friedman, Robert Shiller, and others are so enamored of them. But, as discussed in Part III, human capital contracts have a number of flaws as well, both legal and practical.<sup>41</sup> This Article presents for the first time a relatively simple innovation to the human capital contract, which, to the authors' knowledge, has never been proposed before.<sup>42</sup> We call this innovation an Income-Based Repayment Swap ("IBR Swap"). It solves a

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<sup>37</sup> <http://www2.owen.vanderbilt.edu/miguel.palacios/>.

<sup>38</sup> <http://www.lumniusa.net/about/our-story>

<sup>39</sup> Shiller, *supra* note \_\_\_ at 140 ("[technological] innovations would dramatically reduce obstacles. It is time to consider income-linked loans.")

<sup>40</sup> H.R. 4436 (113<sup>th</sup> Cong. 2<sup>nd</sup> Sess.)

<sup>41</sup> *See, infra* at \_\_\_\_.

<sup>42</sup> While no one has proposed a swap structure for human capital contracts, Michael Macciarola and Arun Abraham proposed a financial instrument that has an "option" feature, which is, as far as we know, the first attempt to use the structure of a well-known derivative to think creatively about education financing. *See Michael C. Macciarola & Arun Abraham, Options for Student Borrowers: A Derivatives-Based Proposal to Protect Students and Control Debt-Fueled Inflation in the Higher Education Market*, 20 CORNELL J.L. & PUB. POL'Y 67 (2010).

surprising number of both the practical and the legal flaws of a human capital contract.

An IBR Swap, as we present it, is a contract between a student in a three-year J.D. program at some U.S. law school (the student counterparty) and a fund or financial institution (the institutional counterparty) under which the student pays a percentage of income and the institution covers the costs of the student's law school loans.<sup>43</sup> The institution could be a law school, or it might be a fund created by that law school, a bank, or a third-party investor of some sort, but for simplicity's sake, let's assume at the outset that the institution is not a law school, but is an unrelated third-party investor.

The student borrows money to pay for her education from the government or other student lenders, just as she would normally. She takes out exactly the same type of loan as any other student seeking funding for her graduate education. Let's imagine that a student borrows \$150,000 to pay for three years of law school. Her loans come with a federally guaranteed fixed interest rate of 6.8% and a repayment schedule of 10 years.<sup>44</sup> Repayment is scheduled to begin six months after her graduation. Her monthly loan repayments would be \$1,726. She takes that \$150,000 and pays it to her school in tuition, just as any other student would.

Simultaneously with taking out her loans and paying her tuition, the student enters into an IBR Swap agreement with an institutional counterparty. The institutional counterparty agrees to pay her \$1,726 per month for 120 months (ten years) starting on the same day her student-loan obligations begin. In other words, the institutional counterparty agrees to pay her exactly the amount she will need to pay back her loans for exactly the same term as her loans.

With the institutional counterparty agreeing to pay the student counterparty \$1,726 per month for 120 months, the student agrees to pay the institution 15% of her income for the same 120 months. So, at some set day in each month, the institution pays the student \$1,726 and the student pays the institution 15% of her income. If the student is making \$120,000 per year (\$10,000 per month), then she would owe the institution \$1,500 each month.<sup>45</sup> In its basic structure, this is a simple swap transaction.

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<sup>43</sup> The IBR Swap concept could be applied outside the law school context, and we have limited it to the law school context because we believe that the law school context is materially different enough in a variety of ways to focus our attention there.

<sup>44</sup> For several years, graduate loans carried an interest rate of 6.8%. However, under current law, federal student loans for graduate students carry an interest rate that is tied to the 10-year Treasury Note. For loans first disbursed between 7/1/14 and 7/1/15, that rate is 6.21%. See <https://studentaid.ed.gov/types/loans/interest-rates>.

<sup>45</sup>

A swap is a transaction in which the parties, called “counterparties,” exchange cash flows or obligations.<sup>46</sup> A swap is a derivative—an agreement to transfer risk, the value of which is derived from the value of an underlying asset.<sup>47</sup> The underlying asset in derivatives transactions may be any tradable instrument, an interest rate, a commodity, a currency, etc.<sup>48</sup> A swap is a derivative in which the parties trade payment obligations (or cash flows) at specified payment dates during the agreed-upon term of the transaction.<sup>49</sup> The payment obligations that the parties exchange are called the “legs” of a swap.<sup>50</sup>

For example, in a typical interest rate swap, counterparty A transfers to counterparty B the obligation to make floating rate interest payments on some underlying amount of money—the notional amount of the swap. In exchange, counterparty B transfers to counterparty A the obligation to make fixed-rate interest payments on the same notional amount.<sup>51</sup> An interest rate swap commonly involves exchanging a fixed payment obligation for a floating rate or variable payment obligation. Many different kinds of swaps exist in the market.<sup>52</sup>

Again, in an IBR Swap, an institutional counterparty assumes a student’s law school loan obligations. In exchange, the student counterparty gives to the institutional counterparty a contractual right to receive some

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<sup>46</sup> See International Swaps and Derivatives Association (ISDA) *Frequently Asked Questions*, available at <http://www.isda.org/educat/faqs.html>, last viewed Feb. 26, 2014 (hereinafter “ISDA FAQs”); JOHN C. HULL, *OPTIONS, FUTURES AND OTHER DERIVATIVES* (4<sup>th</sup> ed.); Saul S. Cohen, *The Challenge of Derivatives*, 63 *FORDHAM L. REV.* 1993 (1995). Times Topics: *Derivatives*, N.Y. TIMES, available at <http://topics.nytimes.com/top/reference/timestopics/subjects/d/derivatives/index.html> (last updated April 18, 2012) (explaining what derivatives are and referring readers to various recent articles about derivatives).

<sup>47</sup> See ISDA FAQs, *supra* note [ ].

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

<sup>51</sup> See generally, ISDA FAQs *supra* note [ ]. This is the most basic example of an interest rate swap, which may take a range of structural variations, such as, for example, in the cases of deferred rate swaps (where a party needs funds immediately but thinks interest rates will fall in the future), zero coupon swaps (where a party denominates liabilities in floating rates but would like to conserve working capital), and amortizing swaps (where the notional amount declines during the life of the swap). See generally [ ].

<sup>52</sup> For example, there are, among others: currency swaps (in which the parties exchange principle and interest payments in one currency for principle and interest payments in a different currency); commodity swaps (in which parties exchange a fluctuating market price for a fixed price of some commodity over a designated time period); and credit default swaps (in which one party pays a fee to the other party in return for compensation for default, however defined, by some reference entity). See generally, ISDA FAQs *supra* note [ ].

percentage of the student's income over time.<sup>53</sup> The IBR Swap involves exchanging "fixed" payments—contractual obligations to a lender—for "floating" payments—a contractual obligation to pay a percentage of income.<sup>54</sup>

The payments that the counterparties exchange are based on a "notional amount"—a stipulated "principal" amount based on the student's outstanding loan principal.<sup>55</sup> As ISDA states, "the notional amount of a derivative contract is a hypothetical underlying quantity upon which interest rate or other payment obligations are computed."<sup>56</sup> The notional amount of a swap, in other words, does not have to equal the actual principal amount on any underlying obligations of the counterparties. In a swap, the counterparties do not exchange the notional amount.<sup>57</sup> They exchange only the interest payments (which are netted out).<sup>58</sup>

There are several different ways to classify derivatives.<sup>59</sup> Some classify derivatives based on the underlying assets or metrics involved.<sup>60</sup> Others focus on whether a derivative is exchange-traded or over-the-counter

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<sup>53</sup> For discussion of the enforceability of this kind of obligation, see *infra* TAN [ ].

<sup>54</sup> The student loan leg of the swap (transferred to the institutional counterparty) is fixed in the sense that it is denominated by contract, not in the sense that the payment amounts necessarily are fixed. Payment amounts may be fixed or variable depending on whether the student borrows on a fixed or floating rate basis from lenders.

<sup>55</sup> In an IBR Swap, the counterparties could stipulate the "notional amount" to reflect the student's full obligation to law school lenders. In this case, the institutional counterparty would pay both principle and interest obligations assigned by the student counterparty. However, because swap counterparties stipulate notional amount, this amount also could be some portion of the student's law school loans. For example, the aggregate outstanding principle (and any capitalized interest) on the student's loan obligations may include funds borrowed to cover living expenses, books, and other costs that are not remitted to the school. The school receives only the portion of disbursements from lenders that is for tuition and fees. The institutional counterparty could, if it preferred, limit the notional amounts of IBR Swaps to portions of student debt that funded tuition and other remittances to the school. This is just to illustrate the concept of notional amount in the IBR Swap context.

<sup>56</sup> ISDA FAQs, *supra* note [ ] at question 7.

<sup>57</sup> *See id.*; Lynch, *Derivatives* at note 12.

<sup>58</sup> As ISDA explains: "Payment netting reduces payments due on the same date and in the same currency to a single net payment. Payment netting is essentially identical to the legal concept of set-off." ISDA FAQs *supra* note [ ].

<sup>59</sup> *See* Timothy E. Lynch, *Gambling by Another Name: The Challenge of Purely Speculative Derivatives*, 17 STAN. J. L. BUS. & FIN. 67 (2011) (hereinafter "Lynch, *Gambling*"); Timothy E. Lynch, *Derivatives: A Twenty-first Century Understanding*, 43 LOY. U. CHI. L.J. 1 (2011) (hereinafter "Lynch, *Derivatives*"); Jeffrey Manns, *Insuring Against a Derivative Disaster: The Case for Decentralized Risk Management*, 98 IOWA L. REV. 1575 (2013).

<sup>60</sup> *Id.*

(OTC),<sup>61</sup> along with whether it is booked with a clearinghouse or not.<sup>62</sup> The IBR Swap would be an OTC (as opposed to an exchange-traded) swap. Simply put, an OTC derivative is done directly between the counterparties, without the supervision or involvement of an exchange.<sup>63</sup> For purposes of understanding the IBR Swap, this section draws on recent legal scholarship that classifies derivatives according to counterparty motivation.<sup>64</sup>

We can classify derivatives among (a) those in which both counterparties are hedging, (b) those in which one counterparty is hedging and the other is speculating, and (c) those in which both counterparties are speculating.<sup>65</sup> The IBR Swap involves a student counterparty that is hedging preexisting risk, and an institutional counterparty that is speculating on students' future income—it is in the speculator-hedger category.<sup>66</sup> In some contexts, derivatives serve a hedging purpose: they can offset or hedge against preexisting risks, as does insurance.<sup>67</sup> The ability to acquire insurance can offset loss; hence, buying insurance reduces risk. In other contexts, derivatives serve a speculative purpose: they can create payment obligations based on the parties' (contrasting) predictions of future events, creating risk that did not previously exist.<sup>68</sup>

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<sup>61</sup> See Lynch, *Gambling*, *supra* note [ ].

<sup>62</sup> *Id.*

<sup>63</sup> In contrast, exchange-traded derivatives are executed on organized exchanges and are booked with the exchange's clearinghouse. See PHILIP M. JOHNSON & THOMAS L. HAZEN, *DERIVATIVES REGULATION* (2004); See also ISDA FAQs, *supra* note [ ]. Note that some OTC derivatives are booked with a clearinghouse. *Id.* The IBR Swap would involve a student counterparty and an institutional counterparty entering a contract in a context apart from an organized exchange or from clearinghouse requirements.

<sup>64</sup> See Timothy E. Lynch, *Gambling by Another Name; The Challenge of Purely Speculative Derivatives*, 17 STAN. J. L. BUS. & FIN. 67 (2011); Lynn Stout, *Why the Law Hates Speculators: Regulation and Private Ordering in the Market for OTC Derivatives*, 48 DUKE L. J. 701 (1998-1999).

<sup>65</sup> See Lynch, *supra* note [ ].

<sup>66</sup> The possibility that a student would not have incurred risk (debt obligations to law school lenders), but for the existence of an IBR Swap program does not affect this designation. A homebuyer may not proceed to closing without fire or title insurance; this does not alter the fact that fire or title insurance involves shifting existing risks of home ownership to an entity willing to, or better able to, bear it. In a speculator-hedger derivatives contract, the speculating party is either accepting risk for a price premium (as in insurance) or is relying on superior information about prevailing or predicted trends (as in information arbitrage). See Lynch, *Gambling*, *supra* note [ ] at 79-82.

<sup>67</sup> See *id.*; Hazen, *supra* note [ ]; Henderson, *supra* note [ ]; Lynch, *Gambling*, *supra* note [ ]; Manns, *supra* note [ ].

<sup>68</sup> Many commentators describe derivatives as bets, in a literal sense. They are agreements under which one party will pay the other, depending on whether or not certain events occur. Lynn A. Stout, *Derivatives and the Legal Origins of the 2008 Credit Crisis*, 1 HARV. BUS. L. REV. 1, 6 (2011) (stating that “[t]he value of a derivative agreement is ‘derived’ from the performance of the underlying financial phenomenon, just as the value

Derivatives that fall into the speculator-hedger category the literature further divides among those in which the speculator assumes risk for a premium—the insurance model<sup>69</sup>—and those in which speculators expect to leverage superior information or predictive capacity—the information arbitrage model.<sup>70</sup> IBR Swaps could follow either an insurance

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of a betting ticket at the racetrack is ‘derived’ from the performance of a horse in a race”). Betting can serve very different purposes in different market contexts. Regulatory and market challenges surrounding derivatives concern the fact that speculative betting can reduce welfare by exposing market actors to new risks without a compensating increase in returns. See Stout, *supra* note [ ]; Lynch, *Gambling, supra* note [ ]. (Bets that are hedging, or serve an insurance function, in contrast, involve transfer of risk for a premium.) “In the parlance of economic theory,” Stout explains, “speculative derivatives trading is a form of *rent-seeking*—trying to acquire wealth not by creating it, but by taking existing wealth from someone else.” Stout, *supra* note [ ] at 9. Rent-seeking is bad, in economists’ views, because it involves expending resources in a way that does not create new value, resulting in a net reduction of social welfare. See *id.*; DAVID A. BARNES & LYNN A. STOUT, CASES AND MATERIALS ON LAW AND ECONOMICS (1992). Many defend speculative derivatives on grounds that they provide other benefits such as greater liquidity and price discovery. See Lynch, *supra* note [ ]. For discussion of IBR Swaps and price discovery, see *infra* TAN [ ]. Section B below will discuss policy and regulatory approaches to derivatives, and regulatory treatment of the IBR Swap. See *infra* TAN [ ].

<sup>69</sup> Under an insurance model, counterparties agree to swap payments based on a formula that slightly favors the risk purchaser—paying, in essence, a premium for transferring the risk. In the case of a derivative that follows the insurance model, the terms of the derivative will favor, to some degree, the speculating counterparty. Such speculators earn profits in aggregate, over time, by entering many contracts and then allowing the favorable terms, combined with probabilities and events over time, to yield a return. See Lynch, *supra* note [ ] at 80. The speculating counterparty does not receive a “price” embedded in the contract, like an insurance premium, necessarily. Rather, the counterparties may calculate the amounts of payments to be swapped, or other terms of the swap, using formulas designed to slightly favor the speculating counterparty. See Lynch, *supra* note [ ] at note 49.

<sup>70</sup> Under an information arbitrage model, risk purchasers invest in generating better information than their counterparties have. In the case of a speculator-hedger derivative that follows the information arbitrage model, the speculating party may not assume risk for a “price.” Rather, this counterparty may be privy to superior information about the direction or future value of the underlying asset, or may have better tools or predictive skills. This kind of speculator counterparty will enter into a derivative contract with market (not favorable) terms and then wait for its predictive skills and informational advantages to produce a return. See Lynch, *supra* note [ ] at 79-81. This counterparty may invest in research and collect and analyze data in a way that the hedger does not. The hedger counterparty gets to mitigate risk at current market rates. The speculator counterparty gets to leverage the value of its information and analysis vis-à-vis a certain type of underlying asset with the numerous hedgers seeking to transfer risk. *Id.* Derivatives in which a speculating counterparty follows the information arbitrage model can contribute to price discovery—helping the market to determine accurate market prices for the underlying asset. The underlying asset in an IBR Swap, again, is the value of a law degree. Law degrees have market prices, and though their value is not measured in purely financial terms, in theory the market prices for law degrees could potentially benefit from the price

model or an information arbitrage model. Either way, students benefit from the fact that the institutional counterparty is able to assume risk and diversify its exposure to student counterparties' earning trajectories.<sup>71</sup>

In an IBR Swap, the two counterparties—the student counterparty and the institutional counterparty—assume credit risk associated with the willingness and ability of the counterparty to perform.<sup>72</sup> The student counterparty assumes the risk that the institutional counterparty could default on the student's obligations to lenders. The institutional counterparty assumes risk that the student counterparty could default on his or her income-based payments. If either party defaults, the result is that the student is liable for any payments owed on outstanding student loans.

If the student counterparty earns more than expected, the IBR Swap has a negative value for the student counterparty and a positive value for the institutional counterparty. If the student counterparty were to default, then the student counterparty would be liable for any outstanding amounts owed to his or her law school lenders. In this scenario, the institutional counterparty's loss would be equal to the difference between the payments the institutional counterparty expected to receive from the student counterparty, and the payments the institutional counterparty was obligated to make to the student counterparty's student lenders.

For any month, it is very easy to observe whether the IBR Swap has a negative or positive value for either of the counterparties. For example, remember the case in which the student counterparty's annual income of \$120,000 produces a payment to the institutional counterparty of \$1,500, while the institution's payment to student is \$1,726. In that case, the IBR

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discovery effects of derivatives. The ways in which an IBR Swap program would generate information about value of law degrees is multifaceted, as discussed in Part III.A.2.

<sup>71</sup> Individual students would have the opportunity to transfer student loan risk to the institutional counterparty, and the institutional, speculator counterparty would expect a return based on its assessment of the aggregate earning trajectories of all of its hedging counterparties. Based on demographic and other data, the institutional counterparties may look at classes of law students, in aggregate, and predict that their earnings will outpace student loan obligations over time, regardless of whether any individual student follows a low-paying public interest career path, or suffers professional or personal setbacks that undermine earning potential. For discussion of problematic implications, *see infra* TAN [ ].

<sup>72</sup> A party suffers loss on a swap when (a) the counterparty defaults AND (b) the swap has a positive value to the non-defaulting party. The loss that happens upon occurrence of these two conditions will be equal to the market value of the swap. The market value of an interest rate swap is the difference between the present value of the payments a counterparty expects to get, and the present value of the payments that counterparty expects to make. So, the value of the swap can vary over time. At inception of an interest rate swap, the value is commonly zero for both parties. Over time, the swap's value may increase for one counterparty and decrease for the other, depending on the fluctuation of interest rates. *See ISDA FAQs supra* note [ ].

Swap has a negative value for the institution of \$226 (the difference between its payment of \$1,726 and its corresponding receipt of \$1,500) and a positive value of \$226 for the student. If the student's income increases to \$160,000, her monthly payment would increase to \$2,000 while the institution's monthly payment stays the same at \$1,726. In that month, the IBR Swap has a positive value for the institution of \$274 (the difference between its payment of \$1,726 and its corresponding receipt of \$2,000) and a negative value of \$274 to the student.

Remember, the student has an offsetting obligation in addition to her obligation under the IBR Swap. She borrowed money from the government at a fixed interest rate. Every month she owes the government \$1,726 in addition to the 15% of her income that she owes institutional counterparty. Luckily, she is receiving exactly that amount from institutional counterparty every month.<sup>73</sup> So, whether the IBR Swap has a positive or negative value for her, she is out 15% of her income every month. The institution presumably has no other offsetting obligation. It just has to pay the student the fixed leg of the swap and receive from student the income-based leg.<sup>74</sup>

If the student counterparty earns more than expected, and wants to minimize payments, the student counterparty could default and revert to paying off lenders, though contract terms of the IBR Swap would discourage this. Conversely, if the student counterparty earns a relatively low income, the IBR Swap, technically, has a negative value for the institutional counterparty and a positive value for the student counterparty. IBR Swaps may require regulation—such as capital adequacy requirements

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<sup>73</sup> In practice, swap payments are generally “netted,” and so cross-payments are in practice avoided. If the student owed the institutional counterparty \$2,000 and the institutional counterparty owed the student \$1,726, then a single payment would be made from the student to the institutional counterparty of \$274 (the difference between the cross-obligations). The student would also have an independent obligation to make a payment of \$1,726 to the government on account of her student loan, and so her total obligation (part to the institutional counterparty and part to the government) would equal 15% of her income. Of course, if it was desirable to both parties, the payment obligations could be structured differently, with a single payment from the student to the institutional counterparty for her entire obligation (15% of income) and a corresponding payment by the institutional counterparty of its obligation directly to the student's lender.

<sup>74</sup> Obviously, there are lots of question left to be answered, but the basic structure of the IBR Swap is no more complicated than what has been described. Remaining questions include: (1) how should the “price” of the swap be computed? (15% was just an example); (2) under what circumstances would one party “default” on their obligation such that the other party could stop making its payments; (3) how would “income” be computed; (4) would there be a “floor” or a “ceiling” on total payments; (5) would the Student be “required” to seek full-time work after graduation; (6) what kind of “penalty” would apply if one of the counterparties stopped making payments; (7) etc.

and penalties for breach—to prevent institutional counterparties from defaulting on swaps that have a negative value to them.

Many types of derivatives raise moral hazard concerns,<sup>75</sup> and as discussed in [the appendix], IBR Swaps could as well. Student counterparties may “slack off” and decline to meet their full earning potential, knowing that they are protected by the swap transaction from risk of default on student loans. Of course, part of the purpose of an IBR Swap program would be to enable students to choose public interest careers that are not as well-compensated as other paths. To the extent an IBR Swap program would enable students to choose a public interest career, it is not entirely accurate to describe such a choice in terms of moral hazard among swap counterparties.

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The fact that the IBR Swap differs in some fundamental ways from typical, existing swaps reveals questions to think through as part of the process of vetting the IBR Swap concept and exploring its potential. In addition, there are many variations on the basic IBR Swap structure that may enhance the concept’s potential. Some variations could be incorporated into pilot IBR Swap programs. Others may require an existing or mature market for this kind of swap.

For example, rather than limit counterparties to individual law schools and their matriculating students, law schools could form associations through which they collectively offer an IBR Swap program. If institutional and student counterparties are sufficiently diversified, an intermediary could match counterparties to facilitate optimal pricing, much like financial intermediaries do in traditional derivatives markets.

For another example, institutional counterparties may develop the capacity to offset risk in the way that swap dealers do by entering into credit default swaps or other hedging instruments. While this kind of development may affect some of the positive incentives that we discuss surrounding the ‘law school/ student co-venture,’ it may also improve and diversify financing options for legal education.

For yet another example, IBR Swap counterparties could negotiate delayed start swaps<sup>76</sup> or deferred rate swaps,<sup>77</sup> both of which currently exist

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<sup>75</sup> See Lynch, *Gambling*, *supra* note [ ] at 107; Frank Partnoy & David Skill, Jr., *The Promise and Perils of Credit Derivatives*, 75 U. CIN. L. REV. ([ ]) 1019, 1034-36.

<sup>76</sup> The use of delayed start or forward swaps in the market involves synthesizing swaps of different durations to create an instrument with a term suitable to an investor. This practice is slightly more complex than what is suggested here for IBR Swaps—deferring the student counterparty’s payment obligations to a time frame most advantageous to the parties. For comparison, Investopedia describes delayed start swaps as: “A swap agreement created through the synthesis of two swaps differing in duration for the purpose of fulfilling

in derivatives markets. Delayed start swaps could enable students to match payment obligations with time periods in which they anticipate sufficient earnings (rather than, simply, the time period beginning upon graduation).<sup>78</sup> Deferred rate swaps could enable students and the school to negotiate the percentage of income the student will pay at a point in time when the parties have better information about the student's career trajectory. This list of examples of structural variations on the IBR Swap could go on. The purpose here, however, is to explain the basic IBR Swap concept.

### III. BENEFITS OF IBR SWAPS

The current interest in income share agreements accompanies widespread anxiety about the rising costs of higher education, and the recognition that traditional student loans are incapable of providing access to higher education without undue burden on students.<sup>79</sup> In the law school context, the situation for graduates is even more pronounced than in other areas.<sup>80</sup> Supporters of income share agreements argue that market-based financial innovations, like human capital contracts, offer several benefits over traditional debt. These benefits are equally available to IBR Swaps. But there are additional benefits of IBR Swaps that are unique to them. This section first discusses benefits that IBR Swaps share with human capital contracts and other similar instruments and then explains those benefits that arise from unique attributes of the structure of the IBR Swap.

#### A. *Benefits Shared With Other "Income-Share Agreements"*

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the specific time-frame needs of an investor. Also referred to as a 'forward start swap,' 'delayed start swap,' and a 'deferred start swap.' For example, if an investor wants to hedge for a five-year duration beginning one year from today, this investor can enter into both a one-year and six-year swap, creating the forward swap that meets the needs of his or her portfolio." INVESTOPEDIA, available at [www.investopedia.com/terms/d/forwardswap](http://www.investopedia.com/terms/d/forwardswap).

<sup>77</sup> Investopedia describes this kind of swap as: "An exchange of cash flows, one of which is based on a fixed interest rate and one of which is based on a floating interest rate, in which the spread (difference) between the fixed and floating interest rates is determined when the swap is initiated but the actual interest rate is not determined until later. The swap contract will define the amount of time the investor has to lock the swap's fixed interest rate." INVESTOPEDIA, available at [www.investopedia.com/terms/d/delayed-rate-setting-swap](http://www.investopedia.com/terms/d/delayed-rate-setting-swap).

<sup>78</sup> If a delayed start IBR Swap were to create student counterparty obligations payable after the terms of student loans, incentives for performance change, however. See *supra* TAN [ ].

<sup>79</sup> See Palacios, Policy Analysis (2002) at 2 ("With education costs rising steadily and a shortage of student aid, new instruments are needed to finance students who have the capability and desire to go to college but do not possess the needed resources.")

<sup>80</sup> See discussion *supra* at \_\_\_\_.

*1. Alignment of costs with benefits*

The primary benefit of IBR Swaps and other income-share agreements is that they do a better job than debt of aligning the costs of an education to the financial benefit to the student.<sup>81</sup> A debt arrangement defines the cost to the student before she knows how much money she will earn post-graduation. If a student loan program is going to break even, the interest rate must be high enough for regular borrowers to subsidize those borrowers who default because they do not earn enough to service their loans.<sup>82</sup> Thus, all students who earn enough to avoid default must subsidize those students who earn too little and default. But the large majority of students who earn enough to avoid default pay the same amount, no matter how much they earn. For low earners who nonetheless earn enough to avoid default, the rate will be very high as a percentage of their income. The IBR Swap solves the problem of variable earnings by retrospectively tailoring the cost of education, so to speak, based on the amount the graduate actually earns. Instead of having a single rate that everybody pays, the rate of repayment is perfectly adjusted based on ability to pay after the fact. Thus, the cost for the median earner goes down, because high earners can subsidize low earners, unlike in debt situations in which high earners cannot be charged more than median (or even non-defaulting low) earners. This decrease in cost for median earners could be substantial, depending on the default rate in the traditional loan program. But for non-defaulting low earners, the decrease in cost is even more substantial. The primary benefit of income share agreements is that they dramatically decrease the cost of education for graduates who end up not earning high incomes. They do so by increasing the cost for graduates who earn a lot. If it is true that there is some inherent uncertainty about which students will be high earners and which will be low earners, this reduction in the downside risk of low earning is a huge benefit. It enables students to decrease the downside financial risk that their educations will not result in earnings high enough to justify the cost.

The fact that IBR Swaps better align cost with financial benefit is an especially attractive feature in the law school context. In financial terms, a

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<sup>81</sup> Robert Shiller, *THE NEW FINANCIAL ORDER: RISK IN THE 21ST CENTURY* (Princeton Univ. Press 2004) at 139: “It makes little sense, now that our information technology has improved so much, to subject borrowers to conventional fixed nominal interest rates on their debts. This old system deals with income uncertainty by letting financial problems build until they reach a breaking point, sometimes creating great distress, at which time borrowers can obtain some relief, at the expense of some humiliation, by bankruptcy proceedings. Far better would be the smooth adjustment of debts to new economic conditions. Loans that are designed to do this could be the standard, the generic personal loan . . . .”

<sup>82</sup>

legal education is a much more risky investment than a college education, in the sense that earnings of law-school graduates are extremely various. As has been widely discussed, the distribution of earnings of recent law school graduates is bi-modal, with one peak at between \$40,000 and \$65,000 and the other peak at \$160,000.<sup>83</sup> In other words, while the average earning of a full-time employed recent law-school graduate in 2013 was \$78,205, about half of all graduates earned between \$40,000 and \$65,000. Less than 20% earned \$160,000 or more. A student who borrows \$150,000<sup>84</sup> will owe \$20,714 per year at the federal interest rate of 6.8%.<sup>85</sup> If she earns \$160,000, that is arguably affordable at 12.9% of her pre-tax income.<sup>86</sup> However, if she earns the average income post-graduation (\$78,205), her payments amount to 26.5% of her pre-tax income. If she earns \$50,000 (the peak of the lower income-distribution hump), her loan payments would amount to a whopping 41% of her pre-tax income.<sup>87</sup> This wide variation of earnings among law-school graduates makes debt even less appropriate for its financing law school, even with government-provided loans.<sup>88</sup>

This problem of extreme variation in earnings among graduates is currently being at least partially addressed by an expansion of income-based repayment programs by the Obama administration.<sup>89</sup> But these programs,

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<sup>83</sup> See National Association of Law Schools (NALP) self-reported data for 2013 ([http://www.nalp.org/class\\_of\\_2013\\_bimodal\\_salary\\_curve](http://www.nalp.org/class_of_2013_bimodal_salary_curve).) This data excludes graduates working part-time and graduates who are not employed. Michael Simkovic surveys available data on *lifetime* earnings by law school graduates. For example, U.S. Bureau of Labor Statistics has data for all lawyers, which shows in 2012 about \$160,000 as the 75<sup>th</sup> percentile compensation (at all levels) and about \$70,000 as 25<sup>th</sup> percentile. **Michael Simkovic & Frank McIntyre**, *The Economic Value of a Law Degree*, SSRN DRAFT (2013) at 6.

<sup>84</sup> Note: average debt of law school graduates is \$125,000, but []% borrow \$150,000 or more.

<sup>85</sup> Assuming a ten-year repayment. If she repaid over 20 years, she would owe \$13,740 per year.

<sup>86</sup> Despite the fact that 12.9% of income is arguably affordable for a student earning \$160,000, this student would qualify for the current governmental income-based repayment program, which caps repayment at 10% of annual pre-tax income.

<sup>87</sup> This calculation is a little unfair, because she can always extend her loan payments from ten years to twenty-five (reducing her monthly payments to \$1,041), and her salary will presumably increase over the course of her career. But the range is significant.

<sup>88</sup> Gregory Crespi does his own math about law school affordability, in which he estimates the real three-year cost of a law school education at \$250,000, the accurate blended federal interest rate at 7.5%, and a repayment term of 10 years. Under these assumptions, he finds that a student's annual payments would exceed \$36,000, and that even if their annual income was over \$160,000, they would have to pay 22.5% of their gross income in debt service. See Gregory Crespi, *Will the Income-Based Repayment Program Enable Law Schools to Continue to Provide "Harvard-Style" Legal Education?*, SSRN [at 28] (2013)

<sup>89</sup>

which are designed to enable those borrowers who have the most debt and the lowest income to avoid default, do not do as good a job as an IBR Swap at aligning the costs of education with the financial benefits derived from it. A governmental income-based repayment option prevents very-low-income students from defaulting, but it does not reduce the cost for median students. It also does nothing for students who only borrow part of the costs of their education (because they do not have enough debt to trigger the entrance requirements for the program).<sup>90</sup> An IBR Swap, on the other hand, adjusts the amount repaid for one's education dollar for dollar based on the *ex post* financial value of that education, as reflected in one's overall income. Thus, an IBR Swap performs a more precise matching of ability-to-pay with financial benefit than even government income-based repayment and loan forgiveness programs.<sup>91</sup>

## 2. *Information for students*

The next most important benefit of an IBR Swap and other income-share agreements is their ability to communicate information to a student seeking an education.<sup>92</sup> Palacios describes it this way:

The pricing of human capital contracts will be based on the investor's expectations of a student's future income during the repayment period. These expectations will depend on the school that the student is attending, the student's field of study, and other factors considered relevant to the student's future earnings. Thus, by observing the price of these contracts, comparisons of earnings expectations will be possible in an easy, straightforward manner.<sup>93</sup>

In other words, if investors were permitted to provide IBR Swaps to different students at different prices, those prices would reflect the investors' assessment of the students' likely post-graduate earnings. There is significant outcry that such information is not currently available to

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<sup>90</sup> This is perhaps the worst feature of the government's IBR Programs, because it creates strong incentives in students to overborrow. This feature could easily be corrected in the government program simply by tailoring the eligibility requirements for the income-based repayment programs to the amount borrowed.

<sup>91</sup>

<sup>92</sup> Robert Shiller, *THE NEW FINANCIAL ORDER: RISK IN THE 21ST CENTURY* (Princeton Univ. Press 2004). At 133: "Markets for occupational incomes could also provide some important information about the demand for occupations in the future, information that would help guide people who are choosing a career." "Such information from market prices, at least when the macro markets are behaving efficiently, may be more valuable than any information we now have."

<sup>93</sup> See, e.g., Palacios, *Policy Analysis* (2002) at 5.

students, especially law-school students, and that much of the information provided is skewed or even fraudulent.<sup>94</sup> Thus, a law-school financing mechanism that would incentivize investors to spend the time and money to collect the highest quality information available to predict probable earnings of students graduating from specific schools, or other characteristics, would be welcome by many. That is exactly what IBR Swaps potentially promise.<sup>95</sup>

To understand how the "price" of an IBR Swap or other income share agreement could communicate information to a student, it is first necessary to understand what "price" means in this context. Palacios explains it this way: "Let's define the price of a human capital contract as the percentage of income that a student agrees to pay back to the investor per dollar provided." So, for example, an agreement might provide that a particular student ("Ben") can receive \$10,000 in exchange for one percent of his income for 20 years. Imagine that his education will cost \$150,000, and he chooses to obtain the entire \$150,000 through a human capital contract. He will be obligated to pay 15% of his future income for 20

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<sup>95</sup> In the derivatives context, there is a robust literature about whether a robust futures market can provide beneficial "price discovery," but this literature is only marginally relevant to the context of the IBR Swap. "Price discovery" is the impounding of new information into asset prices, through trading. See Joel Hasbrouck, *One Security, Many Markets: Determining the Contributions to Price Discovery*, 14 J. FIN. (1995); Lynch, *supra* note [ ] at 108-118; S. L. GUPTA, FINANCIAL DERIVATIVES (THEORY, CONCEPTS AND PROBLEMS) (2006); DON. M. CHANCE & ROBERT BROOKS, AN INTRODUCTION TO DERIVATIVES AND RISK MANAGEMENT (7<sup>th</sup> ed. 2007). In theory, the concept of price discovery can refer broadly to the capture and aggregation of market wisdom about future events. See Hasbrouck, *supra* note [ ]; Lynch, *supra* note [ ]; Chance & Brooks, *supra* note [ ]. In the context of derivatives the literature, discussions about benefits of, price discovery center specifically on exchange-traded futures markets and exchange-traded-options markets. Lynch, *supra* note [ ]. Some contend that derivatives are useful to predict other information as well, such as creditworthiness. See Mark J. Flannery et al., *Credit Default Swaps Spreads as Viable Substitutes for Credit Ratings*, 158 U. PA. L. REV. 2085 (2010). The price discovery benefits of derivatives, in other words, concern the relationship between futures or options prices and spot prices in exchange-based markets. Some contend that the price discovery benefits of speculative derivatives justify their risks (or offset the net reduction in welfare associated with rent-seeking). See Hasbrouck, *supra* note [ ]; Robert Kolb et al., *Futures Prices and Expected Future Spot Prices*, 2 REV. RESEARCH IN FUTURES MARKETS 110 (1983); Kenneth D. Garbade & William L. Silber, *Price Movements and Price Discovery in Futures and Cash Markets*, REV. ECON. & STAT. (1983). Others contend that the information that derivatives markets yield outpace spot prices by such short intervals that the benefits do not offset speculative derivatives' costs. See Lynch, *Gambling*, *supra* note [ ]; Lynn A. Stout, *Regulate OTC Derivatives by Deregulating Them*, REGULATION 30; Lynn A. Stout, *Betting the Bank: How Derivatives Trading under Conditions of Uncertainty Can Increase Risks and Erode Returns in Financial Markets*, 21 J. CORP. L. 53 (1996).

years.<sup>96</sup> Another student ("Heather") might be offered \$10,000 in exchange for .5% of her income for 20 years. Thus, if she chooses to obtain the same \$150,000 that Ben receives, she will only have to pay back 7.5% of her income over the same period. Even though they both pay for their entire education with a human capital contract, and even though their educations cost the exact same amount, Ben will have to pay back twice as much of his future income as Heather. The difference in price reflects the fact that the investor predicted that Heather's future income over the relevant period is likely to be higher than Ben's future income. Imagine the investor predicts that Ben's average salary over the relevant 20 years will be \$100,000, and so Ben will pay back \$15,000 per year (or \$300,000 in total). Whereas, the investor predicts that Heather's average salary over the same period will be \$200,000, in which case she will pay back the same \$15,000 per year as Ben, even though the "price" of Heather's contract is *half* that of Ben's. If either one earns more or less than predicted, they will pay the commensurate amount more or less according to the "price" of their contract.<sup>97</sup>

Palacios and others assume that investors would take into account "school," "field of study," and "other factors" when setting an appropriate price for a human capital contract. So, for example, investors might charge more – as a percentage of income – for social work students than for medical students, based on projected income. In the law school context, investors might charge more – as a percentage of income – to a student attending Low Ranked Law School than a student attending High Ranked Law School, based on projected income. If they were permitted, investors might charge students who attended the same school less or more depending on their LSAT scores or undergraduate GPAs, if they determined that these factors were predictive of earnings.<sup>98</sup> Finally, if it was legal to do so,

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<sup>96</sup> If, on the other hand, he has some savings, and so chooses only to obtain \$100,000 through a human capital contract, he will only have to pay back 10% of his income over twenty years.

<sup>97</sup> One can compare the "price" of an income share agreement to the "price" of a loan, which does not vary based on income. If Ben and Heather borrow \$150,000 at a fixed 6.8% interest rate, they will each pay back \$13,740 per year, a total of \$274,802. At this "price" and this projected income, debt is a better investment for both Heather and Ben. However, if either one's average income over the course of the twenty year repayment period was below \$91,601, then the income share agreement "price" would be a better investment.

<sup>98</sup> It appears clear that the few companies purporting to be offering human capital contracts currently are making individualized pricing decisions based on a variety of potentially intangible factors, given that they appear to be choosing a very few very promising students to receive the first contracts. They are, in effect, "cherry picking" students with high potential. The authors know of no study that supports an inference that law school graduates with higher LSAT scores or undergraduate GPAs make more money

investors might charge a student more if that student was a woman than if that student was a man, again based on projected income, since women (including female lawyers) earn less on average than men.<sup>99</sup> Some may find this differential pricing deeply disturbing, and we discuss tradeoffs in regulating differential pricing below in section IV(B). But it is important to recognize that, in addition to its social costs, differential pricing has the potential benefit of communicating valuable information to students.

While most existing advocates of human capital contracts are focused on college students,<sup>100</sup> not law students, a significant potential appeal of IBR Swaps for funding law school education is if the pricing took into account the *school* a student attended. Currently, law schools are required by the ABA to survey their students to determine how many of them are employed nine months after graduation and what type of employment they have.<sup>101</sup> They also inquire about how much students are earning nine months after graduation, and report statistics about income for their graduates in a variety of employment sectors. The U.S. News then uses this information as one of the components of its law school rankings. Some commentators have criticized this employment information as untrustworthy, misleading, insufficient, or even fraudulent.<sup>102</sup>

An investor in IBR Swaps would *have* to have much more robust information about the earnings of those students in which she invested. In order to “price” the contract adequately, an investor would have to know the long-term earnings prospects of each participant.<sup>103</sup> To the degree that there are trends among graduates of different law schools, robust information about earnings of existing graduates of each law school would be extremely relevant. Because an investor needs accurate information to competitively price the contract, and because accurately pricing the contract produces financial gain for the investor, one would expect an investor to gather as accurate information as possible before entering into the market. Even if the investors’ information was proprietary and therefore kept secret, the

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than their peers, once other factors are controlled.

<sup>99</sup> This issue is discussed on more detail, *infra* at \_\_\_\_\_. Presumably, even if no specific limitations apply under student loan laws (or general consumer debt law?), investors could not price human capital contracts differentially based on race, gender, or some other Constitutionally protected class, even if such classification was shown to be meaningful as a predictor of future earnings.

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<sup>103</sup> Of course, if an investor was more interested in communicating rosy information about employment prospects of law school graduates than in making money or breaking even, that investor could “distort” the signal provided by predictive data. That might be a reason to favor independent investors as the Institution providing a human capital contract or IBR Swap over a particular law school.

very price offered to students at each school would provide information about the investors' projections of those students' earning capacity. Furthermore, as a market developed, investors would compete to develop the most predictive models of future earnings, providing students with a range of opinions about their future earning capacity.

Thus, in addition to doing a better job of aligning cost with benefit than traditional debt, and therefore arguably bringing down the average cost of capital for students, IBR Swaps have the potential to provide extremely relevant information to students about the choices they are about to make. But these are not the only benefits of IBR Swaps.

### 3. *Cost discipline*

In addition to providing information to students, IBR Swaps offer the promise of introducing some pressure on what is perceived as excessive costs of education, especially law school education. Because the current education-financing system provides financing on the same terms no matter what a student studies and where, and because students have such thin or misleading information about earnings projections for graduates of various schools, commentators believe that tuition costs are relatively insensitive to price pressures.<sup>104</sup> In other words, because students are unable to evaluate how much different types of educations are worth (from a financial point of view), they are prevented from making good choices about where to go and what to study.<sup>105</sup> In the law school context, some commentators believe that law schools with low earning graduates are unsustainably expensive.<sup>106</sup> Students are willing to pay the high cost of education at least partially because the structure of the current educational financing system makes it easy to overburden oneself with debt in programs that are unlikely to provide employment opportunities commensurate with their price.

If students had access to IBR Swaps or other types of income share agreements, they would be able to calculate the overall cost of a law school based on the percentage of their future income that an institutional counterparty demanded for the amount of debt needed to attend the school. A school could respond to the existence of this information in two ways. It

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<sup>104</sup> See, e.g., Simkovic, *Risk-Based* at \*57 (discussing students' lack of information in the college context).

<sup>105</sup> See, e.g., Michael Simkovic, *Risk-Based Student Loans*, 70 WASH. & LEE L. REV. \_\_\_, \*41 (2013) ("skewed incentives and information asymmetries have increasingly shifted educational resources away from human capital investment and toward present consumption.") OR \*42 ("Universities can and do cater to students' appetites by offering amenities such as luxury dorms and athletic facilities—amenities many students appear to value more than good instruction.")

<sup>106</sup> See **Gregory Crespi**, *Will the Income-Based Repayment Program Enable Law Schools to Continue to Provide "Harvard-Style" Legal Education?*, SSRN (2013).

could figure out how to increase the long-term earning potential of its students, thus bringing down the “price” of the Swap, or it could decrease its tuition, thus reducing the quantity students would need to borrow to attend. Either strategy could produce the same ultimate result for students: a reduction in overall cost as a percentage of future income. So, remember Ben and Heather? Ben needs to commit 15% of his future income to obtain the \$150,000 he needs to attend Low Ranked Law School, while Heather only needs to commit 7.5% of her future income to obtain the very same \$150,000 needed to attend High Ranked Law School, presumably because projected earnings are higher among graduates of High Ranked Law School than Low Ranked Law School. If Low Ranked Law School wants to improve the situation for its students, it can either try to improve earnings outcomes for its students or it can decrease its three-year tuition price to below \$150,000. If it can decrease it to \$75,000, the cost to Ben of attending Low Ranked Law School *as a percentage of future income* is the same as the cost to Heather of attending High Ranked Law School.<sup>107</sup> It is unlikely that Low Ranked Law School could cut its tuition in half without sacrificing earnings potential for its graduates, but the existence of a market for IBR Swaps or other income share agreements would at least produce more downward pressure on law school tuition than currently exists.<sup>108</sup>

#### 4. *Reduced costs for taxpayers*

For some, an additional benefit of IBR Swaps and other income share agreements is that they offer a mechanism that has the potential to decrease the government’s involvement in higher education finance.<sup>109</sup> Because IBR Swaps subsidize the risk of low earning graduates with earnings from high-earning graduates, the need for *taxpayers* to subsidize

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<sup>107</sup> Of course, if Low Ranked Law School can decrease its tuition by decreasing the quality of its instruction without decreasing the earning potential of its graduates, then it will feel pressure to decrease quality in order to cut its price. Some legal educators may justifiably have concerns about price pressures that are solely responsive to earnings potential of students.

<sup>108</sup> Downward pressure on the cost of tuition at Low Ranked Law School is only one potential outcome of better information about earnings capacity of law school graduates. If the cost of a law school education looks good in relation to potential earnings, then the existence of a market for IBR Swaps could produce *upward* pressure on law school tuitions, especially at schools like High Ranked Law School, where graduates’ earning potential is high even relative to the cost of tuition. It is an empirical question which effect – upward price pressure or downward price pressure – will dominate in a world with more robust information about earning potential.

<sup>109</sup> See, e.g. Palacios, Policy Analysis (2002) at 3 (describing federally guaranteed student loans (and therefore also governmentally subsidized income-based repayment programs) as “not the optimal solution since instead of addressing the problems described above, they transfer the risk of the investment to the taxpayer.”)

low-earning graduates potentially goes away.<sup>110</sup> As discussed above, if you include the loan forgiveness program, then it appears that a huge potential cost is silently growing, and taxpayers will soon have to absorb a significant part of the cost of higher education for low-earning graduates.<sup>111</sup> Some commentators do not believe that the federal government should put itself in the position of paying retroactively for the education of students who borrowed more than they could realistically predict they would be able to pay back. This position is potentially more compelling in the law school context, where the average student borrows \$125,000 to attend a private law school,<sup>112</sup> an amount that enables a student to make use of the government's Income-based Repayment and loan forgiveness programs even if the student earns up to \$172,620 per year.<sup>113</sup>

But even for those who believe that higher education *should* be subsidized by taxpayers, IBR Swaps and other income share agreements offer an opportunity to clarify the discourse around governmental support for education and re-direct resources where they will do the most good.<sup>114</sup> If the existence of a market for IBR Swaps would diminish the problem of low-earning graduates unable to pay for their higher education, then that would enable the government to focus its resources on providing educational opportunities to those who need them the most. For example, the government could re-direct its efforts and funds to providing grants for students without means, or to funding state educational institutions, or to funding educational initiatives at universities. In the law school context, this targeting of government resources could take any number of forms. A market for IBR Swaps would enable the government to withdraw from its current loan forgiveness programs (at least for future students) and re-focus its resources on making legal education better, cheaper, and more accessible

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<sup>110</sup> This benefit should not be overstated, since the current system of federal student loan financing (except for the loan forgiveness programs) currently operates at a profit for the government. In other words, the current student loan system does not represent a taxpayer subsidy of higher education. In fact, the loan rates are set so high that students who pay off their loans are the only ones subsidizing those students who can't (again, if you ignore the loan forgiveness programs).

<sup>111</sup> ABA figures. *But see* Inside the Law School Scam (8/7/2012)(arguing that those figures underrepresent actual law school student debt).

<sup>113</sup> The math here is slightly simplified (\$125,000 at 6.8% for ten years is \$17,262 per month; student qualifies for PAYE if payments under the standard ten-year payment option exceed 10% of annual income). *See, e.g.* Brian Tamanaha, *The Problems with Income Based Repayment, and the Charge of Elitism: Responses to Schrag and Chambliss*, SSRN (2013) at \*6 ("This astonishing implication merits repeating: the cost of a law degree is so high relative to income that thousands of law graduates would be in financial hardship were it not for the assistance of a government welfare programs [PAYE and loan forgiveness].")

<sup>114</sup> [Cite Daniela Kraiem here?]

to low-income and minority students, if those are the policy objectives the government chooses to pursue. Alternatively, the government could focus its resources on making higher education, and even law school, cheaper and more accessible for all students.

Thus, IBR Swaps and other income share agreements have multiple benefits over the current system of education financing, even if you consider both federally subsidized student loans and the federal income-based repayment insurance programs. These benefits have a dark side as well. If differential pricing has the benefit of providing students with information, it also is likely to make law school more expensive for those students whose earnings are predicted to be low than those whose earnings are predicted to be high. Downward pressure on law school tuitions may cause some schools to cut quality. Introducing a private market for mitigating risk of low earnings may cause governments to withdraw altogether from funding education. The benefits and detriments of income share agreements apply to all such instruments, and not just IBR Swaps. However, there are other benefits of IBR Swaps that are not shared by any other type of income share agreement. They are unique to IBR Swaps and inherent in the innovative structure of them.

### *B. Benefits Unique to IBR Swaps*

If income share agreements have a number of benefits, Milton Friedman was already identifying problems with human capital contracts over fifty years ago. While there are two problems with human capital contracts that are *not* solved by IBR Swaps – adverse selection and moral hazard –<sup>115</sup> the other problems associated with human capital contracts are largely solved by IBR Swaps. Thus, IBR Swaps have unique benefits unavailable to other income share agreements like human capital contracts. Because no money is provided upfront from the institutional counterparty to the student, the costs of collection and risk of default should dramatically decrease as compared to human capital contracts. In addition, IBR Swaps seamlessly integrate with existing government programs to help students finance their educations, while human capital contracts compete with such programs. Finally, the amount of risk associated with IBR Swaps is lower than with human capital contracts because there is no need for the institutional counterparty to put significant amounts of capital at risk. These benefits, all of which arise out of the nature of a swap, it much more possible to imagine income share agreements moving from the academic and speculative realm to reality. As discussed in section \_\_\_ below, this is even more true because of some features of IBR Swaps that remove some *legal* uncertainty

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<sup>115</sup> As discussed below, we think those problems may well not be as dire as is sometimes believed. See discussion *infra* at \_\_\_\_.

that currently impedes the development of human capital contracts.

*1. IBR Swaps reduce default rates and collection costs*

There is an inherent collection problem in all student loans, and that arises from the fact that such loans are almost by definition “unsecured.” Students do not generally have property in the present to serve as collateral for their loans, and so one of the primary mechanisms used for reducing risk of non-payment in large lending markets is absent in the student loan context. That is one of the factors that induced the federal government to enter the student loan business in the first place.

This risk of non-payment exists in the income share agreement market as well as in the student loan market. Under any type of income share agreement, the investor shares some of the student’s risk of under-earning, and is compensated for this risk sharing by distributing the risk of low-earning broadly among a pool of students. But in addition to the risk of under-earning by students, there is a risk, of course, that a student who has received an upfront payment from an investor, and used it for her education, would then refuse to repay the investor, even if she is able. This risk exists every time one person provides something of value upfront in exchange for another promising something of value in the future.<sup>116</sup> An investor incurs costs when students do not pay what they owe, both because some amount will never be collected, and because the contract provider needs to monitor the student’s earnings and enforce her obligation to pay.

There is a plausible argument that human capital contracts should have a lower cost of collection than traditional debt. Because low-earners pay very little under the terms of the contract, income share agreements shift the focus of collection for non-payment from low-earning graduates (the perennial collection problem for traditional student loans) to high-earning graduates. The fact that low-earning graduates owe less means that they are more able to make their required payments and less likely to consider default. High-earners, on the other hand, owe much more, and so as their income goes up, they will have more and more incentive to try to avoid repayment. If it is true that it is harder to collect money from someone who has very little, focusing collection on high earners may decrease at least some collection costs for all income share agreements.<sup>117</sup>

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<sup>116</sup> See, e.g., Arthur Allen Leff, *Injury Ignorance and Spite: The Dynamics of Coercive Collection*, 80 YALE L. J. 1, 1 (1970) (“Whenever one person does something in the expectation that another will then do something else, there arises, given the nature of people and time, a potential problem: the other person might not.”)

<sup>117</sup> On the other hand, of course, high-earners may be better equipped to evade collection exactly because of the greater resources at their disposal. Which type of collection-evader is actually more expensive to pursue is an empirical question beyond the scope of this article.

On the other hand, even with the removal of some of the risk of non-payment by low earners, costs of collection are likely to be high for human capital contracts, since default becomes more and more attractive as a student's post-graduate income rises. In this regard, the novelty of a human capital contract may exacerbate the problem. As a high earner's income grows, she may compare the amount she owes under a human capital contract to the amount she would have paid under traditional debt instrument, and she may suffer a sort of "buyer's remorse." As a student's high earning caused the difference to grow between the amount she would have paid, and the amount she was actually paying, the high earner might feel justified in renegeing on her agreement, even if she wouldn't have felt justified in the case of a traditional loan. And the fact that she is a high earner means that she may have access to the means (like legal counsel) to press her claim to avoid repayment. It is difficult to add up these disparate and speculative costs of collection, but they are likely substantial. Some believe that factors like these were instrumental in the demise of Yale's so-called "Tuition Postponement Option," a voluntary income-based tuition program that was available for students at Yale College from 1971 to 1978.<sup>118</sup>

The primary practical benefit of an IBR Swap over a human capital contract is that the IBR Swap should have significantly lower costs of collection than a human capital contract. This decrease in costs of collection come from a variety of features, but is mainly rooted in the fact that in an IBR Swap, the student's payment obligation is split between a lender (who is likely to be the federal government) and the investor. This bifurcation of payment obligation reduces the cost of collection for the investor.<sup>119</sup>

As discussed above, the student has an obligation to pay a fixed amount to the lender no matter how much she earns. She and the institutional counterparty then make reciprocal payments that are either exactly equal, result in a net positive for her, or result in a net positive for the institutional counterparty. Remember, the amount of income she earns at which the reciprocal payments are exactly equal is called the "break-even point."

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<sup>118</sup> Robert Shiller has an informative description of the program, in which he concluded it "was a wonderful idea, but it [among other things] affronted then-current individual impressions of fairness." Robert Shiller, *supra* note \_\_\_ at 143.

<sup>119</sup> Note that the total cost of collection shared between the investor and the lender may be the same or even greater than the cost of collection associated with a human capital contract. I am focusing on the cost of collection for the investor alone, who is able to "piggy back" on the collection efforts of the lender and thereby save money.

If the student earns less than the break-even point, then she is receiving more from the institutional counterparty than she is paying it. In that situation, obviously, she has a strong incentive to cause the transaction to take place. Every time the reciprocal payments do not occur, she is losing money. So, if the reciprocal payments only occur when the student both reports information to the institutional counterparty and makes the appropriate payment to the institutional counterparty, then the institutional counterparty's costs of collection should be quite low. They presumably never need to chase down low-earning students or expend significant sums to monitor them. They do have to make sure they have a system in place to keep track of which students have made payments to them, so they don't make payments to students who haven't made their appropriate reciprocal payments. They also need some system to make sure that students are not providing false or fraudulent information about their income, since a student's reported income determines the amount of money the student pays the institutional counterparty. But they have a pretty big stick that they can swing to enforce both payment obligations and accurate reporting, since each month they pay the student more than the student pays them.

This situation is dramatically different from a human capital contract, in which the investor provides a bulk payment up front. Once the student receives the upfront capital (and spends it on tuition) all of the obligation flows the other way, from student to investor. Therefore it is in the student's interest to disappear or avoid payment, if possible. The only sticks the institutional investor wields are the enforcement provisions that lenders use to enforce unsecured debts. In the case of an IBR Swap, the institutional counterparty has provided nothing up front. The student depends on it to make ongoing monthly payments, and so it is in the student's interest to maintain the relationship and provide what is needed to receive those ongoing reciprocal payments.

When students earn more than the break-even amount, of course, the situation is reversed and it is in the student's interest to avoid payment. But, as compared to a human capital contract, an institutional counterparty providing an IBR Swap is in much better shape. That is because the amount owed to the IBR Swap institutional counterparty is a fraction of the amount that would be owed to a human capital contract investor, because a student's total payment obligation is split between the student's lender and the swap counterparty. Take as an example the student described above who earns \$160,000. She owes \$1,726 per month on law school loans. She also has a reciprocal obligation under which she pays the institutional counterparty \$2,000 and it pays her \$1,726 (which represents a net payment from the student to the institutional counterparty of \$274). If she stops paying the IBR Swap institutional counterparty the \$2,000 she owes, the

institutional counterparty will stop paying her the \$1,726 it owes her.<sup>120</sup> This default results in a monthly benefit to her of only \$274, while her monthly benefit would be the full \$2,000 if she defaulted on a human capital contract with the same terms.

If she wants to avoid payment altogether, she has to default not only on her payments under the IBR Swap, but also to her lender. Obviously, if the benefit of defaulting on her obligation to the institutional counterparty alone is only \$274 instead of \$2,000 per month, her incentive to default is lower. If she chooses to default on her entire obligation -- \$274 to the institutional counterparty and \$1,726 to the lender -- then she will have *both* the lender and the institutional counterparty seeking to enforce the obligation. In that case, presumably, there would be at least some collection synergies that would reduce the cost of collection for the institutional counterparty. And, if they both fail, the institutional counterparty will only lose \$274 per month. The lender takes the bigger loss from the default.

In addition, there may be significant impediments to high-earning students attempting to avoid payment. First of all, they have more money, and so they have a less compelling argument (even to themselves) of why they should renege on their obligations. But they also may value their credit histories more, have more assets to seize in legal proceedings, or otherwise be easier to collect from. Obviously, collection costs do not disappear in an IBR Swap, but by limiting collection problems to high-earning students, they should dramatically decrease.

In addition, the fact that IBR Swaps coordinate with governmental loan programs means that the government is still collecting a significant portion of the student's repayment obligation. The government can use collection mechanisms that are superior to those available to ordinary lenders or human capital contract providers. It currently administers \$1 trillion of student loans,<sup>121</sup> and so economies of scale drive down costs of

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<sup>120</sup> Reciprocal payments, of course, could be reduced to a single net payment. Under this system, which could be required under the IBR Swap contract, the payment obligation of the student counterparty would be netted against the payment obligation of the institutional counterparty, and only one counterparty would make a net payment. So, if the institutional counterparty owed the student \$1,726 and the student owed the institutional counterparty \$2,000, there would be a single payment of \$274 from the student to the institutional counterparty. Under another alternative, the institutional counterparty could make its full payment directly to the student's lender and collect the full amount the student owes directly. Under this scenario the institutional counterparty would ensure that the student wasn't defaulting on its loan and keeping the institutional counterparty's payments, but the institutional counterparty would be required to collect the whole amount from the student.

<sup>121</sup> See Rohit Chopra, *Student Debt Swells, Federal Loans Now Top a Trillion* (Jul 17 2013)(available at <http://www.consumerfinance.gov/newsroom/student-debt-swells-federal-loans-now-top-a-trillion/>.)

collection.<sup>122</sup> In addition, the government has the ability to impose liens and levy against property for repayment of student loans.<sup>123</sup> It also has made student loans non-dischargeable in bankruptcy.<sup>124</sup> If human capital contracts were entered into with private investors, none of the collection benefits of governmental student loans would apply. The private parties would be left to their own devices to enforce collection, and these costs could represent a significant cost per agreement, driving up the cost.<sup>125</sup> In the case of an IBR Swap, however, because the payment obligation is split between the government lender and the IBR provider, these collection methods available to the government are not lost, but can be used to collect a portion of the student's repayment obligation.

2. *IBR Swaps seamlessly coordinate with government student loan programs*

One of the most appealing features of an IBR Swap is that it complements, rather than competes with, existing governmental student loan programs. The benefit of this coordination is apparent in reducing collection costs, but it also has additional benefits. Under current law, the federal government provides loans to students for attending law school at a fixed rate. There is some controversy currently about whether the rate is too high, but it is inarguably lower than could be obtained from private lenders. Because the federal government still provides the upfront capital (in the form of a student loan) for a student's education when she enters an IBR Swap, the student can benefit from this favorable interest rate.

Human capital contracts, on the other hand, compete with federal student loans. A student who wishes to enter into a human capital contract must forego student loans in favor of the contract.<sup>126</sup> Therefore, any subsidies that are provided by the federal government to the student loan industry by guaranteeing or directly offering student loans cannot be used by students who obtain their financing through human capital contracts. In addition, any loan forgiveness programs offered or subsidized by the government will not be available to human capital contract holders. In this way, human capital contracts must not only provide terms that are more attractive than those offered by traditional lenders, they must offer terms that are more attractive than those offered by the government.

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<sup>122</sup> [The articles about risk-based lending explain the benefits of the government running this market, I think.]

<sup>123</sup>

<sup>124</sup> *See, infra* at \_\_\_\_\_.

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<sup>126</sup> She is presumably not required to completely forego student loans, but each dollar she acquires under a human capital contract is a dollar she does not acquire through a student loan.

IBR Swaps are designed specifically to be used in conjunction with federal student loan programs, and so any subsidy available through the federal student loan system is also available to students with IBR Swaps. If the government should ever increase the subsidies provided through the student loan system, this would negatively impact a market for human capital contracts. IBR Swaps, on the other hand, act in the exact opposite way. They complement governmental loan programs and automatically integrate any benefits provided by government loans into themselves. The price of an IBR Swap is directly tied to the amount a student needs to pay back her loans, and so automatically incorporates any subsidies or benefits provided by the government into the Swap.<sup>127</sup> If the government loan rate goes down, then the amount of reciprocal payments a student needs to cover her loan payments goes down, and the price of an IBR Swap would go down.<sup>128</sup>

### 3. *IBR Swaps do not put capital at risk*

Finally, IBR Swap institutional counterparties avoid a part of the costs associated with providing upfront capital to invest in students' educations. Under an IBR Swap, the student borrows the upfront capital from a lender, and so the IBR Swap institutional counterparty does not have to take on the cost of such capital. Of course, the capital still has a cost, which is the interest rate the student owes the lender, and the IBR Swap must be priced to compensate the student for the cost of the capital she obtained through a traditional loan. But, the institutional counterparty does not have to take on much additional debt of its own.<sup>129</sup>

Again, a human capital contract does not have this feature. A provider of human capital contracts has to invest significant capital up-front on the promise of repayment in future years. Because providers of human capital contracts must provide capital upfront to students, because they won't receive it back for many years, and because they are likely to receive

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<sup>128</sup> If the government changes the repayment rate on loans that have already been disbursed, the IBR "price" has already been fixed, and so the student's obligation to the institutional counterparty would presumably not change. But in this case, the student still automatically receives the benefit of her student loan repayment obligation going down because the reciprocal payment from the institutional counterparty to the student would be more than she needs to repay her loans. Absent any contractual provision to the contrary, she could keep the difference, or it would be incorporated into the calculation of the single net payment made from her to the institutional counterparty or from the institutional counterparty to her.

<sup>129</sup> The institutional counterparty will probably have to take on some debt, since it is predictable that students' earnings will be lower in the earlier part of their careers than the latter parts, and so the IBR Swap institutional counterparty will have to borrow money to pay out more than it is receiving in the first several years. But it does not have to borrow enough to pay the entire cost of tuition for the students in addition to this amount.

less of it back in the early stages of the contract, providers of human capital contracts have the costs associated with acquiring the capital to provide to students.<sup>130</sup> IBR Swaps avoid most of this cost because of their inherent structure.

As discussed above all income share agreements, including both human capital contracts and IBR Swaps, have some benefits over traditional student loans. IBR Swaps, on the other hand, have additional benefits that are unique to them and are not available with other income share agreements. These benefits include a dramatic potential reduction in the costs of collection, an ability to benefit from existing government programs through seamless coordination, and no need to put capital at risk at the front end. These are not the only benefits that arise out of the unique structure of IBR Swaps, however. In addition, IBR Swaps – because they are a recognizable financial instrument – do not face the same legal uncertainty that human capital contracts face under current law. The legal treatment of IBR Swaps is discussed in the next section.

#### IV. CONSIDERING THE IBR SWAP

If IBR Swaps have considerable potential benefits for the financing of law school education – both over traditional debt and over human capital contracts – there is still a question about how such instruments would be legally regulated. Proponents of human capital contracts have complained for a long time that the regulatory treatment of human capital contracts is extremely uncertain.<sup>131</sup> That uncertainty arises primarily from the fact that a human capital contract is not a pre-existing (and therefore recognizable) category of financial instrument. Is it an “equity interest in a person,” as Milton Friedman suggested over a half a decade ago? Is it a form of debt? Is it a kind of insurance? Is it a partnership or joint venture between the student and the contract provider?<sup>132</sup> In order to know what law would apply to a human capital contract, one needs an answer to these questions. Proponents of human capital contracts have argued that legal uncertainty is a significant impediment to the development of a market for human capital contracts.<sup>133</sup> In order to remove some of this uncertainty, Senator Marco

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<sup>131</sup> See *supra* note \_\_\_\_.

<sup>132</sup> See Oei/Ring at 31-40.

<sup>133</sup> See, e.g., Palacios, DeSorrento, Kelly (2014) at 12 (“Significant legal uncertainty exists regarding the treatment of [human capital contracts]. ... this legal uncertainty has made it very difficult for any kind of market to develop on a larger scale”) [also *id.* at 12 (“A major impediment to the growth of [a human capital contract] industry is regulatory uncertainty: not only are some of the rules uncertain, but even the *source* of any future rules is also uncertain .... is [a human capital contract] more like a loan, and investment

Rubio and Representative Tom Petri have introduced legislation to clarify the legal treatment of income-share agreements.<sup>134</sup>

For IBR Swaps, the legal and regulatory landscape is quite different from that of other income share agreements like human capital contracts. The design of IBR Swaps makes the question of how they would be regulated under existing law much easier to answer. Because they are a pre-existing (and therefore recognizable) category of financial instrument – a derivative – there is no question about whether they are an “equity interest in a person.” They are not. Just like other swap transactions, the agreement is legally enforceable.<sup>135</sup> Because nothing of value is provided upfront to the student in exchange for a future promise of repayment, they are not debt, and are therefore not subject to fair lending laws or laws that apply specifically to student loans.<sup>136</sup> Just like other swap transactions, they are not insurance under current law. They are not “securities” subject to securities regulation.<sup>137</sup> Even their treatment in bankruptcy<sup>138</sup> and how they would be taxed<sup>139</sup> is more certain than human capital contracts. And, in case it’s necessary to say it at all, IBR Swaps are not a form of slavery.<sup>140</sup>

But, even if the regulatory treatment of IBR Swaps is relatively

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contract, or a hedging instrument?” emphasis in original); and also *id.*: “But [human capital contracts] can only grow if policy and regulation allow them to take root.”] *See, also*, Jacobs and van Wijnbergen at 5 (“legal problems prevent the execution of both equity and insurance contracts by the private sector in the case of education financing” then listing as the causes “contract enforceability,” illegality of “slavery and indentured servitude[,]” which makes it illegal “to sell claims on future incomes;” and “bankruptcy laws” not covering equity-like financing. .... These legal limitations effectively preclude financial contracts that are contingent upon the returns of human-capital investment”) *See, also, id.* at 6 (“given the legal limitations, private contracts are currently prohibitively costly to execute. Attempting to eliminate legal limitations to facilitate trade in equity-type contracts requires far-reaching changes in the legal system that are also very costly”)]

<sup>134</sup>

<sup>135</sup> Jacobs et al. at 5 (“in general, contract enforceability of private equity contracts is problematic because legal frameworks are not yet adapted to protecting the rights of investors who provide funds for the investment”)

<sup>136</sup> *Id.* at 12; Palacios et al. (2014) at 12 (“policymakers should make clear that the total cost of [a human capital contract] should not be used retrospectively to impute an interest rate for usury purposes”)

<sup>137</sup> Jacobs et al. at 5 (“Since human capital contracts are not legally acknowledged as securities, trade in human capital is legally obstructed”)

<sup>138</sup> *Id.* at 13. *See, also*, Jacobs et al. at 5 (“bankruptcy laws do not generally feature provisions for graduates who declare themselves bankrupt to avoid dividend payments to financiers, whereas bankruptcy laws do cover provisions for debt contracts.” (citing Palacios 2002)).

<sup>139</sup> *Id.* at 14 (“participants face some uncertainty regarding tax treatment of payments [under a human capital contract]”).

<sup>140</sup> Jacobs et al. at 5 (“slavery and indentured labor are outlawed in civil societies, which gives rise to constraints on financial contracts”).

certain under existing law, that does not mean that such treatment is right from a normative perspective. Recently, scholars have begun to examine what rules *should* apply to income share agreements like human capital contracts.<sup>141</sup> IBR Swaps are different from other human capital contracts in critical ways, and therefore we address regulatory challenges and opportunities raised by IBR Swaps.

### A. Current Legal Regime

#### 1. Swaps: derivatives regulation and state insurance laws

Two different regulatory regimes may pertain to a contract involving transfer of loan default risk in exchange for a speculative return: derivatives regulation and insurance regulation.<sup>142</sup> As explained in subsection (a), an IBR Swap would not be subject to federal regulations pertaining to OTC derivatives.<sup>143</sup> The IBR Swap, though, does serve an “insurance” or hedging function for the student counterparty.<sup>144</sup> Subsection (b) below discusses the extent to which IBR Swaps could fall within the ambit of state insurance regulation. Of course, many (we might even say most) contracts involve risk transfer and speculation—all such transactions are not “insurance” governed by state regulators. Subsection (b) considers the purpose and design of insurance regulation, the identities of IBR Swap counterparties, and the fitness of state insurance regulators (as opposed to other intermediaries) for addressing regulatory concerns that the IBR Swap could raise. This subsection argues that the IBR Swap should not be subject to

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<sup>141</sup> Oei/Ring, Schwartz, etc.

<sup>142</sup> The IBR Swap would not be a security. *See* Securities Act of 1933 §2A, 15 U.S.C. §77b-1(a) (2006) (providing that the definition of security does not include a non-security-based swap agreement (as defined in section 206C of the Gramm-Leach-Bliley Act). [insert definition from Gramm-Leach-Bliley] *See also* [CFTC Fact Sheet definitions of “swap,” “security,” “securities-based swap.”] The IBR Swap also would not be a securities-based swap. [Section [ ] below discusses the possibility that human capital contracts are securities, representing “equity” in the person’s earnings. Even if such a designation gained traction, it is still afield of “securities” for purposes of securities-based swaps.]

<sup>143</sup> *See infra* TAN [ ]. [Cf. CFTC books and records requirements, Commission regulation 1.31.]

<sup>144</sup> There are insurance policies designed to cover risk of inability to meet loan obligations. These kinds of policies, however, tend to have a maximum coverage of twenty-four months and are designed to cover loan payments upon occurrence of some event, such as unemployment, that temporarily affects the insured’s ability to pay. In addition to policies especially for payment protection, other insurance policies and workplace benefit plans can cover temporary inability to pay loans, such as disability or unemployment benefits. *See* Ana Gonzalez Ribeiro, *Is Loan Protection Insurance Right for You?* INVESTOPEDIA, available at [www.investopedia.com/articles/pf/08](http://www.investopedia.com/articles/pf/08). The IBR Swap offers a very different kind of hedging arrangement, obviously, than insurance policies that protect borrowers for a limited time if they cannot pay.

state insurance regulation. However, it identifies the possibility that a regulator could claim that an IBR Swap program falls within its jurisdiction.

(a) *Federal derivatives regulation*

Simply put, the IBR Swap as presented above would be exempt from federal regulations pertaining to OTC derivatives.<sup>145</sup> Derivatives regulation centers on clearinghouse requirements: rules requiring that certain swaps are confined to a derivatives clearing organization registered with the CFTC.<sup>146</sup> However, OTC derivatives in which one counterparty is not a financial entity—like the IBR Swap—are exempt from clearinghouse requirements.<sup>147</sup> Derivatives in which one counterparty is hedging or mitigating commercial risks are also exempt.<sup>148</sup> Because student counterparties would meet the end-user exception for non-financial entities, we need not assess whether student counterparties to IBR Swaps would be mitigating “commercial risks” as defined by the CFTC.

Clearinghouses serve enforcement functions that mitigate risks and market effects of counterparty defaults.<sup>149</sup> Though IBR Swaps would not be regulated derivatives, in exploring possible regulatory treatment of the IBR Swap as insurance, Part IV.B.1 discusses whether IBR Swap programs might want to use a private clearinghouse system.<sup>150</sup>

(b) *State insurance laws*

Insurance regulation is a state enterprise that primarily addresses consumer protection concerns.<sup>151</sup> However, Dodd-Frank does create federal

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<sup>145</sup> Title VII of the Dodd-Frank Act amends the Commodities Exchange Act (“CEA”) to require that OTC derivatives trade through clearinghouses, but provides exceptions. *See* Dodd-Frank Act § 723; CEA §§2(h)1, 2(h)7.

<sup>146</sup> *Id.*

<sup>147</sup> Dodd-Frank Act § 723. *See* [CFTC bulletin on final end-user exceptions for OTC swaps].

<sup>148</sup> *Id.*

<sup>149</sup> *See* Stout, *supra* note [ ].

<sup>150</sup> [Discuss the purpose, function, and legal structure of a private clearinghouse.]

<sup>151</sup> *See* McCarran-Ferguson Act of 1945, 14 U.S.C. §§1011-1015 (stating that regulation of insurance by states is in the public interest and that no federal law of general applicability shall preempt state laws regulating the business of insurance); Daniel Schwarcz and Steven L. Schwarcz, *Regulating Systemic Risk in Insurance*, 81 U. CHICAGO L. REV. (2014). *See generally* Jonathan R. Macey & Geoffrey P. Miller, *The McCarran-Ferguson Act of 1945: Reconceiving the Federal Role in Insurance Regulation*, 68 N.Y.U. L. REV. 13 (1993); Susan Randall, *Insurance Regulation in the United States: Regulatory Federalism and the National Association of Insurance Commissioners*, 26 FLA. ST. U. L. REV. 625 (1999); KENNETH ABRAHAM & DANIEL SCHWARCZ, *INSURANCE LAW AND REGULATION* (6<sup>th</sup> Ed.); John Patrick Hunt, *Rating Dependent Regulation of Insurance*, 17 CONN. INS. L.J. 101 (2010); Martin F. Grace & Robert W. Klein, *The Future of Insurance Regulation*, in *THE FUTURE OF INSURANCE REGULATION IN THE UNITED STATES*, (Martin F.

regulatory oversight for “systemically significant” insurers, addressing systemic risk associated with failure of the largest insurers (such as AIG).<sup>152</sup> Whether or not an IBR Swap program would fall within the ambit of insurance regulation depends upon factors such as the nature of the institutional counterparty and the existence of intermediaries (such as schools or a private clearinghouse) that can protect the interests of student counterparties.

Substantively, insurance laws establish: licensing requirements for insurers, fiduciary duties to policy holders, capital reserves, disclosure of insurers’ financial data to regulators, approval of form contracts, and restrictions on prices that insurers can charge consumers.<sup>153</sup> These requirements respond to the facts that insurance is an essential product for consumers, who are for the most part unsophisticated and in weak bargaining positions vis-à-vis insurers, who may have incentive to over-charge and who may fail to maintain adequate capital to pay claims.<sup>154</sup> These requirements also address problems that arise as a function of typical insurers’ capitalization and governance structures.

Robust discussion surrounds the question of whether derivatives should be regulated as insurance.<sup>155</sup> To be clear, derivatives are not currently subject to insurance laws. However, many critics argue that derivatives serve an insurance function and that leaving them largely unregulated has bad consequences.<sup>156</sup> Notably, New York State officials proposed in the wake of the 2008 financial crisis that certain credit derivatives should be “insurance” within the jurisdiction of state regulators.<sup>157</sup> The jurisdiction that New York regulators proposed extended

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Grace & Robert W. Klein eds., 2009).

<sup>152</sup> See Schwarcz and Schwarcz, *supra* note [ ]; Daniel Schwarcz, *Regulating Insurance Sales or Selling Insurance Regulation?: Against Regulatory Competition in Insurance*, 94 MINN. L. REV. 1701 (2010); Hunt, *supra* note [ ]; Manns, *supra* note [ ].

<sup>153</sup> Henderson, *supra* note [ ].

<sup>154</sup> Schwarcz, *supra* note [ ]; Hunt, *supra* note [ ].

<sup>155</sup> See Stout, *supra* note [ ]; [more citations]; M. Todd Henderson, *Credit Derivatives are not “Insurance,”* 16 CONN. INS. L.J. 1 (2009); Thomas Lee Hazen, *Disparate Regulatory Schemes for Parallel Activities: Securities Regulation, Derivatives Regulation, Gambling, and Insurance*, 24 AM. REV. BANKING & FIN. L. 375 (2005); Thomas Lee Hazen, *Filling in a Regulatory Gap: It is Time to Regulate Over-the-Counter Derivatives*, 13 N.C. BANKING INST. 123 (2009).

<sup>156</sup> See *id.*

<sup>157</sup> See Hearing to Review the Role of Credit Derivatives in the U.S. Economy: Hearing before the H. Comm. on Agriculture Committee, 110th Cong. (2008) [hereinafter Hearing] (testimony of Eric Dinallo, Ins. Comm’r, N.Y. State), available at <http://agriculture.house.gov/testimony/110/h91120/Dinallo.pdf>. This proposal was not implemented, to subject derivatives to insurance regulation. Some speculate that state officials used this proposal as a threat in order to induce action by federal regulators. See e.g. Henderson, *supra* note [ ] at [ ].

only to derivatives in which privity of contract exists between the hedging counterparty and the underlying debt instrument.<sup>158</sup> This limitation reflects the “insurable interest” requirement that distinguishes insurance contracts from either wagers or purely speculative swaps. In order for a contract to be “insurance,” the protection buyer must have an insurable interest—a property interest or other risk of real loss that the contract covers.<sup>159</sup> This is not the case, arguably, where swap counterparties trade payment obligations based on performance by unrelated third parties or on external events.<sup>160</sup>

An IBR Swap would fall within the class of derivatives in which a hedging counterparty has an insurable interest. The student counterparty is in privity of contract with law school lenders and by entering into the swap is hedging risk of default on those loans. Because of this, state regulators could claim that IBR Swaps are subject to insurance laws. Despite this possibility, however, IBR Swaps do not necessarily raise the concerns that insurance regulation is designed to address. This subsection now presents these concerns, discussing the extent to which IBR Swaps implicate them.

While the major, overarching concern of insurance law is consumer protection, the need for consumer protection stems from two different sources. The first is lack of sophistication among consumers and consumers’ general vulnerability in procuring essential, insurance products. The second is solvency risk due to the nature of insurance firms, namely, the facts that (i) they have an inverted production cycle that detaches contracting and pricing from customers’ receipt of the product (payment on claims which may happen years later or never)<sup>161</sup>, and (ii) they have diffuse

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<sup>158</sup> *Id.*

<sup>159</sup> The insurable interest doctrine can be complex; scholars and policy-makers debate what constitutes an insurable interest for purposes of insurance laws’ jurisdiction. See Hazen, *supra* note [ ]; Hunt *supra* note [ ]; Roy Kreitner, *Speculations of Contract, or How Contract Law Stopped Worrying and Learned to Love Risk*, 100 COLUM. L. REV. 1096, 1099-1100 (2000); Michael J. Henke, *Corporate-Owned Life Insurance Meets the Texas Insurable Interest Requirement: A Train Wreck in Progress*, 55 BAYLOR L. REV. 51 (2003) (discussing the Texas “insurable interest” doctrine). See also GRAYDON S. STARING, LAW OF REINSURANCE § 6:1 (1993) (citing 1 Sir M. Mustill & J. Gilman, *Arnould on the Law of Marine Insurance and Average* §§331-410 (16th ed. 1981)) (stating “in limited space we can talk around insurable interest but never talk it through. A standard text confesses that ‘it is very difficult to give any definition of an insurable interest,’ and then discusses it for about [seventy] pages”).

<sup>160</sup> Derivatives in which there is privity between a hedging counterparty and the underlying debt instrument are called “covered” swaps—in contrast to “naked” swaps, in which payment does not depend upon a counterparty actually suffering a loss. See Henderson, *supra* note [ ] at 17-18.

<sup>161</sup> Hunt, *supra* note [ ]; Henderson, *supra* note [ ].

creditors (policyholders) that do not assert control to discourage excessively risky decision-making when firms encounter distress.<sup>162</sup>

With respect to consumer vulnerability, an IBR Swap program would not necessarily raise the same concerns as insurance products. Law students are a specific class of consumer, and participation in the program would not be mandatory. This is *not* to say that student counterparties need no protection, or are sophisticated, or enjoy even bargaining positions with institutional counterparties. It is just to say that regulation of such interactions in the IBR Swap context may raise issues different from those that arise in various insurance markets and so individualized regulation may be appropriate.<sup>163</sup>

Regulatory concerns that stem from dangerous incentives of an inverted production cycle would not arise, most likely, in an IBR Swap program. Unlike other businesses, insurance firms contract with customers who pay in the form of premiums in advance of product delivery—payment on claims which may happen years later or not at all. Because of this, insurance firms lack the discipline that comes with having to spend revenues on market products and services deliverable contemporaneously with customer contracts.<sup>164</sup> Insurance firms can fall into a model that is not unlike a Ponzi-scheme, where they solicit investment from new customers, using that revenue to pay claims to prior customers, because they lost revenues from prior customers on risky investments.<sup>165</sup> Insurance regulation imposes capital requirements and financial disclosure requirements on insurance firms to avoid this result.<sup>166</sup>

An IBR Swap program would not have the inverted production cycle associated with insurance firms. The institutional counterparty begins paying on the student counterparty's obligations to law school lenders as soon as they become due. The institutional counterparty's performance obligation is certain in amount and is contemporaneous with the student counterparty's payments. Furthermore, incomes generally rise over time,

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<sup>162</sup> Hunt, *supra* note [ ]; Henderson, *supra* note [ ].

<sup>163</sup> There may even be an argument that intermediaries such as school advisors and financial aid office professionals are in a better position to protect students' interests than state insurance regulators. Protection of the "protection buyer"—the student counterparty to an IBR Swap—involves both explanation of the programs' terms and conditions and also protection from unfair pricing. Private intermediaries familiar with legal education, law graduates' career trajectories, and federal lending programs might be better suited than state officials to advise protection buyers in the IBR Swap context. In fact, arguments against regulating other derivatives as insurance include the competence of private intermediaries such as the International Swaps and Derivatives Association (ISDA) in setting the substance of swap contracts and practices for collateralization.

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both because of the effects of inflation on wages and because more experienced lawyers tend to earn more than less experienced ones. Because of this likelihood that early earnings would be lower than later earnings, the institutional counterparty is likely to owe more than it collects in the early years of each contract and overall. Thus, it will need some source of capital at the outset, but its need to accumulate capital is the inverse of the production cycle that is dominant in the insurance industry, in which the insurer collects money over time and is required to pay out later because of an insured event.

With respect to concerns arising from the capital and governance structure of insurance firms, the extent to which an IBR Swap program would raise these concerns depends upon the identity of the institutional counterparty. In other kinds of firms, capitalization often comes from a large number of diffuse shareholders, along with a small group of creditors—banks or other lenders—with monitoring capacity.<sup>167</sup> When the firm faces distress, creditors often can exercise monitoring and control functions through loan covenants, other contractual obligations, and collateral obligations, preventing excessively risky behavior.<sup>168</sup> An insurance firm, however, has a diffuse group of creditors—policyholders—who are not in a position to monitor and exert control like institutional creditors do. This leaves insurance firms more prone than other businesses to excessive risk-taking in hard times. Again, capital adequacy, disclosures, etc., imposed by insurance laws address this risk.

Counterparties to derivatives are often financial institutions that do not share the same governance and capital structure as insurance firms. If the institutional counterparty to an IBR Swap were such a financial institution, then the state insurance law requirements designed to address these concerns would not be necessary. Many swap counterparties, also, are not exclusively in the business of entering into one kind of swap. They are firms with multiple kinds of investments, speculative, and hedging positions, across product types and even industries.<sup>169</sup> It is possible that the institutional counterparty to an IBR Swap could be an entity dedicated to entering into these swaps with a pool of student counterparties and a capital structure analogous to that of an insurance firm. If this were the case, then some regulatory requirements to control excessive risk-taking in the event that the pool of swaps leans towards negative value would be desirable.

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<sup>168</sup> There is an entire literature on the efficacy of creditors' monitoring functions. *See e.g.* [ ] This simple explanation is just to compare typical insurers to possible IBR Swap counterparties.

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It is not clear, though, that state insurance regulation would be the best mechanism to protect student counterparties in this situation. Often, clearinghouse requirements address counterparty risk and capital adequacy concerns in the derivatives context. A private clearinghouse for IBR Swaps could be a better solution to counterparty risk for students than subjecting the IBR Swap program to state insurance regulation. However, clearinghouse requirements could raise the transaction costs of IBR Swaps, making the swaps less advantageous for students. Given this concern, targeting institutional counterparties that have diversified portfolios, and perhaps are subject to other capital adequacy requirements as regulated banking institutions, may be desirable in setting up an IBR Swap program.

In conclusion, the IBR Swap should not be subject to state insurance regulation. IBR Swaps do not raise the same concerns for protection sellers and buyers that insurance policies and firms do. In addition, to the extent that IBR Swaps do warrant protection for student counterparties, or attention to the nature of institutional counterparties, private intermediaries would be better suited to address concerns than state insurance regulators would be. That said, the IBR Swap does involve hedging of risk by a student counterparty with an insurable interest. As such, a state insurance regulator could, potentially, claim that IBR Swaps fall within insurance regulators' jurisdiction.

### 2. *Enforceable contract*

Commentators have expressed concern that a human capital contract might not be enforceable.<sup>170</sup> If a contract is unenforceable, then a student would be permitted under the law to walk away from the agreement without sanction. However, an IBR Swap is an enforceable contract. It does not involve a disbursement to the student that would make the student an obligor on a loan that could be characterized as either “indentured servitude” or “equity in a person.” It is not an unenforceable wager, because—as discussed above—the student counterparty is hedging risk pertaining to an insurance interest.<sup>171</sup>

### 3. *Debt treatment*

Proponents of human capital contracts have also worried that such agreements could be classified as “debt,” which would make compliance with a variety of laws difficult at best. For example, if human capital contracts constituted “debt,” they might be regulated under the Truth in Lending Act of 1968 or, if it qualified as a “private education loan,” under

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<sup>170</sup>

<sup>171</sup> See *infra* TAN [ ].

the Higher Education Act.<sup>172</sup> These federal laws require lenders to clearly disclose interest charges as an annual rate. But for a human capital contract, calculating such a rate is impossible because the amount the “borrower” is obligated to repay to the “lender” varies depending on the income of the borrower.

Furthermore, if human capital contracts are loans, they might be subject not only to the disclosure requirements, but also to limits on the maximum amount that could be charged.<sup>173</sup> Many states have limits on the total amount of interest that can be charged to a borrower, and these limits – if applicable – would mandate relatively low ceilings on the maximum amount a high earner could pay under a human capital contract. The Higher Education Act also has limits on how much interest can be charged and on how much can be garnished from wages in the case of non-payment.<sup>174</sup> If these limits were interpreted to apply to human capital contracts, they would remove most of the benefit of such structures, since they would prevent the contract from capturing much if any upside gain from high-earning graduates.

There’s no statutory definition of debt in either the Truth in Lending Act or the Higher Education Act, but an essential characteristic of debt is that it involve a transfer of funds from one party (the lender) to another party (the borrower) in exchange for a promise of future repayment (usually with interest). In the case of the IBR swap, there is no initial transfer of funds from the institutional counterparty to student, and so the relationship cannot be characterized as debt. Thus, the IBR Swap removes any ambiguity about whether lending disclosure regimes, rate ceilings, or usury laws apply. They don't.

#### 4. *Bankruptcy*

Several commentators have mentioned that uncertainty about how a human capital contract would be treated in bankruptcy creates regulatory uncertainty.<sup>175</sup> For example, if a human capital contract constituted a “private student loan” under the HEA, then it is not generally dischargeable in bankruptcy unless the student can show “undue financial hardship,”

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<sup>172</sup> “Private education loans” are subject to numerous reporting requirements under §128(e) of the Truth in Lending Act (15 U.S.C. §1638(e)(1)). These disclosures fit poorly with a human capital contract (or they are impossible to comply with). For example, the lender must report “(A) the potential range of rates of interest applicable to the private education loan; ... and (C) limitations on interest rate adjustments, both in terms of frequency and amount, or lack thereof, if applicable.”

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which is generally very difficult to show.<sup>176</sup> Even ignoring the “private student loan” issue, some argue that there would be difficulty in figuring out how to treat a human capital contract in bankruptcy. In a bankruptcy proceeding, the obligations of the bankrupt party are prioritized, with low priority obligations being subject to discharge. There is some fear that a bankruptcy court would extinguish future obligations under a human capital contract unless it was classified as a private student loan under the HEA. Since a human capital contract represents a long-term obligation, and the risk of under-earning likely is highest early in the term of the agreement, extinguishing the obligation in bankruptcy early in the term of the agreement would be problematic. That uncertainty poses some risk to the investor,<sup>177</sup> and may serve to increase the cost of the human capital contract.

Unlike a human capital contract, an IBR Swap is not a liability for a low-earning student, but an *asset*. Remember, a student who earns less than the “break-even” income receives a net benefit from the institutional counterparty. The amount that the institutional counterparty pays to the student is *more* than the student pays to the institutional counterparty, and so every month the IBR makes the student richer than she would be without the IBR Swap. Thus, a student whose income is so low as to result in bankruptcy would not want to have her IBR Swap discharged. Far from it, her IBR Swap is the one thing that is enabling her to make her presumably non-dischargeable student loan debt payments possible. Thus, the possibility of discharging the student’s obligation because of the student’s bankruptcy is entirely avoided by the IBR Swap. Of course, there is some possibility that the institutional counterparty could be undercapitalized and default or even seek bankruptcy protection to avoid its payments to the student counterparties. We discuss what regulation is appropriate to protect students against this possibility below.<sup>178</sup>

### 5. Tax

More important than bankruptcy treatment is the proper tax treatment of human capital contracts. While bankruptcy occurs only in extreme cases, every investor and student in a human capital contract has to decide how to treat the investment for tax purposes in every relevant year. If the IRS decides that their treatment is wrong, then students and investors may be subject to the cost of correcting their previous positions and paying the government interest, and possibly even penalties, on the amount of their

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<sup>177</sup> Since a human capital contract adjusts by its terms to the investee's ability to pay, it is not as substantial a burden on a low-earning student, and so the need to discharge it in bankruptcy is dramatically diminished. But, presumably, there is still some possible risk.

<sup>178</sup> See *infra* at \_\_\_\_.

underpayment. Some commentators have mentioned this uncertainty as significant, and the authors of H.R. 4436 consider it significant enough to propose definitive tax treatment.<sup>179</sup>

There are many possible options for how to treat the transaction for tax purposes. If a human capital contract is “debt” then the receipt of the initial payment from the investor to the student is not a taxable event for either party (the student doesn’t treat it as income and the investor cannot deduct the payment from its income for tax purposes). When the student makes percentage-of-income payments back to the investor, those payments are partially a tax-free “return of capital” and partially “interest.” Return of capital has no tax implications, but interest is income to the investor, and, importantly, it is income at the “ordinary” rather than at the lower “capital gains” rate.<sup>180</sup> But if a human capital contract is debt for tax purposes, a method must be employed for separating the return of capital from the interest. Just as was the case when we discussed lending law, the structure of a human capital contract makes it impossible to calculate a “rate” and so there is no way to distinguish “interest” from “return of capital.”<sup>181</sup>

If the human capital contract is not treated as debt, it could be treated in a number of other ways, each of which provides a different solution to the problem of how to distinguish tax-free return of capital from taxable income. At least one commentator has raised the possibility that the best way to view at least some human capital contracts is as a partnership or joint venture, in which case the student’s income would be allocated between the student and the investor for tax purposes, with one (but not both) paying tax on all of it.<sup>182</sup> This treatment would be extremely complicated, although it might be favorable to the parties collectively.<sup>183</sup>

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<sup>179</sup> See H.R. 4436 §201 (providing that payments made from an investor to the student are not includable in the student’s income, and that payment of future income to the investor constitute a tax-free recovery of capital for the investor until the full amount of the investment is recovered, after which time they are taxable income).

<sup>180</sup> For the student, the interest may be deductible under certain circumstances. For example, if the human capital contract was incurred in the course of the student’s existing trade or business, then the interest would be deductible. However, if it was incurred for education, even professional education, it would likely not be deductible, unless it was deductible as student loan interest, which is subject to numerous limitations and exemptions.

<sup>181</sup> In addition to being uncertain, this treatment would probably not be preferred by taxpayers, because the method used to calculate the return of capital does not permit the taxpayer to defer the payment of tax, and because the income earned is taxed at the full ordinary income rate.

<sup>182</sup>  
<sup>183</sup> The student’s earnings would somehow be treated as partnership income subject to allocation between the parties pursuant to subchapter K of the Internal Revenue Code. Payments from the student to the investor would be distributions, as would payments from

More likely, a human capital contract would be taxed like some similar investment vehicle. For example, if it was considered more “insurance-like,” it might be taxed as an “annuity.”<sup>184</sup> It could be taxed pursuant to the contingent installment sale method, in which case the “basis” would be spread equally over the years of repayment, and the investor would have a loss or gain in each year depending on the comparison of income to basis.<sup>185</sup> It could also be taxed pursuant to the “open transaction” doctrine, in which the first money received by the investor from the student is all return of capital, and only after all is received is the rest taxed as income.<sup>186</sup> This extreme uncertainty creates tax problems (though also, of course, tax opportunities, since some of the potential treatments of the transaction would be favorable from a tax perspective for the investors at least). Unsurprisingly, H.R. 4436 seeks to clarify the tax treatment of qualifying income-share agreements. Under H.R. 4436, the treatment is essentially the same as it would be under the open transaction doctrine, which is the most favorable treatment for the investor. The initial payment from the investor to the student is excluded from income of the investee, just as it would be if it was debt, and the return payments are tax-free return of capital until the whole invested amount is paid back. After that, payments are income to the investor.<sup>187</sup>

In the case of an IBR Swap, the tax treatment is relatively certain (even if not particularly favorable). The tax treatment of a swap transaction that consists entirely of contemporary reciprocal payments is relatively settled.<sup>188</sup> In general, the reciprocal payments over the course of the tax year are “netted” so that one party has an aggregate annual payment that is positive and the other party has an exactly corresponding negative annual aggregate.<sup>189</sup> If the student paid the institutional counterparty \$2,000 per month and the institutional counterparty paid the student \$1,726 in a particular year, the institutional counterparty would have a net income of \$274 per month (\$3,288 in that year). The student would have a corresponding loss of \$3,288 for that year.<sup>190</sup>

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the “partnership” into the student’s own personal bank account.

<sup>184</sup> IRC 72. Under annuity treatment, capital is allocated pro rata over the years of the term of the annuity, and so each year an equal amount would be tax-free return of capital. Any amount exceeding this amount would be income to the investor. In years in which the investor received less than the amount that represented a return of capital, \_\_\_\_.

<sup>185</sup> IRC 453.

<sup>186</sup> See *Burnet v. Logan* (US 1931); NOTE: this is the approach dictated by the proposed Rubio/Petrie legislation.

<sup>187</sup> H.R. 4436 §201(a).

<sup>188</sup>

<sup>189</sup>

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If the student earned less than the breakeven point, and therefore paid the institutional counterparty less than the institutional counterparty paid the student, then the student would have positive income, and the institutional counterparty would have a loss. So, for example, if the student paid the institutional counterparty only \$1,000 per month and the institutional counterparty paid the student \$1,726, the student would have an annual aggregate net payment from the institutional counterparty of \$8,712. Because this is a net positive for the student, the student would owe tax on that amount (the institutional counterparty would be able to deduct its loss), and it is generally accepted that the income to the student would be “ordinary income” rather than “capital gains.”<sup>191</sup>

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The unique structure of the IBR Swap dramatically reduces the regulatory uncertainty that undermines human capital contracts and other income share agreements under current law. An IBR Swap is a kind of derivative and would be regulated as such. It is not some sort of “equity” interest in a person, dragged out of a dystopian future where people are “owned” by the investors who financed their education. Under current law it would avoid most forms of regulation of financial products, and therefore could be offered without much in the way of legal hand-wringing. However, the fact that the legal treatment of IBR Swaps under current law is less uncertain than that of human capital contracts does not mean that there is not a whole host of potential regulatory and ethical issues that are raised by IBR Swaps. Exhaustively discussing these issues is beyond the scope of this paper, but the next section discusses one such issue and some possible regulatory responses to it.

### *B. Considering Regulatory Possibilities*

As discussed above, if you like human capital contracts, you ought to love IBR Swaps. But, if you are alarmed (or even horrified) by the possibility of a world in which human capital contracts are the primary mode for financing higher education, then you probably hate IBR Swaps. Thus far, this article has discussed how IBR Swaps are like human capital contracts, but “better,” in the sense that they are more efficient and do not suffer from the same regulatory uncertainties. But we have thus far deferred a discussion about the potential drawbacks of income share agreements like human capital contracts and IBR Swaps. We believe that these drawbacks potentially include a risk that income share agreements could exacerbate income and other forms of inequality, diminish access to

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education for some qualified students, raise the cost of education for some students, accelerate the withdrawal of public support for education, and generally lead to a society that is less egalitarian, less educated, and all around worse.

However, we also believe that each potential drawback can be managed with well-constructed regulations such that the potential benefits outweigh the potential drawbacks. The Rubio/Petrie Legislation clears some of the legal hurdles that impede the development of a market for income share agreements (as does our invention of the IBR Swap), but it does very little to regulate the market it purports to create.<sup>192</sup> No study to date has systematically examined the regulatory tradeoffs inherent in designing a system of higher-education financing that includes various types of income share agreements. Nor do we attempt such a systematic study here.<sup>193</sup> Instead, in this section we discuss one of the features of income-share agreements that is both a feature and a bug -- "differential" or "discriminatory" pricing -- and we briefly examine the regulatory tradeoffs that could be made to constrain potential harms.<sup>194</sup>

### *1. Differential or Discriminatory Pricing*

The primary variable in imagining a market for income-share agreements is the range of factors that could be applied in pricing the agreements. As discussed above, all commentators assume that private income share agreements would not be available to all students at the same price the way governmental IBR is. Rather, a market would develop in which income share agreements are differentially priced based on some criteria that investors believe predict high earning graduates. As discussed above, most of the commentators thus far have assumed that income share agreements for undergraduate education would be differentially priced based on undergraduate major, with "high earning" majors like engineering commanding lower priced income share agreements, while "low earning" majors like English would have to pay higher prices for their income share agreement. In other words, an English major may be able to borrow \$10,000 in exchange for 2% of his income, while a petroleum engineering

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<sup>192</sup> Note that it does set a maximum limit on total ISAs for any person, and it prevents investors from "controlling" investees.

<sup>193</sup> [Although we hope to in the near future.]

<sup>194</sup> There are other aspects of income-share agreements that might warrant a robust regulatory regime, but we leave to another day the task of examining them in a systematic fashion. They include: (i) consumer protection (limit the range of options to some standardized ones, just like for loans; limit total percentage of income; mandate a price ceiling/floor?), (ii) capital adequacy (some protection against investor bankruptcy, although the risk is much less than in most insurance markets), and (iii) investor "control" over graduates (largely not an issue, but could possibly have some application).

major would be able to borrow the same \$10,000 in exchange for only 1% of her income. It is beyond the scope of this article to discuss the merits of this particular assumption, but we are both skeptical of the evidence that supports it and we are unenthusiastic about the effects a market would have if college major were the primary driver of differential pricing.<sup>195</sup>

But there is no inherent reason that course of study would be the dominant factor that would determine the price of an income share agreement. As discussed above, we are interested in the possibility that choice of school would be a significant factor in differential pricing, especially in the law school context. If investors determined that graduates of High Ranked Law School on average made more money than graduates of Low Ranked Law School, then they could charge more to students of Low Ranked Law School for their income share agreements. If they estimated that students of Low Ranked Law School were likely to earn half as much, then Ben, a student of Low Ranked Law School might have to pay 1% for every \$10,000 borrowed, while Heather, a student of High Ranked Law School, would have to pay only 1/2%. Remember, that does not mean that Ben will pay more than Heather for his education. If the investor is predicting correctly, and if Ben and Heather earn the average amount for their schools, they will each pay the exact same amount for their education. It will just be a higher percentage of income for Ben than for Heather.<sup>196</sup> But, obviously, the investors might not predict accurately and Heather and Ben might not be average. If Ben is above average *for his school* then he'll pay more for his education. If he's below average *for his school* then he'll pay less. Same with Heather. But if you compare them to each other, and they earn the same amount of money, Ben will pay much more than Heather, and that may seem unfair. It may even contribute to social inequality, since a student who makes a lot of money coming out of a lower ranked school will pay more for his education than a student making a lot of money coming out of a higher ranked school.

The possibilities of differential pricing do not end there. It is pure conjecture on our part that school will be a meaningful pricing factor for an investor in income share agreements. Absent any rule or law to the contrary, an investor could use other, more "personal" factors. For example, instead of (or in addition to) differential pricing based on school, an investor could differentially price the agreement based on undergraduate GPA or LSAT score. These "scores based" factors would have a very

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<sup>195</sup> Avoiding a robust discussion of exactly this issue was one of the reasons we chose to focus on law school financing in this Article.

<sup>196</sup> Remember, that's how it currently works with fixed-rate debt. If Ben earns half Heather's salary, he pays twice as much for his education as she does, as a percentage of his income.

different impact than schools-based factors. Imagine that both Heather and Ben are students at Low Ranked School, but Heather entered with a 155 LSAT and a 3.5 undergrad GPA, while Ben entered with a 152 LSAT and a 3.0 GPA. Both are within the range for Low Ranked School. If investors predict that students with LSATs and GPAs like Ben's are likely to earn half as much as students with LSATs and GPAs like Heather's, then Ben's income share agreement will require twice the percentage of his income as Heather's.

Worse even than scores-based differential pricing is differential pricing based on some other personal factors. For example, we know that women on average earn less than men, and so, absent any law preventing it, one could imagine a world in which Heather and Ben have identical LSATs and GPAs and go to the exact same school, but Heather's income share agreement costs more than Ben's just because she is a woman and is therefore likely to earn less over the relevant time period. Similarly, we know that children of high earning parents are much more likely to be high earners themselves than children of low earning parents, even when other factors are controlled. One could imagine a world in which income share agreements are priced largely based on the earnings history of the students' parents. One could even imagine a world in which race is a factor. Again, these pricing strategies would mean that students who ended up earning the same amount would pay different amounts based on sex or parental income or race. And the difference would go in the "wrong" way: the children of high earners would pay *less* than the children of low earners.

## *2. Regulating Differential Pricing*

The good news is that Congress could create a regulatory regime that would control which factors could be used in pricing income share agreements. Insurance law contains many such anti-discrimination provisions, as discussed above.<sup>197</sup> They could mandate that the price of an income share agreement cannot vary based on sex or race or parental income. They could mandate that the price be based solely on school attended or even course of study, with students of all law schools paying the same amount.

The problem with such regulation is that it represents a tradeoff in two ways. First, the information-gathering potential of income share agreements depends on differential pricing. When the investors set a different price for students with different factors, it communicates to the student the market's estimation of the relative importance of those factors to the students' future earning. Thus, if the government prevented investors

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<sup>197</sup> See, *supra* \_\_\_\_\_.

from charging different prices to students of different schools, the market would be prevented from providing students with information about the predicted difference in future earnings of students from different schools. Likewise, if the government prevents differential pricing based on LSAT or undergrad GPA, it prevents the student from learning anything about her own earning potential based on her LSAT or undergrad GPA. After all, either thing may be irrelevant or highly relevant, and the dream of income-share-agreements supporters is that permitting people to make money from accurately predicting students' earnings would fuel investment into exactly these questions, and the price would communicate the findings.

The second tradeoff in regulating differential pricing is so-called "regulatory adverse selection." Adverse selection is the term used to describe a central problem in insurance markets. Traditional adverse selection arises when insurers and insureds have "asymmetric information" about the risks posed to the insured. So, for example, an insurer providing life insurance may know that the overall probability of a 46-year-old man dying in the next year is 2%. If the only information he had about the insured was his age and sex, then he would price the one year of life insurance based on that 2% chance of the insured dying in the coming year. But the chance of a 46-year-old man who is diagnosed with advanced lung cancer dying in the next year may be as high as 50%. If the insured knows that he has cancer, but the insurer does not, then there is an informational asymmetry. If the insurer prices the insurance based on its knowledge of the general population of 46-year-old men, then the insurance will be a bargain for the man with cancer. Assuming that the insurer cannot discover which people are diagnosed with cancer, it will have to price its insurance slightly higher than it otherwise would, because it knows that people with cancer are more likely to purchase it than people without cancer (because it is such a good deal for them). As the insurer increases the price of the insurance to take into account those people who know they have cancer, the insurance becomes less attractive to people who don't have cancer, and they purchase less, driving the price even higher. That tendency for asymmetric information to encourage high-risk individuals to acquire more insurance, and thereby drive low-risk individuals out of the market, is called "adverse selection." In extreme cases, adverse selection can cause a "death spiral" as low-risk insureds opt out of the market, driving up the price, thereby causing more low-risk insureds to exit the market.

In education financing, adverse selection potentially exists whether financing is provided in the form of debt or in an income share agreement.<sup>198</sup> In the case of income share agreements, any information that

accurately predicts earnings – and that is known to students but not investors – is relevant to the adverse selection issue. So, for example, if a student knows that he wants to work in public interest law, and that salaries are very low there, then he presents a greater-than-normal risk of low earnings. Similarly, if a student has a personal contact at a high-paying law firm, she potentially presents a greater-than-normal chance of high earnings. If the low-earning student opts in to the human capital contract market and the high-earning student opts out, the adverse selection problem may be acute. That is because personal commitments and personal contacts are private information held by the student and not available to the investors.

But, adverse selection problems can be created not only through asymmetric information, but also when both parties have access to information, but the insurer is prohibited by law to take that information into account in setting rates. This kind of adverse selection is sometimes called "regulatory adverse selection" to emphasize the fact that it arises out of the legal regime rather than out of asymmetrical information.<sup>199</sup> So, for example, the fact that federal law prohibits insurers from considering pre-existing conditions when providing or pricing health insurance creates the potential for regulatory adverse selection.<sup>200</sup> In the case of income share agreements, any regulatory regime that limits the factors that investors can consider in pricing the contracts could create or exacerbate the adverse selection problem. Even banning only the most disturbing forms of price discrimination could potentially cause regulatory adverse selection. For example, if the government banned sex discrimination in pricing income share agreements, women (who are at greater risk of low earnings) might opt in to the program, while men (who have a greater likelihood of high earnings) opt out. In this scenario, the price for everyone would go up. In the income share agreement market, regulatory adverse selection could also occur if investors were constrained from taking into account any other individual factor, like family wealth, grades, LSAT scores, or anything else. It is conceivable that adverse selection could be prevalent enough in a market for human capital contracts to cause a "death spiral." In that case, no market could develop for income share agreements, and it would be necessary for the government to intervene, either with some sort of "individual mandate" or by subsidizing income share agreements enough to counter the costs of adverse selection.

The question of whether asymmetrical information or regulatory

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<sup>199</sup> Ronen Avraham, Kyle D. Logue & Daniel Schwarcz, *Understanding Insurance Antidiscrimination Laws*, 87 S. Cal. L. Rev. 195, 204 (2014).

<sup>200</sup> The so-called "individual mandate," which requires almost all persons to purchase health insurance, is an attempt to overcome at least some of the potential adverse selection caused by the prohibition.

adverse selection would destroy a voluntary market for human capital contracts is an empirical one, and there is good reason to be skeptical about it. There are some reasons to believe that the adverse selection problem may not be as bad as one might fear. As for information asymmetries, the consensus appears to be that students have very little reliable information about their earning capabilities once they graduate, at least in the law school context. Remember, for adverse selection to be a concern, students would have to know more about their individual earning potential than the investors.<sup>201</sup> Most evidence suggests that prospective law students, at least, have very little private information about themselves that would enable them to make better predictions about their earning potential than investors.<sup>202</sup> Even the classic example of the student who plans to go into a "low earning" field like public interest appears to be largely a myth. Most students do a bad job at the outset of law school predicting what kind of law they will practice, and so-called public interest careers are not the main cause of low earning among law school graduates.<sup>203</sup>

Regulatory adverse selection may also pose less of a problem than one might assume if individual characteristics are not very predictive of future earnings. Transaction costs already limit the individual factors that insurers use to price insurance, and only those whose predictive ability justifies the price of collecting the information are likely to be used. It may well be that the factors that are prohibited -- even if they include scores or parental income -- are just not significant enough to cause a death spiral in the market. After all, we had a robust health insurance market prior to the Affordable Care Act with a significant number of anti-discrimination provisions. It presumably was the ban on pricing based on pre-existing conditions that legislators thought would be the straw that broke the camels back necessitating the individual mandate. In regulating income share agreements, legislators would have to make a similar judgment about which pricing factors could be prohibited without destroying the market and which would be too much.

The point is that the creation of a market for income share agreements might necessitate new regulation, and this new regulation would

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<sup>201</sup> See Macchiarola et al., *supra* note \_\_\_\_ at 110-113.

<sup>202</sup> Miguel Palacios, Tonio DeSorrento, Andrew P. Kelly, *Investing in Value, Sharing Risk: Financing Higher Education Through Income Share Agreements*, AMERICAN ENTERPRISE INSTITUTE'S CENTER ON HIGHER EDUCATION REFORM at 11 of 18 (Feb. 2014)(giving a good general introduction to the adverse selection problem faced by human capital contracts)("Given that students are often not very accurate in projecting their future income and typically have low levels of knowledge about the labor market, however, investors will most likely have better information than students about their future economic prospects in particular courses of study at particular institutions").

<sup>203</sup>

implicate a series of policy trade-offs. We leave a systematic examination of these policy tradeoffs to another day. But we have attempted, at least, to briefly discuss one of the topics that such regulation will have to address -- differential pricing.

## V. CONCLUSION

Experimentation with income share agreements is likely to expand in the near future. The interest from a variety of parties is just too intense for it to go away. It is crucial that we bring both creativity and detailed attention to the financial possibilities that they present. The IBR Swap combines structural and financial advantages of derivatives with the appeal of income-based approaches to financing law school. But the benefits of the IBR Swap from a financial engineering perspective only make starker the potential social problems that could arise from an unregulated market for income share agreements. We have only begun to identify and address these issues. Now is the time to explore innovations like the IBR Swap, as legal education strives to better match costs and capital to educate the next generation of lawyers.

APPENDIX I: *Moral Hazard?*<sup>204</sup>

Along with adverse selection, “moral hazard” is often identified as a central problem with insurance products. Some commentators have identified moral hazard as an impediment to human capital contracts.<sup>205</sup> Moral hazard “is a form of ex post opportunism” that arises in insurance markets when the existence of insurance reduces the insured’s incentives to avoid the insured loss.<sup>206</sup> In the case of human capital contracts, some commentators fear that owing a percentage of one’s income to investors might decrease a person’s incentives to earn income. When the amount owed is fixed, as it is in traditional student loans, then the marginal cost of the loans decreases as income goes up, and so there is no disincentive on earning. In the case of human capital contracts, the amount owed increases based on income, and so each marginal dollar earned is reduced proportionally by the percentage owed under the contract. This incentive effect could be considered a form of moral hazard, since ex post behavior under the control of the student (earning less than she otherwise would) can increase costs for the investor (who collects less money the less the student earns).

The existence of moral hazard in this context is an empirical question, and available evidence suggests that we should not be overly concerned about it. Scholars have been interested in the question of how paying a percentage of one’s income affects labor participation for decades. That is because the income tax functions just like a human capital contract in that each dollar a taxpayer earns is reduced by a percentage that is paid to a third party. It is axiomatic that the disincentives for labor participation that an income tax produces are a significant potential flaw in any income tax regime. However, the empirical evidence suggests that relatively low income tax rates have very modest, if any, effects on labor participation.<sup>207</sup> Human capital contract rates are unlikely to exceed 15% of income, but it is important to recognize that these rates would be added to any existing income tax rates, and so the aggregate rate could presumably be quite high.

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<sup>204</sup> Robert Shiller, *THE NEW FINANCIAL ORDER: RISK IN THE 21ST CENTURY* (Princeton Univ. Press 2004). (p. 113) on livelihood insurance, Shiller proposes that individual livelihood insurance only cover 50% of the decline in income because “since the person is only reimbursed for half of his or her own income drop, he or she still has an incentive to work hard, reducing, if not eliminating, the moral hazard problem.” If the insurance only covers 15% of her income, the moral hazard problem is presumably even less.

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<sup>206</sup> Francesco Parisi, *THE LANGUAGE OF LAW AND ECONOMICS: A DICTIONARY* 187-88 (2013). *See also* Robert Cooter & Thomas Ulen, *LAW AND ECONOMICS* 50-52 (3d ed. 2000)(Moral hazard arises when the behavior of the insuree changes after the purchase of insurance so that the probability of loss or the size of the loss increases.)

<sup>207</sup>

In that case, the combination of income tax rates and human capital contracts could at least theoretically have an effect on labor participation, and therefore function like a moral hazard in the human capital contract market.

Also, however, a market for human capital contracts might reduce a variety of moral hazard problems that exist in the current student debt regime. For example, some commentators have decried the moral hazard that arises when law schools can charge unsustainably high tuition and the students can avoid paying back their loans by making use of current federal income-based repayment and loan forgiveness programs.<sup>208</sup> Here, the “insured” is the student, who borrows amounts in excess of what she can reasonably repay in the knowledge that she will pay only a fixed percentage of her income. The problem is not that the insurance program creates disincentives to earn, but that it creates incentives to over-borrow by removing existing disincentives. This feature of government income-based repayment is absent in a properly designed human capital contract market because the “repayment rate” is set based on how much one borrows, instead of being the same no matter how much one borrows.<sup>209</sup>

Thus, there are real practical impediments to the development of a market for human capital contracts. Adverse selection from information asymmetries could cause a death spiral in the market. Regulatory adverse selection could also be a problem, depending on whether the law prevents certain types of risk profiling. Collection costs are likely to be high. It would be hard to compete with government-provided loans. Good data necessary for pricing the contracts does not currently exist and would be expensive to obtain. A significant amount of capital would have to be obtained and invested over a long period of time without any tangible collateral. The contract is unfamiliar, and may encounter aversion among possible participants. And, finally, there may be some incentive to avoid work or seek lower-paid work, which could be exacerbated depending on how the contract is written. These practical impediments are potentially real, but proponents of human capital contracts sometimes focus not on these issues, but on another impediment, legal uncertainty. The fact that the laws surrounding human capital contracts were generally designed with other types of legal relationships in mind means that human capital contracts are sometimes an uneasy fit within existing legal regimes. This uneasiness creates uncertainty about how such contracts would be treated under a variety of regimes, and therefore creates an impediment to the formation of a market for human capital contracts.

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<sup>208</sup> See, e.g. Steven J. Harper, *The Belly of the Beast Blog*, Student Loans, Moral Hazard, and a Law School Mess (9/10/14).

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