

# Note

## An Empirical Analysis of CFIUS: Examining Foreign Investment Regulation in the United States

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## I. INTRODUCTION

Smithfield Foods received a savory takeover deal in May 2013: a \$4.7 billion bid that was thirty-one percent above the company's closing share price.<sup>1</sup> At the time, the Shuanghui International offer represented the "largest [attempted] Chinese acquisition of a U.S. company."<sup>2</sup>

But days after the bid was announced, members of Congress from both the Republican and Democratic parties began to question the transaction. Republican Senator Charles E. Grassley of Iowa found the idea of a "Chinese food company controlling a major U.S. meat supplier . . . a bit concerning."<sup>3</sup> Democratic Representative Rosa DeLauro of Connecticut asked "whether this merger best serve[d] American consumers."<sup>4</sup> The Senate Agriculture Committee eventually convened a hearing on the Smithfield purchase.<sup>5</sup> Congress also appealed to the Committee on Foreign Investment in the United States (CFIUS) to strictly scrutinize the deal.<sup>6</sup>

CFIUS, an interagency committee established during the Ford administration, does not publicly release its reviews and findings, and perhaps most daunting for potential foreign investors, the scope of its "national security" purview continues to expand. While early CFIUS actions were limited to certain sectors more obviously related to national security, such as defense and telecommunications, the Committee's scope now includes industries that commentators argue have little to no relation to national security, with reviews often motivated by political outcries to preserve American dominance in certain industries and American ownership of leading firms.<sup>7</sup> Since 9/11, the CFIUS process has transformed from "an obscure activity frequently associated with

1. Michael J. de la Merced & Mark Scott, *China's Big Food Deal*, N.Y. TIMES DEALBOOK (May 29, 2013, 10:02 AM), <http://dealbook.nytimes.com/2013/05/29/morning-agenda-chinas-big-food-deal>.

2. Brian Wingfield & Shruti Date Singh, *Smithfield Shareholders Approve Takeover Bid by Shuanghui*, BLOOMBERG (Sept. 24, 2013, 4:19 PM), <http://www.bloomberg.com/news/2013-09-24/smithfield-shareholders-approve-shuanghui-s-34-a-share-offer.html>.

3. Michael J. de la Merced, *Another Senator Urges Caution on Smithfield's Sale to Chinese Company*, N.Y. TIMES DEALBOOK (June 5, 2013, 5:44 PM), <http://dealbook.nytimes.com/2013/06/05/another-senator-urges-caution-on-smithfields-sale-to-chinese-company>.

4. *Id.*

5. *Smithfield and Beyond: Examining Foreign Purchases of American Food Companies*, U.S. SENATE COMM. ON AGRIC., NUTRITION & FORESTRY, [http://www.ag.senate.gov/hearings/smithfield-and-beyond\\_examining-foreign-purchases-of-american-food-companies](http://www.ag.senate.gov/hearings/smithfield-and-beyond_examining-foreign-purchases-of-american-food-companies) (last visited Oct. 28, 2013).

6. Michael J. de la Merced, *Senators Urge Additional Review of Smithfield's Sale to Shuanghui*, N.Y. TIMES DEALBOOK, (June 20, 2013, 11:53 AM), <http://dealbook.nytimes.com/2013/06/20/senators-urge-additional-review-of-smithfields-sale-to-shuanghui>.

7. See David Benoit, *Shuanghui-Smithfield: Is Bacon a National Security Issue?*, WALL ST. J. MONEYBEAT (May 29, 2013, 4:52 PM), <http://blogs.wsj.com/moneybeat/2013/05/29/shuanghui-smithfield-is-bacon-a-national-security-issue>; Steven M. Davidoff, *China's Pork Deal May Hinge on the Risk for an Uproar*, N.Y. TIMES DEALBOOK (May 30, 2013, 1:18 PM), <http://dealbook.nytimes.com/2013/05/30/running-the-national-security-gantlet-in-a-pork-deal>; Marilyn Geewax, *Can a Huge Hog Deal Pose a National Security Risk?*, NPR (May 31, 2013, 11:14 AM), <http://www.npr.org/2013/05/31/187351539/can-a-huge-hog-deal-pose-a-national-security-risk>. For an overview of some of the most notable recent CFIUS cases, see David Benoit, *The CFIUS Highlight Reel*, WALL ST. J. MONEYBEAT (May 29, 2013, 12:56 PM), <http://blogs.wsj.com/moneybeat/2013/05/29/the-cfius-highlight-reel>.

defense to a multi-industry, multi-sector focus.”<sup>8</sup> The expanding definition of “national security” throughout CFIUS’s history has fomented concerns regarding investor uncertainty, retaliation from foreign nations, and the influence of protectionism.<sup>9</sup> Scholars have argued that potential congressional activism and advocacy in the CFIUS review process could “politicize” the organization and its procedures, resulting in a “protectionist tool” rather than an “open and consistent” foreign investment review mechanism.<sup>10</sup>

Preparing for CFIUS reviews also has proved to be so costly and exhaustive that it has deterred certain foreign firms from undertaking the review process<sup>11</sup> and motivated them to transfer their investments to other nations with more flexible oversight regimes.<sup>12</sup> In light of these factors, some have argued

8. Deborah L. Cohen, *Overseas Oversight: Sovereign Investment Book Keeps Lawyers Busy with More Complex Compliance*, 94 A.B.A. J. 22, 22 (2008) (quoting Mark E. Plotkin). For analysis on the impact of congressional and regulatory amendments to CFIUS, see, for example, Jose E. Alvarez, *Political Protectionism and United States International Investment Obligations in Conflict: The Hazards of Exon-Florio*, 30 VA. J. INT’L L. 1 (1989); Matthew R. Byrne, *Protecting National Security and Promoting Foreign Investment: Maintaining the Exon-Florio Balance*, 67 OHIO ST. L.J. 849 (2006); James F. F. Carroll, *Back to the Future: Redefining the Foreign Investment and National Security Act’s Conception of National Security*, 23 EMORY INT’L L. REV. 167 (2009); Harry L. Clark & Sanchitha Jayaram, *Intensified International Trade and Security Policies Can Present Challenges for Corporate Transactions*, 38 CORNELL INT’L L.J. 391 (2005); Christopher R. Fenton, *U.S. Policy Towards Foreign Direct Investment Post-September 11: Exon-Florio in the Age of Transnational Security*, 41 COLUM. J. TRANSNAT’L L. 195 (2002); George Stephanov Georgiev, *The Reformed CFIUS Regulatory Framework: Mediating Between Continued Openness to Foreign Investment and National Security*, 25 YALE J. ON REG. 125 (2008); Robert S. LaRussa, Lisa Raisner & Thomas B. Wilner, *New Law Heightens Scrutiny of Foreign Acquisitions of U.S. Companies*, 4 N.Y.U. J.L. & BUS. 285 (2007); David Scott Nance & Jessica Wasserman, *Regulation of Imports and Foreign Investment in the United States on National Security Grounds*, 11 MICH. J. INT’L L. 926 (1990); Jonathan C. Stagg, *Scrutinizing Foreign Investment: How Much Congressional Involvement Is Too Much?*, 93 IOWA L. REV. 325 (2007); Joanna Rubin Travalini, *Foreign Direct Investment in the United States: Achieving A Balance Between National Economy Benefits and National Security Interests*, 29 NW. J. INT’L L. & BUS. 779 (2009); Cecelia M. Waldeck, *Proposals for Limiting Foreign Investment Risk Under the Exon-Florio Amendment*, 42 HASTINGS L.J. 1175 (1991); Christopher M. Weimer, *Foreign Direct Investment and National Security Post-FINSA 2007*, 87 TEX. L. REV. 663 (2009); and Note, *From Fretting Takeovers to Vetting CFIUS: Finding A Balance in U.S. Policy Regarding Foreign Acquisitions of Domestic Assets*, 39 VAND. J. TRANSNAT’L L. 1303 (2006).

9. Carroll, *supra* note 8, at 169-70.

10. Byrne, *supra* note 8, at 849; *see also* Stagg, *supra* note 8, at 327-29 (noting that Congress “must delicately balance the competing interests of national security and an open investment policy”); Travalini, *supra* note 8, at 779 (arguing that Congress should “reexamine the extent of its influence in the [foreign investment] process to ensure the retention of open and consistent foreign investment policies”).

11. *See, e.g.*, Claus Hecking, *Capital Study: Chinese Investment in Europe Hits Record High*, SPIEGEL ONLINE (Apr. 16, 2013), <http://www.spiegel.de/international/business/study-finds-massive-investment-in-europe-by-chinese-state-companies-a-894570.html> (finding that while “[r]eservations about the opaque interest of Chinese state companies are greater in the United States,” Europe has been a “largely welcoming place for Chinese buyers”).

12. *See, e.g.*, Ellen McCarthy, *Purchase by Israeli Firm Called Off*, WASH. POST, Mar. 24, 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/03/23/AR2006032302382.html> (quoting Michelle Perry, Sourcefire Inc.’s chief marketing officer, who explained that Sourcefire and Check Point Software Technologies Ltd. “withdrew their request for [CFIUS] approval after ‘carefully considering the complications of the CFIUS process, the lengthy ongoing delays and the current climate for international acquisitions’”); Ben White, *Chinese Drop Bid To Buy U.S. Oil Firm*, WASH. POST, Aug. 3, 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/08/02/AR2005080200404.html> (noting experts’ belief that “CNOOC’s withdrawal could lessen Chinese interest in future deals with U.S. companies”). For discussion of foreign organizations similar to CFIUS, see, for example Jordan Brandt, *Comparing Foreign Investment in China, Post-WTO Accession, with Foreign Investment*

that increased CFIUS transparency is necessary to maintain foreign investment in American companies.<sup>13</sup>

Due to these concerns, a number of studies have examined the practices of CFIUS, as well as its impact on investors and the economy. Previous scholarship has focused on individual cases and events, perhaps due to the lack of a database of CFIUS reviews.<sup>14</sup> Though CFIUS shields its reviews, public corporations and private corporations issuing certain types of securities must disclose potential risk factors to their businesses in Securities and Exchange Commission (SEC) filings.<sup>15</sup> CFIUS itself also provides annual reports that broadly describe the companies and industries it oversees.<sup>16</sup> By aggregating data from these sources, we constructed a dataset of CFIUS actions and reviews. Using this data set, we were able to conduct an empirical analysis of the CFIUS process.<sup>17</sup>

We used two quantitative methods to parse our data: first, we used event

*in the United States, Post-9/11*, 16 PAC. RIM L. & POL'Y J. 285 (2007); Henry J. Graham, *Foreign Investment Laws of China and the United States: A Comparative Study*, 5 J. TRANSNAT'L L. & POL'Y 253 (1996); Marcelo Moscolgiato, *Foreign Direct Investment in Corporations: Restrictions in the United States and Brazil on the Grounds of National Defense*, 9 OR. REV. INT'L L. 67 (2007); Cheryl Tate, *The Constitutionality of State Attempts to Regulate Foreign Investment*, 99 YALE L.J. 2023 (1990); Destiny Duron Deas, Note, *The Costs of Perceived Hypocrisy: The Impact of U.S. Treatment of Foreign Acquisitions of Domestic Enterprises*, 57 DUKE L.J. 1795 (2008); and Chris Lalonde, Note, *Dubai or Not Dubai?: A Review of Foreign Investment and Acquisition Laws in the U.S. and Canada*, 41 VAND. J. TRANSNAT'L L. 1475 (2008).

13. See Thilo Hanemann & Dan Rosen, *Chinese Investment 2.0*, WALL ST. J., Apr. 17, 2013, <http://online.wsj.com/article/SB10001424127887324789504578381531147301230.html>.

14. For examples of scholarship addressing individual cases and events involving CFIUS reviews, see Deborah M. Mostaghel, *Dubai Ports World Under Exon-Florio: A Threat to National Security or a Tempest in a Teapot?*, 70 ALB. L. REV. 583 (2007); Mitchell Silk & Richard Malish, *Are Chinese Companies Taking Over the World?*, 7 CHI. J. INT'L L. 105 (2006); Kam-Ming Wan & Ka-fu Wong, *Economic Impact of Political Barriers to Cross-Border Acquisitions: An Empirical Study of CNOOC's Unsuccessful Takeover of Unocal*, 15 J. CORP. FIN. 447 (2009); Joshua W. Casselman, Note, *China's Latest "Threat" to the United States: The Failed CNOOC-Unocal Merger and Its Implications for Exon-Florio and CFIUS*, 17 IND. INT'L & COMP. L. REV. 155 (2007); Michael Petrusic, Recent Developments, *Oil and the National Security: CNOOC's Failed Bid to Purchase Unocal*, 84 N.C. L. REV. 1373 (2006); Matthew D. Riven, Recent Development, *The Attempted Takeover of LTV by Thomson: Should the United States Regulate Inward Investment by Foreign State-Owned Enterprises?*, 7 EMORY INT'L L. REV. 759 (1993). Experts have also extensively discussed sovereign wealth funds and CFIUS enforcement. See, e.g., Richard A. Epstein & Amanda M. Rose, *The Regulation of Sovereign Wealth Funds: The Virtues of Going Slow*, 76 U. CHI. L. REV. 111, 118-19, 129-30 (2009); Ronald J. Gilson & Curtis J. Milhaupt, *Sovereign Wealth Funds and Corporate Governance: A Minimalist Response to the New Mercantilism*, 60 STAN. L. REV. 1345, 1349 (2008); Mark E. Plotkin, *Foreign Direct Investment by Sovereign Wealth Funds: Using the Market and the Committee on Foreign Investment in the United States Together to Make the United States More Secure*, 118 YALE L.J. POCKET PART 88, 91 (2008); Paul Rose, *Sovereigns As Shareholders*, 87 N.C. L. REV. 83, 124-26 (2008); Brendan J. Reed, Note, *Sovereign Wealth Funds: The New Barbarians at the Gate? An Analysis of the Legal and Business Implications of Their Ascendancy*, 4 VA. L. & BUS. REV. 97, 122-124 (2009). See generally Jennifer Cooke, Note, *Finding the Right Balance for Sovereign Wealth Fund Regulation: Open Investment vs. National Security*, 2009 COLUM. BUS. L. REV. 728 (2009).

15. For example, a company may disclose the resolution of a CFIUS review of an ongoing deal that may affect the company's financial performance.

16. The U.S. Department of Treasury's website provides annual reports, which are available at <http://www.treasury.gov/resource-center/international/foreign-investment/Pages/cfius-reports.aspx>.

17. A Westlaw Next search on November 18, 2013 showed that of the 279 articles that mention CFIUS, none contained quantitative studies on the CFIUS process. Westlaw Next, <http://www.next.westlaw.com>. (Follow the "Secondary Sources" hyperlink; follow the "Law Reviews & Journals" hyperlink; then search for "Committee on Foreign Investment in the United States").

study methodology to examine five CFIUS-blocked mergers to determine if the Committee's blocks impacted investor wealth and the broader economy; second, we used regression analysis to survey seventy-six mergers, acquisitions, divestitures, and spinoffs that underwent CFIUS review to determine whether there was discrimination in the application of CFIUS blocks.

Although CFIUS is an interagency committee that is meant to avoid politicizing its decisions or discouraging foreign investment,<sup>18</sup> our findings show that CFIUS investigations that result in merger blocks lead to multi-billion-dollar wealth transfers. These wealth transfers, intentional or not, are large, significant, and beneficial to American corporations. Our regression analysis, however, indicates that CFIUS decisions appear to be non-discriminatory. National security factors such as risk of espionage explain the review outcomes better than favoritism toward certain countries of origin alone.

In Part II, we provide a brief history of CFIUS, highlighting the Committee's growing presence and its influence on foreign investments and outlining the CFIUS procedure. In Part III, we discuss our event studies' methodology and results. We conclude in Part IV with our regression analysis findings.

## II. CFIUS: FROM OBSCURITY TO THE FOREFRONT

Although CFIUS has operated for almost forty years, its prominence is a much more recent phenomenon. It has increased in importance as foreign deals have become increasingly high-profile.<sup>19</sup> Throughout the Committee's history, congressional statutes, presidential executive orders, and Treasury regulations have sculpted and redefined CFIUS's composition and proceedings, each of the changes marking a new concern about foreign investment in the United States. In this Part, we discuss the evolution of CFIUS and its current operating procedure.

### A. *History of CFIUS*

In May 1975, President Gerald Ford established CFIUS through an executive order.<sup>20</sup> CFIUS was to "monitor[] the impact of foreign investment in the United States, both direct and portfolio, and . . . coordinat[e] the implemen-

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18. Thomas E. Crocker, *What Banks Need To Know about the Coming Debate over CFIUS, Foreign Direct Investment, and Sovereign Wealth Funds*, 125 *BANKING L.J.* 457, 458 (2008); see Press Release, Marisa Lago, Assistant Sec'y for Int'l Mkts. & Dev., U.S. Dep't of the Treasury, Remarks on America's Open Investment (Nov. 14, 2011), <http://www.treasury.gov/press-center/press-releases/Pages/tg1366.aspx>.

19. Before September 11, 2001, only sixty-nine articles had been written about CFIUS, according to a November 18, 2013 search on Westlaw Next. Westlaw Next, <http://www.next.westlaw.com>. (Follow the "Secondary Sources" hyperlink; follow the "Law Reviews & Journals" hyperlink; then search for "Committee on Foreign Investment in the United States"; then go to the "Date" filter and select "All Dates Before" in the dropdown menu; then search for "09/11/2001"). After September 11, 2001, 209 articles have been written about CFIUS, also according to a Westlaw Next search. Westlaw Next, <http://www.next.westlaw.com>. (Follow the "Secondary Sources" hyperlink; follow the "Law Reviews & Journals" hyperlink; then search for "Committee on Foreign Investment in the United States"; then go to the "Date" filter and select "All Dates After" in the dropdown menu; then search for "09/11/2001").

20. Exec. Order No. 11,858, 40 Fed. Reg. 20,263 (May 7, 1975).

tation of United States policy on such investment.”<sup>21</sup> The Committee, comprised of four Cabinet members and two high-level officials,<sup>22</sup> was charged with reviewing all investments in the United States that “might have major implications for United States national interests,” as well as submitting recommendations and analyses to the National Security Council and the Economic Policy Board.<sup>23</sup> CFIUS’s role was thus limited to monitoring investment and coordinating policy, making it a “paper tiger with little to no enforcement power of its own.”<sup>24</sup>

On August 23, 1988, the Exon-Florio Amendment<sup>25</sup> was enacted “in response to concerns about the possible effects of foreign direct investment on national security.”<sup>26</sup> The Exon-Florio Amendment permitted the President to conduct “an investigation to determine the effects on national security of mergers, acquisitions, and takeovers . . . by or with foreign actors which could result in foreign control of persons engaged in interstate commerce in the United States.”<sup>27</sup> Under this Amendment, the President may block the transaction if “(1) there is credible evidence that leads the President to believe that the foreign interest exercising control might take action that threatens to impair the national security, and (2) provisions of law . . . do not in the President’s judgment provide adequate and appropriate authority for the President to protect the

21. *Id.* § 1(b).

22. Those included the Secretary of State, Secretary of Defense, Secretary of Commerce, the Assistant to the President for Economic Affairs, the Executive Director of the Council on International Economic Policy, and the Secretary of Treasury, who also served as chairman of CFIUS. *Id.* § 1(a). The United States Trade Representative and the Director of the Office of Science and Technology Policy were later added to the Committee. Exec. Order 13,456, 73 Fed. Reg. 4677 (Jan. 23, 2008). As Chairman, the Secretary of the Treasury enjoyed the right to “invite representatives of other departments and agencies to participate from time to time in the activities of the Committee.” Exec. Order No. 11,858 § 1(a), 40 Fed. Reg. at 20263.

23. *Id.* § 1(b).

24. Souvik Saha, Comment, *CFIUS Now Made in China: Dueling National Security Review Frameworks as a Countermeasure to Economic Espionage in the Age of Globalization*, 33 NW. J. INT’L L. & BUS. 199, 209 (2012).

25. Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, § 5021, 102 Stat. 1107, 1425-26 (codified at 50 U.S.C. app. § 2170 (2006) (amended 2007)).

26. Jonathan G. Cedarbaum & Stephen W. Preston, *CFIUS and Foreign Investment*, in *HOMELAND SECURITY: LEGAL AND POLICY ISSUES* 235, 237 (Joe D. Whitley & Lynne K. Zusman eds., 2009). Specifically, the Amendment was proposed to counter Japanese investment in the United States. Thomas E. Crocker, *What Banks Need to Know About the Coming Debate Over CFIUS, Foreign Direct Investment, and Sovereign Wealth Funds*, 125 BANKING L.J. 457, 458 (2008). In 1987, Japanese computer company Fujitsu Ltd. attempted to acquire Fairchild Semiconductor and “[t]he proposed sale sparked vehement congressional opposition.” Saha, *supra* note 24, at 209. Officials argued that the acquisition could “give Japan control over a major supplier of computer chips for the military,” which would make “U.S. defense industries more dependent on foreign suppliers for sophisticated high-technology products.” *Id.* (quoting JAMES K. JACKSON, CONG. RESEARCH SERV., RL 33388, THE COMMITTEE ON FOREIGN INVESTMENT IN THE UNITED STATES (CFIUS) 4 (2013)). For a discussion of the impact of the Exon-Florio Amendment, see Jose E. Alvarez, *Political Protectionism and United States International Investment Obligations in Conflict: The Hazards of Exon-Florio*, 30 VA. J. INT’L L. 1 (1989); Byrne, *supra* note 8; Christopher R. Fenton, Note, *U.S. Policy Towards Foreign Direct Investment Post-September 11: Exon-Florio in the Age of Transnational Security*, 41 COLUM. J. TRANSNAT’L L. 195 (2002); and Cecelia M. Waldeck, Note, *Proposals for Limiting Foreign Investment Risk Under the Exon-Florio Amendment*, 42 HASTINGS L.J. 1175 (1991).

27. Omnibus Trade and Competitiveness Act of 1988 § 5021.

national security.”<sup>28</sup> This presidential power is delegated to CFIUS,<sup>29</sup> and there is no judicial review.<sup>30</sup>

In 1992, Congress amended the Exon-Florio statute through the Byrd Amendment.<sup>31</sup> The Amendment required, rather than permitted, CFIUS to investigate mergers, acquisitions, or takeovers whenever (1) the acquirer is “controlled by or acting on behalf of a foreign government,” and (2) the acquisition “could result in control of a person engaged in interstate commerce in the United States that could affect U.S. national security.”<sup>32</sup> In mid-2007, Congress passed the Foreign Investment and National Security Act (FINSA).<sup>33</sup> FINSA requires an extended investigation whenever a transaction “threatens to impair” national security, “is a foreign government-controlled transaction,” or results in foreign control of “critical infrastructure.”<sup>34</sup>

On November 21, 2008, the Treasury Department published regulations on the process and substance of CFIUS review,<sup>35</sup> which codified some of the CFIUS “common law” that CFIUS had secretly deployed since its establish-

28. *Id.*

29. 50 U.S.C. app. § 2170 (2006).

30. *Id.*

31. National Defense Authorization Act for Fiscal Year 1993, Pub. L. No. 102-484, § 837, 106 Stat. 2315, 2463-65 (1992).

32. *Id.* (codified at 50 U.S.C. app. § 2170(b) (2006)).

33. Foreign Investment and National Security Act of 2007, Pub. L. No. 110-49, 121 Stat. 246 (codified at 50 U.S.C. app. § 2170 (Supp. I 2007)). FINSA established the membership of CFIUS by statute. 50 U.S.C. app. § 2170(k)(2) (Supp. I 2007) (listing the members as the Secretary of the Treasury, the Secretary of Homeland Security, the Secretary of Commerce, the Secretary of Defense, the Secretary of State, the Attorney General of the United States, the Secretary of Energy, the Secretary of Labor (nonvoting, *ex officio*), the Director of National Intelligence (nonvoting, *ex officio*), and “the heads of any other executive department, agency, or office, as the President determines appropriate, generally or on a case-by-case basis”). The Secretary of Treasury chairs the committee, though other agencies may be appointed the “lead agency” with respect to the nature of the transaction. 50 U.S.C. app. § 2170(k)(5) (Supp. I 2007). Under FINSA, if CFIUS does not clear a transaction in the 30-day review period, it must then begin an additional 45-day investigation at or before the end of the initial review period. 50 U.S.C. app. §§ 2170(b)(1)(E), (b)(2)(C) (Supp. I 2007). For a discussion on FINSA’s influence, see James F. F. Carroll, Comment, *Back to the Future: Redefining the Foreign Investment and National Security Act’s Conception of National Security*, 23 EMORY INT’L L. REV. 167, 183-86 (2009); and Christopher M. Weimer, Note, *Foreign Direct Investment and National Security Post-FINSA 2007*, 87 TEX. L. REV. 663, 672-78, 682-83 (2009).

34. 50 U.S.C. app. §§ 2170(b)(2)(B)(i)(I)-(III) (Supp. I 2007). On January 23, 2008, President Bush issued an executive order concerning foreign investment in the United States. Exec. Order No. 13,156, 73 Fed. Reg. 4677 (Jan. 25, 2008). The executive order “provides that CFIUS must initiate a 45-day, second-stage investigation of a transaction if any member agency so requests.” Cedarbaum & Preston, *supra* note 26, at 244; accord Exec. Order No. 13,156 at § 6(b). The order further “reminds agencies that carry out FINSA that they are not bound to disclose information that could impair foreign relations, the national security, the deliberative processes of the Executive, or the performance of the Executive’s constitutional duties.” Cedarbaum & Preston, *supra* note 26, at 244; accord Exec. Order No. 13,156 at § 10(d). Cedarbaum and Preston argue that this provision was “likely designed as a reminder to CFIUS agencies of the administration’s emphasis on executive secrecy in the face of FINSA’s new emphasis on reports to Congress.” Cedarbaum & Preston, *supra* note 26, at 244.

35. Regulations Pertaining to Mergers, Acquisitions, and Takeovers by Foreign Persons, 73 Fed. Reg. 70,702 (Nov. 21, 2008) (codified at 31 C.F.R. § 800 (2008)). The regulations encouraged voluntary pre-filing submissions, 31 C.F.R. § 800.401(f) (2008), required detailed information in the voluntary notice, 31 C.F.R. § 800.402 (2008), and certifications of accuracy, 31 C.F.R. § 800.701 (2008), with civil penalties of up to \$250,000 per material misstatement or omission, 31 C.F.R. § 800.801 (2008). See Cedarbaum & Preston, *supra* note 26, at 245.

ment during the Ford administration.<sup>36</sup>

### B. *CFIUS Procedure*

CFIUS review encompasses both voluntarily- and involuntarily-noticed transactions. Involuntary reviews may occur whenever there is an interstate commerce transaction that could lead to foreign control; if it is a previously reviewed transaction that had false or misleading information submitted; or if there are material breaches.<sup>37</sup> Parties to a potential transaction initiate voluntary reviews, by filing a written notice to CFIUS.<sup>38</sup>

When the notice application is complete, a review period begins that lasts no longer than thirty days.<sup>39</sup> During this period, CFIUS may request more information, and subsequently may begin an additional investigation lasting no longer than forty-five days.<sup>40</sup> After its review, CFIUS has the option to refer a pending transaction to the President for a decision, which must be announced within fifteen days after the end of the CFIUS investigation.<sup>41</sup>

While regulations on CFIUS procedure are public, the actual decision-making is opaque. This Note analyzes the market effects of CFIUS decisions and sheds light on the factors that CFIUS may weigh in reviewing transactions proposed by foreign companies.

## III. EVENT STUDIES

### A. *Methodology*

An event study is a widely used method of econometric analysis that measures the impact of some exogenous event on investor wealth as reflected in stock prices.<sup>42</sup> The methodology “evaluat[es] the welfare implications of private and governmental actions”<sup>43</sup> by measuring the impact of events on investor wealth.

Event studies rest on the theory that the price of a stock reflects the discounted present value of all future cash flows a shareholder may expect to receive from that stock.<sup>44</sup> The semi-strong version of the efficient market theory

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36. Cedarbaum & Preston, *supra* note 26, at 245. By common law, we mean the practice that CFIUS most commonly followed.

37. 50 U.S.C. app. § 2170(a)-(b) (2006).

38. *Id.*

39. *Id.*

40. *Id.*

41. 50 U.S.C. app. § 2170(d) (2006).

42. See Sanjai Bhagat & Roberta Romano, *Event Studies and the Law: Part I: Technique and Corporate Litigation*, 4 AM. L & ECON. REV. 141, 142 (2002) (“The event study methodology is well accepted and extensively used in finance. Event study results have been used in several hundred scholarly articles in leading academic finance journals to analyze corporate finance issues, such as stock repurchases and stock splits and the relation between stock prices and accounting information, by examining the impact of earnings releases. Its use in policy analysis in recent years has become more widespread, and it is the interaction between law and financial econometrics that is the focus of this review.”).

43. *Id.* at 141.

44. *Id.* at 143.



holds that all publicly available information is incorporated into the market price, and that the price will only change due to an “exogenous” or unanticipated revelation of new information into the public sphere.<sup>45</sup> For example, when a company reveals that it has been sued by the Department of Justice for antitrust violations, we would expect the share price to drop—maybe dramatically—due to investors’ risk-adjusted expectations of decreased future earnings. An event study would analyze how much the stock under-performed after the entrance of this new information into the market. A more complex study might look at the change in stock prices of many different companies that were sued for antitrust violations to establish the average effect that antitrust suits have on investor wealth.

Event studies have four components, which Bhagat and Romano identify as: (1) “defin[ing] the event under investigation . . . [and] [i]dentif[y]ing the first public announcement of the event;”<sup>46</sup> (2) “measur[ing] stock returns for this period;”<sup>47</sup> (3) calculating the “*expected return* [that the stock would yield absent the exogenous change];”<sup>48</sup> and (4) computing “[t]he unexpected announcement period return, also known as the *abnormal return*, . . . as the actual return minus the estimated expected return[,] [which represents] . . . the estimated impact of the event on share value.”<sup>49</sup>

Determining the announcement period is often the most difficult part of the event study: it may not be clear when the information was known if the event seemed to become more and more likely over time, or if insiders start trading on the event before it is public knowledge.<sup>50</sup> On the other hand, measurement of the stock’s return during the announcement period is often the least challenging part of the analysis as historical stock prices are public data. Calculating expected return and abnormal return are both statistical techniques that can be executed via a few lines of code on a statistical software platform. If the “abnormal” returns are significant after statistical testing, one may conclude that the event occurring on the pertinent event date caused the change in price.

Event studies with a small announcement window and a large enough firm size have the potential to be extremely accurate. For our first event study (N=82), we had a 55%, 99%, and 100% chance of detecting abnormal returns of 0.5%, 1%, and 2%, respectively.<sup>51</sup> For our second event study (N=51), we had 42%, 94%, and 100% chances of detecting abnormal returns of 0.5%, 1%, and 2%, respectively.<sup>52</sup> This means that for either sample, we are confident to around a 95% certainty level that the sample size is large enough to detect a 1% change in the data.

45. *Id.*

46. *Id.* at 144-45.

47. *Id.* at 145.

48. *Id.* at 144-46.

49. *Id.* at 146-47.

50. *Id.* at 144-45 (describing many of the difficulties involved in defining the announcement period).

51. Craig MacKinlay, *Event Studies in Economics and Finance*, 35 J. ECON. & LIT. 13, 29 (1997).

52. *Id.*

Our event study specifications are set up to test the hypothesis that CFIUS actions that block foreign investment have a protectionist-like effect of transferring wealth to American companies. When foreign competitors are blocked from the domestic acquisition market, potential domestic acquirers' stock price should increase since they can bid for the same firms with less competition. Furthermore, we also might expect their stock prices to increase due to weakened business competition. Ostensibly, by denying a foreign acquisition, CFIUS deprives the blocked foreign acquirer of some synergy that it would have received from the merger, making the acquirer a less formidable competitor and likely allowing higher profits for competing American firms. For these reasons, we constructed an event study to test whether after CFIUS recommends blocking a foreign acquisition, potential U.S.-owned and domiciled competitors of the foreign acquirer exhibit market returns that are significantly different from the competitors' expected returns without the CFIUS review.

### B. *Identifying the Announcement Day (Event Window)*

Identifying the proper announcement date is often the most difficult part of an event study because it may be hard to pinpoint a specific date on which the information became public.<sup>53</sup> Our study also faced this challenge. Foreign acquisitions often were accompanied by a media firestorm and protracted public deliberations about potential CFIUS actions before any conclusive action, such as a presidential injunction, occurred.<sup>54</sup>

However, before identifying specific dates for the announcement period, we had to identify which CFIUS-blocked transactions to study. Because CFIUS does not publish individualized data on the firms it reviews,<sup>55</sup> we identified specific events from case studies reviewed in legal literature.<sup>56</sup> We studied five

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53. Bhagat & Romano, *supra* note 42, and accompanying text.

54. See, for example, the 1992 Thomson bid for LTV, which came after months of negotiating with CFIUS and with a federal bankruptcy court. N.Y. Times News Serv., *Loral, Thomson Join in Bid for LTV Missile Operation*, BALT. SUN, July 24, 1992, [http://articles.baltimoresun.com/1992-07-24/business/1992206094\\_1\\_ltv-loral-missile-unit](http://articles.baltimoresun.com/1992-07-24/business/1992206094_1_ltv-loral-missile-unit).

55. COMM. ON FOREIGN INV. IN THE U.S., ANNUAL REPORT TO CONGRESS (2012) [hereinafter CFIUS REPORT].

56. See generally Byrne, *supra* note 8, at 871 (“[M]uch of the information which is in the public domain regarding individual CFIUS transactions is incomplete and is often provided by the very companies which are involved in the transactions. Because of these restrictions on the flow of information, most of the detailed information the public has on the specifics of transactions covered by CFIUS is from those transactions which prompted widespread public or congressional attention: the Thomson/LTV transaction, the CATIC/MAMCO transaction, the CNOOC/Unocal transaction, and the DPW/P&O transaction. An analysis of these transactions, and an appreciation of the process which similar but less high-profile transactions face, are essential to understanding how the Exon-Florio statute has traditionally been implemented and why changes to the statute have been proposed.”); James D. Carlson et al., *National Security Law*, 47 INT’L LAWYER 453, 454-55 (Spring 2013) (identifying the Ralls challenge CFIUS’s block of its takeover of Terna Energy as a highlight of CFIUS practice in 2012); Casselman, *supra* note 14, at 157 (explaining that the Note aims to “offer[] suggestions to improve Exon-Florio based in part upon lessons learned from the failed CNOOC-Unocal transaction”); Mostaghel, *supra* note 14, at 583-84 (“This Article examines the debacle of the DP World transaction, in light of the statute and regulations that govern foreign acquisitions of U.S. assets, to see if the brouhaha was warranted. It concludes that the statute and its implementing regulations protect U.S. national security and

events, each occurring within a one-day event window. These event studies are as follows: (1) February 1, 1990, CATIC/MAMCO:<sup>57</sup> President George H.W. Bush issued “Order on the China National Aero-Technology Import and Export Corporation Divestiture of MAMCO Manufacturing, Inc.,”<sup>58</sup> blocking CATIC’s attempted acquisition of MAMCO. (2) July 24, 1992, Thomson-CSF/LTV: Thomson withdrew its bid for the missile division of LTV.<sup>59</sup> (3) June 30, 2005, CNOOC/Unocal: the U.S. House passed Resolution 344 against CNOOC.<sup>60</sup> This resolution did not have the force of law, but a month later, CNOOC withdrew its bid.<sup>61</sup> (4) March 8, 2006, Dubai Ports World (DPW)/Peninsular and Oriental Steam and Navigation Company (P&O): A House panel voted to block the DPW acquisition of P&O.<sup>62</sup> DPW withdrew its bid on March 9.<sup>63</sup> We use the withdrawal date because President Bush actually supported the acquisition and threatened to veto any congressional legislation that would prevent the transaction.<sup>64</sup> (5) September 28, 2012, Ralls/Terna Energy: President Obama signed an order blocking Ralls Corporation’s acquisition of a wind farm in Oregon located close to a U.S. naval base.<sup>65</sup>

For each of the CFIUS events identified above, we used a one-day event window. Some studies will use a larger event window in order to detect effects that may be smaller or more gradual. Since all of these denials or withdrawals were announced in widely-followed national news reports, we were not concerned about the market reacting slowly, and we still obtained large and significant results using single-day announcement windows centered around the

that the reaction to the DP World transaction was a tempest in a seaport.”); Riven, *supra* note 14, at 759 (“This Comment summarizes the events leading to the withdrawal of the [Thomson-CSF] bid and focuses on a particular legal and political aspect of the controversy: foreign government ownership of the acquirer. While the issue of defense technology received considerable attention and discussion during the period of controversy, the focus of this Comment addresses the less-discussed commercial and economic implications of the French Government’s controlling ownership share of Thomson-CSF.”).

57. Riven, *supra* note 14, at 766.

58. Order on the China National Aero-Technology Import and Export Corporation Divestiture of MAMCO Manufacturing, Inc., 1 PUB. PAPERS 143 (Feb. 2, 1990).

59. N.Y. Times News Serv., *supra* note 54. Note that we used the withdrawal date despite there being no official action blocking the Thomson LTV acquisition. However, as “Thomson withdrew its bid for LTV’s missile division, probably after learning that CFIUS would recommend to President George H. W. Bush that he block the transaction,” the withdrawal date was effectively the same as the presidential announcement used in our other studies.

60. H.R. 344, 109th Cong. (2005).

61. Ben White, *Chinese Drop Bid to Buy U.S. Oil Firm*, WASH. POST, Aug. 3, 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/08/02/AR2005080200404.html>.

62. *House Panel Votes to Block Ports Deal*, FOXNEWS.COM, Mar. 9, 2006, <http://www.foxnews.com/story/2006/03/09/house-panel-votes-to-block-ports-deal/>.

63. *PBS News Hour: Dubai Ports Pledge to Transfer Ports to U.S. Entity* (PBS television broadcast Mar. 9, 2006), available at [http://www.pbs.org/newshour/bb/transportation/jan-june06/hls-ports\\_3-9.html](http://www.pbs.org/newshour/bb/transportation/jan-june06/hls-ports_3-9.html) (featuring a televised interview of Margaret Warner and Norman Ornstein).

64. *House Panel Votes to Block Ports Deal*, FOX NEWS, Mar. 9, 2006, <http://www.foxnews.com/story/2006/03/09/house-panel-votes-to-block-ports-deal/>.

65. See *Ralls Corp. v. Terna Energy USA Holding Corp.*, 920 F. Supp. 2d 27 (D.D.C. 2013); see also *Ralls Corp. v. Comm. on Foreign Inv. in the United States*, 926 F. Supp. 2d 71 (D.D.C. 2013); *Ralls Corp. v. Comm. on Foreign Inv. in the United States*, 2013 WL 5583847 (D.D.C. Oct. 10, 2013) (granting CFIUS’s motion to dismiss Ralls Corp.’s final due process claim on the grounds that Ralls received sufficient process before the deprivation).

dates identified above.<sup>66</sup>

### C. *Measuring Returns*

#### 1. *Identifying Firms*

As a precondition to obtaining stock data on the firms we believed would be affected by CFIUS intervention, we had to determine which competitor firms to include in our study. To identify firms that matched our criteria of “potential competitors of the blocked foreign acquirer that are U.S. owned and domiciled,” we used the Bloomberg stock selector function. The criteria by which we limited our search were filters for the following: (1) Industry and industry subgroup (to match the blocked acquirer); (2) Companies that are U.S.-domiciled and listed on a U.S. exchange (so that the market comparison against the S&P 500 would be constant); and (3) Companies with market capitalization greater than \$250 million, as smaller market cap firms are less likely to be acquirers.<sup>67</sup>

#### 2. *Stock Data*

We obtained historical stock data for the relevant firms from Bloomberg and from Yahoo! Finance.<sup>68</sup> We used daily closing prices for each company and the S&P 500 Index as a market benchmark.

### D. *Calculating Expected Returns*

The first econometric step of the event study was to calculate the expected returns of the stock in question as if the exogenous event had not occurred. There are many economic models available to estimate stock returns,<sup>69</sup> but most of these have been found to be either theoretically or empirically flawed predictors of performance.<sup>70</sup> The constant expected returns statistical

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66. See *infra* Section III.F.

67. See Gregor Andrade et al., *New Evidence and Perspectives on Mergers*, 15 J. ECON. PERSP. 103, 106 (Spring 2001) (showing targets are generally ten percent the size of the acquirer). Screening for larger firms allowed us to focus on firms more likely to be potential acquirers than potential targets. We expect the share price of potential targets to decrease as their shareholders would likely receive lower takeover-premiums in a less competitive bid. See also Alexander R. Slusky & Richard E. Caves, *Synergy, Agency, and the Determinants of Premia Paid in Mergers*, 39 J. INDUS. ECON. 277, 282 (1991) (showing that additional competitors increase the premia paid in takeover bids).

68. *Equities*, BLOOMBERG PROFESSIONAL SERVICE, <http://www.bloomberg.com/professional/markets/equities/> (last visited May 2013); *Historical Stock Price Data*, YAHOO! FINANCE, <http://finance.yahoo.com/> (last visited May 21, 2013).

69. The Capital Asset Pricing Model (CAPM) and Arbitrage Pricing Theory (APT) are perhaps the most important such models. For the theory underlying CAPM and its empirical validity, see Eugene Fama and Kenneth French, *The Capital Asset Pricing Model: Theory and Evidence*, 18 J. ECON. PERSP. 25 (Summer 2004); For more on the theory underlying APT and its empirical validity, see Phoebus Dhrymes, Irwin Friend & N. Bulent Gultekin, *A Critical Reexamination of the Empirical Evidence on the Arbitrage Pricing Theory*, 39 J. FIN. 323 (June 1984).

70. Bhagat & Romano, *supra* note 42, at 146 (“The choice of a benchmark model can impact both the variance and mean of the abnormal returns. Simulations using actual returns suggest that abnormal returns estimated using statistical models as benchmark are better specified . . .”) (citing Stephen Brown & Jerold Warner, *Using Daily Stock Returns: the Case of Event Studies*, 14 J. OF FIN.

model is:

$$R_{it} = \mu_i + \varepsilon_{it}$$

where  $R_{it}$  is the return for stock  $i$  over time period  $t$ ,  $\mu_i$  is the expected return for stock  $i$  and  $\varepsilon_{it}$  is the statistical error term.<sup>71</sup> This model, which our study uses, establishes the stock's expected performance by reference to the overall performance of the index on which it is listed over a given time period. By measuring the difference between the stock's actual performance and its expected performance (while also factoring in a statistical error term, epsilon), and then aggregating and regressing those differences, we can find the approximate impact of CFIUS decisions on competitors in a given industry.<sup>72</sup>

#### E. Computing Abnormal Returns

Once we calculated the expected returns, we were able to subtract this value from the observed (actual) returns to obtain the "abnormal returns" of the stocks being studied at the event date. The returns were then aggregated into "cumulative abnormal returns" (CAR), and then regressed to determine if they are statistically significant from zero.

To execute this study, we used a Princeton University Library Data and Statistical Services template, which was run using Stata software.<sup>73</sup>

#### F. Results

<b>Table 1. Summary Results of Selected CFIUS Events in 1990, 1992, 2005, 2006, and 2012</b>	
	<b>Total CAR</b>
Constant (T-Statistic)	2.097% (4.07)**
<i>N</i>	82
* $p < 0.05$ ; ** $p < 0.01$	

The result for the total CAR is very strong in terms of both statistical significance and magnitude. The test statistic indicates that we are confident at over a 99% confidence level that this result is different from zero (or that in a normal distribution, we would obtain such a result through random variation

ECON. 3 (Mar. 1985)); see also Stephen Brown & Jerold Warner, *Using Daily Stock Returns: the Case of Event Studies*, 14 J. FIN. ECON. 3, 13, tbl. 3 (Mar. 1985) (comparing the effect of different predictive models on an event study's power for identifying abnormal returns).

71. Bhagat & Romano, *supra* note 42, at 145..

72. For a more technical explanation, see *Event Studies with Stata*, PRINCETON UNIV. DATA & STATISTICAL SERVS., [http://dss.princeton.edu/online\\_help/analysis/eventstudy.html](http://dss.princeton.edu/online_help/analysis/eventstudy.html) (last updated May 20, 2008).

73. *Id.*

less than 1% of the time).

Furthermore, 2.097% is a very large increase for the markets affected. To contextualize the implication of a 2.097% industry-wide shock from a CFIUS merger denial, consider the following: for the U.S.-based aerospace defense industry, which has a market cap of \$54.7 billion,<sup>74</sup> this represents a single-day wealth transfer of just over \$1.1 billion—from just one CFIUS decision.

These results, while robust, are still limited by the quality of the data input. They are only as accurate as we have been in selecting the proper event dates and in defining the relevant markets (that is, in including the proper firms in the study).

Upon reexamination of our data, some of the markets seem to be poorly specified. In other words, the firms we chose to include may not have been affected by the CFIUS decision in the way our model would expect them to be.

For example, we think that our market specification for Ralls's attempted acquisition of the wind farm in Oregon in 2012 may have been incorrect. For the set of "potential competitors of the blocked foreign acquirer that are U.S.-owned and domiciled," our Bloomberg screening process yielded a number of U.S.-based energy firms. However, the national security objection to the acquisitions was not based on an industry-specific factor (i.e., not because the wind farm in question was somehow a sensitive technology), but rather on the fact that the wind farm was located next to a military base.<sup>75</sup> A more correct market specification would have been "potential U.S. acquirers of real estate located next to military bases." However, it is difficult to control for this specification. Furthermore, the 2012 firms—twenty-nine in all—account for a large proportion of the total firms in our study, so the bias is likely significant.

If the Ralls market specification was inaccurate, as we suspect, an event study would show that the CFIUS action had no effect on comparable U.S.-based energy companies (assuming they are not disproportionately located next to military bases). Hence, including these observations would dilute our sample and make our overall estimate of the effect of CFIUS actions seem lower than it should be.

We also are concerned about our market specification for the Dubai Ports World (DPW) event in 2006. The problems in this event specification were due to a lack of U.S.-domiciled competitors to DPW. There were only two companies identified for this event, Tutor Perini Corporation (TPC), a global construction company,<sup>76</sup> and Macquarie Infrastructure Company (MIC), which operates and invests in infrastructure businesses.<sup>77</sup>

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74. *Business Day: Markets: U.S. Markets*, N.Y. TIMES, <http://markets.nytimes.com/research/markets/usmarkets/industry.asp?industry=52111> (last visited Oct. 31, 2013). As of October 31, 2013, the *Times* database listed the market capitalization of various industries as follows: aerospace and defense, \$54.7 billion; energy, \$113.3 billion; industrials, \$58.3 billion. *Id.*

75. See *Ralls Corp. v. Comm. on Foreign Inv. in the U.S.*, 926 F. Supp. 2d 71, 78 (D.D.C. 2013).

76. *Tutor Perini Corp. (TPC)*, REUTERS, <http://www.reuters.com/finance/stocks/companyProfile?symbol=TPC> (last visited Oct. 28, 2013).

77. *Macquarie Infrastructure Company LLC (MIC)*, REUTERS, <http://www.reuters.com/finance/stocks/companyProfile?&symbol=MIC> (last visited Oct. 28, 2013).

Most of the DPW concern stemmed from the operational control DPW would have over entryways to the country and access to the ports' security plans.<sup>78</sup> Neither TPC nor MIC operates U.S. ports.<sup>79</sup> These two companies may have been included in the Bloomberg screening due to other business sectors that DPW was also active in, such as energy. MIC does have operations in U.S. airports, but does not have operational control (all U.S. airports are controlled by state or local governments),<sup>80</sup> making the comparison as a business competitor to DPW very tenuous.

The rest of the event specifications deal with competitors in the aerospace-defense market (CATIC/MAMCO, 1990, and LTV Missile, 1992, deals) and the energy-oil market (CNOOC/Unocal, 2005, deal) and are easier to identify. Accordingly, if we only look at 1990, 1992, and 2005, the dates for which we are most certain in our market specification and event specification, the result is the following:

	<b>Cumulative Abnormal Returns</b>
Constant (T-Statistic)	4.475% (5.71)**
<i>N</i>	51
* <i>p</i> < 0.05; ** <i>p</i> < 0.01	

This result is stronger in magnitude and more precise than the total CAR estimate above. This means that if we believe this regression has a better market specification, the real effect per defense-related CFIUS block would be a \$2.44 billion single-day transfer to the U.S. defense industry.

Generally speaking, researchers should be extremely cautious when tinkering with statistical results after making their initial specifications, as doing so will increase the risk of rejecting the null hypothesis when it is true.<sup>81</sup> How-

78. See, e.g., Frank J. Gaffney Jr., *Bait and Switch*, NAT'L REV. ONLINE, (Feb. 27, 2006, 2:01 PM), <http://www.nationalreview.com/articles/216903/bait-and-switch-frank-j-gaffney-jr> (warning of the "national security implications of having the United Arab Emirates-owned company operate as many as 22 port facilities from Maine to Texas" and noting that "the company will have to be read-in on these ports' security plans").

79. See REUTERS, *supra* note 76; REUTERS, *supra* note 77.

80. See *Airports Q&A*, AIRLINES FOR AMERICA, <http://www.airlines.org/Pages/Airports-QA.aspx> (last visited Oct. 31, 2013).

81. Hervé Abdi, *The Bonferroni and Sidak Corrections for Multiple Comparisons*, in ENCYCLOPEDIA OF MEASUREMENT AND STATISTICS 1 (Neil Salkind ed., 2007) ("The more tests we perform on a set of data, the more likely we are to reject the null hypothesis when it is true (i.e., a Type I error). This is a consequence of the logic of hypothesis testing: We reject the null hypothesis if we witness a rare event. But the larger the number of tests, the easier it is to find rare events . . . . This problem is called the *inflation* of the alpha level. In order to be protected from it, one strategy is to correct the alpha level when performing multiple tests. Making the alpha level more stringent (i.e., smaller) will create less errors, but it may also make it harder to detect real effects.").

ever, even without this revised market specification, our results from the first study were very robust, and for the reasons explained above, we think this might be a better set of comparisons. Nevertheless, a discussion of some of the irregularities we found may contribute to future research.

One such outlier we noted was a slight difference in the CNOOC event. The 2005 CNOOC event alone has a higher CAR than the others (just over 7%), which indicates that it may be somewhat skewing the data. The larger CNOOC CAR may be driven by various factors such as the timeline for the deal (the single-day event window catches more of the price change for a fast-moving deal than a slow-moving deal where the likelihood of failure is priced in incrementally over time), a larger deal size, and more press coverage. It is hard to say how much these considerations were at play in this study without further examination of the factors of each deal, which requires more nuance than our basic event-study methodology is capable of conveying.<sup>82</sup>

While the CNOOC/Unocal deal is canonically considered an instance of CFIUS review,<sup>83</sup> there was heavy congressional opposition to the deal and no actual presidential order that resulted in divestiture.<sup>84</sup> The extensive congressional involvement included a House resolution mandating a CFIUS investigation into the deal and a prohibition on allocation of funds to recommend approval of the merger.<sup>85</sup> Nonetheless, for these high-profile deals, congressional oversight and threats to block deals under CFIUS review are the norm, and not the exception.<sup>86</sup> In other words, congressional involvement does not seem to be much of a varying factor between the deals studied, though issuance of a final executive order is. However, the absence of a final executive order does not satisfactorily explain the high CAR for the CNOOC deal. To think otherwise would lead us to the somewhat paradoxical result that the *absence* of an executive order has a more powerful effect on the market than does the presence of an explicit CFIUS block.

Laying aside these concerns for now, these results show with a fairly high degree of certainty that CFIUS actions that block foreign investment have a significant, positive effect on the price of large American companies in the same industry as the failed acquirer. This increase ostensibly reflects the mar-

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82. More inquiry into why the CNOOC event was special may be an interesting area for further research.

83. Byrne, *supra* note 8, at 874-76.

84. Dick K. Nanto, James K. Jackson & Wayne M. Morrison, *China and the CNOOC Bid for Unocal: Issues for Congress*, CONG. RESEARCH SERV. 14 (SEPT. 15, 2005), [assets.opencrs.org/rpts/RL33093\\_20050915.pdf](http://assets.opencrs.org/rpts/RL33093_20050915.pdf).

85. *Id.* at 1.

86. Congressional threats to oversee, compel, or even prohibit CFIUS review of foreign mergers have been present in essentially all of the events studied here. See, e.g., Carl Hulse, *New Concerns on Port Deal Are Raised in Congress*, N.Y. TIMES (Mar. 1, 2006), <http://www.nytimes.com/2006/03/01/politics/01port.html> (discussing Dubai Ports World Deal); Brent Kendall, *Smithfield Faces Senate Concerns*, WALL ST. J. (July 10, 2013), <http://online.wsj.com/news/articles/SB10001424127887323740804578598013882100942> (discussing the Smithfield deal); Eric Schmitt, *G.A.O. Investigator Opposes LTV Unit Sale*, N.Y. TIMES (June 26, 1992), <http://nytimes.com/1992/06/26/business/company-news-gao-investigator-opposes-ltv-unit-sale.html> (discussing the Thomsen-CSF/LTV deal in 1992).



ket's expectation of increased profitability of these firms in the future. Our hypothesis is that this increased profitability is due to the decreased competition from foreign firms (who may be denied a synergy from the merger) and to the increased potential of acquiring the American target (or similar firms) at a discount because foreign bidders are excluded.<sup>87</sup>

In addition, because a lot of the probability of failure might be priced into the American companies' stock leading up to the actual CFIUS-block, the results we obtained likely understate the impact of the events. In other words, the market may have already inflated competitors' prices to reflect, for example, the sixty percent probability that the foreign acquirer's transaction would be blocked. When the merger is withdrawn or the presidential injunction is finalized, the observed change in stock prices would only reflect the remaining forty percent<sup>88</sup> of the total effect. While acknowledging that using a single-day event window would rob the study of some magnitude, we decided on this method out of concern for the statistical significance of our results.

Our results should not be taken as a lower limit on the impact of CFIUS review in every case, however. The events we studied reflect only the most high-profile collapses of foreign acquisitions. It is possible that there have been many more acquisitions (which is what we will examine in part in the next Section) that have quietly fallen apart without the strong political opposition and media firestorm that accompanied the *Dubai Ports World* case.

### G. *Analysis*

We can extrapolate three main points from the results of our event study. First, the CFIUS actions resulted in a wealth transfer to American companies. Second, this wealth transfer resulted in a corresponding deadweight (or efficiency) loss. Third, in the long run, these CFIUS actions may have a deterrent effect on foreign firms considering future U.S. acquisitions.

#### 1. *Wealth Transfer*

The results show that there was an above-normal aggregate return for the American competitors to the CFIUS-blocked foreign investor. However, the event study results do not address the origins of that money. This Subsection will use economic theory in an attempt to establish that it was a wealth transfer from foreign investors.

In these transactions we observed a decrease in the price at which the target was acquired.<sup>89</sup> This observation accords with an earlier study by Kam-Ming Wan and Ka-Fu Wong, which found that American companies similar to Unocal suffered about a 7.8% drop in share price when the United States indi-

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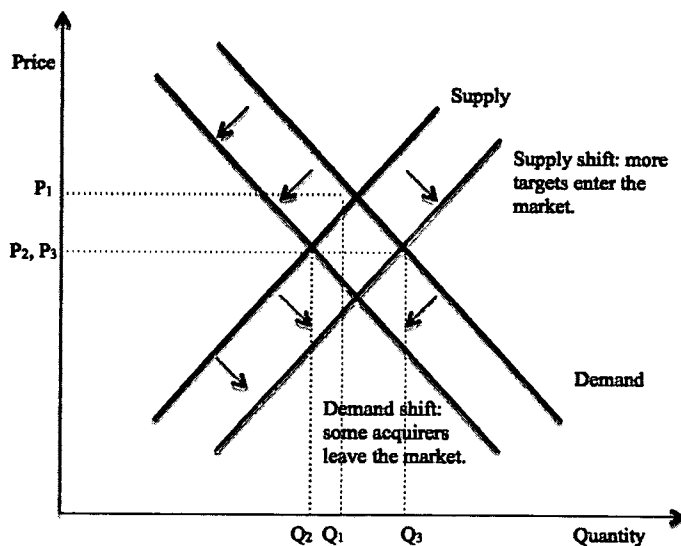
87. For example, Chevron purchased Unocal at \$1.5 billion below the CNOOC bid in 2005. David Barboza, *China Backs Away from Unocal Deal*, N.Y. TIMES (Aug. 3, 2005), <http://www.nytimes.com/2005/08/02/business/worldbusiness/02iht-unocal.html>.

88. Note that this number is simply an example.

89. See, e.g., Mostaghel, *supra* note 14, at 606-07.

cated that it would oppose a takeover by CNOOC.<sup>90</sup> Economically, as Figures 1 and 2 illustrate, a decrease in price may be due to (1) a decrease in demand, (2) an increase in supply, or (3) a wealth transfer. It seems unlikely that we observed an increase in supply. If this were the case, it would indicate that there are more targets willing to be acquired after a CFIUS-block, which seems doubtful, since they would then be selling at a lower price. A decrease in demand is likely, since a CFIUS-block necessarily excludes at least one acquirer from the market. However, it is unlikely that a decrease in demand is the entire story behind the price shift, as many of the CFIUS-blocked acquirers continue to pursue similar acquisitions post-block.<sup>91</sup> If price decreased by more than the demand shift would indicate, a wealth transfer as illustrated in Figure 2 must be present to some extent.

Figure 1



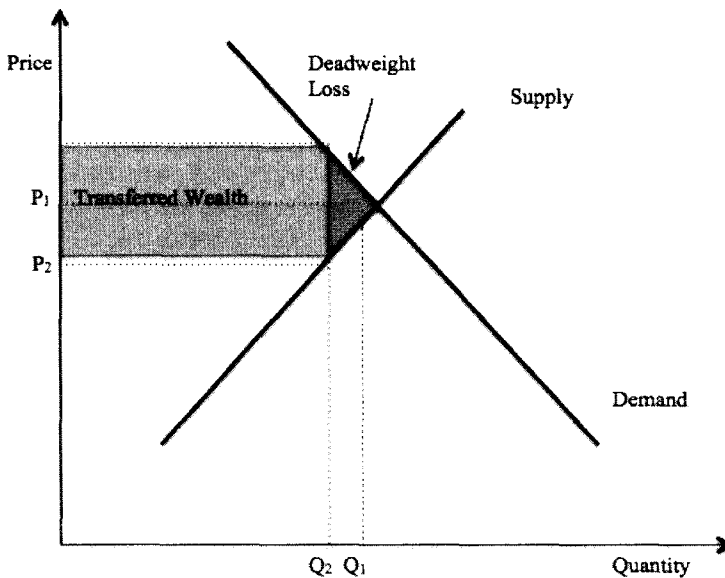
Therefore, to at least some degree, the price decrease probably indicates a wealth transfer and the creation of some deadweight loss as portrayed in Figure 2. The source of the wealth that is transferred is somewhat open to question. Economically, we may surmise that it comes in part from potential acquirers

90. Wan & Wong, *supra* note 14, at 453 tbl.3 panel A. While the Wan and Wong paper is an empirical study of a CFIUS event, their work focuses on a single event. Our analysis is more comprehensive and therefore more strongly predictive of CFIUS actions in general. The focus of their paper is different as well—they examine potential targets, not potential acquirers. Their market definitions are relatively weak since many, if not most, targets are small, privately owned companies without publicly available data. In any event, our results are complementary—if acquirers' stock goes up because they can buy targets at a discount, targets' stock should go down, because they do realize the full value of their assets.

91. See, e.g., Michael J. de la Merced, *Nexen Secures U.S. Approval of Its Sale to Cnooc of China*, DEALBOOK (Feb. 12, 2013, 9:10 AM), <http://dealbook.nytimes.com/2013/02/12/nexen-secures-u-s-approval-of-its-sale-to-cnooc-of-china>.

who would have paid more for the target company and hence are losing their consumer surplus. These firms are almost by definition foreign in the CFIUS context because if an American firm had outbid them, the transaction would not be subject to review. Furthermore, as Figure 2 shows, the transferred wealth may come from lost producer surplus as well. In this case, lost producer surplus means lost profitability from smaller American firms that would have been potential foreign takeover targets. This is a result that comports with the findings of the Wan and Wong study.<sup>92</sup>

Figure 2



### 2. Efficiency Loss

Although we can theoretically establish that deadweight loss exists here, we cannot estimate this deadweight loss without a demand curve. But the fact that there is such a large effect on share prices indicates that each action causes a major transfer and that the efficiency loss is correspondingly large.

### 3. Long-Run Deterrence

On top of concerns about the direct wealth transfer our results evince, the largest economic impact may be unmeasured loss from decreased competition for future investments. The decrease in competition from bidders may result in what is known as the Priest-Klein effect,<sup>93</sup> in which the largest economic loss is

92. See Wan & Wong, *supra* note 14, at 458-59.

93. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984).

not from direct participants, but from agents at the margin who are deterred from participating. There is even self-reported evidence of foreign firms experiencing such a chilling effect from investing in the United States.<sup>94</sup> In contrast to the other results discussed here, this effect would not be short-term or specific to a single transaction, and potentially represents a very large compounding opportunity cost.

#### H. *Discussion*

While we have yet to examine its application, the adverse effects of CFIUS actions are startling. CFIUS blocks seem to impose a significant barrier to investment, the social and redistributive costs of which should be seriously weighed against the supposed national security benefits derived from the CFIUS review process.

In light of the magnitude of its actions, CFIUS also should be aware of the potential for international retaliation and the ramifications which would result from such retaliation. Some scholars argue that activist CFIUS review could lead to foreign retaliation,<sup>95</sup> and the larger the repercussions of CFIUS review, the more fodder there is for foreign counter-measures. American investors thus may find it difficult to acquire companies abroad. With globalization expanding the world economy and making nation states and domestic markets more transnationally interdependent, regulations that set off favored results for domestic companies are potentially politically and economically dangerous.

Because the event studies show that domestic industries benefit enormously from CFIUS denials of foreign investment proposals, American-owned companies may be incentivized to sway executive or congressional decision-makers involved in the CFIUS process. This could potentially harm American consumers and America's international relationships. Rather than funding research and development, firms may decide to spend those funds to lobby government officials to continue rigorous CFIUS reviews to boost the share prices of domestic companies, furthering the economic inefficiencies generated by the CFIUS review process.

### IV. REGRESSION MODEL

#### A. *General Methodology*

In the previous Section, we tested for the economic effects of a CFIUS review and found that CFIUS blocks have very powerful effects, which may be subject to abuse by a group with little to no oversight or political accountability. This Section will examine whether CFIUS blocks are applied in a way that should give rise to concern about their impartiality.

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94. See *supra* note 12 and accompanying text.

95. See Jose E. Alvarez, *Political Protectionism and United States International Investment Obligations in Conflict: The Hazards of Exon-Florio*, 30 VA. J. INT'L L. 1, 149-50 (1989) ("Exon-Florio creates a license for mirror proposals by other countries. . . . [T]he result may be divestment nightmares for U.S. foreign investors based, ironically enough, on U.S. precedents." (citations omitted)).

For this Section, we gathered data on individual CFIUS-reviewed transactions and used several regression models to test various aspects of the CFIUS review process in order to establish whether there was evidence of discriminatory application of CFIUS review power.

Our first set of regressions sought to control for valid decision-making factors. If these regressions explained a large enough portion of the variation in the data, then CFIUS was likely not acting discriminatorily based on country status.<sup>96</sup> For this “valid factors test,” we first controlled for economic and financial factors inherent to the deal that would affect the outcome of the transaction, such as firm size and the presence of a competing bid. We obtained these factors from a survey of economic studies of merger success.<sup>97</sup> We then controlled for the factors CFIUS is legally required to consider when reviewing a deal, which we obtained from CFIUS annual reports to Congress.<sup>98</sup>

The second test we ran looked for evidence of discriminatory application of CFIUS review. For this test we included dummy variables by country. If these dummy variables yielded significant coefficients, that would provide evidence that CFIUS treats different countries differently (i.e., discriminatorily) in the review process. However, we did not find evidence to support the discrimination hypothesis.

Due to the structure of the regressions, there is a good chance that we over-specified and hid some of the evidence of country-based discrimination, so we ran a special regression, an “Included Variable Bias” (IVB) regression, to determine if such a masking effect was at work.

One of the major successes of our study was identifying, from public data, a large number of transactions that underwent CFIUS review. However, our data set was not comprehensive. The results that follow should be interpreted as a first pass at analysis of CFIUS review and a point of departure for future empirical studies. It would be wise to replicate these results in further studies before accepting our results as conclusive answers to the empirical questions we raise.

## B. *Control Regressions*

Our first set of regressions, the “valid factors test,” aimed to construct a model that best explained the observed successes and failures of the CFIUS-reviewed transactions in our data. To build this model, we started by including factors that economic scholarship has established to be relevant to the success of mergers in the open market, which we call “merger success factors.”<sup>99</sup> After controlling for the merger success factors, we introduced variables for legitimate national security or legal factors CFIUS states are relevant to its review, which we call “valid factors.”<sup>100</sup> We ran the regression again to determine the

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96. *Id.*

97. See *infra* Subsection IV.C.1.c. on “Control Factors.”

98. See generally CFIUS REPORT, *supra* note 55.

99. See *infra* Subsection IV.C.1.c. on “Control Factors.”

100. See CFIUS REPORT, *supra* note 55; *infra* notes 116-126 and accompanying text (discuss-

effect and statistical significance attributable to each factor in the outcome of CFIUS reviews.

### 1. *Data Collection*

Data on mergers and acquisitions are available from a plethora of sources with an abundance of descriptive observations about each deal.<sup>101</sup> However, there is relatively little data available on which transactions have undergone CFIUS review. Hence, in order to perform a statistical analysis of the review process, we needed to compile a large sample of transactions that underwent CFIUS review.

We identified these transactions in the following manner. First, we searched the Bloomberg mergers and acquisitions database and screened for deals within our timeframe of interest and noted the ones that mentioned CFIUS review. Second, we searched the SEC EDGAR database using the “full text” search option for “CFIUS”; from this we determined which companies for which we already had data had undergone CFIUS review, marked them appropriately, and manually added data that we could find on the other transactions.<sup>102</sup> Third, many law firms voluntarily report on major transactions and clients. We marked those that noted undergoing CFIUS review. After gathering data on CFIUS reviews from all of these sources, we merged every observation by hand into a master spreadsheet, linking them with Bloomberg deal data when possible to avoid duplications and omissions and to maintain uniformity.

A review of the relevant economic literature revealed that the factors most important to the successful outcomes of mergers are Contestation by Management (i.e., the target fights the takeover), Firm Size, and Competing Bidders.<sup>103</sup> Initially we included a variable for the presence of competing bidders. However, a competing bidder was present in only one case, and the observation was omitted automatically by the Stata program because it perfectly predicted the outcome.

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ing the factors in further depth).

101. For instance, Bloomberg and Thomson Reuters keep extensive data on mergers and acquisitions. BLOOMBERG, <https://bba.bloomberg.net/> (last visited Nov. 20, 2013); *Mergers and Acquisitions Center*, THOMSON REUTERS, <http://info.legalsolutions.thomsonreuters.com/business-law/mergers-acquisitions/default.aspx> (last visited Nov. 20, 2013).

102. The SEC’s EDGAR database can be searched online. See U.S. SECURITIES AND EXCHANGE COMMISSION, [http://searchwww.sec.gov/EDGARFSCClient/jsp/EDGAR\\_MainAccess.jsp](http://searchwww.sec.gov/EDGARFSCClient/jsp/EDGAR_MainAccess.jsp) (last visited Oct. 28, 2013).

103. For example, Hoffmeister and Dyl provide an analysis of the factors that contribute to the success of merger attempts resulting from cash tender offers. J. Ronald Hoffmeister & Edward A. Dyl, *Predicting Outcomes of Cash Tender Offers*, 10 FIN. MGMT. 50 (1981). Note that there is a very large quantity of scholarship on merger and acquisition financial economics, but very little of it deals with the likelihood of an acquisition’s failure. Hoffmeister and Dyl identified factors in merger success, in order of importance, as: (1) whether the deal is contested; (2) target firm size; and (3) less significant factors such as growth in earnings and competing bidders (white and black knights). *Id.* at 58. We did not include a factor for “earnings change” in our regression, as Hoffmeister’s reported results were very weak and not universally included in later papers. Keith C. Brown & Michael V. Raymond, *Risk Arbitrage and the Prediction of Successful Corporate Takeovers*, 15 FIN. MGMT. 54 (1986) confirmed these controls.

The 2011 CFIUS report to Congress<sup>104</sup> identified a number of factors as important in CFIUS's review process of foreign acquisition, which we discuss in the following Subsections.

a. *Espionage*

CFIUS may consider it a risk that companies or individuals might “[p]rovide products or services that could expose national security vulnerabilities, including potential cyber security concerns,” or “create vulnerability to sabotage or espionage.”<sup>105</sup> We generated a variable to reflect the propensity for espionage by performing Westlaw searches for cases (both state and federal) brought under the Espionage Act<sup>106</sup> after filtering by the country's name (e.g., “Israel”). We narrowed the results by date to post-1990 cases to avoid obtaining results that did not reflect what might be thought of as more realistic national security situations contemporary with the study. The data obtained ranged primarily from 2008 to 2011.

b. *Sensitive Industries*

CFIUS may consider whether the target and acquiring companies are in potentially sensitive industries, such as “energy production,” “transportation,” “financial system,” “technology,” and “defense, security, and national security-related law enforcement.”<sup>107</sup> Bloomberg marked the companies' industry sectors automatically. We generated either fixed effects based on industries or used industry dummy variables in the regressions run in Stata.

c. *Proximity to Certain United States Government (USG) Facilities*

CFIUS may consider whether a business is “in proximity to certain types of USG facilities.”<sup>108</sup> We did not have a USG proximity count. This is potentially a shortcoming of our data as reflected in the 2012 event study,<sup>109</sup> which seemed to exhibit significant bias because it was based on an industry sector rather than proximity to USG facilities. However, much of the data seemed to be explained by the factors we did possess—such as espionage risk, target company's industry, acquirer country's property rights and proliferation records, and whether the acquirer country boycotts Israel—which suggests that proximity to USG facilities is not often the major driving force of CFIUS review.

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104. CFIUS REPORT, *supra* note 55.

105. *Id.* at 20.

106. 18 U.S.C. § 793 (2006).

107. *See* CFIUS REPORT, *supra* note 55, at 20.

108. *Id.*

109. *See supra* note 75 and accompanying text.

d. *Proliferation Record*

CFIUS may also take into account whether the acquiring firm is “from a country with a record on nonproliferation.”<sup>110</sup> To generate a variable for this, we used the International Atomic Energy Agency Safeguards Statement for 2011, which reported on the adequacy of countries’ safeguard mechanisms to prevent nuclear proliferation and their proliferation records.

e. *Foreign Governmental Control*

CFIUS is authorized to block mergers when “acquisition of control [is] by a foreign person that . . . [is] controlled by a foreign government.”<sup>111</sup> This was a difficult variable for which to find a good proxy. For example, many acquisitions by sovereign wealth funds did not have publicly listed data and may have been excluded from the regression in a biased way. We used a property rights index<sup>112</sup> as a proxy for government ownership in general and the potential for nationalization. This approach may be preferable to simply using current sovereign ownership at the time of acquisition because it accounts for the significant risk of nationalization in certain countries. It may also help account for the influence foreign sovereigns may have on certain companies without officially having ownership in the company.

f. *Boycotts Israel or Does Not Ban Terrorist Organizations*<sup>113</sup>

CFIUS is authorized to block acquisitions from countries that boycott Israel.<sup>114</sup> Of these countries, only the United Arab Emirates was represented in our dataset.

CFIUS is also authorized to block acquisitions from countries that do not ban terrorist organizations.<sup>115</sup> None of these countries appears in our dataset.

C. *Discrimination Regression*

For the discrimination test, we introduced country variables for each deal into a regression that used our merger success variables and “legitimate” CFIUS decision-making criteria. After finding no evidence of discriminatory treatment from this regression, we tested for “included variable bias” to see if, despite the lack of discrimination in treatment by CFIUS, there is a potentially

110. See CFIUS REPORT, *supra* note 55, at 21.

111. *Id.*

112. *Heritage Foundation 2013 Economic Freedoms Index*, HERITAGE FOUNDATION, <http://www.heritage.org/index/explore> (last visited October 28, 2013).

113. CFIUS REPORT, *supra* note 55, at 28.

114. *Id.* at 29 (“To identify relevant countries that comply with any boycott of Israel . . . CFIUS interprets the reporting requirement . . . to apply to the following countries: Algeria, Iran, Kuwait, Lebanon, Libya, Qatar, Saudi Arabia, Sudan, Syria, the United Arab Emirates, and Yemen.”).

115. *Id.* (“To identify relevant countries that do not ban foreign terrorist organizations, CFIUS interpreted section 7(c)(1)(B) of FINSIA to apply to . . . Cuba, Eritrea, Iran, North Korea, Syria, and Venezuela.”).



discriminatory disparate impact on countries in the CFIUS review protocol. The result of this regression also indicated that there was no country-based discrimination in our sample.

Although our event studies suggested that CFIUS review is a potentially dangerous protectionist policy, our evidence does not indicate that it is being applied in a discriminatory manner.

### 1. *Tests for Discriminatory Application*

Tests for discriminatory treatment are often used in legal scholarship as well as legal practice.<sup>116</sup> The goal of this family of regression analysis is to establish that there is some variation in an outcome variable that can be explained by our factor of interest but cannot be explained by other factors.

Our hypothesis was that CFIUS review is applied arbitrarily and discriminatorily toward certain countries. In other words, some variation in the successful completion of CFIUS review (outcome variable) is explained by the nationality of the acquiring firm (test variable) and cannot be explained by variation in other factors: here, our “merger success variables” and published CFIUS decision-making criteria, or “valid factors.”

#### a. *Outcome Variable*

We defined our outcome variable as deals that terminate during or after withdrawing from CFIUS review. At first, this definition may seem less intuitive than simply using transactions that were directly blocked by CFIUS action. However, there are many reasons to prefer this definition. First, there are very few actual presidential actions blocking acquisitions on recommendation of CFIUS.<sup>117</sup> Some commentators have suggested the review process actually works in such a way as to encourage parties that will not pass review to quietly withdraw their bids.<sup>118</sup> This observation seems to be supported by the five CFIUS actions used in the event study in Part III—in all but two of the cases the acquirer withdrew before the issuance of a presidential order.<sup>119</sup>

The assumption that all failures in deals that undergo CFIUS review are due to impending CFIUS rejection is a very strong assumption. However, even

116. See, e.g., Ian Ayres, Frederick E. Vars & Nasser Zakariya, *To Insure Prejudice: Racial Bias in Taxicab Tipping*, 114 YALE L.J. 1613 (2005) (examining whether retail consumers discriminate against sellers); Ian Ayres & Peter Cramton, *Deficit Reduction Through Diversity: How Affirmative Action at the FCC Increased Auction Competition*, 46 STAN. L. REV. 761 (1995) (studying affirmative action bidding preferences on paging license auctions); Ian Ayres, Laura G. Dooley & Robert S. Gaston, *Unequal Access to Kidney Transplantation*, 46 VAND. L. REV. 805 (1993) (examining racial discrimination in access to kidney transplantation).

117. See *supra* Section III.B., which accounts for all of the CFIUS blocks since 1990, of which only two resulted from a presidential injunction.

118. Ronald D. Lee, *The Dog Doesn't Bark: CFIUS, the National Security Guard Dog with Teeth*, 8 M&A LAWYER 5, 5 (2005), [http://www.arnoldandporter.com/resources/documents/Article-National\\_Security\\_Guard\\_Dog%282-05%29.pdf](http://www.arnoldandporter.com/resources/documents/Article-National_Security_Guard_Dog%282-05%29.pdf).

119. See *supra* text accompanying note 117. For example, in the 2005 CNOOC/Unocal transaction, CNOOC withdrew its bid once it became apparent the transaction would be blocked. See Byrne, *supra* note 8, at 876.

accepting this heightened premise, we cannot reject the null hypothesis that CFIUS blocks are not discriminatorily applied.

b. *Test Variable*

To determine the effect that the acquirer's nationality had on its success at passing CFIUS review, each country was assigned a "dummy variable" which takes on a value of 1 if the acquirer was from that country and a value of 0 otherwise. The resulting coefficient on the dummy variable may be interpreted as the effect that the acquirer being from the country has on the outcome variable.

We report the coefficients on these dummy variables in the results section below. Our results include only a short list of countries, for the following reasons. First, our data set only included data from select countries.<sup>120</sup> Second, at least one of the dummy variables must be dropped because the results are relative to each other, not to some exogenous baseline. Standard practice is to drop the most common observation (here, the United Kingdom) and interpret the coefficients relative to that variable. In other words, if the Canada dummy receives a coefficient of "2," this result should be interpreted as meaning that Canadian companies are twice as likely to pass CFIUS review as U.K. companies. Since we are looking for disparate treatment, which is an inherently relative concept, we would detect it no matter which dummy is dropped and set as the baseline comparison.

c. *Control Factors*

In order to eliminate the variation attributable to nondiscriminatory factors, we include variables to control for (1) "merger success factors," i.e., qualities of the deals that would make them more likely to fall through on their own; and (2) "valid factors," which represent legitimate decision-making factors for CFIUS.<sup>121</sup>

D. *Included Variable Bias*

Included variable bias (IVB) is a potential statistical issue, concerning the inclusion of too many control variables, we mask some of the precision of our individual regression coefficients estimated for our test variables.<sup>122</sup> The IVB test is appropriate for evaluating disparate impact claims but not disparate treatment claims because the methodology will drop control factors to test the

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120. For example, no takeovers were initiated from Ghana.

121. CFIUS REPORT, *supra* note 55, at 20-22.

122. Ian Ayres, Testing for Discrimination and the Problem of "Included Variable Bias" 12 (Nov. 12, 2008), available at <https://www.law.upenn.edu/live/files/1138-ayresincludedvariablebias.pdf> ("The cost of this 'kitchen sink' approach is traditionally thought to be a loss in the precision of the coefficient estimates. Inappropriately including irrelevant controls will not bias the estimates of the included coefficients, but it will reduce the precision with which these coefficients are estimated. In disparate treatment regressions, inappropriately including irrelevant controls will not bias the estimate of disparate treatment ( $\beta_1$ ), but it will reduce the ability to test whether that coefficient is statistically significant.").

specificity of test variable significance. If the test factors become significant, there is a good chance that IVB is present.

One hypothetical example is the CFIUS factor for a boycott on Israel. This factor probably disproportionately affects Arab countries, compared to other countries that *ceteris paribus* pose the same security threat. If CFIUS review is discriminatory towards Arab countries, the effect might be masked by the variable that controls for having a boycott on Israel. Removing the “boycotts Israel” control variable might then make the country coefficients on the hypothetically discriminated-against Arab countries become significantly negative. While this would not be proof of discrimination, it would be a red flag that might warrant further investigation.

In other words, as IVB is likely to pick up more subtle discrimination than our fully controlled regression. A negative IVB result is a strong indication of a lack of discriminatory policy or application.

An IVB analysis is useful for this study because it will tell us about *potential* discrimination in the application of CFIUS review. If present, IVB would indicate that CFIUS review is potentially discriminatory as applied, in that the application of some factors, which may be of valid concern, affect some countries disproportionately more than others.

#### E. *Results*

There are three main inferences we can draw from this data set and our regression specification. First, we should maintain a healthy agnosticism about our data set. The data set is small and clustered at the country level, not the firm level, so we mask some of the deal-to-deal variance and likely lose some significance to multi-collinearity.<sup>123</sup> Second, of the regressions we performed, the one with the most explanatory power was the one that assumed CFIUS was doing its job in an unbiased way. The most important contribution of this regression is that the only significant factor—which is strongly significant—is espionage. This finding is particularly salient for companies under CFIUS review and their legal advisors, as it suggests that proving security from espionage may be the single most effective thing they can do to increase their client’s chances of passing CFIUS review. Third, the IVB test failed to show any sign of discrimination based on country.

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123. JAMES H. STOCK & MARK W. WATSON, INTRODUCTION TO ECONOMETRICS 209 (2d ed. 2007) (“Imperfect multicollinearity means that two or more of the regressors are highly correlated, in the sense that there is a linear function of the regressors that is highly correlated with another regressor. Imperfect multicollinearity does not pose any problems for the theory of the OLS estimators . . . . If the regressors are imperfectly multicollinear, then the coefficients on at least one individual regressor will be imprecisely estimated.”).

	<b>Financial Controls</b>	<b>CFIUS Controls</b>	<b>Financial + CFIUS Controls</b>	<b>IVB Test (Industry FEs)</b>	<b>Fully Specified (Industry FEs)</b>
Firm Size	-3.516e-06 (0.43)		-5.977e-06 (0.64)	3.231e-06 (0.13)	3.231e-06 (0.13)
Contested	-0.013 (0.08)		0.371 (1.74)	0.297 (0.58)	0.297 (0.58)
Spy Cases		-0.005 (2.35)**	-0.012 (2.38)**		-0.020 (0.91)
Property Rights		0.003 (1.93)	-0.002 (0.54)		0.003 (0.14)
NNPT		-0.005 (0.05)	-0.063 (0.27)		-0.427 (0.48)
Aerospace		-0.117 (1.12)	-0.575 (2.31)**		
Communications		-0.158 (1.28)	-0.318 (1.45)		
Consumer		0.007 (0.06)	-0.052 (0.30)		
Energy		-0.143 (1.26)	-0.300 (1.24)		
Financial		-0.268 (2.54)**	-0.469 (1.84)*		
Technology		-0.024 (0.22)	-0.107 (0.51)		
Utilities		0.025 (0.18)	0.172 (0.53)		
No Sector Given		0.066 (0.25)			
AU				0.798 (0.91)	
BZ				0.477 (0.50)	-0.642 (0.43)
CA				0.236 (0.52)	-0.064 (0.13)

CH				0.228 (0.44)	0.275 (0.19)
FR				0.240 (0.53)	-0.193 (0.39)
GE				0.090 (0.19)	-0.130 (0.27)
IT				0.479 (1.10)	-0.252 (0.45)
JN				0.543 (1.12)	0.131 (0.28)
RU				0.545 (0.69)	
TT				0.224 (0.38)	-0.322 (0.59)
UH				0.381 (0.66)	-0.771 (0.66)
Constant	0.874 (5.94)***	0.957 (7.41)***	1.199 (4.43)***	1.474 (1.69)	1.401 (2.54)**
$R^2$	0.01	0.23	0.56	0.45	0.45
$N$	33	69	30	30	30

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

Various countries were omitted automatically due to multi-collinearity. The dropped country-dummy is the United Kingdom because it was the most frequent observation.

Multi-collinearity was a problem that likely affected many of our regressions. Multi-collinearity is a problem in which too many variables contribute to an explanation of variation in the data and lose significance. For example, we might think that property rights and nuclear proliferation tend to correlate—countries that have bad property rights records also tend to have worse proliferation records. The statistical significance of each variable is accordingly diminished due to the presence of multi-collinearity. If multi-collinearity is present, the regression results show a large r-squared value and insignificant coefficients. In our results the fully controlled regression's r-squares is over 0.5 and all but three of the thirteen coefficients tested were insignificant.

A related problem is Omitted Variable Bias (OVB). In OVB, a variable we did not account for, such as dictatorships (which tend to have both poor property rights protections and subpar proliferation records), influences variables we did account for, but is itself the real cause of the likelihood of a CFIUS block to increase. In this case, the effect of being a dictatorship gets

split between the property rights variable and the proliferation variable.

Also, the regression data has a similar shortcoming in that much of the data is linked at the country level. For example, every regression that involves a Chinese firm has the exact same proxy variable for factors like property rights and espionage risk. Hence, different transactions from the same country appear to have all of the CFIUS control factor variables (espionage, property rights, and proliferation record, for example). This masked much of the real deal-to-deal variation that may have given us a clearer insight into the CFIUS review process. We outline some suggestions for the construction of better data sets in Subsection IV.G. below.

Finally, we should stress that this regression analysis only tests for discrimination in outcome, not in the preliminary application of CFIUS review. That is, the analysis looks to identify if firms face different outcomes based on nationality after having been chosen for CFIUS review. Our study does not look at whether certain transactions are singled out for review to which they would not otherwise be subject but for the nationality of the acquirer.

### 1. *Financial Controls Regression*

Financial controls alone seem to explain very little of the variation in the data. The r-squared for this regression was extremely low, and neither of the explanatory variables included is significant enough to reject the null hypothesis (that the coefficients are different from zero).

In the context of our study, these results imply that the predictors of success for the subset of mergers that undergo CFIUS review are different than those for merger deals in general. However, the observation that predictors of merger success for mergers in general does not seem to apply to CFIUS-reviewed deals is only a negative result—it does not prove anything as to the presence of discrimination in the review process or as to what factors the committee actually uses.

### 2. *CFIUS Controls Regression*

These controls seem to explain more of the variation in the data than did the financial controls alone. Particularly of note, the Espionage Act Cases variable seems to be the driving prediction factor, as it is in subsequent regressions. However, this coefficient does seem to include some of the country-specific effects as it dramatically loses significance once we add in country-specific dummy variables. Still, this loss of significance is not surprising due to the collinearity and clustering problems discussed above.

The industry dummy variables were for the most part insignificant. This regression produced significant results for financial firms, but that could be because we did not control for firm size. There may be good reason to think that average firm size varies across industry,<sup>124</sup> so one should not read too much in-

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124. See Krishna B. Kumar, Raghuram G. Rajan & Luigi Zingales, *What Determines Firm Size?* 11-12 (Ctr. for Research in Sec. Prices Working Paper No. 496, 2001),

to this.

### 3. *CFIUS and Financial Controls Regression (Valid Factor Test)*

This model has the most explanatory power ( $r$ -squared = 0.56) of any of the models tested. This should be very heartening news, as it indicates that acquisitions fail during CFIUS review primarily due to merger factors and legitimate CFIUS national security concerns.

This regression produced some interesting results with the industry dummy variables as well. Above, we discounted the results for the financial industry effects because we did not control for firm size. After controlling for firm size, its significance decreases to the 10% level, which is generally not accepted as conclusive. The aerospace industry coefficient became significant, whereas it had been insignificant when only looking at CFIUS factors.

It is also worth examining the coefficients of industries identified in the CFIUS report.<sup>125</sup> Even though practically none of these coefficients is significant, their signs break down almost exactly along the line we would expect based on industries mentioned in the report. The signs of the listed industries were generally negative, meaning likely to decrease the chance of successful CFIUS review: Energy (negative), Transportation (no observations), Financial (negative), Aerospace/Defense (negative), and Technology (negative). In comparison, the other sectors tended towards positive coefficients: Communications (negative), Consumer (positive), and Utilities (positive).

### 4. *IVB Test and Fully Specified Model*

Both of these regressions appear as though they lack any explanatory power. No countries emerge as significant when we only control for variables not linked by country under the IVB test. If one had become significant, or changed its coefficient significantly, there may have been some indication of discrimination, but that does not seem to be the case.

While some of the country-specific dummy variables changed from negative to positive values from the fully specified to the IVB regression, none of the changes resulted in enough significance to provide a strong ground for claiming disparate impact of CFIUS review based on the acquirer's country of origin.

While the event studies signaled that CFIUS actions lead to protectionist results for domestic companies in the affected industry, the regression analysis results lead to positive policy implications. Scholars have theorized extensively about CFIUS's possible negative effects on global competition as well as its potential to stifle much-needed foreign investment in the United States.<sup>126</sup> Nevertheless, the results here show that espionage is the factor that most significantly affects CFIUS review.

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<http://faculty.chicagobooth.edu/finance/papers/size.pdf>.

125. See *infra* Subsection IV.B.1.b.

126. See *supra* note 8 and accompanying text.

### F. *Testing the Model with Smithfield*

Using only the significant factors turned out by our best model, we can predict the probability of the outcome of the Smithfield CFIUS review. The probability of successfully passing review according to our model was 71.9%. However, if we compare this probability to the discount at which Smithfield shares were trading pending the review (the merger-arbitrage spread), which we can read as the market pricing for the risk of failure, it appears that our model is overly pessimistic. Before announcement that the Smithfield deal had passed CFIUS review, the merger-arbitrage spread hovered around 7%.<sup>127</sup> Alternatively, we could conclude that our model is correct—which is a risky proposition, given the imprecision in our final results—and that the markets were irrationally exuberant.

Though our probability, 72%, is by no means the same as the market probability, 93%, these numbers are—very broadly speaking—of the same magnitude and predict the same result. In this general sense, our model seems to be decently specified for a first attempt at an explanatory model of CFIUS review. However, the 21% difference between our model's prediction and the market prediction does indicate that there is substantial opportunity for improvement in the regression specifications.

### G. *Recommendations for Further Study*

While a randomized experiment would be the most conclusive way to evaluate many of the relationships our regressions have tried to flesh out, it would likely be prohibitively expensive. Nonetheless, there are a number of improvements on our methods of data collection and econometric analysis that future studies could examine.

Perhaps the largest improvement in data collection would be to link the CFIUS controls data to individual firms instead of to the countries of origin of the acquiring firms. If such data is not obtainable, it may be possible to design a study that relies on instrumental variables that correlate to the CFIUS factors (e.g., espionage propensity by deal) but not with the countries of origin (e.g., China).

Another method that would address the problems we experienced due to clustering at the country level would be to perform a panel data study with country fixed effects and Espionage Act cases over time. In other words, while controlling by country, one could examine the impact on deal success in year  $x + 1$  when there is an Espionage Act case filed in year  $x$ .

One further option would be to cluster the test variable at a higher level than by country. For example, the data could be clustered by region—Western Europe versus East Asia—or by treaty status with the United States. Doing so may also eliminate some of the collinearity problems.

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127. See Chris DeMuth Jr., *Smithfield Foods, Inc. (SFD)*, SEEKING ALPHA (Aug. 29, 2013, 3:08 PM), <http://seekingalpha.com/instablog/957061-chris-demuth-jr/2176682-smithfield-foods-inc-sfd>.



## V. CONCLUSION

With broadening national security concerns and rising political pressure from Congress, CFIUS has transformed from a relatively obscure executive branch committee to a major overseer of foreign entities that seek to acquire American assets. The results of this study show that CFIUS actions can have significant effects on the stock prices of domestic companies within the affected industry sector and lead to multibillion-dollar wealth transfers per action. Policymakers should analyze the results of this study as to the magnitude of CFIUS's effects and their potential for abuse absent public reporting or Congressional oversight. The study should be particularly helpful as policymakers continue to cultivate CFIUS's scope, as well as anticipate regulations that foreign nations may establish to the detriment of American investors in foreign companies in retaliation for perceived country-based discrimination. Though our regression analysis does not show discriminatory action in the outcomes of CFIUS reviews, legal advisors of foreign companies undergoing CFIUS review should implement security measures against potential espionage, as doing so will increase the likelihood that the proposed deal will be approved. This Note, through empirical analysis of public data, has shed some light into CFIUS decision-making and the impact it has had on affected industries.

