

**Regulatory Impact Assessment for FinCEN Notice of Proposed Rulemaking:
“Customer Due Diligence Requirements for Financial Institutions.”
Docket No. FinCEN-2014-0001**

December 2015

This is a preliminary Regulatory Impact Assessment. Comments must be received on or before January 25, 2016. Following review and consideration of comments, the final version would be published as part of any final Customer Due Diligence Requirements for Financial Institutions rulemaking.

EXECUTIVE SUMMARY

The primary purpose of proposed customer due diligence (CDD) requirements is to assist financial investigations by law enforcement, with the goal being to severely impair criminals' ability to exploit the anonymity provided by the use of legal entities to engage in financial crimes including fraud and money laundering, and also terrorist financing, corruption, and sanctions evasion. Although limitations prevent us from fully quantifying all costs and benefits attributable to the CDD rule, the U.S. Department of the Treasury is confident that the proposed rule would yield a positive net benefit to society. The Regulatory Impact Assessment (RIA) employs a breakeven analysis that, in its most conservative estimate, concludes that the CDD rule would have to induce a modest reduction of only 0.57 percent in annual U.S. real illicit proceeds in each of ten years (2016-2025) to achieve this positive net benefit. If the definition of illicit proceeds is expanded to include money exchanged in illicit drug sales, which, as described in the RIA, are not always included in such measurements, then the analogous required reduction falls to 0.45 percent. For either set of illicit activities, this would correspond to a reduction in real proceeds ranging from \$1.38 billion in 2015 to \$1.71 billion in 2025.

At the above estimated thresholds for the percent reduction in real illicit proceeds – assumed to be constant across each year of the ten-year horizon for the given set of illicit activities, and computed using an upper bound for costs based on estimated and hypothetical values – the present value of the rule's benefits would just be equal to the present value of its costs. This RIA argues, however, that both of the above threshold estimates are exceedingly conservative in that they are based on an excessively high upper bound for the rule's costs while not incorporating all of its benefits. Specifically, the estimates:

- are based on an implausibly high hypothetical present value for 10-year IT upgrade costs of \$10 billion;
- incorporate the highest-cost scenarios for the costs that are quantified in the RIA – financial institution employee training and new client onboarding;
- are not in relation to, and therefore do not account for, all of the benefits that would be realized in the form of saved costs from crimes that would not occur in the presence of the rule because any reduction in illicit proceeds would only reflect saved costs in the form of *funds* no longer involuntarily transferred from victims to offenders; the excluded benefits include, for example, time not devoted to handling the aftermath of—for example, fraud victimization, and psychological pain and suffering not experienced due to those fraud victimizations avoided; and
- are not in relation to, and therefore do not account for, other benefits discussed in the RIA, including increased asset recovery, increased tax revenue due to stronger tools for detecting and remediating under reporting and under payment of federal taxes, and reputational benefits to the U.S. government of meeting international standards.

Therefore, even though the RIA errs on the side of caution by comparing a lower bound for benefits with an upper bound for costs, we find that the proposed CDD rule would still only need

to exhibit a modest level of effectiveness for its (understated) benefits to justify its (overstated) costs as laid out in the RIA. It is the view of the Treasury Department that these reductions in illicit activity would easily be achieved if the CDD rule were adopted.

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I. Introduction and Summary

1. Overview of the Regulatory Impact Assessment

The Financial Crimes Enforcement Network (FinCEN) is proposing rules under the Bank Secrecy Act to clarify and strengthen customer due diligence (CDD) requirements for the following financial institutions: banks, brokers or dealers in securities, mutual funds, and futures commission merchants and introducing brokers in commodities. The proposed rules would contain explicit CDD provisions and would include a new regulatory requirement to identify beneficial owners of legal entity customers. The beneficial owners would be defined as each individual who owns, directly or indirectly, 25 percent or more of the equity interests of the entity, and one individual with significant responsibility to control, manage, or direct the entity.¹

The proposed CDD rule would reduce illicit activity by providing easier access to beneficial ownership information to support law enforcement investigations at the expense of additional costs to gather and store the data on the beneficial owners of legal entity accounts. We expect that there will be a meaningful impact on illicit activity and law enforcement investigations, but these effects are notoriously difficult to quantify. Thus, we can only describe the rule's benefits qualitatively, though we later offer a conservative estimate of the required minimum level of the rule's effectiveness at which its benefits would just offset its costs.²

We quantify certain costs to financial institutions and their clients of complying with the proposed rule, specifically the value of additional time spent training financial institution staff and onboarding new accounts. Throughout this analysis, we use a "no action" baseline, meaning that we compute and discuss costs and benefits of the proposed rule relative to a situation where the rule is not adopted. We estimate that these first-year costs would range from roughly \$95 million to \$220 million. Close to half of these costs would be incurred by customers in additional time spent opening accounts, with the other half due to additional staff time in training and account onboarding at the roughly 29,000 covered institutions.³ Training costs would fall after the first year. We estimate that 10-year quantifiable costs range from roughly \$700 million to \$1.5 billion in present value. As described at greater length below in the breakeven analysis, given even an unrealistically high hypothetical value for the rule's total costs, the CDD rule would only have to reduce annual real illicit activity by 0.57 percent, roughly \$1.38 billion (in 2016, rising to \$1.71 billion in 2025), to yield a positive net benefit (the required reduction in illicit proceeds would only be 0.45 if proceeds from illicit drug sales are included).^{4,5}

¹ Treasury's Office of Economic Policy worked with FinCEN to prepare this Assessment pursuant to Executive Orders 13563 and 12866 because the proposed rules have been determined by the Office of Management and Budget (OMB) to be an economically significant regulatory action. The rulemaking is published at 79 FR 45151 (August 4, 2014).

² The full list of costs and benefits can be found in the table of contents of the RIA.

³ The Treasury Department computed the number of covered institutions based on information provided by the Federal Deposit Insurance Corporation, the National Credit Union Administration, the Securities and Exchange Commission, and the Commodity Futures Trading Commission.

⁴ This calculation uses the \$300 billion estimate for annual illicit proceeds generated in the United States on page 2 of U.S. Department of the Treasury. Office of Terrorism and Financial Intelligence. 2015. *National Money Laundering Risk Assessment*.

To summarize: this cost-benefit analysis provides a qualitative discussion of the rule's benefits and some costs, and quantitative estimates of those costs for which adequate data are available. Due to the limited availability of data on illicit activity and in the absence of previous changes in beneficial ownership disclosure policy, the proposed rule's effects in terms of reducing such crime cannot be estimated with sufficient accuracy to warrant quantitative assessment. In the absence of fully quantified benefits and costs, we rely on a breakeven analysis to determine how large the proposed rule's benefits would have to be in order to justify its costs. Given that the breakeven analysis depends on an argument about the proposed rule's effectiveness in generating benefits, and that the benefit of a crime prevented is the inverse of that crime's cost,⁶ we need a value for the costs of the crimes that the rule would impact. For this specific regulation's RIA, we choose to utilize the Treasury Department's estimate of \$300 billion in illicit proceeds generated annually in the United States due to financial crimes as the basis for determining the rule's minimum level of effectiveness in the breakeven analysis, at which benefits would exactly justify costs. The whole of these proceeds must be laundered before they can re-enter the economy under a guise of legitimacy.⁷

The remainder of this section provides the rationale for the CDD rule, discusses regulatory alternatives, and summarizes the findings of the cost-benefit analysis. The second section reports quantitative estimates of certain costs; the third section provides a qualitative discussion of benefits and those costs that we cannot quantify; the fourth and final section employs a breakeven analysis to make the case for the adoption of the proposed rule.

2. Rationale for the CDD Rule

Under certain circumstances, markets lead to socially desirable allocations of goods and services. Yet when all the necessary conditions are not met, a market's allocation of goods may not be

⁵ The distinction between illicit proceeds that include and exclude money exchanged in illicit drug sales matters for the interpretation of proceeds as costs of crime. As discussed later, illicit proceeds that are involuntarily transferred from victims to offenders – for example, via fraud – are naturally counted among “external” costs of crime. On the other hand, illicit proceeds from transactions that are arguably voluntary, like illicit drug sales, do not fit into the set of external costs so readily. To the extent that the size of proceeds from illicit drug sales are indicative of the costs to society of the drugs consumed from those transactions – loss of health and quality of life and lost labor market productivity, among many others – then this justifies using the broader measure of illicit activity (i.e. including drug sales) for estimating the social benefits of reduced crime. Although in this instance we are not accounting for the effects of the proposed rule on other types of illicit activity (e.g. terrorist financing) in the breakeven analysis, the CDD rule would potentially impact the likelihood of low-probability, high impact events occurring. Such reductions have the potential to yield significant benefits. For example, the costs of terrorism and financial crime can run into the billions of dollars in terms of property destruction, foregone tax revenues, and loss of life. The American Academy of Actuaries has estimated that a medium-impact scenario involving a chemical, nuclear, biological, or radiological attack in New York City could result in insured losses of over \$445 billion dollars, while a truck bomb attack in San Francisco could result in insured losses of nearly \$9 billion. “Letter to President’s Working Group on Financial Markets regarding Terrorism Risk Analysis,” American Academy of Actuaries, April 21, 2006.

⁶ The terms “costs” and “benefits” can be interchangeable depending on whether one is examining the effect of crime or the effectiveness of a crime reduction program. See page 276 of Cohen, Mark A. “Measuring the Costs and Benefits of Crime and Justice.” *Criminal Justice* 4 (2000): 263-315 (“...the cost of a crime is the same as the benefit of a crime that was prevented”).

⁷ See footnote 4.

efficient, a situation known as a *market failure*. Economists consider the presence of a market failure to be a justification for policy intervention. The proposed CDD rule intends to address two related market failures. Both of these are *spillovers* (also called *externalities*) in that the wellbeing of parties *not* buying or selling in a market is impacted by transactions in that market. Spillovers can either be positive or negative. For example, a positive spillover occurs in the market for influenza vaccinations: those who receive the vaccine reduce the chances of others who do not receive the vaccine from catching the flu. From the perspective of society's overall wellbeing, the existence of a positive spillover implies that fewer transactions are taking place in the market in question than is socially optimal. Conversely, in the case of a negative spillover, too many transactions occur, resulting in lower societal wellbeing. For example, a paper mill that pollutes a river by releasing wastewater may negatively affect recreational fishermen downstream who may find fewer fish or be unable to eat the fish they catch due to the pollution.⁸ We discuss the spillovers addressed by the CDD rule in more detail below.

The proposed regulation would help the market for banking services correct for both a positive spillover and a negative spillover. The positive spillover arises because a reduction in illicit activity benefits society broadly, not just the financial institutions involved. Yet, because the financial institutions bear the cost of collecting the beneficial ownership information, they only take into account their own benefit to doing so when selecting their level of investment in crime-reducing security measures.⁹ The implication is that financial institutions underinvest in such measures from the standpoint of society. If all members of society are potential victims of future criminal activity, then the prevention of financial crimes including money laundering and terrorist financing have the characteristics of public goods, meaning that all citizens benefit from actions to mitigate these activities regardless of who pays for the prevention.

Absent this proposed rule, financial institutions will continue to invest at lower than efficient levels, in accordance with their private interests, neglecting the incremental positive impact of each additional dollar spent on security measures on broader social welfare. This is especially true if financial institutions that are considering collecting beneficial ownership information perceive that they would lose business to competitors that do not require that information. By compelling universal compliance across all covered institutions, implementation of the final rule would increase beneficial ownership disclosure at financial institutions, making illicit activities more costly to commit.

Without the proposed rule, the negative spillover arises because a country with less stringent anti-money laundering and countering the financing of terrorism (AML/CFT) regulations may

⁸ Whether the spillover is positive or negative, the market failure is attributable to the lack of a second market that would allow participants and nonparticipants in the market with the spillover to compensate one another so that the quantity produced and consumed is socially optimal in the market with the spillover. For example, the fishermen have no formal mechanism for paying the owners of the paper mill to produce less wastewater by producing less paper. The implication of this "missing market" is that the overall wellbeing might be lower than what society would be willing to pay for, if it could.

⁹ Even in the extreme case where financial institutions could pass along the entire cost of collecting this information, it does not follow that the resulting level of investment in crime-reducing security measures would maximize social wellbeing. Realistically, competition among financial institutions for clients will limit the extent to which they can pass these costs along to customers.

become a destination for the laundering of proceeds generated by illicit activities committed in other countries. The country with less stringent rules and regulations receives the inflow of capital without bearing the costs of the criminal offenses that created that inflow of capital. International cooperation that harmonizes AML/CFT policies may address this market failure. By helping to harmonize U.S. standards with those of the global community, adopting this final rule would make laundering the proceeds in the United States from illicit activities committed in the other countries more costly and thereby mitigate the current negative spillover.

3. Discussion of Regulatory Alternatives to the Proposed CDD Rule

In this section, we discuss three alternative rules to the proposed CDD rule, which would set a 25 percent beneficial ownership disclosure threshold for new legal entity accounts:

Alternative 1: 10 percent beneficial ownership disclosure threshold.

Alternative 2: 50 percent beneficial ownership disclosure threshold.

Alternative 3: Applying the proposed 25 percent beneficial ownership disclosure threshold to *existing* legal entity accounts, as well as to new accounts.

Alternative 1, setting a 10 percent beneficial ownership threshold, would provide more information to potentially identify individuals involved in illicit financial activity. Collecting information for a maximum of 11 people¹⁰ can potentially identify illicit financing through owners of stakes as small as 10 percent. However, as a practical matter, we believe that this threshold would predominantly impact legitimate legal entities, and impose upon them a significant burden that would not be outweighed by the incremental benefit to law enforcement of additional identities of beneficial owners. Such a change would also come at higher costs in terms of more financial institution and client onboarding time and additional data storage. Incremental costs to financial institutions for IT updates, staff training, and internal controls, above and beyond those incurred for the proposed rule, would likely be limited.

Alternative 2, setting a 50 percent beneficial ownership threshold, is less stringent, but provides less information to potentially identify those involved in illicit financing. Using a 50 percent threshold would forego information on owners of stakes as high as 49 percent. Requiring personal information for a maximum of three people¹¹ would somewhat reduce data collection costs to financial institutions and their customers' costs. But, because major cost elements such as IT updates, staff training, and internal controls would still be incurred by financial institutions, overall savings would probably be limited relative to the proposed rule. We cannot quantify how much the benefit from the proposed rule would be reduced by this higher threshold for disclosure but are confident that with this threshold illicit actors would have greater ease in using legal entities to mask their financial activities than with the proposed threshold.

Alternative 3 would apply the same beneficial ownership disclosure threshold as the proposed rule to new accounts, but would also require retroactive collection of beneficial ownership

¹⁰ Under the two elements of the definition of beneficial owner described earlier, up to ten individuals under the ownership element and one individual under the control element.

¹¹ Two individuals under the ownership element and one individual under the control element.

information for existing accounts at the time the rule comes into force. The increased costs from complying with Alternative 3 would likely take the form of labor costs as financial institutions hired additional workers to gather beneficial ownership data from customers and input it into account databases. Alternative 3 would also impose costs on existing customers of covered financial institutions. We do not foresee additional IT development costs beyond those for the proposed rule. Alternative 3 may offer substantially larger benefits than the proposed rule because it would make available beneficial ownership information for far more accounts than the proposed rule, as the stock of existing accounts covered would greatly exceed the flow of new accounts. The advantage in terms of greater beneficial ownership information would fall over time; the higher requirements of Alternative 3 may also require a later deadline for compliance.

4. Summary of Findings

i. Reliance on Qualitative Assessment

The primary purpose of the proposed CDD rule is to reduce illicit activity, including financial crimes such as money laundering and terrorist financing. Yet, none of the benefits of the proposed rule, in terms of reducing crime, can be measured with sufficient accuracy at this time to warrant quantitative assessment. Two primary factors impede credible quantitative estimation of the rule's benefits: illicit activity is difficult to observe, meaning that reported measures are likely unreliable, and there is no past variation in beneficial ownership requirements in the United States from which to estimate the effects on outcomes.

Furthermore, estimation of effects of policy changes using historical data is challenging in this context. Existing AML/CFT regulations under the Bank Secrecy Act and subsequent legislation already help mitigate financial crimes including money laundering and terrorist financing. In addition, extensive changes in the U.S. and international regulatory regimes following the financial crisis of 2008 further complicate the estimation of potential effects of any change in the CDD rule, as even changes to non-AML/CFT regulations may alter regulated parties' behavior in ways that make it difficult to attribute potential effects to the CDD rule alone. Ongoing financial regulatory reforms, including for example, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, add to the challenge of assessing the potential impacts of this proposed rule. Finally, changing external factors such as evolving AML/CFT policies of foreign governments and management practices of overseas financial institutions may affect the level of illicit activities in the United States, including through cross-border institutions.

For all of the above reasons and others, this cost-benefit analysis relies extensively on a qualitative assessment of potential effects, based on relevant literature. Finally, while we believe that a significant increase in, for example, the number of prosecutions for money laundering, following the CDD rule's possible adoption would signal its effectiveness in diminishing the level of criminal activity, given the time required to build and prosecute cases, that sort of quantitative assessment would not be possible for several years.

ii. Quantitative Results

In response to comments that our compliance cost estimates in the proposed rule were unrealistically low, we conducted telephone interviews with financial institutions that submitted comments, as well as with IT vendors which currently supply related AML/CFT software to financial institutions.¹² Using information from those interviews, we estimate the cost to financial institutions and their clients of the additional time required to open new legal entity accounts under the CDD rule, and financial institution costs for employee training. Table 1 lists the high-cost and low-cost estimates for each of the quantified categories of costs and the resulting totals.

Table 1. Quantified Costs
(Millions of USD)

	Financial Institution		Client	Total
	Training	Onboarding		
First-Year Costs				
Low Estimate	\$15	\$34	\$45	\$94
High Estimate	\$60	\$67	\$91	\$218
Present Value of 10-Year Costs				
Low Estimate	\$68	\$264	\$358	\$690
High Estimate	\$243	\$529	\$716	\$1,488

Source: Treasury Department calculations

Note: Present value calculations assume a 7 percent discount rate.

We estimate that first-year costs would range from roughly \$95 million to \$220 million; training costs would be lower in subsequent years. Using a 7 percent discount rate, we estimate that the 10-year costs range from roughly \$700 million to \$1.5 billion in present value.

iii. Breakeven Analysis

In the final section of the RIA, we perform a breakeven analysis to assess the proposed rule in the absence of the quantification of all costs and benefits. We show that conditional on the CDD rule generating modest reductions in the volume of illicit activity (conservatively, a 0.57 percent reduction in illicit proceeds in each year, 2016-2025), we can be reasonably confident that its benefits to society would justify the costs that it would impose.

II. Quantitative Estimates

1. Costs to Covered Institutions

i. Employee Training

¹² Treasury understands that the majority of financial institutions do not build their own systems for entering and storing data regarding their customers, but rather purchase such systems from third parties that specialize in providing such products to financial institutions.

We generate high- and low-cost estimates of the training costs to covered institutions based on input from the institutions and data from the Bureau of Labor Statistics (BLS). These estimates pertain only to the training costs directly associated with the proposed rule, not the full set of training activities needed to address the broader set of AML/CFT regulations for financial institutions. Based on the total number of employees and the employee-weighted average hourly wage at covered institutions, we estimate high and low cost scenarios by varying the share of employees receiving training and the length of that training.¹³ The high-cost estimate assumes two-thirds of covered institution employees receive training, and one-time initial training runs for one hour while subsequent annual refresher trainings last 15 minutes. The low-cost estimates assume one-third of employees are trained, the initial training takes 30 minutes, and the annual refresher trainings run 10 minutes.

In both the high-cost and low-cost estimates, we make four assumptions. First, we assume the opportunity cost of staff time spent in training is equal to the wage rate rather than total compensation (wage rate plus benefits).¹⁴ Second, we apply the BLS 2012-22 projected employment growth rate of 0.9 percent per year for Financial Activities to our 10-year time horizon.¹⁵ Third, we use the aggregate annual real wage growth rate of 1.2 percent (rounded intermediate assumption) from the 2015 Social Security Trustees Report.¹⁶ Finally, we assume that staff turnover rates are consistent with the rates provided in the Finance and Insurance sector in the BLS Job Openings and Turnover Survey.¹⁷ We believe this set of assumptions yields estimates that account for the primary factors that may affect costs in the period of analysis.

Table 2 summarizes the estimated costs. Estimated first year training costs range from roughly \$15 million to \$60 million depending on the share of employees trained and the duration of the training sessions. First year costs are greater than the costs in subsequent years because all employees who receive training are given the longer initial training in the first year, but take shorter refresher training in the following years. We allow for employee turnover by assuming that new hires in positions requiring training would be given the full initial training in their first years, and refresher trainings in each subsequent year. We also assume that turnover rates are equivalent for positions requiring and not requiring training.

¹³ To represent the workforce in covered institutions, we use wage data for all employees working in business establishments in sectors having one of the following four-digit North American Industry Classification System (NAICS) codes: 5221 (Depository Credit Intermediation), 5222 (Nondepository Credit Intermediation), 5223 (Activities Related to Credit Intermediation), or 5231 (Securities and Commodity Contracts Intermediation and Brokerage).

¹⁴ This assumption results in a higher opportunity cost of training than might be warranted if employees' brief time in training mostly displaces less-than-fully productive activities.

¹⁵ BLS. 2013. "Industry Employment and Output Projections to 2022." *Monthly Labor Review*. <http://www.bls.gov/opub/mlr/2013/article/industry-employment-and-output-projections-to-2022.htm>

¹⁶ The Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. 2015. *The 2015 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. <http://www.ssa.gov/oact/tr/2015/tr2015.pdf>

¹⁷ BLS. 2015. *Job Openings and Labor Turnover Survey News Release*. http://www.bls.gov/news.release/archives/jolts_03102015.htm#jolts_table9.f.2

We use the average of the 2010-14 total annual separations rates for the Finance and Insurance industry, provided in Table 16.

The present discounted values of our low- and high-cost scenarios over the 10-year period range from roughly \$70 million to \$245 million. We use a 7 percent discount rate, consistent with the U.S. average pre-tax return on private capital.^{18,19}

Table 2. Estimated Training Costs
(Millions of USD, Present Value)

Year	Low Estimate	High Estimate
1	\$15.0	\$59.9
2	7.0	24.4
3	6.7	23.3
4	6.4	22.2
5	6.1	21.2
6	5.8	20.2
7	5.5	19.3
8	5.3	18.4
9	5.1	17.6
10	\$4.8	\$16.8
Present Value	\$67.7	\$243.3

Source: Treasury Department calculations

Notes: Includes annual real wage growth rate based on aggregate intermediate rate in 2015 Social Security Annual Trustees Report. Mean industry wage rates are based on BLS Occupational Employment Statistics, May 2014 for NAICS-4 codes 5221, 5222, 5223, and 5231. Job turnover rates are a 5-year average from BLS total separations rates for the Finance and Insurance sector from Job Openings and Labor Turnover Survey, March 2015. Employment growth projections come from BLS Economic News Release, December 2013. Assumes 7% discount rate for all estimates. Low estimate assumes one-third of employees are trained with a 30-minute initial training and 10-minute annual refreshers. High estimate assumes that two-thirds of employees are trained with a 1-hour initial training and 15-minute annual refreshers.

ii. Incremental Onboarding

Financial institutions would primarily satisfy the proposed CDD rule’s requirement to collect beneficial ownership and control information during the legal entity account opening process. We estimate the incremental onboarding costs to institutions of the CDD rule by multiplying the

¹⁸ For completeness, as per guidance from OMB, we also estimate the 10-year present discounted value using a 3 percent discount rate that represents the rate at which society discounts future consumption flows, and is appropriate when a regulation primarily affects private consumption. Although the 7 percent discount rate is more appropriate for private-sector financial institutions, we note that using the 3 percent discount rate yields estimates of \$80 to \$280 million. (See Office of Management and Budget. Regulatory Impact Analysis: A Primer.)

¹⁹ One of the financial institutions we interviewed was a large bank whose representatives stated that all of its employees would require training for one-half hour. In the above analysis, if all employees at all covered institutions required one hour of initial training and subsequent annual refresher training of 15 minutes, then the present value of 10-year training costs would be \$365 million. Although we think it is unlikely that labor force training would need to be this widespread, this estimate provides an upper bound for total training costs.

expected annual number of new legal entity accounts by the value of the expected additional onboarding time due to the proposed rule. We consider a range of 15 to 30 minutes of additional time to open an account under the CDD rule, based on a series of telephone calls with covered institutions and on public comments received in response to the NPRM. We assume that a financial institution’s cost of the additional time spent onboarding a single account is based on \$16.77, the average wage for the financial industry “new account clerks,” from BLS data. For a 7 percent discount rate, the present value of onboarding costs has an approximate range of \$265 million to \$530 million.²⁰

Table 3 shows the estimated onboarding costs associated with the proposed rule for the 10-year period of analysis.

Table 3. Estimated Onboarding Costs for Financial Institutions
(Millions of USD, Present Value)

Year	Low Estimate	High Estimate
	15 Minutes Additional Time	30 Minutes Additional Time
1	\$33.5	\$67.1
2	31.7	63.4
3	30.0	60.0
4	28.4	56.8
5	26.8	53.7
6	25.4	50.8
7	24.0	48.0
8	22.7	45.4
9	21.5	43.0
10	\$20.3	\$40.6
Present Value	\$264.4	\$528.7

Source: Treasury Department calculations

Notes: Includes annual real wage growth rate based on aggregate intermediate rate in 2015 Social Security Annual Trustees Report. Mean wage rate is based on BLS Occupational Employment Statistics, May 2014 for New Account Clerks. Assumes a 7% discount rate.

2. Additional Client Time in New Account Opening Process

Covered institution clients would also incur costs due to the additional onboarding time resulting from the proposed rule (for covered institutions, we gave consideration to this cost above). Based on a series of telephone conversations with covered institutions and public comments on the NPRM, we estimate client costs. Our estimates assume the incremental time requirements for clients opening new legal entity accounts equal the incremental onboarding time for institutions and are products of the average additional time required to open an account, an

²⁰ Estimates using a 3 percent discount rate for the present value of onboarding costs range from \$310 million to \$620 million

estimate of the number of new accounts that would be opened, and an estimate of the value of client time. We use \$22.71 per hour, the weighted average hourly wage for all employees from the May 2014 National Occupational Employment and Wage Estimates report. Using a 7 percent discount rate, the present value of the total additional cost to covered institution clients opening a new account range from \$358 million to \$716 million.²¹

Table 4. Estimated Client Costs
(Millions of USD, Present Value)

Year	Low Estimate	High Estimate
	15 Minutes Additional Time	30 Minutes Additional Time
1	\$45.4	\$90.8
2	43.0	85.9
3	40.6	81.3
4	38.4	76.9
5	36.3	72.7
6	34.4	68.7
7	32.5	65.0
8	30.7	61.5
9	29.1	58.2
10	\$27.5	\$55.0
Present Value	\$358.0	\$716.0

Source: Treasury Department calculations

Notes: Includes annual real value of time growth rate based on aggregate intermediate real wage growth rate in 2015 Social Security Annual Trustees Report. Real value of time rate is based on U.S. BLS Occupational Employment Statistics (2014) weighted average hourly wage rate for all occupations. Assumes a 7% discount rate.

III. Qualitative Discussion

1. Benefits

i. Reduced Crimes and Terrorist Activity

The primary purpose of this proposed rule is to reduce illicit activity. Yet credible quantitative estimates of how the CDD rule would affect these outcomes, on which the benefit calculation in the cost-benefit analysis would be based, do not exist, for the reasons discussed above.

Therefore, this analysis provides a qualitative assessment of potential reductions in illicit activity based on relevant literature.

The *National Money Laundering Risk Assessment 2015* estimated the annual volume of money laundering in the United States at \$300 billion. The same source notes that one of the key

²¹ Using a 3 percent discount rate, the costs to covered institution clients to open a new account range from \$420 million to \$935 million.

vulnerabilities exploited by money launderers is “creating legal entities without accurate information about the identity of the beneficial owner.”²² The report suggests that the ease of concealment plays a primary role in the execution of many financial crimes.²³ Therefore, the beneficial ownership disclosure requirement in this proposed rule would likely have a mitigating effect on a large share of financial crime in the United States.

In the absence of direct empirical estimates on the link between AML/CFT policy and illicit activity, we refer to the literature on the economics of crime. This body of work, pioneered by Nobel laureate Gary Becker, assumes criminals make rational decisions based on their expected costs and benefits of committing crime.²⁴ In Becker’s approach, an individual’s decision to commit a criminal offense is a function of the income associated with getting away with the crime, the probability of conviction, the punishment if convicted, and earnings from legitimate work. A rational individual chooses to commit a crime when it yields higher expected well-being (accounting for risk of conviction and the associated punishment) than does time spent in legitimate employment.

Applying Becker’s model to criminals allows us to evaluate how the new policy would affect the level of illicit activity. By revealing more criminals’ identities and therefore facilitating the linkage of criminal acts to perpetrators by financial intelligence and law enforcement, the CDD rule would increase the probability of conviction. Therefore, in the context of Becker’s model, we expect that the CDD rule would reduce the level of illicit activity. Subsequent incarceration would render these criminals unable to engage in illicit activity while serving their sentences, a phenomenon known as the “incapacitation effect.” Higher rates of apprehension and conviction may also deter potential criminals from committing crime. The large empirical literature on the economics of crime shows convincing evidence that higher probabilities of apprehension and conviction (usually in the form of stronger police presence) tend to reduce crime rates through some combination of incapacitation and deterrence.²⁵

In principle, criminals could respond by attempting to move their accounts to those countries that still have not adopted beneficial ownership identification and verification, although the U.S. Treasury Department considers this to be unlikely, because most of the world’s countries already require financial institutions to collect and verify beneficial ownership of legal entity account holders. Criminals could theoretically also reduce their beneficial ownership shares below the disclosure threshold; the U.S. Department of the Treasury also views this response as unlikely, because of the practical difficulties criminals would face laundering money through a vehicle in which they hold only a minority stake. Those criminals would incur the costs of taking those

²² U.S. Department of the Treasury. Office of Terrorism and Financial Intelligence. 2015. *National Money Laundering Risk Assessment*.

²³ U.S. Department of the Treasury concludes that, “The potential for anonymity in financial transactions underlies most of the vulnerabilities in this risk assessment.” See U.S. Department of the Treasury. Office of Terrorism and Financial Intelligence. 2015. *National Money Laundering Risk Assessment*.

²⁴ See Becker, Gary. “Crime and Punishment: an Economic Analysis.” *Journal of Political Economy* 78 (1968): 169-217.

²⁵ See, for example, Chalfin, Aaron and Justin McCrary. “Criminal Deterrence: A Review of the Literature.” Paper prepared for the *Journal of Economic Literature* (2015). See also Nagin, Daniel, “Deterrence: A Review of the Evidence by a Criminologist for Economists.” *Annual Review of Economics* 5 (2013): 83-105.

steps, and perhaps ongoing costs in the form of using less convenient and costlier financial services. Combined, these higher costs would reduce the expected returns to crime, which we anticipate would therefore lower financial crime rates.

In order to compute the benefit of reduced crime from the CDD rule, we would need to know both the causal negative effect of the CDD rule on the level of illicit activity (discussed above) *and* the costs imposed on society by the illicit activity that would not occur in the presence of the rule. Enumerating these costs is not as straightforward as it might appear, so we follow the cost-of-crime literature in distinguishing between “social costs” and “external costs” of crime in order to be more precise regarding the potential benefits of the proposed rule.²⁶ External costs are those that are involuntarily imposed on one individual (the victim) by another individual (the offender). In the case of an automobile theft, for example, the external costs could include the resale value of the vehicle, the value of items in the vehicle at the time of theft, the value of victim’s time spent dealing with the aftermath of the crime, and any psychological pain and suffering experienced by the victim. Yet whether the perpetrator keeps or sells the vehicle and the items therein, these are still available for use by someone in society and can be thought of as transfers from one individual to another. Therefore one could reason that, unlike the victim’s pain and suffering and lost time – losses which are not offset by gains to someone else – the value of stolen goods (or money) does not represent a social cost.²⁷ This view is equivalent to the inclusion of perpetrators’ wellbeing in overall social welfare, for example, when evaluating a crime-reducing policy. As a recent survey points out, however, “[i]n practice, researchers have generally adopted the perspective that an offender’s utility ought not to count as part of society’s social welfare function.”²⁸ We too adopt this approach in the RIA, using external costs as the relevant concept for the cost of crime, meaning that any reduction in funds *involuntarily* transferred from victim to offender would constitute a benefit of the CDD rule.

A complete accounting of the value of reduced crime and terrorist financing would include the full value of harm to victims averted by the reduction in these activities. In addition to tangible costs such as financial losses (which, given the adoption of external costs in our approach, would not be balanced by gains to criminals), research on the costs of crime finds intangible losses, including pain, suffering, and reduced quality of life, associated with criminal activity. Button et al. (2014) interviewed over 700 victims of financial fraud in London. Among the effects reported by victims as important were “depression or a mental disorder” (7 percent), “psychological/emotional feelings, loss of trust, and so on” (37 percent), stress (44 percent), and anger (68 percent).²⁹ A national study of financial fraud in the United States by the National Institute of Justice found that 14 percent of fraud victims reported suffering health or emotional

²⁶ The descriptions and examples of social and external costs in this section closely follow the discussions in Chalfin, Aaron. “The Economic Cost of Crime.” Working paper, University of Cincinnati (2013). and Cohen, Mark A. “Measuring the Costs and Benefits of Crime and Justice.” *Criminal Justice* 4 (2000): 263-315.

²⁷ Note that the social costs of crime are not a subset of the external costs. Social costs of crime can also include any resources devoted to crime prevention by the public sector or private citizens that could be more productively put to other uses and diminished economic opportunity in high crime areas where businesses choose not to locate.

²⁸ See page 5 of Chalfin, Aaron. “The Economic Cost of Crime.” Working paper, University of Cincinnati (2013). and articles cited within for additional perspectives.

²⁹ Button, Mark, Chris Lewis, and Jacki Tapley. “Not a Victimless Crime: the Impact of Fraud on Individual Victims and their Families.” *Security Journal* 27, no. 1 (2014): 36-54.

problems related directly to their victimization.³⁰ However, we find no empirical estimates of the psychological costs of crime. Many studies of the costs of crime do not fully consider the psychological impact on its victims,³¹ and therefore, the true economic value of averted crime may exceed estimates derived from published studies of the costs of crime.

ii. Law Enforcement Benefits and Reputational Benefits to the U.S. Government

(1) Reduced Cost of Beneficial Ownership Searches

A direct benefit of the proposed rule would be the reduction in the cost to law enforcement agencies of obtaining beneficial ownership information. The current system generally requires federal investigators to expend resources in search of beneficial ownership information when conditions warrant it. Adoption of the proposed rule would reduce law enforcement agencies' search costs because the information would be collected by covered financial institutions for new legal entity accounts and become more readily accessible to law enforcement agency investigators with a subpoena. In addition, Suspicious Activity Reports (SARs) filed by the institutions would be increasingly likely to include beneficial ownership information, making it readily available to federal authorities. We do not attempt to estimate the value of this potential benefit, but we expect it to grow over time, as the share of accounts whose beneficial ownership is disclosed gradually rises.³²

(2) Increased Asset Recovery

To the extent that the number of successful prosecutions increases due to the proposed rule, we expect that the recovery of assets by federal authorities would rise. We would consider any increase in assets recovered due to the proposed rule as a benefit of the rule. Table 5 shows that the value of assets forfeited to the U.S. Department of Justice Forfeiture Fund has exceeded \$1.5 billion every year from 2010 to 2014 and has exceeded \$4 billion in two of those years,³³ and that the value of assets forfeited to the U.S. Department of the Treasury Forfeiture Fund has been greater than \$500 million in every year over the same period.³⁴ Due to the uncertainties

³⁰ Titus, Richard, Fred Heinzmann, and John Boyle. "The Anatomy of Fraud: Report of a Nationwide Survey." *National Institute of Justice Journal* (1995): 28-34.

³¹ McCollister, Kathryn, Michael French, and Hai Fang. "The Cost of Crime to Society: New Crime-Specific Estimates for Policy and Program Evaluation." *Drug and Alcohol Dependence* 108 (2010): 98-109.

³² We expect this gradual increase in the share of accounts with disclosed beneficial ownership because only new legal entity accounts would require this information under the proposed rule.

³³ Based on statistics from the DOJ Asset Forfeiture Program. The DOJ Asset Forfeiture Program webpage lists the following participating institutions. DOJ institutions: the Asset Forfeiture and Money Laundering Section of the Criminal Division; Bureau of Alcohol, Tobacco, Firearms, and Explosives; Drug Enforcement Administration; Federal Bureau of Investigation; U.S. Marshals Service; U.S. Attorneys' Offices; and Asset Forfeitures Management Staff. Institutions from other U.S. Government agencies include: U.S. Postal Inspection Service; Food and Drug Administration; U.S. Department of Agriculture, Office of the Inspector General; Department of State, Bureau of Diplomatic Security; and Defense Criminal Investigative Service. Source: U.S. Department of Justice. 2015. *Participants and Roles*. <http://www.justice.gov/afp/participants-and-roles> (accessed September 14, 2015).

³⁴ Participating agencies include IRS Criminal Investigations Division, U.S. Immigration and Customs Enforcement, U.S. Customs and Border Protection, U.S. Secret Service, and U.S. Coast Guard. Source: U.S. Department of the

associated with attributing future changes in asset recovery to the proposed CDD rule, we do not estimate the magnitude of this potential effect, but even a hypothetical 5 percent increase on the five-year average of \$2.9 billion for the DOJ forfeitures alone would exceed \$145 million in additional assets recovered.

Table 5. Assets of Department of Justice Forfeiture Fund and Seized Assets Deposits Fund and Treasury Forfeiture Fund

U.S. Department of Justice, U.S. Department of the Treasury
(Millions of nominal USD)

	2010	2011	2012	2013	2014	5 Year Average
Forfeited to Department of Justice						
	\$1,947	\$1,617	\$4,453	\$2,148	\$4,551	\$2,943
Forfeited to Treasury						
	\$1,142	\$929	\$523	\$1,713	\$784	\$1,018

Sources: U.S. Department of Justice, Assets Forfeiture Program. Annual Reports to Congress (eds. 2004-2014). Adapted from "Assets Forfeiture Fund and Seized Assets Deposits Fund - Method of Disposition of Forfeited Property" tables. <http://www.justice.gov/afp/reports-congress>, accessed October 8, 2015. Treasury Executive Office for Asset Forfeiture.

Note: Current year revenue includes direct revenue and reverse asset sharing.

(3) Potential Increased Tax Revenue through Improved Tax Compliance

According to the U.S. Department of the Treasury, the collection of beneficial ownership information by covered financial institutions for their domestic legal entity accounts would result in new information being available to the Internal Revenue Service (IRS) during audits and investigations into civil and criminal tax noncompliance. Ready access to account beneficial ownership information from covered financial institutions would help the IRS determine whether beneficial owners are accurately reporting income from entities. Moreover, IRS access to this information would increase incentives for voluntary tax compliance by beneficial owners of the accounts.

(4) Reputational Benefits of Meeting International Policy Standards

The Financial Action Task Force (FATF) has set international standards to enhance the collective effort to combat money laundering and terrorist financing. Widespread adoption of such international standards can raise the cost of crime, by limiting criminals' choices of where they can obtain accounts, and eliminate "safe havens" for financial criminals seeking jurisdictions with less rigorous laws or enforcement.

Recent reviews of U.S. compliance with international AML/CFT standards have criticized the incomplete adoption of the customer due diligence framework. The 2006 FATF Mutual Evaluation Report (MER) found that the U.S. had implemented an AML/CFT system that was

Treasury. 2015. *Terrorism and Financial Intelligence*. <http://www.treasury.gov/about/organizational-structure/offices/Pages/The-Executive-Office-for-Asset-Forfeiture.aspx> (accessed October 8, 2015).

broadly consistent with the international standard. However, the report noted shortcomings related to CDD in the U.S. framework, and rated it only “partially compliant” with the CDD recommendation, a significant reason being the lack of an explicit beneficial ownership identification requirement.³⁵ The International Monetary Fund (IMF) in 2010 found the U.S. had made “limited progress” since 2006 in strengthening requirements on identifying beneficial owners of accounts.³⁶ In its 2015 Financial Sector Assessment of the United States, the IMF acknowledged U.S. efforts in addressing deficiencies identified in the 2006 FATF MER, but cited a lack of substantive policy progress by the end of its research mission in June 2015.³⁷

The U.S. government responded to the 2006 FATF Report by committing to strengthen customer due diligence standards. In 2013, the U.S. G-8 Action Plan for Transparency of Company Ownership and Control committed to clarifying and strengthening customer due diligence standards for U.S. financial institutions.³⁸ In October 2015, the U.S. G-20 Action Plan notes its engagement in developing a customer due diligence rule with required beneficial ownership disclosure for financial institutions.³⁹

Implementing the CDD rule would advance compliance by the United States with the FATF CDD standards and fulfill outstanding public commitments. It would further enable the United States to demonstrate progress at the FATF, and at other international bodies, and bilaterally to encourage other jurisdictions to comply with the FATF standards and avoid accusations of hypocrisy due to its own lack of compliance. We do not attempt to quantify or monetize the magnitude of this potential reputational benefit, given the intangible nature of reputational effects, but assess it to be significant. The United States, which is generally considered a global leader in combating money laundering and terrorist financing, is currently one of a very small number of FATF members that are not in compliance with its core standard requiring that financial institutions identify and verify the identity of the beneficial owners of legal entity accounts. We assess that this lack of full compliance with the standard with which the vast majority of the rest of the world complies, undermines U.S. leadership on illicit finance issues. As such, we assess finalization of the proposed FinCEN rules offers significant reputational benefits to the United States

iii. Reputational Benefits to Financial Institutions

³⁵ Financial Action Task Force. 2006. *Summary of the Third Mutual Evaluation Report on Anti-Money Laundering and Combating the Financing of Terrorism, United States of America*. FATF is updating its evaluation of the U.S. in 2015.

³⁶ International Monetary Fund. IMF Country Report No. 10/253. 2010. *United States: Publication of Financial Sector Assessment Program Documentation—Technical Note on Anti-Money Laundering/Combating the Financing of Terrorism*.

³⁷ International Monetary Fund. IMF Country Report No. 15/174. 2015. *United States Financial Sector Assessment Program: Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT)—Technical Note*.

³⁸ The White House. Office of the Press Secretary. 2013. *United States G-8 Action Plan for Transparency of Company Ownership and Control*. <https://www.whitehouse.gov/the-press-office/2013/06/18/united-states-g-8-action-plan-transparency-company-ownership-and-control> (accessed October 8, 2015).

³⁹ The White House, *The U.S. Action Plan to Implement the G-20 High Level Principles on Beneficial Ownership*, <https://www.whitehouse.gov/blog/2015/10/16/us-action-plan-implement-g-20-high-level-principles-beneficial-ownership>.

We believe the proposed CDD rule is unlikely to provide appreciable reputational benefits to covered financial institutions, but we include a brief discussion here for completeness. Our reasoning is as follows. Client confidence in financial institutions is a necessary component of an effective financial system.⁴⁰ Depositors trust institutions to safeguard deposits, provide fund withdrawals upon request, and meet regulatory and prudential requirements.

In principle, financial institutions that maintain full compliance with AML/CFT regulations, including the proposed rule, may be viewed as less risky by clients and investors, at least when compared to non-complying institutions. However, compliance with the CDD rule would likely do little to distinguish any particular financial institution from its peers, since all covered institutions would be subject to the same requirement, and compliance is expected to be universal. Therefore, in this context, we believe any potential reputational benefit to institutions that comply with the rule would be negligible, and do not attempt to quantify the effect.

2. Costs

i. Incremental Costs to U.S. Criminal Investigations and the Justice System

The U.S. Department of the Treasury believes the proposed rule may increase costs for federal financial intelligence and criminal justice agencies because of the additional resources needed to handle the potentially increased volume of SARs, investigations, prosecutions, and incarcerations triggered by the proposed rule, if adopted. These activities are part of the process of bringing financial criminals, money launderers, terrorist financiers, and other national security threats to justice, which confers benefits in the forms of reduced crime and terrorist financing. We do not attempt to quantify the scale of changes in these law enforcement activities (and their associated costs) attributable to implementation of the proposed rule, but we describe them briefly in the following sections. As noted below, even predicting the directions of the changes in law enforcement activity due to the proposed rule can be difficult, so any attempt at estimating magnitudes would be speculative.

(1) Suspicious Activity Report Processing

If the proposed rule is adopted, SARs filed by covered financial institutions would be increasingly likely to include beneficial ownership information for legal entity accounts as, over time, the share of accounts on which beneficial ownership information would be gathered at opening rises. This information would speed the identification of complicit individuals by law enforcement agencies. The potential effects on the number of SARs filed, and the resulting federal resources used for analysis, however, are ambiguous. Of the SARs currently filed, a significant number involve transactions that financial institutions deem suspicious because they are executed by or involve potential shell companies. Any increase in the number of SARs filed under the proposed rule would likely be offset by the capacity of newly collected beneficial ownership data to remove some flagged transactions from suspicion. The new information

⁴⁰ International Monetary Fund. Departments of Exchange Affairs, Policy Development, and Review. 2001. *Financial System Abuse, Financial Crime, and Money Laundering—Background Paper*.

would result in some SARs not being filed that formerly would have been. The number of initial SAR filings grew from 2010 to 2014, as shown in Table 6. Due to the uncertainties associated with attributing future changes in SAR filings to the proposed CDD rule, we do not estimate the magnitude of this potential effect.

Table 6. Initial Suspicious Activity Reports (SARs) Filed in the United States by Covered Institutions

(Sums of all reported types of initial SARs)

2010	2011	2012	2013	2014	5 Year Average
690,603	690,603	842,947	1,000,074	909,371	826,720

Source: FinCEN's System of Record

Note: Statistics are based on counts of SARs identified as initial filings with filing received dates in the indicated year, as of 10/8/2015.

(2) Investigations

The collection of beneficial ownership information on legal entities by covered institutions may lead to more federal investigations of financial crime and greater expense on such investigations. Improved access to beneficial ownership information would facilitate the process of “following the money trail” of affiliated entities and individuals associated with legal entity accountholders, and may lead to the discovery of previously unknown linkages to criminal activity. However, accessible beneficial ownership information would also enable law enforcement agencies to better target their efforts, which could more than offset the higher resource requirements by increasing the rate at which investigations result in prosecutions.

(3) Prosecutions

The proposed rule, if adopted, may similarly facilitate the identification and prosecution of the beneficial owners of a legal entity involved in illicit activity, as well as other key individuals associated with the legal entity, possibly resulting in more instances where charges are formally filed (compared to the number of cases brought if the proposed rule were not enacted). Growth in prosecution activity would increase the hours of federal staff and contractors engaged in this activity. The availability of beneficial ownership information, had the proposed rule been in place, could have assisted in prosecution of several categories of crime; Table 7 shows the number of prosecutions in each of those categories for the last five years. Due to the uncertainties associated with attributing future changes in prosecutions to the proposed CDD rule, we do not estimate the magnitude of this potential effect, but even a hypothetical 1 percent increase on the five-year average of about 46,000 would raise the number of prosecutions by 460.

Table 7. Federal Prosecutions by Program Category

Program Category	2010	2011	2012	2013	2014	5 Year Average
Drug Dealing and Possession	26,805	28,422	26,858	25,884	21,577	25,909
Government Regulatory	2,974	2,815	2,445	2,728	2,501	2,693
National Internal Security / Terrorism	365	319	267	269	212	286
Official Corruption	727	585	633	636	524	621
Organized Crime	572	582	363	390	316	445
Weapons	7,614	7,465	7,774	7,136	6,632	7,324
White Collar Crime	9,722	10,162	8,433	8,373	7,864	8,911
Total	48,779	50,350	46,773	45,416	39,626	46,189

Source: TRACFed database

(4) Incarcerations

If the number of successful prosecutions increased due to the proposed rule, we expect that incarceration costs would rise. Increased incarcerations may incur greater variable costs (such as food, clothing, and dwellings), and personnel costs at federal penitentiaries (guards and other staff, and their workspaces, training, and equipment). In principle, if incremental incarcerations attributable to the proposed rule are substantial enough that one or more new federal institutions must be built and put into operation, then costs would likely rise further.⁴¹ Table 8 shows the number of prison sentences during 2010-14 for categories of crime where the availability of beneficial ownership information could have aided in prosecution. Due to the uncertainties associated with attributing future changes in incarcerations to the proposed CDD rule, we do not estimate the magnitude of this potential effect, but even a hypothetical 1 percent increase on the five-year average of roughly 36,000 would raise the number of incarcerations by 360.

⁴¹ It would be unlikely that prison overpopulation would be attributable to the proposed rule alone, but we mention this point for completeness. Currently, the Federal Bureau of Prisons operates or manages 141 institutions in the United States and the inmate population totals approximately 194,000. By type of offense, those potentially affected by the proposed rule may include (percent of total federal inmates in parentheses): banking and insurance, counterfeiting, and embezzlement (0.3 percent); drug offenses (48.4 percent); extortion, fraud, and bribery (6.3 percent); and national security (0.0 percent). (According to the data, 76 people are incarcerated for national security offenses.) Data source: Federal Bureau of Prisons. 2015. *Inmate Statistics—Offenses*. http://www.bop.gov/about/statistics/statistics_inmate_offenses.jsp (accessed October 15, 2015).

Table 8. Sentenced to Prison Term for Federal Crime

Program Category	2010	2011	2012	2013	2014	5 Year Average
Drug Dealing and Possession	21,426	21,686	23,449	21,663	20,990	21,843
Government Regulatory	1,000	1,053	1,065	929	856	981
National Internal Security / Terrorism	198	186	154	177	176	178
Official Corruption	357	343	358	339	373	354
Organized Crime	340	367	363	252	248	314
Weapons	6,594	6,428	6,553	6,311	5,981	6,373
White Collar Crime	6,211	6,381	5,844	5,444	5,537	5,883
Total	36,126	36,444	37,786	35,115	34,161	35,926

Source: TRACFed database

ii. Lost Tax Revenue due to Capital Loss (accounts moving abroad)

To the extent that financial accounts at covered institutions generate taxable income and that the decision to open these accounts is sensitive to the collection of beneficial ownership information, the proposed CDD rule has the potential to eliminate tax revenue that would otherwise be collected. Without a credible estimate for how sensitive the account opening decision is to the rule, however, we do not quantify this potential cost to the government. However, from the Treasury Department’s perspective, beneficial ownership disclosure would have a negligible effect on the number of legal entity accounts because legal entities in the U.S. generally require bank accounts to operate their businesses. In addition, the vast majority of the world’s countries require financial institutions to collect and verify beneficial ownership of legal entity accountholders. As a result, there are few safe havens in the world that permit financial institutions to open an account for a legal entity and not obtain the entity’s beneficial ownership. (See discussion below in section III.2.iv.)

iii. Costs to Covered Institutions

(1) Information Technology Upgrades

The proposed CDD rule would require financial institutions to collect, house, and retrieve beneficial ownership data for new accountholders, meaning that the rule would impact financial institutions’ IT systems. Financial institutions either build their IT networks themselves “in-house” or procure these systems from third-party vendors, with which they sign multiyear service contracts for achieving and maintaining regulatory compliance. A single vendor likely sells multiple core platforms, tailored to different types of financial institutions (e.g. credit unions instead of banks), to possibly hundreds of financial institution clients. The vendor will then customize the purchased IT platform for the individual financial institution.

If a vendor selling the same platform (with individual customizations) to multiple clients can make all of these IT systems conform to the proposed rule by just upgrading the core platform’s software once, then there are economies of scale in producing CDD-compliant IT systems. In other words, as the vendor sells the compliant platform to another client, the average cost of achieving compliance falls for all clients purchasing that platform. This is in contrast to a situation where the vendor incurs the same additional cost of upgrading each client’s IT system

in response to the proposed rule. In the presence of economies of scale, the costs incurred in terms of number of hours of programmer labor to conform to the proposed rule would be lower the smaller the number of core platforms used by covered financial institutions, all else equal. We can think of financial institutions that build and maintain their networks in-house as vendors having a single client.

Under standard service contracts with financial institutions, third-party vendors monitor rules and then implement changes to their IT systems so that they maintain regulatory compliance on behalf of the financial institution. During the term of a contract, the vendor normally bears the cost of the necessary changes to maintain compliance. In discussions with the Treasury Department, however, some vendors stated that the CDD rule would be too costly to implement under the terms of these service contracts and would likely result in additional charges to their clients. The magnitude of the increase in IT costs from having to comply with the proposed rule would also depend in part on how financial institutions are required to use the collected beneficial ownership data. For example, merely electronically storing the information to be turned over to the government upon request would be less costly than requiring that financial institutions integrate that information with data from other databases.

Even if we could accurately predict vendors' additional charges to financial institution clients in response to the CDD rule's implementation, these values would not necessarily represent the full IT-related costs to society of imposing the CDD rule. In addition to the increased costs in terms of programmers' hours, vendors also claimed that they would have to delay the development work for other new initiatives (e.g. developing further functionality of existing platforms). In principle, the full IT-related costs of the CDD rule would equal the value of the hours of labor that vendors and financial institutions performing IT service in-house would have to hire in order to both comply with the rule and not delay any of their development initiatives.

During the comment period following the release of the NPRM, financial institutions stated that the IT costs for upgrading existing systems to comply with the proposed CDD rule would be large, although they generally did not cite specific amounts. The lack of specificity in the comments may be attributable to the NPRM's general treatment of the compliance requirements for implementing the proposed rule. While we were able to obtain incremental IT cost estimates specific to a few financial institutions during one-on-one calls, we cannot obtain an industry-level estimate based on this very small and not statistically representative sample, and therefore do not quantify the aggregate increase in IT costs due to the CDD rule.⁴²

(2) Suspicious Activity Report Generation and Transmittal

When a financial institution detects suspected money laundering or fraud, its employees must investigate further to determine whether the activities warrant filing a SAR with FinCEN. In many instances, financial institutions decide that upon closer inspection the actions that were initially seen as suspicious do not necessitate filing a SAR. The presence of these false positives

⁴² FinCEN obtained the following estimates of IT costs attributable to the proposed rule: one large bank estimated the cost to be approximately \$20 million; one mid-sized bank estimated the cost to be in the range of \$3 million to \$5 million; and one small credit union estimated costs of between \$50,000 and \$70,000.

implies that the ultimate number of SARs filed by a financial institution does not directly correspond to the labor resources expended on the filing of SARs. In phone conversations with the Treasury Department, some financial institutions stated they thought they would detect more suspicious activity under the proposed rule, but that this increased detection would not necessarily lead to more SARs being transmitted. Given the difficulty of determining how the proposed rule would affect financial institutions' labor needs with regard to SAR generation and transmittal, we do not attempt to quantify this cost.

(3) Internal Control/Compliance

The CDD rule would require additional work for financial institutions' compliance officers, who ensure that procedures at their organizations adhere to the rule. According to phone conversations between financial institutions and the Treasury Department, the process of ensuring compliance with the CDD rule would take the form of additional procedures and reviews in audits of work performed. One financial institution stated that the addition of more audit functions might eventually necessitate hiring additional compliance staff. Given the uncertainty regarding how financial institutions would adjust compliance officer staffing in response to the proposed CDD rule, we do not quantify this cost.

- iv. Potential Capital Loss (accounts moving abroad) and Forgone Capital (accounts not opened)

While a prospective study of the European Union's beneficial ownership disclosure rule⁴³ posited that its implementation in 2007 could drive some account holders to relocate their assets to foreign jurisdictions where the policies do not apply,⁴⁴ that seems unlikely to occur if the U.S. implements the CDD rule. The CDD rule also appears unlikely to trigger a diversion of legal entity accounts that would have been opened at domestic *covered* institutions, to be opened instead at *uncovered* domestic or foreign financial institutions.

The Treasury Department supports the perspective that beneficial ownership disclosure is unlikely to trigger legitimate account holder closings or to dissuade legitimate would-be new account holders from opening new accounts. This view has a three-part rationale:

- 1) First, most businesses operating in the United States would have difficulty conducting basic functions (e.g., accepting receivables and paying invoices) without an account at a domestic bank.

⁴³ The rule is Directive 2005/60/EC of the European Parliament and of the Council of October 26, 2005 on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing. It requires member states to comply by December 15, 2007.

⁴⁴ Estimated capital loss is derived based on survey responses. One-third of National Bankers' Associations respondents agreed that the beneficial disclosure rule could lead to an increase in capital outflow from the national banking sector (p. 215). Transcrime. 2007. *Cost Benefit Analysis of Transparency Requirements in the Company/Corporate Field and Banking Sector Relevant for the Fight Against Money Laundering and Other Financial Crime*. A study financed by the European Commission.

- 2) Second, FATF recommendations call for all member countries to require domestic financial institutions to conduct customer due diligence, and for their law enforcement agencies to cooperate with other member country enforcement agencies, which includes U.S. law enforcement. Unlike the situation at the time of the 2007 EU study referred to above, the majority of FATF members are now in compliance with the FATF customer due diligence standards; as a result of which there are few safe havens in the world (not just advanced economies) where financial institutions are not required to obtain beneficial ownership information about legal entities when they open an account.
- 3) Third, the Financial Account Tax Compliance Act (FATCA) requires foreign financial institutions to report to the IRS identifying and income information on accounts held by U.S. taxpayers.⁴⁵ FATCA's requirements apply to all financial institutions worldwide; the United States has negotiated intergovernmental agreements with 112 jurisdictions to implement FATCA, and financial institutions in jurisdictions without intergovernmental agreements are still subject to FATCA's reporting requirements. Because legal entities opening an account in any of these 112 foreign jurisdictions would be required to disclose U.S. beneficial ownership information, opening a bank account outside the United States would offer no material advantage, in terms of concealing of beneficial ownership information, versus opening an account in the United States.

v. Increased Costs to Non-criminal Clients⁴⁶

(1) Reduced Privacy

We expect financial institution clients would experience minimal costs with regard to the loss of privacy. Some costs arise because the disclosure of beneficial ownership information may require the legal entity to reveal previously undisclosed information, which is not required in any state at the time of the legal entity's formation. As such, it is likely that many entities would report some previously undisclosed beneficial ownership information.

Academic research suggests that when individuals self-disclose personal information, they do so after weighing the expected benefits and any negative consequences.⁴⁷ Individuals tend to readily disclose biographical information in exchange for small (and often non-financial)

⁴⁵ Or certain foreign entities in which U.S. taxpayers are considered either "substantial U.S. owners," defined as having a 10 percent or greater ownership stake in the entity, or "controlling persons," defined in accordance with the FATF recommendations as the natural persons who exercise control over the entity.

⁴⁶ These costs would be over and above any incremental compliance costs of the CDD rule passed on to clients by financial institutions.

⁴⁷ Varian, Hal. "Economic Aspects of Personal Privacy," In *Internet Policy and Economics*, edited by W.H. Lehr and L.M. Pupillo, 101-109. New York: Springer, 2009. See also: Hann, Il-Horn; Kai-Lung Hui, Tom Lee, and I Png. "Online Information Privacy: Measuring the Cost-Benefit Trade-Off." *ICIS 2002 Proceedings*, Paper 1 (2002).

benefits.⁴⁸ The willingness of individuals to share information with organizations increases if they trust the organization's ability to store and use that information responsibly.⁴⁹ Because the quantity of beneficial ownership information is small and its dissemination would be limited to the financial institution (or law enforcement pursuant to legal process), we expect the cost to law-abiding individuals of disclosing private information to be quite low.

By contrast, we expect financial criminals would bear much higher costs of revealing previously private beneficial ownership information, as the consequences of disclosure could include denial of services by the financial institutions, asset forfeiture, or prosecution and incarceration. Since the expressed intent of the proposed rule is to increase the costs of criminal activity, this variation in the cost of privacy loss is consistent with the intended effect of the proposed rule. We do not attempt to estimate the value of privacy loss.

(2) Potential Impact on Clients, Including Access to Banking for the Unbanked

The “unbanked” population in the U.S. stood at 7.7 percent of all households in 2013, according to a FDIC survey.⁵⁰ Unbanked households do not have an account at an insured financial institution. The agency sees value in developing a financial system whereby “...banks effectively serve the broadest possible set of consumers.”

If compliance costs faced by financial institutions are passed through to their clients (for example, through increased minimum deposit levels and/or higher fees), this theoretically could raise clients' barriers to entry, and may price some consumers out of participating in the banking system.⁵¹ However, we find no literature estimating the potential impact of AML/CFT on the unbanked population in the U.S., and we do not attempt to quantify its magnitude. Nonetheless, we reason that since the costs incurred by financial institutions from the proposed rule appear to be relatively modest, and the passed-through costs would be spread across a broad client base, we expect the marginal effect on unbanked groups would likely be small. In addition, it stands to reason that very few of the unbanked are beneficial owners of legal entities, which require banks to operate, and therefore the proposed rules would have little direct impact on the unbanked.

vi. Increased Costs to Criminals

As we discussed earlier in the RIA, there are different points of view among researchers regarding whether changes in criminals' welfare are germane to the evaluation of a potential crime-reducing policy. We have decided to follow the general approach in the literature of using

⁴⁸ Grossklags, Jens, and Alessandro Acquisti. “What Can Behavioral Economics Teach Us about Privacy?” In *Digital Privacy: Theory, Technologies, and Practices*, edited by Acquisti, Alessandro, Stefanos Gritzalis, Costas Lambrinouidakis, and Sabrina De Capitani di Vimercati, 363-377. Boca Raton: Auerbach Publications, 2008.

⁴⁹ Diney, Tamara and Paul Hart. “An Extended Privacy Calculus Model for E-Commerce Transactions.” *Information Systems Research* 17, no. 1 (2006): 61-80.

⁵⁰ Federal Deposit Insurance Corporation. 2014. *2013 FDIC National Survey of Unbanked and Underbanked Households*.

⁵¹ Reuter, Peter, and Edwin Truman. *Chasing Dirty Money: Progress on Anti-Money Laundering*. Washington: Peterson Institute, 2004.

external costs as the basis for cost-of-crime computations, meaning that the value of property or funds involuntarily transferred from victims to offenders are not offsetting, i.e. *gains* to criminals are not counted in the cost-benefit analysis. This subsection highlights additional *costs* to criminals imposed by the policy, that do not represent gains to others elsewhere in society (thus they are akin to the victim's lost time and psychological pain and suffering in the auto theft example given earlier). For this reason, we count these increased costs to criminals among the costs of the proposed rule.⁵² To the extent that the avoided costs of prevented crimes far outweigh the higher costs imposed on criminals, the inclusion of higher criminal costs within overall costs need not have a perverse effect on the outcome of the policy evaluation.⁵³ In what follows, we discuss two types of increased costs that would be borne by criminals due to the proposed rule.

(1) Fewer Opportunities to Hide Beneficial Ownership

In the current regulatory environment, beneficial owners with funds in U.S. financial institutions may conceal their association with the funds by creating legal entities and opening accounts in the legal entity names. While legal entities are widely used, we presume that most non-criminal account holders would not take steps to create a legal entity solely to hide their ownership status; therefore criminal account holders would incur the vast majority of these costs.⁵⁴ If the proposed rule is adopted, it would eliminate the ability of beneficial owners meeting or exceeding the reporting threshold to avoid revealing their ownership status and personal information when opening new accounts, other than by submitting false information and thereby risking possible criminal investigation and prosecution. It would also encourage financial institutions to obtain beneficial ownership information for existing accounts, although this would not be required.

The large majority of other countries and their financial institutions already require beneficial ownership disclosure, and doing business in the U.S. usually means opening a domestic legal entity account. Therefore, we anticipate financial criminals would have fewer opportunities to obtain financial services while hiding their beneficial ownership status if the proposed rule is adopted. Those with vested interests in concealing their ownership status would incur costs associated with the shrinking opportunity to do so. We do not attempt to quantify or monetize this cost.

(2) Cost of Forming Less Transparent Legal Entities

The proposed rule poses the risk that criminal legal entity account holders (or would-be openers of new accounts) may restructure the beneficial ownership composition of their existing or new accounts to evade disclosure requirements. Specifically, account owners could actually dilute their ownership interest so that no natural person holds a sufficient share of assets to trigger the

⁵² Consistency requires that increases in legitimate work and leisure in response to higher costs of criminal activity are benefits of this policy, though these would probably be negligible.

⁵³ Also, for a set of policies achieving the same outcome, the approach that we adopt will favor the one that imposes the lowest costs on criminals, all else equal. This consideration is neglected when criminal costs are not counted.

⁵⁴ There are exceptions, however, under which non-criminals might want to hide their ownership interests. For example, wealthy or famous individuals might do this for safety or privacy purposes, as might an individual protecting assets from a former spouse.

25 percent minimum beneficial owner reporting threshold (although one controlling individual's name and personal information would still be required).

We are unaware of any data on this topic, and do not attempt to quantify it. The Treasury Department considers this potential response to be unlikely, and its magnitude to be negligible. On the other hand, the Treasury Department realizes that criminals might nominally assign their ownership to an individual to hold the interest in name only, to avoid meeting the reporting threshold, without actually giving up their ultimate ownership interest in the enterprise. We note, however, that the negative impact of nominee assignment would be counteracted by law enforcement's ability to use the natural person listed as a beneficial owner to further investigate and identify the true beneficial owner(s). Furthermore, any such nominee would risk criminal prosecution for impeding law enforcement by lying about the true beneficial owner(s), which should lower the incidence of nominees.

IV. Breakeven Analysis and Conclusion

Ideally, a cost-benefit analysis quantifies all benefits and costs, converts them to present value, and then assesses whether the present value of benefits exceeds the present value of costs. However, it is not uncommon for a proposed rule to generate benefits and costs that cannot be fully quantified, in which case alternative methods can be used to assess the rule.⁵⁵ When such unquantifiable benefits and costs are likely to be important, one should carry out a "threshold," or "breakeven" analysis to evaluate their significance.⁵⁶ Such an analysis asks how large the present value of benefits has to be so that it is just equal to the present value of costs.⁵⁷ A credible claim that a rule change would generate a discounted stream of benefits equal to or greater than this breakeven level supports the argument that a rule should be adopted. As we described at length above, we expect there to be significant but unquantifiable benefits to this rule, necessitating the use of a breakeven analysis. This analysis combines the high estimate of the quantified costs with an implausibly high estimate of the only significant unquantified cost (IT upgrades) to generate an upper bound for the cost of implementing the rule, which thus determines the threshold that the benefits would need to meet for the rule to generate a net benefit to society. Given that the upper bound for costs used in the breakeven analysis is excessively high, the breakeven analysis is therefore very conservative in specifying how effective the CDD rule would have to be in order to justify its costs.

As mentioned in the first section of the RIA, \$300 billion in illicit proceeds are generated annually in the United States according to the Treasury Department's 2015 *National Money*

⁵⁵ For a discussion of this situation, along with many examples of proposed federal regulations affected by it, see Sunstein, Cass. "The Limits of Quantification." *California Law Review* 102, no. 6 (2014): 1369-1422.

⁵⁶ See pages 2 and 10 of OMB. *Circular A-4*. 2003.

⁵⁷ For examples of regulatory analyses of past rules that relied on breakeven analysis, see Customs and Border Protection, Department of Homeland Security, "Importer Security Filings and Additional Carrier Requirements," *Federal Register* 73, no. 228 (November 25, 2008): 71730. and Customs and Border Protection, Department of Homeland Security, "Advance Electronic Transmission of Passenger and Crew Member Manifests for Commercial Aircraft and Vessels," *Federal Register* 72, no. 163 (August 23, 2007): 48320.

*Laundering Risk Assessment.*⁵⁸ To the extent that this figure represents funds involuntarily transferred from victims to offenders, the \$300 billion represents a portion of the total external costs imposed by the illicit activity.⁵⁹ The proposed CDD rule intends to diminish the volume of such illegally generated funds, where any reduction represents the “reduced crime” portion of the unquantified “reduced crime and terrorist activity” benefit described earlier. Any reduction of the \$300 billion figure is a lower bound for the proposed rule’s actual benefit, given the reliance on saved external costs as the relevant concept (i.e. this does not reflect the value of individuals’ lost time in the aftermath of being victimized by financial crime or their psychological suffering, among many other costs).⁶⁰ Note that this benefit is also a lower bound because it does not include the other benefits (besides reduced terrorist activity) discussed in the RIA, such as increased asset recovery.

In terms of costs, IT upgrades represent the largest of the unquantified costs examined in the RIA. In both public comments on the NPRM and follow-up calls with individual commenters, financial institutions emphasized that the rule would impose large IT upgrade costs. In the breakeven analysis to follow, we focus on both the unquantified IT costs and the quantified costs, setting aside all other unquantified costs because we believe these other costs are likely to be comparatively small. For example, as noted earlier, it is very unclear whether law enforcement activity (and the associated costs) would increase or decrease because of the rule.⁶¹ Similar arguments can be made about financial institutions’ costs for generating and submitting SARs. Regarding the government’s lost tax revenue due to capital loss and financial institutions’ capital loss from accounts closing or never being opened, the respective sections of the RIA go into some detail on why these costs would likely be negligible. Earlier sections of the RIA also explain why the unquantified costs to clients are plausibly low. Finally, financial institutions’ procedures for internal control and compliance would likely be executed by relatively few employees, implying that these costs would be comparatively small (vs. IT upgrade costs).

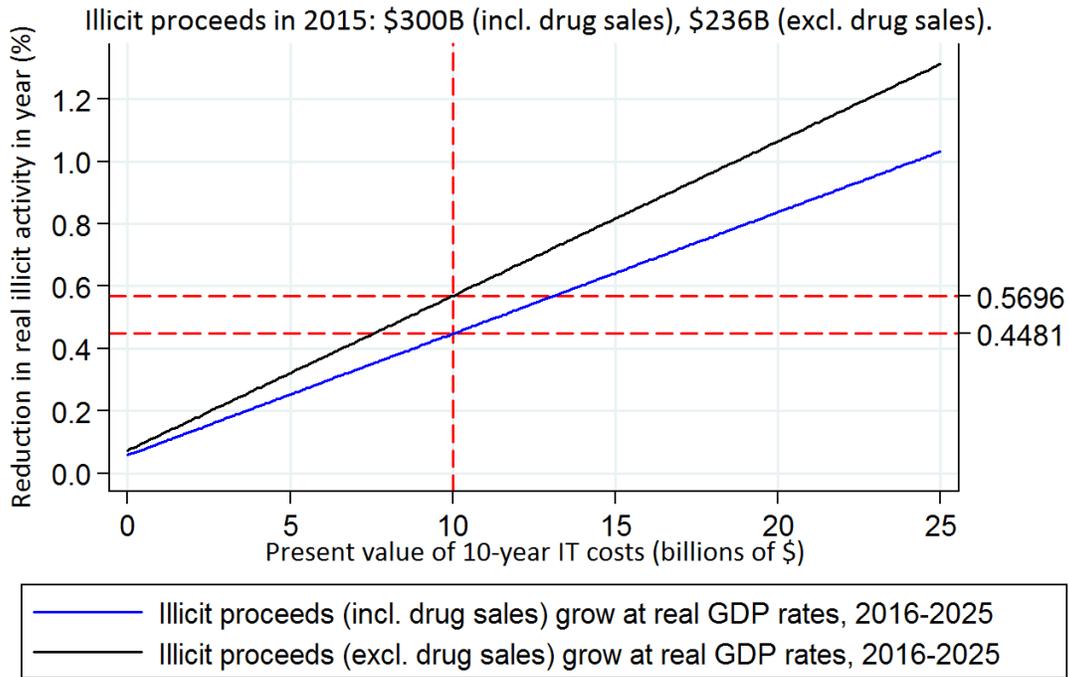
⁵⁸ See footnote 4.

⁵⁹ This is plausible for proceeds *not* due to illicit drug sales (representing approximately 22 percent of the total in the United States according to United Nations Office on Drugs and Crime estimates for 2010; we assume that this is also the case for 2015 and subsequent years), which are mostly attributable to fraud. This distinction matters because individuals who buy and sell illicit drugs presumably enter into individual transactions voluntarily. See footnote 5 for a discussion of the circumstances under which the inclusion of proceeds from illicit drug sales is justified in computing the benefits to society of reduced crime.

⁶⁰ For additional discussion of the importance of non-pecuniary costs (including, but not limited to, victims’ pain and suffering, and the cost of risk of death from violent acts that complement illicit activity) in the overall cost of crime to society, see pages 3558-3560 of Freeman, Richard. “The Economics of Crime,” In *Handbook of Labor Economics*, edited by Orley Ashenfelter and David Card, 3530-3563. New York: Elsevier, 1999.

⁶¹ Note that the CDD rule could lead to lower levels of illicit activity without any increase in law enforcement activity (even without a change in incarcerations, meaning the change in illicit activity would occur exclusively via the deterrence effect) if the rule allows the same resources to be deployed more effectively in investigations and prosecutions.

Figure 1: Breakeven reduction in real illicit activity and IT costs*



*Note: the required reduction in real illicit activity calculation takes into account both IT costs and all quantified costs.

In summary, in this RIA, there is one major unquantified benefit (reduced crime and terrorist activity) and one major unquantified cost (IT upgrades). By choosing an upper bound for the major unquantified cost and combining that value with other *quantified* costs (more specifically, the high estimate of the present value of total 10-year costs of \$1.488 billion listed in Table 1), we can determine the threshold level of the benefit that would make the rule's adoption worthwhile. Figure 1 graphs the threshold reduction in annual illicit activity that would be needed to justify different levels of *total costs* at different levels of *IT costs*, for different definitions of illicit activity (i.e. whether including illicit drug sales or not).^{62,63} Given the assumed path of illicit activity during 2016-2025, percent reductions in illicit proceeds in each year equal to those in Figure 1 would yield a streams of benefits having present values equal to the present value of costs.

⁶² Quantified costs are assumed to be constant as IT costs change (meaning that a \$1 increase in IT costs raises total costs by \$1) so the breakeven functions are able to take into account all costs while only being graphed for different levels of IT costs.

⁶³ To generate the profile of illicit proceeds during the 2016-2025 time horizon, we start with the 2015 levels (listed in Figure 1) and then assume that the amount of illicit activity as a *proportion* of the real economy will remain constant (for the year-over-year real GDP growth rates used, see Table 2-1 of OMB. *Fiscal Year 2016 Analytical Perspectives of the U.S. Government*. 2015.). This means that illicit proceeds are always equal to the same percent of production in the economy, but given that the real economy is growing, illicit proceeds must grow as well to account for that same proportional amount. For instance, real illicit proceeds (including from illicit drug sales) are assumed to be \$309 billion and almost \$383 billion in 2016 and 2025, respectively.

The key conclusion from Figure 1 is that even if we assume an extremely high and likely implausible present value for IT upgrade costs of \$10 billion, a reduction in annual illicit activity (measured by dollars of real proceeds) of just 0.57 percent or 0.45 percent (depending on whether proceeds from drug sales are included or not), or approximately \$1.4 billion in 2016, would mean that the CDD rule's benefits would outweigh its costs.^{64,65} We have selected an unrealistically high number for IT costs to illustrate that, even for upgrade costs that are improbably large, the CDD rule would only need to generate a very modest relative decrease in real illicit activity to justify the costs it would impose (recall from discussion above that the rule's benefits in this exercise constitute a lower bound to the rule's prospective benefits). The Treasury Department thus believes that the proposed rule would achieve a reduction in illicit activity that would more than offset the burdens it would place on government, financial institutions, clients, and other parts of society.

⁶⁴ Indeed, we believe that \$10 billion is implausibly large because this implies that financial institutions would incur just under \$350,000 in IT cost upgrades on average for the approximately 28,816 total covered institutions. This average is high relative to the \$50,000-\$70,000 range provided by one small credit union during one-on-one calls, and "small" banks and credit unions (those having assets of \$550 million or less) account for 80 and 93 percent of all federally regulated banks and credit unions, respectively. Furthermore, smaller institutions often purchase IT services from a limited group of third-party vendors, implying potentially large economies of scale in developing the necessary upgrades for core platforms and therefore lower overall costs (see discussion in the earlier section). Finally, one of the largest financial institutions in the United States, in a one-on-one call with the Treasury Department, estimated that its IT upgrade costs would be roughly \$20 million. Despite accounting for a large proportion of the legal entity market, this institution reported costs that are less than one-quarter of one percent of the hypothetical \$10 billion in total IT costs borne across society, suggesting that this figure is far above the actual IT costs that society would incur under the proposed rule.

⁶⁵ To be exact, these are *real* IT costs incurred during the 10-year time horizon, the present value of which implies very little about how these real costs are distributed across the ten years.