Impact on The Firm Value of Financial Institutions from Penalties for Violating Anti-Money Laundering and Economic Sanctions Regulations

Kathleen Gowin
Kathleen Gowin Consulting, 289 Berwick Drive, Hilton Head Island, SC 29926
kathleen@kgowinconsulting.com

Daphne Wang
Davis College of Business, Jacksonville University, 2800 University Blvd. N., Jacksonville, FL 32211
dwang@ju.edu

Surendranath R. Jory
Southampton Business School, University of Southampton, University Road, Southampton, SO17 1BJ, UK
s.r.jory@soton.ac.uk

Robert Houmes
Davis College of Business, Jacksonville University, 2800 University Blvd. N., Jacksonville, FL 32211
rhoumes@ju.edu

Thanh Ngo
College of Business, East Carolina University, 3127 Bate Building, Greenville, NC 27858
NGOT@ECU.EDU

Impact on The Firm Value of Financial Institutions from Penalties for Violating Anti-Money Laundering and Economic Sanctions Regulations[1]

Abstract

This study examines the valuation effects of anti-money laundering (AML) enforcement actions and the Office of Foreign Assets Control (OFAC) economic sanction violations on U.S. financial institutions (FIs). Using a hand-collected sample of 308 enforcement actions issued between 2000 and 2018, results show that a civil money penalty (CMP) adversely affects a bank's value in the next quarter. Neither the magnitude, nor the type of AML-OFAC violation, and neither the bank's ability to deal with an enforcement action— as proxied for by efficiency ratios and governance mechanisms—are able to moderate the adverse effect of the CMP.

Key words: Anti-money laundering (AML); Office of Foreign Assets Control (OFAC); Economic sanction regulations; Civil money penalty (CMP); Financial institutions.

JEL Codes : G21, G22, G28, G30

---

1. Introduction

Money laundering continues to preoccupy the U.S. government (UNODC, n.d.; The U.S. Department of the Treasury [USDT], 2015). To thwart money laundering, financial institutions (FIs) must apprise law enforcement of suspicious transactions. Simultaneously, U.S. legislation has been significantly strengthened as to all but prevent FIs from engaging in transactions with entities that are hostile to U.S. interests.

In 1917, the U.S. Congress enacted the Trading with the Enemy Act (TWEA, 1917) and in 1977 passed the International Emergency Economic Powers Act (IEEPA, 1977). The TWEA authorizes the U.S. President to name entities and individuals who pose a significant threat to the nation. These two laws require FIs to block fund transfers from the U.S. to any designated country or any individual on the Specially Designated Nationals and Blocked Person (SDN) list. They are administered by the Office of Foreign Assets Control (OFAC) established in 1950 (USDT, 2018). The list of sanctioned countries and the SDN list are collectively known as the OFAC list, and the failure of a FI to freeze accounts of or block payments to any entity on the OFAC list constitutes an OFAC violation.

In addition to the above described legislations, in 1970, the U.S. Congress passed the Bank Secrecy Act (BSA), and in 2001 it amended the BSA with the USA PATRIOT Act. These laws require financial institutions to develop effective anti-money laundering (AML) programs to identify money laundering activities. Financial institutions report suspicious transactions to law enforcement officials through a process known as Suspicious Activity Reporting (SAR). The board of directors of the financial institution is ultimately responsible for its BSA/AML compliance[2]. Failure of a FI to design and put in place an effective program is classed as an AML violation. The Federal Financial Institutions Examination Council (FFIEC) publishes a manual to provide guidance to bank examiners related to BSA and OFAC compliance.

To assess the effectiveness of a FI's AML program and adherence to OFAC requirements, regulators periodically conduct financial institution examinations as part of their supervisory responsibilities. These inspections include on-site reviews of policies, processes, and procedures; meetings with employees of compliance groups; and sample transactions to test for adherence to the AML-OFAC regulations. When the regulator identifies deficiencies, an enforcement action is prepared to advise and instruct the financial institution of the need for corrective action. The regulator further reviews the enforcement action with senior management of the financial institution and holds them accountable for instituting sufficient controls (Boles, 2015). For expedience, the U.S. Department of Justice (DOJ) issues a deferred prosecution agreement to ensure the financial institution rectifies the controls that are not in compliance (Sack & Haines, 2012). Minor infractions receive a non-public, informal enforcement action, while formal enforcement actions for major infractions are made public.

A civil money penalty (CMP) is issued for material weaknesses and gross neglect (see Köster and Pelster, 2017). Between January 2000 and November 2018, regulatory agencies assessed more than $12 billion in CMPs to FIs for AML violations (see DOJ, 2012a, 2012b; OCC, 2014; Huang, 2015, for examples), and $23 billion for OFAC violations (see DOJ, 2009, 2015; NYSDFS, 2014).

---

[2] Models used by or prescribed for banks to comply with these regulations are covered in Gao and Xu (2009), Pocker and Nayda (2013), and Ruotolo and Morison (2015).

In light of the increasing frequency and impact of money laundering and other criminally related activities, the regulatory challenges to FIs to monitor, control and identify them is considerable. Since enforcement actions are costly to FIs and may in addition to CMPs include loss of reputation and the costs to implement or remediate controls, evaluating their effect on firm value of financial institutions is timely and relevant (Köster and Pelster, 2017). This study investigates the effect that AML-OFAC violations have on bank valuations. To provide further insight into this analysis, we extend our study to consider the effects that operating efficiency and corporate governance have on this relation.

2. Methodology

The sample period for this study starts in January 2000 and ends in November 2018. An initial sample of 989 enforcement actions is manually collected based on data from two watchdog organizations and the websites of 10 regulatory and/or federal government agencies. That dataset contains 157 US publicly traded financial institutions and 308 enforcement actions, which are the focus of the present study (See Table 1).

[INSERT TABLE 1 ABOUT HERE]

Following Aggarwal et al., 2009; Cummins et al., 2006; Gonzalez & André, 2013; Hughes et al., 2003; Lawal & Sakariyahu, 2018; Nguyen et al., 2015, we proxy for firm value using the natural logarithmic value of Tobin's Q ($TOBINQ_{i,t+1}$).

$$TOBINQ_{i,t+1} = \frac{MKCAP_{i,t+1} + (TA_{i,t+1} - EQUITY_{i,t+1})}{TA_t} \qquad (1)$$

where i refers to an institution, t represents a quarter, $MKCAP, TA$ and $EQUITY$ represent market capitalization, total assets, and shareholder equity, respectively.

An enforcement action, *i.e.*, our main variable of interest, is measured in three ways. $CMP\_DUMMY_{i,t}$ is an indicator variable equal to one if institution i receives a civil money penalty in quarter t. CMP is the logarithmic value of the civil money penalty and $CMP\_IMPACT_{i,t}$ is the amount of the CMP divided by the bank's total assets. These alternative measures are intended to capture the potentially different effects that the likelihood and or magnitude of the penalty may have on FIs' value.

To mitigate endogeneity, we use feasible generalized least squares regressions in panel data to account for autocorrelation and heteroskedasticity. The following control variables are accounted for in the regressions following Aggarwal et al., 2009; Berger, Bouwman et al., 2016; Berger, Imbierowicz et al., 2016; Ellul & Yerramilli, 2013; Grove et al., 2011; Lawal & Sakariyahu, 2018; McNulty et al., 2013; Minton et al., 2014; Nguyen et al., 2015; Nguyen et al., 2016, among others.

$SIZE_{i,t}$, is the natural logarithmic value of bank i's market capitalization; $NIM_{i,t}$ is the net interest margin; $RET_{i,t}$ is equity returns with dividends reinvested; $TIER\_1_{i,t}$ is tier 1 capital; $DEBT_{i,t}$ is equal to long-term debt divided by the total assets; $DIVYIELD_{i,t}$ is the cash dividend divided by the market value; $CLR_{i,t}$, is the ratio of credit loss provision to total assets; $NPL_{i,t}$ represents non-performing assets; and $PLL_{i,t}$ represents provision for loan losses. All accounting variables are collected from the Compustat database and are measured in quarter t;

and continuously measured variables are winsorized at the 1% and 99% levels. The overall model is specified as follows:

$$FIRM\ VALUE_{i,t+1} = \alpha_0 + \alpha_1 CMP_{i,t} + \sum_{j=2}^{n} \alpha_j CONTROLS_{i,t} + \varepsilon_{i,t} \qquad (2)$$

To provide further insight into our primary analysis, we append the above model to include variables intended to capture the effects of operating efficiency and governance on the firm value - CMP relation.

Efficiency Ratio and Corporate Governance

The efficiency ratio (ER) is a commonly used metric which is inversely related to a bank's ability to efficiently manage its operational expenses (Chu and Lim (1998), Pasiourasa et al. (2008) and Shamsuddin and Xiang (2012)), which we calculate as follows:

$$ER = \frac{Non\ interest\ Expense}{Operating\ Income - Loan\ Loss\ Provision} \qquad (3)$$

Banks with an ER lower than the sample median in quarter t are assigned a value of 1 for the indicator variable $BETTER\_ER_{i,t}$, and 0 otherwise. We test whether more efficient FIs are better able to respond to enforcement actions by limiting their impact on firm value using the following model:

$$FIRM\ VALUE_{i,t+1} = \alpha_0 + \alpha_1 BETTER\_ER_{i,t} + \alpha_2 CMP_{i,t} + \alpha_3 BETTER\_ER_{i,t} * CMP_{i,t} + \sum_{j=4}^{n} \alpha_j CONTROLS_{i,t} + \varepsilon_{i,t} \qquad (4)$$

Likewise, we test whether FIs that are better governed are more able to limit the impact of a CMP enforcement action on their firm value. Following Hughes, Lang, Mester, Moon, and Pagano (2003) and Huang (2015), we use the percentage of common stock held by institutional blockholders ($GOVERNANCE$) as a corporate governance proxy. Our governance model is depicted in equation 5.

$$FIRM\ VALUE_{i,t+1} = \alpha_0 + \alpha_1 GOVERNANCE_{i,t} + \alpha_2 CMP_{i,t} + \alpha_3 GOVERNANCE_{i,t} * CMP_{i,t} + \sum_{j=4}^{n} \alpha_j CONTROLS_{i,t} + \varepsilon_{i,t} \qquad (5)$$

The use of our governance variable is not without its criticism. For instance, Hughes et al., 2003 and Huang, 2015 use this variable to define the bank's ownership structure as opposed to governance (*i.e.*, board and board functioning). Nonetheless, numerous studies document the positive effects of block ownership on firm governance and performance (see Navissi and Naiker, 2006). Lawal and Sakariyahu (2018) argue that governance mechanisms such as equity ownership by institutions and a few individuals facilitate the alignment of shareholders' and managers' interests as well as efficient monitoring. Since we do not consider managerial ownership, wealth expropriation—as explained under the entrenchment hypothesis (see Lawal and Sakariyahu, 2018) —is less of a concern with our proxy for governance. The final sample is restricted to firm-quarter observations with complete data, *i.e.*, 4,770.

3. Empirical Results

Table 2 provides the results for regression equation 2. Irrespective of how it is measured, a notice of a CMP in quarter t adversely affects the firm value of a FI in the next quarter. Estimates for each of *CMP_Dummy*, *CMP* and *CMP_IMPACT*, *i.e.*, our variables of interest are negative and statistically significant. The coefficient for *CMP* is -0.064, which suggests that a 1% increase in CMP leads to a decrease of -0.064% in the firm's Tobin's Q.

[INSERT TABLE 2 ABOUT HERE]

Our results differ from the literature. For example, consistent with our findings, Pereira, Malafronte, Sorwar, and Nurullah (2019) find that equity markets react negatively following enforcement actions. However, the reaction is weak in the case of a civil money penalty and formal agreements. Conversely, our findings suggest that civil money penalties significantly affect firms' Tobin's Q. While there are various reasons to explain this difference that include temporal gaps in our respective samples, we assert that a CMP is informative to investors in being able to identify and discriminate between banks with effective and ineffective internal controls and the financial impact of a CMP is not merely limited to its amount but also includes the loss in the market value of the recipient bank. In addition, the financial institutions covered in our sample have operations globally and therefore carry a higher risk of running counter to AML-OFAC regulations. Hence, the adverse reputational effect on these banks may be large even though the monetary amount of a CMP is small relative to the size of the banks, as the damage to the bank is not confined to the amount of the CMP.

Regarding controls, all coefficients are generally significant in their expected directions at the 1% level. Results show that larger FIs (*SIZE*) and FIs with higher net interest margins (*NIM*) are more highly valued while FIs with higher debt (*DEBT*), dividend yields (*DIVYIELD*), credit loss provision (*CLR*), non-performing assets (*NPL*), and loan loss provisions (*PLL*) report lower *TOBINQ*. The estimate for *TIER_1* is, however, unexpectedly negative. Prior research documents that banks with few assets tend to be associated with a higher Tier 1 ratio. For instance, Cohen (2013) documents weighted average capital ratios of 5.7% - 8.5% for large banks, while the range is 7.8% - 9.0% for smaller banks. Hence it may be conjectured that relative to a large bank, the receipt of a CMP by a small bank weighs more heavily on its assets. While we do not explicitly assert that all small banks are more susceptible to CMPs, they may nevertheless be associated with a higher Tier 1 ratio which could explain the negative association between its Tier 1 ratio and next quarter's Tobin's Q.

It is natural to think that more efficient banks and banks that are better governed should be able to make post CMP violation adjustments that would reassure investors. To provide insights into these conjectures, we empirically document the potential effects of operating efficiency (Table 3) and governance (Table 4) on the *CMP – TOBINQ* relation. Similar to our prior findings, *TOBINQ* is inversely related to CMP across all models. As expected, models 1 and 2 in Table 3 show significantly negative estimates for our *BETTER_ER* indicator variable (Shamsudddin and Xiang, 2012). Hence, more efficient banks with lower efficiency ratios report higher next quarter *TOBINQ*. The *BETTER_ER * CMP_DUMMY and BETTER_ER * CMP* interaction terms in these same models are, however, significantly negative which suggests that operating efficiency is unable to reduce the adverse valuation effect of a CMP violation.

[INSERT TABLE 3 ABOUT HERE]

Our findings are similar when we replace the efficiency ratio by a proxy for firm governance, *i.e.*, the percentage of shares held by blockholders in Table 4. The governance proxy is positively related to firm value in the next quarter, but better governance does not moderate the adverse effect of a CMP. While effective governance is positively related to firm value, it is unable to counter the adverse valuation effect of a CMP as all three *GOVERNANCE*CMP* interaction terms are significantly negative. Hence neither the bank's ability to deal with an enforcement action as proxied for by efficiency ratios or governance mechanisms are able to moderate the adverse effect of a CMP.

[INSERT TABLE 4 ABOUT HERE]

4. Conclusion

Financial institutions' involvement in money laundering will continue to preoccupy politicians, regulators, investors, and the public at large. This study addresses the valuation effects of AML-OFAC violations based on a unique dataset containing 308 enforcement actions of 157 US publicly traded financial institutions between 2000 to 2018. Firm value is measured using Tobin's Q, and the analyses show an adverse effect on next quarter firm value irrespective of the size and nature of the enforcement actions in the current quarter.

This study provides timely evidence on the effectiveness of enforcement actions, and CMPs in ensuring compliance with AML-OFAC regulations as the impact of the CMP extends far beyond the payment of the penalty and directly targets the firm's equity value (which among other things banks may need to rely upon in times of crisis through issuing new equity). Our findings should act as a deterrent to the incidence and magnitude of money laundering activities and alarm boards of the unfavorable consequences on bank value beyond the fine when it comes to money laundering. Our findings also highlight the benefits of having in place internal controls and processes that regulatory authorities deem necessary in the fight against money laundering.

References

Aggarwal, R., Erel, I., Stulz, R., & Williamson, R. (2009). Differences in governance practices between U.S. and foreign firms: Measurement, causes, and consequences. *The Review of Financial Studies*, 22(8), 3131-3169.

Berger, A. N., Bouwman, C. H. S., Kick, T., & Schaeck, K. (2016). Bank risk taking and liquidity creation following regulatory interventions and capital support. *Journal of Financial Intermediation, 26*, 115-141. doi:10.2139/ssrn.1908102.

Berger, A. N., Imbierowicz, B., & Rauch, C. (2016). The roles of corporate governance in bank failures during the recent financial crisis. *Journal of Money, Credit and Banking, 48*, 729-770. doi:10.1111/jmcb.12316.

Boles, J. R. (2015). Financial sector executives as targets for money laundering liability. *American Business Law Journal*, 52(3), 365-433. doi:10.1111/ablj.12049.

Chu, S. F., & Lim, G. H. (1998). Share performance and profit efficiency of banks in an oligopolistic market: Evidence from Singapore. *Journal of Multinational Financial Management*, 8(2-3), 155-168. doi:10.1016/S1042-444X(98)00025-5.

Cohen, B. H. (2013). How have banks adjusted to higher capital requirements?. BIS Quarterly Review, September.

Cummins, J. D., Lewis, C. M., & Wei, R. (2006). The market value impact of operational loss events for US banks and insurers. *Journal of Banking & Finance*, 30, 2605-2634. doi:10.1016/j.jbankfin.2005.09.015

Ellul, A., & Yerramilli, V. (2013). Stronger risk controls, lower risk: Evidence from US bank holding companies. *The Journal of Finance, 68*(5), 1757-1803.

Federal Deposit Insurance Act of 1950. 12 U.S.C. § 1818(b) (1950).

Financial Crimes Enforcement Network. (n.d.). What we do. Retrieved from https://www.fincen.gov/what-we-do.

Gao, S., & Xu, D. (2009). Conceptual modeling and development of an intelligent agent-assisted decision support system for anti-money laundering. Expert Systems with Applications, 36(2), 1493-1504.

Gonzalez, A., & André, P. (2013). Board effectiveness and short termism. *Journal of Business Finance & Accounting*, 41(1-2), 185-209. doi:10.1111/jbfa.12045.

Grove, H., Patelli, L., Victoravich, L. M., & Xu, P. T. (2011). Corporate governance and performance in the wake of the financial crisis: Evidence from US commercial banks. *Corporate Governance: An International Review*, 19, 418-436. doi:10.1111/j.1467-8683.2011.00882.x.

Huang, J. Y. (2015). Effectiveness of US anti-money laundering regulations and HSBC case study. *Journal of Money Laundering Control*, 18(4), 525-532. doi:10.1108/JMLC-05-2015-0018.

Hughes, J. P., Lang, W. W., Mester, L. J., Moon, C.-G., & Pagano, M. S. (2003). Do bankers sacrifice value to build empires? Managerial incentives, industry consolidation, and financial performance. *Journal of Banking & Finance*, 27, 417-447.

International Emergency Economic Powers Act (IEEPA), 50 U.S.C.A, § 1701 (1977).

Köster, H., & Pelster, M. (2017). Financial penalties and bank performance. Journal of Banking and Finance, 79, 57-73. doi:10.1016/j.jbankfin.2017.02.009.

Lawal, R. Y., & Sakariyahu, O. R. (2018). Ownership structure and firm value: Tobin-Q and MVA approaches. ICAN *Journal of Accounting & Finance*, 7(1), 2-19.

McNulty, T., Florackis, C., & Ormrod, P. (2013). Boards of directors and financial risk during the credit crisis. *Corporate Governance: An International Review, 21*(1), 58-78. doi:10.1111/corg.12007.

Minton, B. A., Taillard, J. P., & Williamson, R. (2014). Financial expertise of the board, risk taking, and performance: evidence from bank holding companies. *Journal of Financial and Quantitative Analysis, 49*(2), 351-380. doi:10.1017/S0022109014000283

Navissi, F., & Naiker, V. (2006). Institutional ownership and corporate value. Managerial Finance, 32(3), 247-256.

New York State Department of Financial Services. (n.d.). Mission. Retrieved from https://www.dfs.ny.gov/our_mission.

New York State Department of Financial Services. (2014). New York State Department of Financial Services in the matter of BNP Paribas, S.A. New York branch. Retrieved from https://www.dfs.ny.gov/about/ea/ea140630.pdf.

Nguyen, D. D., Hagendorff, J., & Eshraghi, A. (2016). Can bank boards prevent misconduct? *Review of Finance*, 20(1), 1-36. doi:10.1093/rof/rfv011.

Nguyen, T., Nguyen, H. G., & Yin, X. (2015). Corporate governance and corporate financing and investment during the 2007-2008 financial crisis. *Financial Management*, 44(1), 115-146.

Office of the Comptroller of the Currency. (2014). Consent order for the assessment of a civil money penalty #2014-001. Retrieved from https://occ.gov/topics/laws-regulations/enforcement-actions/bank-enforcement-actions/ea-2014-001.pdf

Pasiourasa, F., Liadakib, A., & Zopounidisb, C. (2008). Bank efficiency and share performance: Evidence from Greece. *Applied Financial Economics*, 18(14), 1121-1130. doi:10.1080/09603100701564346.

Pereira, J., Malafronte, I., Sorwar, G., & Nurullah, M. (2019). Enforcement actions, market movement and depositors' reaction: evidence from the US banking system. Journal of Financial Services Research, 55(2-3), 143-165.

Pocker, R., & Nayda, W. (2013). Model validation of transaction monitoring for anti-money-laundering activities. *The RMA Journal*, 95(6), 50-57.

Ruotolo, J., & Morison, R. (2015). Fraud analytics - Data challenges and business opportunities. Retrieved March 1, 2017, from https://www.sas.com/content/dam/SAS/en_us/doc/research2/iia-fraud-analytics-107750.pdf .

Sack, J. S., & Haines, E. (2012). Be careful what you wish for: How deferred and non-prosecution agreements can be used in civil litigation. Retrieved from https://www.maglaw.com/publications/articles/2012-01-10-be-careful-what-you-wish-for-how-deferred-and-non-prosecution-agreements-can-be-used-in-civil-litigation/_res/id=Attachments/index=0/morvillo_abramowitz_sack_haines_article.pdf.

Shamsuddin, A., & Xiang, D. (2012). Does bank efficiency matter? Market value relevance of bank efficiency in Australia. *Applied Economics*, 44(27), 3563-3572.

The Board of Governors of the Federal Reserve System. (2017, August 3). Federal Reserve Board invites public comment on two proposals; corporate governance and rating system for large financial institutions [Press release]. Retrieved from https://www.federalreserve.gov/newsevents/pressreleases/bcreg20170803a.htm.

Trading with the Enemy Act of 1917. 40 Stat. 411, codified at 12 U.S.C. §§ 95a–95b and 50 U.S.C. App. §§ 1–44. (1917).

United Nations Office on Drugs and Crime. (n.d.). Money-laundering and globalization. Retrieved from https://www.unodc.org/unodc/en/money-laundering/globalization.html.

The United States Department of Justice. (2009, December 16). Credit Suisse agrees to forfeit $536 million in connection with violations of the International Emergency Economic Powers Act and New York State law [Press release]. Retrieved from https://www.justice.gov/opa/pr/credit-suisse-agrees-forfeit-536-million-connection-violations-international-emergency.

The United States Department of Justice. (2012a, December 11). HSBC Holdings Plc. and HSBC Bank USA N.A. admit to anti-money laundering and sanctions violations, forfeit $1.256 billion in deferred prosecution agreement [Press release]. Retrieved from https://www.justice.gov/opa/pr/hsbc-holdings-plc-and-hsbc-bank-usa-na-admit-anti-money-laundering-and-sanctions-violations.

The United States Department of Justice. (2012b, June 12). ING Bank N.V. agrees to forfeit $619 million for illegal transactions with Cuban and Iranian entities [Press release]. Retrieved from https://www.justice.gov/opa/pr/ing-bank-nv-agrees-forfeit-619-million-illegal-transactions-cuban-and-iranian-entities-0.

The United States Department of Justice. (2015, May 1). BNP Paribas sentenced for conspiring to violate the International Emergency Economic Powers Act and the Trading with the Enemy Act [Press release]. Retrieved from https://www.justice.gov/opa/pr/bnp-paribas-sentenced-conspiring-violate-international-emergency-economic-powers-act-and.

United States Department of the Treasury. (2015). National money laundering risk assessment 2015. Retrieved from https://www.treasury.gov/resource-center/terrorist-illicit-finance/Documents/National%20Money%20Laundering%20Risk%20Assessment%20%E2%80%93%2006-12-2015.pdf.

United States Department of the Treasury. (2018). Basic information on OFAC and sanctions. Retrieved October 29, 2018, from https:www.treasury.gov/resource-center/faqs/Sanctions/Pages/faq_general.aspx

Table 1. Enforcement Action Data

Panel A. Enforcement Action Records by Source	*N*
BankersOnline	8
The United States Department of Justice (DOJ)	1
Federal Deposit Insurance Corporation (FDIC)	186
The Board of Governors of the Federal Reserve System (The Fed)	78
Financial Crimes Enforcement Network (FinCEN)	18
Financial Industry Regulatory Authority (FINRA)	307
GoodJobsFirst	182
New York State Department of Financial Services (NYSDFS)	21
Office of the Comptroller of the Currency (OCC)	47
Office of Foreign Assets Control (OFAC)	121
Securities and Exchange Commission (SEC)	20
Total	**989**

Panel B. Sample Selection Process	*N*
Enforcement Action records manually collected	989
Less: Enforcement Action records for firms privately held and cooperative banks	-509
Less: Credit Unions	-12
Less: Enforcement Action record for an individual	-1
Less: Enforcement Action records for firms with no CUSIP number	-84
Less: Enforcement Action records for financial institutions not traded on U.S. stock exchanges	-8
Sample number of enforcement action records	375
Less: Enforcement Action records for firms with multiple enforcement actions in the same year	-67
Number of firms with only one enforcement action per year for analysis	308
Less: Number of firms with CUSIP numbers not matching on Compustat	-151
Number of Sample Firms	**157**
Number of Firm Quarterly Observations	**8,948**

Table 1 reports the number of enforcement actions manually collected from each source and final sample filtering process. Data collected as of December 31, 2018.

Table 2. Financial Impact on Firm Value from CMP

VARIABLES	(1) CMP_DUMMY	(2) CMP	(3) CMP_IMPACT
CMP_DUMMY	-0.064 ***		
	(-3.440)		
CMP		-0.010***	
		(-7.215)	
CMP_IMPACT			-0.011 ***
			(-4.615)
SIZE	0.129 ***	0.136 ***	0.119 ***
	(25.446)	(27.068)	(26.388)
NIM	0.185 ***	0.184 ***	0.186 ***
	(25.298)	(24.994)	(25.148)
RET	-0.095 ***	-0.097 ***	-0.091 ***
	(-3.385)	(-3.489)	(-3.271)
TIER_1	-0.028 ***	-0.027 ***	-0.027 ***
	(-9.248)	(-9.062)	(-9.010)
DEBT	-5.364 ***	-5.219 ***	-5.135 ***
	(-15.539)	(-15.484)	(-14.783)
DIVYIELD	-0.004 ***	-0.004 ***	-0.004 ***
	(-10.420)	(-10.669)	(-10.893)
CLR	-37.512 ***	-38.927 ***	-36.281 ***
	(-9.348)	(-9.704)	(-8.976)
NPL	-0.000***	-0.000***	-0.000***
	(-12.855)	(-13.076)	(-13.432)
PLL	-0.000***	-0.000***	-0.000***
	(-10.406)	(-9.876)	(-10.235)
Constant	13.469 ***	13.192 ***	13.432 ***
	(38.313)	(37.994)	(38.600)
Wald Chi^2	2130***	2279***	2149***
Observations	4,770	4,770	4,770

*, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively. *z*-statistics are provided in parentheses.

Table 3. Financial Impact on Firm Value from Efficiency Ratio

VARIABLES	(1) CMP_DUMMY	(2) CMP	(3) CMP_IMPACT
BETTER_ER	0.041 ***	0.032 **	-0.006
	(2.927)	(2.467)	(-0.725)
CMP_DUMMY	-0.033 *		
	(-1.678)		
BETTER_ER * CMPDUMMY	-0.064 ***		
	(-3.826)		
CMP		-0.008 ***	
		(-5.730)	
BETTER_ER * CMP		-0.004 ***	
		(-3.834)	
CMP_IMPACT			-0.012 ***
			(-4.614)
BETTER_ER * CMPIMPACT			0.002
			(0.656)
SIZE	0.131 ***	0.138 ***	0.120***
	(26.463)	(27.821)	(26.595)
NIM	0.189 ***	0.188 ***	0.187 ***
	(25.517)	(25.403)	(25.146)
RET	-0.091 ***	-0.095 ***	-0.091 ***
	(-3.255)	(-3.397)	(-3.270)
TIER_1	-0.027 ***	-0.026 ***	-0.027 ***
	(-8.952)	(-8.860)	(-8.991)
DEBT	-5.485 ***	-5.329 ***	-5.171 ***
	(-16.161)	(-16.429)	(-14.809)
DIVYIELD	-0.004 ***	-0.004 ***	-0.004 ***
	(-10.467)	(-10.891)	(-10.966)
CLR	-38.307 ***	-39.899 ***	-36.703 ***
	(-9.388)	(-9.780)	(-9.008)
NPL	-0.000***	-0.000***	-0.000***
	(-12.981)	(-13.171)	(-13.549)
PLL	-0.000***	-0.000***	-0.000***
	(-10.261)	(-9.814)	(-10.295)
Constant	13.488 ***	13.220***	13.451 ***
	(38.822)	(39.183)	(38.509)
Wald Chi^2	2205***	2382***	2189***
Observations	4,770	4,770	4,770

. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively. *z*-statistics are provided in parentheses.

Table 4. Financial Impact on Firm Value from Corporate Governance

VARIABLES	(1) CMP_DUMMY	(2) CMP	(3) CMP_IMPACT
GOVERNANCE	0.535 ***	0.487 ***	0.342 ***
	(6.887)	(6.563)	(6.155)
CMP_DUMMY	-0.021		
	(-0.844)		
GOVERNANCE * CMPDUMMY	-0.357 ***		
	(-3.420)		
CMP		-0.007 ***	
		(-4.498)	
GOVERNANCE * CMP		-0.023 ***	
		(-3.028)	
CMP_IMPACT			-0.006 *
			(-1.746)
GOVERNANCE * CMPIMPACT			-0.046 **
			(-2.409)
SIZE	0.141 ***	0.150***	0.130***
	(27.624)	(30.218)	(29.553)
NIM	0.200***	0.199 ***	0.202 ***
	(27.236)	(26.990)	(27.450)
RET	-0.120***	-0.123 ***	-0.115 ***
	(-4.304)	(-4.395)	(-4.103)
TIER_1	-0.025 ***	-0.024 ***	-0.026 ***
	(-8.483)	(-8.170)	(-8.744)
DEBT	-5.458 ***	-5.298 ***	-5.201 ***
	(-15.402)	(-15.074)	(-14.358)
DIVYIELD	-0.003 ***	-0.004 ***	-0.004 ***
	(-9.169)	(-9.639)	(-10.027)
CLR	-25.162 ***	-26.296 ***	-25.226 ***
	(-5.764)	(-6.057)	(-5.788)
NPL	-0.000***	-0.000***	-0.000***
	(-12.272)	(-13.059)	(-12.588)
PLL	-0.000***	-0.000***	-0.000***
	(-12.412)	(-11.850)	(-12.693)
Constant	13.098 ***	12.797 ***	13.124 ***
	(36.518)	(35.769)	(36.617)
Wald Chi^2	2501***	2673***	2610***
Observations	4,381	4,381	4,381

. *, ** and *** denote significance at the 10%, 5%, and 1% levels, respectively. *z*-statistics are provided in parentheses.