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AN ECONOMIC ANALYSIS OF THE PROPOSED IRS RULESS GOVERNING THE REPORTING OF DEPOSIT INTEREST PAID TO NONRESIDENT ALIENS

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AN ECONOMIC ANALYSIS OF THE PROPOSED IRS RULE GOVERNING THE REPORTING OF DEPOSIT INTEREST PAID TO NON-RESIDENT ALIENS[1]

INTRODUCTION

One of the criticisms lodged against using *Federal Register* page counts as a proxy for regulatory burden holds that many pages can be consumed in the process of deregulation, while only a handful of pages may be required to impose a particularly costly rule. The latter instance is clearly illustrated by the IRS's proposed rule to require the reporting of deposit interest paid to nonresident alien (NRA) depositors of U.S. depositories. I hold this conclusion despite the IRS's unsupported assertion in the scant (4 page) documentation of its proposed rule that the "proposed rulemaking is not a significant regulatory action as defined in Executive Order 12866." (p. 50387).

Although proposed in 2002, and the comment period has long since passed, the NRA deposit interest reporting rule has not been finalized; however, the possibility that it may be implemented provides the motivation for this study. The analysis that follows confines itself to the likely economic consequences of the rule, and leaves the legal and political analysis of the rule to others.[2] For ease of exposition, I summarize my analysis of the rule's potential economic effects into primary effects, secondary effects, and other likely consequences.

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[1] Department of the Treasury, Internal Revenue Service, "Guidance on Reporting of Deposit Interest Paid to Nonresident Aliens," *Federal Register 67* (149): 50386-50389, August 2, 2002. Hereafter referred to as the "proposed rule." The proposed regulations create new "reporting requirements for interest on deposits maintained at U.S. offices of certain financial institutions and paid to nonresident alien individuals that are residents of certain specified countries." (Proposed rule, p. 50386) "…[T]he proposed regulations provide that, if a nonresident alien who is a recipient of U.S. bank deposit interest is a resident of a country for which reporting of such interest is required, a copy of Form 1042-S, 'Foreign Person's U.S. Source Income Subject to Withholding', must be furnished to the nonresident alien…either in person or to the last known address of the nonresident alien." (*ibid*., p. 50387)

There are 15 countries initially subject to the proposed rule. They include Australia, Denmark, Finland, France, Germany, Greece, Holland, Ireland, Italy, New Zealand, Norway, Portugal, Spain, Sweden, and the United Kingdom. (Proposed rule, p. 50387)

[2] See, for example: Stephen J. Entin (2002), "New Threat to Foreign Investment: The U.S. Treasury and Information Sharing," Institute for Research on the Economics of Taxation, *Congressional Advisory No. 116*. Dan R. Mastromarco and Lawrence A Hunter (2002), "The U.S Anti-Savings Directive," *Tax Notes* (Arlington, VA: tax.org). Daniel J. Mitchell (2003), "Who Writes the Law: Congress of the IRS?", *Prosperitas 3 (1)*, (Alexandria, VA: Center for Freedom and Prosperity Foundation). The central findings of these and other analyses hold that the IRS did not follow appropriate administrative procedures in promulgating its rule. Moreover, the rule significantly alters U.S. tax policy, and in so doing, the IRS has arrogated the development of U.S. tax policy, which is the exclusive domain of Congress. In general, I concur with these findings, but will not elaborate them further since the principal focus here is on the economic effects of the proposed rule.

Primary Effects

1. Contrary to the IRS's unsupported assertion, the proposed rule will generate substantial, negative economic consequences of more than $100 million annually, and thus clearly qualifies as a significant regulatory action as defined by EO 12866.[3]

2. Paperwork burdens (the only aspect of the rule to receive any IRS analytical attention) are the *least* of the costs imposed by the rule. Yet, even limiting one's focus to paperwork burdens, the IRS asserts, without substantiation, that only 2,000 firms will be affected, and that each affected firm will face just 15 minutes of compliance burden associated with the rule per year.

3. Paperwork burdens aside, my estimates suggest instead that the rule has the potential to trigger a deposit outflow from U.S. depositories of more than $87 billion, as NRA depositors withdraw funds from the U.S. to secure alternatives better aligned with their privacy, financial, and other preferences.

Secondary Effects

4. The rule is *unlikely* to benefit European tax collectors or competing European depositories. Affected NRA depositors are instead more likely to move funds to non-U.S. and non-European depositories.

5. Other things equal, a reduction in the U.S. deposit base is also likely to lead to increases in U.S. interest rates, a constriction in the supply of credit, or some combination of the two, with the net result being that credit will become more expensive for all U.S. borrowers, including the federal government.

Other Consequences

6. Higher interest rates translate into lower securities prices through an opportunity cost connection. The attenuated wealth effect arising from lower securities prices is likely to prove less than salutary for U.S. consumer spending and capital investment plans.

7. A contraction of U.S.-based foreign deposits also implies a lower value for the dollar compared to the currency values of our trading partners if, as seems likely, NRA depositors move withdrawn funds out of dollar-denominated assets.

8. It is also possible that NRA depositors from countries not directly affected by the rule may also withdraw funds from the U.S. in anticipation of a wider application of the rule to other countries in the future.

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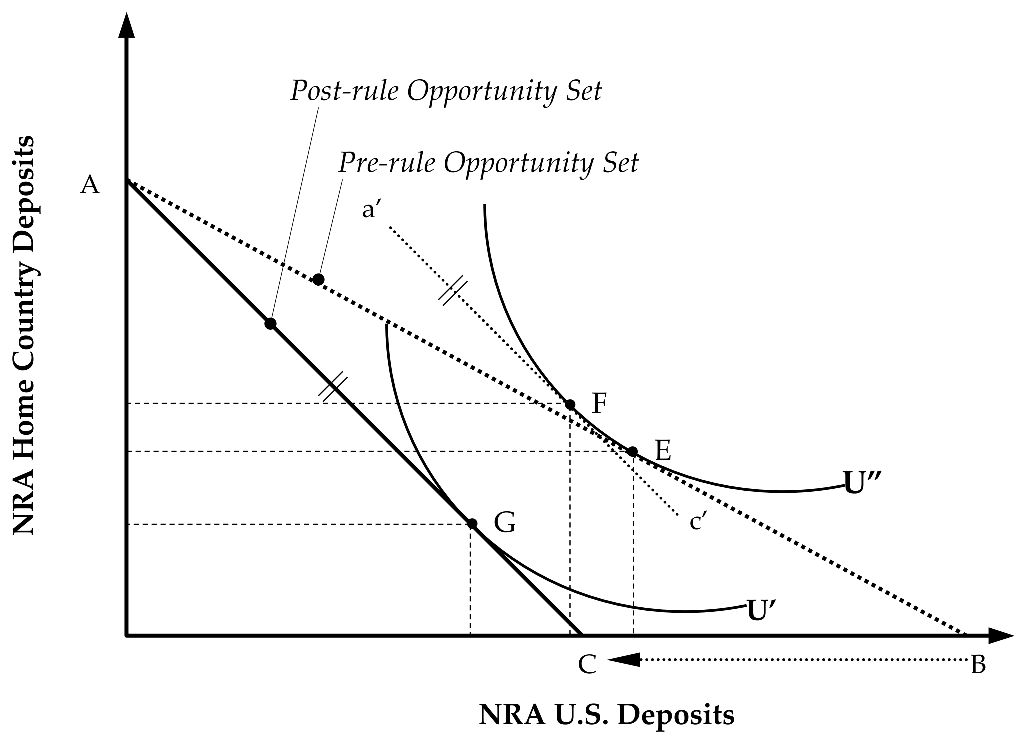
[3] In part, Executive Order 12866 requires Executive Branch agencies to conduct an impact analysis of rules that may have economic effects exceeding $100 million per year.

THE ECONOMICS OF DEPOSITOR CHOICE

To better understand the effects of the NRA deposit interest rule, it will be helpful to examine the rule's effects from the perspective of the choices confronting a representative nonresident alien depositor. The standard two-goods geometry of consumer choice described in Figure 1 is particularly useful in this regard. The ordinate of Figure 1 depicts the volume of NRA deposits in the NRA-depositor's home country, while the abscissa depicts the volume of NRA deposits in U.S. depositories.

FIGURE 1

The Geometry of Depositor Choice



The slope of the pre-rule opportunity set (dotted line, AB) is determined by the relative after-tax yields offered by U.S. and home country depositories. If after tax yields on U.S.-based deposits fall, other things equal, NRA depositors will be less inclined to deposit in the U.S.-based depositories and line AB pivots inward.

The preferences of a representative NRA depositor are shown by indifference curves (U′ and U″), which exhibit the standard properties. Given the relative differentials in depository after-tax rates of return, and NRA depositor preferences, the preferred combination of U.S. and home country deposit accounts occurs at tangency point "E" for the NRA depositor under the conditions prevailing before the rule applies.

The proposed IRS rule changes the conditions faced by a nonresident alien U.S. depositor. First, the rule changes the costs to U.S. depositories (banks, thrifts, brokers, etc.) by mandating the collection and production of reports associated with compliance, thereby making intermediation services more costly for U.S. firms to provide. Second, the rule diminishes the level of financial privacy an NRA depositor can obtain when placing her funds on deposit in the U.S. Lastly and most importantly, by disclosing to the NRAs' home countries the amount of deposit interest paid, the rule effectively lowers the after tax yield on U.S.-deposited funds for these depositors.

Consider each of these changes in more detail: First, even by the IRS's own admission, the proposed rule raises compliance costs, which has the effect of lowering the effective return to NRA depositors. Increased compliance costs result from production of new reports, validation of reported data, distribution of the 1042-S forms to the NRA depositors, and legal review of compliance procedures to name but a few of the additional steps prudent compliance with the rule would entail. It is rather doubtful whether timely and accurate reports can be developed, verified, approved, and distributed within the 15-minute interval suggested by the IRS.

In addition, higher compliance costs imply either reduced returns to the affected firms' shareholders (in the form of higher costs of funds—i.e., as reduced profits), or reduced rates paid on deposited funds, or a combination of the two effects. The IRS contends, without substantiation, that the higher compliance costs associated with the rule are small, and that such costs only apply to a small subset of U.S. depositories.[4] Even if one were to accept the IRS's unsupported assertions at face value, compliance costs are not the largest nor most important costs imposed by this rule.

The proposed rule also raises the cost to NRA depositors of maintaining any preferred level of privacy. Indeed, foreign depositors may prefer U.S.-based deposits not only to avoid taxation, but also to shield assets from confiscation or loss by other means.[5] Removing previously available privacy protection from U.S.-based deposits makes them less attractive to

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[4], According to FDIC industry data ("Statistics on Depository Institutions"), there were 9,182 depository institutions (banks and thrifts) in the U.S. as of year-end 2003. In addition, according to the U.S. Census Bureau's 1997 *Economic Census* there were 3,021 investment banks and securities dealers, and 7,901 brokerage firms operating in the U.S. Thus, narrowly defined, roughly 20,000 firms are engaged in businesses potentially subject to the proposed rule. What is the rationale for assuming that just 10 percent of these firms hold accounts for NRAs and thus would be subject to the rule? It is worth noting too that the above figures omit an additional 25,000 firms such as mutual funds, trusts, and other fiduciaries who may also be subject to the rule.

[5] "Indiscriminate and automatic sharing of tax information increases the likelihood that confidential data will get in the hands of non-tax authorities, where it could be used for improper reasons. Some of the governments listed in the [proposed] regulation have misused tax information for other purposes, including personal gain and political mischief." See Daniel J. Mitchell (2003), "How the IRS Interest-Reporting Regulation Will Undermine the Fight Against Dirty Money," *Properitas 3* (3): 3.

NRA depositors on a number of dimensions, including but not limited to tax avoidance in the NRA's home country.

By far, however, the largest costs likely to emerge from the imposition of the rule follow from subjecting U.S.-based NRA deposits to home country taxation. If imposed, the rule lowers the after-tax yields available to nonresident aliens here in the U.S., as is discussed in greater detail below.

All of these factors (higher compliance costs, diminished privacy protections, and lower after tax yields) combine to make U.S.-based deposits less attractive to NRA depositors. This loss of attractiveness is shown in Figure 1 as an inward pivot of the opportunity set to line AC. This change in relative attractiveness of U.S.-based deposits effectively pushes the NRA depositor down her preference function (i.e., makes her worse off), such that tangency point "G" represents the new optimum for the NRA depositor under the post-rule institution.

Separating the Changes Brought by the Rule

Figure 1 shows a net loss in deposits to U.S. depositories as the rule generates a movement along the abscissa towards the origin associated with the inward pivot of the opportunity set. Interestingly, however, the geometry described in Figure 1 also suggests a net loss in deposited funds is likely to occur in the NRA's home country deposits, as shown by the movement from the original optima, E, to the new one at point G (i.e., as a movement along the ordinate toward the origin). There are two factors at work that induce the reduction in deposited funds: a substitution effect and an income effect and it is possible to evaluate these effects separately. Doing so reveals that as U.S.-based deposits become relatively less attractive as compared to their foreign competitors, the rule induces NRAs to substitute out of the now relatively more costly U.S. deposit option and into the relatively less costly home country deposit option. This substitution effect is shown by the movement from point "E" to point "F" along the NRA depositor's original indifference curve U".

This substitution effect seems to be the only effect on which the petitioning foreign governments are focusing. In particular, the Europeans—who, through the EU and the OECD, have lobbied vigorously for this change in long-standing U.S. tax policy in order to end what the Europeans term "harmful" tax competition from low tax regimes—seem to believe that any U.S. loss (in deposits or tax competitiveness) implies a European gain. An exclusive focus on pure substitution effects can lead to such a conclusion. If this is correct reading of the Europeans' expected outcome from the rule, they are misinformed; inasmuch as they are ignoring the full effects of the change induced by the rule. A full accounting of course includes consideration of the income effects induced by the rule change too.

By making U.S. deposits relatively less attractive to NRAs, the proposed rule damages the income position of NRA depositors. Geometrically, this reduction in an NRA depositor's real income is shown by the movement from point "F" to point "G"; that is, by the movement of the opportunity set and the subsequent re-optimization on a lower indifference curve U'. At reduced levels of income (represented by the less-fulsome opportunity set, AC), one can expect the preferred levels of both U.S. and non-U.S. deposits to fall.[6]

Policymakers would be well advised to remember that all depositors have alternatives beyond the simple two-dimensional choice geometry shown in Figure 1. It seems reasonable, therefore, to expect that if the IRS adopts its proposed rule, NRA depositors will avail themselves of those alternatives to the net disadvantage of both the United States *and* Europe.

APPLICATION OF THEORY TO PRACTICE

It remains an empirical question, albeit one with a potentially costly answer, regarding the precise volume of deposited funds NRA depositors might be expected to withdraw from U.S. depositories if the proposed rule were implemented. It is possible, however, to draw boundaries around the empirical problem based on reasonable estimates of deposit levels, as well as likely depositor responses to the changed conditions presented by the new rule.

Data from the U.S. Treasury's International Capital (TIC) Reporting System indicate that as of the end of September 2003, foreigners were owed a combined $2.34 trillion from U.S. depositories.[7] This entire volume, of course, will not be affected by the rule. First, not all foreign depositors are citizens of the countries subject to the proposed rule. Currently, NRA depositors of 15, mostly European countries[8] will initially be subject to the rule, and these depositors account for $552 billion of the $2.34 trillion—or slightly less than one quarter of all U.S. depository liabilities owed to the rest of the world. Second, the TIC system reports U.S. bank liabilities owed to foreign official depositors, such as central banks, governments, and non-governmental organizations. Official deposits are unlikely to be affected by the rule and should be subtracted. However, in the "Official" category, the Treasury also includes liabilities owed to a U.S. depository's own foreign offices and these volumes should be retained. Therefore, to adjust the $552 billion figure, I subtract the total liabilities owed to foreign official

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[6] U.S.-based deposits are assumed to be normal goods to NRA depositors. Even so, geometrically, it is possible to construct indifference curves in which the NRA depositor exhibits strong preferences for home country deposits implying that income effects would strongly reinforce the substitution effects. This could produce the result that home country deposits actually increase following imposition of the rule. Though acknowledged here, such a result is ruled out in general terms because NRA depositors, by definition, do not reveal such preferences by their actions, and as a factual matter, low-tax alternatives will remain even if the rule were adopted, leaving NRA depositors free to indulge other alternatives not depicted in the two-dimensional space of Figure 1.

[7] Cf., http://www.ustreas.gov/tic/lb_99996.txt The TIC database is not comprehensive in that it does not require reporting if a bank's foreign deposits total less than $25 million. In addition, though a U.S. deposit account may carry, say, a London address, the owner of the London account may be resident in yet a third country, which may or may not be subject to the rule's provisions. As a first approximation, therefore, and because the concern here is less with precision than with assessing rough orders of magnitude, I assume that under-reporting is offset by potential misalignments and errors in reporting.

[8] See note 1 above, for a list of the 15 countries.

institutions and foreign banks, and add back those liabilities owed to depositories' own foreign offices.[9] Completing these adjustments leaves $467 billion of deposit liabilities that could be potentially affected by the rule as of September 2003.

Calculating the Potential Impact of the Rule on Non-Official Deposits

As suggested above, the rule changes the after-tax rates of return NRA depositors receive, and so it is likely to affect, at the margin, the volume of deposits NRA depositors are willing to make once the rule is imposed. To estimate the proportion of NRA deposits that may be withdrawn from the U.S., one needs:

(i) Estimates of the marginal tax rates in the countries involved;
(ii) An estimate of the currently prevailing differences in deposit interest rates in the U.S. versus Europe;[10] and
(iii) A gauge of the sensitivity of depositors to lower after tax rates of return (i.e., one needs an estimate of interest rate elasticities).

<u>Marginal Tax Rates</u>

The Organization for Economic Cooperation and Development (OECD) reports average and marginal tax rates for the countries subject to the rule.[11] The OECD develops its tax rate estimates using 100 percent of the average production wage (APW) in a given country as a baseline. Then, using different percentages of the baseline APW, the OECD provides estimates of the applicable marginal tax rates in order to account for the progressivity of a given country's tax code.[12]

The marginal income tax rates used in this study are based on 167 percent of a country's APW, under the assumption that wealthy depositors are more likely than those with average incomes to hold foreign deposit accounts. For the 15 countries subject to the rule as a whole, at 167 percent of APW, the median marginal income tax rate is 41.5 percent.

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[9] This latter figure is reported as a memorandum item in Column 12 of the TIC reports, "Liabilities to Banks' Own Foreign Offices." The deposit liabilities of JP Morgan/Chase's Frankfurt Germany office, for example, would be reportable under the memorandum item. Since official deposits are elsewhere classified in the TIC reports, I make the simplifying assumption that all liabilities reported as owed to a bank's own foreign offices are owed to non-official entities.

[10] Strictly speaking, this step is not required to estimate the rule's impact; however, it is included here to make the resulting estimates more concrete.

[11] See the OECD Tax Database, http://www.oecd.org/dataoecd/44/0/1942482.xls . The OECD tax database reports central (i.e., federal) and sub-central government tax rates on income as well as taxes paid for social security. The data used here only reflect marginal tax rates on income, and ignore taxes paid for social security.

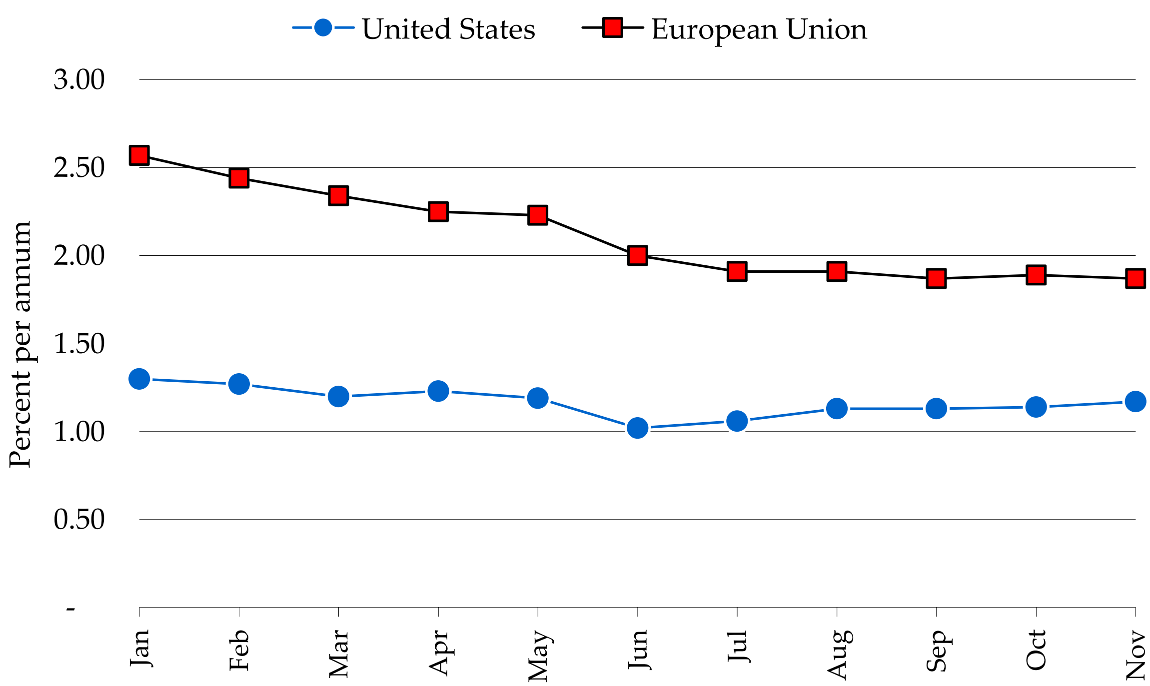
[12] Thus, the OECD database reports average and marginal tax rates for individuals earning 67 percent of baseline, as well as those earning 100, 133, and 167 percent of baseline.

Differences in Deposit Interest Rates

Figure 2 shows the average rates paid by U.S. depositories on 6-month certificates of deposit (as reported by the Federal Reserve) for 2003, versus the average rates paid by European depositories for deposit instruments with agreed maturities of less than one year (as reported by the European Central Bank [ECB])—both of which are reported on a pre-tax basis.[13] As of November 2003, the average European deposit rate was 1.87% versus the roughly comparable U.S. deposit rate of 1.17%. Applying the median marginal income tax rate (41.5 percent) to European rate results in an after-tax rate on European deposits of 1.09%. This calculation suggests that U.S.-based NRA deposits currently enjoy about an 8 basis point[14] yield advantage on an after tax basis for high-income Europeans.

FIGURE 2

Deposit Interest Rate Differentials—U.S. and Europe



Sources: US, *Federal Reserve H.15 Statistical Release, "6 Mo. CD Rates."*
EU, *ECB Statistics Pocket Book (Jan 2003), Table 9.11, "Households With Agreed Maturity Up to 1 Year."*

Following imposition of the rule, after-tax deposit yields on U.S.-based deposits will decline for NRA depositors because deposit interest income earned on U.S.-based deposits was not previously reportable by U.S. depositories, and, therefore, likely went unreported by the

13 Of the available data, these two series were the closest to each other in terms of maturity and contract terms. The ECB series reports data for maturities ranging from 1 to 364 days, and thus in the absence of detailed data, the average maturity of deposits in this series is expected to be six months.

14 A basis point equals 1/100th of a percentage point.

respective NRA deposit holders to their home country tax authority. Applying the median marginal income tax rate to the U.S. 6-month CD yield of 1.17 percent results in an after-tax (or post-rule) interest rate of 0.68% on U.S. deposits, representing a decline of 49 basis points compared to their pre-tax position. Said somewhat differently, pre-tax rates on U.S.-based deposits would have to rise 83 basis points (to 2.00%, based on the November rates) in order to restore the relative interest rate differentials that existed between the U.S. and the EU prior to the rule.

Interest Rate Sensitivity of NRA Deposits

Assuming U.S. deposit rates do not adjust following imposition of the rule, then NRA deposit volumes surely will. In other words, when faced with a changing constraint, either price or quantity (or a combination of the two) must adjust. To gauge the approximate magnitude of such an adjustment, an estimate of interest rate elasticity is helpful. Hoffman and Rasche (1991) estimate the interest elasticity of money demand ranges from –0.4 to –0.5,[15] meaning that for every one percent decrease in interest rates (not one percentage point, but one percent), money demand rises by 40 to 50 basis points. The elasticity measures are negative because interest rates represent an opportunity cost of holding money, such that as interest rates fall, the cost of holding (non-interest bearing) money also falls with the net result being that more money is held, other things equal.

At this point, one might reasonably ask why use money demand elasticities if the focus here is on deposit sensitivity rather than money demand per se'? To answer this question, consider that when an NRA depositor in the U.S. confronts a changing relative interest rate environment, she faces a choice: retain the lower-yielding U.S. deposit or transfer her funds into some other asset. If she decides to transfer funds into some other asset, she must first liquidate the deposited funds—i.e., convert them into a form of transferable money. In other words, the NRA depositor who responds to lower U.S. after-tax deposit rates by transferring her funds out of the U.S. will do so, in effect if not in fact, by first demanding money. [16] Moreover, following Hicks (1939), it is helpful to recall that money can be conceived as broadly representing the set of all other opportunities available to the NRA depositor.[17] Thus, the responsiveness of money demand to changes in interest rates allows us to estimate the static effects of the rule on depositor choices, even if it will not allow us to determine the ultimate locations into which those withdrawn funds ultimately flow.

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[15] D.L. Hoffman and R. H. Rasche (1991), "Long-Run Income and Interest Elasticities of Money Demand in the United States," *The Review of Economics and Statistics 73* (4): 665-674.

[16] Even transferring funds from a demand deposit account to, say, a time deposit account within the same financial institution usually necessitates the issuance of a check, draft, or other written authorization, and in any case the demand deposit funds are liquidated first and then transferred. To change the order of precedence or leave out a step would expose the bank to potential risk of loss.

[17] J.R. Hicks (1939), *Value and Capital*, (London: Oxford Press): 33-34 and *passim*.

Recall from the preceding analysis that, based on the November interest rate data, U.S. after tax yields would have dropped by 49 basis points, representing a 41.5% relative drop in after-tax yields on U.S.-based deposits had the rule been in force then. Applying the midpoint of Hoffman and Rasche's (1991) elasticity estimates, –0.45, against the 41.5% drop in relative after-tax yields, suggests that NRA depositors may increase their money demand by 18.7 percent. In other words, *assuming no upward adjustment in U.S. deposit rates, NRA depositors may be expected to withdraw $88.1 billion of their U.S.-based deposits in response to the rule*.

ESTIMATE CONTEXT AND POSSIBLE SYSTEM ADJUSTMENTS

To place that $88.1 billion estimate in context, it represents 209% of the entire U.S. banking system's reserve base, which stood at $42.2 billion as of December 2003.[18] To be sure, I am *not* suggesting the rule will lead to evaporation of the U.S. banking system's reserve base. Instead, I am attempting to highlight that some rather uncomfortable choices confront the U.S. financial system if this rule is adopted.

If interest rates do not adjust in the short run, reserves will flow out of the system as NRA depositors adjust deposit quantities at the margin. This reserve outflow, in turn, will necessitate balance sheet adjustments by affected U.S. depositories, or concerted intervention by U.S. monetary authorities in order to correct the reserves and other asset imbalances created by the rule.[19]

The most likely response, in my view, to such comparatively large deposit outflows would be for banks to liquidate part of their marketable securities positions, rather than call loans or sell other less-liquid assets.[20] Regardless, however, of the precise means by which depositories adjust, the net effect will be that U.S. depositories will have to readjust both sides of their balance sheets in order to maintain legally required reserves-to-deposits ratios, asset compositions, minimum capital requirements, and so on. The liquidation of securities represents the most expeditious, but certainly not the only means of correcting the rule-induced imbalances.

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[18] Cf., Federal Reserve Statistical Release H.3, Table 1, "Aggregate Reserves of Depository Institutions and the Monetary Base." http://www.federalreserve.gov/releases/h3/Current/ In addition, a reduction in deposits and reserves of U.S. depositories can lead to a multiple contraction of the deposit base in the United States through the reverse operation of the deposit multiplier. This effect, though noted here and potentially large (at about 1.75 times the base reduction in reserves), is ignored.

[19] By law, banks must hold reserves in proportion to certain transactions deposits. The non-reserved portion of deposits then becomes available for loans and other investments. If reserves and deposits both contract, then the asset side of the banking system's balance sheet must contract correspondingly to preserve the required and prudent relationships among deposits, reserves, and other assets such as loans and securities.

[20] Dynamically, the securities liquidation process raises interest rates, and rising rates will ultimately serve as a brake on deposit outflows.

Although securities liquidation represents the most expeditious way for depositories to realign their balance sheets, it is not the only way, and it comes with its own set of costs including the fact that it puts upward pressure on interest rates at the margin unless such liquidations are accommodated by the monetary authorities through aggressive rediscounting, open market operations, or by other means. Higher interest rates, of course, mean more expensive credit for U.S. borrowers including the federal government. Given current and projected federal spending and revenue imbalances, the U.S. government must borrow at least $125 billion of net new funds per quarter. As an illustration, an increase of 83 basis points in domestic interest rates implies that the federal government's borrowing costs (and the consequent burden on U.S. taxpayers, both present and future) will rise by $4.15 billion annually. This calculation does not consider the effects of higher interest rates on private and non-federal government borrowers, which could also be substantial in their own right.

OTHER (NON-QUANTIFIED) CONSEQUENCES OF THE RULE

The preceding theoretical and analytical sections sketch the static effects on NRA depositor choice that flow from changing the reporting rule. As exercises in comparative statics, they establish minimum boundaries around the magnitude of the problem created by the rule. Adoption of the proposed rule would signal a sea-change in long-standing U.S. tax policy, by suggesting—at least for the 15 countries initially subject to the rule—that the U.S. has become less of a haven for foreign investment than had been true previously. Changes in policy and perceptions will in turn trigger a series of dynamic adjustments. Although the dynamic effects of the proposed rule are not quantified in this study, they are mentioned here as part of a fuller accounting of the proposed rule's potential effects as well as to suggest avenues for future research.[21]

Higher interest rates have the potential to translate into lower securities prices through an opportunity cost connection. Stocks and bonds, in other words, would be adversely affected by rising market interest rates because of the temporal nature of their cash flows. The attenuated wealth effect arising from lower securities prices is likely to prove less than salutary for U.S. consumer spending and capital investment plans.

If, as seems likely, NRA depositors move their withdrawn funds entirely out of dollar-denominated assets, the dollar is likely to lose value compared to the currency values our trading partners. While a relative loss in a currency's exchange rate may prove temporarily

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[21] As one means of quantifying the dynamic effects on foreign investment, existing studies of tax competition may prove fruitful. These studies tend to look at natural experiments in tax competition—either domestically between U.S. states and localities, or internationally between, say, members of the EU. In this latter instance, see, for example, Joeri Gorter and Ashok Parikh (2003), "How Sensitive is FDI to Differences in Corporate Income Taxation within the EU?", *De Economist* [*Quarterly Review of The Royal Netherlands Economic Association*] 151 (2): 193-204. Gorter and Parikh find that a one-percentage point reduction in corporate income tax rates (relative to the European mean), results in an approximately four percent increase in FDI. (My thanks to Dan Houser for the natural experiment suggestion and citation.)

beneficial to domestic exporters, for example, domestic consumers suffer from higher imported goods prices. At the same time, investment in U.S. assets becomes less attractive to foreigners as the dollar loses value, and to remain competitive, other things equal, dollar-denominated investment yields will have to rise to compensate for the dollar's loss in value.

Furthermore, with respect to dollar depreciation in foreign exchange markets, the rule increases the level of uncertainty surrounding the dollar generally. If, as seems likely, the rule compounds the dollar's deprecation, the Federal Reserve (at the direction of the U.S. Treasury) may be impelled to adjust monetary policy in order to stem the dollar's decline. The traditional course of treatment for a weakening currency is contractionary monetary policy (i.e., higher interest rates combined with slower rates of credit creation).[22] It is important to recognize that any dollar-related interest rate and credit effects would be in addition to the static adjustments to rates and credit flows resulting from NRA depositors' reoptimization.

Lastly, it seems reasonable to expect that the rule's undesirable effects will prove difficult to contain to just the 15 countries affected by the rule. NRA depositors from countries not initially included in the rule may also choose to withdraw funds from U.S.-based depositories in rational anticipation of a wider application of the rule in the future. Indeed, the IRS has explicitly left itself just such a wider application option in the currently proposed rule.[23] Forward-looking depositors from other countries may be unwilling to wait for further extensions of the rule, however, and instead take preemptive action once the initial 15-country rule is adopted. It may be useful, therefore, to examine the deposit levels in so-called "tax haven" countries in order to gauge the rule's potential spillover effects.

To simplify matters, we can constrain the spillover analysis just to the Caribbean banking centers in the Bahamas and the Cayman Islands, and include the European banking centers in the Channel Islands, Luxembourg, and Switzerland. Applying the same analytical technique to the TIC data for these countries (as was used in the "Application of Theory to Practice" section), results in a potentially affected deposit base for these 5 countries totaling $859.2 billion, based on the September 2003 TIC data. Notice that this figure is nearly twice the size of the U.S. NRA deposit base in the 15 affected EU countries.

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[22] Seen from a slightly different angle, dollar depreciation (if countered by the Federal Reserve) necessarily hamstrings ordinary conduct of monetary policy. This result obtains from the basic observation that a monopolist can control either price or quantity but not both. See, in this connection, Maurice Obstfeld (1998), "The Global Capital Market: Benefactor or Menace?", *The Journal of Economic Perspectives 12* (4): 9-30.

[23] In the proposed rule, the IRS generously allows: "Payors may, however, at their option, choose to report bank deposit interest paid to all nonresident aliens or to any non resident alien who is a resident of a country other than the countries listed above. If the IRS and Treasury determine that this list of countries should be modified in the future, regulations providing such a modification will be proposed and comments will be requested on those proposed regulations." (Proposed rule, p. 50387)

Although it is difficult and perhaps impossible in the haven case to assign a precise figure to depositors' willingness to act preemptively, the important point remains that adoption of rule necessarily changes the risk landscape for *all* NRA depositors in the U.S., not just those of the 15 affected countries. The potential spillover effects, in other words, could be quite large in their own right.

CONCLUSION

In sum, the adjustment process that will be set in motion by this rule is quite likely to lead to unwelcome changes in U.S. depositories' balance sheets, and/or in the cost of funds obtained through deposits. These unwelcome adjustments are also likely to affect the dollar adversely, and to retard foreign investment (both direct and indirect) in the U.S. from citizens of the listed and non-listed countries.

Such adjustments *might* be worthwhile U.S. policy objectives if they were outweighed by benefits U.S. citizens or depositories received as a *quid pro quo* from our international partners who are seeking the imposition of this rule. However, the IRS has presented no such offsetting considerations in its proposed rule, nor are such offsetting benefits likely ever to emerge. Such an uneven outcome is understandable once one considers that the overarching goal of the rule is to help Europe end "harmful" tax competition among nations. It is well to recall, however, that "harmful" in this context means harmful to the tax collector not the taxpayer. The flip side of harmful tax competition, in other words, is competition that benefits individual depositors and depositories.

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