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Author(s): Michael Levi and Peter Reuter
Source: *Crime and Justice*, Vol. 34, No. 1 (2006), pp. 289-375
Published by: The University of Chicago Press
Stable URL: http://www.jstor.org/stable/10.1086/501508
Accessed: 21/02/2014 09:10

Michael Levi and Peter Reuter

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ABSTRACT

Techniques for hiding proceeds of crime include transporting cash out of the country, purchasing businesses through which funds can be channeled, buying easily transportable valuables, transfer pricing, and using "underground banks." Since the mid-1980s, governments and law enforcement have developed an increasingly global, intrusive, and routinized set of measures to affect criminal revenues passing through the financial system. Except at an anecdotal level, the effects of this system on laundering methods and prices, or on offenders' willingness to engage in various crimes, are unknown. Available data weakly suggest that the anti–money laundering (AML) regime has not had major effects in suppressing crimes. The regime does facilitate investigation and prosecution of some criminal participants who would otherwise evade justice, but fewer than expected by advocates of "follow the money" methods. It also permits the readier recovery of funds from core criminals and from financial intermediaries. However, the volume is very slight compared with income or even profits from crime. Though the regime also targets terrorist finances, modern terrorists need little money for their operations. AML controls are unlikely to cut off their funds but may yield useful intelligence. Money-laundering controls impose costly obligations on businesses and society: they merit better analysis of their effects, both good and bad.

People who commit serious crimes for economic gain want not only to evade imprisonment but also to enjoy the fruits of their crimes. This enjoyment often takes the form of immediate (sometimes conspicuous) consumption. For the more disciplined and those who make vast profits, "enjoyment" may take the form of savings for future economic opportunities. The latter group (plus transnational criminals who have

Michael Levi is a professor in the Cardiff School of Social Sciences, Cardiff University, Wales. Peter Reuter is a professor in the School of Public Policy and the Department of Criminology at the University of Maryland and codirector of the Drug Policy Research Center at RAND. This essay draws significantly on Peter Reuter and Edwin M. Truman, *Chasing Dirty Money* (2004). We are grateful to Dr. Truman Edwin and to the referees for their comments. Jeri Smith-Ready provided valuable research assistance.

0192-3234/2006/0034-0004$10.00

to move funds before spending them), how they do their business, and how public and private sectors respond around the world are the focus of this essay.

The conversion of criminal incomes to forms that allow the offender unfettered spending and investment has been an ongoing concern to both criminals and the state since at least the early days of the American Mafia. Meyer Lansky's claim to fame was partly his supposed skill in concealing the origins of funds used to buy real estate and legitimate businesses. His goal was to avoid tax evasion charges, which had famously brought down Al Capone, by making it difficult to trace the connection between wealth and its criminal sources.[1] Laws against handling stolen property traditionally referred only to the physical property obtained in the course of the crime. Only in the last generation has the disguise or concealment of funds obtained from crimes itself become a criminal activity, in a sense created by a new set of laws and regulations aimed at "money laundering."

Developed initially in the United States in the 1970s to combat use of international banks for tax evasion, money-laundering controls became a significant component of the war on drugs. More recently they have grown into an extensive and global set of controls aimed at a wide array of offenses, from cigarette smuggling, through corruption of high-level officials, to terrorist finance. The extent to which money-laundering laws include tax evasion remains an issue of divergence, both in national legislation and in mutual legal assistance.

The array of institutions involved in anti–money laundering (AML) is impressive. The control regime in the United States has extended beyond banks,[2] the original subjects, to a wide range of businesses such as car dealers, casinos, corner shop money transmission businesses, jewelers, pawnbrokers, and certain insurance companies. All these are now required[3] to play an active role in crime control through, inter alia, reporting on those customers whom they suspect of obtaining funds from crime or of using funds (whether from crime or legitimate sources) for terrorist activities. In the United Kingdom, any business handling high-value goods must report a "suspicious transaction."[4] In

[1] Mark Haller provided helpful clarifying comments on this matter.

[2] There were also some other regulated retail savings firms.

[3] Garland (1996) offers an inelegant but evocative term, "responsibilized," that might be used for this.

[4] Technically, these should be labeled "*suspected* transactions," since they represent the aftermath of a cognitive process rather than an inherent quality of the act. But as Gold

Canada there have been moves to require accountants to affirmatively report any suspicions of money laundering by their clients, though analogous requirements for lawyers had to be withdrawn following constitutional attack. In Switzerland, long regarded by the media and by anticorruption campaigners as an iconic laundering nation, even hotels that offer money exchange facilities above a modest level are subject to money-laundering regulation and are required to identify customers and record dealings.

The regime aims to be truly global, with both the International Monetary Fund (IMF) and the World Bank playing an active role within a policy framework set by a "temporary body" with a renewable mandate created in 1989—the Financial Action Task Force (FATF). They and a myriad of regional bodies monitor how well each nation complies with at least the formalities (and, increasingly, the substance) of the regime (Levi and Gilmore 2002). Thus, from small beginnings in 1995, by November 2005, the Egmont Group contained 101 National Financial Intelligence Units (FIUs) that meet internally developed criteria for receiving, analyzing, and processing reports (including Suspicious Activity Reports [SARs]) from the regulated institutions mentioned in the previous paragraph. Since 1999, there has been a formal process for imposing economic sanctions on countries that do not play their part, by slowing down their international transactions and making it almost impossible for their banks to clear funds through other countries. There is considerable pressure to expand the regime to other businesses and professions throughout the world, mostly justified since 9/11 as a method for fighting terrorism. Given the small sums involved as direct operational costs in major incidents such as the Madrid bombing of 2004 and the London bombings of July 2005 (not much more than $10,000 in total), it is difficult to predict where this broadening of coverage will end.

Money laundering is difficult to study in part because it is conceptually elusive. Is it a separate activity, like the fencing of stolen goods, or is it better thought of as an element of certain criminal acts, as is conspiracy? There appears to be a disjunction between the legal construct of laundering, which includes acts as modest as the placing of proceeds of crime in a bank account in one's own name, and the an-

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and Levi (1994) note, it is difficult to shift even misleading terminology once it has entered into routine use. Another example of this might be the continued use of the term "organized crime."

alytical construct of laundering, which one would expect to mean the sanitizing of proceeds of crime so that one can spend the funds as though they had been acquired legitimately. Most crimes for significant gain generate more funds than their perpetrators can spend in cash in the short term, and storing large sums creates risks from law enforcement and from other criminal predators. In that sense laundering (or at least "hiding," which has become "laundering" through legal extension of the concept) is an integral part of the serious crime process.

But how distinct is the process from the commission of the underlying "predicate" crimes? There certainly are persons uninvolved in the underlying crime who have laundered money. For example, Lucy Edwards—a senior executive in charge of Eastern European operations at the Bank of New York—and her husband, businessman Peter Berlin, earned large sums by laundering billions of dollars for some Russians who were either evading taxes or concealing the fruits of criminal enterprise. They have no other connection to criminal activities.[5] However, in many instances—especially fraud and tax evasion—the act is built into the underlying criminal offense. In accusations against Enron (Andrew Fastow) and HealthSouth (Richard Scrushy),[6] senior executives were charged with money laundering as well as fraud and embezzlement; but these cases currently involve no person who is charged with having acted as their money launderer. Pragmatically, enforcement authorities may find it useful to be able to charge people with laundering or (in the United States) with structuring payments in order to avoid reporting regulations (discussed later), even where the launderer is in fact the person committing a substantive offense such as drug trafficking or robbery.[7]

Knowing the balance between laundering as a separate activity and as part of the offense is important in judging the likely effectiveness of the AML regime. If the same evidence that might be used to convict people of laundering could also convict them of a substantive offense, there is little marginal benefit from the existence of the offense. There could be a benefit, however, where suspicious transaction reports from institutions point the finger of suspicion or lead to greater asset re-

[5] For a particularly graphic approach to this and other misconduct, see Block and Weaver (2004).

[6] Richard Scrushy was found not guilty of these charges.

[7] These laundering sanctions penalize only savers, since if all proceeds are spent on immediate conspicuous consumption, the principal offenders have not laundered the money.

covery, or where there is court-usable evidence of their connection to the banking or concealment of the proceeds but not of their involvement in the specific offenses that generated the funds. Measuring that benefit is important because the costs of the AML system, in a number of dimensions, are very substantial and are easier to see than the benefits. Indeed, although the costs are normally calculated in terms of the economic costs of implementing the policies, part of the resistance to AML comes from the emotional and practical experiences of ordinary citizens who may find it difficult to open accounts because they lack the identification documents in their own names required by the money-laundering regulations, even though their intended business is small and not remotely connected to the transnational crime activity with which they (and our readers) associate the term "money laundering."[8]

The problem faced by the regime is easily described. By the early twenty-first century (and long before), there was a large and growing range of methods for moving money across international boundaries, yet another facet of globalization. Thus there has evolved a highly differentiated set of financial institutions to meet the needs of various population groups such as low-income migrant workers who repatriate earnings home to poorer countries, very rich investors seeking to find the most politically secure and profitable location for their capital, and a broad array of businesses, from jewelry shops and car dealers to financial services firms themselves.

This makes it difficult to develop regulations that are truly comprehensive across institutions and that also reflect the risk to society that those different sorts of institutions pose through money-laundering activities. Though ultimately banks will almost certainly be involved in handling the proceeds of crimes or (to a far lesser extent) funds that facilitate terrorism, the chains by which the funds reach banks may themselves be complicated enough to make it hard for even well-intentioned banks to identify truly suspect transactions. Not all banks

[8] Thus, even when trying to open a new account for children in the same institution in which they already held accounts, one of us (ML) was required to get them to prove their identities by showing passports etc. Bankers we have interviewed have experienced this when trying to open accounts for themselves, even in their own institutions. Little wonder that some senior citizens and married people (usually women) whose utility bills are in their partner's name write to the British press complaining about being treated as money-laundering suspects and denied access to the banking system. This reflects the focus of the authorities on the front end of the due diligence process rather than on the ongoing monitoring of accounts.

are so well intentioned; but the AML regime has increased the reputational, regulatory, and penal risks attached to such commercial myopia or sociopathy.

We cannot dismiss the possibility that the regime's many critics are correct. Whatever their benefits *in theory*, the controls in practice may do little to accomplish crime-fighting goals or to combat terrorism, while imposing a substantial burden on people doing business in those nations—by now the vast majority—that have introduced them. Theoretical arguments suggest the implausibility of large crime suppression effects from AML, and our review of the little available data weakly supports this view, at least given the resources (including their coordination) that have been put into AML so far.[9] The regime does facilitate investigation and prosecution of some criminal participants who would otherwise evade justice, but fewer than expected and hoped for by advocates of "follow the money" methods. It also permits the readier recovery of funds from core criminals and from financial intermediaries and their transfer to victims and law enforcement agencies. However, although this may make communities feel better, the volume is slight compared with total income or even plausible profits from crime.

There is very little empirical research either on the phenomenon of money laundering or on the controls that deal with it. In particular, despite regular intergovernmental reviews of "money-laundering typologies" at FATF and regional gatherings—which at least stimulate some communal thinking about vulnerabilities—there are no systematic studies of how criminal offenders turn their incomes into usable assets or of how AML controls affect this. This essay draws not only on the modest criminological and legal literature but also on a wide array of nonacademic writings, principally from governments, lawyers, and journalists, to describe both money laundering and the regime.

Our emphasis is as much on the regulations as on the offense. The reason is not just that more is known about the regulations but also that the regulations have significant consequences for the architecture of the national and international governance of serious crime and for its flip side—the freedom of citizens from government surveillance.

Section I reviews the evolution of the regime of controls in the United States and summarizes the current global regime. It emphasizes

[9] It is far from certain that additional AML resources would have a significant effect on crime suppression.

the intricacy of the laws and regulations, the institutional complexity, and the multiplicity of goals. Section II describes what is known about money laundering itself. Though the regime has been justified in large part by the claim that money launderers are an important class of criminal offenders who facilitate certain illegal markets, organized crime, and white-collar crime, we offer some indications that self-laundering is the common mode. The section also reviews estimates of the scale of money laundering, since the claim of macroeconomic significance has been an important plank in the construction of the controls. Section III reviews available information on enforcement, which has been given much less policy attention than the laws and regulations themselves. Section IV provides an analytic framework linking the regime to the general goals and analyzes the patchy data available for the United States to suggest that if the volumes of money laundered are of the magnitude conventionally quoted, those involved are at modest risk of being caught. Section V gives our conclusions about how well the system works and briefly lays out a short research agenda, a set of interesting theoretical and policy questions, and some suggestions for how they might be studied.

I. The Anti–Money Laundering Regime

The current AML regime is remarkable for the range of institutions involved and the centrality of international agreements. A World Bank/IMF guide to the system (World Bank 2003*a*) lists six distinct international bodies in addition to themselves that either set rules or have formal monitoring responsibilities,[10] mostly either for specific industries (such as insurance) or for parts of the process (e.g., FIUs that receive reports from regulated institutions). Alldridge (2003, p. 281)

[10] The bodies are the FATF, the Egmont Group of FIUs, the International Organization of Security Commissioners, the United Nations Office of Drugs and Crime, the Basel Committee on Banking Supervision, and the International Association of Insurance Supervisors. These are merely the top layer of standard-setting bodies: there is a myriad of subsidiary public- and private-sector bodies beneath, including the FATF-style regional bodies: Asia/Pacific Group, the Caribbean Financial Action Task Force, ESAAMLG (Eastern and Southern Africa), EAG (Eurasia), GAFISUD (Latin America), MENAFATF (Middle East and North Africa), and Moneyval (Europe). The Offshore Group of Banking Supervisors is also part of this network. In the private sector there are national industry and professional bodies (such as the American Bankers Association and the Law Society of England and Wales), plus the Wolfsberg group of international banks. This collectively constitutes an important component of the governance of crime, though omitted by some recent contributors to discussions of "high policing" (such as O'Reilly and Ellison, forthcoming).

notes that money laundering "is an area in which most jurisdictions' laws are formulated in order to comply with international instruments." However, this international regime has developed only since 1989. How did it begin?

The U.S. Bank Secrecy Act (BSA) of 1970 represents the historic starting point for efforts to detect and sanction money laundering, though the term was not yet commonly used. The irony of the name is frequently noted (e.g., Cuéllar 2003); the statute was intended to limit rather than protect bank secrecy. Banks acquired an affirmative duty to provide information to the Department of the Treasury of transactions involving more than $10,000 in cash (Currency Transaction Reports [CTRs]). In line with its "regulatory" thrust, the BSA criminalized the failure to report, not the provision of the services to facilitate a criminal act.

The BSA was aimed primarily at the use of foreign banks to launder the proceeds of illegal activity and to evade federal income taxes (Villa 1988). Though passed at the beginning of the federal government campaign against the American Mafia (Jacobs and Gouldin 1999), the BSA appears not to have been motivated by that effort. Nor indeed (like RICO[11] itself) was it much used until the 1980s, when the powers of the Department of Treasury were clarified and extended by passage of the Money Laundering Control Act of 1986, whose key provisions (18 CFR 1956 and 1957) remain the principal statutory authorities for prosecutions.

The Money Laundering Control Act of 1986 was explicitly a component of the federal war on drugs, stimulated in part by the findings of a high-profile undercover investigation in the center of the drug trade, southern Florida. Operation Greenback found numerous instances of couriers for drug dealers carrying cash into banks in quantities just under $10,000 in order to evade the formal requirements of the BSA. Following the prosecution of the Bank of Boston for failure to report such patterns of transactions, many banks voluntarily reported noncompliance with the BSA and implemented much more routinized reporting programs:[12] an early instance of deterrence among those who had much to lose.

[11] The Racketeer-Influenced Corrupt Organizations Act of 1970 was passed as part of President Nixon's war on organized crime (see Woodiwiss 2001) to try to put into legal effect the criminal enterprise construct and to permit a range of civil and criminal controls.

[12] This illustrates the power of high-profile enforcement activity to trigger behavioral changes among other institutions that have something to lose. Whether, after the oc-

Even before the terrorist attacks of September 11, the system had expanded to include terrorism finance, though efforts to require bankers to be more diligent in identifying and monitoring their customers had met with severe political setbacks. Following the attack, Congress hastily passed the USA PATRIOT Act,[13] which increased the powers of the Departments of Justice and Treasury to obtain information and to expand the net of regulation. For example, the PATRIOT Act allowed (but did not require) the Treasury Department to regulate those involved in securities transactions, currency exchange, fund transfers, and real estate closings and settlements, among others. The act also imposed new requirements on financial institutions, including stricter customer due diligence and the creation of AML programs within each institution.

It is useful to think of the regime as having two basic pillars, prevention and enforcement. The prevention pillar is designed to deter criminals from using institutions to launder the proceeds of their crimes and to create sufficient transparency to deter institutions from being willing to launder. Enforcement is designed to punish criminals (and their money-laundering associates) when, despite prevention efforts, they have successfully laundered those proceeds.

The prevention pillar has four key elements from bottom to top: customer due diligence (CDD), reporting, regulation and supervision, and sanctions (fig. 1). Prevention may be thought of as describing primarily the role of regulatory agencies. CDD involves the requirements to name not just the nominal account holder but also the beneficial owner on whose behalf she or he is acting;[14] to provide proof of identity and an address; and ongoing monitoring to check whether individual and corporate customer account behavior is consistent with the bank's knowledge of their circumstances and work. This is intended to limit criminal access to the financial system and—latterly—to generate continuous reconsideration of whether customers might be benefiting from crime or financing terrorism. The theory is that the requirement to provide information will deter some offenders and others will be denied access once the information has been checked. Reporting refers

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casional symbolic shock, criminal prosecution is always necessary to achieve this is open to question, however.

[13] USA Patriot Act stands for "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism."

[14] Though variably implemented in national legislation and in national regulatory supervision.

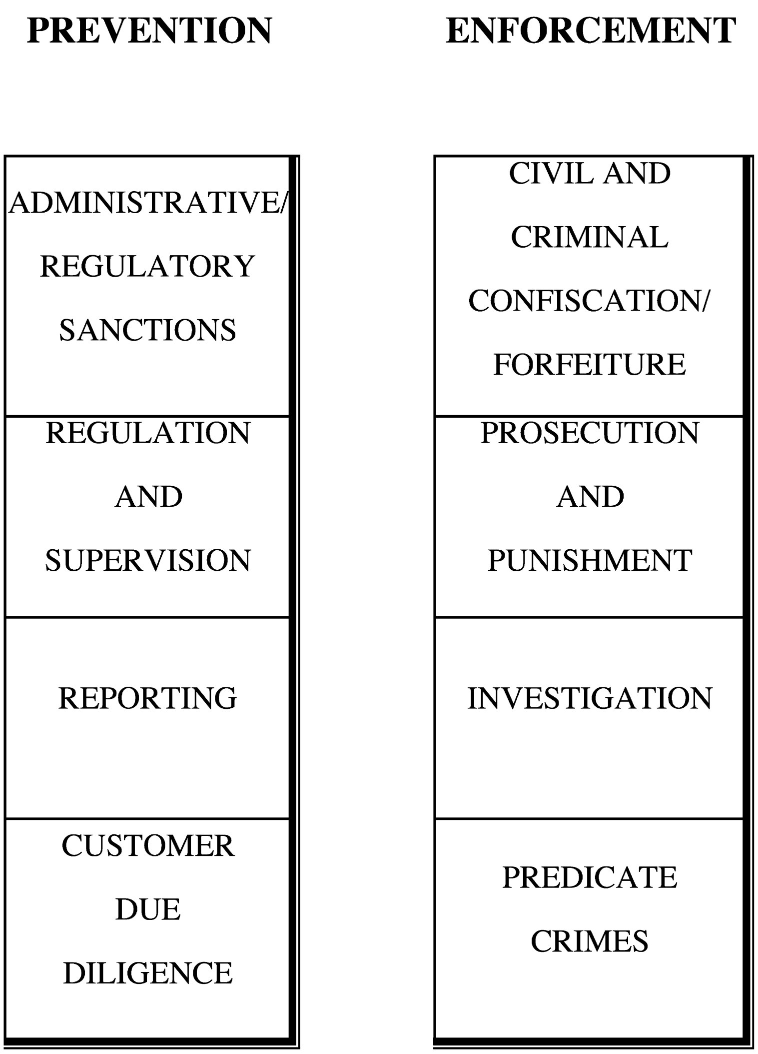

FIG. 1.—The AML regime (source: Reuter and Truman 2004)

to information that the institution or professional must provide to enforcement authorities. External supervision is active monitoring of compliance with CDD and reporting requirements. Finally, sanctions (mostly administrative and civil rather than criminal) punish individuals and institutions that fail to implement the prevention regime, in particular with respect to CDD and reporting requirements.

The enforcement pillar also has four key elements from bottom to top: a list of underlying offenses or predicate crimes, investigation, prosecution and punishment, and confiscation (fig. 1). The list of predicate crimes establishes the legal basis for criminalizing money laundering; only funds from the listed crimes are subject to these laws and regulations. The other three elements are common in the criminal justice system, except for confiscation of proceeds, where often the burden of proof shifts following some early legal elements such as conviction. Enforcement may be triggered or facilitated by information from the prevention apparatus, but it is primarily carried out by criminal investigative agencies.

A. The Current U.S. Anti–Money Laundering Prevention Regime

The U.S. prevention pillar, much imitated because of its pioneering status and because of the U.S. centrality to international finances (e.g., clearing most dollar-denominated trades), is more elaborate and has evolved more than the enforcement pillar. In practice, there may be some tension between the two pillars. For example, financial supervisory authorities are uncomfortable with the delays in changing behavior that arise when institutions (and their lawyers and insurers) shift from "restorative" to defensive criminal justice mode and with the collateral damage to the financial system that may arise from prosecuting major institutions. A criminal indictment of a bank threatens the institution's existence, as happened to the Arthur Andersen accounting firm when it was indicted for obstructing justice in the investigation of Enron.[15] Bank supervisors, while willing to admonish, are interested in the continued existence of the banks they regulate unless the banks are insolvent; they may be fearful that if they hand over information to

[15] Though the Arthur Andersen conviction was reversed by the Supreme Court in May 2005, the accounting firm remains a mere shell of its former self, and its staff worldwide mostly moved to other accounting firms. However, the consequences of the Arthur Andersen case are a public warning of how quickly major institutions can unravel—a factor that may deter regulatory as well as criminal intervention and sanctions since they are seen as the "nuclear option."

TABLE 1

Prevention Pillar of the U.S. Anti–Money Laundering Regime

	CDD	Reporting Requirements	Supervision	Sanction
Financial institutions:				
Core financial institutions*	Yes	Yes	Yes	Yes
Other types of financial institutions	Yes	Yes	Some	Limited
Nonfinancial businesses:				
Casinos	Yes	Yes	Some	Yes
Dealers in precious metals and stones	Yes	Yes	No	No
Real estate agents	No	No	No	No
Other†	No	Some	No	No
Professions:				
Lawyers and accountants	Limited	Limited	Very limited	Very limited
Trust and company services providers	Limited	Limited	Very limited	Very limited
Other‡	Some	Some	Very limited	Very limited

SOURCE.—Reuter and Truman (2004).

* Depository institutions, securities firms, insurance companies, and combinations.

† For example, mutual funds and investment advisors.

‡ For example, travel agencies, commodity trading advisors, and vehicle sellers.

prosecutors, there will be systemic or other "collateral damage," for example, to bank customers.

Table 1 summarizes the prevention pillar of the current U.S. AML regime. The elements are listed across the top of the table, and three broad categories of economic actors (along with some subcategories) are listed down the side. The cells in the table indicate whether or to what extent the elements of the prevention pillar are applied to the various subcategories of economic activities. This heterogeneity is important for understanding the limits of the system.

1. *Core Financial Institutions.* The most stringent requirements apply to core financial institutions such as banks, securities firms, insurance companies, and various combinations of those institutions. All are required to have comprehensive AML compliance programs (a formal set of controls and training programs) and are traditionally subject to

federal as well as state regulation and supervision.[16] These include four different forms.

a. *Customer due diligence*. If the institution is unable to satisfy itself that the clients are who they say they are and that their funds are plausibly consistent with what it knows about their inheritance and current sources of income, it is generally expected to decline to open the account or to complete the transaction. The institution is expected to view due diligence as an ongoing process. If an individual suddenly deposits a million dollars in her account, especially in cash, she had better have a verifiable explanation; otherwise the bank will send an SAR to the government.[17]

b. *Reporting requirements*. In the United States, institutions are required to submit a variety of reports on transactions to federal agencies.[18] These reports generate an information overload, making it difficult for the recipient agencies to use the information efficiently in law enforcement and related investigatory activities.[19] Interinstitutional variations in reporting behavior are commonplace worldwide, with some engaging in defensive reporting to avoid potential penalties (and reduce internal review staff costs) and others sifting carefully their initial suspicions, thereby risking criticism and even official action for failing to disclose. The U.S. AML regime and core financial institutions have also been criticized for applying more stringent CDD and reporting requirements to foreign than to domestic customers and transactions, possibly on the theory that drug traffickers and other major criminals are likely to be aliens.

c. *Supervision*. Core financial institutions such as banks are subject to substantial supervision that normally includes annual on-site

[16] Stand-alone U.S. insurance companies are primarily supervised at the state level but are covered by federal AML law and subject to federal AML regulations.

[17] Some economies, e.g., in the Middle East, Asia, and even Switzerland, have much higher rates of cash usage than the United Kingdom and United States; so this sort of "out-of-context" behavior has to be seen in the light of business and social norms—a flexibility that is difficult to reconcile with the pressure for uniform international rules.

[18] SARs go to the U.S. Treasury Department's Financial Crimes Enforcement Network (FinCEN), CTRs to the Internal Revenue Service, and Reports of International Transportation of Currency or Other Monetary Instruments to the Customs Service.

[19] In mid-2004, the American Bankers Association acknowledged that progress had been made in reducing the amount of data generated but recommended that the threshold for banks to file CTRs for corporations and businesses be at least doubled from the $10,000 set in 1970 (Byrne 2004).

examinations to ensure their compliance with a wide array of laws and regulations.

d. *Sanctions*. Institutions can be subjected to informal or formal administrative actions by the regulator and, potentially, civil and criminal penalties. There have been a few major scandals, such as that concerning the Riggs Bank of Washington in 2004 (U.S. Senate 2004, 2005) after it failed to conduct due diligence inquiries on large flows into accounts connected with ex-President Pinochet of Chile and President Obiang of Equatorial Guinea. Following this, it was fined heavily ($25 million for regulatory violations and $16 million for criminal violations) and placed under a five-year probation.[20] Dutch Bank ABN AMRO was fined $80 million in 2005 for allowing individuals from Russia and other former Soviet republics to move $3.2 billion to shell companies[21] in the United States from August 2002 to September 2003 and for failing to stop Chicago and New York branches from participating in wire transfers and trade transactions from 1997 to 2004 that violated economic sanctions on Libya and Iran (*New York Times* 2005). Israel Discount Bank of New York agreed to pay up to $25 million to settle state and federal claims that it allowed illegal Brazilian money transmitters to move $2.2 billion through its offices over the preceding five years (*Newsday* 2005). The public has not been informed about what JP Morgan Chase has agreed to do in the aftermath of its failure to catch the laundering of $6 billion by the Beacon Hill money service business.

2. *Noncore Financial Institutions.* A broad range of other types of U.S. financial institutions has been progressively incorporated into the U.S. AML regime. Money service businesses, a major subcategory of "money management activities,"[22] are required to register with FinCEN (Financial Crimes Enforcement Network, a small specialized agency within the Department of Treasury) if they offer such services

[20] Pinochet was charged by prosecutors in Chile in November 2005 in relation to accounts allegedly held in Riggs under false names, contrary to Chilean law. Riggs itself subsequently merged with PNC Bank.

[21] Shell companies are companies that have little or no underlying genuine substantive business but are mainly fronts for hiding or laundering funds.

[22] FATF's Forty Recommendations (2003) for combating money laundering and terrorist financing finesse this problem by defining a financial institution as any person or entity that conducts as a business activities or operations in one or more of a list of thirteen categories of activities, some with multiple subparts.

as money orders, traveler's checks, money transmission, check cashing, or currency dealing or exchange. These U.S. financial institutions are subject to CDD and reporting requirements that are essentially the same as those applied to core financial institutions, but they are not subject to systematic or comprehensive supervision. In principle, they can be sanctioned either criminally or civilly for not complying with the requirements of AML regulations, but, in practice, the sanctions element of the prevention pillar as it applies to these financial institutions is extremely limited; sanctions will be applied only if suspected offenders are already under surveillance or in the aftermath of an investigation.

3. *Nonfinancial Businesses.* The prevention pillar of the U.S. AML regime is even less rigorous for nonfinancial businesses such as casinos, dealers in precious metals and stones, and real estate agents than it is for noncore financial institutions. With respect to CDD, they are subject to reasonable procedures such as identity checks, record keeping, and determining whether customers are on lists of known or suspected terrorists; but supervision of their compliance and any practical use of sanctions for enforcement are limited because businesses are licensed in state or local jurisdictions. Aside from withdrawing licenses as the result of criminal or civil proceedings against the business, the authorities have little leverage to supervise the CDD or reporting requirements or to punish noncompliance.

Table 1 singles out three categories of nonfinancial businesses (casinos, dealers in precious metals, and real estate brokers) because they are specifically identified in the FATF's 2003 revision of its Forty Recommendations (FATF 2003). Recommendation 20 also states that "countries should consider applying the FATF Recommendations to businesses and professions, other than designated non-financial businesses and professions, that pose a money laundering or terrorist financing risk." Note that it is difficult to find many business and financial activities that pose no risk at all, raising (in our minds) the issue of what might be meant by a risk-based approach to money laundering: there is a danger of confusing the risk of being sanctioned by regulators or prosecutors with the risk of actual laundering.

Other nonfinancial businesses covered to some degree by the U.S. AML regime include travel agents as well as pawnbrokers, telegraph operators, and businesses involved in vehicle, boat, auto, and airplane sales. The regime does not currently cover other businesses sometimes involved in high-value transactions, such as stamp dealers. The line has to be drawn at some point, even if it is moved later.

4. *Professions.* FATF's 2003 revision of its Forty Recommendations called for extending the prevention pillar of the global AML regime to lawyers, notaries, other independent legal professionals, accountants, and trust and company service providers, insofar as they are engaged in specified activities.[23] However, the United States has no preventative CDD or AML reporting requirements that apply to them at present beyond criminal enforcement risks arising from violation of CTR requirements and assisting money laundering. Nor does it have any self-regulatory bodies to which it could delegate preventative responsibilities as per recommendation 24b of the FATF (2003).[24] In their critique of the equality of the international playing field on AML, Pieth and Aiolfi (2003, p. 27) comment that "it would rather stretch the general meaning of the words self-regulation or 'risk-based approach'" to subject attorneys, notaries, and unregulated fiduciaries to this type of regulation.

B. The Global Anti–Money Laundering Regime

The global AML regime has evolved rapidly over the past fifteen years. Despite the push for a "level playing field," there are big differences on a lengthy continuum between, at one extreme, regimes that try to capture vast amounts of financial activity data (most notably Australia, Canada, and the United States) and use them to sift suspicious behavior and at the other extreme, regimes such as Austria, Germany, Liechtenstein, and Switzerland, that see reporting of suspicions as focused on immediate criminal investigation, where the making of a report automatically freezes the account for several days while the prosecutor takes time to decide whether to open a formal money-laundering investigation. Regimes are more similar at the front end (CDD) than at the back end (such as reporting requirements and how reports are handled).

While the current global regime has been shaped and prodded to a considerable extent by U.S. developments and initiatives, national regimes reflect other local influences as well. For example, the principal

[23] The recommendations were an outgrowth of the so-called Gatekeepers Initiative agreed to at the Group of Eight Moscow Ministerial Conference in October 1999.

[24] For some European comparisons of lawyer regulation, see the special issue of *Crime, Law and Social Change* (Levi, Nelen, and Lankhorst 2005).

concern that prompted establishment of the Australian AML regime in 1990 was tax evasion rather than drugs. In the United Kingdom, concerns about drugs and Irish terrorism dominated in the 1980s. Influenced by the U.S. focus on coopting the financial services sector, drug trafficking suspicions were required to be reported from 1987, even though comprehensive all-crimes money-laundering regulations did not go into effect until 1994.[25]

Switzerland is an example of a national AML regime that evolved quite differently from the U.S. regime. The Swiss trace their concern with money laundering to adoption of a code of conduct by the Swiss Bankers Association in 1977 in the wake of the Chiasso banking scandals, which began as simple fraud in the early 1960s and ended up a major financial and embarrassment problem for Credit Suisse and much of the rest of the Swiss banking system.[26] The Swiss approach emphasizes deep knowledge of customers, well justified in a banking system heavily oriented toward private banking for high–net worth individuals and toward investment management rather than mass retail banking.

The Swiss system also relies heavily on the integrity and responsibility of financial institutions to ensure compliance with national AML laws and regulations. In contrast, although British and American banks also have significant "wealth management" private banking operations, the U.S. and U.K. AML regimes operate in financial systems in which retail transactions are at least as important as wholesale transactions and asset management relationships.[27] Pieth and Aiolfi (2003) have characterized the U.S. and U.K. AML regimes as emphasizing the collection and submission of data to national authorities as part of an "early warning system" that may produce little more than information

[25] However, it was not until the end of the twentieth century that the U.K. Inland Revenue got access to SARs.

[26] In the early 1960s, the Credit Suisse Chiasso branch manager set up an offshore trustee company, officially managed and controlled by an outside third-party legal office. This provided the Chiasso branch manager with a medium to externalize branch losses and a vehicle to circumvent headquarters controls on loans and investments, reporting continuously high profits while concealing significant losses. It was also acting as a conduit for Italian tax evaders.

[27] So important are retail transactions to the U.K. financial system that the AML regime is sensitive to the charge that the regime itself may impede access to retail financial services by making it too difficult for people without many genuine items (such as utility bills and passports) that might evidence identity to satisfy customer identification requirements. For example, the U.K. CDD regulations contain a subsection providing guidance about application of the regulations to limit financial exclusion.

overload. Though true, this may not reflect sufficiently the origin of the Anglo-American systems in aiming at street- and wholesale-level drug dealing in national markets, rather than the grander corruption and frauds whose primary offenses were usually committed abroad that gave rise to the Swiss reputational risks and control system.

1. *Financial Action Task Force.* Prior to 1989, few countries had explicit AML controls. At the Paris Economic Summit of the Group of Seven (G-7) in 1989, France and the United States proposed an initiative that led to establishment of the FATF, agreeing at this time that it would not address tax issues, thereby enabling the Swiss to join in. For the United States this was an important front in the war on drugs, then at or near its height. Through successive revisions in 1990, 1996, and 2003, the FATF recommendations have been accepted as key global standards for AML.

The FATF has a small secretariat (a budget of only about $3 million in 2005) and limited membership[28] and operates by consensus. It has addressed these latter constraints by ensuring that its standard setting for its members remains dynamic and by directly or indirectly sponsoring a number of semi-autonomous FATF-style regional bodies. Both the FATF and the regional bodies sponsor "mutual evaluations" of national AML regimes. The aim was to get collective bodies to put pressure on member countries to drive standards up. Though there were many successes in generating change, the leading nations in the FATF became impatient with consensus and in 2000 launched a "name and shame" initiative with the publication of twenty-five criteria, based on the Forty Recommendations, for identifying countries falling short in their AML regimes (FATF 2000). While most jurisdictions on the list were small, it included some major nations such as Egypt, Indonesia, Nigeria, the Philippines, and Russia. Most of the twenty-three named countries moved quickly to come into compliance, and as of November 2005, only two countries—Myanmar and Nigeria—remained on the list. The changes almost exclusively addressed prevention, for example, imposing CDD requirements and creating an FIU for receiving reports rather than enforcement.

Dissatisfaction with giving supervisory powers to a self-selected in-

[28] As of November 2005, the FATF comprised thirty-one member jurisdictions (from six continents) and two regional organizations (the European Commission and the Gulf Co-operation Council). The People's Republic of China was granted observer status, but neither it nor India is currently a member; of current FATF members, only one (South Africa) is from Africa.

ternational body led to a change in 2002. The IMF and World Bank agreed to conduct assessments of national AML systems as part of broader financial system reviews that they routinely conduct.

The attempt to institutionalize AML into the routine activities of international bodies came at a price, however. Participation in an IMF/World Bank review is entirely voluntary, and the country being reviewed itself decides whether the resulting report is published, a procedure that has the potential to negate the "name and shame" mechanism used to press countries with shortfalls.[29] The IMF and World Bank have no powers to sanction and limited scope to promote compliance through their lending and technical assistance programs.

2. *The European Union.* Pressures for AML consistency are particularly strong in the European Union. In 1991, the European Community adopted its first directive on money laundering that sought to establish minimum standards throughout what is now known as the European Union. Stessens (2000) maintains that the action was motivated in part by other global attempts to address money laundering and also by concerns that money launderers or criminals would take advantage of the increasingly free flow of capital and financial services throughout the European Union. The need to establish a level playing field in Europe also was a concern. Nations with tougher AML regimes might lose financial business to those with lax rules. Gilmore (2004) stresses the particular challenge that human rights concerns have posed to establishing an AML regime in Europe, given that both fascism and communism generated concerns about over-mighty central powers and the abuse of intelligence. The Third Money Laundering Directive—which came into force December 2005—builds on and replaces existing E.U. legislation and incorporates into E.U. law the June 2003 revision of the Forty Recommendations of the FATF (including the terrorist finance provisions). Member states have until December 2007 to incorporate this into their national legislation, which will then be evaluated for compliance.

The directive is applicable to the financial sector and to lawyers,

[29] On the other hand, the full reports are normally published, rather than the summaries previously made available. Moreover, nonpublication or even noticeable delay of a report might be taken by the international community that there was something seriously wrong with the jurisdiction's AML system, and this might produce collateral financial and reputational damage. For further details on these reports and other issues, see the FATF Web site (http://www.fatf-gafi.org/pages/0,2987,en_32250379_32235720_1_1_1_1_1,00.html).

notaries, accountants, real estate agents, casinos, and trust and company service providers. Its scope also encompasses all providers of goods, when payments are made in cash in excess of €15,000. The directive introduces additional requirements and safeguards for situations of higher risk (e.g., trading with correspondent banks[30] situated outside the European Union). From 2005, E.U. member states will also be required to set up controls of cash over €10,000 entering and leaving the European Union and to share financial intelligence about this, implementing FATF recommendations.

C. Geopolitical Context of Money-Laundering Regulation

The international "community" now takes it for granted that the objective of preventing drug trafficking, fraud, and terrorism entitles it to intervene in the laws and practices and criminal justice activities of other states, particularly the less powerful ones. That was not the case when the movement began twenty years ago. A good reason for focusing on the early development of these issues is to tease out how and why all of this international regulatory apparatus of late modernity[31] came to be regarded as self-evident. As an illustration, the annual U.S. State Department International Narcotics Control Strategy Report on Money Laundering and Financial Crimes (State Department 2005, p. 4) reports on the perceived strengths and weaknesses of AML efforts in all countries. It notes a rather lengthy list of fifty-five problematic jurisdictions, including some with small and weak financial systems (where predicate crimes might occur) and others that serve as financial centers, including the United Kingdom and the United States.

AML policy was developed by governments strongly committed to freeing commerce—not just in the United Kingdom and United States, but around the globe—from what they regarded as the oppressive hand

[30] Correspondent banks are banks that do not have a local branch or even may not be authorized to operate in the jurisdiction, but that (for a fee) are able to get local banks to clear their transactions for them. Stimulated by the Bank of New York revelations, this is now identified as a high-risk area since those who take on correspondent banking must satisfy themselves that the other bank is itself conducting satisfactory CDD. Following that case and the provisions of the USA PATRIOT Act, most Western banks rigorously reviewed the banks they took on as correspondents, since they thereby took on liability for their counterpart's due diligence standards.

[31] Late modernity is a term used to describe a globalized economic and cultural system in which change is routinized and cultural identity is no longer fixed. Whereas the nation-state was the primary unit of control in classical law, activities that transcend nation-states may call forth different modes of regulation. For an attempt to apply this construct to money laundering, see Sheptycki (2000).

of the state. Compelling the banks to act as the unpaid vanguard of crime prevention represented a challenge to that deregulatory culture, and compelling banks outside direct governmental control to do so *other than for prudential reasons* required a major ideological shift. Such regulation was not in the first instance an attempt to create an international level playing field. Initially, in the United Kingdom and the United States, though foreign banks operating in their jurisdictions were included, AML and allied legislation related to proceeds of crime confiscation were aimed at the domestic market and at domestic crime problems. The notion of international governance over organized crime facilitation developed in the lead up to the 1988 U.N. Vienna Convention and the creation of FATF in 1989; the notion that there was a right—and a mechanism—to impose a global level playing field of minimum standards did not emerge fully formed until the end of the 1990s.

Prior to the creation of the FATF, there was a chasm in the global governance of crime. Despite the growing role of U.S. law enforcement extraterritorially (Nadelmann 1993; Andreas and Nadelmann 2006), there were no international institutions that played or had any mandate to play a strong role in that regard.[32] As the role of the FATF became stronger and the social pressure to become good global citizens through active AML efforts became greater, British officials pushed for greater regulatory efforts by those offshore centers that fell within Britain's sphere of influence, preferably without destroying their economic base entirely. British politicians and officials became increasingly embarrassed at allegations in international fora such as FATF, the United Nations, and the European Union that Britain was allowing its offshore territories to behave like pirates. These allegations were undermining what otherwise was an active leadership of global antilaundering regulation. Thus it was not surprising that the incoming Labour Government was inclined to act. Home Secretary Jack Straw in late 1997 asked a former Treasury civil servant to "review with the Island authorities in Jersey, Guernsey and the Isle of Man their laws, systems and practices for regulation of their international finance centres, the combating of financial crime and co-operation with other Jurisdictions"

[32] The key international bodies such as the IMF and World Bank had (and generally still have) no particular interest in crime or even, until the latter part of the 1990s, in governance and anticorruption activities. Crime was not considered to be "macroeconomically relevant" (officials' interviews with ML, August 2001).

(http: // www.archive.official-documents.co.uk/ document/cm41/4109; foreword.htm). Although tax policy was explicitly excluded from the terms of reference (Edwards Report 1998, annex A), far from being a conspiracy to whitewash the islands, the report represented a robust attempt to get the "near islands" in line on those issues that did not bear on differential tax rates.

The inquiry took fifteen months and was politically contentious. Nonetheless, the reforms ended up as something of a political success for the islands, which were pressured not just to change legislation but also to put in place institutional structures and (some increased) resources to give effect to those laws and regulations. They gained a reputational advantage at a time when action was being threatened against the "noncooperative."

Consequently, consultants KPMG were appointed to conduct a review of the overseas territories (the British Caribbean) plus Bermuda. This review produced a somewhat blander set of recommendations in its published form (KPMG 2000) that brought the islands closer to international legal and institutional standards, reflecting the changed nature of expectations within a changed climate of norm enforcement. However, it has been very difficult not just to reduce the opacity of financial services regimes but also to define and apply sanctions to ensure functional equivalence[33] in how those regimes operate.

It may be surprising to some that economically and politically powerful groups such as bankers and accountants have been compelled to act as unpaid deputy sheriffs around the world. That this has happened owes much to the primacy of law and order politics, especially in the aftermath of prominent events related to organized crime, grand corruption, and terrorism. Although there was substantial pressure prior to 9/11, for example, it is less likely that without the attacks, CDD or measures against the financing of terror would have commanded such widespread acceptance, even in the United States, or that the IMF would have taken on responsibility for AML monitoring. These changes (and fears about nontransparent offshore liabilities of large investment funds) have involved international institutions and jurisdictions in some very difficult and expensive transformations to enhance

[33] Functional equivalence is an OECD concept applied to compliance, in which different methods of reaching the same objective are permitted. Avoiding the language of imperialism is very important in international meetings: hence the use of terms such as this and "approximation" rather than "harmonization" of criminal law within the European Union.

the surveillability of financial movements. However, it is easier to track their impact on the formal financial system than on crimes and their organization. It is to this underlying behavior that the regimes are intended to control that we now turn.

II. Laundering Methods and Volume

We turn now to the targeted activities. We illustrate the diversity of methods used and of the participants involved, which presumably have some interactive relationship with the controls just discussed. We then offer a classification of the offenses that generate laundering and why it is useful to distinguish among them, and conclude by showing that the existing estimates of the volume of money laundered have little credibility.

Money laundering begins with the fruits of a crime—the underlying or "predicate" offense—and ends with funds that can be used safely or at least with minimal risk, for any purpose. Money laundering is usually described as having three sequential elements—placement, layering, and integration. Placement is the introduction of the funds into the financial system, whether through cash deposits or more complex methods. Layering is a set of activities intended to distance the funds from their point of criminal origin. Integration involves converting "illegal proceeds into apparently legitimate business earnings through normal financial or commercial operations" (Board of Governors of the Federal Reserve System 2002, p. 7). In a sense, launderers need to be only as devious as the system of controls requires them to be. Financial secrecy havens as they existed before the 1990s (Blum et al. 1998) required far less skill of large-scale launderers than is the case today, at least for those offenses that are exposed and investigated financially. It would be quite difficult today to find a Caribbean banker willing to accept a known or unknown client flying in by private plane carrying suitcases containing millions of dollars in cash for deposit.

Not all money-laundering transactions involve all three distinct phases, and some may indeed involve more (van Duyne 2003; van Duyne and Levi 2005). Nonetheless, the three-stage classification is a useful decomposition of what can sometimes be a complex process. Investigative attention goes mostly to the placement stage, the point of highest vulnerability.

The paradigm applies awkwardly to terrorist finance. Stage 1 (placement) may not involve any crime at all; it is the ultimate use that is the crime to be prevented. Moreover, integration is turned on its head. The final stage is the financing of the terrorist act rather than the return of the proceeds to the original owner. Whether the same system is proper for both purposes, control of crime and reduction in terrorism, is a fair question. Figure 2 illustrates the flows in the two kinds of cases.

A. Methods

In contrast to most other types of crime, money laundering is notable for the diversity of its forms, participants, and settings. It can involve the most respectable of banks unwittingly providing services to customers with apparently impeccable credentials. The banks through which Andrew Fastow (the chief financial officer of Enron) passed his embezzled moneys from Enron or Robert Maxwell (the U.K. press baron of the 1980s) passed his embezzled funds from the pension funds of British newspaper employees had no basis for suspecting that these were the fruits of crime. No charges have been filed against the banks,[34] though many have settled civil suits, and Fastow was charged with laundering. But money laundering can also involve small nonfinancial businesses knowingly providing similar services to violent criminals, as in the case of truckers smuggling out large bundles of currency for drug traffickers.

Money laundering does not require international transactions; there are many instances of purely domestic laundering.[35] Nonetheless, a large number of cases do involve the movement of funds across national borders. Though governments have unique police powers at the border, those same borders—once crossed—can impede the flow of information.

Money can be laundered in many ways. There is a large and ever-

[34] Under controversial post-9/11 fast-track extradition procedures with the United States, which have been applied mainly to white-collar defendants, three U.K. NatWest bankers were ordered (in May 2005, subject to appeal as we write) to be extradited to the United States to face trial. The bank itself has not been charged and is portrayed as the victim of fraud in the Enron case, though it did not press charges against its former employees for their alleged conspiracy with Enron.

[35] For example, in the United States v. Clyde Hood et al., Central District of Illinois, an indictment returned on August 18, 2000, charged the defendant with fraud for collecting checks totaling at least $12,500,000 from investors who were promised a 5,000 percent return. Funds were deposited in checking accounts and used to incorporate and support participants' businesses, as well as to purchase real estate, all within the Mattoon, IL, area.

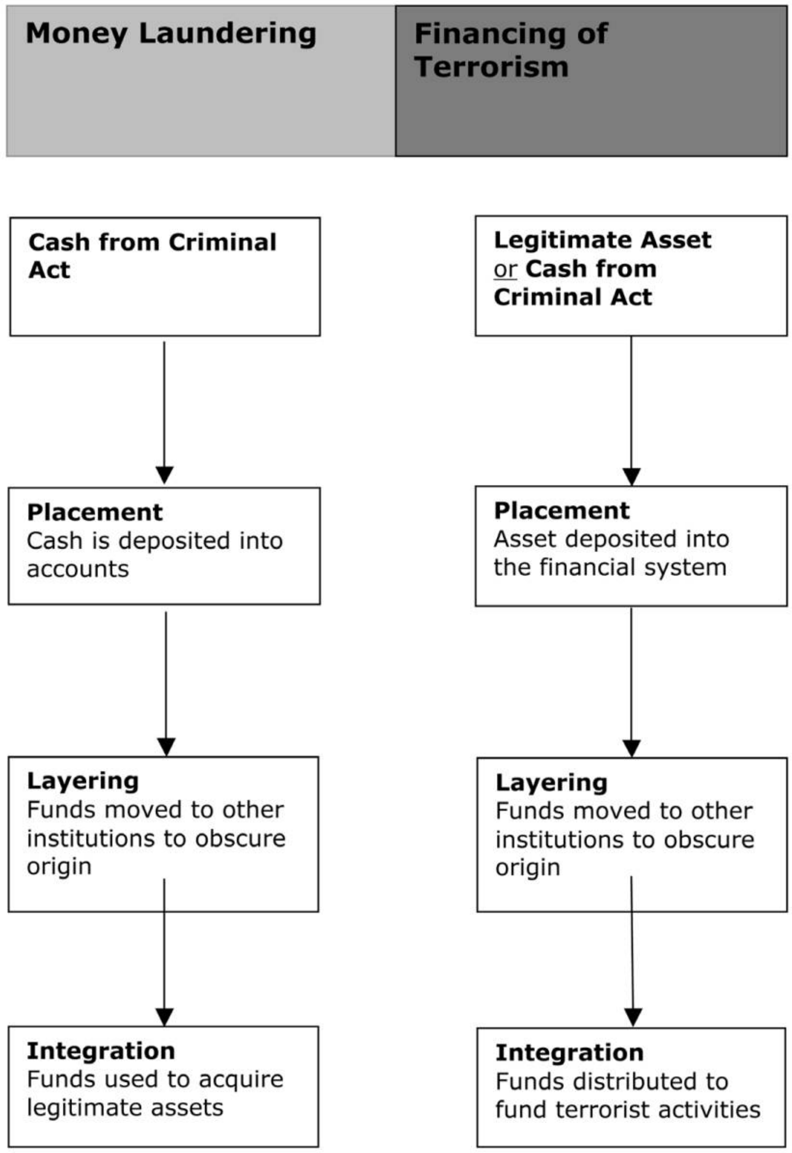

FIG. 2.—The process of money laundering and financing of terrorism (adapted from World Bank [2003*a*]).

growing literature of a "how to" and "look how awesome and out of control this problem is" nature (e.g., Robinson 1996, 2004; Woods 1998; Blunden 2001; Lilley 2002; Southwell 2002; Mathers 2004; Kochan 2005). The Internet has added to the available set of methods, though most of the e-schemes are arguably more theoretical than real or are very difficult mechanisms through which to launder large sums over a long period. Some of the major mechanisms described below are associated with only one of the three phases of money laundering, whereas others are usable in any phase.

The methods for laundering can be as simple as carrying money in suitcases across borders to jurisdictions that are less diligent in enforcement of global AML rules. The purchase of easily transportable high-value goods, such as rare stamps or diamonds, facilitates this. Insurance and real estate transactions can be used to conceal the origins of funds. More sophisticated schemes involve complex bank transfers and the purchase of businesses that can overstate their takings. Reuter and Truman (2004, pp. 27–32) provide a compact listing and description; further details may be found in the U.S. Money Laundering Threat Assessment (U.S. Department of Justice 2006).

B. The Distribution of Methods across Countries and Crimes

A reasonable conjecture is that different methods are used for laundering the proceeds from different predicate crimes. Using a database of cases summarized in the annual *Typologies* reports from the FATF and Egmont Group (annual, to 2003), Reuter and Truman (2004, chap. 3) found that three offense categories accounted for over 70 percent of entries: drugs (185), fraud (125), and other kinds of smuggling (92). The types of laundering methods were more evenly distributed: wire transfers were involved in 131 cases (22 percent), but no other single method was involved in more than seventy-five cases. For the three major offense categories, the numbers were broadly distributed across methods.

While these findings offer some insights into the laundering methods used for different offenses, the results should not be overgeneralized. Neither the FATF nor the Egmont Group makes any claim to be offering a representative sample of cases in their "money-laundering typology" exercises (which have improved since 2003). However, the information does have some value. For example, the data show that drug traffickers and other smugglers use a wide variety of methods for

TABLE 2

Ways of Disguising and Laundering Crime Proceeds

Forms of Concealment/ Disguise	Frequency
Export of currency	31
Disguise of ownership	10
False justification:	
Loan back	3
Payroll	2
Speculation	1
Bookkeeping	7
Untraceable	4

SOURCE.—Van Duyne and Levi (2005).

laundering the proceeds of their crimes. More weakly (and perhaps reflecting investigative and forensic difficulties in those areas), the typologies prior to 2003 suggest by omission that some methods are not much used, such as alternative remittance systems and trusts and securities. This seems implausible. Rather than indicating underlying trends in techniques, typologies reflect the shifting focus of financial intelligence within private and public sectors, generating a search for examples of those behaviors on which they have decided to focus.

Van Duyne and Levi (2005) studied the methods used in cases that survived the final appeal stage in the Netherlands over the period 1990–2000. Their findings are summarized in table 2.

Many of these cases brought to justice in Europe and elsewhere pose problems for the AML system. There may be difficulty in finding any substantial assets. This does not necessarily imply a failing in legal powers or forensic skills; the target may simply not own (or may not directly or indirectly control) many assets. The difficulty is remediable only by proactive surveillance before arrest, something that could in principle be dealt with under the current legal regime. There are also policy difficulties over how competent counsel in large complex cases are to be paid for, since for lawyers to accept tainted funds would expose them to money-laundering charges.

Suendorf's (2001) German language study of laundering in Germany (discussed in van Duyne and Levi [2005]) contains forty examples of money laundering in the broad juridical meaning of the word, that is, every subsequent handling of illegal profits aimed at disguising their origins. Two cases can be considered to fall into the category of thoroughly organized money management: the *Bosporus* case and the *Mozart* case. Both cases concerned organizations established to move the crime moneys of heroin wholesalers to their respective home countries.

The *Bosporus* case identified an extensive and complex network of money exchange bureaus directed by an Iranian entrepreneur who served a Kurdish heroin wholesaler. The funds were collected in various cities in Germany and carried to branches of the Iranian or associated independent bureaus. Subsequently the cash was placed in German banks and transferred to bank accounts of allied money change offices in New York. From these accounts the moneys were diverted to Dubai and—if required—back to Germany or Turkey. To allay the potential suspicions of the German police, the *bureau de change* submitted occasional suspicious transaction reports.

The *Mozart* case (which involved $35 million in criminal funds) represents a similar network of money change offices working on behalf of Turkish heroin wholesalers, which were fed with crime money from Italy and Spain. The handling of the crime money appeared to be even better integrated into the legitimate cross-border trade system of Turkey with Europe. Turkish traders, who were in need of E.U. currency, could circumvent the exchange control restrictions by balancing their payments in Germany (made through the exchange office in Germany) by the placement of Turkish money in Istanbul. These legitimate moneys (disregarding the violation of exchange control) could be intertwined with the crime moneys.

In eleven of the forty cases, there was an attempt to make an investment in the upper world, though with variable success and degrees of professionalism. Three examples illustrate this:

- Real estate: three instances of insolvent enterprises; one was a construction firm, which obtained a suspicious Italian infusion of money but nevertheless went bankrupt (208/210). No relationship with drugs is mentioned.
- A greengrocer, whose son was involved in heroin traffic and invested part of the proceeds in his father's firm, which expanded quickly (207).
- A designer bathroom store, whose licit Russian owner was pressured to accept a compatriot as a manager. Money laundering is suspected (208/9). Likewise, no drug relationship is mentioned.

In many cases, it remained unclear whether the moneys had been really "cleansed" sufficiently to defeat courts. Most of the other examples concerned only the placement of suspected moneys rather than its full integration. Overall, the sophistication and professionalism displayed were modest. The same was true in the extensive set of cases discussed by van Duyne and Levi (2005), based on finalized cases.[36]

The Dutch wholesalers discussed in van Duyne and Levi (2005) did not appear to use "financial secrecy havens" for depositing drug money to the extent expected. Most involved neighboring countries: Belgium, Luxembourg, Germany, or countries of the offenders' origins (Morocco and Turkey). Other jurisdictions were very thinly represented. Bank accounts were found in Panama, Gibraltar, Liechtenstein, Jersey, the British Virgin Islands, and Dubai, but in only six out of seventeen cases.

This European finding does not appear to fit the image, conveyed in both the popular money-laundering literature and the laundering nonfiction texts, of transnational criminals spreading their ill-gotten profits worldwide over financial secrecy havens. Instead, it rather seems that the choice of banking jurisdiction is strongly influenced by proximity to the drug entrepreneur's economic home.[37] Even in the global village, most offenders do not venture far from familiar territory.

Terrorist attacks in the twenty-first century have renewed focus on remittances, charities, and other means of both tactical and strategic financing of terror (Passas 2005). The FATF typologies reflect this,[38] even though this may indicate not so much that they are "new trends" as that improvements or shifts in the intelligence collections process have uncovered more about those methods than was previously known.

[36] This sample may exclude the most complex cases that were not sufficiently clear-cut to satisfy the courts on a criminal burden of proof and either were not prosecuted or, if prosecuted, did not result in a conviction. These cases might have disproportionately involved financial secrecy havens that frustrated customs and police investigations, but the absence of evidence does not prove that criminals *did* use these havens!

[37] Another factor may be the obstacles that police expected to encounter in trying to track accounts in financial secrecy havens themselves; as a result, they may not have attempted to locate funds there. That would turn this outcome into an artifact of the actual or perceived investigative possibilities. All we can determine is that financial secrecy havens are important, though the frequency of their use was not reflected in the routine practices of the affluent British or Dutch drug entrepreneurs.

[38] The 2002 Typologies Report was devoted entirely to terrorist finance.

C. Who Provides the Laundering Services?

Our understanding of who provides laundering services reflects the intelligence collections process; there is little systematic attention given to aggregate patterns. Much financial investigation is satisfied by "low-hanging fruit," especially outside the United States, where resources are limited. If difficult cases are not pursued, then there are no data to analyze. Thus the following observations about available cases are merely indicative.

It is easiest to launder money with the help of someone inside a financial institution. Bank employees can be coerced or bribed not to file SARs or CTRs. Alternatively, the forms may be filled out, with the government's copy conveniently filed in the trash and the other copy remaining in a drawer in case of an investigation.[39]

Although there may be members of organized crime groups who specialize in money laundering, some professional money-laundering agents are not otherwise involved in criminal activities. Some may not even be aware that they are laundering: in several cases of "negligent money laundering" that resulted in conviction and imprisonment, it was determined that the agent should have suspected that the funds were derived from criminal activities yet demonstrated "willful blindness" in failing to make that observation. This is potentially a major issue. If the business did a risk assessment but nevertheless was used for money laundering without its knowledge, to what extent *should* it be held liable?

Lawyers are thought to be among the most common laundering agents or at least facilitators, though they have been at the center of relatively few cases in the United States; Robinson (1996, chap. 8) provides some interesting descriptions. A lawyer can use his or her own name to acquire bank accounts, credit cards, loan agreements, or other money-laundering tools on behalf of the client. Lawyers can also establish shell corporations, trusts, or partnerships and receive cash deposits and run transactions through their client accounts or even (more riskily) their office accounts. In the event of an investigation, lawyer-client confidentiality privileges can be invoked or attempted, depending on the rules of the jurisdiction. In one case cited by the FATF in its 1997–98 typology report, a lawyer charged a flat fee to

[39] Electronic filing, which would eliminate this option, is not currently required in the United States, though it has been standard for years in Australia and is the norm in the United Kingdom, at least for repeat players.

launder money by setting up annuity packages for his clients to hide the laundering. He also arranged for credit cards in false names to be issued to his clients, who could use the cards to make ATM cash withdrawals. The card issuer knew only the identity of the lawyer and had no knowledge of the clients' identities.[40]

Other professionals involved in money laundering include accountants, notaries, financial advisers, stockbrokers, insurance agents, and real estate agents. A British report noted that in 2002, "purchasing property in the UK was the most popular method identified, involving roughly one in three serious and organized crime groups where the method was known" (National Criminal Intelligence Service 2003, chap. 6; however, it is not stated in what proportion of cases it is known). However, as partner, bank, and regulator vigilance over lawyers' client accounts has increased in the United Kingdom—each law firm is required to appoint a money laundering reporting officer who is professionally and criminally responsible for the firm's compliance—it has become harder to wash large amounts of cash in this way. Furthermore, in theory, the purchase of a property does not eliminate the need for explanation of the origins of wealth should such an accounting be required. Hence the importance of the burden of proof, since it is not an offense to have unaccounted wealth.[41] The dependence on conviction at a criminal standard of proof has in turn precipitated the development of civil forfeiture or recovery proceedings in Australia, the Irish Republic, the United Kingdom, and the United States, for example; civil or criminal charges of tax fraud can also be laid.

The most general point is the variety of professions involved. In Europe, among those regulated by money-laundering directives, auto dealers may be used to purchase expensive automobiles for cash, which can then be resold (at significant depreciation); real estate agents may be involved in sale of commercial or private residences, sometimes facilitating under-the-counter cash payments to supplement the recorded price, perhaps "only" to evade property taxes; criminals may purchase holdings in companies or businesses through accountant or

[40] It is doubtful that this would occur today.

[41] There is an exception in those (ex–British colony) jurisdictions in which public servants can be prosecuted for living in a manner inconsistent with their known income or wealth. This legislation originated in places such as Hong Kong and Singapore, where the British colonial administration wanted to find easy ways of firing and prosecuting police and civil servants for corruption without having to provide direct evidence of corrupt exchange.

lawyer nominees, or directly; accountants may overstate business takings, understate costs, or otherwise assist the transfer of value by false pricing (or be complicit in such falsifications by criminal businesspeople); art, antiques, and jewelry may be purchased for cash or for other financial instruments.

D. Markets for Laundering Services

Since money laundering is a criminal service offered in return for payment, it is worth considering the "market" for such services. For example, making laundering services more expensive should reduce their volume. It should also lower the volume of predicate crime since the return from crime is reduced. Price might also serve as a performance indicator as to how well the control system works. Unfortunately, law enforcement agencies do not systematically record price information acquired in the process of developing money-laundering cases, since that information is not necessary to obtain a conviction.[42]

Moreover, price is an ambiguous concept in this context. Apart from the fact that some laundering agents provide only partial services (e.g., just placement or layering), there are at least two possible interpretations of price: the fraction of the funds received by the launderer, including what he or she paid to other service providers, and the share of the original total amount that does not return to the owner's control. The latter share could include tax payments, as in the case of a retail proprietor who might charge only 5 percent for allowing the commingling of illegal funds with his or her store's receipts, but then might have to add another 5 percent for the sales tax that would be generated by these fraudulent receipts.

The policy-relevant price is the second of these, the difference between the amount laundered and the amount eventually received by the offender. Pushing offenders to use laundering methods that involve smaller payments to launderers but higher total costs (because of taxes) to the predicate offender is indeed preferable to raising the revenues received by launderers as a group; after all, the difference includes payments to the public sector. Such substitution might occur if the government mounted more sting operations aimed at customers.

The difference is by no means only of theoretical interest. Take, for example, one case cited by the Egmont Group (2000) of high-priced

[42] The 2002 U.S. National Money Laundering Strategy noted the importance of collecting such data.

laundering in which most of the price did not accrue to the launderer. A credit manager at a car loan company was suspicious about one of his customers. "Ray" had just bought a luxury sports car worth about $55,000, financing the car through the credit company for $40,000 and paying the balance in cash. Records showed that Ray had taken out several loans over the past few years, all for the same amount of money and with a large portion as a cash deposit. In many cases the loans had been repaid early with cash. The national FIU realized that Ray was laundering for a long-established criminal organization, putting cash from the sale of drugs into the banking system. He would resell the newly bought cars, obtaining checks to deposit into a single bank account, in all totaling over $300,000. The losses made on the loan and the drop in the automobiles' resale values were the cost of obtaining "clean" money.

Information about the price of money-laundering services is scattered and anecdotal. In the money-laundering activity targeted by Operation Polar Cap, a coordinated law enforcement operation (or "sting") during the late 1980s, the drug trafficker would pay only 4.5 percent to the government sting launderer initially, but was willing to go to 5 percent if the laundering were done rapidly (Woolner 1994, p. 43). Later in the operation there were reports of much higher margins. Experienced investigators refer to a general price range of 7–15 percent for laundering for drug dealers, but some reports are inconsistent with such estimates. One National Money Laundering Strategy (U.S. Treasury 2002, p. 12) reported a study that found commission rates varying between 4 and 8 percent but rising as high as 12 percent.

Other criminals pay much less for money-laundering services. For example, John Mathewson, who operated a Cayman Islands bank that laundered money for a number of white-collar offenders (e.g., Medicare fraudsters, recording pirates) and U.S. tax evaders, charged a flat fee of $5,000 for an account, plus a $3,000 per year management fee (Fields and Whitfield 2001). Mathewson, who provided a complete set of services, also kept 1 percent of the float that the clients' money earned when held overnight by other banks (U.S. Senate 2001). Whether Mathewson charged more for drug dealers or refused their business cannot be established from the published materials.

The price paid for a particular money-laundering service apparently is partly a function of the predicate crime and the volume of funds that needs to be laundered. Whereas legitimate, larger financial transactions generate lower per unit costs, the opposite is true for money laundering: the risk of detection is a major cost (perhaps the principal cost), and that risk will rise with the quantity being laundered. By contrast, however, a broker involved in Colombian black-market peso operations claimed that he charged less for larger volumes of money. Prices may be affected not just by enforcement risks attached to different predicate crimes—just as someone on the run for a particular crime involving heat may have to pay more for counterfeit documents and to be hidden—but even perhaps by moral qualms on the part of potential launderers. One might expect terrorist finance to be expensive by this criterion, though some ideologically sympathetic bankers and business people might assist freedom fighters from their community for free, whereas they would not assist drug traffickers at all or would charge them more. They might also be pressured to assist, as in Colombia and Ireland as well as in some ethnic diasporas. Despite use of illegal drugs by financial services personnel, there are very few cases in which dealers are known to have blackmailed staff, whether prosecuted or mentioned informally in research: if there is not a "dark figure" of undetected blackmail, the reason may be that dealers do not wish to frighten off good clients or that the information does not percolate far enough upward to those who require laundering services. American and European banking compliance personnel regularly express concern about infiltration by organized criminals and—since 9/11—terrorist sympathizers, and seek to monitor staff for signs of such facilitation as well as for fraud against banks and customers.[43]

A large number of money-laundering cases appear to involve opportunistic laundering rather than professional services. Where someone apart from the offender provides the service, he may provide it only to that offender, perhaps because they are related or connected through some other activity. Drug dealers appear to be more likely to purchase formal money-laundering services, perhaps because the regular flow of currency makes their needs more acute and less easily met.

E. Classification of Predicate Offenses

For both research and policy it is important to recognize the heterogeneity of money laundering from different criminal activities. Reu-

[43] Interviews with Michael Levi, 1990–2005. Periodic background checks (subject to data protection restrictions) and checks on computer accessing of customer information are methods used.

TABLE 3

Characteristics of Taxonomy of Money-Laundering Predicate Crimes

	Cash	Scale of Operations	Severity of Harms	Most Affected Populations
Drug dealing	Exclusively	Very large	High	Minority urban groups
Other illegal market	Mostly	Small to medium	Low to modest	?
White-collar	Mix	Mix	Low to modest	Broad
Bribery and corruption	No	Large	Severe	Developing countries
Terrorism	Mix	Small	Very severe	Broad

SOURCE.—Reuter and Truman (2004).

ter and Truman (2004) suggest a preliminary five-part classification of offenses to help understand the effects of specific money-laundering controls: drug distribution, other blue-collar crime, white-collar crime, bribery and corruption, and terrorism. These categories create more homogeneity with respect to the effects of interventions and the seriousness and distribution of the harm caused by particular offenses to society. The categories also differ from each other in these same dimensions. It can be conjectured, for example, that the response to increased scrutiny of, say, casinos on the part of white-collar offenders, whose crimes often generate electronic fund transfers or checks rather than cash, will differ from those who launder money on behalf of drug dealers. Similarly, the benefits from reducing at least some white-collar crimes by $1 billion might be valued substantially less than those associated with a similar reduction in crack cocaine or methamphetamine trafficking. The distribution of benefits from reducing either of the two offenses may also be quite different: those who are harmed by drug trafficking are disproportionately from poor and minority urban populations, whereas the costs of white-collar crimes are borne far more broadly across society, depending on what sorts of frauds they are and in which countries (Levi and Pithouse, forthcoming).

Table 3 provides hypotheses about the differences in the relevant dimensions among the five groups. The entries concerning the "severity of harm" and the "most affected populations" are judgments offered by Reuter and Truman (2004) not as authoritative but simply to identify dimensions that deserve consideration in policy making.

1. *Drug Distribution.* Major drug traffickers face a unique problem: how to manage large sums of cash regularly and frequently, much of it in small bills. For example, in Operation Polar Cap in the mid-1980s, U.S. agents acting as distributors associated with the Medellín cartel

handled some $1.5 million a week in currency. Few legitimate or criminal establishments operate with such large and steady cash flows.

This distinctive characteristic of drug distribution is particularly important because the current AML regime initially was constructed primarily to control drug trafficking, an aspect of the regime that continues to affect public perceptions of the nature of the money-laundering problem.

2. *Other Illegal Market Crimes.* Other potential large-scale illegal markets that would seem at first glance as likely candidates for generating a demand for money laundering include gambling and the smuggling of people (both voluntarily as economic migration and involuntarily—by force or fraud—as "people trafficking"). However these markets generate relatively modest demand simply because they have substantially lower revenues than drug markets. That is not a historical constant but an observation about the past two decades in industrial societies, and is independent of the relative seriousness of the behavior, people trafficking being very harmful.

The amounts of money for any individual operation in these other areas appear to be much smaller than for drug distribution, in part because total and unit revenues are smaller and in part because what has to be laundered is net rather than gross revenues. For example, a bookmaker will receive from customers and agents only what they owe at the end of the accounting period (perhaps one or two weeks). A gambler who wagers $10,000 per week on football, where the margin for the bookmaker is less than 3 percent, might make only monthly transfers of $1,000 (see Reuter 1983, chap. 2). In the part of the sex trade that employs trafficked women (as contrasted with locals and voluntary economic migrants), margins would be expected to be much higher; some of the trade may involve credit cards and legitimate front companies, not least so that clients' expenditures can be passed off without embarrassment.

3. *White-Collar Crimes.* The white-collar crime category covers a heterogeneous range of offenses, including embezzlement, fraud, and tax evasion, some of them confusingly committed by organized crime members involved in racketeering offenses. A distinctive feature of these crimes is that the money laundering is often an integral part of the offense itself. The Enron case demonstrates a complex scheme in which hundreds of shell corporations in the Cayman Islands served not only as questionable tax shelters but also as laundering mechanisms to

obscure a trail of fraudulent behavior. Money-laundering services in such cases often are provided by the offenders themselves, since the offense itself requires skills similar to those involved in money laundering. Indeed, where there are false invoices and other accounting frauds (such as value-added tax frauds in the European Union), such activities often constitute both the predicate and the laundering offense. However, if the underlying transactions are exposed as fraudulent (which is far from automatic), the money may not turn out to have been laundered effectively unless some further steps have taken place to break the money trail and frustrate pursuit. In this sense, as van Duyne and Levi (2005) argue, the funds might be better described as "hidden" rather than "laundered," even though laundering charges may be brought.

4. *Bribery and Corruption.* While bribery and corruption can be classified as white-collar crime, they are distinctive in terms of who benefits (public officials and those who benefit from their decisions), where they occur (primarily though far from exclusively in poor countries[44]), and the nature of their harm (reduced government credibility and public services). The laundering is almost inherently international: those corrupted prefer to keep the proceeds out of local banks unless the banks themselves were complicit or (as in the majority of corrupt acts in poor countries) the amounts were small. Money laundering also is often embedded in the offense itself when the corruption is large-scale. For example, San Diego defense contractor Titan Corporation pleaded guilty to three counts of foreign bribery involving the president of Benin. Among other payments, the company funneled nearly US$1 million to the offshore accounts of the president's reelection campaign. Procurement contracts in construction and defense are particularly prone to such transnational kickbacks.

F. Terrorism

The distinctive feature of terrorism is that it takes money both legitimately and criminally generated and converts it into criminal use. The sums of money involved are said to be modest: tens or hundreds of thousands of dollars rather than millions; see the report of the 9/11

[44] Indeed, France, Japan, and Korea, far from being poor nations, have experienced continuing corruption scandals involving the very highest level of government; in the case of Korea, at least one former president has been imprisoned for large-scale bribe taking. Prime Minister Berlusconi of Italy has been prosecuted for corruption and tax offenses.

Commission on the financing of the Twin Towers bombing (National Commission on Terrorist Attacks upon the United States 2004, p. 172). Yet the harm is unique and enormous.

Assessments of the relevant differences between the five types of offenses are just judgments. There will be near consensus that terrorism poses a greater threat to social welfare than any of the other offenses. Many, partly influenced by media coverage, may consider the harm associated with white-collar and blue-collar crimes other than drugs to be relatively modest, although specific offenses may be ranked high in social harm.[45] Yet another offense, major environmental crimes, could well strike some observers as just as harmful as selling cocaine.

The assessment of distributional consequences is intended as a reminder that benefits of interventions are far from uniform, since these offenses affect different parts of society. Indeed, there even are significant differences across nations; kleptocracy is surely more important than any of the other offenses for sub-Saharan Africa and for many parts of South America, but this is not the case in rich nations such as the Netherlands.

Whether this is a useful disaggregation depends in part on the hypothesis presented here that specific interventions will vary in their effects on the money laundering associated with these offenses. For example, elimination of large bills might substantially complicate money laundering for drug smugglers who make extensive use of bulk cash smuggling[46] but have minimal effect on terrorist finance, which (except when funded by drug trafficking) does not use this technique. In making policy, it may be important to identify which kinds of harm are most likely to be reduced by the chosen interventions.

G. How Much Money Is Laundered?

Given the variety of offenses and the diversity of adverse consequences per dollar, estimates of the total volume of money laundered would seem to have limited value. A reduction in the total amount of money laundering that represented a decline in gambling or corporate fraud but hid a smaller increase in terrorist finance would hardly be

[45] White-collar and blue-collar crimes are sufficiently heterogeneous that consensus is not likely, and crime seriousness surveys internationally indicate strong public condemnation of a variety of white-collar crimes (Levi and Jones 1985; Levi and Pithouse, forthcoming).

[46] This was a matter of some controversy when the euro was introduced, with the €500 note being the maximum size.

indicative of progress, given the much greater social harm caused by terrorism.

Nonetheless, there is a continuing demand for an estimate of how much money is laundered both in the United States and globally. Numbers are frequently cited, with minimal documentation, becoming "facts by repetition." For example, the IMF estimated a total of $590 billion to $1.5 trillion globally in 1996. In 2005 the United Nations cited the range of $500 billion to $1 trillion (http://www.unodc.org/unodc/en/money_laundering.html, accessed June 2, 2005). A sustained effort between 1996 and 2000 by the FATF to produce a fully documented estimate failed.[47]

There are, however, a few estimates of the potential demand for money laundering that are regularly treated as actual money-laundering estimates. The estimates fall into two categories: macroeconomic and microeconomic. Neither method yields estimates that can be considered as anything more than indicative. The macroeconomic estimates are methodologically flawed: they generate implausibly high figures. The microeconomic estimates lack a credible empirical base. These figures confirm that the phenomenon of money laundering is of sufficient scale to warrant public policy attention, but they are too imprecise to provide guidance for policy.

1. *Macroeconomic Estimates.* The macroeconomic approach is based on a broad definition that assumes that any revenue on which no tax is paid—be it from a legal or illegal activity—will need to be laundered in some way. In this view, the volume of the demand for money laundering is related to the monetary component of the so-called underground economy.

The study of what has been called the underground, shadow, hidden, or black economy first emerged in the late 1970s in response to the observation that, despite the growth of credit cards and other methods of purchase substituting for currency, the ratio of currency to gross domestic product (GDP) had not declined (Gutmann 1977; Feige 1979). More recently, one particular estimation method, the currency-demand approach, has been applied frequently enough to allow for comparison of many different countries over one or two decades.

Schneider and Enste (2000) summarize this research. They present a "reasonable consensus definition" of the underground economy based

[47] One of the authors of this study (Peter Reuter) was involved in the latter stages of this effort, which did not result in any official publication.

on an earlier schematization by Mirus and Smith (1997). They provide roughly comparable estimates for many countries based on the currency-demand approach and generate extremely high estimates. The cumulative underground economies of the twenty-one OECD countries since 1997 total over $3 trillion annually, and for single nations the underground economy represented an average of 16–17 percent of GDP. Since 1994 the figure exceeds 10 percent of global GDP for most years.[48] This is substantially above the 2–5 percent of global GDP cited in 1998 by Michel Camdessus, then managing director of the IMF, as a "consensus range" for the scale of money-laundering transactions. Even this lower guesstimate was described by Camdessus in a speech to the FATF (Paris, February 10, 1998) as "beyond imagination." Walker (1999) attempted a heroic global estimation that produced some counterintuitive, if intriguing, estimates for different jurisdictions.

The absolute and percentage estimates are shocking if taken as measures of money laundering. However, they are frail even in their own terms as measures of what evades government taxation and other restrictions, and still more frail as the basis for estimating potential laundering volume. Blades and Roberts (2002) review various estimates. Their main critique is that nonobserved activities are highly concentrated in certain sectors of the economy, such as retail trade, taxis, trucking, and restaurants; whereas other sectors such as power generation, heavy industry, or air transport are intrinsically less vulnerable, simply because the organizations have no incentive to underreport revenues. If one were to take this into account, the high estimates would imply that much larger shares of the susceptible sectors are completely underground, which hardly seems credible. Blades and Roberts (2002) offer a variety of other technical critiques as well.

2. *Microeconomic Estimates.* The microeconomic approach to estimating demand for money laundering is in a sense a complement to the macroeconomic approaches, which pay limited attention to estimating total earnings from criminal activities, aside from tax evasion. The microeconomic approach estimates the incomes from each type of crime. These estimates normally do not include the informal economy or activities that, though legal, are not reported in order to evade taxes. However, in principle it would be possible to graft those esti-

[48] On the basis of world GDP in constant 1995 dollars. See World Bank (2003*b*).

mates onto such measures. The problems associated with the microeconomic approach basically involve the paucity and unreliability of the data.

There have been two systematic efforts to provide estimates of incomes generated by a broad range of criminal activities in the United States. Simon and Witte (1982) cobbled together figures for the late 1970s. Indicative of the uncertainty of their results, which they acknowledge, is the basis for their estimate for income from prostitution. They started with survey-based estimates of the total number of acts of prostitution nationally and the number that a full-time prostitute would commit in the course of a year. This calculation resulted in an estimate of full-time-equivalent prostitutes of 80,000–500,000, disregarding part-time sex work aimed at supplementing low incomes. Add in considerable uncertainty about the annual earnings of a prostitute, and the result is an estimate that spans approximately an order of magnitude.

Under the auspices of the President's Commission on Organized Crime, Wharton Econometrics Forecasting Associates, a U.S. research firm, also developed estimates of incomes from many different criminal activities. In its final report in 1987, the commission stated that organized crime produced an annual net income of approximately $47 billion. Nine of the commission's eighteen members expressed reservations about this estimate.

Reuter and Truman (2004, chap. 2) used estimates of the proceeds from thirty-four crimes in the United States covering one or more years during the period 1965–2000 to estimate total criminal earnings. The thirty sources used included both public agencies and private organizations. For most crimes, estimates were available for only a few years. There were data for ten or fewer crimes for fourteen of the years, for eleven to fifteen crimes for nineteen of the years, and for up to twenty-two crimes for the remaining four years. Sixteen crimes had ten or fewer years of data, whereas only nine crimes had more than twenty-five years' worth. The results are presented in table 4. Simple linear projections were imputed for all the missing years to generate estimates for all crime for all years; some of the projections cover a large number of years.

A glimpse at one of the more complete years in table 5 reveals the general composition of the U.S. criminal economy according to these estimates. In 1990, the most lucrative crime (in aggregate) was fraud

TABLE 4

Estimated Earnings from Criminal Activity in the United States, 1965–2000, Billions of Current U.S. Dollars

Year	Tax Evasion Included		Tax Evasion Excluded	
	Estimated Criminal Income	Percent of GDP	Estimated Criminal Income	Percent of GDP
1965	49	6.8	18	2.5
1970	74	7.1	26	2.5
1975	118	7.2	45	2.7
1980	196	7.0	78	2.8
1985	342	8.1	166	4.0
1990	471	8.1	209	3.6
1995	595	8.0	206	2.8
2000 (estimate)	779	7.9	224	2.3

SOURCE.—Reuter and Truman (2004).

NOTE.—Non–tax evasion crimes included trafficking in illicit drugs, human trafficking, burglary, larceny-theft, motor vehicle theft, robbery, fraud arson, nonarson fraud, counterfeiting, illegal gambling, loan sharking, and prostitution. Tax evasion crimes included federal income, federal profits, and excise tax evasion.

(including tax fraud), producing an estimated $500 billion. Drug trafficking resulted in approximately $70 billion in revenues, and between $5 billion and $20 billion was garnered from illegal gambling. The total for all crimes with available data amounted to roughly $700 billion, approximately 8 percent of U.S. GDP in 1998.[49] A time series of these data shows that criminal income in the United States rose from just under 7 percent of GDP to around 8 percent, with the largest increase occurring in the early 1980s. However, when tax evasion estimates were removed from the totals, the criminal share of U.S. GDP ranged from 2.5 to 4 percent, peaking in the late 1980s before dropping to the levels of the late 1960s.

The fraud estimate, by far the largest single item in most years, is particularly frail. It comes from a report by the Association of Certified Fraud Examiners (2002), which sent survey forms to 10,000 of its members, fewer than 10 percent of whom responded. Respondents provided specific information about cases of which they were aware.

[49] If criminal activities accounted for the same share of GDP of other OECD countries, the global total would be $2.4 trillion. There is no way to validate this assumption, but it appears that the United States has a much larger drug market (in GDP terms) than other nations. However, drugs account for less than 10 percent of the estimated $700 billion in revenues from crime in 1998.

TABLE 5

United States, 1990

Crime	Proceeds in Billions of Current Dollars	Percent of Total
Tax evasion	262.2	55.7
Cocaine trafficking	61.3	13.0
Fraud (nonarson)	59.3	12.6
Heroin trafficking	17.6	3.7
Prostitution	14.7	3.1
Loan sharking	14.0	3.0
Marijuana trafficking	13.5	2.9
Motor vehicle theft	8.0	1.7
Illegal gambling	7.6	1.6
Other drug trafficking	4.8	1.0
Larceny/theft	3.8	.8
Burglary	3.5	.7
Robbery	.5	.2
Human trafficking	.2	.04
Counterfeiting	.1	.02
Fraud arson	.04	.008
Total	471.1	

SOURCE.—Reuter and Truman (2004); ONDCP (2000, 2001); Simon and Witte (1982); GAO (2002); Federal Bureau of Investigation's annual *Uniform Crime Reports*; Internal Revenue Service; International Organization on Migration; Abt, Smith, and Christiansen (1985); Kaplan and Matteis (1968); and Carlson, Weisberg, and Goldstein (1984).

But they also were asked to estimate the percentage of revenues that would be lost in 2002 as a result of occupational fraud and abuse. As the median figure was 6 percent, using an estimate for U.S. GDP of $10.4 trillion in 2002 leads to an estimate of $625 billion. No effort was made to adjust for nonresponse or to ask whether respondents were in fact in a position to make such estimates. Nor did the study consider whether GDP was the correct base for these calculations. If each examiner estimated the share of the flow through his or her corporation, then the right base was much larger, namely the total volume of transactions through corporations.[50]

In advanced economies in which insurance is commonplace, revenues from crimes involving stolen goods (burglary, larceny, and robbery) are probably overestimated, since they are based on the reported value of the stolen property. A victim may inflate the worth of an item

[50] See Levi and Pithouse (forthcoming) for a critical review of other fraud survey data.

to receive a higher insurance payment. From the point of view of earnings from crime, even if the claimed amount is accurate, a fence or pawnbroker will not pay a thief the retail value for pilfered goods; indeed, the standard figure used in research studies is that fences pay 20–30 percent of the market value of the good, depending on how easily it can be resold (Muscato 2003).

Even the estimates of revenues from drug sales, by far the most systematically developed, should be seen as having very broad confidence intervals, though the government publishes only point estimates. One can get a sense of the uncertainty of these revenue estimates by examining revisions in the related estimates of the number of drug addicts that are published along with the income estimates. When calculated in 2000, the estimated number of U.S. heroin addicts for 1992 was 630,000; in 2001 this 1992 figure was revised up to 945,000 (Office of National Drug Control Policy 2000, 2001). Estimating the prevalence of a rare behavior, particularly one that leads to erratic lifestyles, is difficult, resulting in a corresponding uncertainty. When one takes into account the range in estimates in the numbers of drug addicts, the $70 billion estimate of revenues from drug sales in 2000 is probably best thought of as somewhere between $35 billion and $105 billion, with no particular central tendency (Office of National Drug Control Policy 2000, 2001).

Outside of the United States, estimates of criminal earnings are sparser and often equally implausible. Blades and Roberts (2002) report a small number of such estimates for OECD and transition economies. Their figures, admittedly partial and essentially guesstimates, are usually in the range of 0.5–1.0 percent of GDP.

Even taken at face value, these numbers are only weakly related to money laundering. Much of this income is earned by people who use the cash to directly purchase legal goods without making use of any financial institution. Small-time thieves earning $25,000 annually are unlikely to make use of a bank or any other means of storing or transferring value.[51] It is impossible to estimate or even guess as to what share of these revenues will require laundering.

3. *Conclusions.* Neither of the two types of broad approaches to

[51] In most jurisdictions, the use of money acquired by illegal means to cover living expenses or operating costs is technically considered (self-) money laundering and often can be prosecuted under AML statutes. However, this is not an aspect of the general phenomenon of money laundering that by itself would rise to the level of a public policy problem. Nor do such prosecutions occur frequently.

estimate how much money is laundered—examining incomes in the broadly defined underground economy or incomes from criminal activities—provides numbers that meet minimal standards for policy guidance. The findings can support only the broadest statements about the extent of laundering activities. The underground economy, and even the criminal economy, probably amount to hundreds of billions of dollars each in the United States. However, this statement provides no possible guidance for assessing the effectiveness of money-laundering controls by comparing the volume of money laundered across time or nations. If an estimate rises by 10 percent from one year to the next, it is as likely to be the result of changes in coverage or estimating technique as to be a change in the actual size of the underground economy or of criminal earnings.

Money laundering is a diverse and substantial activity. We examine now the efforts to enforce laws against laundering as a method for reducing crime.

III. Enforcement

One of two pillars of the AML regime is enforcement, consisting of the listing of predicate offenses and the investigation, prosecution, and sanctioning of launderers and their customers. Whereas the prevention pillar can be described through document review, we are now, except for the predicate offense list, into the conventional criminal justice territory of statistics that are meager and difficult to interpret. After discussing the issue of what offenses are listed as predicate crimes, this section describes enforcement in the United States and United Kingdom, for reasons of both parochialism and data availability. We include analysis of the volume of SARS because though produced by the prevention pillar, they are principally used by enforcement agencies. Though only shards of data are available on other nations, the United States appears to be vastly more aggressive in its enforcement activities; in many countries there appears to be minimal use of criminal statutes for AML purposes.

A. Predicate Offenses

The decision about which offenses to list as predicate crimes or whether to opt for the more common approach of criminalizing the laundering of all "serious crimes" is one that has entangled the United

States and other nations in complex and sometimes acrimonious negotiations.[52]

However, consistent with the FATF's original mandate, the list of predicate money-laundering crimes in the 2003 FATF Forty Recommendations does not include tax evasion. This does more than reveal a lack of uniformity in the global AML regime; it can also undercut cooperation and mutual legal assistance under treaties.

Foreign or domestic tax evasion—other than failure to pay U.S. taxes on the proceeds of a crime—does not qualify as a predicate crime in the U.S. AML system. While U.S. prosecutors can work around this lacuna and do not regard it as an impediment to an effective U.S. AML regime, the absence of foreign tax evasion as a predicate offense under U.S. law is often cited as impeding international cooperation.[53] Latin American leaders, for example, often complain privately that while the United States insists on cooperation on issues it considers important, the country itself often fails to cooperate on issues of importance to other countries, such as evasion of taxes on assets held abroad.

B. Investigation

Before we briefly review investigation methods, it may be helpful if we summarize sources of intelligence that may drive them: first, suspicious transaction or activity reports made by bankers and other regulated persons; second, collapses of professional firms or business enterprises that generate information about culpable involvement of intermediaries; third, investigations—sometimes involving criminal and undercover police informants—into major crime networks that throw up suspicions and evidence of active assistance by laundering agents

[52] The FATF (2003) definition of "serious offenses" requires a maximum penalty of more than one-year imprisonment or a minimum of more than six months. In some jurisdictions, this would exclude some tax and exchange control offenses, and Switzerland criminalizes tax fraud (falsification on tax returns for those who have to complete them domestically) but not tax evasion. Some countries such as France include tax evasion as a money-laundering offense in their national legislation but undercut the inclusion because the offense is not reportable by financial institutions. The FATF also designates twenty broad categories of offense that include corruption, bribery, market manipulation, and environmental crimes.

[53] Such criticism is not directed only at the United States. Many financial centers are accused of noncooperation on tax matters (and sometimes counter that both tax and other fraud charges—e.g., those coming out of Russia—are politically motivated). For example, an IMF (2001, p. 24) review of Cyprus observed that international cooperation would be strengthened if Cyprus were to clarify that tax evasion is an offense under its money-laundering laws and regulations.

such as bankers and lawyers; and fourth, the boldness and powers of the investigative authorities and their priorities.

In the reactive model, information on suspected customers or transactions is sent by regulated entities (such as banks) to the FIU and then distributed to law enforcement authorities for follow-up. Here the universal message from the modest research that has been conducted is that the proportion of SARs in high-reporting jurisdictions that are actually seriously followed up is low, though the extent to which this is inherent or merely resource-constrained remains unclear (see Gold and Levi [1994], KPMG [2003], and Fleming [2005] for three British studies that try to analyze the financial intelligence process end-to-end).

Many reports are of matters that arouse suspicion in the minds of the bankers or professionals but are difficult to resolve without interviewing the client, which would tip the latter off. So expectations of high prosecution and/or criminal asset yield from SARs may be unrealistic, even without "defensive reporting" by regulated entities to avoid risk of prosecution.[54]

The more that financial intelligence is embedded into the routine investigations of serious crimes for gain and terrorism, the greater the likelihood that such intelligence is used. However, beyond the use of routine and suspicious transaction reports, there is considerable variation across nations in terms of what investigative techniques are allowed. Recommendation 27 of FATF (2003) endorses investigative techniques such as "controlled delivery, undercover operations and other relevant techniques," but not explicitly sting operations, which raise *agent provocateur* issues in several European jurisdictions. Jurisdictions also differ in their standards and procedures to enforce due process, human rights, and privacy. The U.S. Casablanca undercover operation in 1998[55] was regarded as a resounding success in the United States, but the operation's aftermath created tensions with Mexico, in particular. In February 2004, four bankers convicted in Mexican courts

[54] However, from the enforcement perspective, one important trend toward greater use of money-laundering reporting is data sharing both internally (linking databases so that SARs can be matched against intelligence, law enforcement, tax, and social security data) and externally (the European Commission–sponsored FIU.net project within the European Union, with wider potential at least for sharing names within the global Egmont Group of FIUs).

[55] Casablanca was the name of an extensive investigation of Mexican and other foreign banks and bankers by U.S. federal agencies. It resulted in numerous indictments of Mexican citizens for laundering of drug-dealing proceeds.

TABLE 6
Money-Laundering Defendants and Convictions, 1994–2001

Year	ML as Any Charge	ML as Primary or Secondary Charge	Percent with ML as Primary or Secondary Charge	Convictions
1994	1,907	1,341	70	933
1995	2,138	1,487	70	906
1996	1,994	1,457	73	1,080
1997	2,376	1,619	68	1,108
1998	2,719	1,831	67	1,199
1999	2,656	1,885	71	1,371
2000	2,503	1,771	71	1,329
2001	2,110	1,480	70	1,243

SOURCE.—Data from Administrative Office of the Courts, criminal master file.

in connection with the operation were released when the U.S. sting operation was declared unconstitutional under Mexican law. This supported allegations of biased targeting, since no major G-7 jurisdiction-headquartered bank has been selected for this sort of money-laundering sting exercise.

C. *Prosecutions and Convictions*

Available data on money-laundering charges in the United States—which come from judicial sources for the federal level and from surveys of inmates in federal and state prisons—cover the number of persons charged, convicted, and imprisoned in federal courts.[56] Charges can be brought against both the customer who seeks to have money laundered and the provider of the service; the data do not distinguish between these two types of offenders.

1. *Court Data.* The analysis presented here primarily refers to the Administrative Office of the Court (AOC) data (Bureau of Justice Statistics 2003), although U.S. Sentencing Commission data are also used to provide some additional insights.[57]

Table 6 shows that the total number of defendants charged with

[56] Judicial data on state court convictions are not available, although the inmate survey presented in more detail below reinforces a general impression that there are few convictions in state court on such charges.

[57] The data sets are different because the U.S. Sentencing Commission data reflect only those who were sentenced in a given year, whereas the AOC data reflect all matters related to a criminal charge that were conducted in a given year. For example, some of those convicted in 1999 were not sentenced until 2000.

money laundering rose from 1994 to 1998 and then fell sharply through 2001. Slightly more than 2,100 persons were charged with money-laundering offenses in 2001, compared with more than 2,700 in 1998; only twenty-two businesses were criminally convicted in 2001. For about 30 percent of those charged with money laundering, the offense was not one of the two most serious charges. Table 6 also shows the number of convictions for which money laundering was the lead offense, which is not necessarily the offense with the highest statutory penalty but normally the one that generated the investigation. In the vast majority of these cases (81–88 percent), those charged were convicted.

What predicate crimes generate money-laundering convictions? In this respect, there is a significant difference between those charged with money laundering as the lead offense and those for whom it was a secondary offense. For about 60 percent of the first group (which constitutes two-thirds of the total), a property offense (embezzlement or fraud) was the predicate crime, and for only one in six the predicate crime was a drug offense. However, among the smaller group whose lead charge was not money laundering, about 90 percent were charged with drug trafficking. That is probably the consequence of differences in maximum statutory sentences. Drug offenders face longer sentences than those convicted of money laundering, so drug money launderers are more likely to be charged with the drug offense if they had any involvement beyond pure money laundering.

U.S. Sentencing Commission data in table 6 provide another view on the same matter, since they include other charges that resulted in convictions, such as embezzlement for self in addition to laundering for others.[58] Of the 1,543 defendants sentenced under one or more money-laundering statutes in 2000, 590 were sentenced only for money laundering. If we expand the latter category to include cases involving money-laundering statutes and statutes for conspiracy or being the principal offender, nearly half of those convicted may have been involved only in the laundering and not in other aspects of the crimes, although there is no way to know whether they were customers or providers of money laundering.

Table 6 shows that for both 1995 and 2000, 30 percent of all defendants convicted of money laundering were also convicted of drug of-

[58] Data are not available to compare predicate offenses and these other charges.

fenses. Of 255 cases in which a Title 31 offense[59] was one of the charges, 223 (87 percent) had no non-money-laundering charges.

Interestingly, of all persons convicted of drug offenses in federal court, only 1.5 percent were also convicted of money laundering. This figure was not much different from the proportion of those convicted of fraud who were also convicted of money laundering (1.2 percent). The dominance of drugs among secondary charges for money laundering reflects the dominance of drug offenses in the federal criminal justice system. About 60 percent of federal prison inmates have been convicted of drug offenses.

Money-laundering sentences averaged about thirty-six months, substantially less than the average of approximately forty-eight months for all those convicted in federal court (Bureau of Justice Statistics 2003). Seventeen percent of those sentenced under the guidelines were given longer sentences because they had leadership roles. About 20 percent of the cases involved more than $1 million in funds (U.S. Treasury 2002, p. 5). The mean sentence for cash or monetary instrument smuggling (Title 31) was 19.6 months; for structuring transactions, 13.4 months; and for failure to report a currency transaction, 8.5 months. These results are consistent with the conjecture that most of these cases are pure money laundering, usually with a low-level offender who does nothing else but some illegal legwork for the "predicate criminal." Once again, however, it must be emphasized that the role may be in delivering the funds to the launderer rather than providing the actual service.

The United States stands out in terms of the aggressiveness of its criminal enforcement. Even the United Kingdom, discussed below, has vastly fewer cases per capita.

2. *Prison Data.* The court data have significant limitations because not every successful money-laundering investigation results in a conviction for money laundering, as opposed to some other offense. For example, the prosecutor may drop the money-laundering charge in return for a plea to another charge related to the predicate offense itself. That money-laundering charges usually result from investigations that began with another crime (Joseph 2001) reinforces the concern about the comprehensiveness of the figures. Fortunately, some

[59] These Title 31 U.S. Code offenses are mainly monetary reporting/recording offenses such as cash smuggling, structured transactions, and failure to file required reports.

other data throw light on how many money launderers are in prison, regardless of the offense of conviction.

Approximately every five years, the Bureau of Justice Statistics interviews a large sample (about 18,000 in 1997) of inmates in both federal and state prisons. The questionnaire includes items on their criminal activities, not restricted to those for which they were convicted. These data provide an important supplement to the administrative data. Questions in the most recent (1997) survey concerning money laundering have been analyzed by Caulkins and Sevigny (personal communication). Note that although these data are not directly comparable to any year of court data, since most of those incarcerated in 1997 were convicted in an earlier year, table 6 showed little change in the pattern of convictions from 1995 to 2000.

Among federal prison inmates, 3,030 (2.8 percent of the total population) reported that they were serving time for a money-laundering conviction. Two-thirds of those had some drug involvement and another 18 percent reported forgery/fraud convictions.[60] Including those who said that they laundered drug money but were not convicted on that charge, federal prisons in 1997 contained an estimated 4,416 money launderers (5 percent of the total population). Among those who said that they laundered drug money, only about one-sixth (467) were estimated to have had no other involvement with drugs.

None of the state prison inmates reported that they were currently serving time for a money-laundering offense. However, an estimated 6,368 state prison inmates (0.6 percent of the total population) self-reported that they did launder money, and in every case they reported that the money involved came from drug offenses. This latter finding is an artifact of the questionnaire, since only inmates reporting drug convictions were asked about money-laundering activities. Only about 100 reported that they were money launderers exclusively; the others said they were also drug dealers.

Many persons who launder money are in prison for other offenses, particularly for drug offenses. Thus, though there appears to be a neg-

[60] Some of the discrepancies between the inmate survey and the court data may reflect the longer sentences of drug offenders; thus the prison population of money launderers will be richer in drug money launderers than the population entering prison. The fact that the inmate survey pertains to 1997, three years earlier than the most recent court data, makes it difficult to integrate all the sources of data, particularly since most of the inmates had been convicted in earlier years. However, the court data suggest relatively modest changes in the level and composition of convictions between 1995 and 2000–2001. Therefore, we ignore here that difference in timing.

ligible number of state-level convictions for money laundering, the self-reported inmate data suggest that there are actually more money launderers in state prison than in federal prison, even if money laundering may have been a minor part of their drug-dealing activities and they may have been customers rather than providers of money-laundering services.

In the federal system, the court statistics (from both the AOC and the U.S. Sentencing Commission) do not suggest a dominant role for drugs. However, the inmate survey suggests that most of those in prison on money-laundering charges were involved in drug dealing. There do not appear to be many stand-alone launderers in the prison system, though the reason may be that involvement in drug dealing creates extra vulnerability to detection and evidence for prosecution.

D. Suspicious Activity Reports

In the United States, SARs have replaced currency transaction reports as the primary source of AML information from financial institutions and other reporting sources. Although CTRs still play a role—more than 13 million of them were filed in 2001, and 1.5 million were at some point identified in the course of a criminal investigation (FinCEN 2002)—SARs at this point are viewed by professionals in the enforcement field as more informative. The number of SAR filings in the United Kingdom is much smaller, but larger per capita and per dollar of gross national product.

1. *The United States.* The number of SARs filed in the United States increased from 52,000 in 1996 to 689,000 in 2004 (FinCEN 2005*a*). Little information is available on the underlying suspected activity. For example, 55 percent of SARs filed by depository institutions between April 1, 1996, and December 31, 2004, were characterized only as "violations of the Bank Secrecy Act (BSA)/Structuring/Money Laundering," which is nonspecific. The only other large category was check fraud, which accounted for 13 percent of the filed reports.

The number of SARs related to terrorism predictably increased sharply following September 11. Whereas, in September 2001, twenty-seven SARs mentioned possible terrorism, another 1,342 terrorism-related SARs were filed in the following six months. The rate of reporting had decreased again within another year. In the six months beginning October 2002, only 290 terrorism SARs were filed. In the second quarter of 2003, however, the number began to rise again in part because of the additional number of financial institutions required to file SARs—for example, money services businesses, casinos, and securities and futures industries—and in part the war in Iraq and the accompanying slight rise in terrorist incidents (FinCEN 2005*b*).

An encouraging trend has emerged with regard to the party initiating terrorism-related SARs. In the six months after September 2001, 85 percent of these SARs were filed because of apparent matches with the names of individuals or entities provided to institutions by government agencies. But from October 2002 onward, most such SARs were a result of due diligence processes of financial institutions themselves, independent of any government-published lists; in fact, during the period April 2003 through June 2004, 80 percent of SARs were proactive. A review of those SARs indicates that several banks created internal watch lists to alert tellers and other employees to customers' previous suspicious behavior.

However, though 177 financial institutions have filed SARs related to terrorism, over a third of the reports from April 2003 to June 2004 came from just two banks. It is unlikely that terrorists rely on such a small number of banks for most of their transactions; it suggests that a few banks are much more alert than others. Sixty-eight terrorism SARs (23.4 percent) were reported directly to law enforcement, meaning that the violation was ongoing and required immediate attention.

The number of SARs filed, like most criminal justice outputs, is an inherently ambiguous indicator of changes in the phenomenon. A rise in the number of SARs may reflect either an increase in money laundering or increased stringency of the AML regime. The rate of increase in recent years is so large that, with a caveat as to quality, there is good reason to believe that it is the stringency of the regime that has intensified. There are no events that would explain a comparable increase in the incidence of money laundering.

SARs are of variable quality. One bank was described as having invested in training its staff to file informative reports only when there was indeed reasonable suspicion. However, sometimes the purpose of filing is primarily to protect the bank against charges of violating reporting requirements, with little focus on assisting the government. If banks and other regulated firms feel a greater need to protect themselves against government sanctions by filing reports, the increase in numbers may not indicate improved diligence. Moreover, the increase may be weakening the effectiveness of the regime in the process, by lowering the signal-to-noise ratio. Such discrepancies in efforts point to the need to examine not merely the number of filings but the extent to which they have resulted in detection and punishment of money-laundering offenses.

For the six and a half–year period ending October 31, 2002, 940,000 SARs produced 70,000 direct referrals to federal law enforcement agencies, of which almost half were to the FBI (FinCEN 2003). Unfortunately, there is no information on how many resulted in criminal cases or contributed to cases.

The U.S. General Accounting Office (GAO) has periodically attempted to ascertain the results of the SAR filings in terms of prosecutions and convictions. An early study (GAO 1998) found that state officials reported "limited or no investigative actions" from materials supplied by FinCEN. Even today, it is unclear what information SARs have produced to make criminal cases. Another GAO study (2002) that examined all SARs involving credit cards during a two-year period from October 1, 1999, to September 30, 2001, found 499 such filings, of which seventy were referred to law enforcement agencies (thirty-nine federal, thirty-one state or local). But the GAO noted that FinCEN was unable to report whether any of these referrals resulted in criminal prosecutions.

The requirement itself to file SARs can indirectly generate useful information. For example, a small community bank in New York City (Broadway National Bank) was identified as problematic because of a lack of filed SARs; it turned out that senior management had allowed the bank to routinely accept deposits from drug dealers.

2. *The United Kingdom.* Concerns about the U.K. AML regime have existed at least since 1992, when Gold and Levi (1994) conducted a review. However, AML activities were not mainstreamed into the law enforcement process until some serious thought was given to proceeds of crime issues during and in the aftermath of the Cabinet Office study (Performance and Innovation Unit 2000). A study of the U.K. system for SARs, funded by the British government (KPMG 2003), found an extraordinary increase in the number of SAR filings since 2000: from 20,000 in 2000 to a projected 100,000 in 2003 (rising subsequently to 154,536 in 2004).[61] According to the study, the increase reflects the

[61] This rise is a fairly universal feature of jurisdictions: e.g., from 2001 to 2004, the number of Dutch SARs doubled to 41,002; in Japan, they quintupled to 95,315 in 2004. There has been a rise (though less marked) also in those jurisdictions in which accounts

extension of AML requirements to lawyers and real estate agents. At least 6 percent of a sample of SARs disseminated by the U.K. National Crime Intelligence Service (NCIS) resulted in "a positive law enforcement outcome (i.e., prosecution, confiscation, cash seizure, etc.)," and another 5 percent were still being used in an active investigation.[62] The study also noted, however, that there was little feedback from law enforcement agencies to the filing institutions.

The NCIS makes some claims about the impact of SARs on enforcement, broadly construed (http://www.ncis.co.uk/financialintelligence.asp, 2005). For example, a fifth of disclosures received by the Inland Revenue from the NCIS identified a new target and a quarter led to new inquiries. In 2002 and 2003, 20–30 percent of the disclosures disseminated to the National Terrorist Financial Investigation Unit were stated either to have led to a longer-term investigation or to have added substantially to an existing investigation.

Fleming (2005, p. v) echoes the findings of the Gold and Levi study over a decade earlier. For example, Fleming found that information technology systems commonly used allow for only limited SARs-related analyses and that SARs may contain unclear reasons for suspicion or may relate to noncriminal activity. Law enforcement agencies receive little guidance, training, or advice on the use of SARs. Along these lines, there is no larger accountability for either law enforcement agencies or the NCIS on the use of SARs; the regime has no real owner to encourage solid performance, to effect change, and to coordinate the SARs-related activity of numerous government departments and agencies. Neither is there a mission statement that clearly sets out the aims of the regime. On the more positive side, smaller-scale studies on metropolitan police data suggest greater potential for linking SARs with existing investigations if field officers use the database (Fleming 2005, pp. 38–42).

Taken together, these reviews amount to a fairly serious indictment of the lack of strategic end-to-end processing in a loose-coupled law enforcement and regulatory system that is both expensive and intrusive of privacy. This is not perhaps quite as critical as the 9/11 Commission

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are automatically frozen following the making of a report. Jurisdictions that track all wire transfers mostly reflect fluctuations in the economy (see Austrac 2004).

[62] Given that the researchers were unable to track the ultimate use of most of the sample of SARs, this is the least favorable presentation of the data. By the most favorable analysis, one-third of SARs resulted in a law enforcement success, mostly as intelligence rather than as evidence for prosecution.

report but has generated a significant *frisson* in the financial intelligence and enforcement community and a further review in 2005–6 by the chairman of the newly created Serious Organised Crime Agency, which took over responsibility for the dissemination of SARs from NCIS (which it absorbed when it began operations in 2006).

We include here the little data available on criminal enforcement in the United Kingdom. In England and Wales, there were only fifty-four convictions for money laundering in 2004, a rise from 357 prosecutions for violations of money-laundering statutes in the twelve years from 1987 to 1998 (KPMG 2003).[63] Though the U.K. Financial Services Authority has subsequently made AML a major priority, the sense of strategy in criminal investigations and prosecutions was lacking at that time. That view was reinforced by a review of the AML regime in the United Kingdom by the IMF, which found that enforcement was limited even though the structure and laws for it were in place. The report went on to state that "cases are generally considered for enforcement only when there is little likelihood that they will be seriously contested or complicated. . . . The Crown Prosecution Service does not prosecute any matters other than narcotic money laundering" (IMF 2003, p. 100).[64] In 2000 and the first half of 2001, the report continued, there were only eighteen "skilled-person" visits to financial institutions focusing on AML issues (IMF 2003, pp. 100, 102).[65]

E. Seizures and Forfeitures

Given the nature of money laundering as an offense, prosecution of it, unlike prosecution of a violent crime, can be expected to generate substantial financial penalties. The government may seize the laundered money and other assets of those charged and seek forfeiture upon their conviction. In some cases, these seizures and forfeitures can generate very substantial amounts: a prominent case involving a Bank

[63] Data were not available for Scotland and Northern Ireland.

[64] This remains broadly correct even though the IMF may not have considered fully prosecutions for tax fraud by what were then HM Inland Revenue and HM Customs and Excise, and for serious or complex nontax fraud by the Serious Fraud Office. Subsequent to this and in order to implement the Proceeds of Crime Act of 2002—itself a reflection of a major shift in approach by the U.K. government—there have been significant enhancements of investigation, prosecution, and cash seizure regimes in the United Kingdom.

[65] The Financial Services Authority has stepped up its focus on AML since then (see Robinson 2005), but there remain generic problems in applying risk concepts to nonprudential areas.

of New York official in 1999 resulted in criminal forfeitures of $8.1 million (U.S. Treasury 2002, p. A-15).

The total amounts the federal government orders in fines and restitution increased from $100 million in 1996 to $665 million in 2001. The data, provided by the U.S. Sentencing Commission, reflect the growth in the size of the average order rather than the number of orders. The relevant metric to assess this figure is the total volume of funds laundered. If one chooses an estimated total figure toward the lower end of the usual range, such as $300 billion, then the current level of seizures is almost trivial, only 0.2 percent. However, if the total figure is only a few tens of billions—or at least if the forms of money laundering of greatest social concern are only a few tens of billions—then the level of seizures might be 1–3 percent, perhaps enough to have a modest deterrent effect on those tempted to commit the predicate crimes.

A report by the Performance and Innovation Unit (2000) of the U.K. Cabinet Office on the use of confiscation orders also found that the system performed poorly in the United Kingdom. For nondrug crimes in 1998, for example, only 136 confiscations were ordered and £6 million collected—less than half of what was ordered to be confiscated. For drug cases the numbers were larger, but only £10 million were collected in a market estimated to total some billions of pounds in revenues. Since then, the system has been toughened substantially by the Proceeds of Crime Act of 2002, which includes not only joint police-customs Regional Asset Recovery Teams but also a new Asset Recovery Agency (roughly based on the Irish Criminal Assets Bureau) to pursue civilly and via taxation the assets of suspected criminals irrespective of prosecution or conviction. In 2004, there were 709 confiscation orders made in drug-trafficking cases, and additionally, forfeiture orders were made in two-thirds of drug cases on usually modest amounts of property used in the commission of offenses (Home Office 2005). Some £81 million has been confiscated and civilly forfeited in 2004–5, some three-quarters of it via cash seizures under new inland powers (personal communication). There remain very substantial assets (over twice the above figure) on which confiscation orders have been made but not enforced, and reducing this attrition is a prime target of U.K. enforcement bodies.

F. Conclusions

It appears that no other nation prosecutes money-laundering offenses as aggressively as the United States, which is a recurrent complaint of U.S. officials involved in international money-laundering matters. Even with the creation of systems that generate large numbers of reports, there is little evidence of substantial criminal investigations that are consistently pursuing substantial cases against violators. The Netherlands, which has relatively sophisticated capability in criminal intelligence and investigation of organized crime, may be an exception, but even there the numbers of major cases remain small.

What might explain this apparent difference in AML efforts between the United States and other wealthy nations with sophisticated financial and judicial systems? First, drug trafficking, central to the creation of the AML regime, has been a more significant problem in the United States than in any other industrial nation, in terms of both politics and collateral social problems. Second, the United States launched a successful prosecutorial campaign against the Mafia in the 1970s and 1980s that developed many of the legal tools and much of the organizational expertise for money-laundering prosecutions. Only in a very few other nations (notably Italy) has organized crime prosecution been prominent. Finally, the United States has a more aggressive law enforcement culture generally than most other nations.

These differences between the United States and the rest of the world could be either exacerbated or reduced by the relatively new concern with terrorist financing. The new security agenda that has developed most dramatically in the United States after 9/11 has received a positive response in the European Union. Although there remain reservations in some E.U. countries about the circumstances that should give rise to labeling as "terrorism" and about what telecommunications data should be kept, for how long, and who should have access to them, it should be noted that even prior to the bombings in Spain and England,[66] a 2002 Eurobarometer poll suggested a similarly

[66] The United States did suffer what to date is the largest number of deaths in one terrorist incident, and the dramaturgy of that awful episode looms large in the collective psyche. Of course, France, Germany, Italy, Spain, and the United Kingdom (especially Northern Ireland itself) have experienced a large number of terrorist deaths and incidents since the 1960s as a result of indigenous non-Islamic armed struggles. In the United Kingdom, the reduction of funds available to Irish paramilitaries has long been a policy goal, and though the funds from crime were reduced by significant structural changes (Levi 2006), charitable donations—principally from the United States via Noraid—were able to sustain the Irish Republican Army and other groups until the peace agreement and 9/11 produced a change in American attitudes.

high level of concerns about terrorism in the European Union and the United States, with 82 percent of Western Europe fearing a terrorism incident (European Commission 2003, table 1.13). The London and Madrid bombings have also strengthened the commitment of European states to pursuing terrorist finances, though there is varying commitment and much concern about the negative impact of AML measures on their minority populations and on whether alternative remittance systems make formal AML controls unimportant (Passas 2005).

There remains uncertainty about what the effects are of the differential prosecution and sanctioning levels within Europe and between Europe and the United States. If crime is as globalized as is often believed, one might expect criminals (like licit manufacturers and financial services firms) to shift their centers of operations to foreign countries or to outsource more functions where risks of incrimination or sanctions are lower. There is some anecdotal evidence that in the light of clampdowns on criminal assets in the Irish Republic (arguably, a connected but distinct aspect of AML regimes), drugs traffickers moved to the United Kingdom and to the Netherlands. However, there has been no systematic analysis of what fraction of offenders have *not* moved their operations. This leads us naturally into the next section, assessment of the impact of AML.

IV. Assessing Anti–Money Laundering Efforts

How should the effectiveness of the AML regime be assessed? Money laundering itself is only the intermediate target; the true target is instead the volume of predicate crimes, perhaps weighted in terms of their harmfulness.[67] Reduction in the volume of the money laundered is not a conceptually strong measure of the effectiveness of the regime; subtler outcome measures are needed. This section deals with the problem of finding such measures to reduce crimes other than terrorism and bribery/kleptocracy, since the bulk of AML activities have been

[67] A major U.K. Home Office evidence-based review for 2005–6 aims to reweight the objectives of the crime control process in terms of overall harm reduction, developing a common metric for the relative weighting of all crimes. This seems to be analytically defensible, even though very difficult to operationalize in terms that will enable interveners to judge whether one set of policing actions will reduce total harm more than others, whether individually or as part of a basket of controls.

devoted to such criminal activities as drugs, other illegal markets, and white-collar crimes.

A. General Considerations

Writing over ten years ago, Braithwaite (1993) offered the only analysis of this question with a criminological base. At a time when money laundering was almost exclusively concerned with drug revenues, he enumerated the costs and benefits that needed to be considered. For benefits, the central issue was whether money laundering would increase prices enough to make any noticeable difference in drug consumption and whether it would increase the number of serious offenders being punished. On the cost side, in addition to drug-specific issues (e.g., whether drug-related crime and monopolization of drug markets would increase), he identified the costs of enforcement and intrusions as the major considerations. We think that the diversification of AML to other activities also requires a broadening of the evaluative framework.

AML helps reduce crime through two mechanisms. First, CDD and other elements of the prevention pillar can make it more difficult for offenders either to carry out the crime (e.g., pay their suppliers) or to obtain its full benefits. In this respect, the controls have a prospective effect. Second, SARs and other back-end activities can generate evidence of a crime and link individuals to that crime, and SARs can also become evidence for investigations that originate from other sources or were already under way when the reports were made. SARs can also inform the authorities of suspects' assets of which they have no prior knowledge and which, in a system lacking the capacity for centralized information on who directly or indirectly owns specific financial holdings, they have no other obvious means of acquiring.[68] In this sense, SARs act retrospectively in that they not only increase the risk of criminal sanction but also provide the basis for seizure of criminal proceeds.

In terms of crime control, the AML regime may generate two other benefits. First, it produces a form of condign punishment. Part of the social appeal of proceeds of crime confiscation is the satisfaction that offenders do not continue to enjoy the fruits of crime and even are

[68] Persons subjected to executive orders, usually in connection with terrorist finance, may have their names circulated. All banks check the list to see whether they have any accounts directly or beneficially owned by those persons, so that they can freeze funds; but this is a tiny proportion of total suspects.

visibly stripped of them. Seizure of funds generates revenue for the government, and the incarceration of those who conspire to make the profits of crime appear legitimate punishes senior offenders. The seizures attack the negative role models offered by offenders living "high on the hog." Research in Europe finds ample illustrations of law enforcement officers stressing the pain that asset confiscation brings to offenders, both in absolute terms and compared with at least European levels of imprisonment (Levi and Osofsky 1995; Nelen 2004);[69] though plausible, this has not been independently verified on a large sample of offenders.

The impact on the ability of others to offend is uncertain, but conviction or professional disqualification of professional intermediaries removes some crime facilitators and may have a disruptive effect on some crime groups (Middleton and Levi 2005; Nelen and Lankhorst 2005). Moreover, given the stakes that financial professionals have in maintaining their employment and licensure, they may be relatively deterrable; that is, unless they are being blackmailed or threatened or unless they or their firms are at serious risk of going bust anyway, modest expected risks of apprehension and punishment may be enough to discourage many from participating.[70] In some instances, the only way to apprehend those principal offenders who separate themselves from the predicate offenses is to convict them of money-laundering offenses associated with predicate crimes that have been committed by others. Such cases show that the law with respect to a wide range of predicate crimes applies to everyone.

Second, AML systems may improve the efficiency of law enforcement, an effect distinct from reducing predicate crime. Even if they do not necessarily result in the government apprehending more offenders, the existence and tools of the AML system may permit the same number of offenders to be captured and convicted at lower cost (at least lower to the government; in this case, the externalities are paid for by the private sector and by users of their services).

[69] These are supported by interviews with U.K. law enforcement personnel, 2002–5.

[70] Ironically, the very severity of employment sanctions for any drug taking or viewing Internet pornography at work makes financial services staff readily vulnerable to blackmail; the paucity of public cases revealing actual subornation is evidence of either significant underreporting or underexploitation of crime opportunities. See Levi (2002) and Simpson (2002) for extended discussion of sanctions and corporate offenders.

B. Market Model

A useful starting point to assess the relationship between the AML regime and the reduction in predicate crime quantitatively is to view money laundering as a market, with customers for, and suppliers of, money-laundering services. Specific AML interventions can then be linked to predicate crime reductions by how, through shifting the supply and demand, they affect the money-laundering market, particularly the price of services and, thus, the returns from crime.

For example, if money laundering is more difficult (expensive), then drug dealers will face higher costs and charge higher prices for their services, thus reducing the consumption of drugs. Assume that prior to the creation of an AML regime, a high-level drug dealer charged his customers (themselves lower-level dealers) $10,000 per kilogram of cocaine and received $10 million annually in gross revenues. As a consequence of the barriers imposed by the AML regime, assume that he now has to pay 10 percent of the proceeds to the money launderer and hence receives only $9 million. Under the assumption of competition between drug dealers, which seems a reasonable characterization of such a market (Caulkins and Reuter 1998), the $10 million previously just compensated the dealer for risks (legal and otherwise) and other costs. In the face of reduced net returns, the dealer will raise prices to customers and, thus, increase the retail price of cocaine; numerous studies have shown that even for addictive drugs there is a substantial elasticity of demand (Manski, Pepper, and Petrie 2001 p. 43).

The same logic applies to other income-generating offenses such as fraud and gambling. By creating a higher probability of detection and punishment, the AML regime makes money laundering more risky for both customers and providers. It raises the price of the service or the costs of searching for the service (customers finding suppliers), which in turn reduces the return from the predicate crime and thus the quantity of these offenses. It also brings in a set of different offenders who may be in a position to "trade" information about the primary traffickers in exchange for nonprosecution or reduced sentences. In this framework, the analytic task is to estimate how much AML interventions raise the price of money laundering and the price elasticity of offending with respect to the price of money-laundering services.

What determines the demand for, and supply of, money-laundering services? The demand for money-laundering services can be thought of as a function of two factors. First is the distribution and volume of criminal revenues. Since scrutiny of sources of criminal earnings for low earners is limited (except in the aftermath of divorces and other such transactions in which lawyers may suspect undeclared income and generate SARs, as in the United Kingdom, where the regulations bite) and because low earners do not need to transform (launder) the money they make, it is probably only criminal incomes of more than perhaps $50,000 annually that create a need for concealing the source of the revenues.

The second is the other costs of laundering money, such as the time it takes to find a supplier and the risk of the search. Both are influenced by the intensity of enforcement of the AML regime. Money-laundering customers face a risk of legal and financial penalties if they transact with unreliable suppliers of laundering services. Some potential penalties are derivative of supplier-oriented risk; the launderer can mitigate the penalty by turning in the customer who has committed the predicate offense. In addition, the continuing presence in some jurisdictions of sting operations, in which the government simulates the behavior of a launderer, poses a separate risk to the customer. That risk may be manifested in the time it takes for customers to find a provider to whom they assign a low probability of being a government agent.

The supply of money-laundering services is determined primarily by the stringency of the AML regime. Without the prevention pillar of the AML regime and with only a rudimentary enforcement pillar associated with tracing proceeds of crime back to their source, the cost of laundering those proceeds would surely be low, but not zero. Prior to the 1970 Bank Secrecy Act, criminals could deposit the cash proceeds (no matter how large) from their crimes in local banks with no questions asked by the bank (placement), move them around the world (layering), and enjoy them at their leisure (integration). Criminals and their banks were subject to ex post investigation, but when authorities do not have seizure and confiscation powers and once the proceeds were safely outside the jurisdiction, risks to the "primary offenders" would be minimal, though anyone—including financial facilitators—who remained within the jurisdiction might be indicted as part of a conspiracy such as RICO or Continuing Criminal Enterprise if it could be shown that they had the requisite degree of guilty knowledge.[71]

[71] Legislative details vary, but this logic applies to non-U.S. common law and to civil law, e.g., continental European jurisdictions. For example, sanctions against membership of "criminal organizations"—a problematic term—are mandated within the European Union.

Indeed in theory, even without money-laundering legislation, bankers might have been significantly at risk once law enforcement agencies developed this crime reduction model, since they were more likely than primary offenders to be locked into domestic life and therefore less geographically mobile.

Today, it is reasonable to assume that money launderers face no costs other than those posed by law enforcement such as seizure of assets and incarceration and the same kinds of reputational losses associated with any kind of sanction for white-collar offenses. The time involved in actually laundering funds is minimal. Some of the price charged for money-laundering services may reflect skill in the methods used for hiding the origins of money, but one can assume that such skills are in ready supply and that enough of those with the skills can be persuaded to commit this crime for an appropriately high fee. Consequently, incarcerating, say, a few hundred launderers will not reduce the pool of competent labor substantially, though it may raise the price that has to be paid to obtain that labor, redistributing criminal income and inducing entry by new participants as well as, perhaps, taking out of the market those who fear professional stigma or incarceration.

The effective cost of money-laundering services is not fully reflected in the price charged. In addition to search time, there is the risk of sanction by the state(s)[72]—especially in a global enforcement environment marked by FATF pressure to reduce privacy rights—and fraud by the provider. Quality among suppliers may be differentiated, reflecting an institution's or individual's capacity to deliver services reliably, a particularly important consideration in the criminal world. Thus, paradoxically, an observed reduction in prices may reflect a shift from higher- to lower-quality money-laundering services.

C. Multiple Markets

An important analytic complexity is that there may be more than one market for money-laundering services, depending on the predicate offense and the amount that needs to be protected. For example, as was suggested by prior examples, laundering $1 million in drug revenues from the United States to Mexico may require a higher-percentage payment than laundering the same amount in a bankruptcy fraud, simply because the launderer of drug money incurs risks of more likely

[72] This can be the jurisdictions in which the primary offenses occurred and also those in which the laundering occurred.

investigation and more serious penalties from law enforcement as well as greater potential physical risks from the customer (violent retaliation for failure to protect assets). If the transaction involves actual cash, it may also be more expensive (per dollar) to launder large sums than small, for the same reasons.

Launderers may also specialize, in terms of either the kinds of funds they accept or the kinds of institutions with which they transact. Money laundering is also differentiated by phase; some launderers may not provide full-service operations. For example, a simple currency exchange bureau may only move money out of the United States (placement) but not provide for the layering of the money so that it can no longer be traced, or bring it back into the United States, where the funds can be freely used with no questions asked (integration). Black-market peso brokers, by contrast, often serve both the supply and the demand ends of the market. They first export the narco-dollars to Colombia (or arrange to purchase them for resale in the United States), then exchange them for pesos for the cartels' domestic use, and finally provide dollars to Colombian importers who wish to avoid the costs and bureaucracy of obtaining dollars legally. Thus the proceeds of drug sales in the United States may resurface, cleaned, in the accounts of U.S. companies that sell their products to Colombian businesses. A similar logic may be involved in the facilitation of cross-border transfers by *hawaladars* (sometimes local shopkeepers) who match currency transfers between jurisdictions, who merely have to "net out" the balances, often in jurisdictions such as the United Arab Emirates (Passas 2005).

One segment of the market for money-laundering services may consist of launderers employing a variety of methods for servicing customers, depending on the customers' specific needs. In this conventional market, the providers have multiple and independent customers and recruit agents (e.g., bank officials, casino employees) to assure that they can provide a range of services. Customers, who know other customers with whom they share information, shift among launderers depending on the price and quality of service. For example, there is anecdotal evidence that drug dealers, circumspect though they may be, do share information about money launderers.

Another segment of the market consists of almost accidental customer-agent relationships. Customers do not find professional money launderers whose principal activity is providing those services, but rather seek out corrupt employees of financial intermediaries who service only one or a small number of clients as a by-product of their legitimate occupations. To the extent that the launderer might have an interest in servicing more than one client, search costs are high for both sides (though more for the customer), reflecting risks of disclosing need or availability and the lack of any organizing focal point for search.

For example, one financier allowed a single drug trafficker to use his company to establish a source of funds. The trafficker gave cash to the financial officer to deposit in a company account, and the funds were then transferred to Monaco for the ostensible purpose of buying Goya paintings. The paintings were fakes and, moreover, were never shipped, and the drug trafficker was the beneficiary of the payments for the fake Goyas, receiving the million dollar transfers. There was no evidence that the financier's business provided money-laundering services for other clients (FATF 1998).

Both types of operations are components of the market. Some customers in high-risk occupations (e.g., cigarette smugglers) with continuing needs in a number of locations may seek out specialized launderers. Others who have a one-time need may be content to find an acquaintance capable and willing to provide the service just to one customer. There is also self-laundering, for example, through acquisition of a small business that does not arouse suspicions or (in the United States) is on the "exempt" list at a bank (i.e., for which it is not necessary to file a CTR for large cash transactions that are consistent with the regular pattern of the business). No one at the bank or any professional except perhaps a forgiving accountant needs to be involved, at least in the placement stage. The Egmont Group (2000) tells of a Western European family of drug traffickers that ran a currency exchange bureau that served as both a cash-intensive front company and a means of laundering money. The rise of artificial tanning and nail parlors in the United Kingdom is an illustration of such a cash-hiding self-laundering potential, especially since tax agencies do not profit from and are not set up to investigate overreporting of taxable income.

Although professional money launderers certainly exist,[73] they are

[73] In Dutch organized crime investigations in 2004, a third of those under investigation were described as having laundering as their primary and another third as a secondary aspect of their criminal work; the significance of laundering to the final third was unknown

surprisingly infrequent in reported cases. A great deal of the revenue from crimes is self-laundered. Robert Maxwell, then a flamboyant press lord and member of Parliament in the United Kingdom, laundered hundreds of millions of dollars from the pension funds of his U.K. company employees through U.S. and other banks (some of which were also defrauded by him) (Bower 1996). Other people may have aided him, but there is no evidence that anyone was an independent provider of laundering services, not least because until after his death, no one in authority knew that he was committing fraud. Terrorist financing cases also seem to involve people who belong very much to the cause rather than being mere commercial launderers; the latter, after all, might be more likely to trade in their sources in exchange for liberal official treatment in relation to other potential criminal liabilities.[74]

This is important for both policy and research purposes. The rationale behind the current AML regime is based in part on the implicit assumption that the regime provides tools to apprehend and punish a set of actors who provide a critical service for the commission of certain kinds of crime and who had previously been beyond the reach of the law—an assumption that makes the market model a useful heuristic device for analyzing the effects of laws and programs.

However, if money laundering is mostly done by predicate offenders or by nonspecialized confederates, then the regime accomplishes much less. There is no new set of offenders, just a new set of charges against the same offenders, and the potential gains from the additional tool represented by the AML regime, while valuable in increasing the efficiency of law enforcement, are likely to be substantially more modest than posited (Cuéllar 2003). The extent to which the modesty of gains is a function of the modesty of enforcement resources would be a matter of much dispute; we present the relevant information in the next section.

For research purposes, the prominence of the amateur launderer implies that the market model concept is a strained analogy. Price may not be well defined to most participants because the service is rarely purchased and the providers are poorly informed. Risk may also be

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(Council of Europe 2006). We are not in a position to test these ascriptions, but van Duyne and Levi (2005) note the relative lack of sophistication in those laundering schemes that make it through to final conviction after appeals.

[74] In addition, terrorism is often bad for general criminal as well as legitimate business.

hard to observe because it is derivative from participation in other elements of the crime. Assessing how interventions increase risks and prices for those transactions that do involve stand-alone launderers will have only modest value. Finally, stand-alone service providers may be scarce.

Thus the market model may work well for some kinds of predicate offenses and offenders but less well for others. How this element of heterogeneity in the money-laundering underworld affects the research agenda for conceptualizing optimal AML regimes is taken up in the final section.

D. Performance Measures

To what extent does the market framework help assess the effectiveness of an AML regime in reducing predicate crime? While useful for analyzing some of the basic questions, the available data do not permit application for assessing effectiveness. One source of difficulty is that the price of money-laundering services itself is not an adequate indicator. Enforcement aims at both the demand and supply sides. Demand-side efforts such as stings against customers have the effect of lowering observed prices. By raising the nonmoney cost of purchasing money laundering, which now includes some risk of arrest, incarceration, and financial penalties, such stings reduce demand. Supply-side efforts directed at the launderers should raise the price. Both efforts should reduce the quantity of laundering and the net returns from crime, the ultimate goal, but price then can only be interpreted along with estimates of quantity.

An alternative performance measure for assessing the effectiveness of the AML regime in controlling predicate crime is the volume of predicate offenses. Apart from the problem of developing a counterfactual—how much predicate crime would have occurred without the AML regime?—there is a fundamental problem of measuring predicate offense levels.

Consider again illegal drugs, the best-studied of the activities generating a demand for money laundering. While there are a number of possible measures—total revenues, prices, or quantities consumed—none is estimated precisely enough to be useful for analytical purposes, even if we knew more about the volume and cost of drug money laundering. For example, as previously mentioned, the error band around existing drug revenue estimates for the United States is very large, with an official estimate of $70 billion in 2000 (Office of National Drug Control Policy 2001), which should be viewed as the center point of a uniform distribution from $35 billion to $105 billion. A decline of even 25 percent in a five-year period would be hard to detect with confidence.

Alternatively, one might use drug prices, since money-laundering controls are expected to reduce drug use by raising the cost of distribution rather than by reducing demand. A National Research Council report (Manski, Pepper, and Petrie 2001) expressed considerable skepticism that the current system of data collection for prices could detect any but the very largest changes in prices (cf. Caulkins 2001). Moreover, there have been large revisions in the estimated prices for cocaine and heroin for a given year in successive estimation efforts, reinforcing the sense of frailty.[75] Other potential measures such as the number of dependent users or the quantity consumed are similarly estimated with great imprecision.

The performance assessment situation is even less promising for criminal offenses other than drug distribution. Systematic estimates of the volume of these crimes or revenues are often not available or are effectively made up from thin air. It is highly implausible, for example, that one could reliably detect a reduction of 10 percent in the volume of (or revenues from) embezzlement or corporate fraud. Though private-sector data on payment card fraud are fairly reliable, it is far from certain that much of the proceeds from such crimes needs to be laundered; furthermore, as a proportion of all crime costs and benefits to offenders, such frauds are very modest (see Levi and Pithouse, forthcoming). In some countries such as the United Kingdom, regular large-sample victimization surveys for crimes with individual victims have been developed that can be useful at area levels, but there is modest understanding of what offenders get from reselling stolen property or how much of this is laundered: so linkage with AML measures is difficult.

Performance measurement is an increasingly important component of responsive and responsible public policy, so the difficulty in finding credible measures of AML regime performance in reducing crime is a major problem. Perhaps more sophisticated versions of market models

[75] The series produced by Abt Associates in 2001 (ONDCP 2001) differs from that produced by RAND in 2004 (ONDCP 2004). For 1998, e.g., Abt estimated the retail price of cocaine to be $190 (in 2002 dollars); the RAND-estimated price was $132.

will help in this respect, but their utility may remain problematic unless data quality improves, a special problem if one is also trying to measure the wider sociopolitical threat from criminal organizations or networks as well as levels of criminal behavior.

Moreover, it is unlikely that the AML regime itself could have very large effects on the extent of drug use. Low-level drug dealers earn too little to require money-laundering services, yet they account for the bulk of total earnings. Price markups along the distribution system (conservatively estimated at 50 percent at each level) show that more than 60 percent of revenues go to low-level wholesalers and retailers, who are predominantly independent agents rather than employees of larger crime organizations. At the peak of the crack cocaine market in 1988, average annual earnings of retail drug dealers in Washington, DC, were estimated at $28,000 (Reuter, MacCoun, and Murphy 1990). More recent studies report much lower average earnings (Bourgois 1995; Levitt and Venkatesh 2000).

High-level dealers, the only ones who need money-laundering services, account for no more than 25 percent of total drug revenues. Assume that in the current regime money launderers charge customers approximately 10 percent of the amount laundered. Now assume that an improved system raised the price for money-laundering services by half, to 15 percent. The result would be an increase in the price of drugs of only 1.25 percent, far too small to be picked up by existing monitoring systems. This is not an argument that money-laundering controls are neither effective nor cost-effective, but only that their success cannot be empirically assessed by examining prices and quantities in drug markets.

Finally, we review one arena that has provided the most serious analytical difficulties over performance measures: assessing the effectiveness of terrorist finance controls (see Levi 2006). The 9/11 Commission stressed that financing was only a part of the terrorism control issue, but the "War on Terrorist Financing" continues to present a high profile around the world. The effectiveness statistic most often cited is the amounts frozen following E.U., U.N. Security Council, and U.S. designation of persons and organizations (including charities), but these fairly modest sums ($112 million frozen worldwide to the end of 2005) tell us nothing about the size of the denominator. The cost of terrorist finance would vary according to whether it is a gross cost (which would include support during the planning stages, in the case of Islamic bombers perhaps starting with initial transportation to and training in Afghanistan, Bosnia, or Pakistan) or a net cost (which would include only the resources necessary to pull off the job—explosives, backpacks, cell phones, bribes to noncore participants, price paid for inside information, etc.). The operational costs of the 9/11 attacks totaled \$400,000–\$500,000. A top end estimate for the costs of the Madrid bombings in 2004 (including the Moroccan cannabis partially traded for explosives) is \$15,000, with the Bali bombings costing a little more and the "7/7" London bombings of 2005 costing substantially less[76] (*Economist* 2005; interviews with U.K. and U.S. law enforcement sources).

There is some debate in Western government circles as to whether one should include within gross costs the financing of religious intolerance that actively promotes or condones the use of violence against other groups: the financing of terror could then total funding of Wahabi or post-Salafist *madrassas* (religious schools) and mosques around the world (or, as some would counter, the funding of Zionist or fundamentalist Christian or rival Muslim activities that incite violence among their adherents). However, almost none of those who have bombed U.S. or Western European targets attended such places, making direct causal connections and claims of preventative impact difficult to justify. The financing prevention target could range from thousands of dollars to hundreds of millions of dollars, depending on the basis for calculation.[77] Given the modest operational costs, the preventative performance needed to stop \$10,000 or even \$100,000 from falling into terrorist hands would have to be extraordinary in the context of global incomes from crime, let alone licit income. Rather, performance might best be judged by stopping such sums from getting into the hands of known and suspected terrorists or the leads to terrorists and their logistical supporters provided by the private sector and public financial

[76] One of the bombers of humble occupation left over \$200,000 net in his estate, suggesting that far more resources could have been available for this and other attacks, and raising the question in our minds of why this was not distributed to other potential terrorists before his death, if planned.

[77] McCulloch and Pickering (2005) allege that the main purpose of controls on terrorist finance is to suppress the charities and nongovernmental organizations in "civil society" in order to reduce opposition to what they view as state crimes and repression. Irrespective of whether or not their interpretation is correct or plausible, this illustrates a radically pluralist approach to measuring performance, depending on judgments about their purpose and as seen through the lenses of various (sometimes diametrically opposed) stakeholders.

investigation. National security considerations make it difficult for outsiders to assess the impact claims made by governments and critics alike, but the acknowledgement that international terrorism is now split up into smaller "Al-Qaeda-inspired" networks or disparate individuals makes financial needs less for terrorist operations. This difficult issue brings us appropriately to the next aspect of AML impact—criminal justice performance.

E. Improving Criminal Justice System Performance

We noted earlier that AML regimes might have two other benefits in addition to controlling crime: improving the efficiency of the system or catching offenders who otherwise would escape. Cuéllar (2003) concedes that such regimes might have improved efficiency in drug control and in reducing a few related criminal activities but argues that they have failed in the second area. The principal use to which the U.S. AML regime has been put has been to increase the penalties with which prosecutors can threaten predicate offenders. The regime has had little success in apprehending professional money launderers or high-level criminals. In Europe, there has been some activity against professionals such as lawyers and bankers—though more by regulatory than criminal sanctions—but the extent to which this has incapacitated crime networks, reduced the variety of their offending, or reduced the scale of their growth as "criminal organizations" remains unknown and largely unanalyzed (Levi and Maguire 2004; Nelen 2004; van Duyne and Levi 2005). There are limits in the extent to which the police (or, for that matter, bankers) can pursue the rationale behind suspected transactions without interviewing suspects. However, improved recording of financial accounts and greater attention to beneficial ownership of assets should logically help with asset recovery compared with postarrest or even postcharge financial investigations that were commonplace previously; in this sense, AML has an influence on law enforcement methodologies, from drugs to grand corruption. Thus, in the U.K. regime since the Proceeds of Crime Act of 2002, the government has the power to require offenders to provide details of their incomes, expenditures, and assets (for up to twenty years following a conviction) in the Serious Organised Crime and Police Act of 2005, investigators can place monitoring orders on suspected offenders' accounts that prospectively allow them to track funds movements and to require forfeiture of cash over £5,000 inland as well as at borders unless the suspect can convince the court that the funds were legitimately acquired.[78]

The paucity of cases against stand-alone launderers and investigations that have their origin in money-laundering information supports the criticism that the AML regime has brought in few new offenders. There are no systematic data on the origins of cases against major criminals such as principal drug dealers, so it is impossible to tell whether more of them are being captured through money-laundering laws and investigations. Furthermore, where heads of state or their families are involved in grand corruption (including embezzlement and, sometimes, illicit trafficking and other major crimes also), it is far from obvious to whom either domestic or foreign institutions should report without fear of retaliation, or who has sufficient motivation to take serious action. In this respect, the national FIU model, like most national crime investigation and prosecution models, breaks down when confronted with key elites, even where they have no formal immunity for acts performed in office.[79]

F. Costs

Whatever the gains from money-laundering controls, there are also a variety of costs that need to be considered. Reuter and Truman (2004) offer a very rough estimate of $7 billion for the costs of the U.S. AML regime in 2003. That figure includes costs to the government ($3 billion), the private sector ($3 billion), and the general public ($1 billion). However, it does not include two potentially important cost elements: the effect on the international competitive position of business sectors subject to AML rules or the costs of errors. The banking industry has complained substantially about the former from time to time, though less so as FATF has helped increase formal regulation of the financial sector in other money centers. The second is of particular concern for vulnerable populations such as immigrant workers who may be excluded from financial services because of a general suspicion based on their background.

Studies by KPMG (2003) and PriceWaterhouse Coopers (2003) for

[78] In December 2005, Prime Minister Blair announced the intention to lower the threshold for this sort of forfeiture to £1,000.

[79] This is not uniquely a problem for the countries of the South, especially Africa: recent scandals have engulfed Prime Minister Berlusconi (Italy), President Chirac (France), and—at a more modest level—former German Chancellor Kohl. In the wealthier as well as some poorer countries, many of these scandals involve campaign finance.

the U.K. NCIS and the Financial Services Authority, respectively, provide a partial cross-check for these estimates. The KPMG study provides a "rough estimate" of the current cost of the U.K. SARs regime for reporting entities of £90 million: a figure that may be expected to rise as more sectors are covered by the money-laundering regulations, though some costs may represent initial start-up rather than recurrent costs. If we scale this figure by the size of the U.S. economy relative to the size of the U.K. economy and convert from sterling to dollars, the corresponding estimate is $1.1 billion. Since reporting of SARs is an important but not the only element of the AML regime, this rough estimate suggests that a figure of $3 billion for the entire U.S. regime is not unreasonable as an upper-bound estimate.[80] Since those reports, there has been a rise in demand for compliance officers and escalating use of expensive software that tries to identify "suspicious transactions" on the basis of pattern analysis.

The two studies for the U.K. authorities also looked at costs to the government. The KPMG study of the SAR regime estimates these costs at only about 12 percent of the costs to reporting institutions, to which we would add that this figure should rise as increasing use is made of SARs following subsequent legislation and critical performance reviews. However, that figure should not undercut the Reuter and Truman guesstimate of the rough equality between the overall costs of the U.S. AML regime to the government and private-sector institutions. Many government costs with respect to prevention, such as drafting regulations and conducting examinations, are unrelated to the actual management of information flows. As already noted, the United States is also far more active than the United Kingdom in prosecutions. Moreover, the Reuter and Truman estimate of total U.S. federal prevention costs is only about one-fifth of the total prevention plus enforcement costs.[81]

G. *How Risky Is Money Laundering?*

However crude, an estimate of how risky money laundering in the United States has become as a result of the AML regime is helpful in

[80] The British Bankers Association estimates that British banks spend $400 million annually on AML compliance (*Economist* 2005).

[81] The PriceWaterhouse Coopers study estimates that the cost to the government of the expanded retrospective CDD would be a minuscule amount (0.3 percentage points) of the total cost to firms. This low figure is understandable because the change in the AML regime applies principally to the reporters and the cost to the government involves only handling additional reports, and not even, e.g., what might be done with the reports.

assessing regime performance. About 2,000 people are convicted of money-laundering offenses (primary or otherwise) each year in the United States. For the moment, assume that all of those convicted are providers of, rather than customers for, the service. This assumption imparts an upward bias to our risk estimate, since we know that some (perhaps even a majority) of those convicted are not stand-alone providers of money-laundering services.[82]

To estimate risk, a figure for the total number of persons who launder money is also needed. No such estimate is available, so an indicative calculation is all that can be offered. Assume that total U.S. domestic crime money laundered annually is near the low end of conventional estimates, say $300 billion. Only 20 percent of those convicted are reportedly involved with laundering more than $1 million, but that is the amount involved in the specific transactions detected, not an annual flow. If an average money launderer handles $10 million per year (which might generate a gross income of $500,000 to $1 million), then there would be 30,000 money launderers, and the probability of conviction would be about 6.7 percent (2,000/30,000). Of course, some of the launderers will be (or work for) very large financial institutions such as those almost all readers bank with. This institutional size factor should be borne in mind when thinking about violation rates, since different people within the institutions may unconnectedly be doing the laundering. For comparison, there are estimates available that the probability of incarceration for selling cocaine in the late 1980s was approximately 25–30 percent (Reuter, MacCoun, and Murphy 1990). Though dated, these are the only such estimates for an illegal market. There remains, however, a further problem that the enforcement authorities have not highlighted. Even if the probability of conviction is as high as we hypothesize here, the proportion of those assets that are recovered is remarkably low.

This exercise is highly speculative; there are other assumptions that might generate a higher estimate of risk without overly straining plausibility. For example, in addition to those who were convicted of money laundering, there may be substantially more individuals for whom those charges were dropped in exchange for information about the predicate offense or for pleas to some other involvement in the pred-

[82] Data on the educational level of those convicted federally for money laundering show that fewer than one-half had more than a high school education. It seems likely that these are customers rather than providers themselves.

icate offense, even though the individual's principal role was money laundering. If only half of those who were caught laundering money were convicted on other charges, then the risk figure might rise to 14 percent. For money launderers with valuable legitimate labor market skills, that risk might generate a very high premium for their services. Compared to street-hardened drug dealers with little education or high social standing to lose, such professionals require a higher incentive to risk the same amount of prison time.

These assumptions generously favor a finding that supports the effectiveness of the AML regime. Most of those convicted of money laundering are also convicted of other offenses, and many are probably customers rather than providers. The assumption that each money launderer handles an average of $10 million per year imparts a similar bias; actual cases point to launderers with much lower volume. That is certainly the case if many of them work for only one client. It is quite plausible that even now, with an elaborate regime in place, money launderers face a less than one in twenty probability of incarceration in the United States.[83] The financial penalties collected by the federal government represent the most modest of taxes, even assuming low-end estimates of money laundering.

However, it must be reemphasized that this is not a complete assessment of the effectiveness of the AML regime. The figures employed cover only those individuals who were themselves involved directly in the money-laundering transaction. It may well be that SARs and other elements of the regime generate useful evidence against larger numbers of drug dealers, but that the final indictments and convictions are for the predicate crime alone. The lack of information on this possibility is a major omission in the current system of data collection.

V. Conclusions and a Research Agenda

Led most prominently by the United States, developed and many less developed nations have now put in place an elaborate set of controls on the financial system that aim to deter a variety of criminal activities by making it difficult to convert illegal proceeds into safely usable

[83] We assume that the set of actual current money launderers is smaller than it would have been if laundering had been subject to a less strict penal and regulatory regime. This estimate is based around those who are actually acting as launderers.

funds. The system has expanded recently with global concerns about terrorism. There is good reason to believe that it will expand still further in the next few years as some kinds of financial transactions that facilitate laundering are still, at best, lightly regulated, and these will be seen as "gaps" that need to be closed.

How well the system works in suppressing crimes and preventing terrorist acts is entirely a matter of speculation. No published papers make any claims to provide an empirical assessment. Nor are we aware of any ongoing research to that end. This is an important gap, given that the controls are expensive, can create problems for individuals falsely identified as involved in laundering, and require private institutions to take on (unpaid) an important and unconventional law enforcement role, for which their customers and shareholders pay.

It is easy to critique the system for its elaborateness and intrusiveness (Naylor 2002); at the same time, for its lack of success in rooting out major criminals or recovering a large percentage of crime proceeds (Naylor 2002; Nelen 2004; van Duyne and Levi 2005); and for its impact on distorting the classical constructions of criminal law (Alldridge 2003). Some critics might choose to have the best of both worlds, simultaneously deriding the lack of serious impact on proclaimed targets and the invasion of privacy, perhaps even suggesting that there may be a wider political motivation for enhancing transparency. This suspicion of Big Government is held by libertarians at either end of the left-right political continuum, especially in North America (Hyde 1995; Levy 1996; Naylor 2002; Alldridge 2003) and in offshore finance centers, whether or not underpinned by economic interests. There are horror stories of both kinds of errors. First are those in which the system unfairly penalizes the apparently innocent, especially before the U.S. Civil Asset Forfeiture Reform Act of 1999. Examples include forfeiture of entire farms on which a small amount of cannabis has been grown or raids on incorrectly suspected persons to generate large asset forfeitures that fund state or federal agencies. In the terrorist finance area, much controversy still exists on the freezing of money transmission businesses run by the Sudanese Al-Barakaat on the basis that they were linked to Bin Laden.[84]

[84] The issue of nonjusticiability of decisions to designate (and not to designate) persons and institutions as financiers of terrorism is a broader important issue that we merely flag here. However, given the asset freezing and financial incapacitation consequences of thus designating, say, Hamas or not designating some prominent Saudis, it is easy to see why such decisions are problematic. Is feeding and clothing the families of suicide bombers

Second are those in which it transparently fails to catch the most guilty till long after the money laundering has occurred, if at all. While troubling, these kinds of stories cannot by themselves make an effective case against the regime. They must be weighed against benefits that are much less conspicuous and very difficult to assess.

Defenders of the system offer instances of serious malefactors caught violating AML rules; see, for example, the five *National Money Laundering Strategies* published under U.S. Congressional mandate between 1999 and 2003. Such instances, even when aggregated, also fail to make the case. For example, it is never made clear how many of the offenders would have been caught through their violation of other substantive criminal statutes. Gold and Levi (1994), following up a large sample of SARs to the U.K. NCIS, made an early attempt to analyze the benefits. They concluded that at that time, many reports were made after the banks learned of customs or police interest; that the customs and police usually used the SAR information only when they already were suspicious of the account holder; and that therefore it was impossible to ascertain the potential of the "system" to generate important leads. Moreover, the proportion of reports that generated any significant benefit to prosecutions and conviction-based asset confiscation was under 1 percent of reports made. Despite electronic reporting, given the huge increase in the number of reports made, it seems likely that the current percentage that leads to law enforcement (as contrasted—because of increased resources—with tax) benefits will be substantially lower today.

In light of this, we offer no conclusions about how well the system currently performs. Instead we ask what criteria should enter into decisions about extending the system? That allows us then also to discuss some plausible research activities that would permit better decision making.

The existing system of regulation is driven in part by scandal. The Bank of Credit and Commerce International scandal of the early 1990s led to tougher regulation by the Bank of England and elsewhere in the world. The Chiasso and Marcos scandals led to creative and proactive approaches in Switzerland to both regulation and prosecution of overseas-originating crimes. The revelations about European bank holdings

after the fact "financing terrorism"? E.U. member states, e.g., are far from united in such judgments.

of Sani Abacha's fortune, entirely generated by kleptocratic activities as a Nigerian general and unelected head of state, engendered a spate of new rules from various national financial regulatory agencies. The Bank of New York scandal led to a major review of correspondent banking relationships, as banks realized that they were responsible for the due diligence (or lack of diligence) of the banks for which they processed transactions.[85] The Riggs Bank scandal (U.S. Senate 2004, 2005), among others, has led to a sharp tightening of regulatory activities by U.S. bank regulatory agencies since 2004.[86]

It may be true that these changes are aimed at sustaining and legitimating the world financial system, but they also recognize "market failure" in self-regulation. It seems to us that, populist reflexes to egregious wrongdoing apart, the expansion of AML controls to all nations represents an attempt to grapple with the dark side of globalization without "unduly" disturbing the functioning of the world financial services industry, including overseas remittances that totaled $167 billion in 2005 (World Bank 2006, p. 85).[87]

Overreaction can come from the regulated as well. In the United States, the Beacon Hill case, in which JP Morgan Chase handled $6 billion for a money services business (MSB) (the Beacon Hill Corporation), has generated a great concern on the part of New York banks about the business of MSBs. As reported in a Deloitte newsletter (*@Regulatory*, June 2005), "Fearing that MSBs, who provide a valuable service to the unbanked sector, would themselves lose access to the banking system, FinCEN and the banking agencies attempted to send

[85] Those banks that find it uneconomic to seek formal listing or branches in foreign jurisdictions pay other banks for clearing their transactions, e.g., in U.S. dollars.

[86] A June 2005 newsletter from Deloitte Touche (*@Regulatory*) states that "the current laser-like focus of the bank regulators has resulted mainly from certain high-profile AML cases which called into question the adequacy of the existing regulatory oversight infrastructure for AML. As a result of these high-profile cases, the U.S. Congress is applying significant pressure on the federal bank regulatory agencies to enhance their supervision of banks' AML programs or risk losing this authority. In turn, the bank regulators are closely scrutinizing the banks' AML programs."

[87] According to the World Bank's review of Global Economic Prospects, "Although there is no universal agreement yet on how to measure international migrants' remittances to developing countries, a comprehensive measure of certain officially recorded flows—workers' remittances, compensation of employees, and migrant transfers—produced an estimate of $167 billion for 2005, up from $160 billion in 2004. Given measurement uncertainties, notably the unknown extent of unrecorded flows through formal and informal channels, the true size of remittance flows may be much higher—perhaps 50 percent or more. Because of their volume and their potential to reduce poverty, remittances are attracting growing attention from policymakers at the highest levels in both developed and developing countries" (2006, p. 85).

the message that banks should not 'throw the baby out with the bath water' but rather establish anti–money laundering (AML) controls commensurate with the higher inherent AML risk with MSB customers, including the varying levels of AML risk within this category of customers." No doubt the problem will be resolved. However, this points to the difficulty of regulators meeting their multiple objectives, even setting aside the more fundamental issue of whether we should opt for a retributive deserts-based model, a "restorative justice" model, or some "mixed economy of sanctions" approach that represents the current spectrum of actual national systems within a global framework that contains equivalent rather than exactly the same laws.[88]

How should decisions be made about the scope and intensity of regulation? Creating a system that is truly comprehensive, that covers all the methods by which the origins of criminal incomes could be hidden or by which funds could be conveyed to terrorists, is too ambitious.[89] It would impose a great burden on societies that place considerable value on the free flow of commerce and on individual and commercial privacy. The system must be risk-based to take account of the relationship between the attractiveness of a channel for these purposes and the costs of subjecting it to monitoring. To do that, though, requires first a knowledge of how drug dealers and embezzlers currently launder funds and of how terrorists move moneys for their operations and, second, how they respond to regulations and controls aimed at specific channels.

Obtaining even the descriptive data for the first task is a major undertaking. The kind of ethnographic research that has led to a better understanding of the lower levels of the drug trade (e.g., Bourgois 1995) is not likely to be so successful for an activity that has involved a much smaller number of high-end offenders. However, there is a small literature on the high end of the drug trade, relying mostly on prison interviews, that has provided some insights (e.g., Reuter and Haaga 1989; Adler 1993; Pearson and Hobbs 2001, 2003). Prison interviews, along with a closer examination of case files, could be helpful in understanding the money-laundering activities of some classes of

[88] For some jurisdictions, neither punishment nor firm regulatory monitoring and sanctioning take place.

[89] This is the risk of setting out but not ranking a large number of vulnerabilities to money laundering (U.S. Department of Justice 2006): it seems to make the assumption that all vulnerabilities need to be removed, without undertaking any cost-benefit judgement about them.

offenders. Terrorism finance represents a much greater research challenge since it involves national security considerations that make access to both offenders and files much more limited.

To assess how felons respond to increased regulation and controls requires modeling of counterfactuals. A small literature is starting to emerge on this; for example, de Boyrie, Pak, and Zdanowicz (2001) have shown that Swiss money-laundering controls generated increases in the use of certain trade accounting (underinvoicing of imports, overinvoicing of exports) to conceal the flows of moneys.

Money-laundering controls are now a permanent part of the financial regulatory landscape in Western and most other societies. They impose a new set of obligations on businesses to assist the government in law enforcement and in the reduction of crime. They are worthy of a serious research effort that they have not yet received.

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