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# Going from the Frying Pan into the Fire? A Critique of the U.S. Treasury's Newly Proposed Section 987 Currency Regulations

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# GOING FROM THE FRYING PAN INTO THE FIRE? A CRITIQUE OF THE U.S. TREASURY'S NEWLY PROPOSED SECTION 987 CURRENCY REGULATIONS

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## I. INTRODUCTION

In September 2006, the Commissioner of the Internal Revenue Service proposed new regulations implementing section 987 of the Internal Revenue Code, governing the taxation of currency gains and losses for foreign branches of U.S. corporations.[1] Prior to 1997, "section 987 applied mostly to banks and financial institutions, which tend to operate in branch form."[2] With the arrival of the "check the box" regulations in 1997,[3] though, "section

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[1]     Prop. Treas. Reg. § 1.987, 71 Fed. Reg. 52,876 (Sept. 7, 2006).

[2]     Lisa M. Nadal, *Branch Currency Transaction Reg Drafters Address Transition Period*, TAX NOTES TODAY, Sept. 15, 2006, at 2.

[3]     *See* Treas. Reg. § 301.7701-3. These "check the box" regulations allow taxpayers to elect whether to have their foreign subsidiaries taxed as disregarded entities (i.e., branches) or as foreign corporations. For tax planning purposes, it may be advantageous for a U.S. parent corporation to have some of its subsidiaries operate as foreign corporations for U.S. tax purposes, and yet have others operate as disregarded entities (i.e., branches) for U.S. tax purposes.

       The advantage may result from the divergent treatment by the foreign jurisdiction in which the entity is located. For example, if the foreign jurisdiction treats the entity as a corporation (thus allowing it to take a deduction for, say, interest on a loan, for purposes of calculating the entities foreign income tax), whereas if the parent elects to "check the box" on the entity and have it treated as a disregarded entity, then that same interest deduction can "flow through" to the U.S. parent corporation, effectively achieving a "double dip" or double use of the same interest payment.

       Such entities are referred to as "hybrid entities" and are used ubiquitously by U.S. multinational corporations in their international tax planning. *See generally* John P. STEINES, JR., INTERNATIONAL ASPECTS OF U.S. INCOME TAXATION, 497–517 (2d ed. 2005) (discussing the check the box regulations and how corporations use them to their advantage in their tax planning strategies). Hence, almost all U.S. multinational corporations need to be concerned about these new section 987 regulations.

987 concerned a much larger category of taxpayers." Hence, "the need for updated guidance" on taxation of branches is "more pressing" today.[4] These proposed regulations withdraw the 1991 Proposed Regulations[5] which had previously provided guidance to taxpayers on the matter. The Commissioner justified this action by arguing that the 1991 Proposed Regulations were ineffective at combating "non-economic" currency losses being claimed by taxpayers.[6]

In the view of the Commissioner, the 1991 Proposed Regulations were flawed because they allowed for currency gains and losses to be recognized by assets such as "land and machinery," which in his view "do not change in value with currency movements."[7] In order to prevent taxpayers from taking such "non-economic losses" the Commissioner has proposed that we restrict recognition of foreign branches' currency gains and losses to what it refers to as "marked assets,"[8] or those assets (such as the foreign currency itself or a debt instrument) that "inherently change" in value with currency movements.[9] Assets which are not marked assets, referred to as "historic assets,"[10] such as land and machinery, will not be allowed to recognize currency gains and losses, and will have to use the historic exchange rate at which they were acquired for purposes of depreciation.[11]

Although the Commissioner is proud of the new regulations,[12] and clearly committed to finalizing them as soon as possible,[13] they have already generated significant opposition from taxpayers. Both the Tax Executives

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[4]    Nadal, *supra* note 2, at 3.

[5]    *See* Prop. Treas. Reg. § 1.987, 56 Fed. Reg. 48,434 (Sept. 25, 1991).

[6]    Prop. Treas. Reg. § 1.987, 71 Fed. Reg. 52,876, 52,879 (Sept. 7, 2006).

[7]    Lisa M. Nadal, *IRS Official Discusses Branch Currency Transaction Regs*, TAX NOTES TODAY, Oct. 3, 2006, at 2.

[8]    Prop. Treas. Reg. § 1.987-1(d), 71 Fed. Reg. 52,876 (Sept. 7, 2006).

[9]    *Id.* at § 1987-5 (discussing recognition of section 987 currency gains and losses).

[10]    *Id.* at § 1.987-1(e).

[11]    *Id.* at § 1.987-3(b)(2)(ii)(B).

[12]    Lisa M. Nadal, *CFC Regs Deliver Equitable Result, IRS Official Says*, TAX NOTES TODAY, Nov. 7, 2006, at 1 (quoting Michael DiFronzo, the IRS Deputy Associate Chief Counsel, as saying that the new regulations are a "vast improvement" over the old regulations).

[13]    Originally the IRS sought to finalize the proposed regulations during summer 2007. *See* Lisa M. Nadal, *IRS Official Discusses Transitional Issues Related to Proposed Regs on Branch Currency Transactions*, TAX NOTES TODAY, Dec. 8, 2006, at 1 (quoting Jeff Dorfman, one of the main drafters of the newly proposed section 987 regulations, as saying that he expects the regulations to be finalized as early as the summer of 2007). However, this time frame was pushed back, and the IRS was scheduled to begin work on finalizing these proposed regulations during summer 2008. *See* David D. Stewart, *IRS Will Take Up Branch Currency Transaction Regs This Summer, Official Says*, TAX NOTES TODAY, Apr. 10, 2008, at 1. The IRS has not finished finalizing these regulations, and has not yet given the public any indication of when it will be done finalizing them.

Institute (TEI)[14] and the American Institute of Certified Public Accountants (AICPA)[15] have issued comments on the newly proposed regulations that are highly critical of the entire approach of the new regulations.

In this article, I argue that the 2006 Proposed Regulations on section 987 are hopelessly flawed and should be withdrawn in favor of allowing the 1991 Proposed Regulations to be finalized. The Commissioner's concerns about taxpayer claims for artificial losses can be handled by adding an anti-abuse section to the 1991 Proposed Regulations. We need not throw the baby out with the bathwater.

I argue that there are four main reasons that the 2006 Proposed Regulations are flawed and should be rejected.

The first reason is that the regulations will impose a heavy and costly compliance burden upon taxpayers. Currently taxpayers do not keep track of the historic exchange rate at which they acquire assets because such information is not required for accounting purposes. Hence, taxpayers will have to mount an enormously labor-intensive effort to track down and trace the historic exchange rates of all of their thousands of depreciable assets in order to comply with these regulations. Moreover, in order to comply with the regulations going forward, corporations will have to hire software companies to create a new software tracking system for keeping track of such historic exchange rates for all of their "historic assets." The cost and difficulty of complying with this requirement is truly startling. Even the main drafter of the 2006 proposed regulations, Jeff Dorfman, admits that the compliance burden is significant: "Dorfman discussed the changes in calculating section 987 branch income and admitted that the calculations may add significant compliance burdens."[16]

The second reason that the 2006 proposed regulations are flawed is that they stand in direct contradiction to the statutory language and legislative intent of the currency provisions of the tax code. Section 985(a) explicitly states that "all determinations under this subtitle shall be made in the taxpayer's functional currency,"[17] whereas the 2006 regulations effectively put the taxpayer on the U.S. dollar for any calculations under section 987 that have to do with historic assets. And while section 985(a) does allow an

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[14]      *See* David Bernard, *TEI Suggests Changes to Proposed Branch Currency Transaction Regs*, TAX NOTES TODAY, Feb. 2, 2007, at 1.

[15]      Jeffery Hoops, *AICPA Seeks Reconsideration of Proposed Branch Currency Transaction Regs*, TAX NOTES TODAY, Apr. 6, 2007, at 1.

[16]      Lisa M. Nadal, *Tax Officials Discuss Cross-Border M&A Issues*, TAX NOTES TODAY, Oct. 24, 2006, at 3.

[17]      26 U.S.C. § 985(a) (2006).

exception where it is "otherwise provided in the regulations,"[18] it is hard to believe the Congress that enacted the Tax Reform Act of 1986 would have approved of the way in which the Commissioner has blatantly disregarded its wishes in this respect. As I shall explain in more detail in the next section of this article, Congress explicitly rejected the very method that the Commissioner is now proposing to use (the "net worth method") for the method that is implemented in the 1991 Proposed Regulations (the "profit and loss method").[19] Such blatant disregard for legislative intent will likely galvanize taxpayers to challenge the 2006 Proposed Regulations in court just as soon as they become effective—as well they should.

These first two reasons have already appeared in the comments on the newly proposed regulations by the TEI and the AICPA.[20] Hence, I will only briefly touch upon these arguments in Part II of this article, in which I briefly survey the history of U.S. taxation of currency gains and losses up to and including the 2006 Proposed Regulations on section 987. Although the early case law on taxation of currency gains and losses has little to offer in the way of shedding light on the subject matter of the 987 regulations, I review it in order to show how far the law has come since it was mired in chaos and confusion prior to 1986. It would not be in either the taxpayers' or the government's interests to return to such chaos and confusion. Yet the Commissioner seems to be inviting just that with these newly proposed regulations, which attempt to cast aside the "profit and loss" method selected by Congress in the Tax Reform Act of 1986, which has been the governing method for taxpayers for over 20 years.[21]

In Part III, I lay out the main argument of this article, containing my third and fourth objections to the newly proposed section 987 regulations. My third objection to the proposed regulations is that they will put U.S. corporations with foreign branches at a competitive disadvantage vis-à-vis their foreign competitors because of the disadvantageous depreciation schedule that the U.S. corporations will have in comparison to their foreign rivals.

My fourth objection to the proposed regulations is that they create a very dubious distinction between "marked assets," on the one hand, as assets that move up and down with the exchange rate, and "historic assets," on the

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[18]     *Id.*

[19]     *See infra* Parts II.B and II.C for further explanation of these two methods and the history surrounding them.

[20]     *See* David Bernard, *TEI Suggests Changes to Proposed Branch Currency Transaction Regs*, TAX NOTES TODAY, Feb. 2, 2007, at 1; Jeffery Hoops, *AICPA Seeks Reconsideration of Proposed Branch Currency Transaction Regs*, TAX NOTES TODAY, Apr. 6, 2007, at 1.

[21]     Rev. Rul. 75-107, 1975-1 C.B. 32.

other hand, as assets that do not vary with the exchange rate. I analyze this assumption in light of empirical data and macroeconomic theories in order to determine whether it is empirically valid and theoretically sound. I conclude that it is neither. Significant amounts of empirical economic data indicate that the value of historic assets like real estate and buildings do in fact vary with the exchange rate—sometimes by affecting it, and sometimes by being affected by it. I shall explore such data as well as some macroeconomic theories that shed some light on why historic assets vary with the exchange rate in an effort to demonstrate that the distinction between marked assets and historic assets is artificial and empirically suspect.

## II. A BRIEF HISTORY OF U.S. TAXATION OF CURRENCY GAINS AND LOSSES

For many decades before the enactment of the Tax Reform Act of 1986, there was a great deal of confusion about the proper method for taxing currency gains and losses. Much of this chaos was created by contradictory court decisions on the subject. However, the IRS's administrative response to this confusion in two different revenue rulings created yet more confusion by endorsing two totally different methods for accounting for currency gains and losses. Against this backdrop of increasing incoherence, Congress finally stepped in and created the current statutory regime by enacting sections 985 through 989 of the 1986 Tax Code.[22] In order to understand why Congress structured the statute in the way it did, though, it is helpful to retrace the historical path through which the taxation of currency gains and losses traveled.

### A. *Chaos in the Courts: The Early Case Law on Taxation of Currency Gains and Losses*[23]

#### 1. BOWERS V. KERBAUGH-EMPIRE CO.

In *Bowers v. Kerbaugh-Empire Company*,[24] the Supreme Court heard a case in which the taxpayer borrowed 8 million Deutsche Mark (DM) at about an exchange rate of DM 4: USD 1 (approximately $2 million in U.S. dollars)

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[22]     26 U.S.C. §§ 985–89 (2000).

[23]     My analysis of these four cases draws on, and has benefited from, a lecture on them by: Professor Richard Andersen, in International Tax II, at New York University School of Law, in New York, N.Y. (September 13, 2006).

[24]     271 U.S. 170 (1926).

and lent them to an affiliate to fund German projects.[25] The taxpayer repaid the loans when the exchange rate was approximately DM 40: USD 1 (approximately $200,000 in U.S. dollars).[26] From an economic perspective, the taxpayer was able to repay the debt at 10 percent of its original cost. In other words, the taxpayer was able to eliminate $1.8 million or 90 percent of its original debt due to the favorable currency exchange rate. However, the Supreme Court declined to find that there was any taxable transaction as a result of this fortuitous depreciation of the Deutsche Mark vis-à-vis the dollar.[27]

## 2. B.F. GOODRICH CO. V. COMMISSIONER

*B.F. Goodrich Co. v. Commissioner*[28] was similar to *Kerbaugh-Empire* and was similarly decided. The taxpayer borrowed 11 million French francs (FRF) at about FRF 17: USD 1 and then lent them to an affiliate.[29] The taxpayer then repaid the loans when the FF had fallen to about FRF 21: USD 1.[30] The tax court held that the approximately $300,000 exchange gain was not taxable, likening the French francs to "bars of metal" that were taken out of the bank and then replaced, wherein the Court could not see how the transaction could be seen as "an acquisition of property at one price and a disposition at another."[31]

But the Court's reasoning was flawed. For this is precisely what occurred, and this is precisely how we view currency transactions today—as acquisition of an asset at one price, and disposition of the asset at another price. Although the *Kerbaugh-Empire* and *B.F. Goodrich* decisions were followed for a while,[32] that line of cases has been discredited today, as the law recognizes that the taxpayers in these situations did indeed enjoy a taxable gain.[33]

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[25] *Id.* at 172.

[26] *Id.* at 173.

[27] *Id.* at 175.

[28] 1 T.C. 1098 (1943).

[29] *Id.* at 1102.

[30] *Id.*

[31] *Id.* at 1103–04.

[32] *See id.* at 1098.

[33] *See* Phillip Morris, Inc. v. Comm'r, 104 T.C. 61, 67 (1995) (noting that the *Kerbaugh-Empire* line of cases is acknowledged as invalid today). *See also* Vukasovich, Inc. v. Comm'r, 790 F.2d 1409 (9th Cir. 1986), *aff'd in part and rev'd in part*, T.C.M. 1984–611.; National-Standard Co. v. Comm'r, 80 T.C. 551, 568-569 (1983) (Tannenwald, J., dissenting), *aff'd*, 749 F.2d 369 (6th Cir. 1984); Willard Helburn, Inc. v. Comm'r, 20 T.C. 740 (1953), *aff'd*, 214 F.2d 815 (1st Cir. 1954).

### 3. KVP SUTHERLAND PAPER CO. V. UNITED STATES

If the Courts in *Kerbaugh-Empire* and *B.F. Goodrich* were too hesitant to recognize a taxable transaction, the Court in *KVP Sutherland Paper*[34] went too far to the other extreme. The taxpayer here bought equipment with U.S. dollars and then shipped the equipment to its Canadian affiliate to construct a paper mill in Canada.[35] The taxpayer then bought Canadian dollars with U.S. dollars and advanced the money to its Canadian affiliate.[36] Later, the taxpayer borrowed $9 million in U.S. dollars and loaned the funds to its Canadian affiliate in Canadian dollars.[37] The affiliate later repaid the advances in Canadian dollars to the taxpayer, who then converted them into U.S. dollars and repaid the U.S. dollar loans.[38]

The taxpayer contended it should not recognize gain on its receipt of the payments of the loans in Canadian dollars, but rather should recognize the entire gain—currency and otherwise—when it disposed of the Canadian dollars by converting them to U.S. dollars because the Canadian dollars were still experiencing fluctuations with respect to the U.S. dollars before the taxpayer disposed of them.[39] The Court rejected this position, though, holding that the taxpayer recognized gain upon the repayment of the loans in Canadian dollars.[40]

The Court pulled the trigger a little too soon in this case. The taxpayer's arguments were correct. The taxpayer should not have recognized gain upon repayment of the notes in Canadian dollars, for, as the taxpayer pointed out, those Canadian currency assets were still subject to fluctuation with respect to the dollar. The current statutory regime sides with the taxpayer and does not find that there is a recognition event until the taxpayer disposes of the foreign currency (either by converting the currency into U.S. dollars or by purchasing another asset with the foreign currency).[41]

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[34]    170 Ct. Cl. 215 (1965).
[35]    *Id.* at 216.
[36]    *Id.*
[37]    *Id.* at 217.
[38]    *Id.* at 217–18.
[39]    *Id.* at 222.
[40]    *Id.* at 226.
[41]    *See* Treas. Reg. § 1.988-2(a)(1)(iv) (1986) (giving an example where the taxpayer does not recognize gain in foreign currency until he disposes of it by buying inventory).

## 4. INTERNATIONAL FLAVORS & FRAGRANCES V. COMMISSIONER

In *International Flavors & Fragrances*,[42] the taxpayer (IFF) sought to hedge the pound sterling (GBP) exposure of its U.K. affiliate in the group's consolidated financial statements.[43] With pound sterling at GBP 1: USD 2.80, IFF sold GBP 1.1 million forward at about GBP 1: USD 2.75 to settle with its counterparty, the First National City Bank of New York (FNCB), in January 1968.[44] In essence, by entering into the forward contract, IFF was betting that the price of pound sterling would go down (because if it went up, IFF would lose out in the contract), whereas IFF's counterparty, FNCB, was betting that the price of sterling would go up (because FNCB, in turn, would lose out if it went down).[45] One of them would be wrong, of course, but those were the risks each party had presumably calculated and was willing to take by entering into the contract.[46]

In November 1967, pound sterling devalued to about PD 1: USD 2.40.[47] Hence, the taxpayer had won the bet, and FNCB had lost. IFF was correct about the movement of the exchange rates in this situation. However, there was still time left (about two months) before IFF had to pay up, so IFF wanted to lock in the gain that it had in November without waiting to see if pound sterling devalued any further or went back up and erased its previous gains. So IFF sold the forward contract to another party, Amsterdam Overseas Corp (AOC), for $387,000.[48] AOC, in turn, closed out the contract with FNCB and made a profit of $10,210.[49]

IFF argued that its $387,000 gain from the sale of the forward contract was long-term capital gain from the sale of a capital asset (i.e., the contract).[50] The Commissioner argued that the sale was a hedging transaction and that the gain should have been taxed as ordinary income.[51] The Tax Court issued a 4-3 split decision, with the majority arguing that the taxpayer had ordinary income under the *Corn Products*[52] doctrine because, as the Commissioner

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[42]     62 T.C. 232 (1974).
[43]     *Id.* at 233.
[44]     *Id.* at 234.
[45]     RICHARD A. BREALEY & STEWART C. MYERS, PRINCIPLES OF CORPORATE FINANCE 773 (2003).
[46]     *Id.*
[47]     *International Flavors*, 62 T.C. at 233.
[48]     *Id.* at 234–35.
[49]     *Id.* at 235.
[50]     *Id.* at 237.
[51]     *Id.*
[52]     Corn Products Co. v. Comm'r, 350 U.S. 46 (1955).

argued, it was a "hedge against the risk of future losses of income," and not an "investment" in a capital asset.[53] On appeal, the Commissioner rejected the argument upon which it had earlier won (i.e., the *Corn Products* argument), and instead adopted the approach of the concurring Justice Tannenwald, who had argued that the gain from the sale was short-term capital gain because he found that AOC was acting as an agent of IFF by buying the pound sterling that it needed to cover the forward contract with FNCB simultaneously with buying the contract from IFF.[54] The Second Circuit, though, found this argument untimely on appeal because its resolution depended on factual findings that the Tax Court had not made.[55] Given the Commissioner's change of position, the Court declined to resolve the issue of law, and remanded the case back to the Tax Court without deciding the issue.[56]

The Tax Court found on remand that AOC was not acting as an agent of IFF, and that the sale between IFF and AOC was in fact a bona fide sale, and that, thus, the gain from the sale of the transaction was long-term capital gain.[57] Although the issue was ultimately decided in favor of the taxpayer, what is significant about *International Flavors & Fragrances* is the enormous amount of confusion it generated even amongst and between the IRS attorneys (reversing their position), the initial Tax Court decision (split 1-3-3), the appeal (undecided), and the remand, which basically constituted another change of mind on the part of the Tax Court. The parties were genuinely confused about how to characterize currency gain at an almost metaphysical level: What is currency gain? Is buying foreign currency an investment in a capital asset, like buying stock in a foreign company? Or, as the Commissioner maintained, is it avoidance of losses to ordinary income?

Under current law, the debate has been resolved in favor of viewing currency gains and losses as ordinary income,[58] except when they are part of a section 1256 straddle contract, in which case they are subject to being marked-to-market annually, with the consequent gain or loss treated as 40 percent short-term capital gain or loss and 60 percent long-term capital gain or loss.[59] Providing reasons for the ordinary income treatment, Congress explained that it considered any currency gain or loss to partially reflect an

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[53]     *International Flavors*, 62 T.C. at 239–40.
[54]     *Id.* at 359–60.
[55]     *Id.* at 360.
[56]     *Id.*
[57]     International Flavors & Fragrances v. Commissioner, 36 T.C.M. (CCH) 260 (1977) [hereinafter *International Flavors II*].
[58]     26 U.S.C. § 988(a)(1)(A) (2000).
[59]     26 U.S.C. § 1256(a)(3) (2000).

interest rate component.[60] In explaining this, Congress agreed with commentators who had argued that "a loan denominated in a foreign currency may reflect a 'true' U.S.-dollar interest rate plus an anticipated annual exchange gain or loss."[61] However, as I shall discuss in Part III.B.2.a below, the economic theory upon which this determination was made may be flawed—economists have rejected the prevailing exchange rate theories of the 1970s and 1980s (upon which the congressional committee's comments rely), and are currently rebuilding their theory of exchange rate determinants, without much consensus.[62] At any rate, the statutory law on the matter is fixed at this point, which is more than can be said for the state of the law in 1975, when the Treasury attempted to address taxpayers' confusion over how to treat foreign currency gains and losses of foreign branches with two revenue rulings.

### B. *The IRS's Administrative Response: Revenue Ruling 75-106 and Revenue Ruling 75-107*

### 1. REVENUE RULING 75-106 AND THE "NET WORTH METHOD"

Under Revenue Ruling 75-106, the IRS allowed taxpayers to use a "net worth method" to compute the currency gains and losses of its foreign branches.[63] Under this method, "taxable income of a branch of a domestic corporation engaged in business in a foreign country is defined generally as the difference between the branch's opening and closing net worth as reflected on the branch's balance sheets for the taxable year."[64] The net worth method started with the branch's balance sheet and translated it into

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[60]     STAFF OF J. COMM. ON TAXATION, 100TH CONG., GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1986 1067, 1087 (Comm. Print 1987) (citing New York State Bar Association's Ad Hoc Committee on Original Issue Discount and Coupon Stripping, *Preliminary Report on Issues to be Addressed in Regulations and Corrective Legislation*, TAX NOTES, Mar. 5, 1984 at 993–1034).

[61]     *Id.*

[62]     *See* EXCHANGE RATE ECONOMICS: WHERE DO WE STAND? xi–xv (Paul De Grauwe ed., CESifo Seminar Series 2005) (citing R. Meese & K. Rogoff, *Empirical Exchange Rate Models of the Seventies: Do They Fit Out of Sample?*, 14 J. INT'L ECON. 3, 3–24 (1983) (demonstrating that none of the exchange rate models had any predictive power compared to a random model)). *See also* EXCHANGE RATE DYNAMICS: A NEW OPEN ECONOMY MACROECONOMICS PERSPECTIVE xv–xvi (Jean-Olivier Hairault & Thepthida Sopraseuth eds., Routledge Taylor & Francis Group 2004) (discussing the heterogeneous methods employed even within one subgroup of economists attacking the exchange rate problem) (citing M. Obstfeld & K. Rogoff, *The Six Major Puzzles In International Macroeconomics: Is There A Common Cause?* 339–90 (National Bureau of Econ. Research, Working Paper No. W7777, 2000)).

[63]     Rev. Rul. 75-106, 1975-1 C.B. 31.

[64]     Prop. Treas. Reg. § 1.987, 71 Fed. Reg. 52,876, 52,877 (Sept. 7, 2006) (discussing prior law).

U.S. dollars.[65] Thus, generally, "the values of current items (such as cash or cash flows denominated in foreign currency) are translated at the year-end exchange rate, and the values of historical items (such as equipment) are translated at the exchange rate for the period in which the item was acquired or incurred."[66] In this way, "[t]he translation of an item at the year-end rate causes changes in the item's value due to currency fluctuations to be taken into account annually, and the translation of an item at the *historical exchange rate* generally *precludes recognition of fluctuations in value* due to changing exchange rates."[67]

This revenue ruling has gained renewed importance now (despite being officially disavowed by the Service[68]) because the Treasury draws upon its methodology as the backbone of its newly proposed section 987 currency regulations. Whether the IRS is justified in doing so is questionable, given the legislative history of the Tax Reform Act of 1986. I shall return to this in the next section.

## 2. REVENUE RULING 75-107 AND THE "PROFIT AND LOSS METHOD"

Under the "profit and loss" method of Revenue Ruling 75-107,[69] taxpayers were allowed to have their branch compute "taxable income by translating the local currency profit and loss statement (adjusted for U.S. tax principles) into dollars."[70] Any "portion of the profit and loss remitted to the home office during the year is translated at the exchange rate on the date of remittance, and the remainder is translated at the year-end exchange rate," but "[n]o exchange gain or loss is recognized on a remittance."[71] The Service currently believes that the "profit and loss" method represented in Revenue Ruling 75-107 was flawed because it "did not take into account foreign currency gain and loss inherent in the assets and liabilities on the balance sheets,"[72] as did Revenue Ruling 75-106. However, the 1986 Congress disagreed with the Service's current preferences as between these two methods.

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[65]  *Id.*

[66]  *Id.*

[67]  *Id.* (emphasis added).

[68]  *See* Rev. Rul. 2003-99, 2003-34 IRB 388 (withdrawing Revenue Ruling 75-106).

[69]  Rev. Rul. 75-107, 1975-1 C.B. 32.

[70]  Prop. Treas. Reg. § 1.987, 71 Fed. Reg. 52,876, 52,877–78 (Sept. 7, 2006) (discussing prior law).

[71]  *Id.*

[72]  *Id.* at 52,878.

C. *Congressional Reaction: Enactment of the Subpart J Rules Governing the Taxation of Currency Transactions in the Tax Reform Act of 1986*

## 1. CONGRESSIONAL DISSATISFACTION WITH THE NET WORTH METHOD AND ADOPTION OF THE PROFIT AND LOSS METHOD

In its explanation of the Tax Reform Act of 1986, Congress explicitly rejected the "net worth" method of Revenue Ruling 75-106 (and the currently proposed section 987 regulations) in a section entitled "Adoption of the profit-and-loss method."[73] This section is quoted in full to demonstrate just how forthright Congress was in rejecting the net worth method and adopting the profit and loss method:

*Adoption of profit-and-loss method*
The Congress was concerned about the implicit election enjoyed by CFCs to recognize net exchange losses, and thereby distort the calculation of the deemed-paid foreign tax credit. Account was taken of the argument that the electivity achieved by deciding when to trigger income that would be includible under subpart F could be addressed by requiring an irrevocable election to use a profit and loss method or a net worth method. In considering this option, it was noted that exchange rate fluctuations with respect to certain currencies are predictable with considerable accuracy (e.g., the continuing depreciation of the Brazilian cruzado relative to the U.S. dollar). A taxpayer almost always would elect the net worth method for operations in a country with a weak currency (to accelerate losses) and the profit and loss method for operations in a country with a strong currency (to defer gain). Further, *the results achieved under a net worth method are inconsistent with general Federal income tax principles that proscribe the recognition of gains and losses until realized.*

*A profit and loss method can be viewed as being more consistent with the functional currency concept than a net worth method. Under a profit and loss method, the functional currency is used as the measure of income or loss, so that earnings determined for U.S. tax purposes bear a close relation to taxable income computed by the foreign jurisdiction. Further, a profit and loss method minimizes the accounting procedures that otherwise would be*

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[73]    STAFF OF J. COMM. ON TAXATION, 100TH CONG., GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1986 1068, 1089–90 (Comm. Print 1987).

*required to make item-by-item translations under a net worth method.*
Finally, in the case of a branch, the net worth method as applied
under prior law failed to characterize accurately items of income or
loss that were subject to special U.S. tax rules. For example,
although there are limitations on the deductibility of long-term
capital losses, such a loss incurred by a branch would be given tax
effect because it would be reflected as an adjustment to the balance
sheet. Nonetheless, the Act authorizes regulations to prescribe an
approximate separate transactions method that does not accelerate
the recognition of exchange gain or loss, for application in limited
circumstances.[74]

As is clear from its statement, Congress knew exactly what it was doing
when it adopted the profit and loss method and rejected the net worth
method. It could not be more clear. It states: "the results achieved under a
net worth method are inconsistent with general Federal income tax
principles that proscribe the recognition of gains and losses until realized."[75]

In addition to its concerns about being whipsawed by taxpayers' cherry
picking either one of the two methods that was most favorable to them,
Congress indicated several reasons that are as relevant today as they were in
1986. Specifically, Congress indicated that "a profit and loss method
*minimizes the accounting procedures that otherwise would be required to make item-by-
item translations under a net worth method.*"[76] This is relevant today, for, as shall
be seen below, taxpayers and practitioners have not been pleased with the
level of administrative compliance burdensomeness that these new
regulations will require of them. Congress specifically indicated that it did
not want this to happen when it stated in the above quotation that it wanted
to "minimize the accounting procedures that would be required to make *item
by item* translations under a net worth method."[77]

It is important to bring up this legislative history because the Service
shockingly contends in the preamble to the proposed section 987 regulations
that they are not inconsistent with the legislative history of the 1986 Code.
After acknowledging that the Congress adopted the profit and loss method
as described above, the Treasury states: "However, this legislative history is
not properly read as an explicit rejection of the net worth method in its
entirety. Instead, it is more accurately viewed as a rejection of certain aspects

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[74] *Id.* (emphasis added).
[75] *Id.*
[76] *Id.* (emphasis added).
[77] *Id.* (emphasis added).

of the law prevailing at that time."[78] The Service does not explain how it reaches this conclusion. Given the explicit language of the legislative history, it is strange that the Service even attempted to claim that the newly proposed regulations are consistent with the legislative history. They are not.

## 2. BRIEF EXPLANATION OF THE CURRENT STATUTORY REGIME GOVERNING CURRENCY GAINS AND LOSSES

The Tax Reform Act (TRA) of 1986 provided much needed guidance on the taxation of currency gains and losses in what are now sections 985 through 989 of the Code.[79] The statutory regime is very complex and a thorough exposition of its provisions is beyond the scope of this article, especially as others have already provided excellent summaries of its scope and significance.[80]

I mention here only a basic outline of its contents as they are relevant to my current inquiry. The TRA of 1986 introduced two very important concepts in the taxation of foreign branches of a U.S. corporation: the "Qualified Business Unit,"[81] (QBU) and the "functional currency" (FC) of the QBU.[82] An FC is defined as "the currency of the economic environment in which a significant part of such unit's activities are conducted and which is used by such unit in keeping its books and records."[83] A QBU is "any separate and clearly identified unit of a trade or business of a taxpayer which maintains separate books and records."[84] Hence, a multinational corporation (MNC) taxpayer could have a branch in France that had an office in Luxembourg and an office in Paris, and, if the offices kept their books in different functional currencies, the offices could each be a QBU. This makes accounting for currency translation easier because each QBU could keep track of its currency translations separately, according to its own books.

The third important concept that the TRA of 1986 introduced was that of a "section 988 transaction."[85] A section 988 transaction was defined as one of four different kinds of transactions: (1) "the acquisition of a debt

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[78]    Prop. Treas. Reg. § 1.987, 71 Fed. Reg. 52876, 52877–78 (Sept. 7, 2006) (discussing prior law).
[79]    26 U.S.C. §§ 985–89 (2000).
[80]    *See e.g.,* LaBrenda Garrett Stodghill, *Taxing the Yen for Foreign Currency: The Statutory Regime,* 7 VA. TAX REV. 57, 57–120 (1987).
[81]    26 U.S.C. § 989(a).
[82]    *Id.* at § 985(b).
[83]    *Id.*
[84]    *Id.* at § 989(a).
[85]    *Id.* at § 988(c)(1).

instrument or becoming an obligor under a debt instrument";[86] (2) "accruing for purposes of this subtitle any item of expense or gross income or receipts which is to be paid or received after the date on which so accrued or taken into account";[87] (3) "entering into or acquiring any forward contract, futures contract, option, or similar financial instrument";[88] or (4) "disposition of any nonfunctional currency."[89] These different aspects of what constitutes a section 988 transaction have taken on increased importance now because of the way that the newly proposed section 987 currency regulations define a marked asset—as something that is not a section 988 transaction with respect to the QBU (because it is in its own FC), but is a section 988 transaction if held by the QBU's parent.[90] Armed with these basic currency taxation concepts, an analysis of the newly proposed section 987 currency regulations and their shortcomings is appropriate.

## III. CRITIQUE OF THE NEWLY PROPOSED SECTION 987 CURRENCY REGULATIONS

In support of, and in addition to, the Taxpayer Executives Institute (TEI) and the American Institute of Certified Public Accountants (AICPA) critiques of the newly proposed section 987 currency regulations,[91] which focus on the administrative compliance burdens that the new regulations will entail (and the lack of statutory authority, as explained above), I offer the following two arguments against these regulations.

My first argument against the 2006 Proposed Regulations is that the distinction between historic assets and marked assets will disadvantage U.S. corporations vis-à-vis foreign corporations because of the less advantageous depreciation schedule that historic assets will be placed on in comparison to the depreciation schedule that foreign competitors will enjoy. My second argument against the 2006 Proposed Regulations is that empirical evidence contradicts the Treasury's position that historic assets do not vary with the exchange rate.

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[86]    *Id.* at § 988(c)(1)(B)(i).

[87]    *Id.* at § 988(c)(1)(B)(ii).

[88]    *Id.* at § 988(c)(1)(B)(iii).

[89]    *Id.* at § 988(c)(1)(C)(i).

[90]    Prop. Treas. Reg. § 1-987(1)(d), 71 Fed. Reg. 52,876, 52,896 (Sept. 7, 2006).

[91]    Bernard, *supra* note 14; Hoops, *supra* note 15.

A. *The Distinction between Historic Assets and Marked Assets Will Put U.S. Corporations' Branches at a Competitive Disadvantage*

If the Treasury implements the newly proposed section 987 regulations, U.S. corporations with branches overseas will be put at a competitive disadvantage vis a vis their foreign competitors. A simple example demonstrates this point. Suppose there is a U.S. corporation, X, that opens an overseas branch that begins operating in France on January 1, 2008. X is in a business that puts it in competition with a French corporation, Y, which is also operating in France.

Suppose that on January 1, 2008, X buys a manufacturing plant, A, to support its operations in France for 100 euros (EUR). Y also buys a manufacturing plant, B, to support its operations in France, also for 100 euros. Suppose also that X and Y each earn 100 euros of profit each year for ten years. Suppose further that they are both taxed on this profit at a rate of 35 percent each year in both France and the U.S. Assume the building becomes worthless after 10 years. Assume further that both X and Y are entitled to depreciation on their buildings of 10 euros per year for 10 years under French law.

On January 1, 2008, assume that the exchange rate between the U.S. dollar and the euro is EUR 1: USD 1. For simplicity, assume that the exchange rate stays at this rate all year long. On January 1, 2009, assume that the exchange rate between the euro and the U.S. dollar is 1.5 to 1 (i.e., it takes $1.50 in U.S. dollars to buy 1 euro). Assume further that the exchange rate stays at this rate for the next 10 years, during the depreciable life of the buildings. Under the 1991 Proposed Regulations on section 987, X would have been able to depreciate A at a rate of 10 euros per year as well.[92] However, under the 2006 Proposed Regulations on section 987, since A is an historic asset, X will have to depreciate A at the historic exchange rate at which it acquired A, i.e., at EUR 100 = USD 100, or USD 10 per year.[93] This places X at a competitive disadvantage to Y over time, as demonstrated in Figure 1 below.

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[92]    *See* Prop. Treas. Reg. § 1.987-1(b)(1)(i), 56 Fed. Reg. 48,457, 48,460 (Sept. 25, 1991) (allowing taxpayer to initially compute profit and loss statement of a QBU in that QBU's functional currency before translating it into U.S. dollars).

[93]    *Id.* at § 1.987-3(b)(2)(ii)(B).

**Figure 1**
**U.S. Corporations at Comparative Disadvantage**
**to Foreign Corporations Under New Section 987 Regulations**

| Tax Year | Accounting Event | Exchange Rate: USD / € | X – 2006 Prop Regs | X – 1991 Prop Regs | Y |
|---|---|---|---|---|---|
| 2008 | Profit | @ 1:1 | €100 = USD 100 | €100 = USD 100 | €100 |
| | Depreciation | @ 1:1 | €10 @ 1:1 = USD 10 | €10 @ 1:1 = USD 10 | €10 |
| | Net income | --- | USD 90 | USD 90 | €90 |
| | Foreign tax @ 35% | @ 1:1 | €31.5 | €31.5 | €31.5 |
| | U.S. tax | | 0 | 0 | -- |
| | Profit after tax | --- | €58.5 | €58.5 | €58.5 |
| 2009 | Foreign gross income | --- | €100 | €100 | €100 |
| | Depreciation under foreign tax law | --- | €10 | €10 | €10 |
| | Net income under foreign tax law | -- | €90 | €90 | €90 |
| | Foreign tax | --- | €31.5 | €31.5 | €31.5 |
| | Economic situation after foreign tax | --- | €58.5 | €58.5 | €58.5 |
| | U.S. gross income | @ 1.5:1 | €100 = USD 150 | €100 = USD 150 | --- |
| | Depreciation under U.S. tax law | Varies... | €10 = USD 10 | €10 = USD 15 | --- |
| | U.S. net income under U.S. tax law | --- | USD 140 | USD 135 | --- |
| | U.S. tax @ 35% | --- | USD 49 | USD 47.25 | --- |
| | Foreign tax credit | @ 1.5:1 | €31.5 = USD 47.25 | €31.5 = USD 47.25 | --- |
| | U.S. tax | --- | USD 1.75 | 0 | --- |
| | Economic situation after all taxes | --- | USD 86.00 = €57.33 | USD 87.75 = €58.5 | €58.5 |
| 2010 to 2017 | Economic situation after all taxes | --- | USD 86.00 = €57.33 | USD 87.75 = €58.5 | €58.5 |
| Total | Economic situation after asset becomes worthless | N/A | USD 861.75 = €574.50 | USD 877.50 = €585 | €585 |

As Figure 1 demonstrates,[94] X is being overtaxed under the newly proposed 987 regulations because U.S. tax law is not granting X the full amount of depreciation to which it is entitled. In this fact pattern, there should be no difference between the economic situation of X and Y after ten years: they have both used an asset, the building, to generate 1000 euros of profit over 10 years. The asset is now worthless. Their foreign tax in France is the same. Yet, under the newly proposed section 987 regulations, U.S. tax law puts X in a worse situation than Y because the newly proposed section 987 regulations create a disparity between how X is depreciating its assets as compared to how Y is depreciating its assets. Although both X and Y will be given the same depreciation schedule under foreign law, the U.S. tax law will not give X the full credit for this result because it forces X to depreciate the building at the historic exchange rate at which it bought the building.

Every year, this difference in treatment between X and Y results in X being overtaxed by $1.75 because X is on a less favorable depreciation schedule than Y. Over the life of the asset, this results in $15.75 of over-taxation. After ten years, when the asset has become worthless, X and Y have exactly the same economic history, so they should be in the same economic situation. Yet they are not. Their economic history is as follows: (1) they have both used an asset for 10 years, producing a gross profit of 1000 euros for the entire 10 years; (2) they both invested 100 euros to make this profit, resulting in 900 euros of net profit; and (3) they were each taxed by the French government at 35 percent on this 900 euros (315 euros), for an after-tax profit of 585 euros. As Figure 1 demonstrates, the 1991 Proposed Regulations produce the right economic result: they put X in the same economic situation as Y after 10 years.

Strangely, though, the 2006 Proposed Regulations put X in a worse economic situation after 10 years, despite the fact that they have an identical economic history. Under the 2006 Proposed Regulations, after 10 years, X has only 574.5 euros in comparison to Y's 585 euros. This is the wrong result, both theoretically and pragmatically. Theoretically, this result is inconsistent with sound tax policy because it violates principles of horizontal equity (i.e., taxpayers similarly situated should be taxed similarly). Pragmatically, it is undesirable because it puts U.S. corporations operating in branch form overseas at a competitive disadvantage vis-à-vis foreign corporations.

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[94]    The calculations in Figure 1 are based upon the following authority. The calculation of income and loss for X under the 2006 proposed regulation scenario is based upon the method of computation outlined for these regulations in Prop. Treas. Reg. §§ 1.987-4, 1.987-5, 71 Fed. Reg. 52,876, 52,909 (Sept. 7, 2006). The calculation of income and loss for X under the 1991 proposed regulation scenario is based upon the method of computation outlined for those regulations in Prop. Treas. Reg. § 1.987-2, 56 Fed. Reg. 48,461 (Sept. 25, 1991). The calculation of foreign tax credits is based upon 26 U.S.C. § 904(a) (2006) and Treas. Reg. § 1.904 (2007).

B. *The Distinction between Historic Assets and Marked Assets is Empirically Invalid*

This section will present empirical evidence that severely undermines the Treasury's contention that historic assets do not experience real economic currency gain or loss.[95] Ideally, the best challenge to this position would present evidence that demonstrates that the kinds of assets that the Treasury considers to be "historic assets" are just as vulnerable to, or interconnected with, currency exchange rate movements as are those kinds of assets that the Treasury labels "marked assets."[96] However, the economic literature that discusses the currency exchange rate (and the factors that interact with it) does not offer any studies that are so precisely tailored to my argument.

Nonetheless, there are two subsets of this literature which offer compelling evidence that the Treasury's argument is empirically invalid. The first subset is narrower than the Treasury's definition of historic asssets, dealing primarily with the relationship between the real estate market and the currency exchange rate. The second subset is broader than the Treasury's definition of historic assets, dealing primarily with the relationship between non-tradable goods and the currency exchange rate.

I will first discuss several studies that analyze the relationship between the market for real estate in a country and that country's currency exchange rate. These studies are helpful because real estate usually makes up a significant percentage of almost all multinational corporations' historic assets. After considering the specific link between real estate and the currency exchange rate, I will broaden my inquiry to include the second subset of economic literature dealing with non-tradable goods to see if there is a larger macroeconomic explanation for why the Treasury's distinction between historic assets and marked assets is invalid.

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[95]     Prop. Treas. Reg. § 1.987, 71 Fed. Reg. 52,876, 52,879 (Sept. 7, 2006).
[96]     Prop. Treas. Reg. § 1.987-1(d), 71 Fed. Reg. 52,876 (Sept. 7, 2006).

## 1. EMPIRICAL EVIDENCE ON THE RELATIONSHIP BETWEEN THE REAL ESTATE MARKET AND FOREIGN EXCHANGE RATES

### a. INTRODUCTION

Under the 2006 Proposed Regulations on section 987, real estate is a quintessential example of an historic asset.[97] If these regulations become final, the Treasury will not allow foreign branches of U.S. corporations to recognize currency gains or losses with respect to their foreign real estate holdings. The Treasury's justification for this rule is based upon the assumption that real estate holdings are not as affected by fluctuations in the currency exchange rate as are marked assets, such as the foreign currency itself, and other financial assets, such as obligations, forward contracts, options, and the like.[98] However, this assumption demonstrates a lack of understanding of how the global capital markets function within the global economy. Money supplies and capital flows do not operate nicely and squarely within confined boundaries of "marked assets"—rather, capital flows are diversified in investors' portfolios into all kinds of assets, including historic assets such as real estate.[99] Indeed, real estate holdings can even play a significant and fundamental role in the health of a nation's entire economy—especially those of developing countries.

### b. THE RELATIONSHIP BETWEEN THE REAL ESTATE MARKET, COMMERCIAL BANKS, ECONOMIC GROWTH, AND THE CURRENCY EXCHANGE RATE IN THE ASIAN ECONOMIC CRISIS OF 1997-1998

A good example of this is how the real estate market played a significant role in the rise and fall of several Asian economies in the 1990s. In 1998, after a long period of economic growth, the Japanese economy and several other Asian economies crashed, causing their currency exchange rates to drop precipitously, as shown in Figure 2 below. Several scholars have analyzed the relationship between international capital flows to these countries, their real estate markets, their economic growth, and their currency exchange rates during this time period in an effort to understand what caused these seemingly strong economies to suddenly implode.[100]

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[97]     *Id.* at § 1.987-1(e).

[98]     *See supra* notes 6–11 and citations therein.

[99]     *See infra* Part III.B.1.b and citations therein; *see also infra* notes 200 and 201 and citations therein.

[100]     *See* Brian L. Bentick & Mervyn K. Lewis, *Real Estate Speculation as a Source of Banking and*

**Figure 2[101]**

Selected Asian Countries: External Indicators
(End of period)



Exchange rates (January 1991=100)

Exchange rates (January 1991=100)

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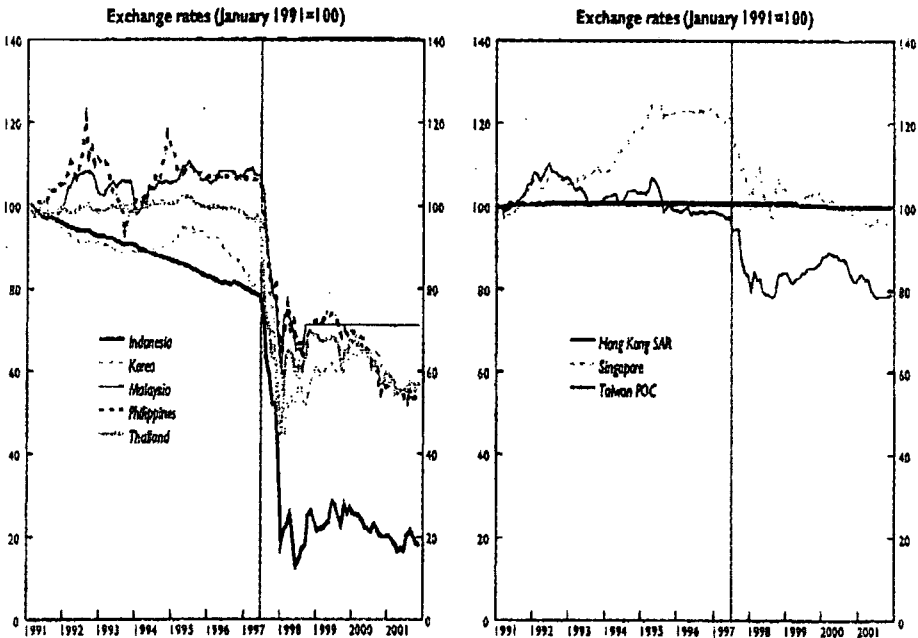
*Currency Instability: Lessons from the Asian Crisis*, Centre for International Economic Studies, Discussion Paper No. 0318 (July 2003), *available at* http://www.adelaide.edu.au/cies/papers/0318.pdf (last visited Sept. 19, 2008) (this article subsequently appeared in 14(2) ECON. & LABOUR RELATIONS REV. 256 (2004)). However, the analysis of Bentick and Lewis is corroborated by many other scholars. Several other scholars are cited to fill in gaps in Bentick and Lewis's account or to corroborate their account. *See generally* Charles Collyns & Abdelhak Senhadji, *Lending Booms, Real Estate Bubbles and the Asian Crisis* 1–45 (IMF Working Paper 02/20, 2002), *available at* http://www.imf.org/external/pubs/ft/wp/2002/wp0220.pdf (last visited Sept. 19, 2008) *and* John M. Quigley, *Real Estate and the Asian Crisis*, 10(2) JOURNAL OF HOUS. ECONS., 129, 136 (2001). These scholars analyze the crisis in much the same way as do Bentick and Lewis.

[101]    *See* Collyns & Senhadji, *supra* note 100, at 34 fig.9 (citing APDCORE, CEIC, and WEFA INTLINE as the sources for the graphs). Reprinted with permission of the authors.

In one such study, Brian Bentick and Mervyn Lewis argue that the real estate market is prone to boom and bust cycles by its very nature, and that these gyrations in the commercial real estate market can affect the larger business cycle of a nation's economy as a whole, and were in fact a significant causal factor in the Asian economic downturn in the late 1990s.[102] Bentick and Lewis maintain that the commercial real estate market[103] is prone to boom and bust cycles because "[t]he long delay which elapses between planning and completion [of a commercial real estate project] interacts with a stock of property which is specific to both location and use."[104] They explain that "[t]his combination of fluctuations in demand for property with an inelastic short run, but elastic long run, supply creates the conditions for a classic 'hog cycle' whereby the market alternates between famine and glut."[105] Thus, the real estate market and its "asset price inflation" cycles and "price bubbles" behave similar to, and exhibit many of the same erratic characteristics as, the market for equities.[106] Despite its inherent instability, though, the real estate market always succeeds in drawing both domestic and foreign capital to it, especially in developing countries, as occurred in Asian countries in the 1990s during their economic upswing.[107]

Bentick and Lewis argue that the causes of investors' "fatal attraction"[108] to the real estate market are twofold. First, "[r]eal estate speculation is to some degree inherent in the urban and economic growth process which usually accompanies and induces capital inflows."[109] Second, "real estate plays a special role in banks' portfolios."[110] With respect to the latter cause, Bentick and Lewis explain that banks place special emphasis on real estate in their portfolio of investments because of "the belief that real property offers sound collateral—a belief which leads banks to routinely lend 70 to 80 [percent] (or more) of valuation, compared with only about 50 [percent] for equities."[111] The prominence of real estate in a bank's portfolio has two further effects. First, when there is a booming influx of portfolio foreign investment (PFI)[112] into a nation's economy that is mediated by that nation's

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[102]    Bentick & Lewis, *supra* note 100, at 11–13.

[103]    By which they mean "offices, shopping plazas, hotels, [and] luxury apartments," as opposed to industrial real estate or residential real estate. *Id.* at 12.

[104]    *Id.* at 10.

[105]    *Id.*

[106]    *Id.*

[107]    *See id.* at 11.

[108]    *Id.*

[109]    *Id.*

[110]    *Id.*

[111]    *Id.*

[112]    *Id.* at 7 (defining PFI as the sale of "equity, debt, or cash securities" to foreigners "whether or not a controlling interest is involved").

banks, the influx of PFI "magnifies the increase in real estate asset prices relative to equity prices."[113] And, second, "it increases the vulnerability of banks and the currency to a property crash."[114]

Moreover, Bentick and Lewis argue that this vulnerability of a nation's currency to its banks' real estate portfolios "is itself magnified by the interdependence between the banks' expected value of real estate collateral and the anticipated property income (either rentals or capitalized rentals) which is being relied on for loan repayment."[115] If this income stream should "fail to materiali[z]e, as it must when there is global over-financing and over-construction, the collateral turns out to be illusory and banks may fail."[116] In contrast to residential mortgages (where profitability of the loan is usually dependent upon an outside source of employment income rather than the property itself), with commercial real estate loans, "the borrower's ability to repay the loan is highly correlated with the value of the collateral either because the property is acquired for re-sale or because increased vacancy rates and reduced rentals are quickly reflected in the price of the property and hence the value of the collateral."[117] Thus, bankers should consider these investments to be as risky as any equity investment, but because of their persistent view of real estate as sound collateral, whether it be for a residential mortgage or for a commercial real estate loan, "the banking system habitually [overextends] itself in lending for property development."[118]

Along with Bentick and Lewis, many scholars maintain that this sequence of events offers a powerful explanation of what caused the boom and bust of the Asian economies during the 1990s. For example, in a rigorous empirical analysis of the relationship between real estate market cycles, commercial lending, and economic health in eight[119] Southeast Asian nations during the 1990s, an IMF working paper found that the results of its study suggest that: (i) "property prices [in these nations] are strongly procyclical,"[120] (ii) "bank lending has indeed significantly contributed to property price inflation in Asia during the period prior to the crisis,"[121] (iii) "the response of property prices was significantly stronger before the

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[113]     *Id.* at 11.
[114]     *Id.*
[115]     *Id.*
[116]     *Id.*
[117]     *Id.* at 11–12.
[118]     *Id.* at 12.
[119]     The eight nations were Indonesia, Korea, Malaysia, the Philippines, Thailand, Hong Kong, Singapore, and Taiwan. *See* Collyns & Senhadji, *supra* note 100, at 4 tbl.1.
[120]     *Id.* at 15.
[121]     *Id.*

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crisis,"[122] and (iv) "the response of property prices to credit is asymmetric in the sense that the response during periods of rising property prices is three times the response during periods of declining prices."[123]

The whole cycle started with an upswing in economic growth and development in Southeast Asian nations during the late 1980s and early 1990s that was originally fuelled by "export-led growth."[124] However, when the U.S. dollar "began to appreciate in world markets," exporting became less profitable and these countries "became focused on rapid development of the infrastructure in terms of public sector projects (bridges, roads, airports), real estate developments (offices, shopping plazas, hotels, luxury apartments and houses), and expanding capacity in the industrial sector (cars, steel, chemicals, and computer chips), fuelled by inflows of foreign capital."[125]

The result of this shift in focus in these countries was a "vast increase in office building," which inevitably resulted in "expansion in supply and the 'hog cycle' had its effect."[126] As shown in Figures 3 and 4 below, the prime office capital values and the net prime office rentals in five Asian cities (Bangkok, Jakarta, Kuala Lumpur, Hong Kong, and Singapore) exhibited a boom and bust cycle from 1983 to 1998.[127] Both charts show that "rentals and office values were on a downward trend long before the crisis began in

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[122]    *Id.* at 15–16.
[123]    *Id.* at 16.
[124]    *Id.* at 12.
[125]    *Id.*
[126]    *Id.*
[127]    *Id.*

## Figure 3[128]

Prime Office Capital Values in selected Asian cities, 1983-1998.
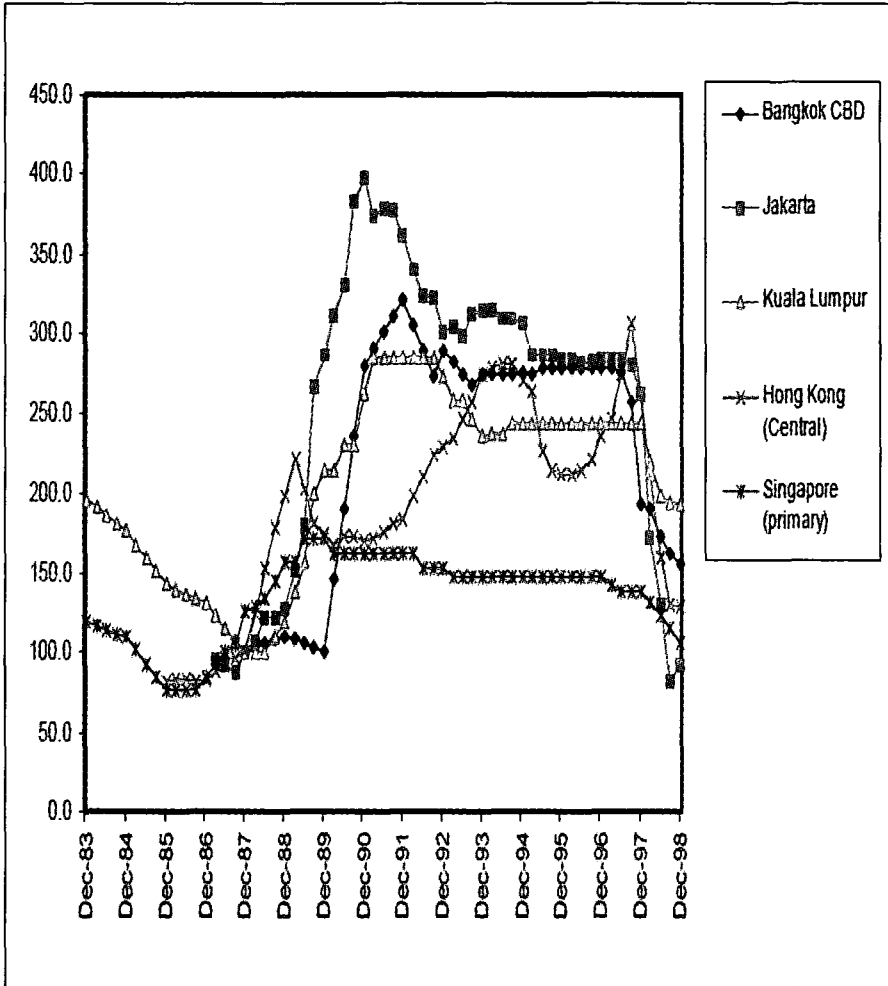


1987 = 100

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[128]     Bentick & Lewis, *supra* note 100, at 22 fig.1 (citing Jones Lang LaSalle, a real estate services and money management firm, as the source of the graph). Reprinted with permission of the authors.

## Figure 4[129]

Net Prime Office Rentals in selected Asian cities, 1983-1998.
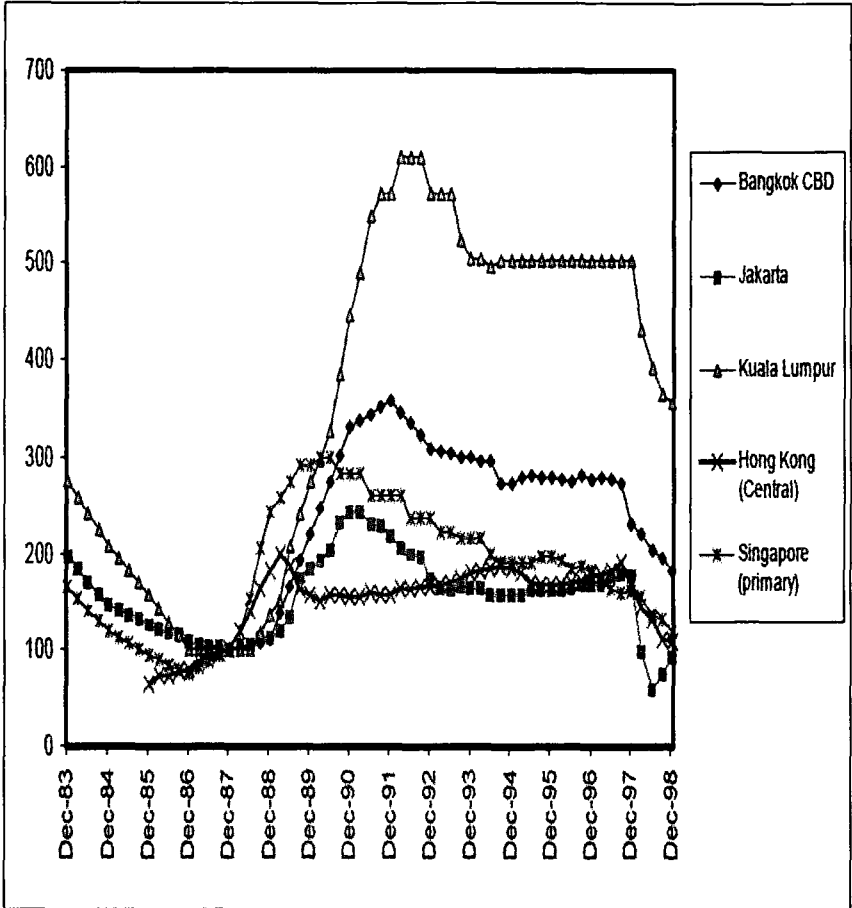


1987 = 100

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[129]     *Id.* at 23 fig.2 (citing Jones Lang LaSalle, a real estate services and money management firm, as the source of the graph). Reprinted with permission of the authors.

July 1997, with the floating and dramatic fall of the Thai baht."[130] Indeed, Figures 3 and 4 above demonstrate that, although office values rose dramatically through the late 1980s into the early 1990s, they leveled off after that, gradually decreasing until their dramatic decline in the late 1990s.

Despite the gradually waning strength of the office rental income streams during the 1990s, though, Figures 5 and 7 demonstrate that during this time "private capital inflows fuelled an expansion of bank credit in the Asian economies generally," and "a significant portion of the bank lending flowed to the property market."[131] In most of the economies in Figure 5, for example, "bank assets account for over three-quarters of total financial sector assets, and over the years 1990-1997 (with the exception of Hong Kong) bank credit grew much faster than GDP (which averaged about 8 percent per annum)," as the first three columns of Figure 5 demonstrate.[132] Moreover, property lending represented between 25 to 40 percent of total lending in Thailand, Malaysia, Indonesia, and Singapore (and an even higher percentage in Hong Kong), as the fourth column in Figure 5 shows. Additionally, "[m]ost of this exposure was to the commercial property sector," and "the loan to valuation ratios applied on these loans ranged from 80 [to] 100 percent" in four of the countries, as column 5 of Figure 5 shows.[133] Both domestic and foreign investors were thus demonstrating irrational optimism in these nations' economies, and, in particular, in these nations' real estate markets during the 1990s.

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[130]     Collyns & Senhadji, *supra* note 100, at 12.
[131]     *Id.* at 13.
[132]     *Id.*
[133]     *Id.*

## Figure 5[134]

BANK LENDING AND RISK EXPOSURES IN SELECTED ASIAN ECONOMIES.

| | Bank share in total financial intermediation 1994 | Bank credit to the private sector | | Property loans | | Non-performing loans Relative to assets | |
|---|---|---|---|---|---|---|---|
| | | Annual growth 1990-1997 | Relative to GDP 1997 | Relative to assets 1997 | Loan Valuation ratio 1997 | 1997 | 1998f |
| | % | % | % | % | % | % | % |
| Hong Kong | n.a. | 8 | 157 | 40-55 (9) | 50-70 | 1.5 | 3 |
| Thailand | 75 | 18 | 105 | 30-40 (8) | 80-100 | 15.0 | 25.0 |
| Malaysia | 78 | 16 | 95 | 30-40 (14) | 80-100 | 7.5 | 15.0 |
| Singapore | 71 | 12 | 97 | 30-40 (15) | 70-90 | 2.0 | 3.5 |
| Indonesia | 91 | 18 | 57 | 25-30 (4) | 80-100 | 11.0 | 20.0 |
| Korea | 39 | 12 | 64 | 15-25 (13) | 80-100 | 16.0 | 22.5 |
| Philippines | n.a. | 18 | 52 | 15-20 (n.a.) | 70-90 | 5.5 | 7.0 |

Moreover, although Bentick and Lewis concentrate their analysis on non-industrial commercial real estate development (e.g., office buildings and

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[134]    Bentick & Lewis, *supra* note 100, at 20 tbl.4 (citing J.P. Morgan, *Asian Financial Markets*, 1998, as the source of the graph). Reprinted with permission of the authors.

retail locations), other scholars have shown that the empirical data demonstrates that the prices of various kinds of industrial real estate (e.g., industrial parks and warehouses) also became caught up in the general price inflation of real estate in these Southeast Asian economies during this time. For example, in Figures 6a, 6b, 6c, and 6d, respectively, the prices of various kinds of industrial properties in Hong Kong, Bangkok (Thailand), Singapore, and Manila (the Philippines) are shown to have increased throughout the 1990s until the 1997-1998 crisis.

Figure 6a[135]

Inflation of Industrial Property Prices in Hong Kong, from 1985 to 1997

| | 1985 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 Projected |
|---|---|---|---|---|---|---|---|---|---|
| Industrial employment | 847,615 | 715,597 | -------- | 531,876 | 483,628 | 423,015 | 366,748 | 325,068 | 312,619 |
| Inventory (sq. ft.) | 141,900,000 | 179,500,000 | -------- | 224,256,099 | 190,000,000 | 189,520,672 | 190,300,000 | 191,730,000 | 193,600,000 |
| Absorption (sq. ft.) | 4,187,000 | 4,144,000 | 5,837,000 | 4,488,588 | 2,433,000 | (785,772) | (222,000) | (5,672,000) | 8,260.000 |
| Vacancy rate (%) | 5.5 | 5.3 | 6.2 | 6.4 | 6.0 | 6.3 | 7.9 | 11.9 | 7.7 |
| Standardized Leases | | | | | | | | | |
| (Current US$/sq. ft./month) | 0.5 | 1.10 | 1.29 | 1.42 | 1.40 | 1.50 | 1.30 | 1.20 | 1.15 |
| (Current HK$/sq. meter/month) | 42.00 | 92.00 | 10.00 | 11.00 | 15.05 | 125.00 | 108.00 | 100.00 | 94.00 |
| Typical price for land | | | | | | | | | |
| (Current US$/sq. ft./month) | -------- | 360 | -------- | 662 | 1,307 | 1,683 | 1165 | 905 | 775 |
| (Current HK$/sq. meter/month) | -------- | 30,037 | -------- | 7,123 | 14,063 | 140,035 | 96,851 | 75,384 | 64,476 |

**Figure 6b**[136]
**Inflation of Industrial Property Prices in Bangkok, Thailand, from 1990 to 1997**

| | 1990 | 1993 | 1994 | 1995 | 1996 | 1997 Projected |
|---|---|---|---|---|---|---|
| Industrial employment | 115,000 | 277,240 | 328,230 | 335,670 | ———— | ———— |
| Inventory (sq. ft.) | 277,642,400 | 270,808,000 | 281,826,000 | 289,246,000 | 289,246,000 | 289,246,000 |
| Absorption (sq. ft.) | 22,656,3000 | ———— | 14,295,000 | 6,955,300 | 9,503,200 | 8,298,000 |
| Vacancy rate (%) | ———— | 24.0 | 22.0 | 2.4 | 3.3 | 2.9 |
| Standardized Leases (Current US $/sq. ft.) | | | | | | |
| General Manufacturing | 3.60 | 5.60 | 7.00 | 3.85 | 3.85 | 3.60 |
| Warehouse | 2.40 | 5.25 | 5.50 | 3.15 | 3.15 | 2.65 |
| Land price industrial park | 5.05 | 454,200 | 474,350 | 6.55 | 7.55 | 7.80 |
| (Current Thai baht/sq. meter) | | | | | | |
| General Manufacturing | 1,800 | 1,500 | 1,920 | 1,920 | 1,920 | 1,800 |
| Warehouse | 1,200 | 1,420 | 1,500 | 1,560 | 1,560 | 1,320 |
| Land price industrial park | 3,999,000 | 4,500,000 | 4,700,000 | 5,200,000 | 6,000,000 | 6,200,000 |

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[136]     *Id.* at 150 tbl.A.IIb. Reprinted with permission of the author.

Figure 6c[137]

Inflation of Industrial Property Prices in Singapore, from 1985 to 1997

| | 1985 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 Projected |
|---|---|---|---|---|---|---|---|---|---|
| Industrial employment | 314,200 | 447,400 | 429,600 | 434,100 | 429,500 | 422,500 | 412,700 | 406,300 | 399,820 |
| Inventory (sq. ft.) | 144,625,104 | 170,232,660 | 179,025,185 | 190,585,610 | 205,128,000 | 215,828,964 | 232,965,252 | 253,729,008 | 281,797,860 |
| Absorption (sq. ft.) | 4,472,442 | 10,559,484 | 7,663,897 | 10,570,150 | 14,337,510 | 11,000,808 | 17,286,823 | 16,307,460 | 22,325,050 |
| Vacancy rate (%) | 18.1 | 4.1 | 3.0 | 4.4 | 4.3 | 3.2 | 2.9 | 4.4 | 6.0 |
| **Standardized Leases (Current US$/ sq. ft.)** | | | | | | | | | |
| Hi-tech R&D | ---------- | 27.85 | ---------- | 27.60 | 27.50 | 28.30 | 26.80 | 26.80 | 26.10 |
| General Manufacturing | 5.30 | 20.30 | 19.92 | 19.80 | 19.00 | 21.30 | 20.30 | 20.30 | 18.10 |
| Warehouse | 7.70 | 20.20 | 19.20 | 20.40 | 20.80 | 23.85 | 21.40 | 20.30 | 18.80 |
| Land price industrial park | ---------- | 21.55 | 198.00 | ---------- | 48.30 | 33.55 | 37.95 | 42.60 | 40.30 |
| **(Current $$/ sq. ft.)** | | | | | | | | | |
| Hi-tech R&D | ---------- | 46.11 | ---------- | ---------- | ---------- | 39.88 | 44.40 | 44.40 | 43.20 |
| General Manufacturing | 8.76 | 33.60 | ---------- | ---------- | ---------- | 30.00 | 33.60 | 33.60 | 30.00 |
| Warehouse | 12.72 | 33.60 | ---------- | ---------- | ---------- | 33.60 | 35.40 | 33.60 | 31.20 |
| Land price industrial park | ---------- | 35.69 | ---------- | ---------- | ---------- | 47.31 | 62.86 | 70.51 | 66.70 |

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[137]    *Id.* at 153 tbl.A.IIIb. Reprinted with permission of the author.

Figure 6d[138]

Inflation of Industrial Property Prices in Manila, the Philippines, from 1990 to 1997

| | 1990 | 1993 | 1994 | 1995 | 1996 | 1997 Projected |
|---|---|---|---|---|---|---|
| Industrial employment | 3,387,000 | ----------- | ----------- | 4,007,000 | 4,299,000 | 4,741,000 |
| Inventory (sq. ft.) | 815 | ----------- | ----------- | 9,730 | 10,170 | 11,240 |
| Absorption (sq. ft.) | ----------- | ----------- | ----------- | ----------- | 395 | 1,525 |
| Vacancy rate (%) | ----------- | ----------- | ----------- | 10.0 | 10.0 | 5.0 |
| Standardized Leases | | | | | | |
| (Current US $ /sq. ft.) | | | | | | |
| General Manufacturing | ----------- | 3.45 | 5.00 | 4.15 | 4.95 | 5.10 |
| Warehouse | ----------- | 3.25 | 5.00 | 4.15 | 4.95 | 5.10 |
| Land price industrial park | ----------- | 9.50 | ----------- | 5.8 | 7.50 | 9.25 |
| (Current pesos /sq. meter) | | | | | | |
| General Manufacturing | ----------- | 960 | 1,416 | 1,800 | 2,150 | 2,200 |
| Warehouse | ----------- | 900 | 1,416 | 1,800 | 2,150 | 2,200 |
| Land price industrial park | ----------- | 2,650 | ----------- | 2,500 | 3,250 | 4,000 |

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[138]    *Id.* at 160 tbl.A.Vb. Reprinted with permission of the author.

The slowing revenues from real estate properties (as demonstrated previously in Figures 3 and 4) eventually caught up with all of this over-zealous lending and over-pricing activity, though, for the amount of non-performing bank loans began to rise dramatically in 1997 and 1998, as the last column of Figure 5 demonstrates. Moreover, the percentage of these nonperforming loans that were real estate loans was large even "well before the Asian crisis hit in 1997."[139]

As these banks' loans began to fail, the vulnerability of these nations' economies to failures in their banking sector became exposed. Figure 7 below shows "the dominance of commercial bank lending in mediating capital flows to Asia in the 1990s."[140] As the third row of Figure 7 demonstrates, commercial bank lending "accounted for between 57 [to] 60 [percent] of total private capital inflow between 1994 and 1996."[141] Thus, when the commercial banks pulled their money out of these nations in 1997 through 1999, these nations were hit hard. The banks' pullout resulted in a net capital outflow in those years, as the last three columns in Figure 7 show. This, in turn, led to international investors' loss of confidence in these nations' economies and the dramatic devaluation of their currency exchange rates. This occurs because "confidence in the exchange rate [is]

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[139]    Quigley, *supra* note 100, at 136.
[140]    Bentick & Lewis, *supra* note 100, at 13.
[141]    *Id.*

**Figure 7**[142]

Composition of private capital flows to five Asian economies,
1994-1999
($ billion)

|  | 1994 | 1995 | 1996 | 1997 | 1998ƒ | 1999ƒ |
|---|---|---|---|---|---|---|
| Foreign direct investment | 4.7 | 4.9 | 5.8 | 6.5 | 6.9 | 7.4 |
| Portfolio equity investment | 7.4 | 11.0 | 11.6 | -6.8 | 1.1 | -0.9 |
| Commercial bank lending | 23.4 | 58.0 | 58.3 | -29.0 | -30.5 | -17.8 |
| Bond financing | 2.4 | 9.9 | 18.1 | 23.3 | -2.1 | -3.8 |
| Total | 37.9 | 83.8 | 93.8 | -6.0 | -24.6 | -15.1 |

threatened when the flow of foreign investment (FI) is heavily biased towards financing a profitable boom in residential construction or other facilities producing [non-traded] goods and services," for "both the buildings and the residential services which they provide are non traded goods which cannot be used directly to service (through the transfer of real resources) the debt or equity provided by foreigners."[143] Hence, "a real devaluation is required to shift resources into the production of traded goods

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[142]    Bentick & Lewis, *supra* note 100, at 21 tbl.5. Reprinted with permission of the authors. The five Asian economies to which the table refers are: Korea, Indonesia, Malaysia, the Philippines, and Thailand. *Id.*

[143]    *Id.* at 9.

with which to effect a resource transfer in [favor] of foreign claimants of interest and profit,"[144] and "[w]hen investors judge that such a resource shift is required, the exchange rate will be perceived as over-valued."[145]

### c. ANALYZING THE 2006 PROPOSED REGULATIONS' DISTINCTION BETWEEN HISTORIC ASSETS AND MARKED ASSETS IN LIGHT OF THE EMPIRICAL EVIDENCE FROM THE ASIAN CRISIS OF 1997-1998

In summary, the above empirical studies of the Southeast Asian crisis of the late 1990s demonstrate that the market for even a small subset of what the Treasury refers to as historic assets (i.e., commercial real estate) can have a large impact on the economic health (and currency exchange rate) of foreign nations in which U.S. corporations conduct business operations. Moreover, these scholars emphasize that these patterns are cyclical and inherent in the very nature of international investment, banking practices, and the real estate market. Hence, they will not go away any time soon.

Additionally, these cycles are exacerbated by the level of corruption and cronyism in developing countries, resulting in a lack of adequate oversight and regulatory controls to contain the effects of these cycles.[146] Prior to the U.S. housing market collapse in 2007-2008, currency swaps, hedges, and other means of eliminating currency risk were generally used by foreign investors in U.S. real estate to manage the currency risk of their U.S. real estate holdings because of the relative stability of the U.S. real estate market during that time.[147] However, as the empirical evidence in this section will demonstrate, the same cannot be said for U.S. investors with foreign real estate holdings even before the U.S. housing market crash of 2007-2008.

It is true that some of the excessively harsh consequences of these real estate cycles on the economy could be mitigated through better banking regulatory regimes in developing countries.[148] However, some scholars question the wisdom of taking such oversight too far by focusing on

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[144]     *Id.*

[145]     *Id.* at 9–10.

[146]     *See id.* at 14.

[147]     *See e.g.*, Yoav Benari, *When is hedging foreign assets effective?*, 18(1) JOURNAL OF PORTFOLIO MGMT., 66, 70 (Fall 1991) (finding that "the relatively low volatility of U.S. real estate over the 1974–1989 period and the absence of a negative correlation with the exchange rate made hedging particularly effective in reducing [the currency] risk [of U.S. real estate investments for foreign investors"). *See also* Alan J. Ziobrowski, Brigitte J. Zibrowski & Sidney Rosenberg, *Currency Swaps and International Real Estate Investment*, 25(2) REAL ESTATE ECONS., 223, 240 (1997) (finding "hedging U.S. [real estate] assets with currency swaps reduced risk so much that foreign investors saw virtually the same level of U.S. asset risk as U.S. investors," but that foreign investors still saw no reason to diversify into U.S. real estate because it did not offer better returns than investing in U.S. common stock).

[148]     *See* Collyns & Senhadji, *supra* note 100, at 17–20.

controlling the real estate market by trying to "prick asset price bubbles" such as real estate price bubbles.[149] For, they argue, despite the significance of stock and real estate asset prices in the conduct of monetary policy, targeting such asset prices by central banks is likely to lead to worse monetary and economic outcomes, and might even erode public support for the independence of central banks because "control of these asset prices is beyond central banks' capabilities."[150] While hindsight is 20/20, in real life, "it is very hard for monetary authorities to identify that a bubble has actually developed"[151]—and this is true regardless of whether it be a developing nation's central bank, or the U.S. Federal Reserve. And pricking the bubble can be "highly damaging to the economy, as [it was] in Japan in the 1990s."[152] In other words, there is no panacea for curing the real estate market rollercoaster ride.[153]

And, as the International Monetary Fund points out, even if the various policy suggestions for mitigating the impact of these real estate cycles were adopted by developing nations (such as increased regulation of the banking sector in these countries), the effects of these cycles still cannot be eliminated because of the human "moral hazard" factor in banking: "Of course, even with generally [well-managed] banks and strong regulations, the emergence of asset price bubbles cannot be ruled out. Lending decisions are inevitably influenced by a human tendency to follow what others are doing, and moral hazard can never be entirely excluded from bank intermediation."[154] Thus, U.S. corporations with branches overseas in developing countries will continue to be subject to the vagaries of these real-estate property price cycle-driven currency fluctuation swings. The economic losses and gains that these corporations experience during these boom and bust cycles cannot be confined to their marked assets. By taking such a position, the Treasury is ignoring major tributaries in the river of international capital flows. The money supply flows everywhere, into and out of both marked assets and historic assets. There is no useful distinction

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[149]     *See, e.g.,* Frederic S. Mishkin, *The Transmission Mechanism and the Role of Asset Prices in Monetary Policy* 1, 15 (Nat'l Bureau of Econ. Research, Working Paper No. 8617, 2001).

[150]     *Id.* at 17.

[151]     *Id.* at 15.

[152]     *Id.*

[153]     However, developing countries can take prudent measures to encourage foreign investors to invest in their real estate market by diminishing their exchange rate risk. *See e.g.,* Joseph B. Lipscomb, John T. Harvey & Harold Hunt, *Exchange Rate Risk Mitigation with Price-Level-Adjusting Mortgages: The Case of the Mexican UDI,* 25(1) JOURNAL OF REAL ESTATE RESEARCH 23 (2003) (finding that the Mexican government's offering of UDI mortgages that offer a real rate of return with minimum exchange rate risk should encourage foreign investors to invest in the Mexican housing market).

[154]     *See* Collyns & Senhadji, *supra* note 90, at 4 tbl.1.

here. On the contrary, corporations' historic assets, such as their commercial real estate holdings, are an integral part of the boom and bust cycle in the nations in which they conduct operations. Accordingly, the Treasury should not segregate these assets for different treatment. These assets are "riding the tiger" just as much as are the marked assets.

While I have focused here on the role that the real estate market played in the Southeast Asian boom and bust cycle culminating in the crisis of 1997-1998, as an example of how historic assets can affect, and be affected by, fluctuations in the currency exchange rate, the same interdependent relationship between these two variables has been empirically verified by other scholars in a more general manner. One scholar, for example, has argued that "the large swings in market exchange rates," "the large variability of flows of national savings across national boundaries," and the changes in the prices of real estate "in countries that experience inflows of foreign funds" are all systematically related and account for why the last thirty-five years have been "the most tumultuous in international monetary history."[155] Other scholars have come to similar conclusions.[156]

Thus, a significant amount of empirical evidence indicates that, wherever U.S. corporations' overseas branches are located, whether in the European Union or in a developing country in Asia, their real estate holdings (constituting a significant amount of their historic assets) will affect, and be affected by, currency exchange rate fluctuations. Accordingly, reason and logic dictate that the Treasury should not treat U.S. corporations' overseas branches' real estate holdings as if they were immune to currency exchange rate fluctuations. Yet that is precisely what the 2006 Proposed Regulations on section 987 do when they create a distinction between historic assets and marked assets.[157] I have endeavored to show in this section that the distinction between historic assets and marked assets set up in the newly proposed section 987 regulations is empirically invalid by showing

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[155]     *See* Robert Z. Aliber, *The 35 Most Tumultuous Years in Monetary History: Shocks, the Transfer Problem, and Financial Trauma*, 52 IMF Staff Papers 142 (2005).

[156]     *See, e.g.*, Frederic S. Mishkin, *The Transmission Mechanism and the Role of Asset Prices in Monetary Policy* 15 (Nat'l Bureau of Econ. Research, Working Paper No. 8617, 2001) (finding that "real estate and stock price movement do have an important impact on aggregate demand and thus must be followed closely to evaluate the stance of monetary policy"). *See also* Peter N. Ireland, *The Monetary Transmission Mechanism* (Fed. Res. Bank of Boston, Working Paper No. 06-01, 2005) (analyzing the relationship between interest rates, exchange rates, real estate prices, and bank lending as alternative channels for linking the money supply to real variables such as aggregate output and unemployment), *available at* http://www.bos.frb.org/economic/wp /wp2006/wp0601.pdf (last visited Sept. 27, 2008); Charles Ka Yui Leung, *Relating International Trade to the Housing Market*, 5(2) REV. DEV. ECON. 328 (2001) (showing the relationship between housing prices, international trade, and the price of nontradable goods relative to tradable goods).

[157]     *See supra* notes 6–11 and citations therein.

how a specific subset of historic assets, i.e., real estate holdings, can influence, and be influenced by, the currency exchange rate. However, real estate holdings are only one subset of historic assets. An ideal refutation of the Treasury's assumption would show how historic assets as a group can be affected by, and also affect, the currency exchange rate. No such studies have been conducted, though, perhaps because the category of historic assets has recently been invented by the Treasury.

Nonetheless, there is a somewhat similar category of assets in the economic literature that is referred to as non-tradable goods, and economists have extensively studied the relationship between the currency exchange rate and this category of assets.[158] Hence, the Treasury's distinction between marked assets and "historic assets" can be subjected to further analysis by investigating how several reputable macroeconomic theories have accounted for the relationship between non-tradable goods and the currency exchange rate. Before doing so, however, I will first review the general theory of foreign exchange rates, and the difficulties it has encountered over the years.

## 2. ANALYTICAL FRAMEWORKS FOR DETERMINING THE RELATIONSHIP BETWEEN NON-TRADABLE GOODS, TRADABLE GOODS, MONEY SUPPLY, AND EXCHANGE RATES

### a. GENERAL THEORY OF FOREIGN EXCHANGE RATES

The relationship between foreign currency exchange rates has been classically described by economists by the following equation:

$$I^d = I^f + R + D$$

where "$I^d$" is the average domestic interest rate earned by, for example, the U.S. dollar on debt obligations here in the United States, and "$I^f$" is the average foreign interest rate earned by, say, the yen on debt obligations in Japan.[159] The "R" represents the country risk premium of holding domestic (U.S.) currency assets—i.e., how risky is it to hold the U.S. dollar as compared to other currencies?[160] And "D" represents the expected rate of

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[158]    *See infra* Part III.B.2.b and citations therein.

[159]    *See, e.g.,* Akhtar Hossain, *Exchange Rate Policy in Bangladesh: A Review of Key Concepts and Issues,* ALACHONA MAG., July 2002, at 2 (citing Kenneth Rogoff, *Overshooting Model After Twenty-Five Years* (IMF, Working Paper No. 02/39, 2002).

[160]    *See* Hossain, *supra* note 159, at 2.

depreciation (or appreciation) of the domestic currency in relation to the other foreign currency (here, the yen).[161]

Economists often use the inflation differential (e.g., the difference in the inflation rate of the yen versus the inflation rate of the U.S. dollar) to approximate "D." That allows economists to solve the equation relatively easily, since "$I^d$," "$I^f$," and "D" are easily determined by finding out: (1) the average rate that U.S. banks are charging for loans ("$I^d$"—usually a point or two above the federal reserve lending rate, which is published in major papers daily); (2) the average rate that Japanese banks are charging for their loans ("$I^f$"—determined in a similarly easy manner as with "$I^d$"); and (3) the inflation rate, which in the United States is also measured and reported on consistently by the Federal Reserve ("D").[162] So, the last remaining undetermined variable, "R" (i.e., the risk of holding domestic currency assets), must fall logically and mathematically into place, thus making foreign exchange rates easy to predict, then, right?

If only life were so simple. In fact, prediction of foreign exchange rates remains one of the most mysterious areas of macroeconomic forecasting. The early models of currency forecasting set forth by economists in the 1960s and 1970s (such as the above equation) have suffered humiliating setbacks when tested against empirical data in the 1980s.[163] Economists were so devastated by these results that "theoretical modeling of exchange rates came to a virtual standstill for a decade."[164]

It was not until the middle- to late-1990s that work on new models, taking into account more variables, began to pick up steam.[165] Even after more than a decade of work on these new models, though, economists are far from a consensus on what explains currency exchange rates; indeed, they are more in agreement about what the various mysteries and puzzles are concerning explaining exchange rates than they are about any explanation of them.[166] A complete survey of the current variety of methods for forecasting

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[161]    *Id.*

[162]    *See, e.g.*, The Federal Reserve Board, http://search.newyorkfed.org/search/search.jsp?template=BOARD&type=adv&who=patx&text=inflation_(last vistited Sept. 18, 2008) (providing publicly available statistical compilations of various aspects of the U.S. economy, including the inflation rate).

[163]    *See* EXCHANGE RATE ECONOMICS: WHERE DO WE STAND? xi-xv (Paul De Grauwe ed., 2005) (citing Richard A. Meese & Kenneth S. Rogoff, *Empirical Exchange Rate Models Of The Seventies: Do They Fit Out Of Sample?*, 14 J. INT'L ECON. 3 (1983) (demonstrating that none of the exchange rate models had any predictive power compared to a random model)).

[164]    *See* De Grauwe, *supra* note 163, at xii.

[165]    *Id.*

[166]    *Id.* at xiii-xv. *See also* Hairault & Sopraseuth, *supra* note 62, at xv (citing Maurice Obstfeld & Kenneth Rogoff, *The Six Major Puzzles In International Macroeconomics: Is There A Common Cause?*, 2000 NBER MACROECONOMIC ANN. 339 (2000)).

exchange rates is beyond the scope of this article. However, there is no need
for a general theory of the exchange rate to make my argument objecting to
the fundamental validity of the Treasury's assumption that historic assets do
not yield real economic currency gains and losses.[167] All that is needed in
order to call into question this assumption is empirical data demonstrating
a significant link between historic assets and currency exchange rates.

Fortunately, there is some economic literature that provides useful
insights into this question. Economists will often compartmentalize a
nation's goods into tradable goods and non-tradable goods in order to
analyze how international flows of capital, goods, services, and labor affect
these different segments of a nation's economy (and vice versa).[168] Although
non-tradable goods are not a perfect analytical match for the question I am
currently posing, they do encompass a large part of, and are generally similar
to, those kinds of assets that the Treasury's defines as historic assets.

### b. WHAT ARE NON-TRADABLE GOODS, AND WHAT DO THEY HAVE TO DO WITH CURRENCY EXCHANGE RATE FORECASTING?

The generally accepted definition of non-tradable goods is that they are
"goods and services produced and consumed domestically that are not close
substitutes to import or export goods and services."[169] In other words, non-
tradable goods of a given country are goods that, by their very nature, cannot
be traded into or out of (that is, exported from or imported to) that country.
Examples of non-tradable goods include: (1) real estate (i.e., land and
buildings);[170] (2) retailing;[171] (3) transportation;[172] (4) public utilities;[173] and

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[167]      Prop. Treas. Reg. § 1.987, 71 Fed. Reg. 52,876, 52,879 (Sept. 7, 2006).

[168]      *See infra* Part III.B.2.b and citations therein.

[169]      Forbes Financial Glossary, "Non-tradables," *available at* http://www.forbes.com/tools/glossary/
searchWord.jhtml (last visited September 18, 2008); Free Dictionary by Farlex, "Non-tradables," *available
at* http://financial-dictionary.thefreedictionary.com/Nontradables (last visited September 18, 2008).

[170]      *See* Beiling Yan, *Purchasing Power Parity: A Canada/U.S. Exploration* app. I 32–37 (Stat. Can. Econ.
Analysis Res., Paper Series No. 11F0027 No. 002, 2002) (listing agricultural buildings, industrial buildings,
market service buildings, non-market service buildings, rents, imputed rents, and house repairs as non-
tradable goods); Leonard K. Cheng, *A Consensus for Hong Kong's Competition Policy?*, 20 HKCER LETTERS 2
(1995) (listing "real estate" as an example of a non-tradable good); Hisham Khatib, *Financial and Economic
Evaluation of Projects with Special Preference to the Electrical Power Industry*, 10(1) POWER ENGINEERING J. 42
(1996) (listing land and buildings as examples of non-tradable goods); Dene MacKenzie, *Economist Calls For
Interest Rise*, OTAGO DAILY TIMES, *available at* http://www.odt.co.nz/ article.php?refid=2007,04,19,28,
02800,180c0d2be98539d7de41171c088b1abb§=5) (listing "housing and housing utilities such as rents,
energy prices, property prices, and property maintenance" as non-tradable goods).

[171]      Cheng, *supra* note 170.

[172]      *Id.*

[173]      *Id.* (listing "public utilities" as an example of a non-tradable good); Khatib, *supra* note 170
(listing "electricity" as an example of a non-tradable good).

(5) miscellaneous personal services (e.g., hair cuts, health care, lawn-mowing).[174] Many of the most significant historic assets of a multinational corporation (MNC) would thus qualify as non-tradable goods, including the MNC's overseas manufacturing facilities, warehouses, marketing facilities, and administrative facilities.[175] Thus, while the categories of section 987 historic assets and non-tradable goods are not identical, the former comprises a significant segment of the latter and the latter encompasses most of the former. Accordingly, it is appropriate to evaluate the extent to which the Treasury is justified in assuming that historic assets do not have real economic currency gains or losses by measuring the extent to which non-tradable goods affect, and are affected by, currency exchange rate fluctuations.

Indeed, one method of determining the currency exchange rate focuses on the relative prices of tradable goods versus non-tradable goods in an economy as they are affected by the international flow of capital into that country. This method defines the "Real Exchange Rate" (RER) as the "ratio of the price of tradables (PT) to non-tradables (PNT)."[176] The theory behind this method of determining the exchange rate is basically to arrive at "a summary measure of incentives that guide domestic resource allocation across sectors."[177] So, for example, "an appreciation of the real exchange rate, meaning a fall in the value of RER or a rise in the value of PNT relative to that of PT, lowers incentives for the production of tradables but increases demand for such products."[178] Hence, "this measure of the real exchange rate establishes a link between a country's trade balance, production structure, and patterns of demand and can be used to explain various policy measures."[179]

In the next two sections, I shall explore two analytical frameworks that use the above method of examining the relationship between the relative prices of non-tradable goods and tradable goods, the international flow of capital, and fluctuations in the currency exchange rate. As part of this exploration, I shall show what these analytical frameworks can explain about the Treasury's distinction between marked assets and historic assets.

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[174]    *See* Yan, *supra* note 170 (giving comprehensive listing of various kinds of personal services that are non-tradable goods, generally including educational, cultural, and recreational services).

[175]    *See* Prop. Treas. Reg. § 1.987-1(e)(2), 71 Fed. Reg. 52876-01 (Sept. 7, 2006) (describing a building of a QBU as an historic asset).

[176]    *See, e.g.,* Hossain, *supra* note 159, at 4.

[177]    *Id.*

[178]    *Id.*

[179]    *Id.*

## c. USING HARALD HAU'S THEORY OF THE RELATIONSHIP BETWEEN MONEY SUPPLY, NON-TRADABLE GOODS, AND EXCHANGE RATES TO EVALUATE THE DISTINCTION BETWEEN MARKED ASSETS AND HISTORIC ASSETS

### i. HARALD HAU'S THEORY OF THE RELATIONSHIP BETWEEN MONEY SUPPLY, NON-TRADABLE GOODS, AND EXCHANGE RATES

Harald Hau[180] has constructed an analytic framework demonstrating how accounting for the presence of non-tradable goods in a model of a nation's economy may explain two of the most problematic puzzles in explaining the determinants of currency exchange rate volatility: (1) the "exchange rate disconnect puzzle"[181] (i.e., why currency exchange rates are so extremely volatile when such volatility has "no corresponding counterpart in macroeconomic fundamentals"[182]) and (2) "How can we rationalize the bias for home goods in households' preferences?"[183] Hau argues that both puzzles can be explained, in part, by analyzing the relationship between non-tradable goods and the currency exchange rate.[184]

Hau's explanation occurs in several steps. Country A is the country Hau analyzes in this model, which consists of a two-nation world of Country A and Country B.[185] First, a "depreciation of country A's currency increases its product competitiveness and switches demand [from country B] to country A."[186] This increased demand for Country A's products results in higher incomes for Country A citizens, and higher incomes, in turn, translate "into higher consumption [by Country A citizens]."[187]

Hau demonstrates these results graphically in Figure 8 below. The increased demand for country A's goods relative to country B results in capital inflows to country A. This "monetary expansion in country A relative to country B corresponds to an upward shift in the ["MM"] schedule to ["M'M'"]."[188] This shift is represented by "ΔM." This monetary expansion,

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[180]    Harald Hau, *Exchange Rate Determination: The Role of Factor Price Rigidities and Nontradeables*, 50 J. INT'L ECON. 421 (2000).

[181]    Hairault & Sopraseuth, *supra* note 62, at xv–xvi.

[182]    *Id.* (citing Robert P. Flood & Andrew Rose, *Fixing Exchange Rates: A Virtual Quest for Fundamentals*, 36 J. MONETARY ECON. 3–37 (1995)).

[183]    *Id.* (citing Obstfeld, *supra* note 62, at 339–90).

[184]    Hau, *supra* note 180, at 440.

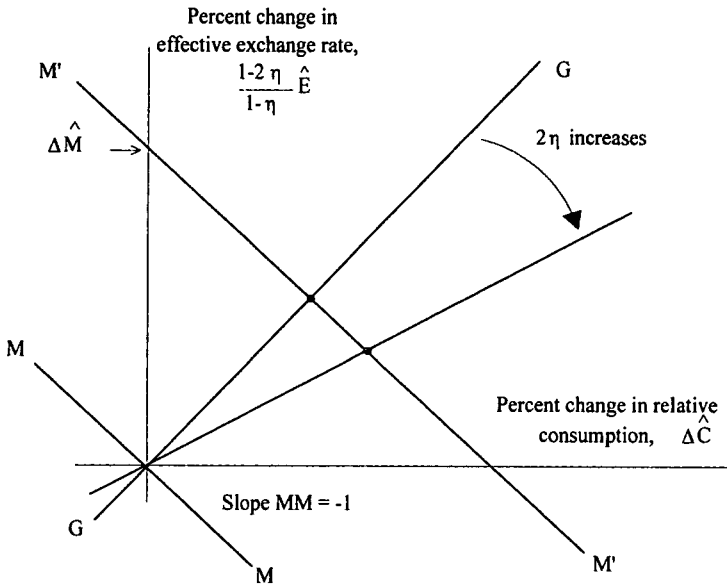[185]    *Id.* at 424.

[186]    *Id.* at 438.

[187]    *Id.*

[188]    *Id.*

in turn, must be funneled into either: (1) an increase in the relative consumption of non-tradable goods, which is shown on the horizontal axis; or (2) "a relative price change given by the effective exchange rate,"[189] which is shown on the vertical axis. Hence, the "M'M'" line represents different combinations of these two factors by investors in Country A's newly expanded money market.

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[189]   *Id.*

**Figure 8[190]**

## Hau's Theory of the Relationship between Money Supply Shock, Currency Exchange Rates, and Nontradeable Goods



Percent change in
effective exchange rate,
$\frac{1-2\,\eta}{1-\eta}\,\hat{E}$

M'

$\Delta\hat{M}\ \rightarrow$

G

$2\eta$  increases

M

Percent change in relative
consumption,  $\Delta\hat{C}$

Slope MM = -1

G

M

M'

The range of the different "GG" slopes in Figure 8 depends upon[191] the demand elasticity of the international market for the products that Country A is offering, which means the degree to which consumers of that good will buy more of that good as their income rises.[192] The more competition there is for the tradable product that Country A is offering, the less of that product there is available to satiate the infusion of capital in the money market; hence, based on the assumption that the money market will clear in Country A (the investors will keep their money in Country A even after the supply of tradables is used up), the excess money will be invested in the non-tradables.[193] This, in turn, results in a higher nominal exchange rate for any increase in consumption, as shown in Figure 8.[194] This is the "exchange rate magnification effect" that Hau contends helps explain the "exchange rate disconnect puzzle."[195]

In addition to helping explain exchange rate volatility, Hau argues that non-tradables also have explanatory power with respect to the home bias puzzle. Hau maintains that the "[non-tradables] decrease the slope of the "GG" schedule."[196] As shown in Figure 8 above, this means that increasing demand for non-tradables will cause the slope of the G-range to change from the top range, nearer the vertical axis, downwards toward the horizontal axis. This occurs because imports will be appreciated in comparison to exports, so the existence of non-tradables at home will allow investors to shift their excess income away from higher priced imports towards the relatively lower priced non-tradables.[197] As a result, "the income effect of a domestic monetary expansion is concentrated in the home country and reflected in a larger relative consumption expansion."[198] Thus, according to Hau's theory, the relative price of non-tradables are not only important for analyzing the currency exchange rate, but they may in fact hold the key to explaining several of the mysteries that currently plague the study of currency exchange rate economics.

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[191]     *Id.*
[192]     *See* OECD Glossary of Statistical Terms, "Income Elasticity of Demand," *available at* http://stats.oecd.org/glossary/detail.asp? ID=3233 (last visited Sept. 18, 2008).
[193]     Hau, *supra* note 180, at 439–40.
[194]     *Id.*
[195]     *Id.* at 440.
[196]     *Id.*
[197]     *Id.*
[198]     *Id.*

ii. COMPARING HAU'S THEORY TO THE U.S. TREASURY'S
    POSITION ON THE DISTINCTION BETWEEN MARKED ASSETS
    AND HISTORIC ASSETS

Hau's theory is admittedly a very simplistic model. Nonetheless, his theory provides a general macroeconomic framework for explaining some of the empirical results examined in the previous section. His theory shows how and why the Treasury's distinction between marked assets and historic assets may run counter to very fundamental macroeconomic principles, that is, that tradable and non-tradable goods can be alternate sectors for money market clearing. In other words, international and domestic capital flows can shift between tradable and non-tradable goods as alternate investments. The reason for this is perfectly understandable. As one scholar puts it: "If [non-tradables] include assets (e.g. land or buildings, the returns to which are expected to increase with productivity in the [tradable] sector), then the anticipation of these processes can be expected to induce a capital inflow...."[199]

Thus, the international flow of money is dynamic, and constantly shifting. Hau's model shows how the constantly shifting nature of the flow of capital can influence both the relative price of tradable versus non-tradable goods and the currency exchange rate. As such, it is a powerful tool for exposing the conceptual weakness of the Treasury's distinction between marked assets, on the one hand, as things which are pushed and pulled by the international flow of capital and the exchange rate, and historic assets, on the other hand, as things which are somehow immune from such pushes and pulls.

Hau's analysis is more conceptually coherent and consistent with the empirical data than the Treasury's assumption that there is such a distinction between historic assets and marked assets. One wonders what the Treasury's macroeconomic theory justifying such a distinction would look like. How would it explain why it believes investors would not shift the money supply alternately between tradable and non-tradable goods, depending on which was better for their portfolio? Such a theory would run counter to a mountain of evidence demonstrating that there is an empirical relationship between the prices of non-tradable goods, the international flow of capital, and the currency exchange rate. For example, in one rigorous statistical analysis of thirteen Organization for Economic Cooperation and

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[199]     Jacek Rostowski, *The Approach to EU and EMU Membership: The Implications for Macroeconomic Policy in Applicant Countries* 1, 17 n.15 (Ctr. for Soc. & Econ. Research—Cent. Eur. Univ. CASE-CEU Working Papers Series No. 26, 1999).

Development (OECD) countries, using OECD data from 1960 to 1990, the author found that the relative price on non-tradables exerted a "significant influence on the real exchange rate" for twelve out of the thirteen countries—including Australia, Belgium, Canada, Denmark, Finland, Italy, Japan, the Netherlands, Norway, Sweden, the United States, and the United Kingdom (excluding France).[200] Many other studies similarly find an empirical link between the relative price of non-tradable goods and the exchange rate.[201] The weight of the empirical evidence is against the Treasury's distinction between historic assets and marked assets. Hence, it should be rejected as empirically suspect.

### iii. CONSIDERING A POSSIBLE OBJECTION TO MY ARGUMENT: DO THE CAUSAL ARROWS BETWEEN THE EXCHANGE RATE AND HISTORIC ASSETS POINT BOTH WAYS?

The Treasury might object to my argument, though, in the following way. The Commissioner might argue that although the empirical analysis of the Asian crisis may demonstrate that the volatility of the real estate market can affect the volatility of the currency exchange rate, that it only shows a causal relationship in one direction. The Commissioner could argue that with marked assets, the causal arrow points in the other direction: from the currency exchange rate to the marked assets, rather than—as with real

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[200]     *See* Jack Strauss, *Real Exchange Rates, PPP and the Relative Price of Nontraded Goods*, 61(4) S. ECON. J. 991, 998–99 (1995).

[201]     *See* Lein-Lein Chen, et al., *Accounting for U.S. Regional Real Exchange Rates* 38 J. MONEY, CREDIT & BANKING 229 (2006) (showing relationship between the relative price of non-tradables and real exchange rate movements; demonstrates that changes in the relative price of non-tradables can account for 80 percent of regional real exchange rate changes over medium and long range horizons); Jack Strauss & Mark Ferris, *The Role of Nontraded and Traded Wages in the Productivity Differential Model* 63 S. ECON. J. 327, 336 (1996) (analyzing empirical data across 14 OECD countries from 1970-1990 and finding that "[t]he data suggest that the growth rate of traded and nontraded wages are not equivalent, implying that intersectoral wage differentials may be an important determinant in influencing real and nominal exchange rates); Jack Strauss, *The Influence of Traded and Nontraded Wages on Relative Prices and Real Exchange Rates*, 55 ECON. LETTERS 391 (1997) (demonstrating for 14 OECD economies that wage differentials between traded and non-traded goods significantly affect the relative prices of non-tradable goods and the real exchange rate in the short and medium term); Ariel Burstein et al., *Large Devaluations and the Real Exchange Rate* (Nat'l Bureau of Econ. Research, Working Paper No. W10986, 2004) (analyzing data from four large devaluation episodes in Mexico (1994), Korea (1997), Brazil (1999), and Argentina (2001), and arguing that the primary force behind the large fall in real exchange rates that occurs after large devaluations is the slow adjustment of the price of non-tradable goods and services), *available at* https://www.imf.org/external/np/res/seminars/ 2004/calvo/pdf/burste.pdf; Martin Schneider & Aaron Tornell, *Balance Sheet Effects, Bailout Guarantees and Financial Crises*, 71 REV. ECON. STUD. 883 (2004) (finding that the non-tradable sector of goods accounts for most of the volatility in output and credit during boom and bust cycles in middle income countries).

estate—from the real estate to the currency exchange rate. But this objection
fails to acknowledge the interconnected nature of the two phenomena. They
are like a see-saw: if the currency exchange rate is low, then capital will flow
into a nation, allowing for investment in real estate and thus raising the
prices of that real estate. This was shown in the previous evidence.

Hence, the data demonstrates that the relationship between real estate
and the currency exchange rate works both ways: they both affect each other.
They are interdependent. Their relationship is dynamic. Furthermore, their
relationship is complicated by other factors, such as government interven-
tion into the market, which I shall explore in the next section. In order to
further refute such an objection to my argument, I will discuss the
bidirectional nature of the relationship between non-tradable goods and the
currency exchange rate in the next section of this paper, along with how
other factors, such as government intervention, can cause strange feedback
loops that have unintended consequences upon trade, non-tradables, and the
currency exchange rate.

iv. **A SIMPLE MODEL OF GOVERNMENT INTERVENTION
STRATEGIES AND THE RELATIONSHIP BETWEEN THE
RELATIVE PRICES OF TRADABLE AND NON-TRADABLE
GOODS**

In this section, I will examine another conceptual framework that also
analyzes the relationship between tradable and non-tradable goods, but does
so from the perspective of how a government's attempts to influence this
relationship complicates the relationship between non-tradable goods, the
economy, and the currency exchange rate even further, creating the
possibility of feedback loops between the different factors. Such a framework
is important for my purposes here, because U.S. corporations operating
abroad have little to no control over whether their host governments will try
to influence the flow of capital or goods into their respective nations. This
added variable adds further complications to the relationship between non-
tradable goods and the currency exchange rate that further calls into
question the Treasury's simplistic distinction between historic assets and
marked assets.

1. *Milner's "Three Goods" Nation*

The relationship between non-tradable goods and the currency exchange
rate can become complicated, involving feedback loops where both variables
are cyclically affecting each other—especially if government policies are

operating to influence one or the other, or both. National policies that intentionally or unintentionally increase or decrease the international flow of goods, services, and capital into or out of a country can also have an effect on the price of non-tradable goods in that country. This, in turn, can alter the intended effects of those policies, potentially doubling back and pushing on the prices of tradable and non-tradable goods in unforeseen ways.

Chris Milner, for example, considers how one trade strategy that might be appealing to developing countries could affect the price of non-tradable goods in such countries.[202] Milner focuses his analysis on several studies arguing that the success of South Korean economic development is attributable to a simultaneous mixture of export promotion (EP) strategies and import substitution (IS) strategies adopted by the South Korean government *ex ante* that can nevertheless be considered, *ex post*, to be neutral towards free trade.[203] Milner argues that policymakers in developing countries should be wary of jumping to the seductive conclusion that they can follow South Korea's example of simultaneously adopting both EP and IS strategies in the hopes of replicating South Korea's economic success.[204]

Using a simple analytical model for a country with only one importable good (M), one exportable good (X), and one non-tradable good (N), Milner's analysis of the relative prices of these goods to one another predicts that where a policy of intervention against imports (i.e., an increase in tariffs) is combined with negative income effects (i.e., falling income), the combination produces conflicting tugs and pulls on the price of non-tradable goods.[205] On the one hand, the "[import] substitution effects of the intervention in the importables sector tends to pull up the price of [non-tradables], while the income effects tend to pull [the price of non-tradables] down."[206]

In general, proceeding on the assumption that non-tradable goods are normal goods (i.e., not luxury goods or inferior goods),[207] Milner concludes

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[202]    Chris Milner, *Relative Incentives and Trade Strategies: Typologies and Possibilities*, 71 ECON. REC. 230 (1995) (Austl.).

[203]    *Id.* at 230–231 (citing JAGDISH BHAGWATI, FOREIGN TRADE REGIMES AND ECONOMIC DEVELOPMENT: ANATOMY AND CONSEQUENCES OF EXCHANGE CONTROL REGIMES (Ballinger, 1978); Deepak Lal & Srath Rajapatirana, *Foreign Trade Regimes and Economic Growth in Developing Countries*, 2 No. 2 WORLD BANK OBSERVER 189 (1987); Howard Pack & Larry E. Westphal, *Industrial Strategy and Technological Change*, 22 J. DEV. ECON. 87 (1986); Yung Chul Park, *Economic Liberalization: Experiences of Southern Korea and Taiwan*, in FOREIGN ECONOMIC LIBERALISATION: TRANSFORMATIONS IN SOCIALIST AND MARKET ECONOMIES 147 (Andras Koves & Paul Marer eds., 1991).

[204]    Milner, *supra* note 202, at 239.

[205]    *Id.* at 236–38.

[206]    *Id.* at 237.

[207]    Whether a good is defined as a "luxury good," a "normal good," or an "inferior good" depends on how the demand for that good responds to changes in the income of the consumers of that good. If

that "[t]he direction of change of the price of [non-tradables] then depends on [whether] the income effect [is positive or negative] and on the relative magnitude of the income and [import] substitution effects."[208] This follows from Milner's adoption of the (substantially empirically-supported hypothesis) that "there is substitutability, rather than complementarity between [tradables] and [non-tradables]" in developing countries implementing protectionist measures[209] (i.e., investors can choose to switch their capital investments between tradable and non-tradable goods depending on which seems like the better investment at the time). Milner further concludes that, due to the varying effect of import and export intervention strategies on the price of non-tradable goods, and how such variation affects the price of the tradable goods (M and X), the *ex ante* pro-tradables goal of such policies may not in fact produce an *ex post* pro-tradables result, but may instead produce a neutral or even "anti-tradables bias."[210]

Milner does not explicitly account for how currency exchange rate fluctuations affect his analysis of the price of tradable goods and non-tradable goods (or vice versa).[211] He acknowledges that currency exchange rate protection can influence the price of non-tradable goods, as occurred in Japan, when additional measures had to be taken to restrain the rise in the "price of [non-tradables] resulting from currency undervaluation."[212] However, he argues that countries like Japan and Taiwan, which have at various times sustained a trade imbalance through measures to maintain an undervalued currency exchange rate, are simply "resisting nominal exchange rate appreciation," which is "equivalent to the application of uniform import tariffs and export subsidies."[213] Hence, he concludes that his model can account for such exchange rate controls as well.

Other scholars that have conducted an empirical analysis of the relationship between the relative prices of tradable goods, non-tradable

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demand for a certain good increases as the income of its consumers rises, then that good is a "normal good." If demand for a certain good increases dramatically as income rises, then that good is a "luxury good." If demand for a certain good decreases as income rises, then that good is an "inferior good." *See* OECD Glossary of Statistical Terms, "Income Elasticity of Demand," *available at* http://stats.oecd.org/glossary/detail.asp? ID=3233 (last visited Sept. 18, 2008).

[208] Milner, *supra* note 202, at 236–37.

[209] *Id.* at 238 (citing Christopher Clague & David Greenaway, *Incidence Theory, Specific Factors and the Augmented Hecksher-Ohlin Model*, 70 ECON. REC. 36 (1994) (providing empirical support of the substitutability hypothesis for developing countries with protectionist policies)).

[210] Milner, *supra* note 202, at 238.

[211] *See id.*

[212] *Id.* at 238 n.12 (citing William M. Corden, *Exchange Rate Protection, in* INTL' MONETARY SYS. UNDER FLEXIBLE EXCHANGE RATES (R.N. Cooper et al, eds., 1981)).

[213] Milner, *supra* note 202, at 238 n.12.

goods, and the trade balance between various countries have corroborated Milner's theoretical framework, finding that the trade balance is a "significant variable in determining the relative price of [non-tradables]."[214] Moreover, this same study took Milner's analysis one step further and provided empirical evidence that the relative price of non-tradables is an important channel linking the trade balance and the real exchange rate of a given nation.[215]

> 2. *Applying Milner's Analysis to the U.S. Treasury's Artificial Distinction between Historic Assets and Marked Assets: What Unintended Consequences Will Follow from this Government Intervention into the International Flow of Capital and Goods?*

The important question, though, is what can be learned from Milner's analysis within the context of the Treasury's newly proposed section 987 currency regulations. If Milner's analysis is correct, then the economic assumption upon which the section 987 currency regulations are based (i.e., that historic assets do not produce any real economic gains or losses) is significantly undermined, for a large percentage of any multinational corporation's historic assets will be comprised of the value of the immovable land, office buildings, warehouses, and factories upon which their operations depend. And these, as previously explained, will be, in turn, a significant portion of any nations' non-tradable goods sector. Hence, the price of such non-tradable goods (and historic assets) will vary in relation to government policies to promote the import and export of tradable goods (and vice versa). As a result of Milner's theory and its verification,[216] it is highly probable (given the significance of land and buildings to an analysis of non-tradables[217]) that the price of U.S. corporations' historic assets will vary in accordance with: (1) the relative trade balances and imbalances of the countries in which they are located; (2) the government policies of the countries in which they are located; and (3) the monetary stability of the country in which they are located. Many other factors could also be influencing the complex relationship between: (1) the relative prices of traded and non-traded goods; (2) the interactions of these prices with the international flow of capital and goods into a nation; and (3) fluctuations in the foreign exchange rate. For example, one study has demonstrated that

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214     Philip R. Lane & Gian Maria Milesi-Ferretti, *External Wealth, the Trade Balance, and the Real Exchange Rate*, 46 EUR. ECON. REV. 1049, 1065 (2002).
215     *Id.* at 1067.
216     *Id.* at 1065.
217     *See infra* Part III.B.2.b *See also* Rostowski, *supra* note 199.

large monopolistic multinational corporations may create and exploit price differentials between nations by themselves, thus affecting the dynamics among the flow of goods and capital and the currency exchange rate.[218]

A comprehensive analysis of all of the factors that affect the interrelationship amongst these variables is beyond the scope of this article. However, the evidence presented here is sufficient to demonstrate my main point: that the value of a U.S. corporation's historic assets will be constantly pushed and pulled by the dynamic flows of international capital as it flows into and out of the country in which the historic assets are located, interacting with those assets, other non-tradable goods, tradable goods, and the currency markets. The assumptions underlying the 2006 Proposed Regulations on section 987 are simply not supported by the facts. There is no meaningful distinction between historic assets and marked assets as far as how they are affected by the currency exchange rate and the international flow of capital. They are both subject to the whims and fluctuations of capital flows and currency fluctuations. The 2006 regulations must be set aside for this reason. The larger point to take from Milner's analysis, though, is the fact that a government's alteration of the international flow of capital and goods into and out of its nation can produce unintended consequences. This should serve as a warning to the Treasury that its 2006 currency regulations could produce unintended consequences on the flow of capital and goods into and out of the United States if they have a negative impact on U.S. corporations' ability to compete with foreign corporations, as will likely be the case as we demonstrated above.

Indeed, the problem with the 2006 Proposed Regulations is not just that they are conceptually flawed and empirically suspect. The real problem is that they themselves, whether they are intended as such or not, will be a causal factor affecting the international flow of goods and capital into and out of the United States. By making it more difficult for U.S. corporations to invest in projects overseas, the 2006 Proposed Regulations may inadvertently affect the U.S. trade balance with other nations and, ironically, increase currency exchange rate volatility of the U.S. dollar vis-à-vis other nations' currencies in and of themselves.

Several economic studies are edifying in this regard. For example, in one economic model of the relationship between trade costs, non-tradables, and the currency exchange rate, scholars demonstrated that higher trade costs result in a larger non-tradable sector (i.e., U.S. corporations will invest in domestic non-tradables rather than invest overseas), and this, in turn, creates

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[218]     *See* Giancarlo Corsetti & Luca Dedola, *A Macroeconomic Model of International Price Discrimination*, 67 J. OF INT'L ECON. 129 (2005).

higher real exchange rate volatility.[219] And another study has shown that because international trade in goods significantly interrelates with the factors affecting the prices of non-tradable goods, this "interrelationship also means that changes in relative transaction costs could have dramatic and surprising effects on the pattern of trade."[220] As an example, the authors of the study maintain that "even a small reduction in the cost of international migration could induce immigration to a [labor]-scarce economy on a sufficiently large scale to turn the economy into an exporter of [labor]-intensive products."[221]

Similarly, even if the 2006 Proposed Regulations only slightly increase the transaction costs of doing business overseas for U.S. corporations, they could still have a dramatic impact on the flow of goods and capital into and out of the United States. Other studies also indicate that an increase in the terms of trade uncertainty may lead to a higher fraction of the labor force in the non-tradables sector rather than in the tradables sector.[222] Thus, by increasing the cost of doing overseas business to U.S. corporations (as shown above in Part III.A of this article), the 2006 Proposed Regulations may violate the cardinal rule of rule-making: whatever you do, do not make the problem worse than it already was. The empirical evidence indicates that the newly proposed regulations may do just that: move us from the frying pan into the fire.

## IV. CONCLUSION

The 1991 Proposed Regulations may have had some problems, but they can be fixed without eliminating them in their entirety. The Treasury's concerns with respect to taxpayers claiming artificial currency losses through circular cash flows and other such games can be addressed by adding a tougher anti-abuse section to the 1991 Proposed Regulations. They do not need to be thrown out completely. Doing so would be a mistake, especially if they are replaced by the 2006 Proposed Regulations, as is currently the plan.

There are four fundamental reasons why the newly proposed section 987 regulations should be rejected for the old 1991 proposed section 987 regulations. First, the new section 987 regulations are overly burdensome on

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[219]    Claudio Bravo-Ortega & Julian Di Giovanni, *Remoteness and Real Exchange Rate Volatility*, 53 IMF STAFF PAPERS, 115, 116 (2006).

[220]    Victor D. Norman & Anthony J. Venables, *International Trade, Factor Mobility, and Trade Costs*, 105 ECON. J. 1488, 1502 (1995).

[221]    *Id.*

[222]    *See* Eric van Wincoop, *Terms of Trade Uncertainty, Savings, and the Production Structure*, 33 J. INT'L ECON. 305, 320–21 (1992).

taxpayers, as the TEI and the AICPA have pointed out.[223] Second, the new section 987 regulations adopt the "net worth method" of Revenue Ruling 75-106, which was explicitly rejected by Congress in the TRA of 1986.[224] Third, the new section 987 regulations will comparatively disadvantage U.S. corporations vis-à-vis foreign corporations by putting them on a less advantageous depreciation schedule than foreign corporations.[225] Fourth, the newly proposed regulations are based upon the empirical assumption that historic assets do not have real economic currency gains and losses in the way that marked assets do.[226]

I have presented empirical evidence that undermines this assumption, thus calling into question the very foundations of these regulations. Moreover, I have also presented evidence that indicates these regulations may not only be flawed, but may in fact make the problem worse by exacerbating the U.S. trade balance with other countries and, ironically, increasing currency exchange rate volatility. The Treasury should heed the recommendation of the AICPA and TEI and reconsider the 2006 Proposed Regulations. At the very least, the Treasury should slow down its anticipated timetable for making them final. Economists and policymakers need to take a hard look at these proposed regulations to determine whether they will inadvertently become part of the very disease they should be helping to cure.

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[223]    *See supra* notes 14 and 15 and citations therein.

[224]    *See supra* Part II.C.1 and citations therein.

[225]    *See supra* III.A and citations therein.

[226]    *See supra* notes 6–11 and citations therein.

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