



MACQUARIE
University

Macquarie University PURE Research Management System

This is the peer reviewed version of the following article:

Buchanan, J., & Shen, Y. (2021). To launder or not to launder: are there positive effects for the economies of countries who launder money? *Accounting & Finance*, 61(2), 2697-2716.

which has been published in final form at:

<https://doi.org/10.1111/acfi.12680>

This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions.

To Launder or not to Launder: Are there Positive Effects for the Economies of Countries who Launder Money?

June Buchanan^a, Yun Shen^{b*}

^a *Department of Marketing, Macquarie Business School, Macquarie University, Sydney, NSW, 2109, Australia*

^b *Department of Applied Finance, Macquarie Business School, Macquarie University, Sydney, NSW, 2109, Australia*

Abstract

This paper empirically examines the impact of corporate money laundering/gambling activities on firms' financial performance. We specifically address whether Australian firms associated with money laundering suffer any short or long-term financial performance effects following the public announcement of money laundering activities. Our findings suggest that Australian firms that engage in money laundering/gambling activities perform significantly better than firms in other countries after such announcements.

1. Introduction

This article examines the impact of corporate money laundering/gambling activities on firms' financial performance based on 662 announcements between the 1st of January 2013 and the 31st of December 2018. Corporate money laundering/gambling activities have garnered increased attention from government, citizenry, and the media. For example, a Royal Commission into the financial services industry has recently exposed malpractices in Australia (Buchanan 2018; Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry 2019). The final report and the Government's response are available on the Department of Treasury website (The Australian Government, The Treasury 2019). The High Court Judge, Justice Kenneth Hayne, was scathing in his appraisal of the findings. His 76 recommendations targeted key players in Australia's banking, superannuation, and financial industries (Chalmers and Worthington 2019; Wright 2019).

Money laundering charges against a firm are potentially very important indicators as to corporate governance and the trustworthiness of the firm management. These could have profound effects on the value of the firm. The objective of this study is to investigate the impact of money laundering/gambling activities on firms' financial performance in five countries: Australia, Canada, Hong Kong, the United Kingdom, and the United States. Relevant data are obtained from Factiva, Datastream, and Worldscope. To examine the reaction of firm performance to money laundering/gambling activities, panel regression models are used to investigate the impact of money laundering/gambling related news on firms' performance. The results demonstrate the strong impact of money laundering/gambling news, which increases media and investor attention, thus creating positive values on firm performance and global economic growth. We find that firms in Australia have significantly positive abnormal returns following money laundering/gambling announcements relative to the other countries in the sample. This indicates that Australian firms do indeed obtain financial benefits from money laundering/gambling related activities. Furthermore, Westpac, named Best Business Bank in Australia for fourth consecutive year (Westpac, 2018) but it is not included in the top 100 entities with highest number of money laundering news that is recorded in Factiva. Thus, we utilise Westpac as our case study firm.

The remainder of this paper is organised as follows. Section 2 provides key contextual background, Section 3 presents the research question and hypothesis, and Section 4 describes the data and research methodology. Section 5 presents the empirical results and assesses recent money laundering announcements involving Westpac as a case study. Section 6 describes limitations and future work, and Section 7 concludes.

2. Money Laundering/gambling activities in Australia

Money laundering is a topical issue in Australia. Major players in the Australian economy, such as the Commonwealth Bank of Australia (CBA), have recently been embroiled in money laundering scandals. After Australia's financial regulator, the Australian Transaction Reports and Analysis Centre (AUSTRAC), identified serious failures to report suspicious transactions, CBA was ordered to pay AUS\$700 million plus legal costs. CBA also admitted their failure to monitor for 'red flags' (Doran and Janda 2018; Eyers 2018). Furthermore, in the statement of facts agreed between the bank and the financial regulator, "AUSTRAC suspects that there was significant further undetected money laundering through CBA accounts that ought to have been detected and reported" (Doran and Janda 2018). Westpac, Australia's second largest bank, was charged by AUSTRAC in November 2019 for failing to appropriately assess transactions and is accused of 23 million breaches (Fargher, 2019). For detailed reviews of these scandals, see for example Carey (2019), Grieve (2019), and Yeates (2019b). Reuters (2019) recently reported that the Head of Australia's financial intelligence agency stated that Australia's big banks "will face potential penalties within the next six months for breaching money laundering laws".

In addition to the banking industry, there is also widespread money laundering in the gambling industry. Tabcorp Holdings Limited (Tabcorp), one of Australia's largest gambling companies, was fined AUS\$45 million for failing to report suspicious behaviour over more than five years to regulators. Tabcorp acknowledged they had not reported information required by AUSTRAC, such as when a customer won AUS\$100,000, in addition to not reporting money laundering and credit card fraud (Ryan 2017). According to the Australian Institute of Criminology, money laundering in Australia costs "almost \$50 billion a year" (Yeates 2019a). A former AUSTRAC manager, Todd Harland, stated that money laundering in Australia was 'big business'

and it went ‘hand in glove’ with organised crime (Yeates 2019a). A recent focus by AUSTRAC is on unregistered, suburban, small money transfer operators who may be exploited by syndicated criminal organisations. The AUSTRAC CEO recently stated: “It’s the dealers who are not registered with us that we’re concerned about, that they’ll be targeted for things like terrorism funding or laundering money” (Ryan 2019).

3. Literature Review

Money laundering is one of the most difficult problems to address (Ryder, 2008). Bagella, Busato, and Argentiero (2009) defines money laundering as the process by which criminals try to cover up the source of money illegally obtained. Moreover, the International Monetary Fund (IMF) (2005) states that money laundering is a mechanism by which assets acquired or generated by criminal activities are transferred or concealed to conceal their association with the crime. This process enables criminal groups to obtain benefits from illegal interests without jeopardizing their sources (IMF, 2005). Money provides many criminal motives and means from the perspective of working capital (Sharman and Chaikin, 2009). By destroying such illegal funds, anti-money laundering laws aim to reduce the profits of upstream crimes, thereby reducing their attractiveness and reducing criminals ’working capital (Sharman and Chaikin, 2009).

Masciandaro (2005) develops an argument that for national policy makers who are seeking to maximize the net benefits of any public policy choices, lax financial regulations may be applied as a strategic dependent variable. Thus, policy makers may find it valuable to adopt financial regulations which attract capital of illicit origin (ML services) or destination (terrorism finance services), taking into account the structural characteristics and endowments of the country (Masciandaro, 2005). Policy makers, thereby may choose to become a Non-Cooperative Country and Territories (NCCT) in money laundering and terrorist financing activities (Masciandaro, 2005).

By examining interaction effects between corporate reputation, reputation damaging events, and corporate financial performance, Gatzert (2015) shows that fraud and criminal events (e.g., money laundering events which results in reputational damage) are the most harmful events for corporations concerning their financial losses (e.g.,

poor financial performance). Harvey (2004) emphasizes that money laundering arises major reputational risks and reputational costs offer sufficient incentive to comply. By analysing 224 Italian firms identified as legally registered Mafia firms, Ravenda, Valencia-Silva, Argiles-Bosch, and Garcia-Blandon (2018) shows that these firms can usually rely on financial resources from illegal activities to reduce the need for bank financing and lessen the associated incentives to report positive financial performance or acceptable accrual quality. Furthermore, they find that in order to smooth income and conceal/conduct money laundering activities, legally registered Mafia firms manage aggregate, revenue and expense accruals more than lawful firms do in the pre-confiscation years (Ravenda, et al., 2018). On the contrary, the effective intervention of legal administrators contributes to no significant difference in the level of accrual management between legally registered Mafia firms and lawful firms in the post-confiscation years (Ravenda, et al., 2018).

Gill and Taylor (2002) highlight that there is a scarcity of information on cost benefits in anti-money laundering work and identify that this is a research area requiring further studies. It is generally recognised that compliance costs include tangible operating costs required to perform compliance functions (Masciandaro and Filotto, 2001; Harvey, 2008). The UK government has widely used legislation on the grounds that effective anti-money laundering measures can help reduce the attractiveness of potential money launderers to protect the financial sector from operational and reputational risks (Harvey, 2008). Further, costs and benefits of money laundering is closely linked with the difficulties of estimating the volume of money laundering that is occurring (Harvey, 2004). “Given the significance of the financial sector to the UK it is vital to have a strong regulatory framework, stopping money laundering is a worthwhile and worthy objective but it has implications in terms of costs” (Harvey, 2004).

Nobanee and Ellili (2018) use content analysis based on United Arab Emirates (UAE) banks to examine the effect of anti-money laundering disclosure on these banks’ performance, and find that anti-money laundering disclosure does not perform well in all these banks and suggest that the UAE central bank should internationalize the anti-money laundering regulations and develop an international anti-money laundering regime as efforts to respond to the international development of the money laundry

practices.

More recently, Bianchi, Marra, Masciandaro, and Pecchiari (2019) find that Italian firms connected to organized crime have lower profitability, despite reporting higher sales, lower cost of labour, higher bank debt, lower cash holdings, experience higher probability of default, on the other hand, have lower financing costs and quicker cash conversion cycles. Their empirical evidence shows that the relationship with organized crime may be harmful to shareholders because criminal organizations seem to devour profits from affiliated companies and may consume resources from them through money laundering schemes (Bianchi, et al., 2019).

Depository institutions failing to comply with their anti-money laundering legal obligations may threaten their security and robustness and may also compromise the integrity of the entire financial system (McIntosh, 2016). Consequently, financial sector regulators have formally enforced law enforcement against banks that have committed serious violations (McIntosh, 2016). Although these enforcements are designed to curb and correct illegal behaviour, they also incur some costs for non-compliant banks (McIntosh, 2016). McIntosh (2016) shows that noncompliant banks have significantly lower operating performance and greater capital risk after a formal enforcement, which are driven by the operational costs to upgrade their anti-money laundering compliance programs, and loss in profitability from ceasing the launder-facilitating activity. Using Russian banking transaction data, Mironov (2013) presents a negative linkage between income diversion and firm performance, and further finds that stricter tax enforcement can advance firm performance which contributes to the literature of how tax avoidance affects a firm's performance. In the United States, money laundering is tax evasion but not all tax evasion is money laundering (Verni, 2016). According to the Internal Revenue Service (IRS), money laundering is tax evasion in progress if the underlying conduct violates income tax laws and Bank Secrecy Act (Verni, 2016).

Tiwari, Gepp and Kumar (2020) conduct a systematic literature review on money laundering and its related areas to show that existing research is focused on anti-money laundering framework and its effectiveness, effect of money laundering on other fields and the economy, role of actors and their relative importance, magnitude of money laundering, opportunities for money laundering, and detection of money

laundering. Moreover, the United Kingdom (Cowdock, 2017), the United States (Levi and Reuter, 2009; Van Duyn, 2003), Spain (Alberto, 2016), Malaysia (Aurasu and Aspalella, 2018), Italy (Ravenda, et al., 2017), and Hong Kong (Ho, 2017) have been investigated by researchers, whereas Australia and Canada which receive less attention. In particular, AUSTRAC has announced that “Money laundering is a critical risk to Australia” and “has had its fair share of high-profile money laundering cases in recent years” (Administration, 2020). Canada’s money laundering problem is also with huge amount (Comeau, 2019). As an exception, Bright, Hughes, and Chalmers (2012) show that judge’s sentencing comments, publicly available in countries like Australia, Canada, and the USA, are a fruitful source of data for social network analysis of criminal networks in Australian context. Thus, this study aims to examine the impact of corporate money laundering/gambling activities on firms’ financial performance in five countries: Australia, Canada, Hong Kong, the United Kingdom, and the United States.

4. Research question and hypothesis

The main research question in this paper is: what effect (if any) does money laundering/gambling financing have on Australian gambling firms’ financial performance when reported in the international media? The best-case scenario would be no money laundering for equity and moral reasons. However, in reality, money is laundered through developed countries (Savona, 1996; Bagella, Busato, and Argentiero, 2009). This paper considers countries with lax money laundering laws (U.S. Department of State, 2014): Australia, Canada, Hong Kong, the United Kingdom, and the United States. Rogue states such as Iran, Iraq, North Korea, Cuba, Libya, and Syria are not examined. Thus, we hypothesize that money laundered through Australia, Canada, Hong Kong, the United Kingdom, and the United States represents a second-best equilibrium preferable to such funds being diverted to rogue states. Generally, money laundering/gambling news leads to increased media and investor attention, creating positive values for Australian firm performance. Further, we find that Australian firms experience large changes in organizational outcomes, which indicates that these firms do indeed obtain financial benefits from money laundering/gambling-related activities.

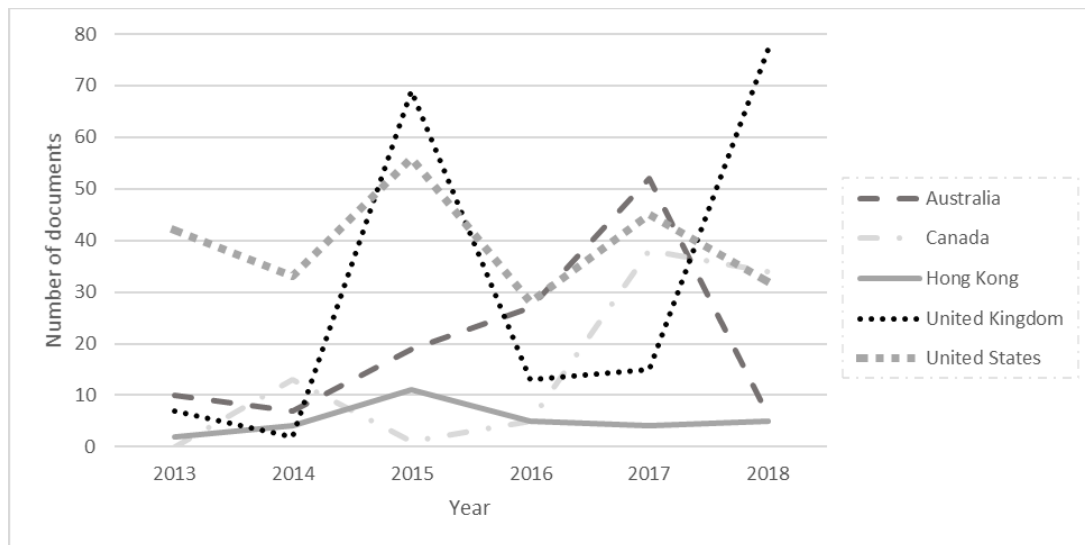
5. Data and Research methodology

5.1 Data description

In constructing our sample of firms with money laundering/gambling reported by newspapers or other sources of social media, we first search for articles from major news and business resources with keywords "money laundering" AND (gambling OR gaming) AND (online OR casinos OR wagering OR "betting shop*") in the Factiva database for the last five years. Our initial data set consists of 2965 documents from the 1st of January 2013 to the 31st of December 2018. We start with the top 100 firms that have the highest number of articles related to money laundering/gambling activities published on social media. We manually removed non-gambling companies (e.g. Philippines Anti-Money Laundering Council and Federal Reserve Bank of New York) and duplicated or irrelevant articles (e.g., when an article appeared under the Factiva Crown Resorts filter but the content was related to TabCorp). Firms with unavailable data were removed.

Next, we carefully construct a unique hand-collected dataset for the analysis that captures the money laundering/gambling news for each firm. The final sample consists of 35 firms with 662 documents. Figure 1 shows the number of documents in each country from 2013 to 2018. The number of documents fluctuates over our sample period. Generally, the United States has the highest number of realised news, followed by the United Kingdom and Australia. In 2015 and 2018, the United Kingdom recorded the highest number of money laundering news articles, with 69 documents and 77 documents, respectively. On average, there are approximately 22 documents related to money laundering in each year. The number of documents in our sample experienced a sharp increase from 2014 (59 articles) to 2015 (156 articles). Following a drop in 2016 (with 78 documents reported on social media), the number of articles related to money laundering climbed to 154 articles in 2017 and 154 articles in 2018. Details of these documents are available on request.

Figure 1. Number of documents in each country between 2013 and 2018



We utilise daily data as reported by Datastream and Worldscope on each return index, the market share price index for each country (as the proxy for the market), and the interbank 3-month index (as a proxy for the risk-free rate) over the period from the 1st of January 2013 to the 31st of December 2018.

Table 1 reports the 35 firms used in this study and the market indices we use to calculate abnormal returns and cumulative abnormal returns. Australia (121 documents), the United Kingdom (183 documents), and the United States (236 documents) have the highest number of money laundering/gambling activities. This is consistent with the U.S. Department of State (2014), which identifies the major money laundering countries via assessing approximately 200 jurisdictions.

Table 1. Top 35 firms with the highest number of documents

	Company Name	No. of Articles	Country	Listing Status	Market Index
1	Great Canadian Gaming Corporation	71	Canada	TSE	S&P/TSX Composite Component
2	Crown Resorts Limited	64	Australia	ASX	ASX200
3	Playtech PLC	37	United Kingdom	LSE	FTSE250
4	TABCORP Holdings Ltd	36	Australia	ASX	ASX200
5	Las Vegas Sands Corporation	33	United States	NYSE	S&P500
6	Melco Resorts & Entertainment Ltd.	31	United States	NASDAQ	S&P500
7	William Hill PLC	27	United Kingdom	LSE	FTSE250
8	Flutter Entertainment PLC	24	United Kingdom	LSE	FTSE250
9	Wynn Resorts Ltd	23	United States	NASDAQ	S&P500
10	Caesars Entertainment Corp.	22	United States	NASDAQ	S&P500
11	JPMorgan Chase & Co.	21	United States	NYSE	S&P500
12	MGM Resorts International Inc.	21	United States	NYSE	S&P500
13	Stars Group Inc	20	Canada	TSE	S&P/TSX Composite Component
14	Churchill Downs Inc	18	United States	NASDAQ	S&P500
15	Everi Holdings Inc.	17	United States	NYSE	S&P500
16	Alphabet Inc.	16	United States	NASDAQ	S&P500
17	Commonwealth Bank of Australia	16	Australia	ASX	ASX200
18	Plus500 Ltd.	16	United Kingdom	LSE	FTSE250
19	888 Holdings PLC	15	United Kingdom	LSE	FTSE250
20	Stride Gaming PLC	14	United Kingdom	LSE	FTSE250
21	Betfair Group plc	13	United Kingdom	LSE	FTSE250
22	SJM Holdings Limited	13	Hong Kong	HKG	HSI
23	Walmart Inc	11	United States	NYSE	S&P500
24	Alibaba Group Holding Ltd	10	United States	NYSE	S&P500
25	GVC Holdings PLC	9	United Kingdom	LSE	FTSE250
26	HSBC Holdings PLC	9	United Kingdom	LSE	FTSE250

			Kingdom		
27	Ladbrokes Coral Group PLC	9	United Kingdom	LSE	FTSE250
28	Landing International Development Ltd	8	Hong Kong	HKG	HSI
29	Apple Inc.	7	United States	NASDAQ	S&P500
30	Amazon.com, Inc.	6	United States	NASDAQ	S&P500
31	Sands China Limited	6	Hong Kong	HKG	HSI
32	Barclays PLC	5	United Kingdom	LSE	FTSE250
33	GlaxoSmithKline PLC	5	United Kingdom	LSE	FTSE250
34	Star Entertainment Group Ltd.	5	Australia	ASX	ASX200
35	Rich Goldman Holdings Limited	4	Hong Kong	HKG	HSI

5.2 CAR analysis

We begin with calculating the daily returns, expressed as the natural logarithm of the return index, for all of the individual announcements in our data set. The return index shows a theoretical growth in value of a share holding that includes the dividend payment. To obtain the ex post abnormal returns, daily returns are approximated by the Capital Asset Pricing Model (CAPM) following Brown and Warner (1985). The daily return (DR_{it}) for each of $i = 1, 2, 3 \dots N$ securities across $t = 1, 2, 3 \dots T$ days is calculated as:

$$DR_{it} = LN\left(\frac{RI_{it}}{RI_{it-1}}\right)$$

where RI_{it} is represented by the natural logarithm of the return index of firm i at time t .

The AR_{it} for each of $i = 1, 2, 3 \dots N$ securities across $t = 1, 2, 3 \dots T$ days is calculated as:

$$AR_{it} = DR_{it} - E(R_{it})$$

where $E(R_{it})$ is the expected return of firm i at time t , and is estimated by the market model.

$$E(R_{it}) = \beta_{it}^0 + \beta_{it}^1(MR_{it} - R_{ft})$$

where MR_{it} is the market return, R_{ft} is the risk-free rate, and β_{it}^0 and β_{it}^1 are the estimated parameters from a rolling CAPM over a time period of the previous 260 days.

The standard t-statistic for a category's abnormal return is calculated to provide a result of whether it is statistically different from zero by using the following equation:

$$t = \frac{AR_{it}}{StD(AR_{it})}$$

where $StD(AR_{it})$ is the standard deviation of the abnormal returns of each category of financial announcements in a time spread of 244 days prior to the announcement day, the announcement day t, and 15 days after the announcement day. The authors assume that the abnormal returns of financial announcements are normally distributed in the parametric t-test.

From the perspective of the efficient market hypothesis (EMH) framework, an instant reaction of the stock market occurs when new information is released and changes in stock prices reflect all available information. The event study methodology with abnormal return analysis provides opportunities to capture the reactions of the stock market on the first day of trading following the announcement. Investors may react efficiently on the first day and there may be some delayed responses from the stock market. Hence, market participants could either over-react or under-react when new information arrives. To alleviate this concern, we estimate the cumulative abnormal return (CAR) over j trading days:

$$CAR180_i = \sum_{j=1}^{180} AR_{ij}$$

where $CAR180_i$ is the cumulative abnormal return of firm i over 180 trading days and AR_{ij} is the abnormal return of firm i on day j.

5.3 Panel regression

To investigate the impact on firm performance of possible reputational damage suffered from money laundering/gambling, we conduct a multivariate regression to

examine these effects:

$$CAR_{it} = \beta_0 + \beta_1 T + \mu$$

The above equation describes a firm's cumulative abnormal returns between 180 trading days prior and 180 trading days post (CAR_{it}) in each country as a function of time dummy T. When CARs are calculated after the event date, T is equal to 1, otherwise 0.

5.4 Interaction effects analysis

To investigate whether firms in different countries who commit money laundering/gambling activities multiple times suffer increased reputational damage, we conduct the interaction effects analysis below:

$$CAR_{it} = \beta_0 + \beta_1 T + \beta_2 D_i + \beta_3 T \times D_i + \mu$$

The above equation describes a firm's cumulative abnormal returns between 180 trading days prior to the money laundering/gambling announcement and 180 trading days post (CAR_{it}) as a function of time dummy T, which represents before and after the publication dates. D is equal to Australia, and $T \times D$ represents the interaction effects estimator.

6. Empirical results

6.1 Descriptive statistics

This study takes CAR as the proxy to measure firm performance. Table 2 provides the standard descriptive statistics for our sample in. It shows the average CAR for all countries in our sample is -1.82% which indicates that the money laundering news brings negative returns for firms on average.

Table 2. Descriptive Statistics

	CAR	Time	Australia	T*D
Mean	-0.0182	0.5000	0.1828	0.0914
Median	-0.0056	0.5000	0.0000	0.0000
Maximum	0.5155	1.0000	1.0000	1.0000
Minimum	-0.5580	0.0000	0.0000	0.0000
Std. Dev.	0.1234	0.5002	0.3866	0.2883
Skewness	-0.4697	0.0000	1.6416	2.8360
Kurtosis	5.6628	1.0000	3.6947	9.0427

6.2 Time effects

Results from regressions with time dummy only for each country are reported in Table 3. Row 1 in Table 3 shows that the time dummy has significantly negative effects on returns in Canada and has significantly positive effects on returns in Hong Kong. For Canadian firms, there is a -27.78% difference after their money laundering activities become public compared to an 8.80% difference for firms located in Hong Kong. There is no significant difference for firms in Australia, the United Kingdom, and the United States.

Table 3. Linear regression of time effects for each country

	Australia	Canada	Hong Kong	UK	US
Time	0.0018 (0.8160)	-0.2778*** (0.0000)	0.0880* (0.0530)	-0.0103 (0.1570)	-0.0024 (0.8080)
Constant	-0.0165*** (0.0030)	0.1429*** (0.0000)	-0.0537* (0.0940)	-0.0256*** (0.0000)	-0.0182*** (0.0080)
Observations	242	182	62	366	472

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

6.3 Interaction effects estimation

This section details the results of the interaction effects regressions, which test whether money laundering/gambling financing impacts gambling firms' financial performance when reported in the international media. Using an interaction effects empirical framework with our hand-collected data set, we identify several key differences among countries. Table 4 reports the results of interaction effects regressions with 1324 observations. Compared with firms in other countries,

Australian firms that engage in money laundering/gambling activities perform better (approximately 4.80%) after news of their money laundering activities becomes public. The results are statistically and economically significant.

Column 2 in Table 4 shows that the time dummy has significant effects on returns in Australia. This indicates that the reported news in the international media leads to a statistically significant, approximately 5% decrease in returns for firm performance in Australia. This result suggests that Australian gambling firms participating in money laundering activities may experience market failure and reputational damage.

Moreover, money laundering/gambling articles have statistically significant impacts on the organisational outcomes of Australian firms, with a CAR of minus 2.09%. The third column in Table 4 reveals that Australian firms that report money laundering/gambling related news have significantly positive returns. Further, these effects are significant and large (about 4.80%) relative to firms in other countries¹. This finding confirms our hypothesis of a second-best case equilibrium wherein money is laundered through developed countries. A possible reason for this is Australia's lax money laundering laws (U.S. Department of State, 2014).

Table 4. Interaction effects estimation for firms in Australia

	Time (T)	Country (D)	Interaction (T*D)	Constant	Observations
Australia	-0.0462*** (0.0000)	-0.0209* (0.0880)	0.0480*** (0.0060)	-0.0165*** (0.0030)	1324
Observations	1324				

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

6.4 Robustness – Event study method

This study primarily uses the AR and CARs of financing announcements as proxies for firm performance to identify if money laundering/gambling activities impact the stock prices of the top 35 listed firms from 2013 to 2018. Table 5 demonstrates the average AR and CARs of all related announcements in our sample and statistically significant results are highlighted in bold. The announcement date in Table 5 is defined as day 0. Table 5 presents evidence that news or announcements for all

¹ We also examine interaction effects estimation for firms in other countries.

countries in our sample have continuous significant CARs that are generated within the event window. The positive and significant reaction to Canadian firms' announcements returns demonstrates that the market reacts positively to money laundering/gambling activities in Canada. However, on the other hand, the negative and significant reactions for firms in other countries reveals that participation in money laundering/gambling activities can also lead to reputational damage and thus decrease firm value. Table 5 displays the average AR and CAR of related announcements in our sample with statistically significant results highlighted in bold.

Table 5. AR and CARs of related announcements

Event Days	Australia		Canada		Hong Kong		United Kingdom		United States	
	CAR (%)	t-stat	CAR (%)	t-stat	CAR (%)	t-stat	CAR (%)	t-stat	CAR (%)	t-stat
-180	-0.0165	-3.0339	0.1429	9.4735	-0.0537	-1.4396	-0.0256	-4.5529	-0.0182	-2.6029
-120	-0.0095	-1.9363	0.1187	7.2638	-0.0131	-0.5329	-0.0247	-4.7382	-0.0095	-1.8820
-90	0.0021	0.4517	0.1119	7.0178	-0.0231	-0.9904	-0.0217	-5.0874	-0.0106	-2.2985
-60	0.0002	0.0521	0.0870	5.4366	-0.0180	-1.0738	-0.0136	-4.8529	-0.0107	-2.5428
-30	-0.0037	-0.9524	0.0331	2.1021	-0.0085	-0.6157	-0.0021	-1.1112	-0.0025	-0.7941
-15	-0.0004	-0.1697	0.0099	0.8865	-0.0052	-0.5414	0.0014	1.0143	-0.0062	-2.6631
-10	0.0033	1.2876	0.0022	0.2412	0.0028	0.2994	0.0029	1.7972	0.0008	0.3484
-5	-0.0013	-0.5540	0.0088	1.2469	-0.0034	-0.5849	0.0071	4.4060	-0.0076	-3.9386
0	-0.0009	-0.8304	0.0059	1.3437	-0.0072	-1.8554	0.0025	3.3727	-0.0001	-0.1264
+5	0.0004	0.1554	0.0119	1.6738	-0.0212	-2.5790	0.0019	1.1890	0.0002	0.0803
+10	-0.0092	-3.3180	0.0195	2.0973	-0.0219	-2.6669	-0.0016	-1.0517	0.0025	1.0753
+15	-0.0074	-2.2984	0.0198	2.2419	-0.0046	-0.4573	-0.0026	-1.3316	0.0006	0.2372
+30	-0.0015	-0.4062	-0.0061	-0.5621	-0.0248	-1.9484	-0.0028	-1.1384	0.0063	2.1856
+60	-0.0041	-0.8674	-0.0295	-1.4494	-0.0261	-1.7391	-0.0120	-4.8795	0.0060	1.6047
+90	-0.0113	-2.1588	-0.0813	-3.7307	0.0110	0.5540	-0.0213	-8.0109	0.0045	1.0777
+120	0.0044	0.8875	-0.0316	-1.1405	-0.0088	-0.3566	-0.0319	-8.8053	-0.0088	-1.6977
+180	-0.0147	-2.6837	-0.1349	-5.6208	0.0343	1.4820	-0.0359	-7.9035	-0.0206	-3.0681

6.5 Case study - Westpac

Figure 2 shows the ARs for Westpac Banking Corporation (Westpac) between 2017 and 2020, and relevant announcements are presented in Table 6. Westpac was not included in the top 35 of the Factiva results and is thus examined separately here. In their annual shareholders meeting in 2017, Westpac stated that they had participated in more than 20 formal reviews by Australian regulators and political bodies, covering

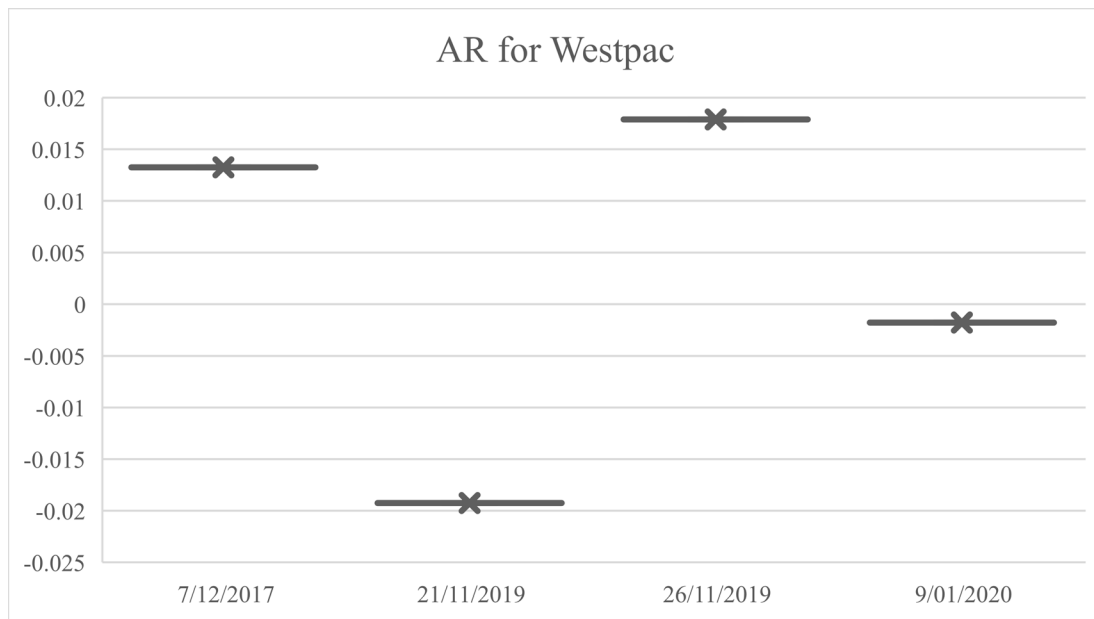
topics such as financial planning, insurance, superannuation, mortgages, credit cards, and anti-money laundering. Westpac also stated that approximately a quarter of their sales occur online. In 2019, Australian shares posted their biggest fall in six weeks as a potential US-China trade deal was thrown into doubt, while allegations Westpac breached anti-money laundering laws sparked a sell-off of bank stocks. The S&P/ASX200 index fell 1.4%, wiping a combined \$9 billion from the boards, after AUSTRAC alleged that Westpac engaged in widespread, systemic and frequent failures to adhere to anti-money-laundering laws and hampered the agency's efforts to prevent child exploitation. AUSTRAC investigated an alleged 23 million breaches of the Anti-Money Laundering and Counter-Terrorism Financing Act. In early 2020, The Bank of the Philippine Islands (BPI) expressed confidence that it would not be sanctioned, as it did nothing wrong in their recent partnership with Westpac's remittance arm. LitePay, Westpac's remittance arm, became embroiled in a money laundering scandal in Australia toward the end of 2019. LitePay has connections with local banks, including BPI. As it has only one announcement included in our data time period, it was not included in our panel regressions.

Table 6. Announcements for Westpac Banking Corporation

Date	Title
7/12/2017	Westpac Banking Corp Annual Shareholders Meeting - Final
21/11/2019	ASX dives on Westpac, US-China tensions
26/11/2019	What did Westpac chief Hartzler know, and when?
9/01/2020	BPI tie-up with Westpac above board-executive

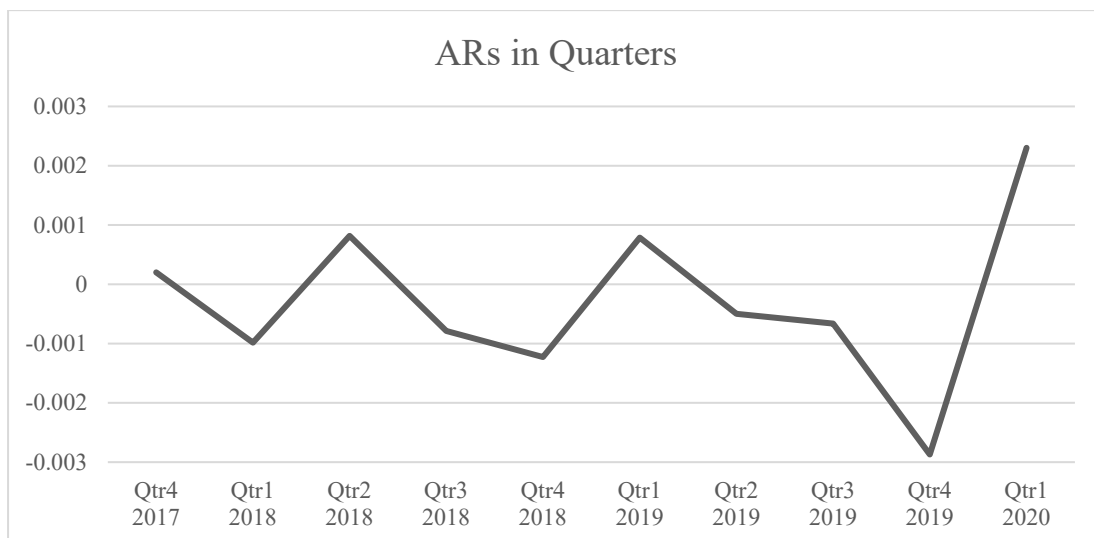
Figure 2 shows that on the 7th of December 2017 and the 26th of November 2019, Westpac experienced positive returns as a result of money laundering/gambling activities (1.33% and 1.79%, respectively) whereas it experienced negative returns on the 21st of November 2019 and the 9th of January 2020 (-1.93% and -0.18%, respectively).

Figure 2. ARs for Westpac Banking Corporation on each event date



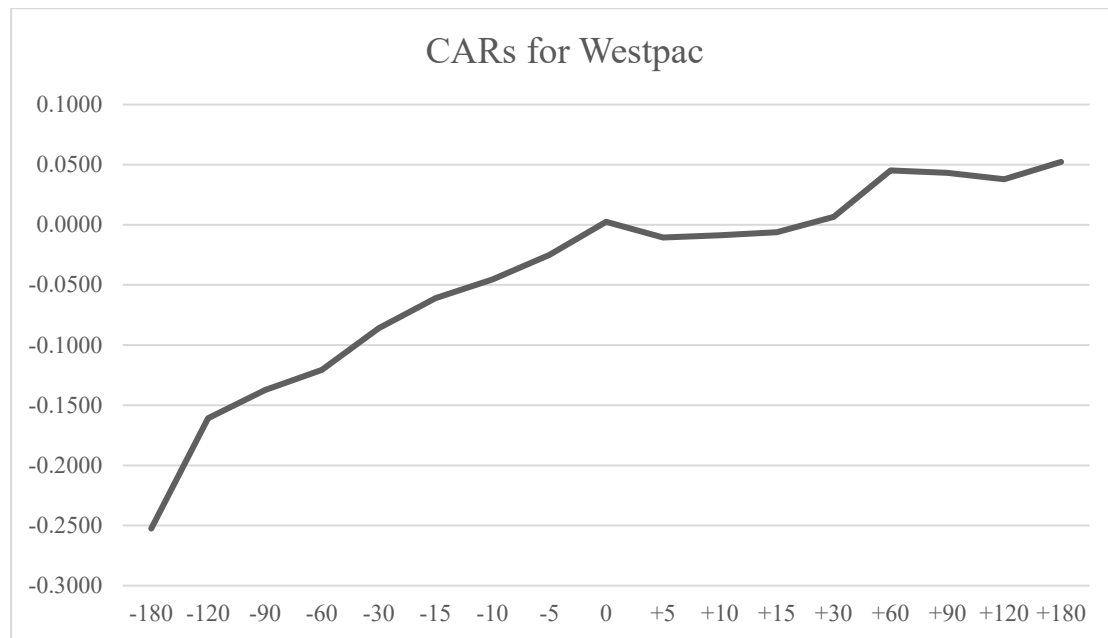
As there are only four announcements between 2013 and 2020, we further conduct ARs on a quarterly basis (Figure 3). There is a large drop between the third quarter and the fourth quarter in 2019 (from -0.07% to -0.29%) and returns surge to 0.23% in the first quarter of 2020. This indicates that the Westpac scandal in 2019 resulted in significantly positive returns; in other words, money laundering has a positive effect on Australian firms' financial performance when reported in the international media. Moreover, this finding again confirms our hypothesis that there exists a second-best case equilibrium wherein money is laundered through developed countries.

Figure 3. ARs for Westpac Banking Corporation for each quarter between 2017 and 2020



In addition, Figure 4 displays Westpac’s cumulative abnormal returns (CARs) over 180 trading days prior and post. The graph shows a rise in CARs for Westpac before the event (from -0.25% to 0.003%) and a slight rise after the event (from 0.003% to 0.05%), suggesting that the market regards money laundering announcements as a positive signal (See Appendix 1). The positive and significant CARs after the event indicates that there is an approximate 1.44% increase between 60 days and 180 days after the event when money laundering activities are announced in the international media. This result shows that money laundering announcements have a positive effect on Australian firms’ financial performance, thus further confirming our hypothesis.

Figure 4. CARs for Westpac Banking Corporation



7. Limitations and future research

Our analysis is limited to the top 35 firm results in Factiva; as such, additional analysis is recommended, particularly including the banking industry. According to Transparency International, many countries that might otherwise be highly ranked in terms of economic stability and low corruption indices have examples of their financial services being involved in money laundering. For example, Denmark’s largest lender, Danske Bank, has been involved in significant money laundering activities. Approximately “US\$230 billion of suspicious transactions are thought to have passed through Danske Bank’s Estonian branch, which has been linked to the

Russian Laundromat and Azerbaijani Laundromat schemes uncovered by the Organised Crime and Corruption Reporting Project (OCCRP)” (Transparency International 2019). The Swiss financial industry ranks number one in the world for secrecy, which allows not only tax avoidance but also money laundering as demonstrated by the disclosure of the Paradise Papers (Transparency International 2019). To further illustrate, “Swiss banks, and other financial intermediaries and enablers, regularly play a significant role in large-scale money-laundering and corruption schemes around the world, such as those related to 1MBD in Malaysia, Odebrecht and Petrobras in Brazil, or Mozambique’s ‘tuna bond’ scandal” (Transparency International 2019). Moreover, China could be included in future analysis due to the significant amount of money laundered from China to countries such as Australia.

8. Conclusion

This paper investigates whether money laundering/gambling financing has a positive or negative effect on Australian gambling firms’ financial performance when reported in the international media. We conduct interaction effects estimations and CAR analysis as robustness tests, using CARs of firms over 180 trading days prior and post (dependent variable) and individual firms and countries (independent dummy variables). Generally, money laundering/gambling news leads to increased media and investor attention, creating positive values for Australian firm performance. Further, we find that Australian firms experience large changes in organisational outcomes, which indicates that these firms do indeed obtain financial benefits from money laundering/gambling related activities. Moreover, these findings confirm our hypothesis that there exists a second-best case equilibrium wherein money is laundered through developed countries.

Our analysis demonstrates that firms that engage in money laundering through gambling activities provide significant benefits to certain countries’ economies. This poses a conundrum for regulatory authorities, particularly for countries that are part of the Financial Action Task Force (FATF) group who are concertedly working together on eliminating money laundering. On the one hand, the optimal scenario would be a world where money laundering did not occur. On the other hand, if money laundering

does occur, it is better for it to occur through developed countries rather than rogue states in less developed countries that are likely to use laundered funds for terrorism.

References

- Administration, 2020, Money laundering is big business in Australia. The Lighthouse. Available at: <https://lighthouse.mq.edu.au/article/february/money-laundering-is-big-business-in-australia>.
- Aurasu, A. and A.A. Rahman, 2018, Forfeiture of criminal proceeds under anti-money laundering laws, *Journal of Money Laundering Control*.
- Bagella, M., F. Busato, and A. Argentiero, 2009, Money laundering in a microfounded dynamic model: simulations for the US and the EU-15 economies, *Review of Law & Economics*, 5(2), 879-902.
- Bianchi, P.A., A. Marra, D. Masciandaro, and N. Pecchiari, 2019, Organized Crime, Money Laundering, and Financial Statements: Evidence from Criminal Investigations in Italy, *Bocconi Legal Studies Research Paper*, (2017-59).
- Bright, D.A., C.E. Hughes, and J. Chalmers, 2012, Illuminating dark networks: A social network analysis of an Australian drug trafficking syndicate, *Crime, law and social change*, 57(2), 151-176.
- Brown, S. J., and J. B. Warner, 1985, Using daily stock returns: The case of event studies, *Journal of Financial Economics*, 14(1), 3-31.
- Buchanan, J., 2018, Money Laundering through Electronic Devices, *Society and Business Review*, 13(2), 217-237, Available at: <https://doi.org/10.1108/SBR-08-2017-0057>.
- Carey, A., 2019, While still reeling from the child exploitation scandal that engulfed it last month, banking giant Westpac has a new setback, December 17, Available at: <https://www.news.com.au/finance/business/banking/regulator-orders-westpac-to-set-aside-extra-500-million-in-capital/news-story/f780777ccc5ab0d6e7e11164cfb65a69> (accessed 18.12.2019).
- Chalmers, S., and B. Worthington, 2019, Banking Royal Commission Calls for Compensation, Crackdowns and an Overhaul of Financial Regulators, *ABC News*, 4 February, Available at: <https://www.abc.net.au/news/2019-02-04/banking-royal-commission-report-at-a-glance/10777188> (accessed 28.08.2019).

- Comeau, K., 2019, Why Canada's money-laundering problem is far bigger than we think, Financial Post, Available at: <https://business.financialpost.com/opinion/why-canadas-money-laundering-problem-is-far-bigger-than-we-think>.
- Cowdock, B., 2017, Hiding in Plain Sight: How UK Companies are used to launder corrupt wealth, United Kingdom, Transparency International UK.
- Doran, M., and M. Janda, 2018, Commonwealth Bank to Pay \$700 Fine for Anti-Money Laundering, Terror Financing Law Breaches, ABC News, 4 June, Available at: [https://www.abc.net.au/news/2018-06-04/commonwealth-bank-pay-\\$700-million-fine-money-laundering-breach/9831064](https://www.abc.net.au/news/2018-06-04/commonwealth-bank-pay-$700-million-fine-money-laundering-breach/9831064) (accessed 28.08.2019).
- Eyers, J., 2018, Money Laundering Scandal: What CBA Admitted to, and Why it Happened, Australian Financial Review, June 4, Available at: <https://www.afr.com/companies/financial-services/money-laundering-scandal-what-cba-admitted-to-and-why-it-happened-20180604-h10xm3> (accessed 28.08.2019).
- Fargher, I., 2019, How Westpac is alleged to have broken anti-money laundering laws 23 million times, The Conversation, Available at <http://theconversation.com/how-westpac-is-alleged-to-have-broken-anti-money-laundering-laws-23-million-times-127518> (accessed 19.12.2019).
- Gatzert, N., 2015, The impact of corporate reputation and reputation damaging events on financial performance: Empirical evidence from the literature, European Management Journal, 33(6), 485-499.
- Gill, M., and G. Taylor, 2002, Tackling Money Laundering: The Experiences and Perspectives of the UK Financial Sector, Scarman Centre, University of Leicester.
- Grieve, C., 2019, The Westpac Scandal: How did it Happen? December 9, Available at: <https://www.smh.com.au/business/banking-and-finance/the-westpac-scandal-how-did-it-happen-20191206-p53ho2.html> (accessed 18.12.2019).
- Harvey, J., 2004, Compliance and reporting issues arising for financial institutions from money laundering regulations: a preliminary cost benefit study, Journal

- of money laundering control., 7(4), p.333.
- Harvey, J., 2008, Just how effective is money laundering legislation?, *Security Journal*, 21(3), 189-211.
- Ho, J.K.S., 2017, Disclosure of beneficial ownership of companies in Hong Kong, *Common Law World Review*, 46(4), 251-268.
- International Monetary Fund (IMF), 2005, The IMF and the Fight against Money Laundering and the Financing of Terrorism, Available at: <http://www.imf.org/external/np/exr/facts/aml.htm>.
- Levi, M., and P. Reuter, 2009, Money Laundering, in Tonry, M. (Ed.) *The Oxford Handbook of Crime and Public Policy*, Oxford University Press, Oxford, 356-380.
- Masciandaro, D., 2005, Combating Black Money: International Co-Operation and the G8, *New Perspectives on Global Governance: Why America Needs the G8*, 6, p.169.
- Masciandaro, D., and U. Filotto, 2001, Money laundering regulation and bank compliance costs: What do your customers know? *Economics and the Italian experience*, *Journal of Money Laundering Control*, 5(2), 133-145.
- McIntosh, D., 2016, The costs of anti-money laundering enforcements to noncompliant banks, *Journal of Finance and Bank Management*, 4(1), 1-14.
- Mironov, M., 2013, Taxes, theft, and firm performance, *The Journal of Finance*, 68(4), 1441-1472.
- Nobanee, H., and N. Ellili, 2018, Anti-money laundering disclosures and banks' performance, *Journal of Financial Crime*.
- Ravenda, D., M.M. Valencia-Silva, J.M. Argiles-Bosch, and J. Garcia-Blandon, 2018, Accrual management as an indication of money laundering through legally registered Mafia firms in Italy, *Accounting, Auditing & Accountability Journal*.
- Reuters., 2019, Australia Plans More Action Against Big Banks on Money Laundering, *Reuters Business News*, 27 August, Available at: <https://www.reuters.com/article/us-australia-moneylaundering/australia-plans->

more-action-against-big-banks-on-money-laundering-idUSKCN1VG2GT
(accessed 28.08.2019).

Royal Commission into Misconduct in the Banking, Superannuation and Financial Service Industry, 2019, Available at: <https://financialservices.royalcommission.gov.au/Pages/default.aspx> (accessed 28.08.2019).

Ryan, P., 2017, Tabcorp Fined \$45 Million for Breaching Money Laundering, Terrorism Financing Laws, ABC News, 16 March, Available at: [https://www.abc.net.au/news/2017-03-16/tabcorp-fined-\\$45-million-for-breaching-money-laundering-laws/8360164](https://www.abc.net.au/news/2017-03-16/tabcorp-fined-$45-million-for-breaching-money-laundering-laws/8360164) (accessed 28.08.19).

Ryan, P., 2019, Suburban Money Dealers Targeted by AUSTRAC for Funding Criminals and Human Traffickers, ABC News, 28 August, Available at: <https://www.abc.net.au/news/2019-08-27/austrac-cracks-down-on-home-based-money-transfers-aiding-crime/11452080> (accessed 28.08.2019).

Ryder, N., 2008, The financial services authority and money laundering: A game of cat and mouse, *The Cambridge Law Journal*, 67(3), 635-653.

Savona, E., 1996, Money Laundering, the Developed Countries and Drug Control: the New Agenda, In *European Drug Policies and Enforcement* (p.213-230), Palgrave Macmillan, London.

Sharman, J.C., and D. Chaikin, 2009, Corruption and anti-money-laundering systems: putting a luxury good to work, *Governance*, 22(1), 27-45.

Soriano, A.G., 2016, Spain: financial ownership file and money laundering prevention, *Journal of Money Laundering Control*.

The Australian Government, The Treasury., 2019, Final Report of the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, 4 February, Available at: <https://treasury.gov.au/publication/p2019-fsrc-final-report> (accessed 28.08.2019).

Tiwari, M., A. Gepp, and K. Kumar, 2020, A review of money laundering literature: the state of research in key areas, *Pacific Accounting Review*.

- Transparency International., 2019, Trouble at the Top: Why High-Scoring Countries aren't Corruption-Free, Available at: https://www.transparency.org/news/feature/trouble_at_the_top_why_high_scoring_countries_arent_corruption_free (accessed 28.08.2019).
- U.S. Department of State., 2014, Major Money Laundering Countries, Available at: <https://2009-2017.state.gov/j/inl/rls/nrcrpt/2014/vol2/222471.htm>.
- Van Duyne, P.C., 2003, Money laundering policy, Fears and Facts, 69.
- Verni, A., 2016, Is All Money Laundering Tax Evasion? Verni Tax Law, Available at: <https://www.vernitaxlaw.com/money-laundering-is-tax-evasion/>.
- Westpac., 2018, Westpac named Best Business Bank in Australia for fourth consecutive year, Available at: <https://www.westpac.com.au/about-westpac/media/media-releases/2018/24-August/>.
- Wright, S., 2019, The Banking Royal Commission Final Report at a Glance, Sydney Morning Herald, February 4, Available at: <https://www.smh.com.au/business/banking-and-finance/the-banking-royal-commission-final-report-at-a-glance-20190203-p50vg2.html> (accessed 28.08.2019).
- Yeates, C., 2019a, Westpac hit with \$500m capital charge over AUSTRAC scandal, 17 December, Available at: <https://www.smh.com.au/business/banking-and-finance/westpac-hit-with-500m-capital-charge-over-austrac-scandal-20191217-p53kme.html> (accessed 18.12. 2019).
- Yeates, C., 2019b, AUSTRAC Flags Tough Action after being 'Flooded' with Money Laundering Breaches, Sydney Morning Herald, August 19, Available at: <https://www.smh.com.au/business/banking-and-finance/austrac-flags-tough-action-after-being-flooded-with-money-laundering-breaches-20190816-p52hsi.html> (accessed 28.08.2019).

Appendix

Appendix 1. AR and CARs of money laundering announcements from Westpac

Event Days	Westpac	
	CAR (%)	t-stat
-180	-0.2525	-7.4201
-120	-0.1608	-2.8178
-90	-0.1373	-4.4965
-60	-0.1206	-4.3979
-30	-0.0860	-2.4558
-15	-0.0610	-2.0630
-10	-0.0454	-1.6839
-5	-0.0250	-1.4853
0	0.0025	0.3482
+5	-0.0106	-0.6837
+10	-0.0087	-0.3939
+15	-0.0061	-0.2848
+30	0.0066	0.2856
+60	0.0452	2.5967
+90	0.0432	2.4468
+120	0.0379	1.7895
+180	0.0523	4.0382