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**“The GAAP Lock-Out Effect and the Investment
Behavior of Multinational Firms”**

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SCHEDULE FOR 2014 NYU TAX POLICY COLLOQUIUM

(All sessions meet Thursday 4:00-5:50 p.m., Vanderbilt-208, NYU Law School)

1. January 21 – Saul Levmore, University of Chicago Law School, “From Helmets to Savings and Inheritance Taxes: Regulatory Intensity, Information Revelation, and Internalities.” (Main discussion paper); and “Internalities Regulation Through Public Choice.” (Background paper).
2. **January 28 – Fadi Shaheen, Rutgers-School of Law, Newark, “The GAAP Lock-Out Effect and the Investment Behavior of Multinational Firms.”; “Evaluating Investments of Locked-Out Earnings (An Outline).**
3. February 4 – Nancy Staudt, USC Law School, “The Supercharged IPO.”
4. February 11 – Thomas J. Brennan, Northwestern University School of Law, “Smooth Retirement Accounts.”
5. February 25 – Chris Sanchirico, University of Pennsylvania Law School.
6. March 4 – James R. Hines, University of Michigan Economics Department and Law School.
7. March 11 – Stephanie Sikes, Wharton School, Accounting Department, University of Pennsylvania.
8. March 25 – Matthew C. Weinzierl, Harvard Business School, “Revisiting the Classical View of Benefits-based Taxation.”
9. April 1 – Andrew Biggs, American Enterprise Institute, “The Risk to State and Local Budgets Posed by Public Employee Pensions.”
10. April 8 – Susannah Camic Tahk, University of Wisconsin Law School, “Charity Governance Patterns: Empirical Evidence.”
11. April 15 – Nirupama Rao, NYU Wagner School,
12. April 22 – Kimberly Clausing, Reed College, Economics Department, “Lessons for International Tax Reform from the U.S. State Experience under Formulary Apportionment.”
13. April 29 – David Gamage, Berkeley Law School, “On Double-Distortion Arguments, Distribution Policy, and the Optimal Choice of Tax Instruments.”
14. May 6 – Mitchell Kane, NYU School of Law, “Reflections on the Coherence of Source Rules in International Taxation.”

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ABSTRACT

This paper looks into the investment behavior of multinational firms with respect to their locked-out foreign earnings. The focus is on multinational firms subject to credit and deferral home-country tax systems such as that of the United States. “Locked-out earnings” refers to the earnings of a foreign subsidiary that are locked-out abroad against the firm’s own real income (present value) interest to avoid the repatriation tax and the associated GAAP “penalty.” The paper extends the existing theoretical models beyond the optimal repatriation-versus-retention point to argue that from a real income perspective the choice of investment for locked-out earnings should differ from that in the first-best optimal setting. One example is that investing locked-out earnings in passive assets generally generates greater present value to the firm than does investing such earnings in the tax- and GAAP-advantaged, even if higher-returning, active assets. This in turn magnifies the conflict between real and book income considerations, and could lead firms to act against their own real income interest also when reinvesting locked-out earnings, thereby generating efficiency costs not yet identified, both to the firms and to the economy in general.

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TABLE OF CONTENTS

I. Introduction	3
II. Background	8
A. The Taxation of Cross-Border Income	8
B. The U.S. Controlled Foreign Corporation Regime	9
1. Deferral	9
2. The Subpart F Controlled Foreign Corporation (CFC) Rules	11
III. The Impact of the Repatriation Tax on Repatriation Behavior.....	12
A. The Consolidated Growth Approach	12
B. The Present-Value Maximization Approach.....	14
1. The “Hartman Result”.....	14
2. “Immature” Foreign Operations	16
3. The Availability of other Investment Alternatives	17
4. The Relevance of the Repatriation Tax: Empirical Findings.....	18
IV. The GAAP Lock-Out Effect.....	20
A. “Permanently Reinvested Earnings”	20
B. The GAAP Lock-Out Effect	21
V. Implications of the GAAP Lock-Out Effect for the Investment Behavior of Multinational Firms	26
A. The Framework of the Analysis.....	27
1. The Investment Hierarchy of the Optimization Models	27
2. “Locked-Out PRE”	28
3. The Investment Options for Locked-out PRE	31
4. Why Present Value?.....	33
B. The Hypothesis and its Intuition	37
1. The Hypothesis	37
2. The Intuition.....	38
C. The Proof.....	40
1. Passive Investments	40
2. Active Investments.....	42
3. The Choice of Investment for Locked-Out PRE.....	43
D. Implications.....	46
VI. Conclusion	49

I. INTRODUCTION

The taxation by the United States of controlled foreign corporations (CFCs) of U.S. multinational firms has been the subject of an ongoing debate since the enactment of the CFC rules of the so called “subpart F” in 1962.¹ Generally, active earnings of CFCs—earnings that are generated through the business operations of the CFCs abroad—are not taxed by the United States when earned. The U.S. taxation of these earnings is deferred until their repatriation to the United States.

Theoretically, if the repatriation tax rates are fixed over time and if only cash tax and real income considerations are taken into account, the repatriation tax should be irrelevant to the repatriation behavior of multinational firms subject to a credit and deferral system such as that of the United States.² Central to this theory is the assumption that repatriation and the repatriation tax are eventually unavoidable, and as such should have no bearing on the decision if and when to repatriate. However, the rising attention in the recent literature given to the effects of book income considerations, and more specifically the Generally Accepted Accounting Principles (GAAP) “indefinite reversal exception,”³ on repatriation behavior, undermines the plausibility of this assumption and even calls for an opposite one, namely that CFC earnings that would optimally be repatriated may in reality be locked out abroad due to tax-related GAAP considerations.

¹ Subpart F of part III of subchapter N of chapter 1 of subtitle A of the Code.

² David Hartman, Tax Policy and Foreign Direct Investment, 26 *Journal of Public Economics* 107 (1985).

³ The GAAP “indefinite reversal exception” allows firms not to report in their financial statements the future repatriation tax liability associated with the current active earnings of their CFCs if certain conditions discussed in more detail below are met.

Indeed, in practice, the repatriation tax is believed to be what mainly prevents the repatriation of CFC earnings that are instead retained, accumulated or reinvested offshore. Based on the most recent publically available data, and after the one-year repatriation holiday of the American Jobs Creation Act of 2004,⁴ which has generated net extraordinary dividends of about \$312 billion in 2005,⁵ the accumulated earnings of foreign subsidiaries of U.S. multinational firms totaled roughly \$1 trillion in 2008 and \$1.4 trillion in 2011.⁶ In 2006, out of approximately \$401 billion of current earnings of U.S. industrial CFCs with positive current year earnings for that year, 80% were retained *and* deferred from U.S. taxation. Roughly 12% were retained but currently taxed under subpart F, and only about 8% were distributed to U.S. shareholders.⁷ These percentages seem to remain substantially the same for the year 2008. For that year, roughly 11% of the current earnings of U.S. industrial CFCs with positive current year earnings were retained but currently taxed under subpart F, with an apparent slight increase in the percentage of distributions to U.S. shareholders.⁸ A significant portion of the amounts retained by U.S. CFCs

⁴ IRC §965, which granted a one-year repatriation holiday in the form of an 85% dividend-received deduction for qualifying extraordinary dividends by CFCs to their U.S. shareholders.

⁵ Edward D. Kleinbard, *Stateless Income*, 11 Fla. Tax Rev. 699, 720 (2011), citing Melissa Redmiles, Statistics of Income Division, IRS, *The One-Times Received Dividend Deduction*, 27 SOI BULL at 103 (Spring 2008).

⁶ Kleinbard, *id.*, note 5, at 720, citing the Economic Recovery Advisory Board, *The Report on Tax Reform Options* 82 (http://www.whitehouse.gov/sites/default/files/microsites/PERAB_Tax_Reform_Report.pdf) for the \$1 trillion figure; and J.P. Morgan & Co., North American Equity Research, *U.S. Equity Strategy Flash* (June 27, 2011) for the \$1.4 trillion figure.

⁷ The Internal Revenue Service *Statistic of Income (SOI)*, Table 3, U.S. Corporations and Their Controlled Foreign Corporations, Numbers, Assets, Receipts, Earnings, Taxes, Distributions, Subpart F Income, and Related Party Transactions, Selected Country of Incorporation and NASICs Industrial Sector, Taxable Year 2006 (available under <http://www.irs.gov/uac/SOI-Tax-Stats-Controlled-Foreign-Corporations>), and Lee Mahony and Randy Miller, *Controlled Foreign Corporations, 2006, Statistics of Income Bulletin* 197, 202 Figure C (Winter 2011) (available at <http://www.irs.gov/pub/irs-soi/11coforeign06winbull.pdf>).

⁸ See the Internal Revenue Service *Statistic of Income (SOI)*, Table 3, U.S. Corporations and Their Controlled Foreign Corporations, Numbers, Assets, Receipts, Earnings, Taxes, Distributions, Subpart F Income, and Related Party Transactions, Selected Country of Incorporation and NASICs Industrial Sector, Taxable Year 2008 (available under <http://www.irs.gov/uac/SOI-Tax-Stats-Controlled-Foreign-Corporations>). While the total percentage of total dividends paid to U.S. shareholders out of current earnings and profits (less deficit) and net of foreign income taxes and subpart F income has increased from about 17.54 percent for the year 2006 to about 21.2 percent for the year 2008, data on the positive current earnings and profits net of current year subpart F income and

abroad are believed to be in fact “locked-out” offshore because of the U.S. tax and accounting systems, and not in order to support the firms’ operations abroad.⁹ The indirect welfare and efficiency costs of retained earnings due to the residual repatriation tax on dividends were estimated to amount to up to \$10 billion a year.¹⁰

Addressing this and other concerns, three recent proposals for reform generally reflecting the ongoing debate on taxing the income of foreign subsidiaries of U.S. multinational firms would eliminate the repatriation tax. The first proposal, from October 2011, by House Ways and Means Committee Chair David Camp would grant a 95% participation exemption to U.S. shareholders for dividends received from their CFCs from active business income, but would keep passive income of such CFCs subject to the anti-deferral rules of subpart F.¹¹ The second and seemingly opposite proposal, the Obama Administration’s Framework for Business Tax Reform released in February 2012, would impose a minimum tax on the foreign source income of U.S. CFCs,¹² and there is nothing in the proposal that would prevent the exemption of that income from an additional repatriation tax when repatriated.¹³ The third and most recent proposal

the taxable payout ratio by CFCs with positive current earnings and profits are not yet available. This increase, however, may be, at least partially, explained by the tightened credit market caused by the 2008 Financial Crisis.

⁹ See, e.g., James R. Hines, Jr., *The Case against Deferral: A Differential Reconsideration*, 52 Nat’l Tax J. 385, 390 (1999) (“Firms presumably defer repatriation because the associated tax savings outweigh any business associated with deferral.”).

¹⁰ See Mihir A. Desai and James R. Hines, Jr., *Old Rules and New Realities: Corporate Tax Policy in a Global Setting*, 57 Nat’l Tax J. 937 (2004). But see Harry Grubert, *Comment on Desai and Hines, “Old Rules and New Realities: Corporate Tax Policy in a Global Setting”* 58 Nat’l Tax J. 263 (2005) (rejecting Desai and Hines’ proposition); Mihir A. Desai and James R. Hines, Jr., *Reply to Grubert*, 58 Nat’l Tax J. 275 (2005); Harry Grubert, *MNC Dividends, Tax Holidays and the Burden of the Repatriation Tax: Recent Evidence*, (Oxford Univ. Centre For Bus. Tax’n, Working Paper No. 09/27) (2009), (available at: <http://eureka.bodleian.ox.ac.uk/3282/1/WP0927.pdf>).

¹¹ See “Technical Explanation of the Ways and Means Discussion Draft Provisions to Establish a participation Exemption System for the Taxation of Foreign Income” (Oct. 26, 2011).

¹² The President’s Framework for Business Tax Reform, A Joint Report by The White House and the Department of the Treasury, 14 (Feb. 2012) (available at: <http://www.treasury.gov/resource-center/tax-policy/Documents/The-Presidents-Framework-for-Business-Tax-Reform-02-22-2012.pdf>).

¹³ Reuven S. Avi-Yonah, *Vive la Petite Difference: Camp, Obama, and Territoriality Reconsidered*, 66 Tax Notes Int’l, no.7, 617 (2012).

is that of the Senate Finance Committee released in November 2013.¹⁴ This proposal would eliminate the repatriation tax and tax currently passive and highly-mobile CFC income and CFC income from selling goods or providing services to U.S. customers. The proposal would also either tax on a current accrual basis CFC income from products and services sold into foreign markets at 80 percent of the U.S. corporate tax rate with full foreign tax credits, or currently tax at the full rate only 60 percent of such active income. A reduced tax rate, payable over eight years, would also be imposed on unrepatriated CFC earnings from periods before the effective date of the proposal.

In evaluating proposals for reform, estimating the costs of the current tax system is important. One form of these costs is the lost economic gain resulting from the undertaking of suboptimal investments by firms to avoid taxation rather than pursue pre-tax profits.¹⁵ To identify suboptimal investments the optimum should be determined. To that end, theoretical models prove to be useful in developing policy-relevant intuitions as to the impact of taxation on investment behavior. The existing theoretical models provide guidance only as to whether and when CFCs should optimally retain or repatriate their earnings. They shed no light, however, on the second-best optimum for investing locked-out CFC earnings. Those are CFC earnings which in a first-best optimal setting would be repatriated but are instead retained and suboptimally reinvested abroad due to book income and such other considerations.

By incorporating the GAAP lock-out effect into the optimization model developed by Hines and Rice,¹⁶ this paper starts exploring the second-best optimal investments for locked-out

¹⁴ Senate Committee on Finance Chairman's Staff Discussion Draft of Provisions to Reform International Business Taxation.

¹⁵ Desai and Hines (2005), note 10 at 276.

¹⁶ James R. Hines, Jr. and Eric Rice, Fiscal Paradise: Foreign Tax Havens and American Business, NBER Working Paper No. 3477, at 10-11 (1990); Hines and Rice (1994), note 17, at 155-6. Cf. Myron S. Scholes, Mark A.

CFC earnings. This is done by eliminating repatriation as an option for CFC earnings, and showing that from a real income perspective, the choice of investment for locked-out CFC earnings should differ from that for CFC earnings that are optimally retained abroad. This difference does not refer merely to the suboptimal nature of the retention and reinvestment abroad of locked-out CFC earnings,¹⁷ but to that the choice of investment for such earnings is not anymore necessarily a function of the investment's profitability or rate of return as is the case for investing optimally retained CFC earnings, but primarily of the type of the investment (active or passive) and the stage of its maturity, as proxies for whether the returns on such investments would be repatriated. The paper argues that because investments of locked-out earnings grow at a lower rate than the firm's discount rate, multinational firms subject to a credit and deferral tax system generally generate greater present value from investing their locked-out CFC earnings in passive investments than in active investments despite, even because of, the tax advantage afforded to active investments and even if the return on the passive investment is inferior to that on the active investment. However, valuing book income more than real income, firms may, and most probably do, not follow this investment pattern, thereby generating efficiency costs, at the firm level and to the economy in general. Such distortionary effects and related efficiency costs can be avoided by repealing deferral, thus eliminating the tax cost and GAAP "penalty" associated with repatriation. Exempting CFC income from home-country taxation, currently taxing it as earned or a combination of both could achieve this result.

Wofson, Merle Erickson, Edward L. Maydew and Terry Shelvin, *Taxes and Business Strategy, A Planning Approach*, 4th Edition, Pearson, Prentice Hall, at 345-8 (2009).

¹⁷ See, e.g., Edward D. Kleinbard, *Stateless Income*, 11 Fla. Tax Rev. 699, 763-7 (2011). See also James R. Hines, Jr. and Eric Rice, *Fiscal Paradise: Foreign Tax Havens and American Business*, 109 Quarterly Journal of Economics 149, at 156 (1994); James R. Hines, Jr., *Credit and Deferral as International Investment Incentives*, 55 Journal of Public Economics 323 at 333 (1994).

The paper proceeds as follows. Part II provides a brief and general overview of basic concepts in international taxation the familiarity with which is necessary for the main discussion of this paper. Part III discusses the development of the theoretical insights of the economics literature regarding the relevance of the repatriation tax to the repatriation behavior of multinational firms. Part IV discusses the GAAP “indefinite reversal exception” and its lock-out effect on CFC earnings. Part V provides the main analysis of the paper, and Part VI concludes.

II. BACKGROUND

A. The Taxation of Cross-Border Income

Two theoretical systems serve as extreme models for taxing international income. Under a pure source-based system, also referred to as a “territorial” or “exemption” system, all, and only, income generated within the territory of the taxing jurisdiction is taxed by that jurisdiction, regardless of the taxpayer’s residence.¹⁸ Under a pure residence-based system, also referred to as a “worldwide” system, all, and only, income of the residents of the taxing jurisdiction is taxed by that jurisdiction, regardless of the source of that income. Because generally countries do not forego the taxation of income generated within their territories, worldwide systems practically refer to systems that are residence-based with respect to their resident taxpayers, and source-based with respect to non-resident taxpayers.

The lack of uniformity or purity in the adoption of either system creates a potential for double-taxation—the taxation of the same income by both the source- and residence-countries

¹⁸ For a criticism of the focus of the international tax policy debate only on those two models see generally Daniel N. Shaviro, *Fixing U.S. International Taxation* (Oxford University Press, 2014).

(also referred to, respectively, as the host- and home-countries). To mitigate the effect of double taxation and prevent over-taxation, home-countries that adopt worldwide systems usually offer their residents a deduction or a credit for the foreign tax paid on their foreign-source income. A foreign tax deduction treats the foreign tax as a regular and deductible cost of doing business abroad. A foreign tax credit is generally more generous. The tentative home-country tax liability is determined based on the taxpayer's worldwide income, and a credit is granted for the foreign taxes paid.¹⁹ When the host-country tax rate exceeds that of the home country, an unlimited foreign tax credit would entitle the taxpayer for a refund from the home country for the "excess" foreign tax paid to the host country. Limitations therefore apply to prevent this and other outcomes, such as the cross-crediting between taxes on foreign-source income of different sources or of different categories.²⁰

B. The U.S. Controlled Foreign Corporation Regime

1. Deferral

¹⁹ If the host-country tax rate is lower than the home-country rate, the taxpayer pays the full tax on its foreign-source income to the host country, and, by operation of the foreign tax credit, only the residual tax on that income to the home country. [For example, with respective tax rates of 30% and 50% in the host and home countries, and \$100 of income from an investment in the host country, the taxpayer would pay \$30 in foreign taxes to the host country (30% X \$100), which would also be the amount of foreign tax credit applied against its home-country tentative tax liability of \$50 (50% X \$100), for a final residual home-country tax liability of \$20 (\$50 - \$30) and a total host- and home-country tax liability of \$50 (\$30 + \$20). If the host-country tax rate is equal to the tax rate of the home country, the foreign tax credit offsets the home-country tax liability on that foreign-source income.]

²⁰ The so-called "general limitation" limits the amount of the foreign tax credit to the amount of the tentative home-country tax that would otherwise be paid on foreign-source income, with the excess credit carried back or forward to previous or future years.

The United States taxes the worldwide income of its citizens, tax residents and domestic corporations (collectively referred to as “U.S. residents”) “from whatever source derived”,²¹ and grants them a limited foreign tax credit.²² The current highest tax rate is generally 35 percent, which is also the highest corporate income tax rate among the OECD countries.²³ A domestic corporation for this matter is a corporation created or organized in, or under the laws of, the United States or any of its states.²⁴ Without special rules, respecting the separateness of the corporate entity and subjecting only domestic corporations to U.S. taxation creates the potential for deferral: the avoidance of current U.S. taxation of foreign-source income *economically* generated by U.S. residents, through what are *legally* viewed as foreign corporations not subject to U.S. taxation.²⁵ By investing abroad through foreign corporations, U.S. residents could avoid the current U.S. taxation of foreign-source income generated through these foreign corporations until such earnings are, if at all, repatriated to the United States in the form of dividends, interest royalties, etc.²⁶ The time-value-of-money benefits of deferral are clear. Deferring the tax payment reduces the burden of the *initial* tax liability in present value terms, and, depending on the circumstances, translates into an effective exemption of all or part of the return on the *initial after-tax value* of the deferred income.²⁷ A long enough deferral may reduce the present value of the *initial* U.S. tax burden to even approach zero.²⁸

²¹ IRC §§1, 2(d), 11(a), 11(d) and 61. Kleinbard, note 5, 718-723 (describing the current U.S. tax system as “an ersatz territorial tax regime, with...odd twists”).

²² IRC §§ 901-909. The foreign tax credit is elective (§901(a)), and taxpayers may choose to take a foreign tax deduction instead (§§164(a)(3) and 275(a)(4)).

²³ IRC §§1 and 11.

²⁴ IRC §7701(a)(3), (4) and (5).

²⁵ Dept. of the Treasury, Office of Tax Policy, *The Deferral of Income Earned Through U.S. Controlled Foreign Corporations: A Policy Study*, ix (December 2000) (Treasury Policy Study).

²⁶ IRC §61(a).

²⁷ To illustrate this point, assume that the U.S. tax rate is 50%, and that the rate of return at a host country that imposes no taxes is 10%. If a U.S. multinational firm makes a \$10,000 investment at the host country through

2. The Subpart F CFC Rules²⁹

Through a deemed dividend mechanism, the CFC rules of subpart F subject U.S. multinational firms to U.S. taxation on a current accrual basis on their foreign subsidiaries' *passive income*³⁰ if such subsidiaries are CFCs, regardless of whether or when such earnings are actually distributed.³¹ Under the general rules described above, however, U.S. multinational firms are taxed on the *active income*³² of their foreign subsidiaries only when such earnings are actually repatriated.³³

its (unincorporated) branch there and earns \$1,000, it will be subject to current 50% U.S. taxation which leaves the firm with after-U.S.-tax earnings of \$500. If these after-tax earnings are reinvested abroad, they return a pre-tax amount of \$50 in a year. After paying the 50% U.S. tax on the \$50 return, the firm is left with total after-tax earnings of \$525, not subject to additional U.S. taxation upon repatriation. If, however, the U.S. multinational firm makes its \$10,000 investment at the host-country through a subsidiary incorporated there, and the \$1,000 of the subsidiary's earnings are not currently taxed by the United States, the firm will have \$1,000 of earnings to reinvest abroad through its subsidiary, returning \$100 in a year for a total amount of pre-U.S.-tax earnings of \$1,100. If these earnings are repatriated to the United States through a dividend distribution by the foreign subsidiary to the U.S. parent, they will then be subject to 50% U.S. taxation leaving the firm with after-tax earnings for the investment abroad of \$550; \$25 ahead of the no-deferral scenario. From the firm's perspective, this is equivalent to exempting the \$50 return on the \$500 after-tax value of the original \$1,000 deferred amount; or in other words – on the \$500 reinvested after-tax amount in the no-deferral scenario. This example is of a situation where the host-country does not impose any taxes. When the deferred income is subject to some level of host-country taxation, the benefit of deferral is reduced but still exists, so long as the host-country tax rate is lower than the home-country rate.

²⁸Of course, indefinite deferral results in complete avoidance of U.S. taxation. The same result can be achieved by U.S. individual shareholders deferring repatriation until death, and utilizing the basis step up rule that applies to transfers at death (IRC §1014).

²⁹IRC §§951-960 (subpart F of part III of subchapter N of chapter 1 of subtitle A of the Code).

³⁰Passive income includes items such as dividends, interest, annuities, rents, royalties, and certain capital gains not earned in an active business, and income from certain notional principal contracts (IRC §§952, 954). Rents and royalties derived in the active conduct of a trade or business and received from an unrelated party (IRC §954(c)(2)(A)), and banking, financing or similar income (such as interest) derived by banks, insurance companies and securities firms in the active conduct of their trade or business (IRC 954(h)), are, however, excluded from the applicability of the anti-deferral rule.

³¹IRC §§ 951-964. A CFC is defined as a foreign corporation that is more than 50% owned by combined vote or value, directly or indirectly by attribution, by U.S. shareholders (IRC §957(a)). A "U.S. shareholder" for this purpose is a U.S. person that owns, directly or indirectly by attribution, at least 10% of the combined voting power of all classes of shares of a foreign corporation (IRC §951(b)).

³²Certain types of active income the Code considers abusive are also subject to the rules of subpart F. See IRC §§952 and 954(a)(2), (a)(3), (d) and (e) with respect to "base company" income of CFCs.

³³To address avoidance schemes through which U.S. multinational firms could access active earnings of their CFCs without distributing such earnings as taxable dividends (by borrowing from the CFCs, for example), the subpart F rules treat CFC earnings that are directly or indirectly loaned to a U.S. affiliate (other than certain short-term loans (IRC §956(a); Notice 88-108, 1988-2 C.B. 445; Revenue Ruling 89-73, 1989-1 C.B. 258)), or otherwise invested in U.S. property, as deemed distributed to a U.S. affiliate (IRC §956). Certain exceptions apply with respect

As foreign source income, dividends, either actually or deemed received by U.S. corporations from their CFCs benefit from indirect and direct foreign tax credits for foreign taxes paid, respectively, by the CFCs on the underlying earnings, or by the U.S. parent (through withholding) on the dividend, and only a residual U.S. tax is paid.³⁴

III. THE IMPACT OF THE REPATRIATION TAX ON REPATRIATION BEHAVIOR

The discussion in this Part addresses the development of the theoretical models regarding the relevance of the repatriation tax to the repatriation behavior of multinational firms subject to credit and deferral systems. The two main approaches to this issue in the economics literature are the consolidated growth approach and the present-value approach.

A. The Consolidated Growth Approach

Until the mid 1980s, the conventional wisdom, formulated by Horst in 1977, was that the home-country repatriation tax always matters for the decision whether or when to repatriate foreign earnings.³⁵ Assuming that the home-country tax rate on foreign source income is higher than the host-country's rate on that income, under a credit-without-deferral home-country tax system, the income of a firm would be subject to an overall tax rate equal to the home-country

to CFC investments in U.S. properties that are not considered to be similar to repatriation (such as holdings of U.S. dollar bank deposits, or investments in U.S. Treasuries or in unrelated-party corporate equity or debt securities) (IRC §956(c)(2)). The rules also consider as a deemed distribution to a U.S. affiliate a CFC's engaging in de facto lending to its U.S. parent or affiliate through facilitating the U.S. affiliate's borrowing from an unrelated party by pledging the CFC's assets or, with additional conditions – at least two thirds of the CFC's combined voting power (IRC §956(d), and Treas. Reg. §1.956-2(c)(2)).

³⁴ IRC §§901, 902, 960 and 78. See also IRC §904.

³⁵ Thomas Horst, American Taxation of Multinational Firms, *The American Economic Review* 67, 376 (1977).

tax rate regardless of the location or form of the investment.³⁶ Deferral, according to Horst, brings the overall tax rate on a firm's foreign-source income down to a linear combination of the tax rates of the host- and home-countries, depending on the dividend payout ratio – i.e., the repatriation percentage out of the total foreign earnings.³⁷ For foreign source CFC income that is subject to home-country taxation only if and when repatriated, the dividend payout ratio determines the portion of the CFC income subject to home-country taxation, with the unrepatriated portion being subject only to host-country taxation.³⁸

Assuming that multinational firms strive to maximize their consolidated after-tax earnings, “because it seems to be as reasonable and as convenient an objective as any,” Horst concludes that due to the tax cost associated with repatriation, repatriations should be minimized and CFC investments should be financed to the extent possible out of retained earnings rather than new funds obtained from the parent.³⁹ If, however, new funds were to be obtained by a CFC from the parent, a firm optimizes its investments when, with respect to a marginal parent-funded investment, the firm equates the net return available at home (the pre-tax return at home net of home-country tax) and the net return from investing abroad (the pre-tax return abroad net of an overall tax rate equal to a linear combination of the tax rates of the host- and home-countries, depending on the dividend payout ratio).⁴⁰ Therefore, the home-country repatriation tax is always relevant to the decision whether or not to repatriate.

³⁶ See notes 19-20 and accompanying text.

³⁷ See Generally, Horst, note 35. See also David Hartman, Tax Policy and Foreign Direct Investment, 26 *Journal of Public Economics* 107, at 116-7 (1985).

³⁸ Horst, note 35, at 378 (“U.S. taxable income includes the dividends, but not the retained earnings of the foreign subsidiary. That is the essence of deferral.”).

³⁹ *Id.*, at 379-80.

⁴⁰ *Id.*, at 381.

As Horst himself has noted, his optimization formula “does not discount the value of earnings retained abroad despite the probable tax cost of repatriating those funds.”⁴¹ “Thus,” Horst continues, “the behavioral assumption would most aptly characterize a management-controlled firm whose primary objective was the growth of the firm and for whom dividends to shareholders are comparable to a tax on consolidated earnings.”⁴²

B. The Present-Value Maximization Approach

1. The “Hartman Result”

Challenging Horst’s behavioral assumption underlying the then conventional wisdom, Hartman applied the so-called “New View” to the repatriation model under a credit and deferral international tax system such as that of the United States.⁴³ Hartman argued that while Horst’s formulation holds with respect to “immature” CFCs, namely those that require continuing funding from the parent,⁴⁴ the repatriation tax is irrelevant to a “mature” CFC’s decision whether to repatriate its earnings or retain and reinvest them abroad.⁴⁵ A “mature” CFC is a CFC that finances its investments with retained earnings and does not require continuing injections of

⁴¹ Id., at 379.

⁴² Id.

⁴³ For the “New View” see Mervyn King, *Public Policy and the Corporation*. London: Chapman and Hall (1977); Alan J. Auerbach, *Wealth Maximization and the Cost of Capital*, *Quarterly Journal of Economics*, 93 (1979); David Bradford, *The Incidence and Allocation Effects of a Tax on Corporate Distributions*, *Journal of Public Economics*, XV (1981). The insight of the “New View” in the domestic setting is that with constant and equivalent dividend and capital-gain tax rates, and equivalent after-tax returns to corporate and individual investors, so long as the extraction of corporate earnings as taxable dividends or capital gains is inevitable, there is not an advantage to deferring the dividend tax on distributions by retaining the corporate earnings inside the corporation.

⁴⁴ Hartman, note 37, 118-119.

⁴⁵ Id., 115-118.

funds from its parent.⁴⁶ In reaching this conclusion, Hartman discounted the value of the retained earnings of a CFC to reflect the home-country repatriation tax, which, unlike Horst, he assumed to be eventually unavoidable.⁴⁷ In other words, a constant and eventually unavoidable repatriation tax is irrelevant to a firm's decision whether to repatriate or reinvest abroad the earnings of a mature CFC, because the repatriation tax reduces the return on the reinvestment abroad and its opportunity cost in the same proportion.⁴⁸ Therefore, a mature CFC would optimally retain and reinvest its earnings abroad rather than repatriate them so long as the after-foreign-tax return available abroad exceeds the net return available at home.⁴⁹ Subsequent work introduced several conditions for the Hartman result to apply.⁵⁰

⁴⁶ Id., 110.

⁴⁷ Id., 115-118.

⁴⁸ Rosanne Altshuler, Recent Developments in the Debate on Deferral, 87 Tax Notes 255, 264 (2000). The opportunity cost of a reinvestment of CFC earnings abroad is the return on investing the net repatriated earnings at home.

⁴⁹ Hartman formulated the argument as follows (see Hartman, note 37, 112; 115-118). If a firm decides to repatriate \$1 of net-of-foreign-tax CFC earnings, the firm pays a home-country repatriation tax of $(t - t^*)/(1 - t^*)$, which is the excess of the home-country tax rate (t) over the host-country tax rate (t^*) applied to the grossed-up (gross-of-foreign-tax) pre-repatriation CFC earnings, $\$1/(1 - t^*)$ (see notes 19-20 and accompanying text for the operation of the foreign tax credit system). The assumption is still that $t > t^*$. That leaves the firm with a net amount available for reinvestment at home of $\$1 - [(t - t^*)/(1 - t^*)] = (1 - t)/(1 - t^*)$. The firm's net return from reinvesting this amount at home for a specific period is $[(1 - t)/(1 - t^*)](1 + r_n)$, where r_n is the net return on an investment at home. If instead of repatriating the CFC retains its \$1 of net-of-foreign-tax earnings and reinvests it in its operations abroad for the same specific period, the CFC would return a net-of-foreign-tax amount of $\$1 \times [1 + r^*(1 - t^*)]$, or $[1 + r^*(1 - t^*)]$. When the CFC repatriates this amount, the firm pays a home-country repatriation tax of $[1 + r^*(1 - t^*)](t - t^*)/(1 - t^*)$, and is left with a net amount of $[(1 - t)/(1 - t^*)][1 + r^*(1 - t^*)]$. Comparing the results of the two decisions, it can be seen that optimally, the CFC should retain its earnings and reinvest them in its operations abroad so long as $r^*(1 - t^*) > r_n$ (i.e., when the net-of-foreign-tax return from investing abroad exceeds the net return at home), and the optimum is reached when $r^*(1 - t^*) = r_n$. Hartman, therefore, concluded that the home-country repatriation tax (t), has no bearing on the firm's decision whether to repatriate the earnings of a mature CFC or retain and reinvest them abroad. The same conclusion based on similar analysis was also reached by Sinn, in Hans-Werner Sinn, *Die Bedeutung des Accelerated Cost Recovery System für den internationalen Kapitalverkehr*, *Kyklos* 37, 542; Hans-Werner Sinn, *Capital Income Taxation and Resource Allocation*, Amsterdam: North-Holland (1987), referenced in Hans-Werner Sinn, *Taxation and the Birth of Foreign Subsidiaries*, in *Trade, Welfare, and Economic Policies: Essays in Honor of Murray C. Kemp*, edited by H. Herberg and N.V. Long. Ann Arbor: University of Michigan Press, 325, at 326 (1993).

⁵⁰ The "Hartman result" would not hold when, e.g., the tax bases of the host- and home-countries are not defined similarly (Chad Leechor and Jack Mintz, *On the Taxation of Multinational Corporate Investment when the Deferral Method is Used by the Capital Exporting Country*, 51 *Journal of Public Economics* 75 (1993); Hines, note 17), or when credit positions are not stationary over time (Rosanne Altshuler and Paolo Fulghieri, *Incentive Effects of Foreign Tax Credits on Multinationals*, 47 *Nat'l Tax J.* 349 (1994)). The "Hartman result" would not hold also if

2. “Immature” Foreign Operations

Even under Hartman’s formulation, Horst’s conclusion with respect to “immature” CFCs still holds,⁵¹ because the repatriation tax is not an “unavoidable fixed cost” for immature CFCs.⁵² It would typically be senseless for an immature CFC to repatriate earnings while it is still being injected with parent funds. Because an immature CFC is, by definition, a CFC that is still in need for parent fund transfers, its retention of earnings for internal reinvestment will be superior to a repatriation of earnings coupled with a fund injection by the parent.⁵³ While the retention and internal reinvestment alternative reduces at no (tax) cost the needed amount of parent funding, the repatriation alternative would result in an unnecessary repatriation tax cost.⁵⁴

its basic assumption that repatriation taxes are unavoidable is rebutted (see, e.g., Alfons J. Weichenrieder, *Anti Tax-Avoidance Provisions and the Size of Foreign Direct Investment*, 3 *International Tax and Public Finance*, 67 (1996); Rosanne Altshuler and Harry Grubert, *Repatriation Taxes, Repatriation Strategies and Multinational Financial Policy*, 87 *Journal of Public Economics* 73 (2002)). Altshuler and Grubert identified two theoretical strategies as having the effect of tax-free repatriation or permanent avoidance of the repatriation tax (Altshuler and Grubert, *id.*; see also Mihir A. Desai, C. Fritz Foley and James R. Hines, Jr., *Chains of Ownership, Regional Tax Competition and Foreign Direct Investment*, in *Foreign Direct Investment in the Real and Financial Sector of Industrial Countries*, H. Herrman and R. Lipsey, Editors, Heidelberg, Springer-Verlag, 61 (2003); cf., however, Grubert, note 10, at 3).

Avoidance schemes taking advantage of loopholes in IRC §956 and the regulations thereunder (see note 33) to achieve de facto tax-free repatriations have been the focus of much attention lately (See U.S. Senate Permanent Subcommittee on Investigations of the Committee on Homeland Security and Government Affairs, HEARING ON OFFSHORE PROFIT SHIFTING AND THE U.S. TAX CODE, Exhibit 1, Memorandum from Chairman Carl Levin and Senator Tom Coburn to Subcommittee Members, *Offshore Profit Shifting and the Internal Revenue Code*, 24-27 (Sept. 20, 2012), available at <http://www.hsgac.senate.gov/subcommittees/investigations/hearings/offshore-profit-shifting-and-the-us-tax-code>). Such practices would affect the applicability of the “Hartman result” and the hypothesis of this paper. However, these practices are generally viewed as avoidance schemes that should be addressed by the Internal Revenue Service and the courts (see, e.g., *id.*, Testimony of Stephen E. Shay), not to mention that the loopholes themselves should be fixed. Furthermore, not all multinational firms engage in such practices.

⁵¹ See text accompanying note 40.

⁵² Hartman, note 37, at 118-119.

⁵³ Hartman, note 37, at 112-113; Hines, note 17, at 329.

⁵⁴ [This notion leads to the question whether firms could maximize the benefit of deferral by optimizing their internal funding and repatriation transfers. This was the intuition underlying the Sinn-Hines underinvestment result. Sinn’s insight was that the availability of deferral encourages firms to reduce the initial capital injections of their CFCs. If firms initially inject their CFCs with sufficient funds to exhaust future profitable internal reinvestments, subsequent earnings would have to either be immediately repatriated, losing the benefit of deferral, or suboptimally invested abroad. Anticipating this undesirable outcome, firms undercapitalize their CFCs in order to maximize the benefit of deferral by creating profitable opportunities for subsequent internal active reinvestments of

3. The Availability of other Investment Alternatives

The models discussed thus far limit a CFC's alternative uses of its earnings to two: repatriation and internal reinvestment of retained earnings.⁵⁵ Other alternatives exist, however. In addition to internal reinvestment, a CFC may also invest its retained earnings in external active investments abroad, or in passive investments.⁵⁶ Employing similar reasoning to that of Hartman's with respect to internal active reinvestments, Hines and Rice and Scholes et al. extended the "Hartman result" to apply also to external active and passive investments, showing that a CFC would optimally invest its active earnings in external active or passive investments abroad rather than repatriate them, if the after-foreign-tax return on the external active or passive investment equals or exceeds the net return available at home.⁵⁷ By investing retained earnings in external *active* investments abroad, a CFC would defer the repatriation tax on both, the invested principal and the returns thereon.⁵⁸ The only difference between this scenario and Hartman's is that here the active reinvestment is external while in the Hartman scenario it is internal. This difference is inconsequential for applying the "Hartman result."

retained earnings (Sinn (1993), note 49; see also Hines, note 9, at 400; Altshuler, note 48, at 265). Hines extended Sinn's model, which was restricted to equity financing, to allow also for debt financing and showed that the underinvestment result continues to hold (Hines, note 17, 327-34). Assuming that pre-tax world market rate of interest is identical across countries, Weichenrieder, has shown that the Sinn-Hines underinvestment result would not hold if CFCs can invest their earnings in passive assets, therefore earning a pre-tax rate of return equal to that earned domestically (Weichenrieder, note 50); but see Hines, note 17, 333-4 (considering this alternative and pointing out the difficulty that such a strategy can encounter in finding sufficiently attractive passive investment abroad)).]

⁵⁵ See, e.g., Hines note 17, 333; Weichenrieder, note 50, 73.

⁵⁶ For active investments, see Hines and Rice (1990), note 16; Hines and Rice (1994), note 17, at 156 note 6; Hines, note 17, 333; Scholes et al., note 16, at 345-7. For passive investments, see Hines and Rice (1994), note 17, 155-6; Weichenrieder, note 50; Altshuler and Grubert, note 50; Kleinbard, note 5, at 764-5; Scholes et al., note 16, 347-8; Hines, note 17, 333-4.

⁵⁷ See Hines and Rice (1990), note 16, 10-11; Hines and Rice (1994), note 17, 155-6; Scholes et al., note 16, at 345-8.

⁵⁸ See note 33 and accompanying text.

By investing active earnings in *passive* assets, however, a CFC would keep deferring the repatriation tax on the invested principal but will not benefit from deferral with respect to the passive returns.⁵⁹ Therefore, it would be reasonable to assume that such passive returns will be repatriated as earned.⁶⁰ This difference does not prevent the “Hartman result” from applying also to passive investments abroad,⁶¹ because deferring the repatriation of the invested principal would be advantageous so long as the after-foreign-tax rate of return on the passive investment abroad is higher than the net return available at home.⁶²

4. The Relevance of the Repatriation Tax: Empirical Findings

⁵⁹ See notes 29-33 and accompanying text.

⁶⁰ Hines and Rice (1994), note 17, 155-6. But see Scholes et al., note 16, assuming that a CFC would retain and reinvest also the passive earnings, despite the cost-free repatriation option of such earnings (id., 347-8). Because the tax burden on passive returns is the same regardless where they are earned (see notes 29-33 and accompanying text), Scholes et al.’s assumption would be plausible only in the unlikely case where the pre-tax return on passive investments by a CFC exceeds the pre-tax return available at home. See note 61. Indeed, in certain situations the repatriation of accrued passive returns not actually received might not be possible despite their current taxation by the home-country (e.g., in the case of a CFC investing in a bond issued with original issue discount (see IRC §§1272-1275)).

⁶¹ CFCs may invest their retained earnings in the world capital markets or even in certain passive assets in the United States that are not considered “U.S. property” the investment in which (“U.S. property”) triggers a deemed distribution for purposes of IRC §956 (see note 33).

⁶² Hines and Rice (1994), note 17, at 155-6; Scholes et al., note 16, 347-8. This notion can be illustrated formally as follows: If the firm decides to repatriate \$1 of net-of-foreign-tax CFC earnings, the firm pays a home-country repatriation tax of $(t - t^*)/(1 - t^*)$, which is the excess of the home-country tax rate (t) over the host-country tax rate (t^*) applied to the grossed-up (gross-of-foreign-tax) pre-repatriation CFC earnings, $\$1/(1 - t^*)$ (see notes 19-20 and accompanying text for the operation of the foreign tax credit system). The assumption is still that $t > t^*$. That leaves the firm with a net amount available for reinvestment at home of $\$1 - [(t - t^*)/(1 - t^*)] = (1 - t)/(1 - t^*)$. The firm’s net return from reinvesting this amount at home for one year is $[(1 - t)/(1 - t^*)]r_n$, where r_n is the net annual return on an investment at home. If instead of repatriating the CFC retains its \$1 of net-of-foreign-tax earnings and invests it in a passive investment abroad with a pre-tax annual rate of return of r_p^* , it will return $r_p^*(1 - t)$, because passive returns are subject to home-country taxation immediately as earned. Comparing the two results shows that the passive investment abroad returns more than the investment at home when $r_p^*(1 - t) > [(1 - t)/(1 - t^*)]r_n$, that is, when $r_p^*(1 - t^*) > r_n$. The same logic applies to returns in the following years. Because the value of an investment equals the present value of the returns on it, the value of the passive investment abroad of retained active earnings is greater than that of the investment at home of the repatriated earnings so long as the after-foreign-tax return on the passive investment abroad ($r_p^*(1 - t^*)$) exceeds the net return available at home (r_n).

Earlier empirical studies generally finding that repatriation tax considerations affect the repatriation behavior (timing of repatriation) seemed to contradict the theoretical results.⁶³ A later study, however, distinguished between transitory and permanent changes in tax costs and showed that the effect of the repatriation tax on the repatriation behavior could, consistent with the theoretical result, be related to transitory changes only.⁶⁴ A subsequent study finding that high-tax CFCs are more likely to repatriate than low-tax CFCs, suggested that repatriation behavior is sensitive to repatriation taxes.⁶⁵ But studies identifying alternative strategies to repatriation and providing evidence supporting this view suggested a diminishing relevance of the repatriation tax to repatriation behavior.⁶⁶ The most recent empirical study found some limited effect of the repatriation tax on repatriation behavior, but also similarity of dividend policies across firms with distinctive tax treatments, indicating that tax motivation alone cannot explain repatriation behavior.⁶⁷ The study identifies domestic financing and investment needs and agency problems inside the firm as two factors in addition to the repatriation tax that could shape a dividend policy of a multinational firm.⁶⁸

⁶³ James R. Hines, Jr. and R. Glenn Hubbard, Coming Home to America: Dividend Repatriation By US Multinationals, in A. Razin and J. Slemrod, Editors, *Taxation in the Global Economy*, Chicago, IL, University of Chicago Press (1990), 161.

⁶⁴ Rosanne Altshuler, T. Scott Newlon and William C. Randolph, Do Repatriations Matter? Evidence from Tax Returns of Multinationals, in Martin Feldstein, James R. Hines, Jr. and R. Glenn Hubbard, Editors, *The Effects of Taxation on Multinational Corporations*, Chicago: University of Chicago Press, 253 (1995).

⁶⁵ Mehir A. Desai, C. Fritz Foley, and James R. Hines, Jr., Repatriation Taxes and Dividend Distortions, 54 *Nat'l Tax J.*, 829 (2001).

⁶⁶ See note 50.

⁶⁷ Mehir A. Desai, C. Fritz Foley, and James R. Hines, Jr., Dividend Policy Inside the Multinational Firm, 36 *Financial Management* 5 (2007).

⁶⁸ *Id.*

Accounting considerations are recently gaining rising attention as having a substantial effect on repatriation behavior of U.S. multinational firms.⁶⁹ The paper turns next to considering the implications of the accounting lock-out effect for investment behavior of CFCs.

IV. THE GAAP LOCK-OUT EFFECT

This Part IV discusses the effects of book income considerations on repatriation behavior.

A. “Permanently Reinvested Earnings”

Under a U.S. GAAP general rule known as the “accrual accounting” rule, financial statements must report the tax effects of income and expense reported for the period, regardless of the timing of the actual tax liability. Because the earnings of foreign subsidiaries are currently reported and included in the consolidated financial statements of a U.S. multinational firm, both the income of a CFC and the U.S. tax liability of the U.S. parent with respect to such income must be reported currently, regardless of the availability of deferral.⁷⁰ This rule reflects the presumption that all CFC earnings will eventually be repatriated, thereby triggering the repatriation tax.

Under an exception to the rule, known as APB 23 and sometimes referred to as the “indefinite reversal exception,” this presumption may be overcome, and no U.S. tax liability

⁶⁹ See, e.g., Douglas A. Shackelford, Joel Slemrod and James N. Sallee, Financial Reporting, Tax and Real Decisions: Toward a Unifying Framework, 18 Int'l Tax and Public Finance 461 (2011), emphasizing the need for research examining the implications of accounting considerations for investment decisions; Kleinbard, note 5, 745-51.

⁷⁰ Barry Jay Epstein and Lawrence G. Macy, The Differential Influence of U.S. GAAP and IFRS on Corporations' Decisions to Repatriate Earnings of Foreign Subsidiaries, 37 Int'l Tax J. 25, 34-35 (2011); J. Graham, M. Hanlon and T. Shevlin, Real Effects of Accounting Rules: Evidence from Multinational Firms' Investment Location and Profit Repatriation Decisions, 49 J. Acct. Res. 137, 139-40, 143-46 (2011).

would be reported.⁷¹ To qualify under the exception, the firm must designate undistributed CFC earnings as “permanently reinvested earnings” (PRE) by demonstrating to its independent auditors that the such earnings are intended to be “permanently reinvested” abroad and not trigger the repatriation tax.⁷² The indefinite reversal exception may also apply to reverse a booking of a U.S. tax expense if the related CFC income is designated as PRE in a year later than the year in which the income was earned.⁷³ If PRE are actually repatriated in later years, a tax expense reflecting the actual repatriation tax will be recognized and reported for GAAP purposes for such years.⁷⁴

B. The GAAP Lock-Out Effect

It is now well recognized also academically that the attractiveness of an investment depends on both its real and book income effects.⁷⁵ This is true particularly with respect to repatriation decisions, which are believed to be dramatically affected by book income considerations.⁷⁶ Consistently, recent empirical studies have found that book income considerations deter the repatriation of foreign earnings,⁷⁷ and that in deciding whether to

⁷¹ Accounting Principles Board Opinion No. 23 (APB 23—Accounting for Income Taxes—Special Areas), which was codified in 2009 in Accounting Standard Codification (ASC) 740-30-05.

⁷² Epstein and Lawrence, note 70, 34-35; Graham et al., note 70, 139-40.

⁷³ Id.

⁷⁴ Epstein and Macy, note 70, at 36.

⁷⁵ Shackelford et al., note 69, at 488.

⁷⁶ E.g., Kleinbard, note 5, at 746.

⁷⁷ Jennifer L. Blouin, Linda K. Krull and Leslie A. Robinson, Is U.S. Multinational Dividend Repatriation Policy Influenced by Reporting Incentives?, 87(5) The Accounting Review 1 (2012). See also Kleinbard, note 5, 746.

repatriate, avoiding the recognition of a U.S. tax liability for financial accounting purposes is as important as avoiding actual cash income taxes, especially for publicly traded multinational firms, multinational firms with foreign assets, and multinational firms with high intangibles.⁷⁸ It is even argued that book income considerations dominate actual cash tax costs for repatriation purposes,⁷⁹ and that in general firms are even willing to pay “higher cash taxes in order to improve their financial reporting.”⁸⁰

The “indefinite reversal exception” provides multinational firms with significant benefits beyond the valuable flexibility and discretion in timing the recognition, if at all, of a tax liability for GAAP purposes.⁸¹ Among other effects, the non-recognition of a GAAP tax cost results in a lower GAAP effective tax rate in the financial statements, and thus higher measures of corporate performance (e.g., higher ratio of reported post-tax earnings to pre-tax earnings, and profitability and returns on sales, assets and equity).⁸² Such accounting advantages are important to firms for several reasons. Higher accounting measures of corporate performance, especially increased after-tax book income, affect shareholder returns, stock prices and executive compensation contracts (e.g., stock options, bonuses, etc.).⁸³ Furthermore, there are agency pressures on tax departments, which are viewed by many firms as profit centers, to obtain lower GAAP effective

⁷⁸ Graham et al., note 70. See also Shaviro, note 18, at ____.

⁷⁹ Kleinbard, note 5, generally and at 745 (“In a very real sense, current cash tax liabilities are not as important to a firm as are its audited accounting statement provisions for taxes, because U.S. [GAAP]... are the lens through which investors judge public firms.”)

⁸⁰ See Graham et al., note 70, at 146, referencing Michelle Hanlon and Shane Heitzman, A Review of Tax Research, 50 *Journal of Accounting and Economics* 127 (2010), and Douglas Shackelford and Terry Shevlin, Empirical Tax Research in Accounting, 31 *Journal of Accounting and Economics* 321 (2001). See also Shackelford et al., note 69, at 467.

⁸¹ Shackelford et al., note 69, generally and at 467 for the value of discretion.

⁸² Epstein and Macy, note 70, at 35.

⁸³ Graham et al., note 141, at 141-2, and references there. See also, Kleinbard, note 5, at 746-7.

tax rates.⁸⁴ GAAP effective tax rates and after-tax earnings are also benchmarks often used for comparisons across firms from different jurisdictions, and the ability to avoid the recognition of home-country tax liabilities for financial accounting purposes is viewed as “a means to better align U.S. multinationals’ [effective tax rates] with the rates of foreign competitors, thereby increasing comparability across firms’ financial statements.”⁸⁵

If PRE are actually repatriated in later years reversing their initial PRE-designation, the triggered GAAP recognition of the related tax expense would result in higher GAAP effective tax rates and lower measures of corporate performance for the years of the actual repatriations.⁸⁶ This hit to earnings is perceived as problematic due to its potential negative effect on the stock price of the reporting entity.⁸⁷ Such reversal is problematic for yet another reason. To qualify under the indefinite reversal exception, the firm must convince its independent auditors that the undistributed earnings are intended to be permanently reinvested abroad.⁸⁸ To convince its auditors, whose responsibility is to audit management’s intentions, the firm must demonstrate and substantiate its PRE representation based on not only current plans but also historic actions.⁸⁹ Repatriating PRE in later years contrary to an initial PRE representation might negatively affect management’s credibility with its independent auditors.⁹⁰ This in turn, could

⁸⁴ Graham et al., note 141, at 142, and references there. See also Daniel Shaviro, *The Optimal Relationship Between Taxable Income and Financial Accounting Income: Analysis and a Proposal*, 97 Geo. L. J. 423, at 445-449 (2009).

⁸⁵ Graham et al., note 141, at 142.

⁸⁶ Epstein and Macy, note 70, at 36.

⁸⁷ [CITE].

⁸⁸ See note 72 and accompanying text.

⁸⁹ ASC 740-10-15-17; Graham et al., note 141, at 144 note 11. See also Epstein and Macy, note 70, at 37.

⁹⁰ See, e.g., Epstein and Macy, note 70, at 36.

result in disputes between the firm and the independent auditors over future PRE designations, affecting the firm's ability to benefit from the indefinite reversal exception.⁹¹

A letter dated July 5, 2008 to the editor of the *Wall Street Journal* from Loews CEO, James Tisch, states what the above discussion boils down to:

Unbeknownst to many (including legislators and Joint Committee on Taxation estimators), GAAP allows corporations to avoid the accrual of taxes on foreign earnings... The results of the interaction of our repatriation tax laws and the GAAP accounting rules is that very little in the way of foreign earnings are repatriated... The accounting penalty for repatriating even a penny of foreign profits is so great that those foreign funds will not come back to the [United States]...⁹²

Kleinbard's focus on the "stateless income"⁹³ and lock-out effect phenomena emphasizes this conclusion even further: through successful "stateless income" tax planning, U.S. multinational firms engage in foreign operations at a very low, or no, foreign tax cost, and avoid U.S. taxation until the repatriation, if at all, of the earnings to the United States. Designated as permanently reinvested abroad, such earnings are reported to shareholders, other stakeholders and the public through the financial statements without the potential repatriation tax liability,

⁹¹Graham et al., note 141, at 172 (reporting a tax executive's statement that one of the two reasons his company repatriated under the one-time repatriation holiday non-PRE earnings, was to avoid "disputes with the auditors over the company bringing back earnings that were previously designated as permanently reinvested...").

⁹² Cited in Graham et al., note 141, at 139.

⁹³ Namely, "the movement of taxable income within a multinational group from high-tax to low-tax source countries without shifting the location of externally supplied capital of activities involving third parties" (Kleinbard, note 5, at 702).

therefore portraying “a U.S. firm largely as if it operated under a territorial tax regime.”⁹⁴

Kleinbard explains that:

the real tax issue for the managers of those U.S. multinational firms that are able to engage in widespread stateless income tax planning is not current U.S. taxation of foreign operations, or even current U.S. taxation of ordinary course cash repatriations of low-taxed foreign source income; it is the extraordinary accumulation of profits *and cash* in foreign subsidiaries, and the inability of most firms’ tax resources to absorb a very large repatriation dividend.⁹⁵

Kleinbard concludes that

[this] lock-out effect operates in fact as a kind of lock-in effect: firms retain more earnings (in this case overseas) than they profitably can redeploy, to the great frustration of their shareholders. The result is that shareholders are not able to optimize their portfolios, because the profits earned by successful multinational firms are retained in relatively low-yielding liquid investments or reinvested in suboptimal foreign acquisitions.⁹⁶

The paper turns next to analyzing the real income effects of such suboptimal investments.

⁹⁴ Id., at 762-3.

⁹⁵ Id., at 764.

⁹⁶ Kleinbard, note 5, at 767.

V. IMPLICATIONS OF THE GAAP LOCK-OUT EFFECT FOR THE INVESTMENT BEHAVIOR OF MULTINATIONAL FIRMS

A main theme of the optimization models discussed in Part III was that repatriation is at least a viable alternative for the use of CFC earnings. The difference between the two approaches was that Horst's consolidated-growth approach viewed repatriation as a viable, but *avoidable*, option; while Hartman's present-value maximization approach viewed repatriation as *unavoidable* for mature investments. Therefore, Horst concluded that repatriation should be minimized, while the conclusion of the optimization models following Hartman's was that the critical condition is equality between the after-foreign-tax return on a mature investment abroad and the net return available to the parent at home.

Section IV.B discussed the lock-out effect of the GAAP indefinite reversal exception emphasizing the rising attention this exception is recently gaining in the accounting, legal and economics literature. The conclusion was that not only is real income not the sole consideration in deciding whether to repatriate or reinvest, but that book income considerations dominate the decision. This means that CFC earnings would actually be locked-out abroad and not repatriated, even if repatriation would have been the optimal decision from a pure real income perspective. That as a result of such lock-out effect firms have no choice but to make suboptimal investments abroad, we already know.⁹⁷ As discussed below, a "suboptimal investment" in this context must mean an investment abroad that fails the critical condition of the optimization models. In the Hartman setting, for example, a suboptimal reinvestment abroad would be one the after-foreign-tax return to which is less than the net return available at home.

⁹⁷ See note 17, and text accompanying note 96.

The following discussion first examines which suboptimal investments of locked-out earnings would, all else equal, maximize the present value to the firm. The discussion then suggests that valuing book income more than real income, multinational firms most probably do not follow this investment pattern, generating efficiency cost at the firm level and to the economy in general.

A. The Framework of the Analysis

1. The Investment Hierarchy of the Optimization Models

Under the “Hartman result” and its extensions by Hines and Rice regarding a firm’s optimal use of its mature CFC’s active earnings, when a multinational firm seeks to maximize the present value of its parent’s cash flow, the critical condition for the choice between repatriating and reinvesting is the same with respect to active and passive investments: In all cases, the optimum is reached when the net return available to the parent at home equals the net-of-foreign-tax return available to the CFC.⁹⁸ Therefore, under these models, the hierarchy for investing the active earnings of a CFC of a multinational firm that seeks to maximize the present value of its parent’s cash flow would be that: (i) the CFC should reinvest its active earnings internally as long as the after-foreign-tax return on such internal reinvestment abroad exceeds the net return available at home; (ii) then, if, and so long as, the after-foreign-tax return on an external active investment abroad is greater than both the net return available at home and the after-foreign-tax return available for the CFC on passive investments, the CFC should invest its

⁹⁸ See Section [III.B].

earnings in such external active investments abroad; (iii) if not, the CFC should make passive investments as long as the available after-foreign-tax return on the CFC's passive investments exceeds the net return available at home; (iv) otherwise, the firm should repatriate its CFC earnings.⁹⁹ The net return available at home is also the discount rate of the multinational firm's parent,¹⁰⁰ and the "Hartman result" and its extensions can be simply understood to mean that a mature CFC should optimally retain and reinvest its earnings so long as such reinvestments grow at a faster rate abroad than they would at home.

2. "Locked-Out PRE"

The term "locked-out PRE" is used here to refer to "permanently reinvested earnings" of CFCs that would have optimally been repatriated under the investment hierarchy discussed above if only real income considerations were taken into account, but are in fact retained and reinvested abroad due to the GAAP lock-out effect. That is, due to book income considerations, repatriation is not an option for locked-out PRE, and they, by definition, fail the critical condition of the optimization models because they grow at a slower rate than the rate of growth at home. Therefore, the after-foreign-tax return on investing locked-out PRE abroad is less than the net return available to the parent at home.¹⁰¹ PRE designation, however, is not by itself a necessary condition for the hypothesis presented below. The hypothesis applies with respect to any CFC

⁹⁹ Hines and Rice (1990), note 16, at 11; Hines and Rice (1994), note 17, at 156, note 6. [Put formally: CFCs should reinvest their earnings internally so long that $r^*(1-t^*) > r_n$; then they should invest in external active investment abroad as long as $r_a^*(1-t^*) > r_n$, where r_a^* is the pre-tax rate of return on the active investment abroad; then they should invest their earnings in passive investments as long as $r_p^*(1-t^*) > r_n$. The optimum is reached when $r^*(1-t^*) = r_a^*(1-t^*) = r_p^*(1-t^*) = r_n$; and firms should repatriate when $r^*(1-t^*)$, $r_a^*(1-t^*)$, and $r_p^*(1-t^*) < r_n$.]

¹⁰⁰ Altshuler, note 48, at 265.

¹⁰¹ Put formally, with respect to locked-out PRE, the conditions $r^*(1-t^*) < r_n$; $r_a^*(1-t^*) < r_n$; and $r_p^*(1-t^*) < r_n$ prevail. This means that the pre-tax returns on locked-out PRE abroad are lower enough than the pre-tax rate of return available to the parent at home ($r = r_n / (1-t)$), because the assumption is that the tax rate at home (t) is higher than that abroad (t^*).

earnings that for *any* reason are locked-out and suboptimally reinvested abroad. Because the GAAP lock-out effect appears to be such a major factor in retention and suboptimal reinvestment abroad, framing the issue in terms of PRE helps focus the attention on the main analysis of the paper.

The question, however, is, whether the determination of what “optimal” is for this purpose can be made by reference to the optimization models that are based on the notion that repatriation is not only an option but also eventually unavoidable. The answer is “yes,” because the purpose of defining locked-out PRE is distinguishing CFC earnings—whether or not designated as PRE—that are optimally retained and reinvested abroad regardless of the GAAP lock-out effect, from CFC earnings which but for the GAAP lock-out effect would have been repatriated. CFC earnings that do not fail the critical condition are optimally retained and reinvested abroad, regardless of GAAP considerations, and therefore are not “locked-out PRE,” even if they are designated as PRE. Such earnings may become “locked-out PRE”, however, if the return or tax rates at home or abroad change and cause such earnings to fail the critical condition.

If the net return available at home, which is also the parent’s discount rate,¹⁰² is just the after-tax borrowing interest rate available for the parent,¹⁰³ then for the conditions for locked-out PRE to prevail what is needed is still simply that all pre-tax rates of return available for CFCs are lower enough than the pre-tax borrowing interest rate available for the parent at home, which is

¹⁰² The discount rate for determining the present value of an investment must represent the firm’s opportunity cost of the funds invested (see, e.g., Harvey S. Rosen, Ted Gayer, *Public Finance*, 9th Edition, McGraw-Hill/Irwin, at 156 (2010)). Because it is the parent’s, not CFC’s, present value that a multinational firm seeks to maximize (Hines, note 17, at 328), it is the parent’s opportunity cost of funds that is taken into account, which is the net return available at home.

¹⁰³ See discussion in the next paragraph.

an acceptable assumption in the literature, because otherwise it will never be optimal to repatriate and firms may even have incentives to send all their profits abroad.¹⁰⁴

The conditions for locked-out PRE prevail even beyond that. Indeed, it is usually assumed in the literature that the parent's discount rate is the borrowing interest rate available for the parent at home.¹⁰⁵ That interest rate is sometimes understood to mean the risk-free interest rate.¹⁰⁶ That, however, should not necessarily be the case, and in reality is definitely not.¹⁰⁷ The theory behind the assumption that the net return available at home is the borrowing interest rate available for the parent is that the parent can borrow at that interest rate to fund any investment that returns at a higher rate than the interest rate until the marginal product on the investment declines to equal that interest rate. But contrary to the assumptions of this theory, borrowing capacities of most firms are limited, or at least borrowing is not costless.¹⁰⁸ In addition to planning, transactional and control costs, which are not negligible, increased debt is usually associated with increased risk and, thus increased cost of capital.¹⁰⁹ As a result, even when available, borrowing is not always an efficient choice, and consequently, the net return available at home for firms that have exhausted their cost-efficient borrowing capacities could very well exceed the available borrowing interest rate. But even when borrowing is an efficient choice, it

¹⁰⁴ Hines and Rice (1994), note 17, at 155 (“[t]o rule out cases in which firms have incentives to send all their profits abroad,” the assumption is that the rate of return available for CFCs investing in passive assets is less than the U.S. domestic interest rate); Hines, note 17, at 333-4 (pointing out the difficulty in finding sufficiently attractive passive investment abroad and the possibility for the pre-tax component of the parent's discount rate to exceed the pre-tax return available for CFCs investing in passive assets).

¹⁰⁵ E.g., Hines and Rice (1994), note 17, at 155; Weichenrieder, note 50, at 70; Altshuler and Grubert, note 50, at 77.

¹⁰⁶ E.g., Anja De Waegenare and Richard C. Sansing, *Taxation of International Investment and Accounting Valuation*, 25 *Contemporary Accounting Research* No. 4 1045, at 1047 (2008).

¹⁰⁷ Cf. Grubert (2009), note 10, at 3.

¹⁰⁸ See, e.g., Rosanne Altshuler, *Corporate Taxes in the World Economy: Reforming the Taxation of Cross-Border Income*, in *Fundamental Tax Reform: Issues, Choices and Implications*, John W. Diamond & George R. Zodrow editors, 2008 at [21 in 2006 draft]; Grubert (2009), note 10, at 3.

¹⁰⁹ *Id.*

still comes at a significant cost, and because of the increased risk and cost of capital associated with borrowing, it is rarely the case, if at all, that a firm borrows at the risk-free interest rate. It is well known that different firms borrow at different interest rates, and it is also not at all unusual for firms to face higher interest rates when borrowing than the rates of return they can get from investing in the world capital markets.¹¹⁰

3. The Investment Options for Locked-out PRE

A firm's investment options with respect to locked-out PRE are limited to internal or external active investments abroad or passive investments. Other investment options would be, both economically and legally, an effective repatriation of the invested funds.¹¹¹ The terms "internal" and "external" are used here by reference to the CFC the locked-out PRE of which are sought to be invested, and not by reference to the parent or the multinational firm in general. An

¹¹⁰ See note 104. For different assumptions, cf. Weichenrieder, note 50, at 70 (assuming an exogenous and identical interest rate across countries); Scholes et al., note 16, at 347-8 ("[i]n most cases, however, firms can invest in the same passive assets... abroad as they can domestically, so the pretax return on passive investments abroad will often equal the pretax return on passive domestic investments" (id., 348)). Realistically, and for the reasons discussed in the text above, the assumption of universal interest rates is at best doubtful. The Scholes et al assumption of equality between pretax returns on passive investments around the globe (obviously, within the same asset class and risk profile), while of course reasonable, is not at all inconsistent with the Hines and Rice (1994) assumption that the rate of return available for CFCs on passive assets is less than the borrowing interest rate available for the parent (note 104). As discussed in the text above, the parent's borrowing interest rate should theoretically equal (although practically be less than) the net return available for the parent at home. This net return, however, must be the net return on active investments at home that should, as discussed in the text above, exceed the net return on passive assets. If the net return available at home were the net return on passive investments at home, with equal pretax returns on passive investments around the globe no CFC earnings would ever be repatriated because the after-foreign-tax return on passive investment abroad will necessarily exceed the net return available at home (id.; cf., however, Altshuler and Grubert, note 50, at 77 (assuming, *for simplicity* though, equality between the return required at home and the return on the world capital market); but see Grubert (2009), note 10, at 3 (pointing out the probable spread between borrowing and lending rates)). Furthermore, it is not typical for parent companies to invest repatriated or home-country earnings in the capital market (passive investments), at least not in the same manner or for the same reasons CFCs invest locked-out earnings in passive investments. Working capital aside, earnings available for the parent that are not reinvested in the (existing or expanded) operations of the firm or used to pay off debt, ought to be distributed to the shareholders. Because there usually is no advantage to merely investing in capital markets through the firm rather than directly by the shareholders, large passive investments by parent companies usually alert analysts and the market about a potential acquisition by the firm, which typically has a negative effect on the firm's stock price. This, of course, does not hold with respect to CFC earnings, the investment of which in passive assets can be easily reasoned by the desire to avoid the repatriation penalty.

¹¹¹ See, e.g., note 33.

internal active investment is, therefore, an investment by the CFC in its own existing business operations or activities; while an external active investment could be an investment by the CFC in a new business or in an existing business of another CFC or any other entity.¹¹²

Conceptually, external and internal active investments for this purpose—i.e., as a target for locked-out PRE—can be mature or immature investments. While it is fairly apparent that external and internal mature investments and external immature investments can be targets for locked-out PRE, the case might not seem as intuitive with respect to internal immature investment. One could ponder whether internal immature reinvestments may be a target for locked-out PRE, or perhaps more accurately, whether immature investments could generate locked-out PRE. Reinvesting internally in an immature investment obviously means that the earnings of that immature investment are being so reinvested. The earnings of an immature CFC, however, are supposed to be reinvested internally and not repatriated, because, as already discussed, an immature CFC is, by definition, a CFC that is still in need for parent fund transfers, and its retention of earnings for internal reinvestment will be superior to a repatriation of earnings coupled with a fund injection by the parent.¹¹³ For this reason, the Hartman result does not apply with respect to immature investments, for which the Horst formulation still holds.¹¹⁴ But it does not necessarily follow that because locked-out PRE would optimally be repatriated (but are not) while earnings of an immature CFC should optimally not be repatriated, that an immature CFC cannot, by definition, generate locked-out PRE. It is true that if an immature CFC existed, its earnings should optimally be retained and internally reinvested until its liquidation or it is disposed of. But the mere existence of an immature CFC may be a result of the GAAP lock-

¹¹² Cf. Hartman, note 37, at 118.

¹¹³ See text accompanying notes 53 and 54.

¹¹⁴ See notes 44-46, 51-54 and accompanying texts.

out effect due to the lack of better investments abroad. Because such CFC would optimally not exist, the earnings it generates could be thought of as locked-out PRE.¹¹⁵

4. Why Present Value?

Under standard economics theory, an optimal investment strategy from a present-value maximization perspective is the most efficient investment strategy for the firm.¹¹⁶ For that purpose, it is the present value of an investment to the *parent*, not to its subsidiaries, that multinational firms should seek to maximize.¹¹⁷ Therefore, from a pure real income perspective, the choice between investments available for a CFC should be determined by comparisons between the parent's present values of such investments.

It could be argued, however, that if CFC earnings are permanently locked-out abroad, approaching a multinational firm's investment strategy with respect to such earnings from the parent's present-value maximization standpoint might be problematic because these earnings may never be repatriated. Instead, multinational firms may for example operate, at least with respect to such CFC earnings, as a Horst-type "management-controlled firm whose primary objective [is] the growth of the firm and for whom dividends to shareholders are comparable to a tax on consolidated earnings."¹¹⁸ In this setting, when investing locked-out CFC earnings,

¹¹⁵ However, a corollary of the discussion below could suggest that such CFCs should exist in very rare circumstances.

¹¹⁶ Shackelford et al., note 69, generally and at 482.

¹¹⁷ Hines, note 17, at 328.

¹¹⁸ Horst, note 35, at 379.

multinational firms would seek to maximize their globally consolidated after-tax earnings, rather than the present value of the cash flows to the parent.¹¹⁹

The reason a parent would still expect cash flows from its CFC investments of locked-out PRE is that while locked-out PRE are locked-out, future returns on invested locked-out PRE are not necessarily so. By reinvesting locked-out PRE in passive investments, the firm would still benefit from deferral but only with respect to the invested principal, not the passive returns. Such passive returns are subject to current home-country taxation as earned. Therefore, the repatriation of such passive returns will not be associated with any additional tax cost, and the reasonable assumption is that passive returns will be repatriated as earned.¹²⁰ This assumption is also consistent with the GAAP treatment of such passive returns. The GAAP “indefinite reversal exception” could not possibly apply to allow the non-recognition of the accounting home-country tax liability associated with such passive income because even if the returns were “permanently reinvested abroad” they would still be subject to current U.S. taxation as earned.

¹¹⁹ [This approach raises interesting questions and issues the discussion of which is beyond the scope of this paper. One of the main issues this approach raises, which is the subject of a follow-up paper (Fadi Shaheen, Evaluating Investments of Locked-Out PRE (work in progress)) is as follows: If repatriation is not an option with respect to locked-out CFC earnings, does that mean that active investments at home no more function as benchmark investments against which investments abroad are compared? If so, when faced with a potential, internal or external, active investment abroad, the CFC's only alternative is a passive investment. Because only active but not passive investments of CFCs benefit from deferral, would multinational firms capitalize the benefit of deferral, or a part thereof, into pricing their active investments abroad? If full or partial capitalization occurs, because the U.S. corporate income tax rate is the highest among the OECD countries, U.S. firms would be willing to pay for active investments abroad more than other firms would. If this is correct, because of the current taxation of passive CFC investments, the benefit of deferral for active investments would in fact be "shifted" to foreign factors (e.g., foreign sellers of active investments) other than the U.S. CFCs (or U.S. multinational firms) themselves, contrary to the very purpose of the active-passive distinction of subpart F or any sound policy objective. This could also result in some type of “specialty” ownership under which U.S. multinational firms would own more active businesses and non-U.S. firms would own more passive investments.]

¹²⁰ Hines and Rice (1994), note 17, at 155-6; Weichenrieder, note 50, at 70. This assumption does not hold, however, in situations where passive returns accrue but are not actually received. e.g., in the case of a CFC investing in a bond issued with original issue discount (see IRC §§1272-1275)). In such situations, repatriation of accrued but unpaid passive returns might not be possible despite their current taxation by the home-country.

Whether one should expect also returns on active investments of locked-out PRE to be repatriated is a more complicated question, the answer to which varies somehow depending on whether the active investment is mature or immature. Immature active investments by definition require the continuing injection of parent funds. The fact that an immature investment is funded with locked-out PRE does not change this feature. Given the tax cost associated with repatriating earnings on immature active investments, reinvesting such earnings internally, thereby reducing parental injection of funds, is superior to repatriating them while still receiving parent transfers. Therefore, it would be senseless for the returns on immature active investments of locked-out PRE to be repatriated. Instead, such returns should be retained, reinvested internally and naturally designated as PRE.

The picture differs with respect to returns on *mature* active investments of locked-out PRE. Theoretically a multinational firm has certain flexibility regarding the repatriation and GAAP treatment of such returns. If those returns are repatriated as earned, they will generate cash flows to the parent and the present value of the investment can be determined accordingly. However, the repatriation of returns on active investments is associated with the additional costs of the repatriation tax and the recognition of that tax liability for accounting purposes. That alone, it could be argued though, does not necessarily “secure” the retention abroad of returns on mature active investments of locked-out PRE. Because the available investments for locked-out PRE, and naturally also the available reinvestments for returns thereon, are suboptimal, the opportunity cost of designating such earnings as PRE is greater than it would be in the optimal setting. But under this logic the invested principal of locked-out PRE should have also been repatriated, but it was instead retained and suboptimally reinvested abroad, and the same reasons discussed in Section IV.B for the PRE designation of the invested principal could fairly equally

apply to the active returns thereon. Indeed, the declining nature of the marginal product of any standard active investment would result in even lower returns when earnings are retained and internally reinvested; and that, in turn, may increase the opportunity cost associated with such retention. But the lower returns could, to some extent, also work in the other direction, and in a very real sense rather be an additional reason for their PRE designation. As discussed in Section IV.B, a major reason for the PRE designation is that it enables firms to report higher accounting measures, especially increased after-tax earnings, and suboptimal earnings make the need for that even more acute. One should also keep in mind that the PRE designation is not necessarily rational, as it has been reportedly described by a tax director of a Fortune 500 company: “[C]rack cocaine. Once you start using it you can’t stop.”¹²¹

Therefore, there are good reasons to believe that returns on active investments of locked-out PRE—particularly immature investments, but most probably also mature ones— will also be subject to the GAAP lock-out effect and will not be repatriated. For this very reason, however, active investments of locked-out PRE would at some point in the future be liquidated, with the liquidated principal and the retained earnings reinvested in passive investments, generating cash flows to the parent following the same logic described above with respect to passive investments.¹²² Because repatriation is not an option, when investing locked-out PRE, a CFC’s only alternative for a suboptimal active investment abroad is that of suboptimal passive investments. An active investment may be preferred because of a combination of higher returns

¹²¹ Jenifer Blouin, Linda Krull and Leslie Robinson, Where in the World are “Permanently Reinvested” foreign earnings? Working Paper (September 2012) (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2154662), at 12, note 16.

¹²² See Hines and Rice (1990), note 16, at 10-11, suggesting this pattern of investment behavior more generally, regardless of the GAAP lock-out effect. See also generally Altshuler and Grubert, note 50.

and the preferential GAAP and home-country tax treatments.¹²³ But an active investment with a standard production function has a declining marginal product, which in combination with the GAAP lock-out effect will at some point bring the rate of return on the active investment down to such a level that the combined benefits from the active investment no more outweigh the benefit from the alternative passive investment.¹²⁴ At that point, and given the constraints of the GAAP lock-out effect, liquidating the active investment and investing the proceeds passively would make the most sense. The firm will still benefit from both deferral and the indefinite reversal exception with respect to the passively invested liquidation proceeds, and only the passive returns thereon will be taxed by the home-country as earned and therefore repatriated, generating cash flows to the parent.

B. The Hypothesis and its Intuition

This Section introduces, and discusses the intuition of, the hypothesis for the argument of the paper. The formal proof of the hypothesis is presented in the following Sections V.C., and its policy implications are discussed in Section V.D.

1. The Hypothesis

The hypothesis presented here is that based on the framework of the analysis discussed above, multinational firms subject to a credit and deferral system such as that of the United

¹²³ See generally Shackelford et al., note 69, at 473, 481-3, 488. As the discussion below will emphasize, higher returns alone never justify preferring the active investment over a passive one in this setting.

¹²⁴ Furthermore, if multinational firms have a certain desired level of PRE designation, perhaps because there are diminishing benefits to reducing book tax liabilities beyond a certain point, once a firm has reached that level, it stops seeing as large a benefit from further PRE designation and starts repatriating earnings on locked-out PRE.

States generate higher present value if their CFCs invested their locked-out PRE in passive investments with positive returns than in immature active investments, despite the tax advantage afforded to active investments and even if the pre- or post-tax returns on the passive investments are inferior to those on the immature active investments. Investing locked-out PRE in a passive investment that generates positive returns would also produce higher present value than any mature active investment the returns on which are or will be subject to the GAAP lock-out effect, despite their tax advantage and even if their rate of return is higher than that on the passive investment. Investing locked-out earnings in mature operations the returns on which will *not* be subject to the GAAP lock-out effect produce the same present value to the multinational firm as passive investments with equivalent pre-tax returns would. Such active investments would produce greater or lesser present value to the firm than passive investments with respectively lesser or greater pre-tax returns.

2. The Intuition

The intuition underlying the hypothesis is that because the after-foreign-tax return on investments of locked-out PRE is by definition less than the net return available to the parent at home, which is also the parent's discount rate, investing locked-out PRE by a CFC in passive investments will always generate a higher present value to the parent than would an immature active investment or a mature active investment the returns on which are subject to the GAAP lock-out effect, even if the rates of return on the active investments are higher than that on the passive investment.¹²⁵ The reason is that such active investments will grow until their liquidation (and reinvestment in a passive asset) at a slower rate than the discount rate of the parent, making

¹²⁵ For purposes of the analysis here, I follow the common and typical assumption that the marginal returns on passive investments remain constant.

the deferred post-liquidation passive returns on them less valuable to the parent in present value terms than any returns on an initial passive investment.

To see this intuition, it would be helpful to recall the conclusions of the framework of the analysis discussed above. First, what is being looked at is the reinvestment of locked-out PRE and therefore the after-foreign-tax rates of return on such reinvestments are less than the net return available to the parent at home. Second, while the invested principal of passive investments of locked-out PRE benefits from deferral and the indefinite reversal exception, the returns on these investments do not, and therefore are repatriated as earned generating a cash flow to the parent. Third, returns on immature, and probably also mature, active investments of locked-out PRE are retained and reinvested abroad, and therefore designated as PRE and most likely becoming subject to the GAAP lock-out effect. Fourth, such active investments are eventually liquidated and reinvested in passive investments, benefiting from deferral and the indefinite reversal exception with respect to the passively invested principal (initial principal plus retained and reinvested active earnings), but not with respect to the passive return, which in turn will be repatriated as earned generating cash flows to the parent.

Therefore, passive investments start generating cash flows to the parent immediately, while active investments of locked-out PRE start generating cash flows to the parent only after their liquidation and the reinvestment of the liquidation proceeds in passive investments. Indeed, the cash returns to the parent on the passive investment of the liquidated active investment are larger than those on the initial passive investment; but for these larger returns to compensate for the lag in cash distributions during the growth period of the active investment as compared to the immediate cash distributions on the initial passive investment, the rate of the active growth (on an after-foreign-tax basis) should at least equal the parent's discount rate. But we already know

that the after-foreign-tax rate of return on the active investment of locked-out PRE is lower than the parent's discount rate (the net return available at home), and therefore the cash returns to the parent from such active investments will never be large enough to generate greater present value to the parent than would an initial passive investment of such locked-out PRE. As discussed above, however, a multinational firm may arguably have certain flexibility regarding the repatriation and the GAAP treatment of returns on investments of locked-out PRE in *mature* active investments. If such returns are repatriated as earned, mature active investments become effectively equivalent to passive investments from a parent cash-flow and home-country tax perspectives, and their present value would be determined accordingly.

The formal proof of the hypothesis and its intuition is introduced next.

C. The Proof

Proving the hypothesis requires the determination, and then the comparison between, the parent's present values of passive and active CFC investments of locked-out PRE. In determining the present values, the proof below builds on the formulation developed by Hines and Rice in a different context.¹²⁶

1. Passive Investments

¹²⁶ Hines and Rice (1994), note 17, at 155-6; Hines and Rice (1990), note 16, at 9-11. Hines and Rice assumed that the repatriation tax (t) equals the tax rate on domestic-source income. Although this assumption reflects current U.S. law, it is relaxed here consistent with the Hartman analysis which referred to the net return available at home as simply r_h , allowing the Hartman result to apply regardless of any correlation between the two tax rates.

If a CFC invests today \$1 of locked-out PRE in a passive investment where the rate of return is r_p^* , such return will be subject to current host- and home-country taxation, and by operation of the foreign tax credit, the firm will remain with an annual after-tax return of $r_p^*(1 - t)$, where t is the home-country tax rate. Because this passive annual return does not benefit from deferral, the assumption is, as discussed above, that these annual passive returns, but not the invested principal, will be repatriated annually as earned. Because this passive investment is of locked-out PRE, it is considered to be indefinite in time. That is, \$1 of locked-out PRE is indefinitely invested in the passive investment, generating after-tax annual returns of $r_p^*(1 - t)$, which are repatriated as earned. The first return of $r_p^*(1 - t)$ will be generated a year from today, and therefore its present value to the parent discounted at the parent's discount rate r_n is $\frac{r_p^*(1-t)}{1+r_n}$.

The present value of the second passive return received two years from today is $\frac{r_p^*(1-t)}{[1+r_n]^2}$; and

the present value of the l passive return received in l years is $\frac{r_p^*(1-t)}{[1+r_n]^l}$. The present value to the parent of the passive investment of \$1 of locked-out PRE (PV_p) is the sum of the present values of each passive return of the infinite stream of annual after-tax passive returns; and put formally:

$$PV_p = \sum_{l=1}^{\infty} \frac{r_p^*(1-t)}{[1+r_n]^l}. \text{ This formula solves into } \frac{r_p^*(1-t)}{r_n}.^{127}$$

¹²⁷ Cf. Hines and Rice (1994), note 17, 155-6. $\sum_{l=1}^{\infty} \frac{r_p^*(1-t)}{[1+r_n]^l} = \sum_{j=0}^{\infty} \left[\frac{r_p^*(1-t)}{1+r_n} \right] \left[\frac{1}{1+r_n} \right]^j$.

Substituting $\frac{r_p^*(1-t)}{[1+r_n]}$ for a and $\frac{1}{[1+r_n]}$ for x in the geometric series formula $\sum_{j=0}^{\infty} ax^j = \frac{a}{1-x}$, where $0 < x < 1$, results in $\sum_{j=0}^{\infty} \left[\frac{r_p^*(1-t)}{1+r_n} \right] \left[\frac{1}{1+r_n} \right]^j = \frac{r_p^*(1-t)}{r_n}$.

That is, the present value to the parent of a passive investment of \$1 of locked-out PRE is:

$$PV_p = \frac{r_p^*(1-t)}{r_n}.$$

2. Active Investments

For purposes of the proof, it will be assumed at first, contrary to the assumption of the framework of the analysis, that the returns on active investments abroad remain constant over time and do not decline. Investing today \$1 of locked-out PRE in an active investment abroad for m years returns a total amount of principal and earnings of $[1 + r_a^*(1 - t^*)]^m$, where r_a^* is the annual pre-tax rate of return on the active investment abroad and t^* is the host-country tax rate. Reinvesting this amount, after the liquidation of the active investment at the end of year m ,¹²⁸ in a passive investment returns an annual after-tax return of $[1 + r_a^*(1 - t^*)]^m r_p^*(1 - t)$ starting in year $m + 1$. Because these annual passive returns are subject to home-country taxation immediately as earned and as such their repatriation is not associated with any additional taxation, the assumption is again that they will be immediately repatriated. Accordingly, each such annual passive return is discounted to present value at the parent's discount rate, which is the net return available at home (r_n), and the present value of the first annual passive return will therefore be $\frac{[1 + r_a^*(1 - t^*)]^m r_p^*(1 - t)}{[1 + r_n]^{m+1}}$; the present value of the second annual passive return will be $\frac{[1 + r_a^*(1 - t^*)]^m r_p^*(1 - t)}{[1 + r_n]^{m+2}}$; and the present value of the i annual passive return will be

¹²⁸ The invested principal and the reinvested after-foreign-tax active returns are included in the basis, and therefore the liquidation results in no gain.

$\frac{[1+r_a^*(1-t^*)]^m r_p^*(1-t)}{[1+r_n]^{m+i}}$. The present value to the parent of the active investment of \$1 of locked-

out PRE (PV_a) is therefore the sum of the present values of each return in the infinite stream of the post-liquidation annual after-tax passive returns. Put formally: $PV_a =$

$$\sum_{i=1}^{\infty} \frac{[1+r_a^*(1-t^*)]^m r_p^*(1-t)}{[1+r_n]^{m+i}}. \text{ This formula solves into } \left[\frac{[1+r_a^*(1-t^*)]^m}{[1+r_n]^m} \right] \frac{r_p^*(1-t)}{r_n}.^{129}$$

That is, the present value to the parent of an active investment of \$1 of locked-out PRE is:

$$PV_a = \left[\frac{[1+r_a^*(1-t^*)]^m}{[1+r_n]^m} \right] \frac{r_p^*(1-t)}{r_n}.$$

3. The Choice of Investment for Locked-Out PRE

(a) Passive Investments versus Active Investments

Comparing the resulting present value of active investment (PV_a) with the present value of the passive investment (PV_p), it can be seen that the active investment would produce more present value to the parent than the passive investment would only if:

$$\left[\frac{[1+r_a^*(1-t^*)]^m}{[1+r_n]^m} \right] \frac{r_p^*(1-t)}{r_n} > \frac{r_p^*(1-t)}{r_n}.$$

$$\begin{aligned} &^{129} \sum_{i=1}^{\infty} \frac{[1+r_a^*(1-t^*)]^m r_p^*(1-t)}{[1+r_n]^{m+i}} = \sum_{j=0}^{\infty} \left[\frac{[1+r_a^*(1-t^*)]^m r_p^*(1-t)}{[1+r_n]^{m+1}} \right] \left[\frac{1}{1+r_n} \right]^j. \text{ Substituting} \\ &\left[\frac{[1+r_a^*(1-t^*)]^m r_p^*(1-t)}{[1+r_n]^{m+1}} \right] \text{ for } a \text{ and } \frac{1}{1+r_n} \text{ for } x \text{ in the geometric series formula } \sum_{j=0}^{\infty} ax^j = \frac{a}{1-x}, \text{ where } 0 < x < \\ &1, \text{ results in } \sum_{j=0}^{\infty} \left[\frac{[1+r_a^*(1-t^*)]^m r_p^*(1-t)}{[1+r_n]^{m+1}} \right] \left[\frac{1}{1+r_n} \right]^j = \left[\frac{[1+r_a^*(1-t^*)]^m}{[1+r_n]^m} \right] \frac{r_p^*(1-t)}{r_n}. \end{aligned}$$

That is, only when $r_a^*(1 - t^*) > r_n$,¹³⁰ i.e., when the after-foreign-tax return on the active investment exceeds the net return available at home.¹³¹ But since we are considering an investment of locked-out PRE, by definition such an investment always fails the critical condition of the optimization models, and the after-foreign-tax return on it will always be less than the net return available at home; i.e., such investment always satisfies the condition $r_a^*(1 - t^*) < r_n$. Therefore, an active investment of locked-out PRE will never produce more present value to the multinational firm than a passive investment with positive returns would. The apparently surprising outcome is that multinational firms generate greater present value by having their CFCs invest locked-out PRE in passive investments rather than in any tax- and GAAP-advantaged active investment, even if the pre- and after-tax rates of return on the active investment exceed the pre- and after-tax rates of return on the passive investment.

The proof thus far assumed that the return on active investments abroad remains constant and does not decline. Relaxing this assumption is immaterial for the proof. If the present value of any passive investment of locked-out PRE is greater than the present value of any active investment of locked-out PRE when the returns on active investments abroad were assumed to remain constant over time, all the more so when such returns do decline as the case is with respect to any standard active investment.

(b) Mature Active Investments

The proof thus far applied to the comparison between investing locked-out PRE in passive investments and immature active investments. The proof also applies if the active

¹³⁰ For $\left[\frac{[1+r_a^*(1-t^*)]^m}{[1+r_n]^m} \right] \frac{r_p^*(1-t)}{r_n}$ to exceed $\frac{r_p^*(1-t)}{r_n}$, the value $\left[\frac{[1+r_a^*(1-t^*)]^m}{[1+r_n]^m} \right]$ must exceed 1, which solves into $r_a^*(1 - t^*) > r_n$.

¹³¹ See Hines and Rice (1990), note 16, at 10.

investment is mature, when, as discussed above, the returns on such investments will be subject to the GAAP lock-out effect. That is so because the returns on such immature and mature active investments will be retained and reinvested abroad until the liquidation of the active investment and the reinvestment of the liquidation proceeds in a passive investment.

If, however, the returns on the mature active investment are not subject to the GAAP lock-out effect, such returns will be repatriated as earned, which would make them similar to returns on passive investments from a parent cash-flow and home-country tax perspectives. If the mature active investment of locked-out PRE will be held indefinitely and returning constant periodic returns (r_a^*) that will be repatriated as earned,¹³² the present value of such investment will be determined in the same manner the present value of a passive investment was determined. The only difference would be substituting the pre-tax rate of return on the active investment (r_a^*) for the pre-tax rate of return on the passive investment (r_p^*) in the passive investment present value formula.¹³³ As a result, the present value of investing \$1 of locked-out PRE in an indefinite mature active investment is $r_a^*(1 - t)/r_n$. Therefore, mature active investments the returns on which are *not* subject to the GAAP lock-out effect produce the same present value to the multinational firm as would passive investments with equivalent pre-tax returns. Such active investments would produce greater or lesser present value to the firm than would passive investments with respectively lesser or greater pre-tax returns.

¹³² If the returns are repatriated and therefore not reinvested in the mature active investment, there will be no additional invested capital and the rate of return on it remains constant because the marginal product of capital declines only when more capital is invested.

¹³³ The formula accompanying note 127.

D. Implications

The analysis above addressed the question how multinational firms should approach optimizing the present value of locked-out PRE investments—investments of CFC earnings which in a first-best optimal setting would have been repatriated and reinvested at home but are instead retained to be reinvested abroad due to the GAAP lock-out effect. The analysis showed that, all else equal, for maximizing a multinational firm's present value, the *primary* choice of investment of locked-out PRE is not a function of the investment's profitability or rate of return, but of the type of the investment and the stage of its maturity, as proxies for whether the returns on the investments would be repatriated.

This conclusion seems to run counter to what naturally is the basic intuition regarding a firm-level efficient investment behavior: investors would seek the highest returning investment on an after-tax basis. Looking at the issue from the limited perspective of the investing CFC would clearly lead to viewing the available investment with the highest rate of return as the most profitable. This determination, however, should not be made from the CFC's perspective. A CFC is just a legal instrument through which a multinational firm operates abroad. Therefore, the determination regarding the profitability of the investment should be made from the parent's perspective. Because the investment with the highest after-tax return is available only to the parent at home and thus out of reach for locked-out PRE, the multinational firm's choice between two suboptimal investments available to the CFC does not depend only on the rate of return from these investments, but also on which investment would generate the best pattern of cash flows to be reinvested by the parent in the most profitable activity available to it.

The conclusion was that for a multinational firm to maximize the present value of its investments of locked-out PRE, it should invest them in an active investment only if two conditions are met: (i) such active investment has the highest after-foreign-tax rate of return among other available investments abroad, and (ii) the returns on the investment will be repatriated at least annually as earned. If the active investment fails either, or both, of these conditions, the firm should invest its locked-out PRE in any passive investment. Thus, for example, investing locked-out PRE in any passive investment would generate more present-value to the firm than any immature active investment would, even if the rate of return on the active investment is higher than that on the passive investment.

However, the present value of real after-tax cash flows is not the only consideration affecting a firm's choice of investment, and the decision would also depend on the investments' accounting treatment and its effect on book income and book value.¹³⁴ The choice of investment for locked-out PRE is a clear instance in which book income considerations could distort a real-income investment decisions. GAAP considerations are the main reason for the existence of locked-out PRE to begin with and, therefore, continue to be important for their reinvestment. Relevance or importance of book income considerations do not, by themselves, result in the distortion of an otherwise real-income-optimal investment decision. The reason for the distortion is that the GAAP treatment favors investment patterns that contradict those that would maximize the present-value of locked-out PRE investments. Valuing book income, firms may prefer immature active investments to passive investments for their locked-out PRE. For the same reason, a mature active investment would also be preferred, if the intention is to retain its returns

¹³⁴ Shackelford et al., note 69, generally and at 488.

abroad. In both cases, however, the passive investment (or the repatriation of the active returns on the mature investment) would be preferred from a real income perspective.

An optimal investment strategy from a real income perspective is viewed by the standard economics theory as the most efficient investment strategy for the firm.¹³⁵ It follows that any deviation from this optimal strategy is associated with firm-level efficiency costs, because it then becomes possible for the firm to undertake investments that reduce the present value of the after-tax cash flows,¹³⁶ and such trading of real income for book income is usually foreign to the main objective of maximizing the real value for the shareholders.¹³⁷ To be clear, the mere fact that locked-out PRE were not repatriated is by itself associated with efficiency costs that have already been identified in the literature and are not the concern here.¹³⁸ The focus here is on the possible additional post-retention efficiency costs associated with the manner in which multinational firms invest their locked-out PRE. These costs burden both the investing firm and the economy in general.

The firm-level efficiency costs are the result of the firm's investment contrary to its own optimal real income interest when it prefers active to passive investments for its locked-out PRE. Of course, when firms run out of such "attractive" active investments for their locked-out PRE their only choice, short of repatriation, would be passive investments, and evidence shows that that is what firms do.¹³⁹ This is also the eventual result on which the analysis above is partially based: because of their diminishing returns, active investments of locked-out PRE are eventually

¹³⁵ Shackelford et al., note 69, generally and at 482.

¹³⁶ Id.

¹³⁷ See generally, Shaviro, note 84, id.

¹³⁸ See note 10.

¹³⁹ C. Fritz Foley, Jay. C. Hartzell, Sheridan Titman and Garry Twite, Why Do Firms Hold So Much Cash? A Tax-Based Explanation, 86 *Journal of Financial Economics* 579 (2007). See also Kleinbard, note 5, at 763-9.

liquidated with the liquidation proceeds reinvested in passive assets.¹⁴⁰ What matters from an efficiency perspective, however, is not just the eventual end result, but the process of getting there. During the pre-liquidation holding of active investments instead of the passive investments, real cash flows to the parent are lost, with the resulting present value loss and firm-level efficiency costs.

That is also the reason for the economy-level efficiency costs identified here. Even if locked-out PRE of U.S. multinational firms are eventually invested in passive assets making the way for the passive returns—and in the case of U.S. dollar securities, indirectly also the principal¹⁴¹—to the more productive investments at home, the point at which that was done remains very crucial. Efficiency costs to the economy in general could still be generated if a firm invested locked-out PRE in active assets prior to such passive investments resulting in productivity losses in the interim.

A more detailed discussion of those and other distortions and efficiency costs caused by the GAAP lock-out effect is the subject of a follow-up paper.¹⁴²

VI. CONCLUSION

The enormous amounts of earnings that U.S. CFCs have been accumulating offshore are of a major, perhaps the main, concern in the ongoing policy debate regarding the U.S. international tax system in general, and subpart F in particular. While the existing theoretical

¹⁴⁰ See note 122-123 and accompanying text.

¹⁴¹ See also Kleinbard, note 5, at 764-5. See note 61.

¹⁴² Shaheen, note 119.

models suggest that when only real income considerations are taken into account the repatriation tax should have no effect on the repatriation behavior of multinational firms; book income and other practical considerations lead to the opposite conclusion. Incorporating the GAAP lock-out effect into the theoretical models by eliminating repatriation as an option allowed extending the analysis in this paper beyond the optimal retention-versus-repatriation question addressed by the existing models. The analysis in this paper showed that from a real income perspective the investment behavior of multinational firms with respect to locked-out CFC earnings should differ from that with respect to CFC earnings that are optimally retained abroad, and that different intuitions should be applied to these different settings when evaluating firms' behavioral responses to the same set of tax rules. The paper showed that to maximize the present value of the investments of locked-out CFC earnings, multinational firms should generally prefer passive investments to active investments despite the tax and GAAP advantages afforded to active investments and even if the rate of return on the passive investment is inferior to that on the active investment. This in turn results in a clear conflict between real income and book income considerations, magnifying the distortionary GAAP lock-out effect on the investment behavior of multinational firms with respect to their locked-out CFC earnings. Such distortions seem to come at significant efficiency costs both to the firms and to the economy in general. Such distortions and efficiency costs could be avoided if the repatriation tax were to be eliminated, thereby eliminating the GAAP lock-out effect. That can be done by ending deferral and currently taxing all CFC income as earned, by exempting such income, or by a combination of both. Anyway, repatriation will cease to be associated with an additional home-country tax cost, the "indefinite reversal exception" will become moot and the GAAP lock-out effect will therefore be

eliminated. The three most recent proposals for reforming the U.S. international tax system go in these directions.