Sovereign Wealth Funds and Equity Pricing: New Evidence from the Implied Cost of Equity of Publicly Traded Targets

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Abstract

We investigate the impact of Sovereign Wealth Funds' investments on the *ex-ante* (implied) cost of equity capital of targeted firms. Using an international sample of 264 targets involved in 343 Sovereign Wealth Funds' deals and their matched firms, we find that targeted firms exhibit, *on average*, higher cost of equity financing compared to the benchmark after the announcement date. Firms involved in domestic deals and deals concluded during the global financial crisis are found to record lower implied cost of equity financing though. In the opposite, cross-border deals are associated with higher implied cost of equity capital. Institutional and political factors partially explain the cross-sectional differences in the implied cost of equity capital recorded on SWF targets. Our findings are robust to alternative assumptions and model specifications, disproportionate analyst coverage relative to firm size, and other firm-specific and country-specific factors.

Keywords: Sovereign Wealth Funds, Cost of Equity Capital, Institutional environment

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1. Introduction

Previous literature documented the rapid growth of Sovereign Wealth Funds' (SWF) and the impact of their investments on the financial markets and economic outcomes (Bernstein et al., 2013; Bertoni and Lugo, 2014; Bortolotti et al., 2015; Boubakri et al., 2016a; Ciarlone and Michelli, 2016; Dewenter et al., 2010; Fernandes, 2014; Knill et al., 2012a; Kotter and Lel, 2011; and Megginson and Fotak, 2015; among others). According to the SWF Institute, SWFs reached USD 7.4 trillion in June 2016. In 1990, their size was estimated to USD ½ trillion (Johnson, 2007). Moreover, SWFs activities continue to rise political and media attention. The world's biggest SWF, the Norwegian one, has cut by 5% its real estate UK portfolio after Brexit. In August 2016, the same USD 900 billion SWF decided to dump Duke Energy corporation and its wholly-owned subsidiaries Duke Energy Carolinas LLC, Duke Energy Progress LLC, and Progress Energy Inc. The decision was based on a recommendation from the Council on Ethics for the Norwegian SWF because of environmental risk. Corporate social responsibility seems to drive some of the Norwegian SWFs investment decisions. Another example is related to the inception of a Turkish SWF in August 2016 to support investments in infrastructure as announced by government officials. In the sample month, Qatar Investment Authority bought almost 10% of the stakes of the Empire State Building. A last example of SWF media coverage is related to the lawsuit initiated by the Libyan SWF, Libyan Investment Authority, against the Goldman Sach Group and Société Générale over failed investments, and the implications of the conflictual political context in Libya on the leadership of the Fund and the governance of its current affairs.

The impact of SWFs' investments on firm stock prices has been documented in few recent studies. In fact, Bortolotti et al. (2015), Dewenter et al. (2010), and Kotter and Lel (2011) investigated the impact of SWFs' investments on targets' stock price. They mainly document positive and short term abnormal returns after the announcement date. The positive valuation effect tends to disappear on the long run. In all cases, the metrics used in these event studies to assess the valuation effects are the cumulative abnormal returns (CAR), the buy-and-hold abnormal returns (BHAR), and calendar-time portfolio returns on the one hand in an event study, and accounting ratios on the other hand: operating

income-to-sales, operating income-to-assets, return-on-assets, sales growth, capital expenditure-to-sales, among other accounting variables. However, prior literature shows that event studies use short series of realized returns as proxies for the costs of capital (Hail and Leuz, 2006, 2009; Foerster and Karolyi, 1999, 2000; Errunza and Miller, 2000; among others). In addition, these proxies also capture changes in market expectations about firms' future cash flows (Bekaert and Harvey, 2000). As argued by Stulz (1999), standard techniques to obtain unbiased estimates of expected returns from realized stock returns require fairly long time-series. Finally, international asset pricing models used to assess the valuation effects require assumptions regarding the degree of market segmentation and exposure to the global market portfolio, both of which are likely to change through time (Bekaert and Harvey, 2000). Following an increasing number of studies in accounting and finance (such as Hail and Leuz, 2006; Chen et al., 2009a), our study overcomes these limitations and compute firms' ex ante cost of equity implied in analyst earnings forecasts and stock prices.

Our choice to use the cost of equity capital as a proxy for firms' market performance is motivated by previous work in accounting and finance. *First*, Fama and French (1997) demonstrate that the traditional single-factor asset pricing model as well as the Fama and French (1993) three-factor model offer poor proxies for the cost of equity capital. Elton (1999) argues that conventional proxies for realized returns fail in explaining the cross-sectional variations in these observed returns and suggests finding alternative proxies for expected returns. Pàstor et al. (2008) provide evidence that implied cost of equity models reasonably capture the time-variation in expected returns. Chen et al. (2009a) and Hail and Leuz (2006, 2009) argue that the implied cost of capital approach is particularly useful because it explicitly isolates the cost of capital effects from the growth and cash flow effects. *Second*, the cost of equity capital is the internal rate of return that the market applies to a firm's future cash flows to determine its current market value (El Ghoul et al., 2011). It is the required rate of return given the market's perception of a firm's perceived risk. Consistently with Butler and Joaquin (1998), the cost of capital is the channel through which capital markets price risk. *Finally*, the cost of equity represents investors' required rate of return on corporate investments and thus is a key input in firms' long-term investment decisions. Examining the reaction of targets' cost of

equity after the announcement date should therefore help managers understand the effect of SWFs' investment on firms' equity financing costs, and hence has important implications for strategic planning.

We use a sample of 264 targets involved in 343 SWFs' deals and their matched firms to assess the impact of SWFs' investments on the implied cost of equity capital. We find that targeted firms exhibit, on average, higher cost of equity financing compared to the benchmark after the announcement date. Moreover, we find that firms involved in domestic deals and deals concluded during the global financial crisis are found to record lower implied cost of equity financing than the benchmark. In the opposite, cross-border SWF deals are associated with higher implied cost of equity capital. Finally, our results show that legal and institutional factors partially explain the cross-sectional differences in the implied cost of equity capital for foreign SWF transactions.

Our work contributes to the body of knowledge on the SWFs in several ways. *First*, it complements the already existing literature that mainly focuses on using the realized returns in the assessment of the SWFs' valuation effects. *Second*, consistently with Bekaert and Harvey (2000) and Stulz (1999), our study offers a "cleaner" and unbiased evaluation of the impact of SWFs' investments on their targets since it circumvents using noisy realized returns and the failure of traditional asset pricing models to deliver accurate estimates of cost of equity capital (Pàstor et al., 2008). *Third*, to the best of our knowledge, our research is the first that relies on the ex ante cost of equity capital to assess the valuation effect of SWFs activities; knowing that the cost of equity financing is a key parameter in firms' long-term investment decisions, our results have a long horizon perspective, hence providing valuable inputs for strategic decision making. *Fourth*, investigating the changes in the cost of equity provides information about changes in firm's agency problems and information asymmetry (e.g., Ben-Nasr et al., 2012; Easley and O'Hara, 2004; Lambert, Leux, and Verrecchia, 2007) that are typical issues in corporate finance and government ownership, two relevant and closely related topics to our study. *Finally*, the implied cost of equity capital is traditionally and theoretically linked to firm's perceived risk as well as to the corporate governance of the firm. Consequently, our results have straightforward interpretations as it relates to the

risk dimension and may have implications on the corporate governance of SWFs' targets before, and most importantly, after the transactions.

The remainder of the paper is structured as follows. Section 2 discusses the theoretical background of our research question and presents the emerging hypothesis. Section 3 describes the sample, the cost of equity capital measures, and explains the empirical design. Section 4 presents the statistical results including the robustness tests, and comments on the empirical findings. Section 5 concludes.

2. Emerging hypothesis

2.1 Theoretical background

Previous literature analyses the motives behind SWFs' investment decisions. Dewenter et al. (2010) examine the effect of SWFs' investments on target firms and provide evidence of the monitoring benefits of SWFs over the expropriation costs of these funds. They show that SWFs' investments have positive and significant effects on target returns and that SWFs act often as active investors. Kotter and Lel (2011) investigate SWFs' investment strategies and their impact on target firm valuation. They show that SWFs' investments have a positive effect on target firms' stock prices around the announcement date. Chhaochharia and Laeven (2009) analyze SWFs' transactions and find that SWFs usually invest to diversify away from industries at home and that they do so predominantly in countries that share the same culture. They also find that investors particularly welcome SWFs' investments in financially distressed firms. Bernstein et al. (2013) and Fernandes (2014) investigate the relevant risk factors that drive SWFs' investment strategies. Fernandes (2014) finds that SWFs prefer large firms that enjoy significant external visibility and shows that firms with higher ownership by SWFs exhibit higher valuation effects. Bernstein et al. (2013) show that SWFs are more likely to invest at home when domestic equity prices are higher, and invest abroad when foreign prices are higher. They also observe that SWFs where politicians are involved have a much greater likelihood of investing at home than those where external managers are involved, and that a positive valuation effect is recorded for firms targeted by SWFs with external managers. Boubakri et al. (2016a) document the preference of SWFs for

firms in strategic industries and in firms operating in countries with sustainable economic growth and weak legal and institutional environment. Finally, Balding (2008) studies SWFs' portfolio asset allocation and argues that they behave as rational investors that diversify their investments across regions and asset classes, and seem to take economically driven investment decisions. All these studies use ex post (observed) returns, hence allowing us to complement their findings by those discussed in our study.

An important dimension that characterizes SWFs is the imbedded government ownership feature. Even if they seem to operate quite independently as institutional investors, any investment or acquisition they carry out implies a change in the government ownership of their targets since they are, by definition, funds owned by sovereign entities and governments. For instance, Knill et al. (2012b) examine SWFs' transactions and show that political factors play a role in SWF decision making since SWFs may be considered as government financial arms. They show that political relations are an important factor in *where* SWFs invest but matter less in determining *how much* to invest. More generally, our study complements previous literature investigating the relationship between ownership structure and firm value (Anderson et al., 2003; Lin et al., 2011), and more specifically the impact of *government* ownership on firm performance and equity value (Eckel and Vermaelen, 1986; Shleifer, 1998; Chen et al., 2009b; Ben-Nasr et al., 2012; among others).

2.2 *Hypothesis*

2.2.1 The bicephalic impact of SWFs' ownership on targets' cost of equity

The discussion on the impact of SWFs' investments on the cost of equity of their targets is twofold. On the one hand, it relates to the implicit government guarantee that may be perceived by investors as valuable in case of firm default, hence having a potential positive impact on firm's financing conditions. On the other hand, government ownership induced by SWFs' investments has moral hazard implications on their targets with the opposite, negative, effects on firm's cost of equity financing. Hence, the aggregate impact of SWFs investments on targets' cost of equity is purely an empirical issue.

In fact, SWFs are, by construction, particular institutional investors: they are owned by sovereign entities or governments (Knill et al., 2012a) and are managed by them or on behalf of them (Dewenter et al., 2010). Government ownership of these funds represents a specificity that makes their investment activities signal differently compared to private investors (Borisova et al., 2015). In fact, funds owned by sovereign entities are mostly considered as passive rational investors (Bortolotti et al., 2015), whereas other funds, namely hedge funds, are more actively involved in firm monitoring (Brav et al., 2008; Ferreira and Matos, 2008; Klein and Zur, 2009). Moreover, private investors are wealth maximizers whereas sovereign owned entities may pursue social or political objectives that rarely coincide with profit maximization (Shleifer, 1998). Furthermore, Ben-Nasr et al. (2012) find that newly privatized firms with government ownership tend to have a higher cost of equity, and that the latter is even higher in case of higher risk of expropriation. Another reason that may explain a higher cost of equity is related to the moral hazard problem as discussed in Iannotta et al. (2013) and Gropp et al. (2014). In fact, managers and shareholders benefit from having the government as a major shareholder while overtaking risk. They tend to adopt an excessive risk-taking behavior, hence affecting firm performance, consequently increasing its cost of equity financing. In all cases, the underlying reasons behind the increase in firm's cost of equity is related to agency theory distortions, whether in the SWF's monitoring role of the targets, or in the change in target's risk aversion and risk-taking behavior. The first channel is then an *agency theory channel*. However, SWFs' ownership acts as a guarantee on firms' liabilities in case of financial distress and keeps firm's liquidity afloat, which has the opposite impact, i.e a decrease in the cost of equity. In addition, Borisova et al. (2012) argue that firm's monitoring by governments would not be effective because of potential luck of skills, willingness, or incentives, which may have a negative impact on firm's cost of equity. However, SWFs are heterogeneous in nature: some of them are highly skilled and adequately resourced, which acts, again, in the opposite direction, i.e. that it may have a positive impact on firm's cost of equity. Finally, Qiu and Yu (2009) argue that the presence of sovereign entities as major shareholders may decrease the probability of takeovers, hence having a negative impact of the disciplinary role that usually results from the threat of takeovers, which decreases firm's performance and consequently

increases the cost of equity capital. This second channel is then related to the implicit guarantee of the government and may be designated as the *implicit government guarantee channel*. In sum, the mixture of arguments related to the two channels, the agency theory channel and the implicit government guarantee channel, have opposite impacts going in two different directions. This makes the question related to the impact of SWFs activities on the cost of equity financing of their targets an empirical question by nature.

2.2.2 Domestic SWFs' investments

SWFs investments in domestic firms may be the result of socio-economic public choices made by local governments to create jobs, stimulate the economy, or to pursue other socio-political goals (Shleifer, 1998). In these cases, targeted firms benefit from the presence of the government as a major shareholder. This may be considered as a competitive advantage for several reasons. First, SWFs are viewed as liquidity providers (Boubakri et al., 2016b), hence improving the financial flexibility of theirs targets. Second, market participants perceive government ownership in the firm as an implicit guarantee in case of failure (Karolyi and Liao, 2016) and necessarily price, implicitly, this option when trading firm's equity. Third, firm owners expect major shareholders to play a monitoring role, hence improving firm financials, including the cost of rising funds from both equity and debt sides. Finally, the presence of the government as a large stakeholder may provide privileged access to financing sources from government-owned financial institutions and equivalent to the targeted firm (Dinc and Erel, 2013).

Foreign targeted firms however do not have the same privilege as domestic ones, i.e. having their domestic government as a major shareholder. In fact , SWFs act as passive investors following cross-border deals (Kotter and Lel, 2011). They are rarely involved in active monitoring[2] and do not participate in the corporate governance of firm. Agency theory predicts higher costs for firms where large shareholders are not active monitors (La Porta et al., 1999).

[2] The Norwegian SWF is an exception, being actively involved in active monitoring of targeted firms.

These reasons allow us to hypothesize that SWFs' domestic (foreign) investments reduce (increase) the cost of equity capital through the implicit government guarantee channel.

H1: The cost of equity of SWF's targets decreases (increases), *on average,* following SWFs' *domestic (foreign)* investments.

2.2.3 SWFs' activities during the GFC

During periods of financial distress, the probability of firm default increases and the value of the implicit government guarantee increases accordingly. Merton (1977)'s model, that was initially developed to price the cost of debt guarantee, applies nicely to our context and offers a quantitative explanation of the result on implicit government guarantee. In fact, periods of financial downturn imply higher volatility and a decrease in the market value of firm's assets. Consequently, the fair value of the put option representing the government implicit guarantee on firm's liabilities would increase. SWFs' targets would benefit from the increase in government's guarantee, hence allowing them to get cheaper access to finance opportunities, including equity capital. Moreover, as argued in Santos (2008), the likelihood of government intervention to bailout constrained firms is higher in periods of financial distress. This makes the impact government guarantee of SWFs' targets liability more valuable in adverse economic conditions. Consequently, we would expect that the cost of equity of SWFs' targets would decrease (increase) during periods of financial distress (normal market conditions).

H2: The cost of equity of SWFs' targets decreases (increases), *on average*, following SWF deals done during *periods of financial distress (normal market conditions).*

2.2.4 Impact of the institutional factors

Media reactions to some cross-border SWF deals raised the interest of both policymakers and academia who started investigating the underlying reasons of these reactions. Beyond the national security and economic nationalism arguments discussed in the literature (Knill et al., 2012b), we argue that the differential between the quality of

institutional environment of the acquirer country and the targeted one may explain part of the variation in the cost of equity of the acquired firm. As argued by Bushman and Piotroski (2004), host countries with higher risk of government expropriation than the acquirer countries may trigger an increase in the cost of equity of the target, hence pricing expropriation risk. According to Dinc and Erel (2013), the quality of government and institutions matter in mergers and acquisition activities and has an impact on economic outcomes. Moreover, Banerjee and Munger (2004) argue that democratic governments are less likely to interfere with firms' operations. Furthermore, Ben-Nasr et al. (2012) hypothesize that lower degree of democracy in political systems strengthens the effect of government ownership on the cost of equity of newly privatized firms and vice versa. They also show that the effect of government ownership is higher when government stability is lower and vice versa. Consistently, we hypothesize that the higher is the differential in the quality of institutions between the two countries, the SWF owner and the targeted one, the more pronounced is the effect on the cost of equity of SWFs targets. This leads to the following hypothesis.

H3: The effect of SWF deals on the cost of equity of targeted firms is higher when the differential in the quality of institutions between the host and the acquirer countries is higher, and *vice versa.*

2 Data and methodology

2.2 *Sample construction*

To build our cost of equity financing measures, we first start by merging three databases: Thomson Reuters Institutional Brokers Estimate System (I/B/E/S), which provides analysts' forecast data; Compustat Global, which provides industry affiliation and financial data; and we collect information on stock returns from Datastream. We follow Dhaliwal et al. (2006) and Gebhardt et al. (2001) and estimate the cost of equity in June of each year. To do so, we extract from the I/B/E/S summary file forecast data recorded in June for all firms that have positive 1- and 2-year-ahead consensus earnings forecasts and a positive long-term growth forecast. For these firms, we further require that I/B/E/S database provides a share price as of June, that Compustat reports a

positive book value per share, and that the firm belongs to one of the Fama and French (1997) 48 industry groups. We then follow Dhaliwal et al. (2006) and Hail and Leuz (2006) and estimate the cost of equity capital using four different models: the Claus and Thomas (2001) model, the Gebhardt et al. (2001) model, the Ohlson and Juettner-Nauroth (2005) model, and the Easton (2004) model. These models are discussed in the section below. We retain in our sample firms with sufficient available data and with valid cost of equity estimates under all four models.

Second, we identify SWFs' purchase transactions of target firms through Thomson Reuters Securities Data Corporation Platinum Global Database (SDC) database and Bureau Van Dyck Zephyr Database of Global Mergers & Acquisitions (Zephyr). We extract acquisitions for SWFs using research criteria such as "Sovereign Wealth Fund", "SWF", "Sovereign Entity", and other key words such as ''invest,'' ''stake,'' and ''acquire'' combined with the SWF name. Our sample of transactions is supplemented using additional sources of information, essentially SWF-specific websites for information, including the website of the SWF Institute, www.zawya.com, www.sovereignwealthfundwatch.com and financial newspapers such as Wall Street Journal, BusinessWeek, Financial Times, New York Times, Gulf Times, The National and Gulf News and market followers such as Reuters and Bloomberg. Similar to Kotter and Lel (2011), the final sample is further limited to cases in which stock prices are available in Datastream. Our search results in a clean sample of 264 different firms involved in 343 transactions over the 1994-2012 period. For each transaction, we identify the cost of equity capital of the targeted firm as provided by the four models described above over the three years prior to the year of the deal and the three years following the year of the deal[3].

Third, following Knill et al. (2012a), we build our control sample by matching on three criteria of the target firm: country, industry, and size as captured by market

[3] We exclude the year of the deal since our main focus is on the medium and long term impact of SWFs' investments on the implied cost of equity financing. The short term impact has been already investigated by previous studies (e.g. Bortolotti et al., 2015; Dewenter et al., 2010; and Kotter and Lel, 2011).

capitalization[4]. A target is matched to a non-invested firm when it has the closest market capitalization within the same two-digit code industry and country. Again, we identify the cost of equity capital of the targeted firm over the three years prior to the year of the deal and the three years following the year of the deal.

Finally, we merge the resulting two datasets, the SWF transactions' sample and the control sample, with ICRG data that provides country-level information about the quality of institutions, democratic tendencies, corruption, and government action. ICRG data is composed of 12 components, including External conflicts, Internal conflicts, Ethnic tensions, Religious tensions, Military in politics, Government stability, Socioeconomic conditions, Investment profile, Bureaucracy quality, Corruption, Law and order, and Democratic accountability.[5]

This procedure yields a final sample of 393 observations in both samples representing over the period ranging from 1994 to 2012. Table 1 summarizes the sample composition by country (Panel A) and by year (Panel B).

INSERT TABLE 1 HERE

[4] Previous papers built different control samples that fit better the purpose of their studies. For example, Kotter and Lel (2011) used control samples built using country and industry criteria, in addition to different profitability variables (Operating income to assets, Operating income to sales, ROA, Sales growth, Capital expenditures to sales, etc.) used as alternative measures for target's long term performance. Bortolotti et al. (2015) used a benchmark set of transactions to build their control group since their sample covers private deals for which the conventionally used matching criteria may not have publicly available information. Fernandes et al. (2014) obtained the control sample by matching by country, industry, size, and Tobin's Q, as well as a propensity score built using accounting metrics (ROA, ROE, or EBITDA/Asset). We follow Knill et al. (2012a) and use three criteria of the target firm to build our control sample: country, industry, and size as captured by market capitalization. We believe that this benchmark is arguably more appropriate to our research question.

[5] ICRG rating is obtained by assigning risk scores to the 12 components with higher scores denoting lower risks. The components Government stability, Socio-economic conditions, Investment profile, External conflicts, and Internal conflicts have scores ranging from 0 to 12. The components Ethnic tensions, Religious tensions, Military in politics, Corruption, Law and order, and Democratic accountability have scores ranging from 0 to 6. The component Bureaucracy quality has a score ranging from 0 to 4.

2.3 Cost of equity measures

Prior research proposes various models to calculate firms' implied cost of equity capital. However, it provides little guidance on the relative performance of these models. We therefore follow Chen et al. (2009a) and Hail and Leuz (2006) and estimate the cost of equity using four different models: the Claus and Thomas model (2001), the Gebhardt et al. model (2001), the Ohlson and Juettner-Nauroth model (2005) and the Easton model (2004). The four models, allowing for estimating the ex-ante cost of equity capital and presented in details in the subsequent sub-sections, rely on the more general dividend discount model where current stock price P_t equals the expected future dividends ($D_{t+\tau}$) discounted at the cost of equity capital *r*:

$$P_t = \sum_{\tau=1}^{\infty} \frac{D_{t+\tau}}{(1+r)^{\tau}} \quad (1)$$

Then, in line with Chen et al. (2009a) and Dhaliwal et al. (2006), we subtract the 10-year US Treasury bond yield from the estimated cost of equity of each model to get four implied equity risk premiums: r_{CT}, r_{GLS}, r_{OJN}, and r_{Easton}, respectively. To reduce the possibility of spurious results associated with the use of a particular model (Dhaliwal et al., 2006), we compute the average cost of equity premium based on the four models. This yields r_{Avg}, which is the arithmetic average of r_{CT}, r_{GLS}, r_{OJN}, and r_{Easton}, and represents the implied equity risk premium that we use as dependent variable in our multivariate analysis.

2.3.1. Claus and Thomas (2001) model

This model assumes clean surplus accounting, allowing the current share price to be expressed in terms of the cost of equity, the current book value, forecasted abnormal earnings, and perpetual abnormal earnings growth. Forecasted abnormal earnings (ae) is given by forecasted earnings per share ($FEPS$) minus a charge for the cost of equity. The explicit forecast horizon is set to five years, beyond which forecasted residual earnings grow at a constant rate g_{ae} assumed to equal the expected inflation rate. The valuation equation is given by:

$$P_t = B_t + \sum_{\tau=1}^{5} \frac{ae_{t+\tau}}{(1+r_{CT})^{\tau}} + \frac{ae_{t+5}(1+g_{ae})}{(r_{CT}-g_{ae})(1+r_{CT})^{5}}, \quad (2)$$

where P_t is the stock price at time t, B_t is the current book value per share (at the beginning of year t), r_{CT} is the cost of equity capital, $ae_{t+\tau} = FEPS_{t+\tau} - r_{\mathrm{CT}} \cdot B_{t+\tau-1}$, with $B_{t+\tau}$, the forecasted book value per share for year $t + \tau$, measured using the clean surplus relationship (i.e., $B_{t+\tau} = B_{t+\tau-1} + FEPS_{t+\tau}(1 - DPR_{t+\tau})$, where DPR is the dividend payout ratio assumed to be equal to 50%). Knowing all the parameters, Eq. (2) is solved *numerically* for r_{CT}.

2.3.2. Gebhardt et al. (2001) model

This approach uses a discounted residual income model (RIM). It also assumes clean surplus accounting, where the share price is expressed in terms of the cost of equity, the current book value, and forecasted return on equity (ROE) and book value. The explicit forecast horizon is set to three years, beyond which forecasted ROE decays to an industry-specific target ROE by the 12th year, and remains constant afterward. The model equation is given by:

$$P_t = B_t + \sum_{\tau=1}^{11} \frac{FROE_{t+\tau}-r_{GLS}}{(1+r_{GLS})^{\tau}} B_{t+\tau-1} + \frac{FROE_{t+12}-r_{GLS}}{r_{GLS}(1+r_{GLS})^{11}} B_{t+11}; \quad (3)$$

where P_t and B_t are defined as in the previous model, $FROE_{t+\tau}$ is the forecasted ROE for year $t + \tau$, and r_{GLS} is the cost of equity capital. Knowing all the parameters, Eq. (3) is solved *numerically* for r_{GLS}.

2.3.3. Ohlson and Juettner-Nauroth (2005) model

This model is an extension of the Gordon constant growth model. It expresses the share price in terms of the cost of equity, the one-year-ahead earnings forecast, and near-term and perpetual growth forecasts. The explicit forecast horizon is set to one year, after which forecast earnings grow at a near-term rate that decays to a perpetual rate. Near-term earnings growth rate (g_2) is the average of: i) the growth rate of forecasted earnings per share (FEPS) from year t + 1 to year t + 2, and ii) the I/B/E/S long-term growth

forecast (LTG). The perpetual growth rate $(\gamma - 1)$ is assumed to be equal to the expected inflation rate. The valuation equation is given by:

$$r_{OJN} = A + \sqrt{A^2 + \frac{FEPS_{t+1}}{P_t}(g_2 - (\gamma - 1))} \quad (4)$$

where P_t and *FEPS* are defined as in the previous models, $A \equiv \frac{1}{2}\left((\gamma - 1) + \frac{DPS_{t+1}}{P_t}\right)$, and DPS_{t+1} is equal to DPS_0 the actual dividend per share in year $t - 1$.[6]

Eq. (4) is solved *analytically* (i.e. the solution is a closed form expression for r_{OJN}). The model requires that $FEPS_{t+2} > 0$ and $FEPS_{t+1} > 0$.

2.3.4. Easton (2004) model

This model is a generalization of the Price–Earnings–Growth (PEG) model. It expresses current share price in terms of the cost of equity, the expected dividend payout, and one- and two-year-ahead earnings forecasts. The explicit forecast horizon is set to two years, after which forecasted abnormal earnings grow in perpetuity at a constant rate. The expression of Easton's (2004) valuation model is given by:

$$P_t = \frac{FEPS_{t+2} + r_{Easton} DPS_{t+1} - FEPS_{t+1}}{r_{Easton}^2}, \quad (5)$$

where P_t, *FEPS* and DPS_{t+1} are defined as in the previous models.

Eq. (5) can be also rewritten as:

$$r_{Easton}^2 - r_{Easton}\, DPS_{t+1}/P_t - (FEPS_{t+2} - FEPS_{t+1})/P_t = 0 \quad (6)$$

r_{Easton} is obtained as the solution to this quadratic equation and the model requires that $FEPS_{t+2} > 0$ and $FEPS_{t+1} > 0$ so that Eq. (6) yields a positive root.

[6] Dividend per share is assumed to be constant.

2.4. Empirical framework

To test our two first hypothesis, univariate analysis are carried out on the relevant subsamples in order to assess the directional change in the cost of equity following SWF deals. In fact, to test for the validity (or not) of the first hypothesis, we run a statistical test of the differences in the cost of equity measures between the cross-border transactions sample and the domestic deals sample. Furthermore, to test for the validity (or not) of the second hypothesis, we run a statistical test of the differences in the cost of equity measures between the GFC transactions sample and the non-GFC deals sample. Results of these tests are discussed in the following section.

In order to test the hypotheses on the impact of the quality of institutions on the change in equity pricing following SWFs deals, more specifically to investigate whether the magnitude of differences between the host and acquirer countries explain the cross-sectional variations in the cost of equity following the deals, we estimate the following model:

$$r_{Avg} = \beta_0 + \beta_1 Size + \beta_2 BTM + \beta_3 Lev + \beta_4 Fbias + \beta_5 Disp + \beta_6 Rvar + \beta_7 Mkt\ Turn + \beta_8 Infl + \beta_9 GDPC + \beta_{10} \Delta\_\text{INSTITUTION} + \beta_{11} \Delta\_\text{DEMOCR}, \quad (7)$$

where

r_{Avg} is the average *ex ante* (implied) cost of equity capital based on the four models outlined in the previous section. Following prior studies (e.g., Dhaliwal et al., 2006; Hail and Leuz, 2006), we include several determinants of the cost of equity capital in the above regression. As firm-level controls, we include the natural logarithm of total assets in U.S. $ millions (*Size*), the book-to-market value of equity (*BTM*), the ratio of long-term debt to total assets (*Lev*), the forecast error defined as the difference between the one-year-ahead earnings forecast and realized earnings deflated by beginning-of-period assets per share (*Fbias*), the dispersion in analyst forecasts measured as the coefficient of variation of one-year-ahead analyst forecasts of earnings per share (*Disp*), and the volatility of stock returns over the previous 12 months (*Rvar*). We expect all the firm-level variables to be positively related to the cost of equity financing, except the Size

factor. Moreover, we control for three economic factors: the market turnover (*Mkt Turn*), the realized inflation rate over the next year (*Infl*), and the logarithm of GDP per capita in U.S. $ (*GDPC*). We expect inflation to be positively related to the cost of equity financing. Finally, we expect *GDPC*, and market turnover to be negatively related to the cost of equity capital.

We investigate two specific institutional factors to assess the impact of the quality of institutions on the implied cost of equity capital after SWFs deals. INSTITUTION (quality of institutions) and DEMOCR (democratic tendencies) reflect the quality of institutions and the level of democracy respectively. As introduced by Bekaert et al. (2014), INSTITUTION is an index that goes from 1 to 16, 1 for low quality of institutions and 16 for a high quality of institutions, whereas DEMOCR is an index that goes from 1 to 12, 1 for low level of democratic tendencies and 12 for a high level of democratic tendencies. We use in our regression the differential of the values between the host and the acquiror countries of both variables, INSTITUTION and DEMOCR. All regression models are estimated including year, industry, and country fixed effects. We expect a positive relationship between the cost of equity capital and the differential between the quality of institutional between the host and acquiror countries, meaning that, ceteris paribus, the cost of equity increases when the differences in the quality of institutions is high, and vice versa.

3 Empirical results and discussions

3.1 Descriptive statistics

Table 1 presents the growth of SWFs size by year. In September 2016, SWFs assets under management are worth around $ 7.4 trillion with an annual growth rate around 25% on average during the last 20 years (from 1997 ($0.8 trillion) to 2016 ($ 7.4 trillion)). SWFs are concentrated in Asia and the Middle East whose nations own more than 80% of SWFs in terms of asset size. Commodity-financed SWFs represent more than 57% of the whole SWFs global portfolio. Table 2 shows that the United Arab Emirates, China, Saudi Arabia, Kuwait, Norway and Singapore own the largest SWFs. Put together, these countries hold more than 70% of the global SWF portfolio. In addition, we notice the

recent inception of SWFs in some emerging economies such as Russia, Iran, Brazil, Mexico, Ghana, and Nigeria that try to invest wealth abroad to diversify their sources of revenues. Other new, but smaller, SWFs were recently created by local politicians for protectionist reasons to counter the world wide SWFs tendency coming from Asia and the Middle East (Italy and France, among others). Another important feature presented in Table 2 is the weak transparency index for the majority of SWFs. This is a major issue that the international community fears: the emergence of large financial players combined with the difficulty to understand their behavior and their motives because of their lack of transparency and information disclosure.

INSERT TABLE 2 HERE

Table 3 presents the distribution of our sample of SWF deals, i.e., targeted firms, by host country (Panel A), by acquiror country (Panel B), and by foreign vs. domestic nature of the deals (Panel C). Around 70% of SWF deals in our sample are cross-border deals, the remaining balance consists on domestic acquisitions. Moreover, our sample shows that the USA, China, India, Australia, and Canada are the countries were SWFs publically invest the most. Furthermore, Singapore, UAE, and Qatar are the largest acquiror countries in our sample. Table 3 also presents the distribution of the same sample by year and by industry. In fact, our data also shows that SWFs investment activities increased steadily until the GFC, moment from which we recorded a decrease in the publically disclosed SWFS deals. Finally, our data shows that most of the deals, 35%, targeted the financial sector, followed by the manufacturing sector (22%).

INSERT TABLE 3 HERE

Table 4 Panel A reports the descriptive statistics of the cost of equity 1 year, 2 years, and 3 years after the SWF deals. It also reports the same information provided by our benchmarking sample[7]. Panel B of the same table provides descriptive statistics of the different firm-level and country-level specific factors. Basically, the cost of equity for our

[7] The benchmarking sample was built by matching each targeted firm by its peer operating in the same industry (same 2-SIC digits), in the same country, with almost the same market capitalization (±25%). Robustness tests were run using firm matches by industry, country, and total assets (±25%).

entire sample using the three time horizons is higher than the cost of equity for our matching firms. This means that investors require more returns for their investments in the firms targeted by SWFs. Interestingly, the cost of capital decreases over time, which is consistent with previous findings (Bortolotti et al., 2015; Dewenter et al., 2010; and Kotter and Lel, 2011).

INSERT TABLE 4 HERE

3.2 Univariate analysis

Table 5 provides the results of statistical tests of the differences in mean and in medians between the cost of equity one year estimates on our entire sample vs. the benchmarking sample (Panel A), the cost of equity two years estimates on our entire sample vs. the benchmarking sample (Panel B), and the cost of equity three years estimates on our entire sample vs. the benchmarking sample (Panel C). Results are shown using the four cost of equity models, i.e. Claus and Thomas model (2001), the Gebhardt et al. model (2001), the Ohlson and Juettner-Nauroth model (2005) and the Easton model (2004). Our results corroborate those shown in Table 4, i.e. that (1) the cost of equity estimated using the three time horizons and the four models is higher than the cost of equity for our matching firms, and (2) the cost of capital decreases over time.

INSERT TABLE 5 HERE

Table 6 presents a breakdown of our results in two different ways. In fact, Panel A presents the results obtained on the subsample of SWFs domestic targets vs. foreign targets. Moreover, Panel B presents the results recorded on the subsample of SWFs deals during the GFC vs. non-GFC. Panel A shows that the cost of equity is lower for firms acquired domestically by SWFs compared to their peers having been targeted by foreign SWF, regardless of the time horizon used for the cost of equity estimates. This corroborate our first hypothesis, *H1*. Furthermore, Panel B shows that the cost of equity is lower for firms having been targeted during the GFC compared to firms targeted by SWFs during the non-GFC period. Again, our results hold for the three time horizons used for the cost of equity estimates. Our findings confirm our second hypothesis, *H2*.

INSERT TABLE 6 HERE

3.3 Regression analysis

We investigate in this section the impact of two institutional factors on the cross-sectional variation in the cost of equity estimates. Table 7 shows the results of the estimation of equation (7). Besides the firm-level and country-level controls for which we record the expected signs of the estimated coefficients, we find that Δ_INSTITUTION, the magnitude of the differential in the quality of institutions between the host and the acquiror countries, and Δ_DEMOCR, the magnitude of the differential in the democratic tendencies between the host and the acquiror countries, have positive and statistically significant coefficients. This means that the larger is the differential in the quality of institutions between the host and the acquiror countries, the higher is the cost of equity for targeted firms one year after SWF deals. Similarly, the larger is the differential in the democratic tendencies between the host and the acquiror countries, the higher is the cost of equity for targeted firms one year after SWF deals.

Moreover, we record differences in the economic significance of the coefficients of both variables, Δ_INSTITUTION and Δ_DEMOCR, depending on the subsamples used in the estimation. In fact, if we refer to the entire sample (columns 9 and 10 in Table 7), a 1% increase in Δ_INSTITUTION, i.e. in the magnitude of the differential between the quality of institutions of the host and the acquiror countries, implies a higher cost of equity one year after SWFs deals by 1.83%. Similarly, a 1% increase in Δ_DEMOCR, i.e. in the magnitude of the differential between the democratic tendencies of the host and the acquiror countries, implies a higher cost of equity one year after SWFs deals by 1.53%. These additional equity costs may be related to agency costs where SWFs targets located in countries with low institutional quality or low democratic tendencies compared to the SWF country, may potentially try to extract private benefits through different tunneling activities and practices. A concrete example would be the average impact of Singaporean SWF on the cost of equity of Chinese firms. In the opposite, our results could also be interpreted as a cost incurred by firms located in countries with high institutional quality or high democratic tendencies compared to the SWF country. A concrete

example would be the average impact of middle east SWFs transactions on the cost of equity of US or UK firms.

INSERT TABLE 7 HERE

Furthermore, columns (3) and (4) show that 1% increase in Δ_INSTITUTION (a 1% increase in Δ_DEMOCR) results in an increase of 2.71% (1.86%) in the cost of equity of *foreign* targeted firms. Columns (5) and (6) show that 1% increase in Δ_INSTITUTION (a 1% increase in Δ_DEMOCR) results in an increase of 0.53% (0.37%) in the cost of equity of targeted firms one year after SWFs deals done during the GFC. This impact is lower than that recorded on the cost of equity of targeted firms one year after SWFs deals done outside of the GFC period (Columns (7) and (8) in Table 7). The gap between the quality of institutions and democratic tendencies of the two countries seems to be more important outside of periods of financial distress. We argue that during periods of high volatility, firm-level factors overweight institutional factors whereas these factors gain importance during normal market conditions.

3.4 Robustness checks

In this section, we run a battery of sensitivity tests to examine whether our findings reported in Table 7 are robust to: (1) alternative assumptions and model specifications, (2) the potential noise in analyst forecasts originating mainly from analyst optimism, and (3) analyst use of information.

3.4.1 Alternative assumptions and model specifications

The models whose results are reported in Table 7 use r_{Avg}, the arithmetic average of the implied cost of equity capital from the four pricing models (r_{CT},r_{GLS}, r_{OJN}, and r_{Easton}) as the dependent variable. To test the robustness of our results, we run the regressions on each of the individual pricing model. Panels A to D of Table 8 present the estimation results for the Easton (2004) model, the Ohlson and Juettner-Nauroth (2005) model, the Gebhardt et al. (2001) model, and the Claus and Thomas (2001) model, respectively, on the same firm-level and country-level factors as in Table 7. Our

regression results reported in Table 8 corroborate the findings recorded in Table 7, i.e. the differential in the quality of institutions between the host and the acquiror countries have a significant and positive effect on equity price, i.e. that the larger is the gap between the countries in terms of quality of institutions, the higher is the cost of equity capital for the targeted firms.

INSERT TABLE 8 HERE

3.4.2 Analyst forecast optimism

As documented in Kothari (2001), analysts tend to be over-optimistic, which biases the estimations of the implied cost of equity upward. Following El Ghoul et al. (2011), we test the robustness of our results against analyst optimism in two ways. First, we successively exclude the top 5, 10, 25, and 50 percent of the firm-year observations in the $Fbias$ distribution, i.e., highly optimistic earnings forecasts. Second, we address optimism in long term forecasts by successively excluding the top 5, 10, 25, and 50 percent of the firm-year observations in the long-term growth distribution *LTG*. In both cases, our results (unreported) support our main findings.

3.4.3 Tardiness to analyst reaction to information

Previous literature documented how analysts react relatively slowly or sluggishly to publicly available information (Ali et al., 1992). To test the robustness of our results against this concern, we follow Chen et al. (2009a) and control for price momentum computed as the compound stock returns over the past 3 months. Overall, our results (unreported) support our main findings and mitigate the concern about the effect of analyst slowness in treating information on our results. Other results using price momentum computed as the compound stock returns over the past 6, and 12 months also corroborate our findings.

4 Conclusion

Our work is a continuum of the SWFs literature documenting the effects of their investment activities on the economic outcomes of their targets. We show that SWFs targets exhibit, on average, higher financing equity cost one year, two years, and three years after the deals. We used the implied cost of equity as a metric since it overcomes the limitations of using the observed returns.

Our results vary over the subsamples used. The implied cost of equity of SWF's targets seems to decrease (increase), *on average,* following SWFs' *domestic (foreign)* investments. Our findings also show that the cost of equity financing of SWFs' targets decreases (increases), *on average*, following SWF deals done during *periods of financial distress (normal market conditions).* We provide and discuss potential reasons behind these effects, namely the implicit government guarantee channel and the agency theory channel.

Our results have important policy implications. *First*, SWFs domestic investments show to be economically beneficial since they reduce the cost of raising equity money, hence providing a competitive advantage against their foreign competitors. In that sense, SWFs owners should consider SWFs as an effective economic tool that could be used to lever domestic economies. *Second*, SWFs activities during periods of high volatility seem to help their targeted firms having access to cheaper capital, which may be helpful in such a distressed environment. That effect has been noticeable during the 2007-2009 GFC when several SWFs injected money in the US and UK economics through the acquisition of important stakes in the banking and real estate sectors. *Third*, our results show that larger gaps between both parties, the acquiror and the host countries, in terms of quality of institutions and democratic tendencies result in higher cost of capital. This finding stresses the importance of investing to improve the institutional and political frameworks because it helps enhancing firms' financial flexibility through the cost of equity financing.. This is in line with previous findings in the literature (e.g., Belkhir et al., 2017) showing that institutional factors matter in corporate equity pricing.

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Table 1: Sovereign Wealth Funds Size by Year, Region and Funding Source

Year	Fund Size (billion $)*	Year	Fund Size (billion $)*	Region	Distribution				
					2016	2011	2006	2001	1997
2016	7437	**2006**	2492	**Asia**	39.5%	38.1%	26.9%	36.3%	40.9%
2015	7496	**2005**	1836	**Middle East**	41.0%	41.7%	47.3%	48.0%	47.0%
2014	7368	**2004**	1573	**Europe**	13.6%	13.2%	16.1%	7.2%	2.7%
2013	6965	**2003**	1322	**Americas**	2.7%	2.8%	4.4%	7.7%	8.6%
2012	6283	**2002**	1104	**Africa**	1.8%	2.5%	3.3%	0.8%	0.7%
2011	5492	**2001**	1041	**Other**	1.5%	1.7%	2.0%	0.1%	0.1%
2010	5049	**2000**	950	**Funding Source**	**Distribution**				
2009	4632	**1999**	910		**2016**	**2011**	**2006**	**2001**	**1997**
2008	4186	**1998**	858	**Commodity**	57.1%	58.1%	64.9%	66.1%	62.5%
2007	3499	**1997**	802	**Non-Commodity**	42.9%	41.9%	35.1%	33.9%	37.5%

This table reports the evolution of SWFs size during the 1997-2016 period and their distribution by region and by funding source. Commodities mainly include oil, gas, diamonds, and copper.

* Updated in September 2016. Source: SWF Institute.

Table 2: Largest Sovereign Wealth Funds by Assets Under Management **

Country	Sovereign Wealth Fund Name	Assets ($billion)	Inception	Origin	Linaburg-Maduell Transparency Index
Norway	Government Pension Fund – Global	850	1990	Commodity	10
China	China Investment Corporation	813.8	2007	Non-Commodity	8
UAE – Abu Dhabi	Abu Dhabi Investment Authority	792	1976	Commodity	6
Saudi Arabia	SAMA Foreign Holdings	598.4	n/a	Commodity	4
Kuwait	Kuwait Investment Authority	592	1953	Commodity	6
China	SAFE Investment Company	474*	1997	Non-Commodity	4
China – Hong Kong	Hong Kong Monetary Authority Investment Portfolio	442.4	1993	Non-Commodity	8
Singapore	Government of Singapore Investment Corporation	350	1981	Non-Commodity	6
Qatar	Qatar Investment Authority	335	2005	Commodity	5
China	National Social Security Fund	236	2000	Non-Commodity	5
UAE – Dubai	Investment Corporation of Dubai	196	2006	Non-Commodity	5
Singapore	Temasek Holdings	193.6	1974	Non-Commodity	10
Saudi Arabia	Public Investment Fund	160	2008	Commodity	4
UAE – Abu Dhabi	Abu Dhabi Investment Council	110	2007	Commodity	n/a
Australia	Australian Future Fund	95	2006	Non-Commodity	10
South Korea	Korea Investment Corporation	91.8	2005	Non-Commodity	9
Kazakhstan	Kazakhstan National Fund	77	2000	Commodity	2
Russia	National Welfare Fund	73.5	2008	Commodity	5
Kazakhstan	Samruk-Kazyna JSC	69.3	2008	Non-Commodity	10
UAE – Abu Dhabi	International Petroleum Investment Company	66.3	1984	Commodity	9
UAE – Abu Dhabi	Mubadala Development Company	66.3	2002	Commodity	10
Libya	Libyan Investment Authority	66	2006	Commodity	1
Russia	Reserve Fund	65.7	2008	Commodity	5
Iran	National Development Fund of Iran	62	2011	Commodity	5
US – Alaska	Alaska Permanent Fund	53.9	1976	Commodity	10
Algeria	Revenue Regulation Fund	50	2000	Commodity	1
Brunei	Brunei Investment Agency	40	1983	Commodity	1
US – Texas	Texas Permanent School Fund	37.7	1854	Commodity	9
Azerbaijan	State Oil Fund	37.3	1999	Commodity	10
Malaysia	Khazanah Nasional	34.9	1993	Non-Commodity	9
Oman	State General Reserve Fund	34	1980	Commodity	4
Ireland	Ireland Strategic Investment Fund	23.5	2001	Non-Commodity	10
New Zealand	New Zealand Superannuation Fund	20.2	2003	Non-Commodity	10
US – New Mexico	New Mexico State Investment Council	19.8	1958	Commodity	9
Canada	Alberta's Heritage Fund	17.5	1976	Commodity	9
US – Texas	Permanent University Fund	17.2	1876	Commodity	n/a
East Timor	Timor-Leste Petroleum Fund	16.9	2005	Commodity	8
Chile	Social and Economic Stabilization Fund	15.2	2007	Commodity	10
UAE – Federal	Emirates Investment Authority	15	2007	Commodity	3
Russia	Russian Direct Investment Fund	13	2011	Non-Commodity	n/a
Bahrain	Mumtalakat Holding Company	10.6	2006	Non-Commodity	10
Peru	Fiscal Stabilization Fund	9.2	1999	Non-Commodity	n/a
Chile	Pension Reserve Fund	7.9	2006	Commodity	10
Mexico	Oil Revenues Stabilization Fund of Mexico	6	2000	Commodity	4
Oman	Oman Investment Fund	6	2006	Commodity	4
Italy	Italian Strategic Fund	6	2011	Non-Commodity	n/a
Botswana	Pula Fund	5.7	1994	Commodity	6
US – Wyoming	Permanent Wyoming Mineral Trust Fund	5.6	1974	Commodity	9
Trinidad & Tobago	Heritage and Stabilization Fund	5.5	2000	Commodity	8
Brazil	Sovereign Fund of Brazil	5.3	2008	Non-Commodity	9
China	China-Africa Development Fund	5	2007	Non-Commodity	5
Angola	Fundo Soberano de Angola	5	2012	Commodity	8
US – North Dakota	North Dakota Legacy Fund	3.2	2011	Commodity	n/a
US – Alabama	Alabama Trust Fund	2.5	1985	Commodity	9
Kazakhstan	National Investment Corporation	2	2012	Commodity	n/a
Nigeria – Bayelsa	Bayelsa Development and Investment Corporation	1.5	2012	Non-Commodity	N/A
Nigeria	Nigerian Sovereign Investment Authority	1.4	2012	Commodity	9
US – Louisiana	Louisiana Education Quality Trust Fund	1.3	1986	Commodity	n/a
Panama	Fondo de Ahorro de Panamá	1.2	2012	Non-Commodity	10
UAE – Ras Al Khaimah	RAK Investment Authority	1.2	2005	Commodity	3
Bolivia	FINPRO	1.2	2012	Non-Commodity	n/a

Senegal	Senegal FONSIS	1	2012	Non-Commodity	n/a
Iraq	Development Fund for Iraq	0.9	2003	Commodity	n/a
Palestine	Palestine Investment Fund	0.8	2003	Non-Commodity	n/a
Venezuela	FEM	0.8	1998	Commodity	1
Kiribati	Revenue Equalization Reserve Fund	0.6	1956	Commodity	1
Vietnam	State Capital Investment Corporation	0.5	2006	Non-Commodity	4
Gabon	Gabon Sovereign Wealth Fund	0.4	1998	Commodity	n/a
Ghana	Ghana Petroleum Funds	0.45	2011	Commodity	n/a
Indonesia	Government Investment Unit	0.3	2006	Non-Commodity	n/a
Mauritania	National Fund for Hydrocarbon Reserves	0.3	2006	Commodity	1
Australia	Western Australian Future Fund	0.3	2012	Commodity	n/a
Mongolia	Fiscal Stability Fund	0.3	2011	Commodity	n/a
Equatorial Guinea	Fund for Future Generations	0.08	2002	Commodity	n/a
Papua New Guinea	Papua New Guinea Sovereign Wealth Fund	n/a	2011	Commodity	n/a
Turkmenistan	Turkmenistan Stabilization Fund	n/a	2008	Commodity	n/a
US – West Virginia	West Virginia Future Fund	n/a	2014	Commodity	n/a
Mexico	Fondo Mexicano del Petroleo	n/a	2014	Commodity	n/a
Total Commodity		**$4,286.30**			
Total Non-Commodity		**$3,083.20**			
TOTAL		**$7,369.50**			

This table reports the list of the largest SWFs in terms of assets under management, the size of their portfolios, their inception date, their financing source and the Linaburg-Maduell Transparency Index, a rating index developed by the SWFs Institute to reflect the level of transparency of a SWF. The index ranges from 0 to 10, high values are attributed to SWFs with higher transparency levels and low values for lower transparency levels. Commodities mainly include oil, gas, diamonds, and copper.

*This number is a best guess estimation; **Updated September 2016. Source: SWF Institute.

Table 3: SWFs' deals by targeted country, acquiror country, year, and targeted industry

Panel A: SWFs deals by targeted country

Target Country	SWFs' deals	
	N	%
AUSTRALIA	43	12.5%
BRAZIL	1	0.3%
CANADA	24	7.0%
CHINA	57	16.6%
COLOMBIA	1	0.3%
EGYPT	6	1.7%
GERMANY	1	0.3%
HONG KONG	7	2.0%
INDIA	46	13.4%
INDONESIA	4	1.2%
ITALY	12	3.5%
JAPAN	1	0.3%
KUWAIT	1	0.3%
MALAYSIA	11	3.2%
PAKISTAN	1	0.3%
PHILIPPINES	1	0.3%
QATAR	1	0.3%
SINGAPORE	4	1.2%
TAIWAN	3	0.9%
THAILAND	14	4.1%
USA	103	30.0%
VIETNAM	1	0.3%
Total	343	100%

Panel B: SWFs deals by acquiror country

Acquiror Country	SWFs' deals	
	N	%
Bahrain	3	0.9%
Brunei	2	0.6%
China	15	4.4%
France	7	2.0%
Ireland	3	0.9%
Kuwait	4	1.2%
Libya	14	4.1%
Malaysia	26	7.6%
New Zealand	2	0.6%
Norway	16	4.7%
Oman	3	0.9%
Qatar	43	12.5%
Singapore	128	37.3%
United Arab Emirates	73	21.3%
United States of America	4	1.2%
Total	343	100%

Panel C: SWFs deals - Foreign vs. Domestic

Acquiror Country	SWFs' deals	
	N	%
Domestic deals	104	30.3%
Cross-border deals	239	69.7%
Total	343	100%

Panel D: SWFs deals by year

Year	SWFs deals	
	N	%
1994	5	1.5%
1996	1	0.3%
1997	1	0.3%
1999	2	0.6%
2000	1	0.3%
2001	9	2.6%
2002	2	0.6%
2003	37	10.8%
2004	27	7.9%
2005	11	3.2%
2006	51	14.9%
2007	52	15.2%
2008	59	17.2%
2009	29	8.5%
2010	39	11.4%
2011	8	2.3%
2012	9	2.6%
Total	343	100%

Panel E: SWFs deals by targeted industry

Industry	SWFs' deals	
	N	%
Construction	22	6.4%
Finance, Ins., & Real Estate	121	35.3%
Manufacturing	75	21.9%
Mining	65	19.0%
Retail Trade	6	1.7%
Services	39	11.4%
Transp. & Public Utilities	12	3.5%
Wholesale Trade	3	0.9%
Total	343	100%

This table presents the distribution of SWFs' deals by targeted country (Panel A), acquiror country (Panel B), cross-border vs. domestic destinations (Panel C), targeted industry (Panel E), and year (Panel D). The sample covers the 1994-2012 period.

Table 4: Descriptive statistics of the cost of equity and other firm-level and country-level factors

Panel A: Descriptive statistics of the cost of equity

Cost of Equity	SWFs' Targets sample						Benchmark sample					
	N	Mean	Median	Std. dev.	25th perc.	75th perc.	N	Mean	Median	Std. dev.	25th perc.	75th perc.
Cost of Equity - Year 1 (post deal) -	343	17.72%	16.81%	3.45%	13.67%	18.84%	343	13.65%	12.69%	3.86%	10.27%	14.21%
Cost of Equity - Year 2 (post deal) -	331	15.92%	14.93%	3.24%	12.14%	16.74%	331	13.42%	12.48%	3.48%	10.10%	13.97%
Cost of Equity - Year 3 (post deal) -	319	13.87%	12.91%	3.19%	10.50%	14.47%	319	13.55%	12.66%	3.22%	10.25%	14.18%

Panel B: Firm-level and country-level characteristics

Variables	SWFs' Targets sample						Benchmark sample					
	N	Mean	Median	Std. dev.	25th perc.	75th perc.	N	Mean	Median	Std. dev.	25th perc.	75th perc.
Size	343	17.23	16.32	4.65	13.89	23.01	343	17.19	16.28	4.51	14.02	22.87
Leverage	343	0.93	0.91	0.23	0.89	0.98	343	0.91	0.90	0.21	0.87	0.97
RVAR	343	0.13	0.11	0.06	0.08	0.13	343	0.15	0.13	0.06	0.09	0.14
BTM	343	0.66	0.58	0.58	0.39	0.74	343	0.64	0.59	0.47	0.40	0.69
DISP	343	0.24	0.22	0.21	0.14	0.28	343	0.22	0.22	0.20	0.13	0.29
FBIAS	343	0.02	0.09	0.99	0.01	0.12	343	0.02	0.05	0.78	0.02	0.11
INFL	343	13.74	10.05	21.56	4.81	10.41	343	13.74	10.05	21.56	4.81	10.41
LGDPC	343	1.78	3.76	5.45	0.19	4.89	343	1.78	3.76	5.45	0.19	4.89
MTURN	343	95.02	116.76	64.01	26.19	143.75	343	95.02	116.76	64.01	26.19	143.75
INSTITUTIONS	343	7.59	7.00	0.73	6.50	8.00	343	7.59	7.00	0.73	6.50	8.00
DEMOCR	343	9.07	9.50	1.61	8.00	10.00	343	9.07	9.50	1.61	8.00	10.00

This table presents the descriptive statistics of the cost of equity as well as firm-level and country-level factors. Firm-level factors include firm size (SIZE), debt-to-assets ratio (Leverage), return variability (RVAR), book-to-market ratio (BTM), analysts' forecast dispersion (DISP), and analyst forecasting bias (FBIAS). Country-level factors are the expected inflation for the next 12 months (INFL), GDP per capita (LGDPC), and stock market turnover (MTURN). INSTITUTION (quality of institutions) and DEMOCR (democratic tendencies) reflect the quality of institutions and the level of democracy respectively. As introduced by Bekaert et al. (2014), INSTITUTION is an index that goes from 1 to 16, 1 for low quality of institutions and 16 for a high quality of institutions, whereas DEMOCR is an index that goes from 1 to 12, 1 for low level of democratic tendencies and 12 for a high level of democratic tendencies.

Table 5: Univariate analysis

Panel A: Cost of equity one year after SWFs' deals

Cost of Equity Measures	Means			Cost of Equity Measures	Medians		
	SWFs Targets Sample	Control Sample	(1) - (2)		SWFs Targets Sample	Control Sample	(3) - (4)
	(1)	(2)			(3)	(4)	
Cost of Equity (average)	17.72%	13.65%	[t-stat] (0.041)*** [2.548]	Cost of Equity (average)	16.81%	12.69%	[z-stat] (0.042)*** [4.274]
Claus & Thomas (2001)	18.01%	13.87%	[t-stat] (0.042)*** [2.944]	Claus & Thomas (2001)	17.10%	12.88%	[z-stat] (0.043)*** [2.451]
Gebhardt et al. (2001)	16.11%	12.44%	[t-stat] (0.037)*** [3.061]	Gebhardt et al. (2001)	15.23%	11.62%	[z-stat] (0.037)*** [4.701]
Ohlson and Juettner-Nauroth (2005)	18.65%	14.28%	[t-stat] (0.044)*** [4.648]	Ohlson and Juettner-Nauroth (2005)	17.55%	13.37%	[z-stat] (0.042)*** [3.841]
Easton (2004)	18.11%	14.02%	[t-stat] (0.041)*** [1.749]	Easton (2004)	17.36%	12.90%	[z-stat] (0.045)*** [5.406]

Panel B: Cost of equity two years after SWFs' deals

Cost of Equity Measures	Means			Cost of Equity Measures	Medians		
	SWFs Targets Sample	Control Sample	(1) - (2)		SWFs Targets Sample	Control Sample	(3) - (4)
	(1)	(2)			(3)	(4)	
Cost of Equity (average)	15.92%	13.42%	[t-stat] (0.026)*** [3.002]	Cost of Equity (average)	14.93%	12.48%	[z-stat] (0.025)*** [4.528]
Claus & Thomas (2001)	16.23%	13.61%	[t-stat] (0.027)*** [4.599]	Claus & Thomas (2001)	15.36%	12.51%	[z-stat] (0.029)*** [4.147]
Gebhardt et al. (2001)	14.39%	12.28%	[t-stat] (0.022)*** [2.419]	Gebhardt et al. (2001)	13.51%	11.51%	[z-stat] (0.02)*** [6.023]
Ohlson and Juettner-Nauroth (2005)	16.64%	14.04%	[t-stat] (0.026)*** [2.451]	Ohlson and Juettner-Nauroth (2005)	15.34%	13.20%	[z-stat] (0.022)*** [3.371]
Easton (2004)	16.43%	13.75%	[t-stat] (0.027)*** [3.704]	Easton (2004)	15.53%	12.70%	[z-stat] (0.029)*** [3.748]

Panel C: Cost of equity three years after SWFs' deals

Cost of Equity Measures	Means			Cost of Equity Measures	Medians		
	SWFs Targets Sample	Control Sample	(1) - (2)		SWFs Targets Sample	Control Sample	(3) - (4)
	(1)	(2)			(3)	(4)	
Cost of Equity (average)	13.87%	13.55%	[t-stat] (0.004)*** [2.337]	Cost of Equity (average)	12.91%	12.66%	[z-stat] (0.003)*** [3.184]
Claus & Thomas (2001)	14.04%	13.77%	[t-stat] (0.003)*** [1.842]	Claus & Thomas (2001)	13.13%	12.79%	[z-stat] (0.004)*** [4.281]
Gebhardt et al. (2001)	12.55%	12.34%	[t-stat] (0.003)*** [2.148]	Gebhardt et al. (2001)	11.74%	11.61%	[z-stat] (0.002)*** [3.011]
Ohlson and Juettner-Nauroth (2005)	14.54%	14.19%	[t-stat] (0.004)*** [3.154]	Ohlson and Juettner-Nauroth (2005)	13.37%	13.35%	[z-stat] (0.001)*** [2.689]
Easton (2004)	14.35%	13.91%	[t-stat] (0.005)*** [2.705]	Easton (2004)	13.41%	12.90%	[z-stat] (0.006)*** [2.619]

This table presents the mean and median of the cost of equity estimted one year (Panel A), two years (Panel B), and three years (Panel C) after SWFs' deals on both samples: the SWF's targets sample and the control sample. We present the results of the averaged cost of equity financing as well as the cost of equity resulting from each of the four individual model: the Claus and Thomas model (2001), the Gebhardt et al. model (2001), the Ohlson and Juettner-Nauroth model (2005) and the Easton model (2004). *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 6: Cost of equity after SWFs' domestic/foreign deals and GFC/non-GFC deals

Panel A: SWFs' domestic vs. foreign deals

Cost of Equity Measures	Means						Medians					
	Domestic Targets	Control Sample	(1) - (2)	Foreign Targets	Control Sample	(3) - (4)	Domestic Targets	Control Sample	(5) - (6)	Foreign Targets	Control Sample	(7) - (8)
	(1)	(2)		(3)	(4)		(5)	(6)		(7)	(8)	
Cost of Equity (1 year)	12.42%	13.24%	[t-stat] (-0.009)*** [-5.285]	20.03%	13.83%	[t-stat] (0.062)*** [9.558]	11.57%	12.44%	[z-stat] (-0.009)*** [-3.774]	19.09%	12.80%	[z-stat] (0.063)*** [7.948]
Cost of Equity (2 years)	12.48%	13.02%	[t-stat] (-0.006)*** [-4.771]	17.42%	13.60%	[t-stat] (0.039)*** [6.762]	11.50%	12.23%	[z-stat] (-0.008)*** [-2.882]	16.43%	12.59%	[z-stat] (0.039)*** [5.529]
Cost of Equity (3 years)	12.21%	13.15%	[t-stat] (-0.01)*** [-3.273]	14.59%	13.73%	[t-stat] (0.009)*** [3.058]	11.42%	12.28%	[z-stat] (-0.009)*** [-3.251]	13.56%	12.83%	[z-stat] (0.008)*** [2.866]

Panel B: SWFs' deals done during vs. out of the GFC period

Cost of Equity Measures	Means						Medians					
	GFC sample	Control Sample	(1) - (2)	Non-GFC sample	Control Sample	(3) - (4)	GFC sample	Control Sample	(5) - (6)	Non-GFC sample	Control Sample	(7) - (8)
	(1)	(2)		(3)	(4)		(5)	(6)		(7)	(8)	
Cost of Equity (1 year)	14.70%	15.97%	[t-stat] (-0.013)*** [-2.458]	19.82%	12.04%	[t-stat] (0.078)*** [5.641]	12.39%	13.33%	[z-stat] (-0.01)*** [-2.127]	19.88%	12.25%	[z-stat] (0.077)*** [8.441]
Cost of Equity (2 years)	14.45%	15.70%	[t-stat] (-0.013)*** [-2.318]	16.95%	11.83%	[t-stat] (0.052)*** [4.882]	12.19%	13.10%	[z-stat] (-0.01)*** [-2.547]	16.84%	12.05%	[z-stat] (0.048)*** [6.402]
Cost of Equity (3 years)	14.59%	15.86%	[t-stat] (-0.013)*** [-2.194]	13.37%	11.95%	[t-stat] (0.015)*** [3.811]	12.36%	13.30%	[z-stat] (-0.01)*** [-2.762]	13.29%	12.22%	[z-stat] (0.011)*** [3.061]

This table presents the mean and median of the cost of equity estimted for domestic deals and cross-border deals (Panel A), and for deals done during and out of the GFC (Panel B). The cost of equity is estimated one year after the deal, two years after the deal, and three years after the deal and are done on both samples: the SWF's targets sample and the control sample. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 7: Regression Analysis

Variables	Domestic deals		Cross-border deals		Deals during GFC		Deals during non-GFC		Entire sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
SIZE	-0.0128***	-0.0121***	-0.0102***	-0.0098***	-0.0127***	-0.0114***	-0.0107***	-0.0101***	-0.0095***	-0.0117***
	(-4.451)	(-4.108)	(-5.126)	(-5.024)	(-4.482)	(-4.509)	(-5.971)	(-5.897)	(-6.054)	(-7.027)
LEV	0.0486***	0.0441***	0.0509***	0.0489***	0.0615***	0.0651***	0.0528***	0.0557***	0.0402***	0.0441***
	(7.054)	(7.921)	(6.997)	(7.037)	(6.805)	(6.905)	(6.848)	(7.486)	(6.528)	(7.021)
RVAR	0.0435	0.0645	0.0413	0.0687	0.0309	0.0523	0.0444	0.0428	0.0452	0.0481
	(0.868)	(1.247)	(1.175)	(1.268)	(0.803)	(1.282)	(1.093)	(1.270)	(1.011)	(1.405)
BTM	0.0189***	0.0251***	0.0158***	0.0252***	0.0190***	0.0260***	0.0186***	0.0148***	0.0256***	0.0186***
	(5.492)	(5.899)	(4.775)	(5.291)	(4.675)	(4.976)	(4.464)	(4.893)	(5.471)	(5.891)
DISP	0.0516***	0.0577***	0.0559***	0.0344***	0.0443***	0.0507***	0.0535***	0.0354***	0.0668***	0.0619***
	(4.879)	(4.734)	(4.291)	(5.018)	(5.091)	(4.731)	(4.884)	(4.038)	(5.068)	(4.912)
FBIAS	0.0061***	0.0052***	0.0042***	0.0051***	0.0044***	0.0055***	0.0041***	0.0067***	0.0071***	0.0069***
	(5.257)	(5.881)	(6.090)	(5.703)	(5.212)	(5.203)	(6.085)	(5.914)	(6.428)	(6.568)
INFL	-0.0011***	-0.0005	-0.0001	-0.0008*	-0.0012***	-0.0006	-0.0002	-0.0007*	-0.0012	-0.0015*
	(-4.780)	(-1.452)	(-0.345)	(-3.654)	(-4.780)	(-1.452)	(-0.345)	(-3.654)	(-0.276)	(-3.499)
LGDPC	-0.0016**	-0.0024***	-0.0027***	-0.0022***	-0.0018**	-0.0025***	-0.0017***	-0.0024***	-0.0028***	-0.0033***
	(-4.215)	(-4.770)	(-5.006)	(-4.626)	(-4.215)	(-4.770)	(-5.006)	(-4.626)	(-6.127)	(-6.337)
MTURN	-0.0001*	-0.0001	-0.0001	-0.0002	-0.0001*	-0.0002	-0.0001	-0.00002	-0.0001	-0.00002
	(-1.673)	(-1.511)	(-1.571)	(-0.263)	(-1.673)	(-1.511)	(-1.571)	(-0.263)	(-1.679)	(-0.458)
Δ_INSTITUTION			0.0271***		0.0053***		0.0105***		0.0183***	
			(6.254)		(7.451)		(5.053)		(6.549)	
Δ_DEMOCR				0.0186***		0.0037***		0.0083***		0.0153***
				(5.254)		(6.228)		(4.857)		(7.822)
Constant	0.275***	0.0641	0.0728**	0.284***	0.212***	0.0421	0.0548	0.142**	0.0871	0.1076**
	(6.271)	(1.404)	(2.517)	(6.354)	(5.273)	(1.274)	(1.409)	(2.505)	(1.062)	(2.014)
Observations	104	104	239	239	140	140	203	203	343	343
R-squared	0.185	0.191	0.215	0.228	0.197	0.201	0.206	0.219	0.252	0.263

This table presents the results of the regression of the cost of equity one year after SWFs' deals (dependent variable) on different firm-level and country-level factors. We regress the cost of capital one year after SWFs' deals firm- and country-level controls using 4 sub-samples: domestics deals sample (columns 1 and 2), cross-border deals sample (columns 3 and 4), sample of deals concluded during the GFC (columns 5 and 6), and sample of deals concluded outside of the GFC (columns 7 and 8), in addition to running the model on the entire sample (columns 9 and 10). Firm-level factors include firm size (SIZE), debt-to-assets ratio (LEV), return variability (RVAR), book-to-market ratio (BTM), analysts' forecast dispersion (DISP), and analyst forecasting bias (FBIAS). Country-level factors are the expected inflation for the next 12 months (INFL), GDP per capita (LGDPC), and stock market turnover (MTURN). INSTITUTION (quality of institutions) and DEMOCR (democratic tendencies) reflect the quality of institutions and the level of democracy respectively. As introduced by Bekaert et al. (2014), INSTITUTION is an index that goes from 1 to 16, 1 for low quality of institutions and 16 for a high quality of institutions, whereas DEMOCR is an index that goes from 1 to 12, 1 for low level of democratic tendencies and 12 for a high level of democratic tendencies . We use in our regression the differencial of the values between the host and the acquiror countries of both variables, INSTITUTION and DEMOCR. All regression models are estimated including year, industry, and country fixed effects. Standard errors are corrected for heteroskedasticity and clustered by firm. Robust t-statistics are reported in parentheses. Significance levels are as follows: *** p<0.01, ** p<0.05, * p<0.1.

Table 8: Robustness to alternative assumptions and model specifications

Panel A: Cost of equity using Claus and Thomas (2001) model

Variables	Domestic deals		Cross-border deals		Deals during GFC		Deals during non-GFC		Entire sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
SIZE	-0.0162***	-0.0042***	-0.0035***	-0.0164***	-0.0067***	-0.0136***	-0.0119***	-0.0174***	-0.0145***	-0.0158***
	(-7.1186)	(-4.7248)	(-6.5138)	(-4.5399)	(-3.9883)	(-4.4544)	(-5.8372)	(-5.9931)	(-6.2796)	(-7.2148)
LEV	0.08228***	0.01560***	0.07288***	0.06943***	0.02323***	0.05584***	0.03466***	0.02055***	0.02658***	0.06647***
	(5.0360)	(8.2846)	(5.6133)	(7.2578)	(6.3986)	(7.3053)	(7.2139)	(7.0499)	(7.3853)	(8.5002)
RVAR	0.0741	0.1116	0.0640	0.0154	0.0122	0.0511	0.0222	0.0079	0.0310	0.0394
	(0.6513)	(0.9981)	(1.5767)	(1.3480)	(0.8234)	(1.3861)	(1.1137)	(0.8231)	(1.0192)	(1.6507)
BTM	0.0077***	0.04054***	0.03061***	0.01646***	0.00514***	0.03977***	0.01349***	0.01150***	0.03671***	0.02011***
	(6.4947)	(5.9580)	(3.7471)	(6.2711)	(5.2246)	(5.1914)	(4.4926)	(5.4234)	(4.7171)	(6.3590)
DISP	0.0429***	0.0354***	0.0758***	0.0363***	0.0581***	0.0501***	0.0321***	0.0343***	0.0872***	0.0692***
	(5.6582)	(4.4059)	(3.7259)	(5.3131)	(5.8783)	(3.9531)	(2.5318)	(2.7225)	(5.2545)	(4.8068)
FBIAS	0.0039***	0.0071***	0.0028***	0.0021***	0.0024***	0.0081***	0.0008***	0.0104***	0.0071***	0.0081***
	(4.3364)	(5.4577)	(4.2429)	(5.5754)	(4.7822)	(4.9784)	(9.0917)	(5.6791)	(5.5202)	(6.4682)
INFL	-0.0015***	-0.0006***	-8.6398***	-0.0006***	-0.0009***	-0.0004***	-5.7756***	-0.0001***	-0.0002***	-0.0014***
	(-5.0575)	(-5.9833)	(-4.4464)	(-4.9709)	(-6.1275)	(-4.3509)	(-4.4144)	(-3.8650)	(-4.2920)	(-4.1532)
LGDPC	-0.0013***	-0.0012***	0.00027***	-0.0023***	-0.0016***	-0.0018***	-0.0015***	-0.0038***	-0.0049***	-0.0039***
	(-6.6045)	(-3.9252)	(-5.4920)	(-4.5876)	(-3.7131)	(-4.5168)	(-4.1622)	(-3.9139)	(-4.2055)	(-7.4716)
MTURN	-0.0001318	-3.874E-05	-6.126E-05	-1.56E-04	-5.792E-05	-0.0001043	-0.0001305	-1.34E-04	-0.000124	-8.99E-05
	(-1.3097)	(-1.7826)	(-1.6743)	(-0.3086)	(-2.2255)	(-0.9991)	(-1.9032)	(-0.1980)	(-1.7363)	(-0.3770)
Δ_INSTITUTION			0.02857***		0.04511***		0.00928***		0.00458***	
			(7.0397)		(7.9694)		(4.9357)		(5.4553)	
Δ_DEMOCR				0.02463***		0.03632***		0.01772***		0.02679***
				(5.7631)		(6.0342)		-4.5241		(8.2259)
Constant	0.05134***	0.06232***	0.08164***	0.05532***	0.41194***	0.04934***	0.06755***	0.18216***	0.05767***	0.09950***
	(4.4194)	(5.5629)	(4.0046)	(4.8451)	(5.5758)	(4.5921)	(5.1085)	(5.8819)	(4.2731)	(5.0716)
Observations	104	104	239	239	140	140	203	203	343	343
R-squared	0.193	0.190	0.202	0.211	0.193	0.197	0.202	0.211	0.245	0.261

Panel B: Cost of equity using Gebhardt et al. (2001) model

Variables	Domestic deals		Cross-border deals		Deals during GFC		Deals during non-GFC		Entire sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
SIZE	-0.0148***	-0.0095***	-0.0118***	-0.0090***	-0.0109***	-0.0137***	-0.0109***	-0.0126***	-0.0135***	-0.0025***
	(-4.2662)	(-4.4634)	(-4.6109)	(-5.1442)	(-4.3493)	(-5.0107)	(-7.6084)	(-8.2838)	(-4.6258)	(-7.3920)
LEV	0.04370***	0.06018***	0.04984***	0.06098***	0.03927***	0.03251***	0.04054***	0.07585***	0.02041***	0.05684***
	(8.3170)	(8.5485)	(6.1700)	(7.9922)	(6.7244)	(7.9193)	(5.1443)	(4.9702)	(7.1718)	(7.3708)
RVAR	0.0576	0.0707	0.0580	0.0931	0.0419	0.0260	0.0367	0.0312	0.0343	0.0385
	(0.9399)	(1.5747)	(1.2530)	(0.9964)	(1.1304)	(1.0521)	(0.8936)	(1.2432)	(0.9863)	(1.9140)
BTM	0.01535***	0.0187***	0.02154***	0.02046***	0.01059***	0.04957***	0.03281***	0.02093***	0.00025***	0.0019***
	(5.8230)	(4.9233)	(5.0498)	(4.4722)	(5.8700)	(4.8681)	(5.5079)	(5.4616)	(5.286)	(7.3253)
DISP	0.08278***	0.08746***	0.02012***	0.03573***	0.06271***	0.04304***	0.06657***	0.06550***	0.07022***	0.06498***
	(6.9382)	(4.4361)	(4.3168)	(7.2404)	(5.8702)	(4.8885)	(3.8979)	(3.9083)	(5.9248)	(4.8382)
FBIAS	0.00715***	0.00495***	0.00488***	0.00797***	0.00633***	0.00655***	0.00354***	0.00390***	0.00846***	0.00689***
	(4.9724)	(5.2829)	(5.8046)	(6.1874)	(4.5176)	(4.8201)	(8.3833)	(6.9478)	(7.9541)	(6.8578)
INFL	-0.0012***	-0.0002***	-0.0414***	-0.0006***	-0.0011***	-0.0002***	-0.0002***	-0.0008***	-0.0013***	-0.0002***
	(-5.9411)	(-4.4491)	(-4.3083)	(-3.8350)	(-4.4150)	(-5.6331)	(-5.4757)	(-5.2144)	(-4.3244)	(-3.9969)
LGDPC	-0.0016***	-0.0048***	-0.0015***	-0.0032***	-0.0013***	-0.0014***	-0.0014***	-0.0015***	-0.0012***	-0.0036***
	(-5.3331)	(-4.4426)	(-4.8247)	(-4.1593)	(-4.0968)	(-5.3345)	(-4.2148)	(-3.8616)	(-5.4126)	(-4.3912)
MTURN	-6.617E-05	-9.873E-05	-0.0001	-2.74E-04	-0.0001436	-7.627E-05	-5.737E-05	-1.88E-04	-0.000169	-2.49E-04
	(-1.8994)	(-1.3253)	(-1.8230)	(-0.2548)	(-1.3649)	(-1.2057)	(-1.4144)	(-0.3640)	(-1.5602)	(-0.4286)
Δ_INSTITUTION			0.05871***		0.05876***		0.00749***		0.00384***	
			(5.0387)		(7.9723)		(8.2718)		(7.4807)	
Δ_DEMOCR				0.01443***		0.05715***		0.01085***		0.03080***
				(3.9685)		(6.5375)		(4.3605)		(6.4637)
Constant	0.04287***	0.01538***	0.09718***	0.28347***	0.28709***	0.09156***	0.04569***	0.09957***	0.11745***	0.07229***
	(4.5619)	(4.7301)	(5.6687)	(5.7671)	(6.7187)	(5.0892)	(4.2055)	(4.4160)	(4.8881)	(4.5245)
Observations	104	104	239	239	140	140	203	203	343	343
R-squared	0.178	0.181	0.196	0.204	0.187	0.185	0.201	0.205	0.234	0.241

Panel C: Cost of equity using Ohlson and Juettner-Nauroth (2005) model

Variables	Domestic deals		Cross-border deals		Deals during GFC		Deals during non-GFC		Entire sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
SIZE	-0.0143***	-0.0135***	-0.0153***	-0.0051***	-0.0139***	-0.0060***	-0.0075***	-0.0103***	-0.0116***	-0.0012***
	(-5.2368)	(-5.1618)	(-7.4402)	(-5.1098)	(-5.4024)	(-5.1252)	(-5.7319)	(-5.9085)	(-9.0987)	(-5.8091)
LEV	0.01600***	0.0014***	0.04585***	0.06046***	0.06113***	0.02202***	0.02519***	0.05798***	0.04840***	0.08022***
	(6.0110)	(6.4070)	(9.3369)	(7.6428)	(6.8288)	(4.7886)	(6.2547)	(8.2607)	(8.1192)	(7.9818)
RVAR	0.0514	0.0205	0.0533	0.0763	0.0200	0.0861	0.0183	0.0526	0.0211	0.0389
	(0.9235)	(1.1614)	(1.4597)	(1.2046)	(0.8021)	(0.9825)	(0.9635)	(1.2674)	(0.9911)	(1.1634)
BTM	0.01762***	0.00831***	0.01729***	0.03028***	0.01731***	0.01758***	0.02079***	0.02323***	0.03144***	0.02654***
	(6.5190)	(8.5009)	(5.4251)	(5.0661)	(4.7946)	(5.7081)	(4.4722)	(3.9123)	(5.156)	(3.7251)
DISP	0.05712***	0.06790***	0.11636***	0.04840***	0.05199***	0.03335***	0.00947***	0.04849***	0.06494***	0.04615***
	(4.3979)	(5.3391)	(4.4643)	(4.2945)	(4.2287)	(3.9741)	(5.4570)	(4.3156)	(4.4391)	(4.9519)
FBIAS	0.00281***	0.00659***	0.00352***	0.00921***	0.00141***	0.00577***	0.00638***	0.00447***	0.00826***	0.00578***
	(4.7436)	(3.7388)	(5.0999)	(6.6345)	(5.8841)	(4.4767)	(4.9543)	(4.1355)	(6.8362)	(7.2236)
INFL	-0.0013***	-0.0007***	-0.1445***	-0.0010***	-0.0009***	-0.0004***	-0.0002***	-0.0005***	-0.0014***	-0.0006***
	(-5.2066)	(-4.1472)	(-4.3745)	(-3.8346)	(-5.4826)	(-4.8835)	(-5.3463)	(-3.6876)	(-4.2580)	(-4.1678)
LGDPC	-0.0012***	-0.0004***	-0.0037***	-0.0017***	-0.0024***	-0.0034***	-0.0025***	-0.0008***	-0.0017***	-0.0015***
	(-6.4842)	(-3.6084)	(-6.9832)	(-3.4717)	(-3.8092)	(-4.4887)	(-6.5649)	(-6.1046)	(-5.3505)	(-5.5810)
MTURN	-0.0001012	-9.442E-05	-0.0001077	-1.59E-04	-0.0001369	-0.000204	-5.748E-05	-1.67E-04	-8.06E-05	-1.41E-04
	(-1.7500)	(-1.1601)	(-1.8313)	(-0.1841)	(-2.1259)	(-1.4439)	(-1.6602)	(-0.2751)	(-1.9228)	(-0.4594)
Δ_INSTITUTION			0.03181***		0.05999***		0.01551***		0.02147***	
			(4.3800)		(9.0720)		(5.0617)		(5.6836)	
Δ_DEMOCR				0.00812***		0.02904***		0.01636***		0.0006***
				(5.5656)		(5.9267)		(4.0429)		(8.5924)
Constant	0.00456***	0.10078***	0.04050***	0.37038***	0.17930***	0.03580***	0.02903***	0.22356***	0.08949***	0.10742***
	(4.0658)	(6.7712)	(3.7093)	(5.4426)	(5.0659)	(4.8606)	(6.2222)	(5.4481)	(4.0642)	(6.4040)
Observations	104	104	239	239	140	140	203	203	343	343
R-squared	0.185	0.189	0.213	0.219	0.198	0.203	0.201	0.209	0.261	0.271

Panel D: Cost of equity using Easton (2004) model

Variables	Domestic deals		Cross-border deals		Deals during GFC		Deals during non-GFC		Entire sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
SIZE	-0.0176***	-0.0051***	-0.0086***	-0.0129***	-0.0153***	-0.0113***	-0.0122***	-0.0161***	-0.0199***	-0.0080***
	(-3.8985)	(-4.5190)	(-4.2934)	(-4.4448)	(-4.3020)	(-4.5279)	(-5.8771)	(-5.5740)	(-5.5938)	(-5.2286)
LEV	0.07094***	0.03888***	0.10687***	0.04135***	0.08048***	0.09333***	0.09700***	0.05304***	0.03620***	0.03684***
	(8.5500)	(8.1385)	(6.0426)	(5.8648)	(6.5663)	(7.1847)	(6.4356)	(9.5985)	(7.9693)	(11.499)
RVAR	0.0603	0.0993	0.0202	0.1554	0.0489	0.0428	0.0288	0.0400	0.0407	0.0358
	(1.1666)	(1.3399)	(1.6659)	(0.9713)	(0.3177)	(1.2684)	(1.4453)	(1.5976)	(1.0849)	(1.6247)
BTM	0.03580***	0.0054***	0.00631***	0.00824***	0.02741***	0.02782***	0.00168***	0.01510***	0.02922***	0.02817***
	(7.5194)	(6.9195)	(4.9642)	(6.3675)	(4.4790)	(5.2536)	(3.9972)	(4.9350)	(4.758)	(7.3093)
DISP	0.03496***	0.06189***	0.05894***	0.04602***	0.03829***	0.02013***	0.01798***	0.04982***	0.05931***	0.06444***
	(4.2944)	(4.6094)	(4.0131)	(5.3436)	(3.8089)	(5.3937)	(4.2344)	(4.4198)	(5.3138)	(5.9866)
FBIAS	0.00687***	0.00175***	0.00124***	0.00758***	0.00266***	0.00190***	0.00405***	0.00359***	0.00948***	0.00748***
	(3.3850)	(6.1481)	(6.2615)	(6.1912)	(3.0024)	(5.3569)	(3.8827)	(6.6342)	(6.8374)	(8.1578)
INFL	-0.0011***	-0.0009***	-0.0313***	-0.0006***	-0.0012***	-0.0004***	-0.0001***	-0.0008***	-0.0019***	-0.0029***
	(-4.3568)	(-3.7656)	(-4.2604)	(-3.6440)	(-5.3288)	(-5.6605)	(-5.3028)	(-4.8084)	(-5.3162)	(-2.6486)
LGDPC	-0.0028***	-0.0027***	-0.0014***	-0.0006***	-0.0023***	-0.0008***	-0.0028***	-0.0009***	-0.0027***	-0.0023***
	(-3.1259)	(-5.0845)	(-4.1482)	(-3.7418)	(-4.5164)	(-5.6638)	(-6.0952)	(-3.8857)	(-7.5072)	(-5.1435)
MTURN	-8.122E-05	-0.0001006	-0.0001161	-6.06E-05	-8.225E-05	-0.0002292	-0.0001152	-1.21E-04	-0.000162	-1.67E-04
	(-1.7899)	(-1.4234)	(-1.7792)	(-0.2465)	(-1.5470)	(-1.2776)	(-1.4262)	(-0.2637)	(-1.1125)	(-0.4785)
Δ_INSTITUTION			0.01623***		0.05204***		0.00570***		0.01547***	
			(7.5733)		(7.4055)		(6.4916)		(9.6047)	
Δ_DEMOCR				0.02501***		0.02653***		0.00379***		0.01691***
				(6.3418)		(9.5959)		(4.6272)		(10.388)
Constant	0.08134***	0.02532***	0.08544***	0.38259***	0.51401***	0.07649***	0.05448***	0.08579***	0.04499***	0.0254***
	(4.1207)	(4.7453)	(3.8441)	(6.3901)	(5.2235)	(4.4356)	(4.1907)	(4.3716)	(3.8759)	(5.0130)
Observations	104	104	239	239	140	140	203	203	343	343
R-squared	0.171	0.179	0.204	0.211	0.176	0.187	0.184	0.201	0.231	0.246

This table presents the results of the regression of the ex ante cost of equity one year after SWFs' deals (dependent variable) on different firm-level and country-level factors. Panels A, B, C, and D use the cost of equity given by Claus and Thomas (2001), Gebhardt et al. (2001), Ohlson and Juettner-Nauroth (2005), and Easton (2004) respectively as a dependent variable. We regress the cost of equity on firm- and country-level controls using 4 sub-samples: domestics deals sample (columns 1 and 2), cross-border deals sample (columns 3 and 4), sample of deals concluded during the GFC (columns 5 and 6), and sample of deals concluded outside of the GFC (columns 7 and 8), in addition to running the model on the entire sample (columns 9 and 10). Firm-level factors include firm size (SIZE), debt-to-assets ratio (LEV), return variability (RVAR), book-to-market ratio (BTM), analysts' forecast dispersion (DISP), and analyst forecasting bias (FBIAS). Country-level factors are the expected inflation for the next 12 months (INFL), GDP per capita (LGDPC), and stock market turnover (MTURN). INSTITUTION (quality of institutions) and DEMOCR (democratic tendencies) reflect the quality of insitutions and the level of democracy respectively. As introduced by Bekaert et al. (2014), INSTITUTION is an index that goes from 1 to 16, 1 for low quality of institutions and 16 for a high quality of institutions, whereas DEMOCR is an index that goes from 1 to 12, 1 for low level of democratic tendencies and 12 for a high level of democratic tendencies . We use in our regression the differencial of the values between the host and the acquiror countries of both variables, INSTITUTION and DEMOCR. All regression models are estimated including year, industry, and country fixed effects. Standard errors are corrected for heteroskedasticity and clustered by firm. Robust t-statistics are reported in parentheses. Significance levels are as follows: *** p<0.01, ** p<0.05, * p<0.1.