Study programme

MSc in Business, Major in finance

Title

The differences and similarities between the Norwegian oil fund (government pension fund global; GPFG) and the California Public Employees' Retirement System (CalPERS)

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Introduction

In this paper, our main goal is to examine the Norwegian pension fund and CalPERS in order to note similarities and differences in terms of investment philosophy, investment management, risk, asset allocation and returns.

The Government Pension Fund in Norway was established in 1990 to emphasize the long-term considerations when phasing petroleum revenues into the Norwegian economy (nbim.no). Norwegian central bank investment management manages the fund on behalf of the Ministry of Finance. The ministry determines the fund’s investment strategy, following advice from Norwegian bank investment management and the parliament, and thus from the politicians. The management mandate defines the investment strategy. The revenues from petroleum is transferred to the fund. In turn, the fund’s capital is invested abroad to avoid overheating the Norwegian economy[1] . The fund invests majorly in fixed-income markets and real estate. Like other funds, the aim is to maximize return while adjusting risk to lowest possible levels. This is achieved through diversified investment mix. Norwegian pension fund is the largest fund in Europe. CalPERS is the largest public pension fund in the U.S, but not larger than the Norwegian pension fund[2]. The Norwegian pension fund has its origin from oil while CalPERS has its origin from member- and employer contributions. So the CalPERS is non-commodity while GPFG is commodity based.

We believe that there are significant differences between the sovereign wealth funds and pension funds. Sovereign wealth funds and pension funds can have different objectives and investment philosophies that affect their respective investment strategies. Many studies conducted on sovereign wealth fund has focused on both the economic and political motives of the fund. Critics have argued that sovereign wealth fund investment are driven by political motives, rather than financial. While others like Alhashel (2015) finds that SWFs are driven by economic motives. We want to focus on the difference between GPFG and CalPERS. Given that both CalPERS and GFPG are driven by economic motives, investigating the political motives will be of less interest in our paper. Among the factors we will focus on will be governance, transparency and the role of ethics.

[1] https://www.nbim.no/en/the-fund/about-the-fund/

[2] https://en.wikipedia.org/wiki/Government_Pension_Fund_of_Norway

CalPERS differs in management by being managed of board members, unlike Norwegian pension fund which is controlled directly by the state. We believe there is also significant difference between investment regulations in the two funds, as there is traditionally between Europe and US. We believe the Norwegian pension fund is much more affected by regulatory regime. There are strict ethical guidelines for where and what GPFG can invest and there are many companies the Norwegian fund had to withdraw from because of ethical reasons.
CalPERS is also known for its corporate governance; CalPERS is known to be most influencing pension fund. Norwegian pension fund have not historically been taking executive roles in invested companies but it has the potential to do so, especially in Europe.
The two funds have also some similarities. Their asset allocation in public equity is approximately 50-60%. However, CalPERS focus more on real estate which is almost 10% of the fund, while Norwegian pension fund is slightly above 5%.

Our question/problem is as following:
We want to investigate and do research on the similarities and differences between the Norwegian oil fund and California Public Employees' Retirement System of approach to management in terms of investment philosophy, investment management, risk, asset allocation and returns.

Our motivation by doing this investigation is to map what and why the Norwegian pension fund (GPFG) can potentially adopt from CalPERS in order to have better performance.

To our knowledge, there are no other research papers which examines similarities and differences between CalPERS and GPFG.

Background and Literature review

Corporate Governance

The California Public Employees' Retirement System has received attention for its active participation in corporate governance. CalPERS' investment belief is that to achieve long-term value creation it requires effective management on three forms of capital: financial, physical and human[3]. Their corporate engagement program is underpinned by this belief. They believe that improvement alliance between long-term shareowners and companies will enable the fund to fulfil its duty to achieve sustainable risk-adjusted returns. Research papers states that CalPERS has served as a case study for many as a model of institutional activism. Academics, regulators and policymakers have looked to the examples of CalPERS to support the claims that institutional investors can use their substantial equity stakes to overcome collective action problems and that institutional activism can improve corporate performance, and thus the fund performance which leads to investment returns for its members. (Choi & Fisch 2008). The Norwegian pension fund is less active on corporate governance, in comparison to CalPERS, and that might be an important factor to investigate to evaluate the financial performances' of the funds.

Activism

Public pension funds can use their power of their pooled ownership of publicly traded stocks to effect changes in the corporations they own. In theory, the institutional activism hinge critically on two agency costs: 1) the conflict of interest between corporate managers and shareholders and 2) the conflicts of interest between portfolio managers and investors. Portfolio managers can use their positions to monitor conflicts that might arise between managers and shareholders, but they can also abuse their position by pursuing actions that advance their own moral values or personal interests the expense of investors (Brad M. Barber).

Governance is an important topic to investigate in order to see if there are any considerable differences between the Norwegian pension fund and CalPERS, and if the difference have a substantial effect on the financial returns of the funds.

[3] https://www.calpers.ca.gov/page/investments/governance/corporate-engagements

Del Guercio & Hawkins (1999) studies the motivation and impact of pension fund activism, and finds that pension funds are successful in monitoring and promoting change in target firms. Their research examines the impact of pension fund's activism to generate changes in target company policies, mainly through shareholder proposals. Their study finds CalPERS to be among pension funds that creates the most increased corporate governance and control activities in the target firms. Alhashel (2015) divided sovereign wealth fund activism into two types, "defensive" and "offensive" activism. Offensive activism is event driven and focused on changes in company to increase value, mostly in short and medium term, and is most commonly associated with hedge funds. Defensive activism is more focused on corporate governance and prevent mismanagement losses, and is more commonly associated with pension funds. This is to secure the firms' long term profitability, instead of short to medium term profit maximizing activities. GPFG is a sovereign wealth fund that is associated with defensive activism. GFPG has submitted three shareholder proposals requesting proxy access for US firms, in order to create better representations of shareholders.

Brad M. Barber states further that companies on CalPERS' focus list yields to small but positive market reactions. The total wealth creation is $224 million annually. The paper also suggests that companies on focus list earn abnormal returns between 2,4% - 4,8%, which might be caused by the activism of CalPERS. (Brad M. Barber). We want to investigate whether the Norwegian pension fund might find it significant to continue its growth in corporate governance in attempt to achieve higher performance of the fund.

Investment strategy and asset allocation

The investment strategy is formed in accordance with the fund's objectives. A common distinction between sovereign wealth fund and pension fund is the political objectives of sovereign wealth fund. Blundell-Wignall, Hu & Yermo (2008) and Ang (2009) finds that sovereign wealth funds can have political motives along with the economic. Pension funds are created with the purpose of providing pension benefits, and therefore have more purely financial motives. Guercio & Hawkins, (1999) also investigates if agency problem within the pension funds, like managers pursuing own personal goals, can deviate the fund from the goal of maximizing fund value. Their research does not find evidence for any motives other than maximizing fund value.

Ferreira & Matos, (2008) find that large institutional investor, such as GPFG, prefer large firms with strong governance indicators. Country-level factors like disclosure standards are inspected when investing in foreign countries. The investment strategy of pension funds and sovereign wealth funds are determined by different characteristics of the fund. GPFG have a long-term investment strategy, making it more tolerant to return volatility and short-term losses. Kotter & Lel. (2001) finds that SWFs in general target large firms in developed countries that are financially distressed or cash constraint. The level of transparency of the fund is a factor for investment strategy. Transparent SWFs are more likely to be held accountable for investment performance, and are therefore more incentivized to put more effort in maximizing their target value. Their research find that transparent SWFs are more likely to invest in financially distressed firms than opaque SWFs. However, the GPFG is not adequately represented in their statistical analysis.

The Ministry of Finance define the strategic benchmark index for GPFG. The benchmark specifies the asset class mix and regional allocation. The asset classes are commonly divided between equity and fixed income. The benchmark also reflects the risk tolerance and investment preference of the fund. The asset class allocation has gradually changed throughout the years. It was initially restricted to fixed income, but adjusted to 40 % equity and 60 % fixed income in 1998. The equity portion of the portfolio later increased to 60 % by 2009. The GPFG also started to invest in real estate in 2008. As of today, the portfolio's asset allocation was 60 % in equity and 35-40 % in fixed income and up to 5% in real estate. The return on investments are compared with the return on global benchmark indices for equities and fixed income (Annual report 2015). As of today, CalPERS' asset allocation is 60,8% equity, 20,3% fixed income, 10,8% real assets and the rest is allocated in liquidity and inflation.

Both CalPERS and GPFG are investing heavily on public equity. Some research papers suggest that strategic sectors and economic growth are two attractive factors for sovereign wealth funds, like the Norwegian pension fund. A quick look at their investments, we see that GPFP is investing primarily in USA, United Kingdom, Germany, France, Switzerland and Japan (In terms of public equity). CalPERS is investing in its base state as well as outside the state. According to their reports, they have invested in approximately 9600 companies globally that have headquarters outside of California. At this stage, we do not know how much of these companies are outside the US. What we know is that information technology is the largest industry which is 29,8% of all private equity investments by CalPERS. Of the total assets, 9,2% is invested in California.

The GPFG reports that they have invested in 9050 different companies globally, which is 550 shorter than CalPERS. A research paper also suggests that Pension Funds are more interested in dividends, liquidity and large firms than SWFs, which confirms the long term investment perspectives of SWFs. (Boubakri, Cosset & Grira). Research shows that between 2010-2013, SWFs had achieved 24 percent annual growth rate due to rising price of petroleum. On average the GPFG have achieved a return rate of 5,7% annually on average since 1998. The return is 3,8% after costs. CalPERS' reports 7,8% net rate of returns on average during the past 20 years. This is 4% more than net return of GPFP.

Some research paper concludes that SWFs target firms which already are more profitable than their industry peers, while other papers suggests that SWFs targets companies with poor performance. There is also evidence that SWF managers passively seek stock picking in public equity markets instead of pursuing activism strategies. We know that CalPERS are much more active in corporate governance than GPFG, which supports this evidence.

Public responsibility

GPFG has been leading in terms of ethical and social responsible investment strategies. NBIM exercises GPFG ownership rights through proxy voting, corporate engagement and sponsoring. Representatives of the GPFG attended 3520 meetings in 2015 and voted at 11562 shareholder meetings during the same year. According to Gordon L. Clark and Ashby Monk (2010), NBIM tends to focus its voting activities upon the five-hundred largest companies, which is approximately 80% of the market value of the equity portfolio of GPFG. Attending these meetings, voting and following ethical guidelines are costly. However, the same research paper also states that ethical practices increases the long-term cost of capital for the affected companies, nor does it improve the funds financial performance. They argue that these guidelines are meant to be represent the Norwegian values and has efficiency costs which are visible of the performance of GPFG. They claim that GPFG governance is more about legitimizing the fund through representation of public interest rather than ensuring efficiency and functionality.

Methodology and Theory

Our research will focus on finding the similarities and difference between CalPERS and GPFG, and find if they have any considerable impact on the respective funds. The level of transparency, activism, corporate governance, ethics and asset allocation are among the factors that we will be focusing on. We will look at literatures focusing on sovereign wealth funds and pension funds, and see how the GPFG and CalPERS differs in term of their respective fund standards and each other. There are much information about their fund and operations in their websites and annual reports. Our motivation is to map what the Norwegian pension fund can learn from CalPERS to have better performance. In order to better understand the differences, we will perform some quantitative analysis of their financial performance in terms of the different factors, mainly corporate governance and asset allocation. CalPERS is among the leading pension funds in term of corporate governance, and we want to further investigate how much value it adds compared to the GPFG. We will also see if the change in asset allocation has had an impact on the funds' return.

Management

It is known that conflicts of interest may arise between shareholders and managers, this arises agency costs. CalPERS' are monitoring target companies by adding them on their focus list in attempt to reduce these agency costs. But monitoring is also costly, which means that the benefit of monitoring must be greater than the cost of monitoring. In theory, institutional activism can add value (Black 1992 & Jensen 1993). However, some studies present mixed evidence as to whether CalPERS' governance efforts add value on average. The Norwegian Pension Fund has become more active in corporate governance where the fund votes in general meetings and as well in proposals on environmental and social issues. We want to investigate whether corporate governance adds value to the Norwegian pension fund by looking at historical data of CalPERS since they have been doing this for a long time. Some studies are examining when corporate governance add value to the fund rather than if it adds value. Corporate governance and focus list are costly. If the fund has small percentage of ownership in a company, there is not efficient in doing corporate governance. The value added by corporate governance has to exceed the costs. We want to examine when the two funds are considering corporate governance as important to the performance of the fund in terms of return/cost benefit.

We also want to examine the degree of ethical guidelines that affects investment strategy. This approach may be done by looking at companies which the funds have disinvested from due to ethical reasons. There are two main parts we will focus on. What they consider is against their ethical values and the effect disinvestment has on the funds in terms of return/cost benefit. We know that Norway has done a lot of exclusion from the fund due to ethical values.

Average Rates of Return

Both CalPERS and NBIM (Norwegian Bank Investment Management) are providing returns on their respective funds since their establishment. Traditionally, returns are reported quarterly or monthly. We are going to collect data on returns to create data-file with quarterly returns on both of the funds. At this stage, we are not sure about length of the time period. We might need to consider the crisis in 2008 and recovery period in 2009. We are going to look at the total return of the funds rather than industry/asset returns.

Adjusting Returns for Risk

Evaluating portfolio performance solely on average rates of return is not useful, we need to adjust returns for risk. We can compare CalPERS and GPFG in terms of returns rates and risk characteristic.
There are several ways to adjust returns for risk:

1) Sharpe's ratio (and M^2 measure of performance)

$$\frac{(r_p - r_f)}{\sigma_p}$$

2) Treynor measure

$$\frac{(r_p - r_f)}{\beta_p}$$

3) Jensen's Alpha

$$\alpha_p = r_p - (r_f + \beta_p(r_p - r_f))$$

4) Information ratio

$$\frac{\sigma_p}{\sigma(\varepsilon_p)}$$

Each of them might be useful, but not necessarily relevant for our performance evaluation. For example, Treynor measure uses systematic risk rather than total risk. Sharpe ratio might give same results for both funds, in terms risk/return trade-off, but one of the fund might have higher returns.

Asset allocation decisions

The Fund's performance might be correlated with the build-up of asset allocation. GPFG where weighted 60% fixed income and 40% equity and later on this weighting where changed to the opposite. We aim to investigate this to see whether this affects fund's performance or not, but at this stage we are not sure how to do this besides the fact that we can run benchmark with different weights. This can be done by measuring hypothetical portfolio in indexes for each market with 60/40 weights. We have not decided for which benchmark to use yet.
Also, we have looked at some of the companies they have invested it and it seems like both of the funds are interested in the same firms. They slightly differ in percentage of ownership in some of them.
We are going to examine returns in terms of asset allocation since we are looking at the total return of the fund.

Data

At the moment we have not collected any data yet, but we know that both CalPERS and GPFG are providing reports quarterly and annually with returns, weights in asset allocations and other interesting facts. They are providing returns both before- and after costs. GPFG and CalPERS are also providing voting records and holdings in bonds, private/public equity and real estate on their respective website. NBIM provides reports excluded companies on their website as well. We have not found such report from CalPERS yet.
We are going to use EViews and/or Stata as well as Microsoft office tools to handle our data.

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