

Crony Capitalism and Insider Trading: Insights from the Teapot Dome Scandal*

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Abstract

Using novel data from the notorious 1922 Teapot Dome scandal, we assess costs of informed trading by corrupt officials and company insiders involved in illegal federal oil lease contracts. We estimate insider gains of nearly \$300 million (2025 terms). Market makers widened bid-ask spreads for oil stocks, raising costs for all investors. Despite legal insider trading, insiders only partially bid up share prices before public revelation, temporarily evading detection and delaying full information incorporation until salient news coverage broke. Our analysis underscores how cronyism and insider trading distort resource allocation and disadvantage uninformed investors, with lessons for modern regulation.

1 Introduction

“Pay-to-play” schemes are as old a phenomenon as formal government itself and as common today as ever. The historical record and the latest news headlines are littered with stories of rent-seeking: government officials taking bribes, favors, and stock tips from business executives vying for government contracts, favorable legislation, or preferential tariffs. Such cronyism can turn into state capture, eroding democratic institutions and imposing broader economic costs on the public (Amirapu and Gechter, 2020; Asher and Novosad, 2023; Brown and Huang, 2020; Jagolinzer et al., 2020; Krueger, 1974; Wang et al., 2025). One notorious episode, the Teapot Dome Scandal, has become nearly synonymous with the term “crony capitalism.”¹ On February 3, 1922, oil company CEO Harry Sinclair paid a visit to Albert Fall, Secretary of the Interior, to discuss a certain federal oil reserve over which Fall had recently wrested control from the Department of the Navy. The major oil companies all had their eyes on this federal government reserve, known as Teapot Dome, which held millions of barrels of oil, valued at hundreds of millions of dollars at the time (more than a billion in today’s terms). Within a couple of months, however, Sinclair had sealed a deal for exclusive, no-bid drilling rights to the Teapot Dome reserve. Soon thereafter, Sinclair (ostensibly) lent \$68,000 to the foreman of Fall’s ranch in New Mexico and transferred over \$200,000 in Liberty Bonds to Fall. These bribes clearly violated federal anti-bribery laws, and the noncompetitive leases violated the Mineral Leasing Act of 1920, so when the news broke to the public in April 1922 it spurred public outcry and a sweeping Senate investigation. Secretary Fall landed in prison—the first time in history that a cabinet member was convicted of crimes committed in office. While Sinclair was not convicted for the bribery or illegal contract, he served six months in prison for contempt and jury tampering.

Another layer of profiteering and abuse of the public compounded the fraud: Sinclair company insiders and associates (including a former US senator) purchased shares before the revelation of the news about the expected windfall from the Teapot Dome contract. Today,

¹For a detailed and entertaining account of the scandal, see McCartney (2009).

such behavior would violate Section 10(b) of the Securities Exchange Act of 1934, which outlaws the use of any “manipulative or deceptive device or contrivance” in the purchase or sale of registered securities, including acting on inside information not available to the broader public (15 U.S.C. § 78j). Prior to this legislation, however, it was legal for insiders, including elected officials, to trade and profit based on material private information.

Past researchers have focused on the politics and legal-regulatory background to the Teapot Dome scandal ([Bates, 1955](#); [Noggle, 1957](#); [Stratton, 1957](#); [Waller, 1962](#)). [Libecap \(1984\)](#) analyzes the interaction between the Mineral Leasing Act of 1920 and the leasing of the Teapot Dome lands, positing that the former set the stage for Fall’s exploits. The current paper is the first to analyze the case through the lens of financial markets. With its mix of cronyism, fraud, and insider trading, the Teapot Dome scandal offers a compelling case study for modern economists seeking to understand the functioning of markets under asymmetric information and legal insider trading. Existing literature demonstrates that insider trading can theoretically improve price discovery in the stock market ([Aktas et al., 2008](#)), and insider trading regulations therefore constrain the incorporation of news into stock prices ([Battalio and Mendenhall, 2005](#); [Campbell et al., 2009](#); [Kothari et al., 2006](#)). At the same time, the trading profits naturally flow to insiders and thereby impose costs on uninformed counterparties. Moreover, since market makers must increase their bid-ask spreads to protect themselves from informed traders, insider trading also imposes extra transaction costs on all market participants.

By analyzing insider trading and information incorporation during the Teapot Dome affair, we elucidate and quantify the information revelation process, market dynamics, and costs of crony capitalism and insider trading in the era before the Securities and Exchange Commission (SEC). We comb key newspapers for public revelations about the lease contracts and then analyze hand-collected New York Stock Exchange (NYSE) data from 1921–1922 to measure the timing and extent to which traders incorporated news into the share price of Sinclair Consolidated Oil Corporation, the primary beneficiary of the illegal contracts. Next,

we produce estimates of insider profits from the affair, and determine how sustained these gains were. Finally, we quantify market makers' reaction, via wider spreads, to suspicions of insider trading and track the duration of elevated trading costs.

We find significant stock price increases ahead of the public revelation of the leases but even larger ones immediately following the news, signaling that although insider trading was legal, other market frictions prohibited insiders from fully incorporating their private information into the stock's valuation. Buying shares too quickly might have alerted outsiders to the lease news, and insiders may have faced financing constraints. Despite not fully running up Sinclair's share price to its underlying market value, insiders still stood to profit over \$290 million (in 2024 dollars) from their trading.² We also find that market makers set wider bid-ask spreads among oil stocks prior to the news break, indicating that they suspected the presence of insider trading. These results highlight the financial costs of insider trading as well as the underlying cronyism in government contracting.

The remainder of the paper is organized as follows. Section 2 presents a brief historical background. Section 3 discusses market efficiency and the incorporation of news into Sinclair's share price. Section 4 examines the source of insider profits and presents back-of-the-envelope profit estimates, and Section 5 discusses how market makers responded to suspicions of insider activity. Section 6 concludes.

2 Historical Background

In the early twentieth century, the mass production of gasoline-fueled automobiles by Ford Motor Company and General Motors Corporation popularized car ownership among the American middle- and upper-classes. On average, only one out of every 10,000 Americans owned a car in 1900; that number grew to nearly 9 percent of the population by 1920. World War I accelerated the development of gasoline-powered vehicles: trucks, tanks, airplanes,

²In 1922 dollars, they profited approximately \$16.11 million.

and naval vessels.

Oil demand continued to rise into the following decade, and oil companies quickly capitalized in response: the total assets of the oil industry's top 10 firms more than tripled between 1917 and 1925—from \$1.1 billion to \$4.7 billion ([Ansell, 1998](#)). The most ambitious oil firms of the early twentieth century aimed to grow their businesses by vertically integrating across production and distribution phases. Companies that operated in all or most phases, including exploration, production, refining, and marketing, earned the moniker of “majors.” By the early 1920s, the largest majors were already serving, or growing to serve, the national market ([Leven, 1942](#)). The market for oil in the early 1920s was nearly competitive. Firms in this period competed over access to promising oil fields and strategically located pipelines, with the oligopolistic Standard Oil companies of the early 1910s no longer dominating the industry. At the scandal’s outset, Sinclair Consolidated and Pan American were the second and ninth-largest American oil companies by total assets.

Securing a domestic oil supply became a federal government priority early on, particularly with the conversion of naval ships from coal to oil. Thus, President William Howard Taft established several federally-owned naval oil reserves in 1910, and President Woodrow Wilson added the 9,481-acre Teapot Dome site in 1915. Throughout the 1910s, the Navy depended on private oil refineries to process crude oil, which led to a decade-long debate over mineral rights allocation. The Mineral Leasing Act of 1920 finally created a system for the federal government to lease the reserves to oil majors, avoiding the startup costs of a nationalized refinery, and enabled the Secretary of the Interior to issue federal land leases through competitive bidding under royalty-based contracting arrangements. On May 31, 1921, President Warren G. Harding transferred control of the oil reserves to the Interior Department and its newly-appointed secretary, Albert B. Fall ([Noggle, 1957](#)). *The New York Times* ran a small notice the next day, noting that only Reserve No. 1, in California, would permit the leasing of drilling rights. In truth, by December 1921, Fall was scheming to lease all of the reserves and had begun to engage separately in bribery talks with Harry F. Sinclair and with

Edward L. Doheny of Pan American Fall commissioned the Chief Petroleum Technologist for the U.S. Bureau of Mines, Arthur Ambrose, to estimate the reserves' expected productive capacity, and on February 12, 1922, Ambrose reported that Teapot Dome held 135,050,000 barrels of oil, which could yield a profit of hundreds of millions of dollars at prevailing prices.

Sinclair soon gained exclusive production rights to the Teapot Dome site (Naval Petroleum Reserve No. 3) to begin production by the end of 1922. Doheny gained rights to the Elk Hills and Buena Vista fields (Reserves Nos. 1 and 2, respectively). The pending lease agreements remained secret for several months until *The Denver Post*, a Denver, Colorado newspaper, published an article announcing Sinclair's lease of Teapot Dome on April 5, 1922. *The Denver Post* published three follow-up articles on April 7, 9, and 11, and on each of these days, an officer at the Denver office of the Interior Department sent telegrams to Secretary Fall alerting him to the Post's revelations. Outside of Denver, newspaper coverage of the leases was quite sparse and flew under the radar until April 14, 1922, when *The Wall Street Journal* (WSJ) and *The New York Times* (NYT) both published front-page articles about Sinclair's acquisition of Teapot Dome.

Once public, the Teapot Dome lease immediately prompted suspicion. Several circumstances cast suspicion on the Teapot Dome lease terms. First, the contract was awarded in only a few months from the initial solicitation from Sinclair. Second, several government officials involved in the Sinclair transaction had clear conflicts of interest. For example, Theodore Roosevelt Jr., Assistant Secretary of the Navy from 1921 to 1924, took an active part in the lease transaction, despite being a former director and stockholder in Sinclair Consolidated. Third, contrary to industry standards, the lease was issued in perpetuity, meaning the Government ceded control of all oil in the Teapot Dome reserve. Finally, the lease negotiations were kept within the Navy and Interior Departments, circumventing due diligence procedures with the Bureau of Mines.

The Senate launched an investigation into the matter one day after the lease's front-page announcements, which provides helpful material in analyzing the financial implications of

the Sinclair contract. H.S. Reavis, an oil trade expert, testified that the value of the lease was easily worth upwards of \$40 million, or nearly \$730 million adjusted for inflation. Sinclair himself testified that he expected the lease was worth about \$50 million (over \$900 million, inflation-adjusted). The opaqueness of Sinclair Consolidated's financial records makes it difficult to calculate the amount that the company paid for the royalty-based lease, although Sinclair's testimonies before the Senate suggest that the venture was quite profitable for the company. The Supreme Court ultimately voided the Teapot Dome lease in 1927 and returned the oil reserves to federal ownership.

3 Market Valuation and Information Incorporation

Since publicly-traded share prices should capture the present discounted value of all expected future cash flows, Sinclair Consolidated's share price offers insights into the expected profitability of the Teapot Dome lease contracts and the timing of information incorporation. A notable twist to the Teapot Dome scandal is the fact that it took place before the creation of the Securities and Exchange Commission and its insider trading regulations. Absent constraints, when insiders learn about imminent profits, they can earn risk-free profits by buying up undervalued shares, thus speeding price discovery ([Aktas et al., 2008](#); [Battalio and Mendenhall, 2005](#); [Campbell et al., 2009](#); [Kothari et al., 2006](#)). Events such as the meeting between Fall and Sinclair, which finalized lease details on February 3, 1922, likely stimulated insider buying. However, insiders may have trickled in buying orders to avoid quickly bidding up prices, potentially alerting outsiders and dissipating returns. Thus, we expect that the lease information was at least partially incorporated into Sinclair's share price ahead of the public revelations, but the general public would still run up the price after the news broke.

3.1 Market Model Event Study

We first estimate the incorporation of information using a standard market model event study, comparing Sinclair’s return to the return of a market portfolio on days when relevant information about the Teapot Dome leases was revealed publicly or privately. We compare Sinclair’s returns against two different market portfolios. First, we construct an equally-weighted portfolio based on the historical Dow Jones Industrial Average (DJIA) including 17 of 20 historical component companies, representing the market as a whole.³ We also construct an equally-weighted “Rivals” index consisting of ten major oil companies with complete stock data for 1921–1922 to compare Sinclair against similar companies in its own industry and therefore closer to expected returns for Sinclair.⁴

Formally, to evaluate event effects we estimate

$$R_t - R_t^f = \alpha + \beta(R_t^m - R_t^f) + \sum_s \delta_s D_{st} + \varepsilon_t \quad (1)$$

where R_t is Sinclair’s return, R_t^f is the risk-free interest rate (proxied by the weekly prime commercial paper rate), R_t^m is the return on a market portfolio (either the DJIA or the Rivals index), and D_{st} is an indicator for event s on date t . Our main parameters of interest are δ_s , Sinclair’s excess returns on our s event dates. Despite their common use, prior research has shown that single-firm event studies conducted during periods of increased broad market volatility will often identify too many events as statistically significant (Baker, 2016; Elsas and Schoch, 2023). Keeping this in mind, we jointly assess magnitudes and statistical significance to determine which results are most economically meaningful. We

³We exclude American Car & Foundry and Western Union Telegraph due to data availability and Texas Company because it is included in our Rivals index.

⁴Our 10 Rival companies are California Petroleum, Cosden Company, Houston Oil, Invincible Oil, Middle States Oil, Pan-American Petroleum & Transportation, Phillips Petroleum, Pure Oil, Texas Company, and Transcontinental Oil.

also conduct two alternative tests—a sample quantile (SQ) test and a cumulative abnormal return (CAR) test—and obtain largely similar results (provided in Appendix A).

We first estimate equation 1 on weekly returns based on Friday stock prices from 1921–1922, examining the effects of four events: (1) William Harding’s inauguration on March 4, 1921, (2) Executive Order 3474 transferring control of Teapot Dome to the Department of the Interior on May 31, 1921, (3) the secret meeting between Fall and Sinclair formalizing the details of the leases on February 3, 1922, and (4) a wave of newspaper articles beginning on April 5, 1922 which broke the news of the lease to the general public. We include dummies for each Friday during this three-week news cycle (April 7, 14, and 21).⁵

The first column of Table 1 compares Sinclair’s return to that of our DJIA index while the second compares Sinclair to our constructed Rivals portfolio. The third column compares the Rivals’ returns to the DJIA’s, and acts as a placebo test. The first two rows of the table reflect the standard betas in the CAPM model, and show that Sinclair’s weekly returns were slightly more volatile compared to the DJIA, and far more volatile than the Rivals’ return. Row 1 of column 3 also shows that the Rivals portfolio is much less volatile than the more diversified DJIA.

The results support our hypothesis. Both private and public events garnered statistically significant stock price reactions for Sinclair, indicating that insiders acted on private information, but the strongest reactions came during the wave of newspaper articles that began on April 5 (Table 1). From March 31 to April 7, the week in which the first article detailing Sinclair’s acquisition of Teapot Dome appeared in *The Denver Post*, Sinclair had an excess return of 3.12 percentage points over the DJIA and 3.87 percentage points over the Rivals. These gains are modest compared to the excess returns of 9.53 and 12.23 percentage points over the DJIA and Rivals, respectively, from April 7 to April 14. This week marked the release of three more *Denver Post* articles and the first coverage of the lease in

⁵The NYSE was closed for Good Friday on April 14, 1922, so we instead calculate weekly returns using data from Thursday, April 13, 1922.

New York newspapers. We see equally large excess returns of 12.80 and 10.69 percentage points over the DJIA and Rivals in the following week, during which we saw the release of front-page news stories discussing Teapot Dome in *The Wall Street Journal* and *The New York Times*. The excess returns during this three week period are much larger relative to the excess returns/losses of less than two percentage points for the remaining events. To precisely determine which news events spurred these large excess returns, we zoom in on daily data surrounding the April news cycle.

3.2 Daily Event Study

To pin down the timing and magnitude of the price discovery process for Sinclair stock over the course of the wave of newspaper articles, we collect daily stock market data for March and April 1922 and estimate a daily event study.⁶ Starting with the first *Denver Post* article on April 5, 1922, we adopt a traditional event study approach, identifying a single event of interest and examining responses a few periods before and after that date.

Our estimating equation takes the form:

$$R_{it} - R_t^f = \alpha_i + \gamma_t + \sum_{j \in (-m, n)} \delta_j D_{i,t+j} + \varepsilon_{it} \quad (2)$$

where R_{it} is firm i 's return on calendar day t , R_t^f is the prime paper rate, α_i and γ_t are firm and time fixed effects, and $D_{i,t+j}$ are treatment indicators for Sinclair j days before/after April 5, 1922. In our preferred specification, we use daily data from April and May 1922 but focus on trading days within a two week window of our event ($m = 14$ and $n = 14$).⁷ Coefficients δ_{-14} and δ_{14} bin effects for trading days before and after our two weeks of interest. We select $j = -1$ as our reference period in line with standard practice.⁸

⁶During this era, the market was open Monday through Saturday excluding certain federal and religious holidays.

⁷Sundays and holidays, $j \in \{-10, -3, 4, 9, 11\}$ are excluded.

⁸Our results are robust to constraining the pre-event δ_j coefficients to an average of 0 as

Since single-firm event studies often identify many dates as statistically significant, we emphasize the magnitude of detected excess returns in our interpretations (Baker, 2016; Elsas and Schoch, 2023). Results are shown in Figure 1. Throughout the month window surrounding the first *Denver Post* article, we detect statistically significant excess returns/losses ranging from -3 to 3 percentage points on 13 different dates. Some of these moderate responses align with our events of interest, including one-day lags of the *Denver Post* articles on April 5 and 11, but the majority of these dates should not have revealed any new information to spark meaningful changes in Sinclair’s stock valuation. However, on April 13 ($j = 8$) and April 15 ($j = 10$), we see much larger excess returns for Sinclair of 9.08 and 12.36 percent, respectively. These dates correspond to two trading days after *The Denver Post*’s article on April 11 and the first trading day after *The Wall Street Journal*’s article on April 14, respectively.

3.3 The Role of Salience

The Denver Post’s April 11 article and *The Wall Street Journal*’s April 14 article led to the most significant gains for Sinclair Consolidated stock, even though they appeared relatively late in the Teapot Dome news cycle and followed other articles—even some from the same outlets—revealing the scandal. This pattern raises the dual issues of transmission speed and salience of news in the era before instantaneous nationwide communications. A closer look at the news sources and the size and placement of the relevant news articles reveals important differences among the articles.

In total, we identify fourteen articles about Teapot Dome that were published before the front-page stories on April 14, 1922: four from *The Denver Post*, one from *The Wall Street Journal*, and nine others from various outlets identified via newspapers.com. Following the initial *Denver Post* article on April 5, which resulted in a 3 percent excess return for Sinclair Consolidated the day following the announcement, the *Casper Star-Tribune* and *Brooklyn* recommended in Miller (2023).

Daily Eagle published the second and third articles about the leases on April 6. Despite the latter being the first publication to alert a New York audience to the news of the leases, we observe no economically meaningful excess returns for Sinclair following their appearance. The same is true for the first mention of the leases in *The Wall Street Journal* on April 7, contradictory follow-up articles in *The Denver Post* on April 7 and 9, and an announcement in the *Portland Press Herald* on April 10. The next significant stock price reaction is a bump of 3 percentage points the day after *The Denver Post*'s April 11 article, which finally solidified their stance that the leases had been granted to Sinclair and refuted Fall's claims that any discussions with oil majors were preliminary and uncertain. Two days after this final *Denver Post* article, on April 13, six more articles were published in six different outlets, resulting in a contemporaneous excess return of 9 percent for Sinclair Consolidated. The only larger excess return (12.36 percentage points) came on April 14, following the front-page stories in *The Wall Street Journal* and *New York Times*.

Compared to the articles it preceded, the April 14 WSJ article was the most salient along several dimensions: it was a front-page news story, it was published in a paper with a wide New York City readership, and its reporting was consistent. None of the other articles studied possesses all three of these traits. Notably, no other New York papers, nor the *Casper Star-Tribune*, published a front-page story about the leases: The WSJ article on April 7 was buried on the eighth page next to a half-page Studebaker ad, the *Brooklyn Daily Eagle*'s article was on page 21, and the NYT article published contemporaneously was placed on the second-to-last page of the day's news. *The Denver Post*'s reporting on the leases was inconsistent, and only the most well-connected traders in New York would have been immediately aware of the articles and able to assess their value.⁹ Taken together, we conclude that informed traders may have acted on the April 11 article in *The Denver Post* once the reporting became consistent, or once multiple sources confirmed the reports

⁹For example, Secretary Fall received mailed copies of each *Denver Post* article from a local land official named M.D. McEniry.

of Sinclair's leases on April 13. However, the April 14 article in *The Wall Street Journal* most effectively broke news of the leases to the wider trading public and therefore garnered the largest response.

The pattern of daily Sinclair share trading volume supports this argument, with statistically significant increases in share volume on April 6, one day after the initial *Denver Post* article, April 12, one day after the final *Denver Post* article, and then much larger jumps on April 13, 15, and 17 (Figure 2). The additional 78,000 shares traded on April 13 correspond to two days after the final *Denver Post* article on April 11 and contemporaneously with the six articles published on April 13, while the additional 95,000 shares traded on April 15 correspond with the first trading day following the front-page news articles in New York. We posit that the additional shares traded on April 6, 12, and 13 likely represent the activity of the most informed traders in New York, that is, the insiders, while the shares on April 15 represent the second most informed echelon of traders, those that read the headlines the day before and acted quickly. We attribute the largest volume spike of 218,000 on April 17 to the activity of less informed bandwagon traders. Traders on Monday, April 17, awoke to widespread news coverage of Sinclair's strong gains over the weekend: *The Wall Street Journal* alone ran four separate articles in their morning paper about Sinclair's newly granted contract and the resulting surge in stock performance for itself and surrounding Wyoming oil producers. This was also the first trading day following news coverage of Wyoming Senator John Kendrick's April 15 Senate resolution to investigate the existence and origin of Sinclair's Teapot Dome lease. While Sinclair's share price only rose during the first three days of elevated trading volume, on April 17 the stock fell over 10% from an intraday high of \$34.875 to \$30.25 before rallying back to \$32.75 at market close.

The large excess returns following the appearance of the most visible news stories supports our hypothesis that, despite legal insider trading, Sinclair insiders did not fully capitalize on their private information. They preferred to fly under the radar—both because they could accumulate shares at lower prices by acquiring them gradually, and because they

feared detection of their illegal bribes and potential violations of the Mineral Leasing Act of 1920. If insiders had rapidly accumulated shares and driven Sinclair’s stock price to its ultimate value before any public news, it likely would have alerted authorities to the shady underpinnings of Sinclair’s success. Therefore, this period from February to April 1922 stands as an illustrative example of how insiders may hinder price discovery under a legal insider trading regime, counter to the predictions of [Aktas et al. \(2008\)](#) and others.

4 Insider Profits

Sinclair Consolidated’s shareholders, a significant number of whom were insiders, associates, or government officials, stood to earn generous returns as Sinclair stock appreciated. The Senate investigation found that Attorney General Harry Daugherty and several congressmen traded in Sinclair, Doheny, and related oil stocks during 1921–22. Harry Sinclair and his family and associates owned the largest stakes and thus enjoyed outsized gains. These insider profits translate into losses, or at least opportunity costs, to uninformed traders and possibly market makers handling the insiders’ trades. To quantify the gains relative to expected returns and determine the timeframe over which the excess returns persisted, we compare Sinclair’s stock returns to those of the DJIA/Rival indices and a synthetic counterfactual Sinclair before and after April 14, 1922.

Our difference-in-differences estimating equation takes the form

$$Y_{it} = \beta_0 + \beta_1 Sinclair_i + \beta_2 After_t + \beta_3 (Sinclair_i \times After_t) + \varepsilon_{it} \quad (3)$$

where, for company i at time t , Y_{it} is our outcome of interest (excess return), $Sinclair_i$ is an indicator for whether company i is Sinclair, and $After_t$ is an indicator for whether t is after April 14, 1922.

To address possible concerns about control group and parallel trends assumptions, we also employ the synthetic control method popularized by [Abadie et al. \(2010\)](#) and synthetic

difference-in-differences proposed by [Arkhangelsky et al. \(2021\)](#).¹⁰ The synthetic control method improves on the standard difference-in-differences estimator by adding weights to the control units based on the pre-treatment period to more closely match the treated unit's pre-treatment trend. Synthetic difference-in-differences goes a step further by adding additional weights to pre-treatment time periods that are most similar to the post-treatment period.

The DID, SC and SDID estimates of the effect of the WSJ break on Sinclair's returns (Table 2) use three different sets of control companies to compare against (in DID) or construct the counterfactual Sinclair with (in SC and SDID): all 27 non-Sinclair stocks, the 10 companies in our Rivals index, and the 17 companies in our DJIA index. Across all three samples, the DID and synthetic control results show no long-run excess returns for Sinclair. SDID gives mixed results: we see an insignificant effect when comparing against a synthetic Sinclair composed of all our control companies, but identify significant negative and positive effects compared to synthetic Sinclairs composed from the Rival and DJIA companies, respectively.

The SDID estimates in Table 2 provide some evidence that Sinclair may have experienced significantly different returns through 1922 than it would have absent the newspaper coverage of the Teapot Dome lease, but the significance and direction of this result are sensitive to the choice of companies used to construct the SDID estimate. Due to the variation in results across methods and comparison groups, we favor the interpretation that the jump in Sinclair's share price represents a one-time market correction to a price that more accurately reflected the underlying value of Sinclair Consolidated. Therefore, Sinclair insiders profited primarily from the gains accrued up through the public revelations of the lease contract in April of 1922.

The gains began at least two months before the wave of articles in April 1922. From February 3, 1922, when the terms of the lease were decided upon by Sinclair and Fall, to April 13, 1922, the day before the most prominent news break, the price of Sinclair

¹⁰We implement this method using the package developed by [Clarke et al. \(2024\)](#).

Consolidated stock rose from \$19.88 to \$29.38, a 48% increase; clearly exceeding the DJIA and Rivals' returns of 13% and 14% over the same period. In the two days after the big news break, the price jumped to \$33.50. While the price increase before April 14 may have been partially driven by insiders accumulating shares, the gains from this two-day period likely represent pure profit for the top shareholders. These estimated excess returns are very large relative to the reported 6% annual excess returns from insider purchases in [Jeng et al. \(2003\)](#).

Using information on the stock holdings of sixteen Sinclair shareholders owning at least one percent of shares at the end of 1922 ([U.S. Congress, 1923](#)), we produce a back-of-the-envelope calculation of the profits earned by insiders prior to the public news break.¹¹ Since we exclude the smaller stakes of the attorney general and various members of Congress, as well as any insiders who sold their stakes before the investigation, the figure represents a lower bound on insider profits. Simplistically assuming that these shareholders did not alter their stakes throughout 1922 and were fully aware of the secret meeting between Fall and Sinclair in February 1922, insiders stood to gain at least \$11.2 million, or well over \$200 million in 2025 U.S. Dollars (based on CPI), between the date the lease details were outlined and the date before they were revealed to the public. Over the next two days, as the wider trading public learned of the leases, insiders earned up to an additional \$4.88 million, or more than \$90 million in 2025 USD.

Notably, some of the top shareholders listed in the investigation were close associates of Sinclair and even included a shell corporation, Hyva, owned by Sinclair, his wife, and his mother and named after his two children, Harry and Virginia ([The New York Times, 1928](#)). Hyva owned 86,500 shares on top of Sinclair's 121,300 personally-identified shares. All of the major shareholder addresses lie within a short walk of each other in the New York City financial district, and some are listed at the same addresses. For example, both F. Sather and Sinclair are listed at 45 Nassau Street. Another shareholder, Chas. D. Banley & Co is

¹¹See Figure 5 in the Appendix for the original table of shareholders.

listed at 15 Broad Street, which is the address of none other than JP Morgan.

5 Market Maker Response to Insider Trading

Ex-post, it is clear that insiders traded actively in Sinclair and other oil company stocks over the period surrounding the Teapot Dome and Elk Hills lease negotiations and execution of the contracts. Given the notorious reputation of the oil companies in the early 1920s, and the number of government and oil company insiders undertaking trading during the months between the Harding election and the news revelation in April 1922, NYSE market makers may have suspected insider trading in the sector, even if they did not know the exact companies involved. Suspicions of insider trading cause market makers to set wider bid-ask spreads to protect themselves from losses on their inventory ([Copeland and Galai, 1983](#); [Glosten and Milgrom, 1985](#)), thus imposing an additional cost on all market participants. Once the news broke publicly, revealing the details of the contracts, spreads should have narrowed.

We test this hypothesis in a difference-in-differences framework.¹² We control for intraday price variation or “quasi-volatility,” based on the theory that higher valuation uncertainty leads market makers to increase the bid-ask spread, using $(\frac{\text{high}-\text{low}}{\text{close}} \times 100)$ as a proxy. Percentage bid-ask spreads also relate inversely to share price, by definition, especially given the \$0.125 minimum tick size (price change) of the time period. Therefore, we estimate

$$Y_{it} = \beta_0 + \beta_1 Sinclair_i + \beta_2 After_t + \beta_3 (Sinclair_i \times After_t) + \beta_4 X_{it} + \varepsilon_{it} \quad (4)$$

where, for company i at time t , Y_{it} is the quoted spread ($\frac{\text{ask}-\text{bid}}{\text{midpoint}} \times 100$), $Sinclair_i$ is an indicator for whether company i is Sinclair, $After_t$ indicates whether t is after April 14, 1922, and X_{it} is a vector of covariates including quasi-volatility, share price, and volume. Given the implicit assumption that covariates affect the treated and untreated groups in the

¹²We also employ synthetic difference-in-differences and obtain largely similar results.

same way both before and after the treatment ([Sant'Anna and Zhao, 2020](#)), we estimate equation 4 with and without our covariates X_{it} .

Compared to the DJIA component companies, Sinclair's spreads declined significantly after April 14 (Table 3 columns 3 and 4), consistent with the idea that market makers were suspicious of insider information and narrowed spreads once the news broke publicly. This result holds with and without covariates. Notably, both Sinclair and the Rivals traded with much larger bid-ask spreads prior to April 14 compared to the DJIA component companies, suggesting that market makers suspected insider trading in oil stocks but could not pinpoint the exact company (or companies) involved. Spreads narrowed for all oil companies, not just Sinclair, once the major newspapers definitively revealed the “guilty” party’s identity on April 13.

Since every stock trade bears the implicit cost of the bid-ask spread, the higher spreads imposed on oil stocks during this period represent an additional cost of insider trading, as predicted theoretically by [Copeland and Galai \(1983\)](#) and [Glosten and Milgrom \(1985\)](#). Our findings reinforce the recent study by [Pierce \(2024\)](#), which showed that spreads increased when regulators temporarily relaxed insider trading regulation.

6 Conclusion

Using novel documents and data relating to the notorious Teapot Dome scandal of 1922, we assess the impact on market functioning of informed trading activity by insiders and corrupt government officials involved in, or with knowledge of, the granting of illegal, non-competitive lease contracts on federal oil reserves under the Harding administration. While the period precedes the establishment of federal regulation of insider trading, we find that insiders in the implicated company, Sinclair Consolidated, only partly bid up share prices ahead of the public revelation of the lease contracts. We hypothesize that insiders refrained from rapid and large-scale trading to avoid detection by outsiders or potentially by Congress.

Thus, prices remained below the full market valuation of the leases until the news broke publicly. We also estimate the financial cost of the cronyism involved by calculating insiders' potential capital gain, which amounted to approximately \$300 million in 2025 terms. Notably, in the absence of insider trading regulation, market makers protected themselves from losing to insiders by raising bid-ask spreads for multiple suspected oil companies relative to the rest of the market, thus imposing an additional cost on all market participants.

Our analysis of market reactions, insider profits, and market-maker behavior shows how government corruption and cronyism—along with unchecked stock trading by insiders and government officials—undermine political institutions, distort allocation of resources in the economy, and create arbitrage opportunities that amplify inequality between informed and uninformed investors. We highlight how these factors impose real costs on investors and the general public—a parallel that remains relevant to contemporary concerns about rent-seeking and government capture by corporations. This study further illustrates the value of historical financial data for testing modern economic theories, serving as a natural experiment that offers lessons for current debates over financial regulation and the involvement of government officials in stock trading.

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A Exhibits

Table 1: Effect of Various Events on Excess Weekly Returns

	(1)	(2)	(3)
DJIA- R^f	1.01*** (0.10)		0.41*** (0.04)
Rivals- R^f		1.59*** (0.20)	
Inauguration	-0.28 (0.33)	-1.25*** (0.40)	0.26* (0.14)
Executive Order	0.33 (0.63)	-1.64** (0.66)	-0.37 (0.27)
Secret Meeting	1.27** (0.50)	0.83 (0.64)	0.82*** (0.17)
April 7, 1922	3.12*** (0.62)	3.87*** (0.68)	0.44** (0.21)
April 13, 1922	9.53*** (0.65)	12.23*** (0.53)	-0.71*** (0.22)
April 21, 1922	12.80*** (0.34)	10.69*** (0.51)	1.19*** (0.14)
α	-0.09 (0.35)	-0.23 (0.41)	0.13 (0.14)
Num. obs.	104	104	104
R^2	0.63	0.49	0.60

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Notes: Heteroskedasticity-robust standard errors are in parentheses. Column 1 shows Sinclair's excess returns over the DJIA, column 2 shows Sinclair's excess returns over the Rivals, and column 3 is a placebo exercise showing the Rivals' excess returns over the DJIA.

Daily Event Study: Sinclair's Excess Returns

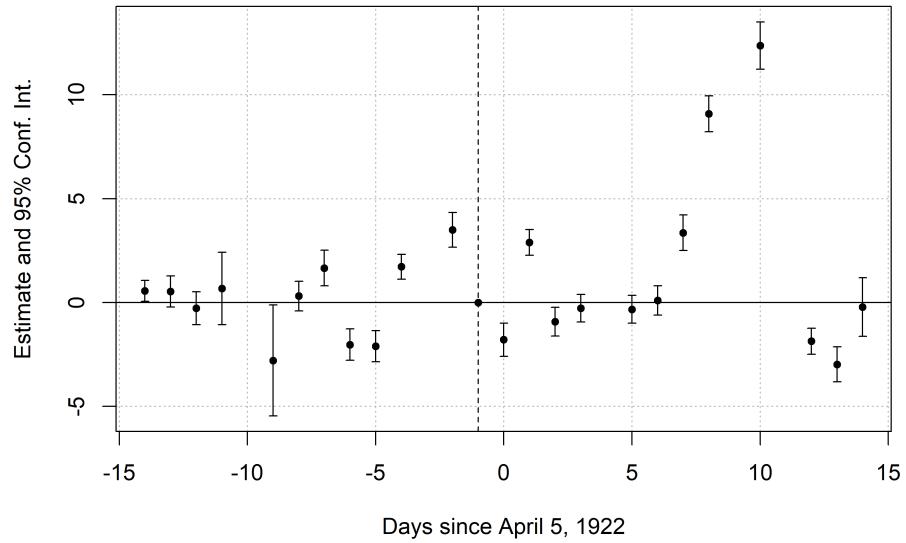


Figure 1: Daily Event Study of Sinclair's Excess Returns

Daily Event Study: Sinclair Shares Traded

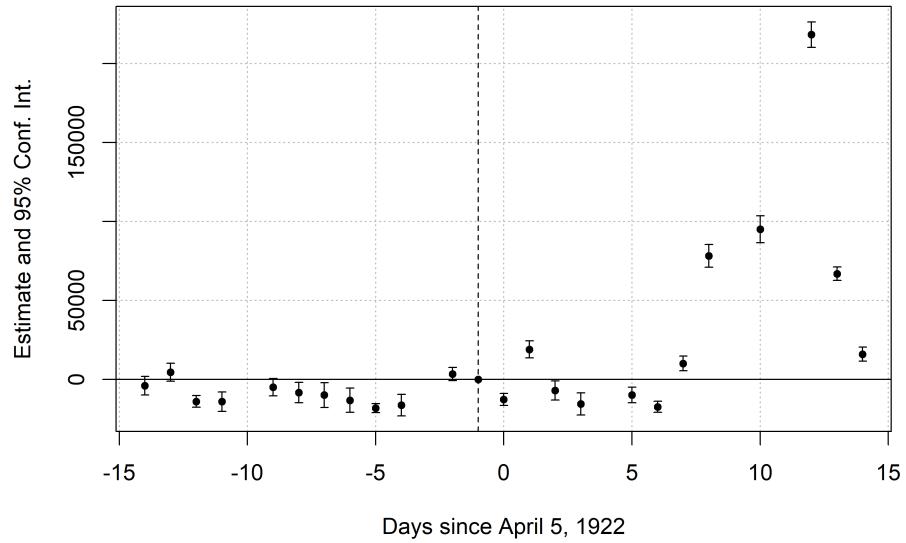


Figure 2: Daily Event Study of Sinclair Shares Traded

Table 2: Long-Run Effect of WSJBREAK on Sinclair Returns

	(1)	(2)	(3)
DID	0.130 (0.873)	0.152 (0.529)	0.116 (0.600)
SC	0.132 (0.801)	0.096 (0.616)	0.411 (0.775)
SDID	0.140 (1.605)	-0.603 (0.250)	1.991 (0.561)
N	4060	1595	2610
Control Group	All	Rivals	DJIA

Notes: Standard errors are in parentheses. DID standard errors are clustered at the company level, while SC and SDID standard errors are calculated using the placebo method. Column 1 compares against all 27 control companies, column 2 compares against the 10 rival companies, and column 3 compares against the 17 DJIA companies.

Table 3: Difference-in-Differences on Sinclair's Spreads

	(1)	(2)	(3)	(4)
Sinclair	-0.40** (0.17)	-0.45*** (0.14)	0.21** (0.07)	0.00 (0.13)
After	-0.38*** (0.09)	-0.21* (0.11)	-0.07** (0.03)	0.02 (0.04)
Sinclair × After	0.08 (0.09)	0.32* (0.14)	-0.23*** (0.03)	-0.14** (0.06)
Quasi-volatility		0.09** (0.03)		0.00 (0.00)
Price		-0.01** (0.00)		-0.01* (0.00)
Volume (1000s)		-0.02* (0.01)		-0.01** (0.00)
Intercept	1.21*** (0.17)	1.51*** (0.22)	0.60*** (0.07)	1.03*** (0.17)
Control	Rivals	Rivals	DJIA	DJIA
Num. obs.	1587	1583	2604	2601
R ²	0.01	0.05	0.01	0.17

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Notes: Standard errors clustered at the company level are in parentheses. Columns 1 and 2 compare against the 10 rival companies while columns 3 and 4 compare against the 17 DJIA companies.

(Online) Appendix

A Alternative Tests of Information Incorporation

We consider two alternative tests of abnormal returns: the sample quantile (SQ) test, as discussed in [Gelbach et al. \(2013\)](#) and [Baker \(2016\)](#), and the cumulative abnormal return (CAR) test, as reviewed in [MacKinlay \(1997\)](#).

A.1 Sample Quantile (SQ) Test

We employ a single-firm, single-event SQ test as a robustness check to our market model event study in section 3. The sample quantile test involves estimating

$$R_t = \alpha + \beta R_t^m + \delta D_t + \varepsilon_t$$

for $t \in [\tau_0, \tau_2]$, where τ_0 denotes the start of our estimation window, τ_1 denotes our event date, τ_2 denotes the end of our post-event estimation window, R_t represents Sinclair's return, R_t^m represents the return of the DJIA, and D_t is an indicator for April 15, 1922.

Once estimated, we sort the errors $\hat{\varepsilon}_t$ for $t \in [\tau_0, \tau_1)$ from smallest to largest. For the two-version of the test (identifying abnormally high or low returns) at the 95% confidence level, we then identify the error terms at the 2.5 and 97.5 percentiles and denote them γ_l and γ_h , respectively. We reject our null hypothesis of no abnormal returns if $\hat{\delta} < \gamma_l$ or $\hat{\delta} > \gamma_h$. Perhaps more intuitively, if you had for example 100 pre-event estimation periods, then we are just testing if the event day's return is more extreme than 95 of the pre-event estimation window's returns.

Our preferred specification of the SQ test looks at the period from March 2, 1922 to April 15, 1922, a window of 29 trading days ($\tau_0 = -28, \tau_1 = 0, \tau_2 = 0$). Our resulting $\hat{\delta} = 9.65$, which is greater than all of the estimated $\hat{\varepsilon}_t$ from $[\tau_0, \tau_1)$. We also test over the full coverage

of our sample, consisting of 124 trading days ($\tau_0 = -76, \tau_1 = 0, \tau_2 = 47$) and retrieve $\hat{\delta} = 11.54$, which is also greater than all of the estimated $\hat{\varepsilon}_t$ from $[\tau_0, \tau_1]$. Therefore, our finding of abnormal returns following the April 14 WSJ article is robust to this alternative test.

A.2 Cumulative Abnormal Return (CAR) Test

We also conduct a CAR test to check the robustness of our results in section 3. Please see Section 5 of [MacKinlay \(1997\)](#) for a description of this test. This test requires choosing an event window (the number of trading days before/after April 15 that we consider for abnormal returns) and an estimation window (the total number of trading days we estimate returns for). We implement four specifications of this test:

1. a 30-day estimation window with a 3 day event window
2. a 30-day estimation window with a 7 day event window
3. a 60-day estimation window with a 3 day event window
4. a 60-day estimation window with a 7 day event window

and find significant abnormal returns for Sinclair at the 90% confidence level for specifications 1–3. We fail to reject the null hypothesis of no abnormal returns under specification 4 with a p value of .1065.

B Additional Exhibits



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Figure 3: *The Wall Street Journal's Sinclair Article from April 7, 1922*



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Figure 4: *The Wall Street Journal's Sinclair Article from April 14, 1922*

HIGH COST OF GASOLINE AND OTHER PETROLEUM PRODUCTS. .641

II. F. SINCLAIR, EXHIBIT No. 4.

Names and addresses of Sinclair Consolidated Oil Corporation shareholders holding 40,000 (approximately 1 per cent of outstanding shares) and upward, of common stock, and number of shares held by each, December 31, 1922.

Names.	New York City address.	Shares.
Chas. D. Banley & Co.....	15 Broad Street.....	107,670
Charles V. Burns.....	24 Broad Street.....	50,000
W. H. Goadby & Co.....	74 Broadway.....	77,055
Harris, Winthrop & Co.....	11 Wall Street.....	79,974
A. A. Houssman & Co.....	20 Broad Street.....	41,482
E. F. Hutton & Co.....	61 Broadway.....	61,291
The Hyva Corporation.....	45 Nassau Street.....	86,500
Logan & Bryan.....	42 Broadway.....	48,470
John Mooney.....	24 Broad Street.....	50,656
Post & Flagg.....	49 Broad Street.....	47,894
F. Sathern.....	45 Nassau Street.....	51,515
H. F. Sinclair.....	do.....	121,300
Thomson & McKinnon.....	42 Broadway.....	41,093
H. P. Whitney.....	120 Broadway.....	183,470
W. J. Wollman & Co.....	do.....	40,099
Wrenn Bros. & Co.....	39 Broadway.....	66,024
Total.....		1,182,393

Figure 5: 1% Shareholders of Sinclair Common Stock