Manipulated markets

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Chapter 4

A Century of Journalist Uncertainty and Market Returns

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4.1 Introduction

The news media appear to be able to move financial markets by influencing investor sentiment. In the experimental study, Bosman, Kräussl, and Mirgorodskaya (2017) show that by simply emphasizing positive (negative) information over negative (positive) in a newspaper article by using modifier words while keeping the facts unchanged, it is possible to alter subject's expectations of the performance of a stock. Goetzmann, Kim, and Shiller (2016) show evidence of the financial press influencing investor assessment of a possibility of a market crash similar to the crash on 19 October, 1987 (-22.6%) or 28 October, 1929 (-12.8%). Articles with "crash" related terms are associated with higher crash probability assessment than "boom" related terms.

A growing number of research in finance suggests that the news media exert a

statistically significant effect on the performance of stock markets both contemporaneously and over an extended period of time. Tetlock (2007) and García (2013) show evidence of the negative contemporaneous effect of media pessimism on daily stock market returns, followed by return reversals on subsequent trading days. The effect of media pessimism mainly occurs during economic recessions (García, 2013). Kräussl and Mirgorodskaya (2017) find evidence of a statistically and economically significant causal effect of news media pessimism on the performance of stock markets one to one-and-a-half year in advance. Dougal, Engelberg, García, and Parsons (2012) show that a particular journalistic style of writing has a causual effect on the performance of the *Dow Jones Industrial Average* index contemporaneously and immediately after. By specifying the name of a journalist of the "Abreast of the Market" column in the *Wall Street Journal*, they are able to improve the predictive power of their model by 30-40% relative to other control variables.

In this chapter I propose to go beyond the general textual analysis of media pessimism and investigate the extent, to which the degree of journalist uncertainty expressed by the financial press impacts daily stock market returns. I assume that the uncertain tone of journalists impacts investor's perception of financial news and, as a result, their expectations about the financial performance of stock markets. The change in expectations, in turn, is reflected in the performance of stocks as ambiguity-averse investors decide to abstain from stock market participation or to withdraw their funds from stocks in the fear of the economic downturn.

Investors tend to avoid uncertainty when making financial decisions. Kahneman and Tversky (1984, 1986) suggest that people are loss averse and dislike ambiguity. On capital markets, individuals favor investments that they are more familiar with (*familiarity bias*) (Shiller, Konya, and Tsutsui, 1996; Strong and Xu, 2003; Kilka and Weber, 2000), and that are geographically and linguistically proximate (*home bias*) (e.g. Ackert, Church, Tompkins, and Zhang (2005); Coval and Moskowitz (1999); French and Poterba (1991); Grinblatt and Keloharju (2001); Huberman (2001); Massa and Simonov (2006)). At the same time, investors are reluctant

to change their current portfolios (*status quo bias*) and adhere to past choices or investments they currently hold (*inertia* and *endowment effect*) (Josephs, Larrick, Steele, and Nisbett, 1992; Ritov and Baron, 1990; Samuelson and Zeckhauser, 1988; Fox and Tversky, 1995).

Hirshleifer (2001) and Daniel, Hirshleifer, and Subrahmanyam (1998, 2001) suggest that psychological biases are exacerbated when there is more uncertainty. Zhang (2006) investigates the extent of market anomalies such as post-earning announcement drift and price momentum for different levels of informational uncertainty. He finds that market reaction to low-uncertainty stocks is quite complete. On the other hand, high-uncertainty stocks tend to experience higher (lower) returns followed by good (bad) news. Cao, Wang, and Zhang (2005) investigate the effect of model uncertainty on market participation and asset prices. They show that investors tend to abstain from participating in stock markets when faced with higher uncertainty, which results in a lower equity premium than that of the economy with full market participation.

Chuliá, Guillén, and M. (2016) distinguish between risk and uncertainty on the financial markets. On contrary to risk that can be quantified by probabilities, uncertainty is thought to be unpredictable. They construct a stock market uncertainty index and show a negative statistically significant relation between the level of stock market uncertainty and economic variables such as production, employment, and consumption.

Veronesi (1999) shows that, as a result of risk-aversion and "willingness" to hedge against changes in uncertainty, investors tend to overreact to bad news in good times stronger than to underreact to good news in bad times. During good times investors assign a higher probability to the good state. Any piece of bad news increases investor uncertainty and requires them to ask for an extra discount over expected future dividends as a compensation for additional risk. Beber and Brandt (2010) find empirical support for this model. They show that bond prices react stronger to bad news during expansions than to good news during recessions.

In line with the predictions by Veronesi (1999), a commonly used measure of uncertainty on the financial markets, the VIX index[1], tends to spike during periods of market turmoil and falling stock prices. The stock seems to react more negatively to an increase in the VIX than it reacts positively when the VIX falls. As a result, the VIX is considered to be a barometer of investors' fear of the downside of investors' excitement in a market rally.

There is a number of recent academic papers that measure the level of economic and political uncertainty by using the textual analysis of news. Manela and Moreira (2013) construct the news implied volatility (NVIX) index that starts in 1890 by using front-page articles of the *Wall Street Journal*. Their resulting index captures the disaster concerns of an average investor and peaks during stock market crashes, times of policy-related uncertainty, world wars and financial crises. They find that periods of high disaster concerns are followed by either periods of above average stock returns or by periods of large economic distress.

Baker, Boom, and Davis (2016) construct a news-based index of Economic Policy Uncertainty (EPU) that measures the extent of uncertainty about taxes, spending, monetary, and regulatory policy and its effect on unemployment and industrial production. They find a persistent fall in real industrial production and aggregate employment following policy uncertainty shocks.

Alexopoulos and Cohen (2015) construct news-based indicators of aggregate, economic and policy uncertainty based on the textual analysis of the *New York Times* articles for the time span between 1985 and 2007, on a monthly basis. In order to construct their indicators, authors prepare a list of economic, policy, and uncertainty terms. The uncertainty list includes such terms as "unable to predict", "unsure", "do not know", etc. The indicators are constructed by counting the total number of newspaper articles with either economic or policy words and uncertainty words. The analysis shows that economic and policy uncertainty shocks cause recessions in the

[1]The VIX is the implied volatility in the security industry and is based on S&P 500 index option prices and represents a market consensus view of the expected volatility of the S&P 500 index (Whaley, 2000)

U.S. Additionally, the increasing level of uncertainty significantly reduces returns on the S&P 500 and increases stock market volatility.

Given this evidence, I suggest that the increasing uncertainty on the financial markets translates into declining stock prices as ambiguity-averse investors exit financial markets in the fear of a market crash. The news media in turn are able to exacerbate the feeling of uncertainty by manipulating the tone of their narrative. I suggest that the effect of increasing journalist uncertainty is stronger during good than bad economic times.

In order to test my hypothesis I constructed a news-based journalist uncertainty measure. Similar to García (2013), I constructed my indicator by taking the difference between the total number of modal weak and modal strong words standardized by the total number of words in a newspaper article over a period between 1900 and 2014. In contrast to previous studies, my journalist uncertainty measure is content independent as I do not distinguish between the context, in which modal strong and weak words are used. This feature makes my research particularly interesting, since it allows me to capture an irrational response of stock markets to words, which do not contain any factual information.

The sample consists of 87,192 newspaper articles from daily financial columns "Abreast of the Market" from the *Wall Street Journal*, and "Financial Markets" and "Topics in Wall Street" from the *New York Times* for the time span of 1900–2014. First, I replicate García (2013) results by constructing his pessimism media measure by counting the total number of positive and negative words proposed by Loughran and McDonald (2011) in each newspaper article. Then, I construct the journalist uncertainty measure by taking the difference between the total number of modal strong and weak words in each newspaper article in my sample. I analyze the predictive activity of both pessimism and journalist uncertainty measures on the daily *Dow Jones Industrial Average* (DJIA) index returns up to five days in advance.

I find a negative and statistically significant relation between my journalist uncertainty measure and the contemporaneous daily DJIA return. The results show that

one standard deviation increase of the journalist uncertainty measure is associated with the decrease in the contemporaneous daily DJIA return by 2.2 basis points, which corresponds to a -5.5% annual return. Similarly, in line with García (2013), I find strong evidence of the negative effect of pessimism media measure on the daily contemporaneous DJIA returns. One standard deviation increase in the pessimism media measure is associated with the daily contemporaneous decrease in the DJIA returns by 0.9 basis points, which is equivalent to a 2.3% annual decline. The effect of journalist uncertainty appears to be asymmetrical and is more pronounced during economic expansions. On the other hand, the effect of media pessimism is more pronounced during recessions. Thus, I conclude that investors tend to be more sensitive to the *soft* content such as journalist uncertainty during expansions and the *hard* factual media content such as positive or negative news during recessions.

The chapter is organized as follows: Section 4.2 describes the dataset and methodology. Section 4.3 presents the findings and Section 4.4 concludes.

4.2 Data and Methodology

4.2.1 Market Index

I use the Dow Jones Industrial Average (DJIA) return series as a proxy for the performance of the financial markets over a century[2]. The daily DJIA closing values are available from May 5, 1885 to the present. I focus on the DJIA daily closing values from January 1900 until December 2014. The index is composed of 30 large publicly owned companies based in the U.S. Similar to García (2013), I chose to use the DJIA index for the analysis as the time series data for this index is available for an extended period of time. I analyze the performance of the stock markets for the entire sample period as well as for expansionary and recessionary economic states based on the *National Bureau of Economic Research* (NBER) classifications. In total, my sample covers 31,190 trading days, where 23,484 days are from expansion

[2]See website: `http://www.measureingworth.org/DJA/.`

Table 4.1. Descriptive Statistics, DJIA Index: 1900–2014
This table reports sample statistics of the daily log-returns of the DJIA index for the time period 1900 to 2014. The values are reported as percentages.

	(1) Mean	(2) Median	(3) 25%-quart.	(4) 75%-quart.	(5) St. Dev.	(6) OBS
All data	0,028	0,035	-0,362	0,443	0,952	31,190
Expansions	0.040	0,042	-0,323	0,428	0,820	23,484
Recessions	-0.010	0,000	-0,511	0,490	1,272	7,706

periods and 7,706 days are from recession periods. Table 4.1 reports the sample statistics of the log-returns of the DJIA index for the time period between 1900 and 2014. On average, the DJIA index generates a positive daily return of 2.8 basis points (bp) for the entire sample period[3]. During economic expansions the DJIA reports a positive daily return of 4.0 bp, while during recessions it becomes negative 1.0 bp. The volatility of the DJIA returns is 1.3% during recessions compared to 0.8% during expansions.

These results are generally consistent with the sample statistics for the log-returns of the DJIA index reported in García (2013) for the time span between 1905 and 2005, where the difference in my results is driven by additional 15 years of data in the sample.

Table 4.2 reports the estimated coefficients of the García (2013) model:

$$r_t = (1 - D_t^{BC})\gamma_1 L_s(r_t) + D_t^{BC}\gamma_2 L_s(r_t) + \eta X_t + \varepsilon_t, \tag{4.1}$$

where r_t is the daily log-return of the DJIA index, D_t^{BC} is the business cycle dummy variable that takes a value of 1 at date t, when this date is classified as recession in NBER. $L_s(r_t)$ is a s-lag operator such that $L_s(r_t) = [r_{t-1}, r_{t-2}, ..., r_{t-s}]$. I follow García (2013) and set s=5 throughout the entire chapter. X_t is a set of control variables such as a constant, day-of-the-week dummy variables and the business cycle dummy (D_t^{BC}). The model is estimated by using White (1980) heteroskedasticity-robust standard errors.

[3]1 basis point corresponds to 0.01%

Table 4.2. Autoregression Analysis of Daily DJIA Index Returns: 1900–2014
This table reports the autoregression analysis of the daily log-returns of the DJIA index for the time period 1900 to 2014. The table reports the estimated coefficients for the model $r_t = (1 - D_t^{BC})\gamma_1 L_s(r_t) + D_t^{BC}\gamma_2 L_s(r_t) + \eta X_t + \varepsilon_t$, where r_t denotes the log-return of the DJIA index, $r_t^{Exp} = (1 - D_t^{BC}) \times r_t$ and $r_t^{Rec} = (D_t^{BC}) \times r_t$. D_t^{BC} is a dummy variable that takes a value of 1 for the date t, when it is classified as recession in NBER. L_s is a s-lag operator. We set $s = 5$. A set of exogenous variables X_t consists of day-of-the-week dummy variables (D_t^{MON}, D_t^{TUE}, D_t^{WED}, D_t^{THU}, D_t^{FRI}) and a business cycle dummy variable, D_t^{BC}.

	(1)	(2)
	γ	$t-stat$
$Constant_t$	0,078***	4,435
r_{t-1}^{Exp}	0,041***	3,746
r_{t-2}^{Exp}	-0,036***	-3,359
r_{t-3}^{Exp}	-0,005	-0,454
r_{t-4}^{Exp}	0,000	-0,032
r_{t-5}^{Exp}	0,002	0,234
r_{t-1}^{Rec}	0,010	0,582
r_{t-2}^{Rec}	-0,019	-0,814
r_{t-3}^{Rec}	0,029	1,614
r_{t-4}^{Rec}	0,034*	1,710
r_{t-5}^{Rec}	0,002	0,152
D_t^{MON}	-0,001***	-5,829
D_t^{TUE}	0,000	-1,057
D_t^{WED}	0,000	-0,981
D_t^{THU}	-0,0004**	-2,008
D_t^{FRI}	0,000	-0,466
D_t^{BC}	-0,001***	-3,292
Adj. R-sq.	0,004	
F-stat.	9,079***	
OBS	31,190	

Similar to the results reported in García (2013), I find a positive and statistically significant coefficient for the DJIA daily return at lag 1 and negative and statistically significant coefficient for the DJIA return at lag 2 during economic expansions. This finding indicates that there is a positive autocorrelation of the daily DJIA return on the next trading day followed by a reversal on the second trading day during expansionary economy. In contrast, there appears to be no statistically significant autocorrelation of daily DJIA returns during recessions.

Table 4.2 reports evidence of the Monday effect. The DJIA returns tend to demonstrate a significant negative daily return of 0.1 bp on Monday. The Monday Effect was first documented by French (1980). It appears that stocks experience a

significant negative average return on Mondays, which conflicts with the calendar time hypothesis that states that the Monday return should be three times higher than the return on other calendar days as it includes the return during the weekends. The conflicting Monday effect is persistent and is widely documented across various time periods, stock indices, types of securities, and geographies (Wang, Li, and Erickson, 1997).

The coefficient for my business cycle dummy variable is negative and statistically significant (Table 4.2). The average daily return of the DJIA index is 0.1 bp lower during recessions than expansions. García (2013) reports similar findings.

4.2.2 News Data

The news sample consists of 84,486 articles for the time span between 1900 and 2014, of which 58,478 are from the *New York Times* newspaper, 25,965 are from the *Wall Street Journal* newspaper, and 43 are from the *Washington Post*. Similar to Tetlock (2007) and García (2013), I focus only on the historical newspaper articles from the daily financial columns "Financial Markets" and "Topics in Wall Street" in the *New York Times* and the "Abreast of the Market" column in the *Wall Street Journal*. I replace the publications by the *New York Times* with articles by the *Washington Post* during the strike on August – November 1978. Tetlock (2007) analyzes the "Abreast of the Market" column over a 16-year period 1984–1999. His total sample consists of 3,709 articles. García (2013) sample includes 55,307 historical newspaper articles from the "Financial Markets" and "Topics in Wall Street" columns in the *New York Times* for the time period 1905–2005.

The *New York Times* is the unofficial national newspaper in the U.S. and has a wide readership across a broad spectrum of population (Alexopoulos and Cohen, 2015). The *Wall Streat Journal* has higher print circulation numbers than the *New York Times*. Since there is a high correlation in the content between these two sources and other media providers, I suggest that my sample data is a good proxy of the news covered in the U.S.

I obtained my news sample from the *ProQuest Historical Newspaper* archive, which provides access to the daily *Wall Street Journal* historical newspaper articles for the period between 1889–1996 and to the daily *New York Times* historical articles for 1851–2010. I downloaded additional *Wall Street Journal* articles from *Factiva* for the period 1997–2014 and additional *New York Times* articles from the *LexisNexis* database for the period 2010–2014.

The *Wall Street Journal* column "Abreast of the Market" was published under the same title for the time span 1926–2014 on the daily basis. For other days I used the "News and Views about Stocks" (1900–1901), "Comment and Conjecture" (1901–1902), "Features of the Market" (1902–1906), "Curb Market" (1906–1908), and "Broad Street Gossip" (1908–1926) columns. The average length of the "Abreast of the Market" column is 1,242 words.

The *New York Times* column "Financial Markets" appears in my dataset under the same title for the time period 1900–1940. The column continued to be published, but without a particular column title from 1941 onwards. In order to identify right articles I noticed some patterns and searched for words as "Stocks", "Dow", "Markets," etc. in the headlines. I downloaded articles that were from "Financial Markets" column in the pdf format, but did not have the column name in the digital format. For many days I was not able to identify articles from the "Financial Markets" column from 1941 onwards. Such approach introduced some discrepencies between my sample of newspaper articles and the sample of García.

Similarly, the "Topics in Wall Street" column was published under the same title from 1904 until 1941. During other times the column was titled "Current Topics of Interest in Wall Street" (1944), "Financial and Business Sidelights of the Day" (1952–1955), "Market Place" (1966–2011), "News, Comments and Incident on the Stock Exchange and in the Financial Markets" (1925–1935), "Sidelights" (1951–1966), "Topics and Sidelights of the Day in Wall Street" (1950–1952), "Topics of Interest in Wall Street" (1941–1944), "Topics of the Day in Wall Street" (1941-1950), and "Wall Street Topics" (1901–1904).

Additional *New York Times* columns that are included in my sample are "Along Highways and Byways of Finance" (1930–1956), "Along Wall Street" (1935–1941), "Economics and Finance" (1945–1956), "Economic Scene" (1977–2006), "Financial Situation" (1903–1920), "Financial Week" (1936–1956), "Market Movement" (1900–1902) and "Stocks & Bonds" (2002–2014). A typical "Topics in Wall Street" column is generally longer than the "Financial Markets" column. The average number of words in the former is 950, while in the later around 700.

I obtained the original articles in a scanned pdf format. Appendix H Figures H.1 to H.3 show examples of the original scanned articles of "Financial Markets", "Topics of the Day in Wall Street" and "Abreast of the Market" columns, respectively. In order to analyze the content of the newspaper articles, I converted the original scanned newspaper articles into a readable format. I followed García (2013) and used the ABBYY FineReader software for this purpose.

The ABBYY FineReader is a leading optical character recognition (OCR) software that converts scanned paper documents, digital images of text and image-only pdfs into a readable format such as Microsoft Word, Excel, text, or searchable pdfs. OCR uses intelligent algorithms that convert images into editable text, preserving the original layout and formatting of the initial document. The ABBYY FineReader software is known for its high quality text recognition when the original images are of a poor quality. Appendix I presents examples of the processed text of "Financial Markets", "Topics of the Day in Wall Street", and "Abreast of the Market" columns, respectively. All typographical errors are preserved. As can be seen, the text is legible and the text recognition is fairly accurate with a limited number of errors.

In order to further improve the quality of the original text I run a spelling corrector on the processed text files. The spelling corrector code is written in Python programming language by Peter Norwig and is available on his website[4].

[4]See the website: `http://norvig.com/spell-correct.html`

4.2.3 Word Lists

As in García (2013), I count the total number of positive and negative words in newspaper articles in order to analyze the content of news and construct my media measures. Loughran and McDonald (2011) provide lists of positive and negative words. Their list of negative words contains 2,337 words such as *abandon*, *bankruptcy*, *coerce*, *decline* that arguably have negative implications in a financial sense. The list of positive words includes 354 words such are *abundant*, *favorable*, *optimistic*, *pleasant*, etc. Loughran and McDonald (2011) show that their selection of words is better suited for the analysis of the financial information, on contrary to other commonly used lists such as General Inquirer (GI) categories in Harvard psychological dictionaries as these lists often contain misclassified words that might unintentionally capture different effects.[5] Loughran and McDonald (2011) construct their lists by parsing the 10-K documents from the EDGAR website for the time span between 1994 and 2008 into vectors of words and word counts. For the complete list of negative and positive words used in this chapter please refer to Appendix G.

Apart from positive and negative words, Loughran and McDonald (2011) provide a list of modal strong and modal weak words. The lists of modal strong and modal weak words consist of 19 and 26 words, respectively. Modal strong words are words like *always*, *best*, and *clearly* that express a strong degree of certainty of an opinion or argument. On the other hand, modal weak words such as *apparently*, *could*, *might* express a weak degree of certainty of an opinion or argument (Ahern and Sosyura, 2015). I use these lists of words to construct my journalist uncertainty measure. Please see Appendix G for the complete list of modal strong and modal weak words. It is important to realize that a typical newspaper article is written on date t

[5]Misclassified words are non-tonal words that are classified as negative in Harvard's General Inquirer lists of words.

4.2.4 Media Measures

García (2013) constructs three media measures: positive, negative and pessimism. For each column i written on date t, author counts the number of positive words g_{it} and negative words b_{it} based on the Loughran and McDonald (2011) list of words. The total number of words in a column i on date t is denoted by w_{it}. It is important to realize that a typical newspaper article is written on date t around 2 to 3 PM, when markets are about to close, and is submitted for editing

Table 4.3. Sample Statistics of Media Measures: 1900–2014

This table reports our sample statistics of media measures used in this paper. We construct our media measures by using two daily financial columns "Financial Markets" and "Topics in Wall Street" from the *New York Times* and a daily financial column "Abreast of the Market" from the *Wall Street Journal* newspaper for the time period from 1900 to 2014. We construct our media measures by counting the total number of a pre-specified set of words and normalizing this count by the total number of words. Our sets of words are Positive, Negative, Modal Weak, and Modal Strong. Our Pessimism (Uncertainty) measures are cunstructed by taking the difference between Positive and Negative (Modal Weak and Modal Strong). Panel A reports the sample statistics for the entire sample. Panel B and C report the sample statistics for the expansions and recessions. We use NBER based recession indicators for the U.S. economy in order to identify different states of a business cycle.

Panel A. All dates					
	(1)	(2)	(3)	(4)	(5)
	Mean	Median	25%-quart.	75%-quart.	St. Dev.
Panel A. All Data					
Positive	0,011	0,011	0,008	0,014	0,004
Negative	0,021	0,020	0,016	0,025	0,007
Pessimism	0,009	0,009	0,004	0,014	0,009
Mondal Strong	0,001	0,001	0,001	0,002	0,001
Modal Weak	0,005	0,005	0,003	0,006	0,002
Uncertainty	0,003	0,003	0,002	0,005	0,003
Panel B. Expansion					
Positive	0,011	0,011	0,008	0,014	0,004
Negative	0,022	0,021	0,017	0,026	0,007
Pessimism	0,011	0,010	0,004	0,016	0,009
Mondal Strong	0,001	0,001	0,001	0,002	0,001
modal Weak	0,005	0,005	0,003	0,006	0,002
Uncertainty	0,004	0,003	0,002	0,005	0,003
Panel C. Recession					
Positive	0,011	0,011	0,009	0,014	0,004
Negative	0,021	0,021	0,016	0,025	0,007
Pessimism	0,010	0,009	0,004	0,015	0,008
Mondal Strong	0,002	0,001	0,001	0,002	0,001
Modal Weak	0,005	0,005	0,003	0,006	0,002
Uncertainty	0,003	0,003	0,002	0,005	0,003

and typesetting at around 5 to 6 PM. Although, the content of an article clearly corresponds to date t, the article is actually published in the morning of date $t+1$ (García, 2013).

Following the García (2013) approach closely, I aggregate all words in each column to create a time series that matches the DJIA index returns. Positive media measure for two consecutive trading days t and $t+1$ is constructed by normalizing the total number of positive words g_{it} by the total number of words in an article w_{it} as $G_t = \Sigma_i g_{it}/\Sigma_i w_{it}$. Similarly, negative media measure for two consecutive trading days t and $t+1$ is constructed by taking the ratio of negative words b_{it} and the total number of words w_{it} as $B_t = \Sigma_i b_{it}/\Sigma_i w_{it}$. For nonconsecutive trading days t to $t+h+1$, where h is the number of days, for which markets remained closed, I aggregate the word counts for days $t+h$ and assign them to time t. This way my positive media measure becomes $G_t = \Sigma_{i,s=t}^{s=t+h} g_{is}/\Sigma_{i,s=t}^{s=t+h} w_{is}$ and my negative media measure becomes $B_t = \Sigma_{i,s=t}^{s=t+h} b_{is}/\Sigma_{i,s=t}^{s=t+h} w_{is}$. As a result, I do not lose any news data on the days when markets are closed. Pessimism media measure is defined as the difference between negative and positive media measures, that is, $P_t = B_t – G_t$.

I use a similar approach to construct my journalist uncertainty measure. It is constructed by using modal strong and weak words. I count the total number of modal weak and modal strong words and normalize them by the total number of words in each column. Similar to the pessimism measure, the journalist uncertainty measure takes the difference between modal weak and modal strong media measures.

Table 4.3 reports sample statistics of my media measures. Panel A reports the statistics for all dates in my sample between 1900 and 2014. There are more negative than positive words in a typical newspaper article and the pessimism measure is positive, on average. The average proportion of positive (negative) words is 1.1% (2.1%) and the pessimism measure is 0.9%. This finding is consistent with García (2013) results. There are also more modal weak than modal strong words and my journalist uncertainty measure is positive, on average, for a typical newspaper article. The average proportion of modal weak (modal strong) words is 0.5% (0.1%)

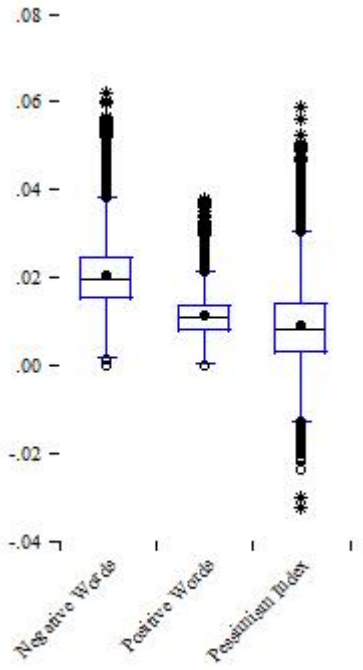

Figure 4.1. Box-and-Wisker Plot: Negative, Positive and Pessimism Media Measures
This figure shows a box-and-whisker plot of our Negative, Positive, and Pessimism media measures. *Negative (Positive) Words* is the total number of negative (positive) words in the newspaper article standardized by the total number of words. *Pessimism Index* is the difference between Negative and Positive Words. The line in the middle of each box-and-whisker plot indicates the median, the ends of the box indicate the first and third quartile, the ends of the wiskers indicate max and min values, the dot in the middle of each plot indicates the mean, and the stars indicate outliers.

and my journalist uncertainty measure is 0.3%. This finding indicates that financial columns tend to be written in a more uncertain tone with a more frequent use of words like *may, might, could*, etc.

Figure 4.1 depicts a box-and-whisker plot of the proportion of negative and positive words in a typical newspaper article and the pessimism media measure for the entire time span in my sample [6]. Similar to the results in Table 4.3 Panel A, there are more negative than positive words in a typical newspaper article and the pessimism media measure is positive, on average (Figure 4.1). Given that the average number of words in a newspaper article is 2,185, the average number of negative (positive) words becomes 46 (24). The negative words box plot is wider spread than

[6]A box-and-whisker plot is a descriptive statistic tool that allows to visualize the sample data and compare multiple time series. The line in the middle of each box indicates the median value, the ends of the box are the first and third quartiles, the ends of the whiskers are the minimum and maximum values. The dot in the middle is the mean. The stars are the outliers.

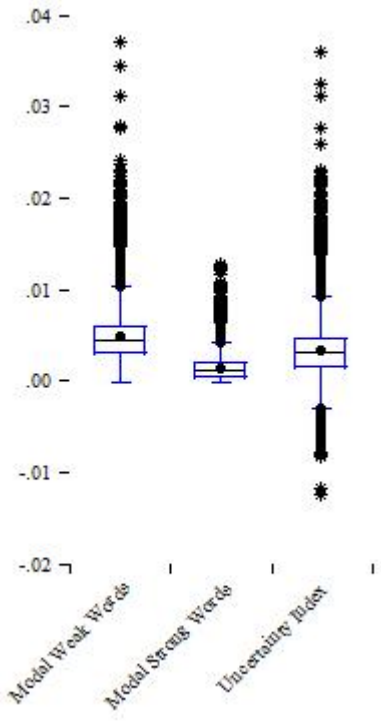

Figure 4.2. Box-and-Wisker Plot: Modal Weak, Modal Strong, and Uncertainty Media Measures

This figure shows a box-and-whisker plot of our Modal Weak, Modal Strong, and Uncertainty media measures. *Modal Weak (Modal Strong) Words* is the total number of modal weak (modal strong) words in the newspaper article standardized by the total number of words. *Uncertainty Index* is the difference between Modal Weak and Modal Strong Words. The line in the middle of each box-and-whisker plot indicates the median, the ends of the box indicate the first and third quartile, the ends of the wiskers indicate max and min values, the dot in the middle of each plot indicates the mean, and the stars indicate outliers.

the positive words box plot suggesting that there are more variations in the former than the latter time series. The median values are close to the mean values indicating that the distribution of the data is fairly symmetrical (normal). The minimum value for negative and positive words is zero, which makes an intuitive sense, as the proportion of words cannot be negative. The pessimism measure, on contrary, can be both positive and negative depending on whether positive or negative words prevail in a newspaper article.

Figure 4.1 indicates that there is a number of outliers for negative and positive words. The most extreme outliers for negative (positive) words suggest around 142 (87) negative (positive) words in a newspaper article. Although statistically such values are far off, intuitively I consider such values acceptable, especially for periods

of severe economic distress or economic boom. Thus, I keep these values in my data sample. Similarly, Figure 4.2 shows the box-and-whisker plot of the distribution of the proportion of modal weak and modal strong words in a typical newspaper article and the journalist uncertainty measure. Consistent with the results in Table 4.3 Panel A, there are more modal weak than modal strong words in a typical newspaper article in the sample and the uncertainty measure is positive, on average. The mean value is close to the median value for three plots suggesting that the data is distributed fairly symmetrically (normally). Modal weak words are wider spread than modal strong words indicating more volatility in the former dataset. The most extreme outliers suggest 83 (23) modal weak (modal strong) words in a typical newspaper article, on average, which I deem acceptable. The journalist uncertainty measure is positive or negative depending on which modal words prevail.

Table 4.3 Panel B and Panel C reports sample statistics of my media measures for expansion and recession periods, respectively. I do not find a large difference in the average proportion of words for expansions and recessions across different word categories.

I estimate the following model proposed by García (2013) in order to analyze the media effect on the performance of stock markets for all dates in my sample:

$$r_t = \beta L_s(M_t) + \gamma L_s(r_t) + \phi L_s(r_t^2) + \eta X_t + \varepsilon_t, \tag{4.2}$$

where r_t is the log-return of the DJIA index, M_t is one of my media measures: positive, negative, pessimism, modal strong, modal weak, and journalist uncertainty. The media measures are normalized to have a zero mean and a unit variance. $L_s(r_t)$ is a s-lag operator, that is $L_s(r_t) = [r_{t-1}, r_{t-2}, ..., r_{t-s}]$, where I set s=5 throughout the entire chapter. X_t is a set of control variables such as a constant, day-of-the-week dummies, and a business cycle dummy variable, D_t^{BC}. The model is estimated by using White (1980) heteroskedasticity-robust standard errors.

I extend the previous model in order to analyze the effect of the media on different market conditions. I follow García (2013) and estimate the following model for

different economic states based on the NBER classification:

$$\begin{aligned} r_t = & \\ & = (1 - D_t^{BC})(\beta_1 L_s(M_t) + \gamma_1 L_s(r_t) + \phi_1 L_s(r_t^2)) + \\ & + D_t^{BC}(\beta_2 L_s(M_t) + \gamma_2 L_s(r_t) + \phi_2 L_s(r_t^2)) + \eta X_t + \varepsilon_t, \end{aligned} \tag{4.3}$$

where r_t is the log-return of the DJIA index, M_t is one of my media measures, D_t^{BC} is a business cycle dummy variable. The media measures are normalized to have a zero mean and a unit variance. X_t is a set of control variables such as a constant, day-of-the-week dummy variables, and a business cycle dummy. The model is estimated by using White (1980) heteroskedasticity-robust standard errors.

Additionally, I estimate the following model in order to evaluate whether my journalist uncertainty measure possesses additional explanatory power to the pessimism media measure on the performance of the stock markets for all dates:

$$r_t = \beta_1 L_s(Pess_t) + \beta_2 L_s(Uncert_t) + \gamma L_s(r_t) + \phi L_s(r_t^2) + \eta X_t + \varepsilon_t, \tag{4.4}$$

and for different market conditions:

$$\begin{aligned} r_t = & \\ & = (1 - D_t^{BC})(\beta_{11} L_s(Pess_t) + \beta_{12} L_s(Uncert_t) + \\ & + \gamma_1 L_s(r_t) + \phi_1 L_s(r_t^2)) + D_t^{BC}(\beta_{21} L_s(Pess_t) + \beta_{22} L_s(Uncert_t) + \\ & + \gamma_2 L_s(r_t) + \phi_2 L_s(r_t^2)) + \eta X_t + \varepsilon_t, \end{aligned} \tag{4.5}$$

where r_t is the log-return of the DJIA index, $Pess_t$ is my pessimism measure, $Uncert_t$ is my journalist uncertainty measure, D_t^{BC} is a business cycle dummy variable. The media measures are normalized to have a zero mean and a unit variance. X_t is a set of control variables such as a constant, day-of-the-week dummy variables, and a business cycle dummy. The model is estimated by using White (1980) heteroskedasticity-robust standard errors.

4.3 Discussion of Results

4.3.1 Media pessimism and the DJIA performance: Replication of the García (2013)'s study

In the first part of my study I replicate the results reported in García (2013) in order to validate to what extent my sample data matches the data used in that study. Table 4.4 Panel A reports the estimated β coefficients for the model (4.2) for all dates in my sample. I find negative and strongly statistically significant coefficients for my negative and pessimism media measures at lag $t-1$. These results suggest that one standard deviation increase in the negative (pessimism) media measure is associated with a contemporaneous decrease in the daily DJIA returns by 1.1 bp (0.9 bp), which is equivalent to a 2.8% (2.3%) annual decline [7]. García (2013) reports a 4.3 bp (5.5 bp) decrease in the daily DJIA returns associated with one standard deviation increase in the negative (pessimism) media measure. The findings support the results by García (2013) and Tetlock (2007) that report a significant negative contemporaneous effect of media pessimism on the daily DJIA returns. In contrast with García (2013), I do not find a statistically significant effect of the positive media measure on the performance of the DJIA index for the entire time span.

Table 4.4 Panel B reports the estimated β coefficients for the model (4.3), which analyses the effect of media sentiment during different economic states. I find negative and statistically significant coefficients for negative and pessimism media measures at lag $t-1$ during economic expansions and recessions. One standard deviation increase in the negative (pessimism) media measure is associated with a 0.7 bp (0.6 bp) lower contemporaneous daily DJIA returns during the expansionary economic state and a 2.2 bp (1.9 bp) lower contemporaneous daily DJIA return during economic recessions.

[7] The average annual decline is calculated by using 252 trading days

Table 4.4. Media Sentiment and the Performance of the DJIA: 1900–2014
Panel A in this table reports the estimated coefficients β and η for the model:
$r_t = \beta L_s(Media_t) + \gamma L_s(r_t) + \psi L_s(r_t^2) + \eta X_t + \varepsilon_t$,
and Panel C reports the estimated coefficients for the model:
$r_t = (1 - D_t^{BC})(\beta_1 L_s(Media_t) + \gamma_1 L_s(r_t) + \psi_1 L_s(r_t^2)) + (D_t^{BC})(\beta_2 L_s(Media_t) + \gamma_2 L_s(r_t) + \psi_2 L_s(r_t^2)) + \eta X_t + \varepsilon_t$, where the dependent variable r_t is the log-return on the DJIA from 1900 to 2014. The variable $Media_t$ is one of our media measures. *Positive* is the media measure that is constructed by taking the total number of positive words normalized by the total number of words in a newspaper article. *Negative* is the media measure that is constructed by taking the total number of negative words normalized by the total number of words in a newspaper article. *Pessimism* is the media measure that is constructed by taking the difference between positive and negative words. Positive and negative words come from Loughran and McDonald (2011) dictionaries. Media measures are constructed by using the daily financial columns "Financial Markets" and "Topics in Wall Street" from the New York Times and "Abreast of the Market" column from the Wall Street Journal during the period between 1900 and 2014. Media measures are normalized to have a unit variance. A set of exogenous variables X_t includes a constant term, day-of-the-week dummy variables, and a business cycle dummy. We use NBER based recession indicators for the U.S. economy in order to identify different business cycle states. Asterisks *, **, and *** denote statistical significance at 10, 5, and 1%, respectively.

Panel A: All data						
	Positive		Negative		Pessimism	
	(1)	(2)	(3)	(4)	(5)	(6)
	β	t-stat.	β	t-stat.	β	t-stat.
$Constant$	0,584***	3,078	0,721***	3,448	0,527***	2,712
$Media_{t-1}$	0,050	0,853	-0,108***	-2,657	-0,086***	-2,631
$Media_{t-2}$	-0,029	-0,479	0,045	1,182	0,032	1,029
$Media_{t-3}$	-0,072	-1,221	-0,048	-1,182	-0,015	-0,446
$Media_{t-4}$	-0,058	-0,915	0,038	0,959	0,035	1,070
$Media_{t-5}$	0,001	0,020	-0,011	-0,308	-0,011	-0,380
Adj. R-sq.	0,007		0,008		0,008	
F-stat.	12,126***		12,529***		12,424***	
OBS	29,167		29,167		29,167	
Panel B: Business Cycles						
$Constant$	0,545***	2,788	0,614***	2,947	0,486***	2,397
$Media_{t-1}^{Exp}$	0,024	0,394	-0,079**	-1,976	-0,060*	-1,828
$Media_{t-2}^{Exp}$	0,034	0,599	0,044	1,147	0,016	0,519
$Media_{t-3}^{Exp}$	-0,106*	-1,711	-0,021	-0,508	0,012	0,357
$Media_{t-4}^{Exp}$	0,000	0,003	0,012	0,334	0,005	0,174
$Media_{t-5}^{Exp}$	-0,033	-0,603	-0,012	-0,332	-0,002	-0,066
$Media_{t-1}^{Rec}$	0,148	0,976	-0,217**	-1,973	-0,189**	-2,188
$Media_{t-2}^{Rec}$	-0,196	-1,107	0,040	0,370	0,074	0,795
$Media_{t-3}^{Rec}$	0,074	0,510	-0,166	-1,410	-0,133	-1,418
$Media_{t-4}^{Rec}$	-0,232	-1,249	0,115	0,964	0,135	1,307
$Media_{t-5}^{Rec}$	0,102	0,664	0,003	0,025	-0,032	-0,364
Adj. R-sq.	0,011		0,010		0,010	
F-stat.	9,672***		9,918***		9,949***	
OBS	29,167		29,167		29,167	

These returns are equivalent to a -1.8% (-1.5%) annual return during expansions and

a -5.5% (-4.8%) annual return during recessions. The findings suggest that, although present in both scenarios, the effect of media pessimism is more pronounced during recessions. These results are in line with the results reported by García (2013). He finds negative statistically significant coefficients for his media measures during economic expansions and recessions. Similar to my results, he finds a stronger effect of media pessimism during recessions. One standard deviation increase in García (2013)'s media pessimism measure is associated with a decline of the contemporaneous daily DJIA returns by 3.5 bp (11.5 bp) during expansions (recessions). On the contrary to García (2013), I do not find evidence of the significant effect of the positive media measure during different economic states.

Although, the direction and the significance of my findings for negative and pessimism media measures in Table 4.4 Panel A and Panel B are in line with García (2013), the size of my estimated coefficients is smaller. These differences are driven by a larger sample between 1900 and 2014 and the inclusion of the *Wall Street Journal* articles. When I limit my sample to the time period between 1905 and 2005 and only the *New York Times* articles, the coefficients are still lower. This suggests that there are some discrepancies between my and García's data samples largely due to difficulties I faced in identifying "Financial Markets" column in the *New York Times* after 1941. Even though my data sample appears to deviate from the data of García, the direction of the results matches. The intention of this study is to identify the relationship between the content on the financial press and the performance of the financial markets rather than the effect of a certain financial column *per sé*. Therefore, I argue that my results are still valid despite the fact that the dataset is not exactly the same as in García (2013).

The coefficients for my negative and pessimism media measures at time $t-2$ for models (4.2) and (4.3) are positive, albeit insignificant, which suggests a partial reversal of the media effect on the following trading days. This observation is consistent with the intuition of the mean-reversion and is in line with the findings by Baker and Wurgler (2007); Da et al. (2014); García (2013); Poterba and Summers

(1988); Tetlock (2007) that the effect of investor sentiment tends to reverse in the following trading days.

The adjusted R squared is quite low for all model specifications, which suggests that my models omit variables that explain the variations in the DJIA returns. Obviously, the news media are not the only factor that explains the DJIA returns. Other control variables that explain the market performance can be, for example, macroeconomic indicators such as unemployment, industrial production, and GDP (Chen, Roll, and Ross, 1986); stock market data such as trading volume and volatility; Fama and French (1993) risk factors for size and value; Carhart (1997) momentum factor; Pastor and Stambaugh (2003) liquidity factor, etc. However, such data is either available on a monthly basis or not available at all for such a long time span of more than a century. Therefore, as in García (2013), the number of control variables that I include in my model is quite limited.

Overall, the results of my replication study in Table 4.4 suggest that my sample data is a decent approximation of the sample data by García (2013) and I confirm the finding of a significant contemporaneous effect of media pessimism on the performance of the DJIA overall and during different economic states. I also find that the effect of media pessimism is stronger during recessions.

4.3.2 Journalist uncertainty and the DJIA performance

In this section I propose to go beyond the general textual analysis of the content of news based on the positive and negative words and to evaluate the effect of the uncertain tone expressed by journalists in the financial press on the performance of the financial markets.

I construct my journalist uncertainty measure by following García (2013)'s approach. However, instead of counting the total number of positive and negative words in a newspaper article, I chose to use the Loughran and McDonald (2011)'s list of modal strong and modal weak words. Modal strong (weak) words are words that express a strong (weak) degree of certainty or modality of an opinion or

Table 4.5. Media Uncertainty and the Performance of the DJIA: 1900–2014

Panel A in this table reports the estimated coefficients β and η for the model:
$r_t = \beta L_s(Media_t) + \gamma L_s(r_t) + \psi L_s(r_t^2) + \eta X_t + \varepsilon_t$,
and Panel C reports the estimated coefficients for the model:
$r_t = (1 - D_t^{BC})(\beta_1 L_s(Media_t) + \gamma_1 L_s(r_t) + \psi_1 L_s(r_t^2)) + (D_t^{BC})(\beta_2 L_s(Media_t) + \gamma_2 L_s(r_t) + \psi_2 L_s(r_t^2)) + \eta X_t + \varepsilon_t$, where the dependent variable r_t is the log-return on the DJIA from 1900 to 2014. The variable $Media_t$ is one of our media measures. Uncertainty is a media measure that is calculated by taking the difference between the total number of modal weak and modal strong words in a newspaper article normalized by the total number of words. Media Strong (Media Weak) is a media measure that takes the total number of Modal Strong (Modal Weak) words normalized by the total number of works in the newspaper article. Modal weak and Modal Strong words come from Loughran and McDonald (2011) dictionaries. Media measures are constructed by using the daily financial columns "Financial Markets" and "Topics in Wall Street" from the New York Times and "Abreast of the Markets" column from the Wall Street Journal during the period between 1900 and 2014. Media measures are normalized to have a unit variance. A set of exogenous variables X_t includes a constant term, day-of-the-week dummy variables, and a business cycle dummy that takes a value of 1 for recessions and 0 for expansions. We use NBER based recession indicators for the U.S. economy in order to identify different business cycle states. Asterisks *, **, and *** denote statistical significance at 10, 5, and 1%, respectively.

Panel A: All data						
	Modal Strong		Modal Weak		Uncertainty	
	(1)	(2)	(3)	(4)	(5)	(6)
	β	t-stat.	β	t-stat.	β	t-stat.
Constant	0,485	0,543	0,000	0,758	0,248	0,678
$Media_{t-1}$	0,089	0,441	-0,240***	-2,436	-0,216***	-2,402
$Media_{t-2}$	-0,044	-0,217	0,065	0,659	0,061	0,694
$Media_{t-3}$	0,004	0,019	-0,003	-0,032	-0,006	-0,065
$Media_{t-4}$	-0,184	-0,848	-0,089	-0,954	-0,041	-0,459
$Media_{t-5}$	0,096	0,485	0,068	0,768	0,037	0,448
Adj. R-sq.	0,008		0,008		0,008	
F-stat.	12,007***		12,304***		12,254***	
OBS	29,167		29,167		29,167	
Panel B: Business Cycles						
$Constant$	1,307	1,510	0,412	1,183	0,275	0,726
$Media_{t-1}^{Exp}$	0,280	1,337	-0,281***	-2,923	-0,289***	-3,281
$Media_{t-2}^{Exp}$	0,247	1,302	0,092	0,961	0,029	0,334
$Media_{t-3}^{Exp}$	-0,235	-1,140	0,037	0,374	0,071	0,793
$Media_{t-4}^{Exp}$	-0,216	-1,041	-0,006	-0,071	0,033	0,388
$Media_{t-5}^{Exp}$	0,257	1,328	0,084	0,954	0,022	0,270
$Media_{t-1}^{Rec}$	-0,481	-0,912	-0,114	-0,392	0,006	0,025
$Media_{t-2}^{Rec}$	-0,837	-1,453	-0,044	-0,153	0,145	0,578
$Media_{t-3}^{Rec}$	0,813	1,472	-0,177	-0,662	-0,307	-1,243
$Media_{t-4}^{Rec}$	0,074	0,123	-0,392	-1,423	-0,317	-1,218
$Media_{t-5}^{Rec}$	-0,317	-0,585	0,031	0,124	0,097	0,423
Adj. R-sq.	0,011		0,011		0,011	
F-stat.	9,794***		9,727***		9,781***	
OBS	29,167		29,167		29,167	

argument (Ahern and Sosyura, 2015). Modal words do not contain any factual

information. The journalist uncertainty measure is constructed by taking the difference between the proportion of modal weak and modal strong words in a newspaper article. On the contrary to news-based uncertainty indicators constructed by Alexopoulos and Cohen (2015) and Baker et al. (2016), which reflect a level of economic and policy uncertainty expressed by the news media, my proposed journalist uncertainty media measure is content independent. Similar to Bosman et al. (2017) and Dougal et al. (2012), I attempt to capture the effect of the *soft* content on the investor perception of the financial information. I argue that, on contrary to *hard* economic facts, the *soft* content such as the tone or the writing style, is very subjective and contains no factual information, and thus, should not impact the perception of information by a rational investor.

Table 4.5 Panel A estimates the model (4.2) by using my modal strong, modal weak, and uncertainty media measures for all dates in my sample. I find negative and strongly statistically significant coefficients for modal weak and journalist uncertainty measures at time $t-1$. These findings show that one standard deviation increase in the modal weak (journalist uncertainty) measure is associated with a decrease in the contemporaneous daily DJIA index by 2.4 bp (2.2 bp), which is equivalent to a -6.0% (-5.5%) annual return. I find positive, albeit statistically insignificant, coefficients for my modal weak and journalist uncertainty media measures on the time $t-2$. The effect seems to partially reverse on the following trading day. On the other hand, I do not find a statistically significant effect of modal strong words on the contemporaneous DJIA returns.

It appears that markets tend to react negatively to news that are written in a less assertive tone. As the proportion of modal weak words relative to modal strong words in a newspaper article increases, markets tend to react with a decline. The effect partially reverses on the following trading days as markets correct themselves. As a potential explanation of these findings, I suggest that a more uncertain journalistic tone impacts the perception of the financial news by investors. Since in general people tend to avoid uncertainty (Kahneman and Tversky, 1981), the uncertain jour-

nalistic tone may create the sense of ambiguity about economic prospects and urge investors to withdraw from the financial markets pushing the stock prices down (up). Increasing sense of uncertainty exacerbates psychological biases and may potentially cause market anomalies (Hirshleifer, 2001; Daniel et al., 1998, 2001). Thus, investors might abstain from participating in stock markets if faced with higher uncertainty, which creates a downward pressure on equity premiums (Cao et al., 2005). As a result of risk-aversion, an increase in investor uncertainty requires them to ask for an extra discount over expected future dividends as a compensation for additional risk (Veronesi, 1999).

My findings are in line with the previous research of the negative effect of increasing media uncertainty on the stock markets and economic indicators (Alexopoulos and Cohen, 2015; Baker et al., 2016; Manela and Moreira, 2013). Additionally, my results confirm the findings of a strong media effect on investor expectations (Bosman et al., 2017; Goetzmann et al., 2016) and stock market returns (García, 2013; Tetlock, 2007; Kräussl and Mirgorodskaya, 2017). Furthermore, I contribute to the evidence of the effect of a *soft* content such as the tone or journalist style of writing on the performance of financial markets (Bosman et al., 2017; Da et al., 2014).

The opposite interpretation of the results is also plausible: markets tend to react positively to the news written in a more assertive tone. A larger proportion of modal strong than modal weak words in a newspaper article (lower journalist uncertainty measure) is associated with higher market returns. As the uncertainty on the financial markets declines, investors are more eager to take risk and enter the stock markets pushing the prices up. However, since the effect of modal strong words is statistically insignificant, while the effect of modal weak words is significant (Table 4.5), I suggest that the journalist uncertainty rather than certainty is the driving force of my results.

Table 4.5 Panel B reports the estimated β coefficients for my modal strong, modal weak, and journalist uncertainty media measures for different economic states as in

model (4.3). I find negative and strongly statistically significant coefficients for my modal weak and journalist uncertainty measures during economic expansions. One standard deviation increase in my modal weak (journalist uncertainty) media measure is associated with a 2.8 bp (2.9 bp) lower daily contemporaneous DJIA returns during periods of economic expansions. On the other hand, I do not find any evidence of the journalist uncertainty effect on the performance of the DJIA index during recessions.

The results suggest that markets tend to react negatively to news that are written in a less assertive tone during periods of economic booms. This finding is interesting and conflicts with the conclusions by Bosman et al. (2017); Da et al. (2014); García (2013) that media effects occur mostly during economic recessions. I argue that during economic expansions the level of uncertainty is low. In the fear of a potential market downturn ambiguity-averse investors are more sensitive to any changes in the uncertainty level. A less assertive journalistic tone might give rise to the sense of uncertainty about the direction of the economy and might urge investors to abstain from stock market participation (Cao et al., 2005).

The conclusions are consistent with the literature that shows that investors tend to react stronger to increasing uncertainty during economic expansions than recessions. Stock prices seem to react more negatively to an increase in the VIX than positively when the VIX falls (Whaley, 2000). Veronesi (1999) reports that investors tend to overreact to bad news in good times stronger than underreact to good news in bad times. Beber and Brandt (2010) find empirical evidence of a stronger reaction of bond prices to bad news during expansions than to good news during recessions.

4.3.3 Pessimism versus Uncertainty and the DJIA performance

In the previous sections I demonstrated a statistically significant negative effect of media pessimism and journalist uncertainty on the performance of the daily contemporaneous DJIA index returns for the time span of more than one century between

1900 and 2014. The intention of this section is to investigate whether my media measures render additional explanatory power to my model or they both measure the same effect. I estimate models (4.4) and (4.5) by including both pessimism media measure and journalist uncertainty measure for all data in my sample and for different economic states such as expansions and recessions, respectively.

Table 4.6 Panel A presents my estimated coefficients for model (4.4) for all data in my sample. Consistent with my previous findings in Table 4.4 Panel A and the results by García (2013) and Tetlock (2007), I find a negative and strongly statistically significant coefficient for my pessimism media measure at time $t-1$. One standard deviation increase in my pessimism media measure is associated with a 0.8 bp lower daily contemporaneous DJIA return for all dates in my sample. Similarly, I report a negative and statistically significant coefficient for my journalist uncertainty measure at time $t-1$. One standard deviation increase in journalist uncertainty is associated with a 1.9 bp decrease in the daily contemporaneous DJIA returns. This finding confirms my previous results in Table 4.5 Panel A. Overall, my results suggest that pessimism media measure and journalist uncertainty measure possess additional explanatory power and capture different effects in my data. The effect of both media measures tend to partially reverse on the following trading days.

Table 4.6 Panel B presents the estimated coefficients for pessimism and journalist uncertainty media measures for different states of economy. I find a negative and statistically significant coefficient for journalist uncertainty media measure at time $t-1$ during expansions and pessimism media measure at time $t-1$ during recessions. These results are in line with the previous findings reported in Tables 4.4 and 4.5 except for the negative effect of media pessimism during expansions reported in Table 4.4 Panel B. It appears that the effect of media pessimism during expansions disappears once the journalist uncertainty measure is added to the model. It follows from these results that journalist uncertainty rather than pessimism has a negative effect on the DJIA returns during economic boom.

Table 4.6. Media Content and the Performance of the DJIA: 1900–2014
All data reports the estimated β coefficients for the following model:
$r_t = \beta_1 L_s(Pess_t) + \beta_2 L_s(Uncert_t) + \beta_3 L_s(Fear_t) + \gamma L_s(r_t) + \psi L_s(r_t^2) + \eta X_t + \varepsilon_t$. Expansion and Recession columns report the estimated β coefficients for the following model:
$r_t = (1 - D_t^{BC})(\beta_{11} L_s(Pess_t) + \beta_{12} L_s(Uncert_t) + \beta_{13} L_s(Fear_t) + \gamma_1 L_s(r_t) + \psi_1 L_s(r_t^2)) + (D_t^{BC})(\beta_{21} L_s(Pess_t) + \beta_{22} L_s(Uncert_t) + \beta_{23} L_s(Fear_t) + \gamma_2 L_s(r_t) + \psi_2 L_s(r_t^2)) + \eta X_t + \varepsilon_t$, where $Pess_t$ is a media measure that is constructed by taking the difference between the number of negative and positive words in a newspaper article standardized by the total number of words. $Uncert_t$ is our Uncertainty media measure that is equal to the total number of uncertainty words in a newspaper article normalized by the total number of words. $Fear_t$ is our Fear media measure that is constructed by taking the difference between negative emotion and feel and positive emotion and feel words normalized by the total number of words. Positive, negative, and uncertainty words come from Loughran and McDonald (2011) online dictionaries. Positive emotion and feel and negative emotion and feel words come from the GI classifications in Harvard psychological dictionary. Media measures are constructed by using the daily financial columns "Financial Markets" and "Topics in Wall Street" from the New York Times and "Abreast of the Market" from the Wall Street Journal between a time period of 1900 to 2014. Media measures are normalized to have a unit variance. A set of exogenous variables X_t includes a constant term, day-of-the-week dummy variables (D_{Mon}, D_{Tue}, D_{Wed}, D_{Thu}, D_{Fri}), and a business cycle dummy that takes a value of 1 for recessions and 0 for expansions (D_t^{BC}). We use NBER based recession indicator for the U.S. economy. Asterisks *, **, and *** denote statistical significance at 10, 5, and 1%, respectively.

Panel A. All Data		
	(1)	(2)
	β	t-stat.
$Constant_t$	0,245	0,669
$Pessimism_{t-1}$	-0,080***	-2,439
$Pessimism_{t-2}$	0,032	1,029
$Pessimism_{t-3}$	-0,014	-0,429
$Pessimism_{t-4}$	0,037	1,117
$Pessimism_{t-5}$	-0,011	-0,380
$Uncertainty_{t-1}$	-0,195**	-2,151
$Uncertainty_{t-2}$	0,057	0,645
$Uncertainty_{t-3}$	-0,001	-0,012
$Uncertainty_{t-4}$	-0,048	-0,542
$Uncertainty_{t-5}$	0,043	0,530
Adj. R-sq.	0,008	
$F - stat.$	10,238***	
OBS	29,167	
Panel B. Business Cycles		
$Constant_t$	0,248	0,655
$Pessimism_{t-1}^{Exp}$	-0,051	-1,555
$Pessimism_{t-2}^{Exp}$	0,016	0,540
$Pessimism_{t-3}^{Exp}$	0,011	0,320
$Pessimism_{t-4}^{Exp}$	0,004	0,147
$Pessimism_{t-5}^{Exp}$	-0,002	-0,068
$Uncertainty_{t-1}^{Exp}$	-0,274***	-3,083
$Uncertainty_{t-2}^{Exp}$	0,025	0,291
$Uncertainty_{t-3}^{Exp}$	0,070	0,778
$Uncertainty_{t-4}^{Exp}$	0,031	0,367
$Uncertainty_{t-5}^{Exp}$	0,024	0,301

Table 4.6 – *Continued from previous page*

	(1) β	(2) t-stat.
$Pessimism_{t-1}^{Rec}$	-0,190**	-2,195
$Pessimism_{t-2}^{Rec}$	0,071	0,769
$Pessimism_{t-3}^{Rec}$	-0,127	-1,350
$Pessimism_{t-4}^{Rec}$	0,147	1,432
$Pessimism_{t-5}^{Rec}$	-0,031	-0,351
$Uncertainty_{t-1}^{Rec}$	0,053	0,205
$Uncertainty_{t-2}^{Rec}$	0,151	0,608
$Uncertainty_{t-3}^{Rec}$	-0,280	-1,131
$Uncertainty_{t-4}^{Rec}$	-0,337	-1,297
$Uncertainty_{t-5}^{Rec}$	0,126	0,544
Adj. R-sq.	0,011	
$F-stat.$	8,085***	
OBS	29,167	

Overall I conclude that both pessimism and journalist uncertainty media measures possess additional explanatory power and capture different effects in my data. While the effect of media pessimism is more pronounced during recessions, the effect of journalist uncertainty appears to play a significant role during expansionary economy. I suggest that during economic expansions ambiguity-averse investors are more sensitive to the *soft* content of news such as the uncertain tone as the increase in uncertainty translates into the fear of a potential economic downturn (Beber and Brandt, 2010; Veronesi, 1999; Whaley, 2000). On the other hand, during recessions investors become less sensitive to the *soft* content and pay more attention to the factual information (*hard* content) presented in the news media.

4.4 Conclusion

In this chapter I present evidence of a statistically significant effect of journalist uncertainty on the performance of the daily contemporaneous DJIA returns for the time span of more than one century. I find that markets tend to react negatively to a less assertive journalist tone during periods of economic expansions. On the other hand, I do not find evidence of the statistically significant effect of journalist uncertainty during recessions.

Additionally, in this chapter I replicate the study by García (2013) and report evidence of a statistically significant negative effect of media pessimism on the contemporanous daily DJIA returns. The effect of media pessimism appears to be more pronounced during recessions, while the effect of journalist uncertainty occurs predominantly during expansions.

Thus, I conclude that during economic expansions ambiguity-averse investors tend to be more sensitive to the *soft* content of news such as journalist uncertainty. A less assertive presentation of news by the media arises a sense of uncertainty about economic prospects among investors and urges them to abstain from stock market participation (Cao et al., 2009). This finding is consistent with the evidence presented by Beber and Brandt (2010); Veronesi (1999); Whaley (2000) of a stronger reaction to bad news by investors in to good times than good news in bad times. On the other hand, during recession investors tend to pay more attention to the the factual *hard* information in the news media. This finding confirms the results by García (2013) of the asymmentric effect of media pessimism during recessions. Additionally, my results contribute to the literature on the effect of the *soft* content of news on the investors' expectations and market performance (Bosman et al., 2017; Da et al., 2014).

Appendices

Appendix G

List of Loughran and McDonald's (2011) words

This Appendix presents the lists of words used to construct my media measures. I use the list of Positive, Negative, Modal Weak and Modal Strong words from Loughran and McDonald (2011) online dictionaries.

APPENDIX G. LIST OF LOUGHRAN AND MCDONALD'S (2011) WORDS

Positive Words

ABLE ABUNDANCE ABUNDANT ACCLAIMED ACCOMPLISH ACCOMPLISHED ACCOMPLISHES ACCOMPLISHING ACCOMPLISHMENT ACCOMPLISHMENTS ACHIEVE ACHIEVED ACHIEVEMENT ACHIEVEMENTS ACHIEVES ACHIEVING ADEQUATELY ADVANCEMENT ADVANCEMENTS ADVANCES ADVANCING ADVANTAGE ADVANTAGED ADVANTAGEOUS ADVANTAGEOUSLY ADVANTAGES ALLIANCE ALLIANCES ASSURE ASSURED ASSURES ASSURING ATTAIN ATTAINED ATTAINING ATTAINMENT ATTAINMENTS ATTAINS ATTRACTIVE ATTRACTIVENESS BEAUTIFUL BEAUTIFULLY BENEFICIAL BENEFICIALLY BENEFIT BENEFITED BENEFITING BENEFITTED BENEFITTING BEST BETTER BOLSTERED BOLSTERING BOLSTERS BOOM BOOMING BOOST BOOSTED BREAKTHROUGH BREAKTHROUGHS BRILLIANT CHARITABLE COLLABORATE COLLABORATED COLLABORATES COLLABORATING COLLABORATION COLLABORATIONS COLLABORATIVE COLLABORATOR COLLABORATORS COMPLIMENT COMPLIMENTARY COMPLIMENTED COMPLIMENTING COMPLIMENTS CONCLUSIVE CONCLUSIVELY CONDUCIVE CONFIDENT CONSTRUCTIVE CONSTRUCTIVELY COURTEOUS CREATIVE CREATIVELY CREATIVENESS CREATIVITY DELIGHT DELIGHTED DELIGHTFUL DELIGHTFULLY DELIGHTING DELIGHTS DEPENDABILITY DEPENDABLE DESIRABLE DESIRED DESPITE DESTINED DILIGENT DILIGENTLY DISTINCTION DISTINCTIONS DISTINCTIVE DISTINCTIVELY DISTINCTIVENESS DREAM EASIER EASILY EASY EFFECTIVE EFFICIENCIES EFFICIENCY EFFICIENT EFFICIENTLY EMPOWER EMPOWERED EMPOWERING EMPOWERS ENABLE ENABLED ENABLES ENABLING ENCOURAGED ENCOURAGEMENT ENCOURAGES ENCOURAGING ENHANCE ENHANCED ENHANCEMENT ENHANCEMENTS ENHANCES ENHANCING ENJOY ENJOYABLE ENJOYABLY ENJOYED ENJOYING ENJOYMENT ENJOYS ENTHUSIASM ENTHUSIASTIC ENTHUSIASTICALLY EXCELLENCE EXCELLENT EXCELLING EXCELS EXCEPTIONAL EXCEPTIONALLY EXCITED EXCITEMENT EXCITING EXCLUSIVE EXCLUSIVELY EXCLUSIVENESS EXCLUSIVES EXCLUSIVITY EXEMPLARY FANTASTIC FAVORABLE FAVORABLY FAVORED FAVORING FAVORITE FAVORITES FRIENDLY GAIN GAINED GAINING GAINS GOOD GREAT GREATER GREATEST GREATLY GREATNESS HAPPIEST HAPPILY HAPPINESS HAPPY HIGHEST HONOR HONORABLE HONORED HONORING HONORS IDEAL IMPRESS IMPRESSED IMPRESSES IMPRESSING IMPRESSIVE IMPRESSIVELY IMPROVE IMPROVED IMPROVEMENT IMPROVEMENTS IMPROVES IMPROVING INCREDIBLE INCREDIBLY INFLUENTIAL INFORMATIVE INGENUITY INNOVATE INNOVATED INNOVATES INNOVATING INNOVATION INNOVATIONS INNOVATIVE INNOVATIVENESS INNOVATOR INNOVATORS INSIGHTFUL INSPIRATION INSPIRATIONAL INTEGRITY INVENT INVENTED INVENTING INVENTION INVENTIONS INVENTIVE INVENTIVENESS INVENTOR INVENTORS LEADERSHIP LEADING LOYAL LUCRATIVE MERITORIOUS OPPORTUNITIES OPPORTUNITY OPTIMISTIC OUTPERFORM OUTPERFORMED OUTPERFORMING OUTPERFORMS PERFECT PERFECTED PERFECTLY PERFECTS PLEASANT PLEASANTLY PLEASED PLEASURE PLENTIFUL POPULAR POPULARITY POSITIVE POSITIVELY PREEMINENCE PREEMINENT PREMIER PREMIERE PRESTIGE PRESTIGIOUS PROACTIVE PROACTIVELY PROFICIENCY PROFICIENT PROFICIENTLY PROFITABILITY PROFITABLE PROFITABLY PROGRESS PROGRESSED PROGRESSES PROGRESSING PROSPERED PROSPERING PROSPERITY PROSPEROUS PROSPERS REBOUND REBOUNDED REBOUNDING RECEPTIVE REGAIN REGAINED REGAINING RESOLVE REVOLUTIONIZE REVOLUTIONIZED REVOLUTIONIZES REVOLUTIONIZING REWARD REWARDED REWARDING REWARDS SATISFACTION SATISFACTORILY SATISFACTORY SATISFIED SATISFIES SATISFY SATISFYING SMOOTH SMOOTHING SMOOTHLY SMOOTHS SOLVES SOLVING SPECTACULAR SPECTACULARLY STABILITY STABILIZATION STABILIZATIONS STABILIZE STABILIZED STABILIZES STABILIZING STABLE STRENGTH STRENGTHEN STRENGTHENED STRENGTHENING STRENGTHENS STRENGTHS STRONG STRONGER STRONGEST SUCCEED SUCCEEDED SUCCEEDING SUCCEEDS SUCCESS SUCCESSES SUCCESSFUL SUCCESSFULLY SUPERIOR SURPASS SURPASSED SURPASSES SURPASSING TRANSPARENCY TREMENDOUS TREMENDOUSLY UNMATCHED UNPARALLELED UNSURPASSED UPTURN UPTURNS VALUABLE VERSATILE VERSATILITY VIBRANCY VIBRANT WIN WINNER WINNERS WINNING WORTHY

Negative Words

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Appendix H

Examples of the newspaper articles

In this Appendix I present three examples of the original scanned daily newspaper articles in a pdf format from my data sample. These examples include a newspaper article from the daily financial column "Financial Markets" from the New York Times published on 4 December 1907, an article from the daily financial column "Topics of the day in Wall Street" from the New York Times published on 5 October 1945 and an article from the daily financial column "Abreast of the Market" from the Wall Street Journal published on 6 November 1968.

FINANCIAL MARKETS: Stocks React After Advance -- Call Money, Rates, ...
New York Times (1857-1922); Dec 4, 1907;
ProQuest Historical Newspapers: The New York Times (1851-2010)
pg. 12

FINANCIAL MARKETS

Stocks React After Advance— Call Money Rates, 8@ 4 Per Cent.

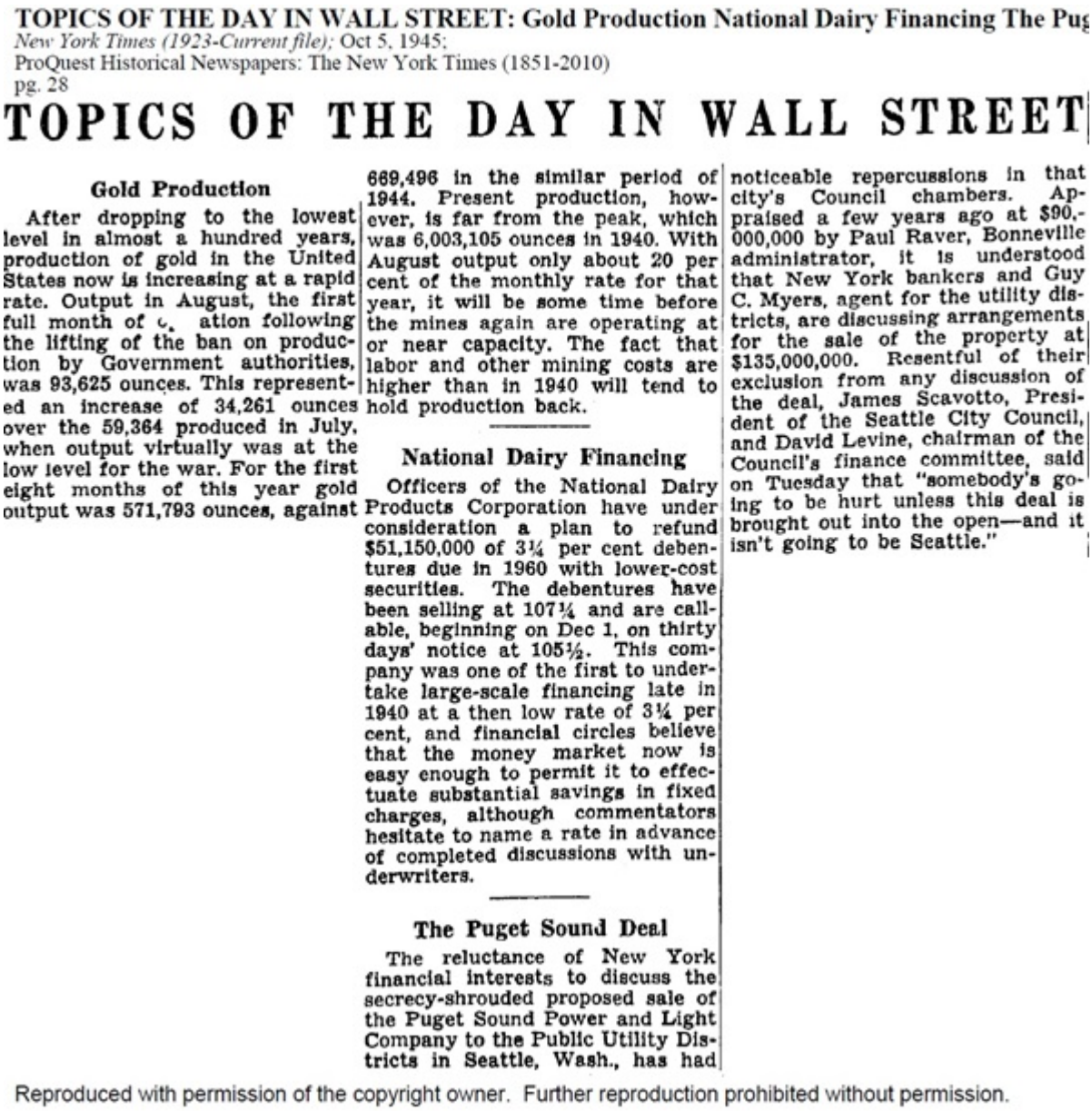
THE MESSAGE NO FACTOR

President's Words Had Little Influence—Higher Premium on Currency.

After alternating periods of strength and weakness yesterday's stock market closed under the influence of a reaction from the high prices reached in the week-long advance. Prices were down 1 to 2 points under Monday's closing figures. Wall Street as usual insisted upon definite explanation of the decline, and from the Stock Exchange there came in response many answers. The first of these had to do with the early morning news that the Japanese Ambassador had arranged to leave Washington for Tokio, the obvious inference, from the Stock Exchange point of view, at least, being that this was a portentous development on the eve of the sailing of our great fleet for Pacific waters. Probably the most significant thing about it, however, was its power to wholly eclipse in interest the President's message to Congress. The message was far too long for consumption during business hours, but, as Wall Street hurried through the sections touching its own interests, it found nothing to move it one way or the other. The judgment of the market upon it was by no means to be found in the falling prices, but rather in the generally expressed opinion on the Stock Exchange that Mr. Roosevelt had maintained his attitude on great public questions, but had defended it with a trifle less pugnacity. In only two matters discussed by the President was there any interest manifested. One of these was the recommendation regarding currency legislation, and the tentative fashion in which this was approached caused much disappointment. The other matter concerned the recommendation that corporations be permitted to arrange trade agreements, subject to proper supervision by and upon application to the Federal authorities. It was felt that this would hardly prove acceptable in its present form, but that it was nevertheless a step in the right direction. It now remains to be seen how much of the suggested legislation will be enacted during the present session of Congress, and there is some reason to hope that, in spite of the unwieldly number of bills of this character introduced, some measure carrying relief to our currency system, perhaps of a simple and temporary nature, will be carried out.

A further advance in the premium on currency during the course of the day was generally attributed to the efforts of interior banks to make themselves strong upon the eve of the expected call from the Controller of the Currency. The last call was made on Aug. 22 and another one is, therefore, close at hand. There is, of course, no excuse for preparations to meet it, which entail the continuation of the unsettling premium on currency. However, with this cause for the premium out of the way, before the end of the present week normal conditions in this quarter may be looked for. The higher premium yesterday did not lead to any further gold engagements, and the movement of gold is now undoubtedly over.

Figure H.1. Financial Markets
This figure presents an example of NYT "Financial Markets" column published on 4 December 1907



TOPICS OF THE DAY IN WALL STREET: Gold Production National Dairy Financing The Pug
New York Times (1923-Current file); Oct 5, 1945;
ProQuest Historical Newspapers: The New York Times (1851-2010)
pg. 28

TOPICS OF THE DAY IN WALL STREET

Gold Production

After dropping to the lowest level in almost a hundred years, production of gold in the United States now is increasing at a rapid rate. Output in August, the first full month of c. ation following the lifting of the ban on production by Government authorities, was 93,625 ounces. This represented an increase of 34,261 ounces over the 59,364 produced in July, when output virtually was at the low level for the war. For the first eight months of this year gold output was 571,793 ounces, against 669,496 in the similar period of 1944. Present production, however, is far from the peak, which was 6,003,105 ounces in 1940. With August output only about 20 per cent of the monthly rate for that year, it will be some time before the mines again are operating at or near capacity. The fact that labor and other mining costs are higher than in 1940 will tend to hold production back.

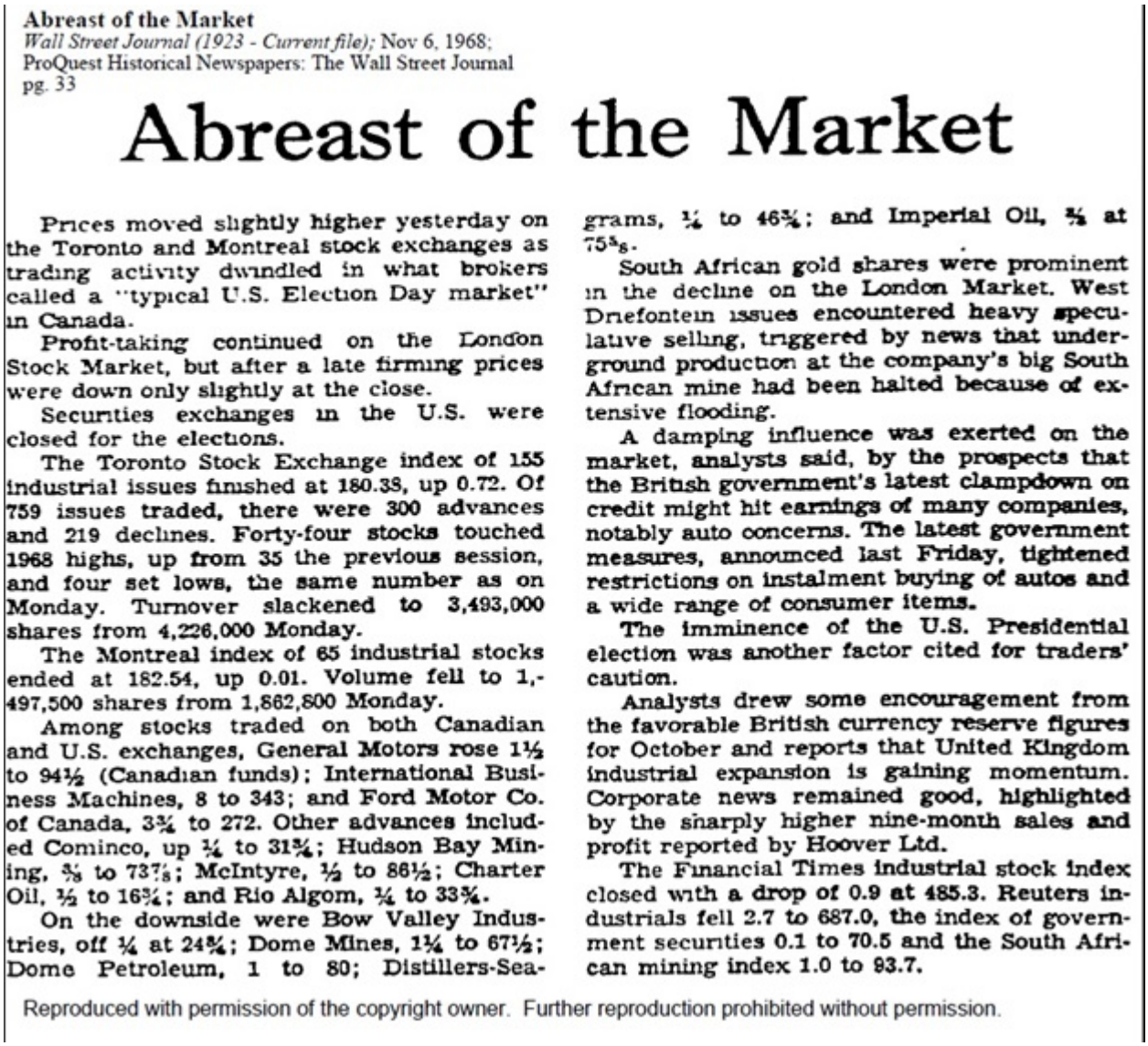
National Dairy Financing

Officers of the National Dairy Products Corporation have under consideration a plan to refund $51,150,000 of 3¼ per cent debentures due in 1960 with lower-cost securities. The debentures have been selling at 107¼ and are callable, beginning on Dec 1, on thirty days' notice at 105½. This company was one of the first to undertake large-scale financing late in 1940 at a then low rate of 3¼ per cent, and financial circles believe that the money market now is easy enough to permit it to effectuate substantial savings in fixed charges, although commentators hesitate to name a rate in advance of completed discussions with underwriters.

The Puget Sound Deal

The reluctance of New York financial interests to discuss the secrecy-shrouded proposed sale of the Puget Sound Power and Light Company to the Public Utility Districts in Seattle, Wash., has had noticeable repercussions in that city's Council chambers. Appraised a few years ago at $90,000,000 by Paul Raver, Bonneville administrator, it is understood that New York bankers and Guy C. Myers, agent for the utility districts, are discussing arrangements for the sale of the property at $135,000,000. Resentful of their exclusion from any discussion of the deal, James Scavotto, President of the Seattle City Council, and David Levine, chairman of the Council's finance committee, said on Tuesday that "somebody's going to be hurt unless this deal is brought out into the open—and it isn't going to be Seattle."

Figure H.2. Financial Markets
This figure presents an example of NYT "Topics of the day in Wall Street" column published on 5 October 1945



Abreast of the Market
Wall Street Journal (1923 - Current file); Nov 6, 1968;
ProQuest Historical Newspapers: The Wall Street Journal
pg. 33

Abreast of the Market

Prices moved slightly higher yesterday on the Toronto and Montreal stock exchanges as trading activity dwindled in what brokers called a "typical U.S. Election Day market" in Canada.

Profit-taking continued on the London Stock Market, but after a late firming prices were down only slightly at the close.

Securities exchanges in the U.S. were closed for the elections.

The Toronto Stock Exchange index of 155 industrial issues finished at 180.38, up 0.72. Of 759 issues traded, there were 300 advances and 219 declines. Forty-four stocks touched 1968 highs, up from 35 the previous session, and four set lows, the same number as on Monday. Turnover slackened to 3,493,000 shares from 4,226,000 Monday.

The Montreal index of 65 industrial stocks ended at 182.54, up 0.01. Volume fell to 1,497,500 shares from 1,862,800 Monday.

Among stocks traded on both Canadian and U.S. exchanges, General Motors rose 1½ to 94½ (Canadian funds); International Business Machines, 8 to 343; and Ford Motor Co. of Canada, 3¾ to 272. Other advances included Cominco, up ¼ to 31¾; Hudson Bay Mining, ⅜ to 73⅞; McIntyre, ½ to 86½; Charter Oil, ½ to 16¾; and Rio Algom, ¼ to 33¾.

On the downside were Bow Valley Industries, off ¼ at 24¾; Dome Mines, 1¼ to 67½; Dome Petroleum, 1 to 80; Distillers-Seagrams, ¼ to 46¾; and Imperial Oil, ⅜ at 75⅜.

South African gold shares were prominent in the decline on the London Market. West Driefontein issues encountered heavy speculative selling, triggered by news that underground production at the company's big South African mine had been halted because of extensive flooding.

A damping influence was exerted on the market, analysts said, by the prospects that the British government's latest clampdown on credit might hit earnings of many companies, notably auto concerns. The latest government measures, announced last Friday, tightened restrictions on instalment buying of autos and a wide range of consumer items.

The imminence of the U.S. Presidential election was another factor cited for traders' caution.

Analysts drew some encouragement from the favorable British currency reserve figures for October and reports that United Kingdom industrial expansion is gaining momentum. Corporate news remained good, highlighted by the sharply higher nine-month sales and profit reported by Hoover Ltd.

The Financial Times industrial stock index closed with a drop of 0.9 at 485.3. Reuters industrials fell 2.7 to 687.0, the index of government securities 0.1 to 70.5 and the South African mining index 1.0 to 93.7.

Figure H.3. Financial Markets
This figure presents an example of WSJ "Abreast of the Market" column published on 6 November 1968

Appendix I

ABBYY OCR processed newspaper articles

In this appendix I present three examples of the processed newspaper articles in a text format from my data sample. I used ABBYY OCR software to convert the original newspaper articles to a text format. The examples include a newspaper article from a daily financial column "Financial Markets" from the New York Times published on 4 December 1907, an article from the column "Topics of the Day in Wall Street" from the New York Times published on 5 October 1945, and an article from the column "Abreast of the Market" from the Wall Street Journal published on 6 November 1968. All typographical errors are preserved.

FINANCIAL MARKETS: Stocks React After Advance – Call Money, Rates, ...

New York Times (1857-1922); Dec 4, 1907;
ProQuest Historical Newspapers: The New York Times (1851-2010) pg. 12

'FINANCIAL MARKETS '

Stocks React After Advance— * Call MoneyRates, 8@ 4 Per Cent.

THE - MESSAGE NO FACTOR

President's Words Had Ltttle Influence—Higher Premium on Currency.

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After alternating perlods of strength and weakness yesterday's stock market closed under the influence of a reaction from the high prices reached In the week-long advance. Prices were down 1 to 2 points under Monday's dosing figures. Walt Street as usual Insisted upon definite explanation of the decline, and from the Stock Exchange there ĉame In rp̂onse ânу answers. The first of these had to do With the early moral.Dg news that the Japanese Ambassador had arranged to_lif.la.ve Washington for Tokio, the obvious, inference, from the Stock Exchange point of view, at least, being that this was a portentous development on the eye of the shiltng of our great fleet for — Pacific waters. Probably the most slg-nJflcant thing about it, however, was its power to wholly eclipse In interest the President's message to Congress. The message was far too long for consumption during bustness hours, but, as Wall Street hurried through the sections touching Its own Interests, it found nothing to move lt one way or the other. The judgment of , the market upon It was by no means to be found the faning prlces. but rather in the generally expressed opinion on the Stock Exchange that Mr. Roosevelt had malnft lned his attitude on great public questions, but had defended It with a j trifle less pugnacity. In only two matters discussed by the President was there any I Interest manifested. One of these was j the recommendation regarding currency — legislation, and the tentative fashion In which this ŵas approached caused much I disappointment. The. other matter con-i cerned the recommendation that corporations be permitted to arrange trade agree- ' ments, subject to proper supervision by and upon application to the Federal au-thorttles. It was felt that this would hardly prove acceptable In Its present form. but that It was neverthelesa a step In the right direction. It now remains to be seen how much of the suggested legislation will be ena.cted during the present session of Congress, and there Is some reason to hope that. In spite of the un-wleldly number of bills of this character introduced, some measure carrying relief to our currency system, perhaps of a simple and temporary nature, will be carried out.

A further advance In the premium on currency during the course of the day was generally attributed to the efforts of Interior banks to m̂ake themselves strong upon the eve of the expected call from the Controller of the Currency. The last call ŵas made on Aug. 22 and another one Is, therefore, close at hand. There Is, of course. no excuse for preparations to meet lt. which entail the continuation of the unsettling premium on currency. However, with this cause for the premium out of the way , before the end of the present week nomal conditions in this quarter may be looked for. The higher premium yesterday did not lead to any further gold engagements. and the movement of gold Is now undoubtedly over.

TOPICS OF THE DAY IN WALL STREET: Gold Production National Dairy Financing The Pug

New York Times (1923-Current file); Oct 5, 1945;
ProQuest Historical Newspapers: The New York Times
(1851-2010)
pg. 28

TOPICS OF THE DAY IN WALL STREET

Gold Production

After dropping to the lowest level in almost a hundred years, production of gold in the United States now is increasing at a rapid rate. Output in August, the first full month of ation following the lifting of the ban on production by Government authorities, was 93,625 ounces. This represented an increase of 34,261 ounces over the 59,364 produced in July, when output virtually was at the low level for the war. For the first eight months of this year gold output was 571,793 ounces, against 669,496 in the similar period of 1944. Present production, however, is far from the peak, which was 6,003,105 ounces in 1940. With August output only about 20 per cent of the monthly rate for that year, it will be some time before the mines again are operating at or near capacity. The fact that labor and other mining costs are higher than in 1940 will tend to hold production back.

National Dairy Financing

Officers of the National Dairy Products Corporation have under consideration a plan to refund $51,150,000 of 3% per cent debentures due in 1960 with lower-cost securities. The debentures have been selling at 107% and are callable, beginning on Dec 1, on thirty days' notice at 105%. This company was one of the first to undertake large-scale financing late in 1940 at a then low rate of 3% per cent, and financial circles believe that the money market now is easy enough to permit it to effectuate substantial savings in fixed charges, although commentators hesitate to name a rate in advance of completed discussions with underwriters. noticeable repercussions in that city's Council chambers. Appraised a few years ago at $90,000,000 by Paul Raver, Bonneville administrator, it Is understood that New York bankers and Guy C. Myers, agent for the utility districts, are discussing arrangements for the sale of the property at $135,000,000. Resentful of their exclusion from any discussion of the deal, James Scavotto, President of the Seattle City Council, and David Levine, chairman of the Council's finance committee, said on Tuesday that "somebody's going to be hurt unless this deal is brought out into the open—and it isn't going to be Seattle."

The Puget Sound Deal

The reluctance of New York financial interests to discuss the secrecy-shrouded proposed sale of the Puget Sound Power and Light Company to the Public Utility Districts in Seattle, Wash., has had

Abreast of the Market

Wall Street Journal (1923 - Current file); Nov 6, 1968; ProQuest Historical Newspapers: The Wall Street Journal pg. 33

Abreast of the Market

Prices moved slightly higher yesterday on the Toronto and Montreal stock exchanges as trading activity dwindled in what brokers called a "typical U.S. Election Day market" in Canada.

Profit-taking continued on the London Stock Market, but after a late firming prices were down only slightly at the close.

Securities exchanges m the U.S. were closed for the elections.

The Toronto Stock Exchange index of 155 industrial issues finished at 180.3S, up 0.72. Of 759 issues traded, there were 300 advances and 219 declines. Forty-four stocks touched 1968 highs, up from 35 the previous session, and four set lows, the same number as on Monday. Turnover slackened to 3,493,000 shares from 4,226,000 Monday.

The Montreal index of 65 industrial stocks ended at 182.54, up 0.01. Volume fell to 1,497,500 shares from 1,862,800 Monday.

Among stocks traded on both Canadian and U.S. exchanges, General Motors rose 1*4 to 94% (Canadian funds); International Business Machines, 8 to 343; and Ford Motor Co. of Canada, 3% to 272. Other advances included Cominco, up % to 31%; Hudson Bay Mining, % to 7374; McIntyre, % to 86%; Charter Oil, % to 16%; and Rio Algom, % to 33%. On the downside were Bow Valley Industries, off % at 24%; Dome Mines, 1% to 67%; Dome Petroleum, 1 to 80; Distillers-Sea- grams, % to 46%: and Imperial Oil, *4 at 75%. .

South African gold shares were prominent in the decline on the London. Market. West Dnefontein issues encountered heavy speculative selling, triggered by news that underground production at the company's big South African mine had been halted because of extensive flooding.

A damping influence was exerted on the market, analysts said, by the prospects that the British government's latest clampdown on credit might hit earnings of many companies, notably auto concerns. The latest government measures, announced last Friday, tightened restrictions on instalment buying of autos and a wide range of consumer items.

The imminence of the U.S. Presidential election was another factor cited for traders' caution.

Analysts drew some encouragement from the favorable British currency reserve figures for October and reports that United Kingdom industrial expansion is gaining momentum. Corporate news remained good, highlighted by the sharply higher nine-month sales and profit reported by Hoover Ltd.

The Financial Times industrial stock index closed with a drop of 0.9 at 485.3. Reuters industrials fell 2.7 to 687.0, the index of government securities 0.1 to 70.5 and the South African mining index 1.0 to 93.7.