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KUWAIT PROGRAMME

HOW DO SOVEREIGN WEALTH FUNDS PAY THEIR PORTFOLIO COMPANIES' EXECUTIVES? EVIDENCE FROM KUWAIT

Bader S. Alhashel and Sulaiman H. Albader

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Abstract

Sovereign wealth funds (SWFs) are major players in the global markets. This paper examines the possible value SWFs bring to their domestic holdings by examining the impact of SWF ownership on firms' executive compensation. Using data on Kuwaiti SWFs, we find that having an SWF as an ultimate owner enhances the pay–performance sensitivity (PPS) to levels matching those in more developed markets. This pay–performance enhancement increases as the rights of the SWF to manage and oversee the firm's cash-flow increase. Moreover, having an SWF as the firm's ultimate owner alleviates the adverse effects of the divergence in cash-flow and control rights. This evidence supports the notion that SWFs create value for their target investments through activism, monitoring and corporate governance enhancements.

Introduction

Sovereign wealth funds (SWFs) are significant players in today's global markets, holding shares in one of every five firms worldwide and accounting for about 2 percent of global equity and bonds markets.[1] They are quite distinct from other institutional investors due to their state ownership, mixed objectives, and, for many, no liability structure.[2] Lately, there has been significant debate and different findings as to whether SWFs are active investors that create or destroy value for their investments or if they are merely passive investment managers.[3] In this paper, one effect SWFs may have on their firm holdings will be examined: the impact upon the firm's corporate governance. Specifically, we intend to examine how SWFs might enhance or diminish the pay–performance relationship for the firm's executives.

Executive compensation is an essential element of corporate governance that incentivises managers to work in the interest of shareholders and reduce agency costs.[4] Given their position as one of the largest shareholders in many firms worldwide, if they are not the largest outright, SWFs have considerable monitoring incentives and influence on managerial pay.[5] This monitoring is achieved through the tendency to have SWF representatives on corporate boards in addition to the corporate governance enhancement proposals they put forward.[6] In fact, large and institutional shareholders have been documented as positively affecting the pay–performance relationship.[7]

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[1] Nuno Fernandes, 'The impact of sovereign wealth funds on corporate value and performance', *Journal of Applied Corporate Finance* 26/1 (2014), pp. 76–84; John Gieve et al., 'Sovereign wealth funds and global imbalances', *Revue d'économie financière* 9/1 (2009), pp. 163–77.

[2] William L. Megginson and Veljko Fotak, 'Rise of the fiduciary state: A survey of sovereign wealth fund research', *Journal of Economic Surveys* 29/4 (2015), pp. 733–78.

[3] Bader Alhashel, 'Sovereign Wealth Funds: A literature review', *Journal of Economics and Business* 78 (2015), pp. 1–13.

[4] Adolf Berle and Gardiner C. Means, *The Modern Corporation and Private Property* (Piscataway, NJ: Transaction Publishers, 1991); Michael Jensen and William Meckling, 'Theory of the firm: Managerial behavior, agency costs and ownership structure', *Journal of Financial Economics* 3/4 (1976), pp. 305–60; Michael Jensen and Kevin Murphy, 'Performance pay and top-management incentives', *Journal of Political Economy* 98/2 (1990), p. 225.

[5] John Core and Wayne Guay, 'The use of equity grants to manage optimal equity incentive levels', *Journal of Accounting and Economics* 28/2 (1999), pp. 151–84; Michael Jensen and Jerold B. Warner, 'The distribution of power among corporate managers, shareholders, and directors', *Journal of Financial Economics* 20 (1988), pp. 3–24; Kevin Murphy, 'Executive compensation', *Handbook of Labor Economics* 3 (1999), pp. 2485–563.

[6] Alhashel, 'Sovereign Wealth Funds'.

[7] Jay C. Hartzell and Laura T. Starks, 'Institutional investors and executive compensation', *The Journal of Finance* 58/6 (2003), pp. 2351–74; Neslihan Ozkan, 'Do corporate governance mechanisms influence CEO compensation? An empirical investigation of UK companies', *Journal of Multinational Financial Management* 17/5 (2007), pp. 349–64; Stephen G. Sapp, 'The impact of corporate governance on executive compensation', *European Financial Management* 14/4 (2008), pp. 710–46.

However, recent evidence indicates that the influence of the largest shareholder on executive pay differs based on the type of shareholder.[8] Furthermore, depending on the ownership structure, large shareholders may not always set proper incentive schemes for managers.[9]

This capacity to influence firms' decisions is much greater in economies with concentrated ownership where the largest shareholder, or shareholders, tend to dominate the board, control the firm and, consequently, set executive pay.[10] In such economies, and with concentrated ownership, comes the divergence of the cash-flow and control rights of the controlling shareholders that has been shown to be harmful to firm value.[11] This divergence allows large shareholders to influence firm decisions through voting rights despite relatively smaller cash-flow rights. Moreover, it allows majority shareholders and managers to expropriate from the firm at the expense of minority shareholders.[12] Managerial rent-seeking may then occur in such a setting as managers receive pay not commensurate with their performance.[13] Managerial rent-seeking is even more prevalent in economies with weak investor protections.[14] Therefore, given the distinct features of SWFs, their significant ownership stakes in firms, and the weakly governed economies they operate in, it is essential to understand the impact they have on executive pay.

Using data on Kuwaiti firms over the period 2004–12, we find that in firms where the ultimate shareholder is an SWF, managers have a higher pay–performance sensitivity (PPS). SWFs' ownership increases PPS by 4–5 times its base levels, a very substantial increase. Such a considerable effect adds great value to the firm by reducing agency costs. This higher sensitivity is only valid when using accounting-based measures and not with a market-based performance measure. SWFs' positive influence is again demonstrably considerable, with a one standard deviation increase in their cash-flow rights increasing PPS threefold. However, PPS deteriorates as the divergence between the control and cash flow-rights increase (i.e., the firm is further down the ownership chain and remote from the ultimate shareholder). Nevertheless, having an SWF as the ultimate owner along this chain significantly reduces the adverse effect of the cash-flow / control rights divergence. We have chosen Kuwait as a case study because it is host to one of the oldest and

[8] Michael Firth, Peter M. Y. Fung and Oliver M. Rui, 'Corporate performance and CEO compensation in China', *Journal of Corporate Finance* 12/4 (2006), pp. 693–714.
[9] Kun Wang and Xing Xiao, 'Controlling shareholders tunneling and executive compensation: Evidence from China' *Journal of Accounting and Public Policy* 30/1 (2011), pp. 89–100.
[10] Firth et al., 'Corporate performance and CEO compensation in China'.
[11] Stijn Claessens, Simeon Djankov, Joseph Fan and Larry Lang,'Disentangling the incentive and entrenchment effects of large shareholdings' *The Journal of Finance*, 57/6 (2002), pp. 2741–71.
[12] Charles J. P. Chen, Zengquan Li, Xijia Su and Zheng Sun, 'Rent-seeking incentives, corporate political connections, and the control structure of private firms: Chinese evidence', *Journal of Corporate Finance* 17/2 (2011), pp. 229–43.
[13] Jerry Cao, Xiaofei Pan and Gary Tian, 'Disproportional ownership structure and pay–performance relationship: Evidence from China's listed firms', *Journal of Corporate Finance* 17/3 (2011), pp. 541–54.
[14] Rafael La Porta, Florencio Lopez-de Silanes and Andrei Shleifer, 'Corporate ownership around the world', *The Journal of Finance* 54/2 (1999), pp. 471–517; Simon Johnson, Rafael La Porta, Florencio Lopez-de Silanes and Andrei Shleifer, 'Tunneling', *American Economic Review* 90/2 (2000), pp. 22–7.

largest SWFs in the world. The latest estimate for Kuwait's largest SWF, the Kuwait Investment Authority (KIA), is $524 billion, ranking it as the fourth largest SWF in the world.[15] Another major SWF in Kuwait is the Public Institution for Social Security (PIFSS), which has an estimated size of $30 billion.[16] These Kuwaiti SWFs have significant holdings in the domestic market in which they take an active role, as evidenced by their board representation. These holdings ensure that the SWFs have a clear outlet to voice their opinion on the firms' affairs, in general, and regarding executive compensation, specifically. Finally, Kuwaiti SWFs' investments offer a unique ability to alleviate some of the endogeneity concerns with executive compensation and ownership structure. Reducing the endogeneity concern is important since one could otherwise propose that SWFs do not bring monitoring value to their holdings, but are instead attracted to properly run firms with sound corporate governance systems (i.e., the clientele effect).[17] As will be discussed in more detail later, for the examined firms in Kuwait, SWF ownership had been in place since the firms' establishment, thus reducing some of the reverse causality concern. Therefore, we would argue that the evidence points to the monitoring on the part of the SWF bringing good governance to the firm, rather than the other way around.

This paper contributes to several strands of the literature. First, it adds to existing research on institutional investors and to the growing literature on SWFs. It specifically contributes to the ongoing debate on whether SWFs create or destroy value in their target investments, focusing on domestic investments.[18] In finding that SWFs improve the pay–performance relationship, we provide evidence supporting the notion that SWFs bring value to their domestic firms through their activism and corporate governance enhancements.

Second, it contributes to the literature on executive compensation and ownership structure. While several papers have examined the effect of blockholders, blockholder type and various ownership structures on executive pay and the pay–performance relationship,[19] this is the first paper to investigate the effects of a unique actor – SWFs – on executive pay. The paper also contributes to the literature by showing how – depending on the owner's incentives and market structure – non-market-based performance measures could be used as benchmarks for managerial performance.

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[15] 'Fund Rankings', *SWFI - Sovereign Wealth Fund Institute*. Available at https://www.swfinstitute.org/fund-rankings/ (accessed 2 January 2018).

[16] 'PIFSS', *SWFI - Sovereign Wealth Fund Institut*e. Available at https://www.swfinstitute.org/public-investors/pifss/ (accessed 2 January 2018).

[17] James A. Brickley, Ronald C. Lease and Clifford W. Smith, 'Ownership structure and voting on antitakeover amendments', *Journal of Financial Economics* 20 (1988), pp. 267–91; Franklin Allen, Antonio E. Bernardo and Ivo Welch, 'A theory of dividends based on tax clienteles', *The Journal of Finance*, 55/6 (2000), pp. 2499–536; Brian J. Bushee and Christopher F. Noe, 'Corporate disclosure practices, institutional investors, and stock return volatility', *Journal of Accounting Research* (2000), pp. 171–202.

[18] Alhashel, 'Sovereign Wealth Funds'; Megginson and Fotak, 'Rise of the Fiduciary State'.

[19] Ronald W. Masulis, Cong Wang and Fei Xie, 'Agency problems at dual-class companies', *The Journal of Finance* 64/4 (2009), pp. 1697–727; Takao Kato and Cheryl Long, 'Executive compensation, firm performance, and corporate governance in China: Evidence from firms listed in the Shanghai and Shenzhen stock exchanges', *Economic Development and Cultural Change* 54/4 (2006), pp. 945–83; Firth et al., 'Corporate performance and CEO compensation in China'.

Finally, this paper contributes to the growing literature on executive compensation in emerging markets. Given the unique setting of developing nations, which produce significantly divergent results from patterns observed in the US or Western Europe, there has been great demand for single country research on corporate governance to enhance our understanding of it.[20] Kuwait, with its large and well-established SWFs, weak investor protection, ownership concentration and nascent corporate governance rules, makes for an excellent laboratory to test for the impact of distinctive entities such as SWFs on firms.

Institutional Background

The Kuwait Investment Authority dates back to 1953.[21] The KIA was established to manage the government surpluses generated from oil revenues. It invests those funds locally and internationally. The Sovereign Wealth Funds Institute estimates that the KIA has assets under management of around $592 billion as of the end of 2016.[22]

Kuwait also has other funds that could be considered SWFs, albeit on a much smaller scale. The PIFSS manages the public pension fund. The third largest fund is the Public Authority for Minors' Affairs (PAMA), which manages the assets for Kuwaiti minors until they reach legal age. The fourth is the Kuwait Awqaf Public Foundation (KAPF). The KAPF manages assets with the aim of spending the returns and proceeds generated from these assets on charitable projects and endeavours. The KAPF's assets are accumulated through new donations or the organic growth of previous donations. Hence, the KAPF is similar in structure to non-profit foundations found in the US and elsewhere. The difference, however, is that the KAPF is a government entity and not a private one. All of these funds have assets that vary, ranging from equities to alternative assets and from domestic holdings to international ones.

These SWFs' equity investments in the domestic market tend to occur through two channels. The first is through investing some of their funds with professional asset managers who have high, if not full, discretion regarding the allocation and investment of these funds. The second is direct equity ownership in local firms that tend to be of significant size (i.e., greater than or equal to 10%). In the second channel, this direct investment almost always happens at the point at which the firm is established. In very few instances have any of those funds, over our sample period, acquired a stake in the firm at a later stage of its life. For example, Kuwait Finance House (KFH), one of the largest and oldest

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[20] Mark L. Defond and Mingyi Hung, 'Investor protection and corporate governance: Evidence from worldwide CEO turnover', *Journal of Accounting Research* 42/2 (2004), 269–312; Kiridaran Kanagaretnam, Robert Mathieu and Mohamed Shehata, 'Usefulness of comprehensive income reporting in Canada', *Journal of Accounting and Public Policy* 28/4 (2009), pp. 349–365; Sunny Li Sun, Xia Zhao and Haibin Yang, 'Executive compensation in Asia: A critical review and outlook', *Asia Pacific Journal of Management*, 27/4 (2010), pp. 775–802.

[21] 'Overview', *Kuwait Investment Authority*. Available at http://www.kia.gov.kw/en/ABOUTKIA/Pages/Overview.aspx (accessed 11 May 2018).

[22] 'Kuwait Investment Autority', *SWFI - Sovereign Wealth Fund Institute*. Available at http://www.swfinstitute.org/swfs/kuwait-investment-authority/ (accessed 11 May 2018).

Islamic banks in the world, has been owned jointly by the KIA, the PAMA and the KAPF with their ownership totalling about 40% since the bank's establishment in 1977. One reason behind the KIA's method of investing is the Kuwaiti law that requires, when establishing any state-owned enterprise, that the KIA own significant stakes in excess of 20%. The remaining shares are divided between the general public and a private firm. This ownership structure is valid for firms in which SWFs have direct ownership and does not apply to firms down the ownership chain.

In those firms where the SWFs own a majority, they have seats on the board depending on their stake. These seats tend to be filled by those funds' higher management. Through these seats and voting rights, the SWFs, as a dominant shareholder, have a significant say in choosing the top management team, setting their pay, and managing the firm. However, it could be the case that the SWF is not the only large shareholder in the firm, with other large shareholders also sitting on the board of directors.

Kuwait – a developing economy with a relatively small stock exchange, especially in the late 1990s and early 2000s – had a tiny number of firms available to be acquired at this time. Therefore, firms did not have the luxury to grow through mergers and acquisitions, as would be the case in the highly-developed corporate control market of the US. Instead, firms resorted to setting up new ventures from scratch in order to enter new businesses and grow. KFH is an apposite example, having been set up with the KIA and the other SWFs as founders of the bank. Another more recent example is the Aviation Lease and Finance Company (ALAFCO). ALAFCO was established by KFH in 2000, giving the bank access to the aircraft leasing market. By being on the board of KFH, the SWFs had a say on the establishment of such subsidiaries and the practices applied.

This dominant practice of large funds establishing firms (i.e., having the SWF as a founder) means the decision to invest in the firm is exogenous to the corporate governance setup later on as the firm starts running. By having the decision to invest made exogenously, we argue that our findings allow us to make a causal inference between the ownership structure of the firm and the pay–performance relationship. In other words, the argument that the SWFs were attracted to firms with good corporate governance practices does not apply here. The decision on how much to invest is as exogenous as the decision to invest when the firm existed only on paper, with no running operations or management to be paid, or any corporate governance mechanisms in place. However, the SWFs could later on – once the firm was up and running – alter their investment and ownership level, potentially raising concerns regarding the endogeneity of the decision. It is possible that the corporate governance of a firm has an impact on the decision of an SWF to increase or decrease its ownership. If this is the case, it would undoubtedly weaken our causal conclusion from the analysis in our section 'Empirical Results', in which we examine the effects of the size and structure of the ownership of the SWF on the pay–performance relationship.

Hypothesis Development

SWFs are institutional investors that are unique among other kinds of institutional investors.[23] They are state-owned investment vehicles – funded by foreign exchange reserves, commodity revenues, government budget surpluses or pension surpluses – that invest in various asset classes globally.[24] Furthermore, they tend to have mixed objectives and are not limited to the standard financial aim of maximising the wealth managed. SWFs could be called upon to support their domestic economies, acting in some cases as investors and lenders of last resort, as well as possibly having the mandate to generate social, as opposed to simply economic, returns.[25] An additional feature of SWFs is their ability to be very long-term investors. For example, KIA has owned shares in Daimler, the owners of Mercedes-Benz, since 1974. KIA's long-term holdings are not constrained solely to the international arena, having owned shares in Zain, the largest telecommunications operator in Kuwait, since its establishment in 1983.

SWFs, as institutional investors, can bring value to their target investments through their monitoring, activism and board representation.[26] SWFs value-added potential is further augmented by their very long investment horizons and low liquidity requirements that can allow them to reach high and effective monitoring levels.[27] This high level of monitoring would result in a better alignment of managerial and shareholder interests typical to blockholders as shown by evidence of higher PPS.[28] Such intensive monitoring is not without its costs, and yet it is significant long-term investors such as SWFs that can afford it.[29]

However, the nature of these state-owned entities may eventually limit the monitoring of firm managers. Limitation of monitoring could be driven either by the rent-seeking of

[23] Megginson and Fotak, 'Rise of the Fiduciary State'.
[24] Alhashel, 'Sovereign Wealth Funds'.
[25] Shai Bernstein, Josh Lerner and Antoinette Schoar, 'The investment strategies of sovereign wealth funds', *The Journal of Economic Perspectives* 27/2 (2013), pp. 219–38; Alexander Dyck and Adair Morse, 'Sovereign Wealth Fund Portfolios', *Technical Report* 11–15, Chicago Booth Research Paper (2011).
[26] Andrei Shleifer and Robert W. Vishny,'Politicians and Firms', *The Quarterly Journal of Economics* 109/4 (1994), pp. 995–1025; Michael. P. Smith, 'Shareholder Activism by Institutional Investors: Evidence from CalPERS', *The Journal of Finance* 51/1 (1996), pp. 227–52.
[27] Xia Chen, Jarrad Harford and Kai Li, 'Monitoring: Which institutions matter?', *Journal of Financial Economics* 86/2 (2007), pp. 279–305.
[28] Bin Ke, Kathy Petroni and Assem Safieddine, 'Ownership concentration and sensitivity of executive pay to accounting performance measures: Evidence from publicly and privately-held insurance companies', *Journal of Accounting and Economics* 28/2 (1999), pp. 185–209; Kyonghee Kim, 'Blockholder monitoring and the efficiency of pay-performance benchmarking', *Journal of Corporate Finance* 16/5 (2010), pp. 748–66; Hartzell and Starks, 'Institutional investors and executive compensation'; Kose John, Hamid Mehran and Yiming Qian, 'Outside monitoring and CEO compensation in the banking industry', *Journal of Corporate Finance* 16/4 (2010), pp. 383–99.
[29] Harold Demsetz and Kenneth Lehn, 'The structure of corporate ownership: Causes and consequences', *Journal of Political Economy* 93/6 (1985), pp. 1155–77; Raihan Khan, Ravi Dharwadkar and Pamela Brandes, 'Institutional ownership and CEO compensation: A longitudinal examination', *Journal of Business Research* 58/8 (2005), pp. 1078–88; Shleifer and Vishny, 'Politicians and Firms'.

politicians,[30] a detachment from the firm that is common in state-owned enterprises,[31] or the pursuit of social goals. If the firm was required to achieve non-financial social objectives (e.g., employment), then managers would not be paid according to their financial performance but based on those non-financial social targets.

The empirical evidence on SWFs' role seems to be mixed. On the one hand, some researchers find that SWFs' investments tend to have higher value, with the premium stemming mostly from better governance and activism.[32] On the other, there has been research showing no value added or, in some cases, value destruction.[33] Therefore, we hypothesise the following:

H1: SWFs do not affect the PPS of manager pay.

In environments with weak investor protection, lack of proper corporate governance rules, and abundant use of cross-holdings and pyramid structures, large shareholders have greater incentives to monitor managers and ensure their interests are aligned.

The monitoring incentives could potentially be even higher for SWFs. SWF ownership tends to reduce the credit risk and cost of firms.[34] Reducing the credit cost of firms may then result in a higher cash flow available to management. High levels of free cash flow tend to increase the probability of misuse and agency costs.[35] Moreover, the lower credit risk found for SWFs' target investments is a result of the conviction that SWFs would bail out their target firms if these firms faced financial difficulties. This sense of security would therefore increase management's moral hazard and their tendency to engage in self-enriching, value-destroying activities.[36] Both of these channels should result in SWFs having greater incentives to monitor.

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[30] Megginson and Fotak, 'Rise of the Fiduciary State'; Shleifer and Vishny, 'Politicians and Firms'.

[31] Andrei Shleifer, 'State versus private ownership', *Journal of Economic Perspectives* 12/4 (1998), pp. 133–50.

[32] Kathryn L. Dewenter, Xi Han and Paul H. Malatesta, 'Firm values and sovereign wealth fund investments', *Journal of Financial Economics* 98/2 (2010), pp. 256–78; Fernandes, 'The impact of sovereign wealth funds on corporate value and performance'; Elvira Sojli and Wing Wah Tham, 'The impact of foreign government investments: Sovereign wealth fund investments in the United States', in *Institutional Investors in Global Capital Markets* (Bingley, UK: Emerald Group Publishing Limited, 2011), pp. 207–43.

[33] Jason Kotter and Ugur Lel, 'Friends or foes? Target selection decisions of sovereign wealth funds and their consequences', *Journal of Financial Economics* 101/2 (2011), pp. 360–81; April M. Knill, Bong Soo Lee and Nathan Mauck, 'Sovereign wealth fund investment and the return-to-risk performance of target firms', *Journal of Financial Intermediation* 21/2 (2012), pp. 315–40; Bernardo Bortolotti, Veljko Fotak and William L. Megginson, 'The sovereign wealth fund discount: Evidence from public equity investments', *Review of Financial Studies* (2015), pp. 2993–3035.

[34] Fabio Bertoni and Stefano Lugo, 'The effect of sovereign wealth funds on the credit risk of their portfolio companies', *Journal of Corporate Finance* 27 (2014), pp. 21–35.

[35] Michael Jensen, 'Agency costs of free cash flow, corporate finance, and takeovers', *The American Economic Review* 76/2 (1986), pp. 323–9.

[36] Kenneth J. Arrow, 'Uncertainty and the Welfare Economics of Medical Care', *The American Economic Review* 53/5 (1963), pp. 941–973; Mark V. Pauly, 'The Economics of Moral Hazard: Comment', *The American Economic Revie*w (1968), pp. 531–7.

This monitoring incentive, of course, would increase as the amount of cash-flow rights the SWF is entitled to increases.[37] We define the ultimate shareholder as the largest shareholder along the ownership chain. However, as the cash-flow and control rights diverge, the monitoring incentives for large shareholders are weakened and instead those shareholders tend to pursue their private interests at the expense of other shareholders. Such expropriation would occur through tunnelling,[38] related party sales,[39] and transferring profits out of the company for personal gain.[40] Expropriation is more likely when firms have weak corporate governance mechanisms and disclosure requirements.[41] While such expropriation incentives might not exist for SWFs, they could indeed be of interest to the other large shareholders who actively manage the firm through their board seats. SWFs, hence, could act as monitors not just of firm managers but of other majority shareholders, ensuring they do not expropriate from the firm at the expense of the SWF and the minority shareholders. However, with the firm so far along the ownership chain, it may be difficult for the SWF to ensure other majority shareholders are not expropriating from the firm, the managers are not colluding with other majority shareholders to extract rents, and/or that managers are paid in a manner commensurate with their performance (i.e., properly monitored).[42] Therefore, we hypothesise the following:

H2: SWF's cash-flow rights have a positive effect on the PPS of manager pay.

H3: SWF's cash-flow / control rights divergence has a negative effect on the PPS of manager pay.

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[37] Cao, Pan and Tian, 'Disproportional ownership structure and pay–performance relationship'.

[38] Tunneling is the expropriation of minority shareholders by majority shareholders through the transfer of assets and profits for the benefit of the controlling majority shareholders, see Johnson et al., 'Tunneling'.

[39] Related party sales is any business deal or arrangement between two parties who are joined by a special relationship prior to the deal (e.g. shared ownership, sister companies, shared management).

[40] Joseph P. H. Fan, John K. C. Wei and Xinzhong Xu, 'Corporate finance and governance in emerging markets: A selective review and an agenda for future research', *Journal of Corporate Finance* 17/2 (2011), pp. 207–14.

[41] Yuan Ding, Hua Zhang and Junxi Zhang, 'Private vs state ownership and earnings management: Evidence from Chinese listed companies', *Corporate Governance: An International Review* 15/2 (2007), 223–38.

[42] Cao, Pan and Tian, 'Disproportional ownership structure and pay–performance relationship'; Wang and Xiao, 'Controlling shareholders tunneling and executive compensation'; Yan-Leung Cheung, Raghavendra Rau and Aris Stouraitis, 'Tunneling, propping, and expropriation: Evidence from connected party transactions in Hong Kong', *Journal of Financial Economics* 82/2 (2006), pp. 343–86; Guohua Jiang, Charles M. C. Lee and Heng Yue, 'Tunneling through intercorporate loans: The China experience', *Journal of Financial Economics* 98/1 (2010), pp. 1–20.

Data and Variable Definitions

In this section we discuss our sample and variables constructions and provide summary statistics on them.

Sample

Our sample consists of data on publicly listed firms on the Kuwait Stock Exchange (KSE) over the period 2004–12. 2004 is the year firms started including top executives' compensation figures in their annual reports. To compile our database, we manually collected executive compensation information directly from annual reports. Ownership information was provided by Aljoman Consulting. Financial information was obtained from the *National Investment Company Investor Pocket Guide* and Thomson Reuters Worldscope. Information on market values was provided through Alshall Economic Consultants. The sample excludes depositary institutions given their different characteristics and regulations. Following the combining of these datasets, we arrived at a final sample compromising 169 firms and 906 firm-year observations.

Variable Definitions

Executive Compensation

The information provided on executive compensation comprises (a) salaries and other short-term benefits, (b) other benefits, and (c) total compensation. The other benefits category is only used by a small number of firms. No information is provided on the nature of the 'other benefits' and this was only reported for about 10 percent of firm-year observations in our sample. Given its unclear nature and rare usage, we focus instead on the cash and short-term benefits category. Such a focus corresponds with the extant literature on emerging markets that primarily examines cash pay.[43] Moreover, this focus on cash and short-term benefits makes sense with respect to the norm in KSE firms in which stock options are not a predominant form of compensation. The few firms that do use stock options do not disclose this clearly, with someusing the term 'other compensation' which may include other items the specific nature of which is unclear.[44]

[43] Jean J. Chen, Xuguang Liu and Weian Li, 'The effect of insider control and global benchmarks on Chinese executive compensation', *Corporate Governance: An International Review* 18/2 (2010), pp. 107–23; Firth, Fung and Rui, 'Corporate performance and CEO compensation in China'; Michael A. Firth, Peter M. Fung and Oliver M. Rui, 'How ownership and corporate governance influence chief executive pay in China's listed firms', *Journal of Business Research* 60/7 (2007), pp. 776–85; Cao, Pan and Tian, 'Disproportional ownership structure and pay–performance relationship'; Martin J. Conyon and Lerong He, 'Executive compensation and corporate governance in China', *Journal of Corporate Finance* 17/4 (2011), pp. 1158–75.

[44] We have run our analysis taking into account both short-term compensation and the figures available for 'other compensation' and have arrived at the same results.

Information on executive compensation is provided for the whole top management team and is not reported separately by executive. We have taken the aggregate value of top management salaries and the 'other short-term benefits' category as our measure of executive compensation. Since no information is provided in the annual reports on the number of executives included in the compensation figures, we refrain from examining levels of pay and focus instead on pay–performance relationships only.

Firm Performance

To estimate PPS, we need to tie changes in pay to changes in firm performance. PPS, hence, would be the dinar[45] change in executive compensation given a dinar change in firm performance. We use three different firm performance measures based on accounting and market performance: change in market value, change in sales and change in net income. The use of three different measures is driven by the possible inclination some boards might have towards market performance against accounting performance, or vice versa. We first start by examining a market-based measure as captured by the change in equity market value.[46] Such a measure would tie directly to the increase in shareholders' wealth, is less open to managerial manipulation, and reflects a longer-term view of the firm.

A downside, however, for the use of changes in market cap is the possibility that the informational efficiency of stock prices is weak or not strong enough and would vary significantly across different firms.[47] Moreover, changes in market cap could be affected by factors beyond managerial control such as macroeconomic shocks. The use of accounting-based performance measures is further needed given that bonuses are usually tied to accounting profitability.[48] The need to use accounting-based measures is also driven by an institutional feature of SWFs in Kuwait. All SWFs are monitored by the State Audit Bureau (SAB), an independent organisation that audits all government entities and ensures the proper use of public funds. In performing this role, the SAB produces its annual report that includes data on the SWFs, their significant investments and the overall performance of the fund as well as the individual investments or firms. The annual report is submitted to and discussed at length in the parliament and any red flags raised by the SAB can then lead to questions asked of the relevant government minister. In assessing the performance of SWFs' investments, the SAB in many instances focuses on the accounting performance of the target firms. Therefore, SWFs are incentivised to ensure the proper accounting performance of their holdings. Last but not least, not all SWF representatives

[45] Kuwait's currency is the dinar.

[46] Jensen and Murphy, 'Performance pay and top-management incentives'; Kevin J. Murphy, 'Corporate performance and managerial remuneration: An empirical analysis', *Journal of Accounting and Economics* 7/1 (1985), pp. 11–42.

[47] Walid Abdmoulah, 'Testing the evolving efficiency of Arab stock markets', *International Review of Financial Analysis* 19/1 (2010), pp. 25–34; Jasim Al-Ajmi and Jae H. Kim, 'Are Gulf stock markets efficient? Evidence from new multiple variance ratio tests', *Applied Economics* 44/14 (2012), pp. 1737–47; Bader S. Alhashel, 'Rights offering announcements and the efficiency of the Kuwaiti market', *Applied Economics Letters* (2016), pp. 1–5.

[48] Murphy, 'Executive compensation'.

in boardrooms are well-versed in finance or investment, with many coming from legal backgrounds. Given their lack of formal financial training, some SWF representatives may push for performance measures they feel better acquainted with.

To adequately address these issues and to capture the possible variation across boardrooms in setting performance targets, we have augmented the market measure with two accounting-based measures: change in sales and change in net income.[49] We have included sales as a metric given its better reflection of the operating performance of the firm, as net income may be more susceptible to accounting manipulation as well as including non-core earnings such as asset sales. We looked at contemporaneous changes in our firm performance measures when assessing PPS for all of our specifications.

SWFs, Cash-Flow Rights and Control Rights

In assessing the effect of SWFs on executive pay, we determine the ultimate controlling shareholder by tracking it across the ownership chain. We define a principal ultimate owner as the shareholder who owns the largest portion of the firm's shares with the proportion being no less than 10 percent.[50] In this paper, we are interested in understanding the effect of the SWF ownership on firms; the latter being any firm ultimately owned by one of the four SWFs operating in Kuwait. In the instances where two or more of these funds are significant owners of the firm, we sum their ownership and consider them a single entity. This computation makes sense as all four funds are state-owned with some being chaired by the same minister, such as KIA and PIFSS, which would imply coherence in their goals, mandates and behaviour.

We also examine the effects of the divergence of control and cash-flow rights on PPS. We define control rights as the minimum level of ownership in the ownership chain of the ultimate major shareholder. Cash-flow rights are defined as the product of the ownership levels along the ownership chain.[51] The divergence between the two is calculated as control rights minus cash-flow rights. The divergence between cash-flow and control rights is an essential feature of ownership structures as it measures the degree of entrenchment, agency problems and value destruction in the firm.[52] Such a divergence would emerge when ownership is based on pyramid structures and cross-holdings.[53] To get a sense of how cash flow and control rights are measured, let us assume Firm A has a 35% ownership in Firm B. Firm A, in turn, is owned by a private family firm that holds 10% of Firm A's shares. The family firm's cash-flow rights would be 35% × 10% = 3.5%, and their control rights would be the minimal shareholding level along the ownership chain, which is 10%.

[49] Core and Guay, 'The use of equity grants to manage optimal equity incentive levels'.
[50] Cao et al., 'Disproportional ownership structure and pay–performance relationship'; Claessens et al., 'Disentangling the incentive and entrenchment effects of large shareholdings'.
[51] La Porta et al., 'Corporate ownership around the world'; Claessens et al., 'Disentangling the incentive and entrenchment effects of large shareholdings'.
[52] Ibid.; Sanford J. Grossman and Oliver D. Hart, 'The costs and benefits of ownership: A theory of vertical and lateral integration', *The Journal of Political Economy* (1986), pp. 691–719.
[53] La Porta et al., 'Corporate ownership around the world'.

Sample Statistics

Table 1 reports the summary statistics for our sample. We can see that the average top management team (TMT) receives almost 590,000 dinars in cash pay annually, which at the time of the sample period corresponded to about $2 million.[54] We can also see from the table that the average firm has a Tobin's *q* of 1.106 and a leverage of about 28%. The ultimate owner in the average firm has cash-flow rights of about 21% and a cash-flow / control rights divergence of approximately 4%. Such figures would indicate that about half of the ultimate owners have direct ownership in the firm, i.e. not through cross-holdings and pyramid structures. SWFs are the ultimate owners in about 14% of the firm-year observations.

Table 1: Summary Statistics

The sample consists of Kuwait non-bank firms over the sample period 2004–12. All figures are in Kuwaiti dinar.

Sector	N	Mean	Median	Min	Max	SD
Cash Pay (thousands)	906	593.6	274.2	4	33184	1515.3
Market Cap (millions)	906	144.6	48.82	2.195	7241.4	465.8
Tobin's *q*	906	1.098	0.933	0.129	7.310	0.648
Total Assets (millions)	906	191.5	94.60	1.975	5568.2	424.1
Sales (millions)	906	57.09	13.30	-72.29	2003.1	205.7
Net Income (millions)	906	5.969	1.756	-282.0	521.7	40.71
Leverage	906	0.278	0.264	0	1.491	0.204
Cash-Flow Rights	906	0.208	0.136	0	0.958	0.202
CCD	906	0.0410	0	0	0.274	0.0675
SWF	906	0.127	0	0	1	0.333

Table 2 shows us the evolution of pay over the sample years. We can see that pay continued increasing until 2007 after which it dropped following the global market crash at the end of 2008 which continued well into 2009. From 2008, pay almost remained flat in terms of averages except for 2010.

[54] The exchange rate was 1 dinar ≈ $ 3.6.

Table 2: Executive Pay by Year

This table shows the total executive pay annually over the sample period. Variables are as defined in the Appendix. The sample consists of Kuwait non-bank firms over the sample period 2004–2012. All figures are in Kuwaiti dinar.

Year	N	Mean	Median	Min	Max	SD
2004	28	433.8	236.6	30	3005	612.3
2005	73	595.5	222	19	6338	1022.2
2006	125	464.8	236.3	4	4127	701.7
2007	129	656.2	278	24	7511	1136.1
2008	144	530.7	272.1	5.134	7218	966.5
2009	144	529.5	258.6	21.53	8540	1061.7
2010	149	698.6	231.3	18.24	33184	2809.3
2011	145	543.5	276.3	11.27	9227	1137.8
2012	144	537.6	275.6	17.44	9623	1154.2
Total	**1081**	**565.5**	**256.8**	**4**	**33184**	**1413.4**

Table 3 shows the distribution of compensation across the KSE sectors. We can see that there are significant variations across the industries with the insurance sector having the lowest pay. The variation in wages across industries, however, is lower when looking at the median pay. This variation is most likely due to the significant firm size variation that is observed within some industries.

Table 3: Executive Pay by Industry

Industry classifications are per the Kuwait Stock Exchange's during the sample period. Variables are as defined in the Appendix. The sample consists of Kuwait non-bank firms over the sample period 2004–12. All figures are in Kuwaiti dinar.

Industry	N	Mean	Median	Min	Max	SD
Food	81	504.5	282.9	11.27	4687	767.4
Industrials	175	420.5	201.4	5.134	6798	864.9
Insurance	48	192.7	163.6	78	464.9	91.86
Investment	287	745.9	336.2	4	9623	1308.8
Real Estate	182	369.6	307.2	18.24	2022.2	299.1
Services	308	669.8	217.3	18	33184	2168.3
Total	**1081**	**565.5**	**256.8**	**4**	**33184**	**1413.4**

Table 4 provides insight into the proportion of firms with an SWF as an ultimate owner. We can see that the SWFs' ultimate ownership by 2012 was half the ownership levels they had at the beginning of the sample period. Recall that these are instances in which the SWF is the ultimate owner with no less than 10% control rights in the firm. This drop in the proportion of firms ultimately owned by an SWF is driven by changes in the sample composition as an increasing number of new firms got listed over the sample period; primarily small firms that do not have SWF ownership. Over our sample period, in firms where SWFs are the ultimate owners, their cash-flow rights start at an average of about 22.5% in 2004, raising to a peak of 27.5% in 2008, to go back to 24.7% at the end of our sample period.

Table 4: SWF Ownership over Time

The sample consists of Kuwait non-bank firms over the sample period 2004–12.

Year	SWF Ultimate Owner
2004	0.261
2005	0.281
2006	0.216
2007	0.154
2008	0.107
2009	0.113
2010	0.116
2011	0.118
2012	0.0909
Total	**0.138**

Table 5 shows the correlation matrix of our variables. We can see, as is heavily documented in the extant literature, that pay is highly correlated with firm size, whether measured using market cap, total assets or sales.

Table 5: Correlation Matrix

Variables are as defined in the Appendix. The sample consists of Kuwaiti non-bank firms over the sample period 2004–12.

	Cash Pay (thousands)	Market Cap (millions)	Tobin's *q*	Total Assets (millions)	Sales (millions)	Net Income (millions)	Leverage	Cash-Flow Rights	CCD	SWF
Cash Pay (thousands)	1.000									
Market Cap (millions)	0.662	1.000								
Tobin's *q*	0.241	0.214	1.000							
Total Assets (millions)	0.587	0.865	0.009	1.000						
Sales (millions)	0.536	0.602	0.071	0.653	1.000					
Net Income (millions)	0.503	0.676	0.280	0.514	0.577	1.000				
Leverage	0.095	0.034	-0.093	0.170	0.031	-0.089	1.000			
Cash-Flow Rights	0.025	-0.007	-0.018	-0.041	-0.015	0.008	0.026	1.000		
CCD	-0.049	-0.085	-0.136	-0.053	-0.001	-0.045	-0.072	-0.380	1.000	
SWF	0.113	0.228	0.072	0.207	0.096	0.159	0.019	-0.049	0.253	1.000

Empirical Results

In this section, we examine the effect of having an SWF as the ultimate owner on PPS for the firm's executives. We start by examining the effect of the mere presence of an SWF, **H1**, and then expand by taking into account its cash-flow rights. Our last set of analysis intends to test **H2** and **H3** regarding the effect of cash-flow rights and the cash-flow / control rights divergence of the SWF on PPS.

SWFs and the Pay–Performance Relationship

Our first step is to examine PPS in Kuwaiti listed firms while taking into account the impact of having an SWF as an ultimate owner. We do that by estimating the following model:

$$\Delta Pay_{it} = \beta_o + +\beta_1 \Delta Perf_{it} * SWF_{it} + \beta_2 \Delta Perf_{it} + \beta_3 SWF_{it} + \beta_4 X_{it} + \gamma_i + \zeta_t + e_{it} \quad (1)$$

where i and t represent firm and year, respectively, ΔPay is the change in pay as defined earlier, $Perf$ is one of the performance measures discussed earlier and $\Delta Perf$ is the change in this performance measure, SWF is a dummy variable equal to one if the largest shareholder is a SWF and zero otherwise, X represents control variables,[55] γ is the industry fixed effect, ζ is the year fixed effect, and e is the error term. All errors are clustered at the firm level.[56] By examining the change in compensation relative to the change in performance, as in Equation (1), we can assess the degree of alignment between the interests of the managers and the shareholders (i.e., PPS).[57] Furthermore, sensitivity specifications can easily be interpreted economically and would straightforwardly tell us the managerial share of the value creation.[58] Additionally, change specifications allow us to control for CEO-specific factors and eliminate time-invariant firm fixed effect.[59]

[55] Using lagged control variables does not affect our results.
[56] Mitchell A. Petersen, 'Estimating Standard Errors in Finance Panel Data Sets: Comparing approaches', *Review of Financial Studies* 22/1 (2009), p. 435.
[57] Martin J. Conyon and Kevin J. Murphy, 'The prince and the pauper? CEO pay in the United States and United Kingdom', *The Economic Journal* 110/467 (2000), pp. 640–71; Anne T. Coughlan and Ronald M. Schmidt, 'Executive compensation, management turnover, and firm performance: An empirical investigation', *Journal of Accounting and Economics* 7/1-3 (1985), pp. 43–66; Jensen and Murphy, 'Performance pay and top-management incentives'; Murphy, 'Corporate performance and managerial remuneration'.
[58] Murphy, 'Executive Compensation'.
[59] Conyon and He, 'Executive compensation and corporate governance in China'; Scott B. Jackson, Thomas J. Lopez and Austin L. Reitenga, 'Accounting fundamentals and CEO bonus compensation', *Journal of Accounting and Public Policy* 27/5 (2008), pp. 374–93; Murphy, 'Executive Compensation'.

Similar to Hartzell and Starks, Firth et al., Conyon and He and Cao et al., we control for Tobin's *q*, firm size and leverage.[60] Firm size, measured as the market cap of the firm, has been extensively documented[61] as related to executive pay, PPS and the level of institutional ownership in the firm.[62] Tobin's *q*, a proxy for growth opportunities, has been shown to affect managerial incentives. Both Smith and Watts and Harvey and Shrieves argue that firms with more significant growth opportunities are harder to monitor and hence it becomes essential to use pay incentive mechanisms to align the interests of shareholders and managers.[63] We define Tobin's *q* as total market capitalisation plus debt divided by the total book value of assets. Leverage, defined as debt divided by the book value of assets, can affect the structure of compensation contracts used by the firm to better align the interests of managers and debtholders.[64] The use of industry-fixed effects is to capture any industry-specific practices regarding compensation, industry-specific managerial talents or SWF's preference for specific industries.[65] Table 3 shows a list of the industries in our sample following the KSE classification.[66] Year fixed effects are used to capture any macroeconomic shocks impacting the whole market.

Table 6, overleaf, shows the regression results of change in pay on change in performance and sovereign wealth fund ownership. The dependent variable is change in cash pay, with the sample consisting of Kuwaiti non-bank firms over the sample period 2004–12.

[60] Hartzell and Starks, 'Institutional investors and executive compensation'; Firth, Fung and Rui, 'Corporate performance and CEO compensation in China'; Conyon and He, 'Executive compensation and corporate governance in China'; Cao, Pan and Tian, 'Disproportional ownership structure and pay–performance relationship'.

[61] Murphy, 'Executive Compensation'; Martin J. Conyon, 'Corporate governance and executive compensation', *International Journal of Industrial Organization* 15/4 (1997), pp. 493–509; George P. Baker and Brian J. Hall, 'CEO incentives and firm size', *Journal of Labor Economics* 22/4 (2004), pp. 767–98; Scott Schaefer, 'The dependence of pay–performance sensitivity on the size of the firm', *Review of Economics and Statistics* 80/3 (1998), pp. 436–43; Richard W. Sias and Laura T. Starks, 'Institutions and individuals at the turn-of-the-year', *The Journal of Finance* 52/4 (1997), pp. 1543–62.

[62] We arrived at similar findings using firm assets as a measure of firm size.

[63] Clifford W. Smith and Ross L. Watts, 'The investment opportunity set and corporate financing, dividend, and compensation policies', *Journal of Financial Economics* 32/3 (1992), pp. 263–92; Keith D. Harvey and Ronald E. Shrieves, 'Executive compensation structure and corporate governance choices', *Journal of Financial Research* 24/4 (2001), pp. 495–512.

[64] Teresa A. John and Kose John, 'Top-management compensation and capital structure', *The Journal of Finance* 48/3 (1993), pp. 949–74.

[65] Robert L. Lippert, William T. Moore, et al., 'Compensation contracts of chief executive officers: Determinants of pay-performance sensitivity', *Journal of Financial Research* 17/3 (1994), pp. 321–32.

[66] The sector classification is currently different. However, we have opted to use the original designation that was prevalent during most of the sample period.

Table 6: Pay–Performance Relationship and Ultimate Owner

t-statistics are in parentheses. Standard errors are clustered at the firm level. *, ** and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)
ΔMarket Cap*SWF	0.001* (1.69)		
ΔSales*SWF		0.004*** (4.32)	
ΔNet Income*SWF			0.029*** (5.32)
ΔMarket Cap	0.002** (2.17)		
ΔSales		0.001* (1.37)	
ΔNet Income			0.005*** (3.97)
SWF	3.534 (0.12)	-78.716 (-0.76)	-6.321 (-0.07)
Market Cap (millions)	0.355*** (11.45)	0.486*** (5.97)	0.539*** (9.53)
Tobin's *q*	24.690 (0.43)	45.596 (1.06)	26.100 (0.55)
Leverage	-206.341 (-1.26)	-147.160 (-1.50)	-105.903 (-1.30)
Obs.	780	795	797
Adj R-Sq	0.298	0.170	0.235
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes

The Equation (1) estimates are shown in Table 6 for the three different performance measures. The table indicates that, on average, there exists a PPS as evidenced by the significant and positive coefficients on *ΔMarket Cap* and *ΔNet Income*. The evidence indicates that a KWD 1,000 change in net profit increases top managerial pay by KWD 5. We also find that larger firms have greater pay changes annually, as documented in the literature. More importantly, we can see that ultimate ownership by an SWF has a positive and significant effect on PPS. This effect is evidenced by the significant coefficients for the interaction terms across the three columns. Having an SWF as the ultimate owner increases PPS from 0.001 to 0.005 if performance is measured using change in sales, and from 0.005 to 0.034 if measuring net income. When performance is measured using market cap, having an SWF as the ultimate shareholder increases the sensitivity from 0.002 to 0.003. These are

very noteworthy increases in PPS relative to the baseline sensitivity as captured by the coefficients on the performance measures.

To get a better sense of these pay–performance elasticities, we compared our figures with those reported for the US. Murphy reports elasticities ranging between 0.005–0.014 for the cash pay / shareholder wealth relationship for firms in the early 1990s.[67] Our estimates for SWFs when change is measured in dinar, ranging from 0.005–0.029, would put them in line with those found in the US. In other words, having the SWFs as ultimate owners raises PPS to that documented in highly-developed markets.

The results from Table 6 support the hypothesis that SWFs add value to firms through their active board roles and corporate governance enhancements.

SWF Cash-Flow Rights and the Pay–Performance Relationship

In this section, we look at the size of the ultimate owner's incentives by examining his cash-flow rights instead of a dummy variable as in the previous section. By examining the ultimate owner's cash-flow rights, we can further understand the effect of SWF ownership on PPS as their incentives in the firm change. We adjusted our previous specification in a similar vein to Firth et al., Canarella and Nourayi, and Cao et al.[68] It is, then, as follows:

$$\Delta Pay_{it} = \beta_o + +\beta_1 \Delta Perf_{it} * SWF\ Cash_{it} + \beta_2 \Delta Perf_{it} * Cash\ flow\ rights_{it} + \beta_3 \Delta Perf_{it} + \beta_4 Cash\ flow\ rights_{it} + \beta_5 X_{it} + \gamma_i + \zeta_t + e_{it} \quad (2)$$

where ***SWF Cash*** is the cash-flow rights of the SWF and ***Cash flow rights*** is the cash-flow rights of the ultimate owner. By controlling for the level of the cash-flow rights for the ultimate owner, we are also capturing the monitoring incentives for the largest shareholder in the ownership chain.[69] [70]

[67] Murphy, 'Executive Compensation'.
[68] Firth, Fung and Rui, 'Corporate performance and CEO compensation in China'; Firth, Fung and Rui, 'How ownership and corporate governance influence chief executive pay in China's listed firms'; Giorgio Canarella and Mahmoud M. Nourayi, 'Executive compensation and firm performance: Adjustment dynamics, non-linearity and asymmetry', *Managerial and Decision Economics* 29/4 (2008), pp. 293–315; Cao, Pan and Tian, 'Disproportional ownership structure and pay–performance relationship'.
[69] Chen, Harford and Li, 'Monitoring: Which institutions matter?'; Mariassunta Giannetti and Luc Laeven, 'Pension reforms, Ownership Structure and Corporate Governance: Evidence from a Natural Experiment', *The Review of Financial Studies* 22/10 (2009), pp. 4091–127.
[70] We have rerun the above specification with the inclusion of the SWF dummy from Equation (1) to capture the sole effect of the firm being ultimately owned by the SWF. We arrived at similar results.

Table 7: Pay–Performance Relationship, Cash-Flow Rights and Ultimate Owner

This table shows the regression results of change in pay on change in performance and sovereign wealth fund cash-flow rights. The dependent variable is change in cash pay. The sample consists of Kuwait non-bank firms over the sample period 2004–12. Variables are as defined in the Appendix. t-statistics are in parentheses. Standard errors are clustered at the firm level. *, ** and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)
ΔMarket Cap*SWF CF Rights	0.004 (1.42)		
ΔSales*SWF CF Rights		0.015*** (21.16)	
ΔNet Income*SWF CF Rights			0.087** (2.02)
ΔMarket Cap*CF Rights	0.003 (0.89)		
ΔSales*CF Rights		0.010*** (11.06)	
ΔNet Income*CF Rights			-0.011 (-1.49)
ΔMarket Cap	0.002* (1.69)		
ΔSales		-0.000 (-1.38)	
ΔNet Income			0.009*** (2.77)
Cash-Flow Rights	41.286 (0.59)	10.641 (0.17)	-2.114 (-0.03)
Market Cap (millions)	0.359*** (13.64)	0.484*** (9.08)	0.557*** (12.55)
Tobin's *q*	16.566 (0.32)	31.739 (0.85)	27.150 (0.64)
Leverage	-205.528 (-1.25)	-134.264 (-1.41)	-144.561 (-1.65)
Obs.	780	795	797
Adj R-Sq	0.297	0.174	0.204
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes

The estimates are shown in Table 7, broken down by our three performance measures. As was established in the previous table, there is a positive and significant relationship between performance and pay as captured by changes in market cap and changes in net income. We can also see that increases in the cash-flow rights of the ultimate owner enhance PPS, though this only holds true when net income is used as a performance measure.

We now move on to look at the interaction terms between performance and the cash-flow rights of SWFs. We can see that as SWFs' cash-flow rights increase, PPS is strengthened. However, as in Table 6, this is only true if performance is measured using changes in sales and net income. This augmentation that SWFs bring to the pay–performance elasticity is statistically significant at 1% and 5% changes in sales and net income, respectively. A one standard deviation increase in the SWF's cash-flow rights, i.e. 0.2, results in the pay–performance elasticity reaching 0.000+0.010*0.2+0.2*0.015 = 0.005, a 150% increase from the base elasticity of 0.000+0.010*0.2 = 0.002. Increases of similar magnitude are observed for comparable changes in SWF cash-flow rights when performance is measured using change in net income.

Overall, the results support the notion that the higher the cash-flow rights of SWFs, the higher the benefits they bring to the firm through paying managers commensurately with their performance.

SWFs, Ownership Structure and the Pay–Performance Relationship

In this section, we examine the intersection of SWF ownership and the structures they utilise to hold the firm's shares. Mainly, we try to understand how PPS is affected by pyramid structures or cross-holdings in which the ultimate owner residing at the top of the chain is an SWF. Here we utilise our earlier specification, Equation (2), but use cash-flow / control rights divergence in place of cash-flow rights, as in Cao et al.,[71] as follows:

$$\Delta Pay_{it} = \beta_o + +\beta_1 \Delta Perf_{it} * SWF\ CCD_{it} + \beta_2 \Delta Perf_{it} * CCD_{it} + \beta_3 \Delta Perf_{it} + \beta_4 CCD_{it} + \beta_5 X_{it} + \gamma_i + \zeta_t + e_{it} \quad (3)$$

where ***SWF CCD*** is the cash-flow / control rights divergence of the SWF and ***CCD*** is the cash-flow control rights of the ultimate shareholder. The rest of the variables are as defined previously.[72]

[71] Cao, Pan and Tian, 'Disproportional ownership structure and pay–performance relationship'.

[72] Some studies also control for the cash-flow rights when looking at the wedge between cash-flow rights and control rights (Claessens et al., 2002; Lin et al., 2011). We reran our analysis by doing so and arrived at similar results.

Table 8: Pay–Performance Relationship, Ownership Structure and Ultimate Owner

This table shows the regression results of change in pay on change in performance and sovereign wealth fund control rights / cash-flow rights divergence. The dependent variable is change in cash pay. The sample consists of Kuwaiti non-bank firms over the sample period 2004–12. Variables are as defined in the Appendix. t-statistics are in parentheses. Standard errors are clustered at the firm level. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)
ΔMarket Cap*SWF CCD	0.020** (2.32)		
ΔSales*SWF CCD		-0.110 (-1.44)	
ΔNet Income*SWF CCD			0.020 (0.56)
ΔMarket Cap*CCD	-0.032*** (-3.75)		
ΔSales*CCD		0.030*** (-5.38)	
ΔNet Income*CCD			-0.025 (-0.57)
ΔMarket Cap	0.003*** (20.68)		
ΔSales		-0.005*** (5.19)	
ΔNet Income			0.010** (2.03)
CCD	-471.230** (-1.99)	136.320 (0.76)	-23.631 (-0.15)
Market Cap (millions)	0.354*** (11.27)	0.490*** (7.72)	0.604*** (10.43)
Tobin's *q*	11.369 (0.21)	32.475 (1.02)	27.268 (0.71)
Leverage	-177.220 (-1.05)	-126.491 (-1.21)	-173.479* (-1.78)
Obs.	780	795	797
Adj R-Sq	0.303	0.157	0.126
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes

Table 8 reports the estimates of Equation (3). As in our earlier tables, we find that a pay–performance relationship exists that is statistically significant for the average firm across all three performance measures. We can see that in both columns 1 and 2 the higher the divergence in the cash-flow and control rights of the ultimate shareholder the worse PPS is, as evidenced by the negative coefficients on ΔMarket Cap*CCD and ΔSales*CCD. This effect is statistically significant at 5 percent in both columns. This adverse effect is in line with the literature's findings.[73]

More important is the effect of having an SWF as the ultimate shareholder on the divergence-pay relationship. We find that, as reported in column 1, that the SWF being the ultimate shareholder dampens the adverse effect of the cash-flow / control rights divergence. This dampening effect is statistically and economically significant. Having the SWF as the ultimate shareholder reduces the adverse effect of the divergence from -0.032 to -0.032 + 0.020 = -0.012, a reduction of more than 60 percent in the combined coefficient. This positive effect for SWFs is, however, lacking when examining performance using sales or net income, as in columns 2 and 3 respectively.

To summarise, we find evidence in support of our hypothesis that a more considerable divergence between the cash-flow and control rights results in a weaker PPS. This finding corresponds with the extant literature that finds the separation of ownership and control fostering weaker corporate governance and, hence, allowing managers and majority shareholders to enjoy rents at the expense of shareholders.[74] This weaker PPS could be explained as follows: as firms move down the ownership chain away from their ultimate shareholder, it becomes easier for management or other majority shareholders to expropriate from the firm and for management not be paid in a manner commensurate with their performance. However, having an SWF as the ultimate shareholder at the end of this chain helps to reduce the adverse effect of this distance and reduced monitoring ability. This finding further corroborates the conclusions of the earlier tables on the positive value SWFs bring to firms by better aligning the incentives of shareholders and managers.

Robustness

One possible concern with our findings is that the documented SWF effect on PPS could be happening as a result of the presence of any large owners, be they a family or an institution, regardless of type. To disentangle this effect, we would need to observe the impact of non-SWF ownerships on PPS. We have done this by adding to Equation (1) a dummy variable for large non-SWF owners and an interaction between the performance measure and this dummy variable. We define the non-SWF large owner dummy as equal to one if the firm is ultimately owned by a non-SWF entity with ownership greater than 10 percent; and zero otherwise. We find, in a set of unreported results, that the positive effect of SWFs on PPS holds even after controlling for the possible impact of other large shareholders.

[73] Cao, Pan and Tian, 'Disproportional ownership structure and pay–performance relationship'.

[74] Claessens, Djankov, Fan and Lang, 'Disentangling the incentive and entrenchment effects of large shareholdings'; La Porta, Lopez-de Silanes and Shleifer, 'Corporate ownership around the world'.

Conclusion

The rise of SWFs over the last decades has attracted significant attention from both academics and practitioners. This was especially true at the dawn of the 2008 financial crisis when several SWFs acted as lenders and investors of last resort for some of the most significant global banks. The unique structure and objectives of SWFs, in comparison to other institutional investors, has driven researchers to attempt to better understand them. In this paper, we have tried to contribute to the literature's understanding of SWFs as investors and the potential value they may add or destroy in their firm holdings. We tackle this by examining the effect SWFs have on executive compensation in their firm holdings. Specifically, we investigate their effect on the alignment of managerial pay and performance in Kuwaiti listed firms.

We have shown that SWFs bring significant enhancements with regards to the alignment of executive pay with performance. Having an SWF increases PPS by four-fold, a very substantial increase. The findings show that SWFs have an influence on the pay–performance relationship when performance is assessed on an accounting basis. This influence is more significant the higher the SWF's cash-flow rights in the firm. This positive influence remains even if the SWFs' control and cash-flow rights diverge. Having an SWF as the ultimate shareholder reduces the adverse effect of the divergence on PPS by more than 60 percent.

We argue that this evidence, while not wholly free of endogeneity, does carry some causal weight. We base this argument on the fact that in all firms studied, SWFs were founder-shareholders and, therefore, the decision to invest was exogenous to the compensation scheme and corporate governance practices applied to the firm later in its life. However, this argument is weakened by the fact that later changes in the ownership level could represent a manifestation of a clientele effect. Therefore, it is not possible to say that our results are endogeneity-free.

The results indicate that SWFs bring value to their target holdings. We show that this value is achieved by using better executive compensation, to which their board representation allows direct access. This success in board activism, corporate governance enhancements, and monitoring is in contrast to the documented evidence in the extant literature on the failure of state-owned entities in this regard. The findings indicate that SWFs use incentive compensation and directly tie managerial pay to firm performance to reduce agency costs. This conclusion goes to support the previous findings in the literature on the value of SWFs' activism.[75]

The finding that SWFs bring value to their firms through better management monitoring should promote additional research on other value enhancement mechanisms SWFs might put forward. These could range from the proper management of a firm's cash

[75] Dewenter, Han and Malatesta, 'Firm values and sovereign wealth fund investments'; Fernandes, 'The impact of sovereign wealth funds on corporate value and performance'; Sojli and Wah Tham, 'The impact of foreign government investments'.

holding and investments to its dividend policy. Future research could also try to understand whether SWFs' behaviour and activism depends on whether their target holdings are domestic or international. Investigating the effects along domestic and international holdings is important given the diverse range of behaviours that SWFs observe with foreign holdings vis-à-vis domestic ones.[76] Such differences across countries could arise due to the mixed objectives SWFs might have with their local investments. Moreover, SWFs' behaviour in international markets may differ based on the host country's receptiveness to foreign investment and the type of diplomatic relations between the SWF's country and the host.

Appendix: Variable and Acronym Definitions

Sector	Definition
Cash Pay	The salaries and other short-term compensation received by the top management team (in thousands).
Market Cap	The market capitalisation of the firm (in thousands) calculated as the stock price multiplied by the number of shares outstanding (in millions).
Tobin's *q*	Calculated as the market cap of the firm plus its debts divided by the book value of assets.
Total Assets	The total assets of the firm.
Sales	The total sales of the firm (in thousands).
Net Income	The net income of the firm (in thousands).
Leverage	Calculated as the firm's debt divided by total assets.
Cash-Flow Rights	The product of the ownership levels along the ownership chain of the ultimate major shareholder.
Control-Rights	The minimum level of ownership in the ownership chain of the ultimate major shareholder.
CCD	The difference between the ultimate shareholder's control and cash-flow rights.
SWF	A dummy variable equal to 1 if the largest ultimate shareholder is a SWF, 0 otherwise.

[76] Dewenter et al., 'Firm values and sovereign wealth fund investments'; Afshin Mehrpouya, Chaoni Huang, Timothy Barnett, 'An Analysis of Proxy Voting and Engagement Policies and Practices of the Sovereign Wealth Funds', *IRRCi SWF Report* (2009); Kotter and Lel, 'Friends or foes? Target selection decisions of sovereign wealth funds and their consequences'; Paul Rose, 'Sovereign Wealth Funds: Active or Passive Investors?', *Yale Law Journal Pocket Part* 118 (2008), p. 104.

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Investors next to the quotation boards inside the Kuwait Stock Exchange building.
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