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Benchmarking of GPFG management costs

Report for the Norwegian Ministry of Finance

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Contents

Background

The Norwegian Ministry of Finance is responsible for setting the management framework of the Norwegian sovereign wealth fund, the Government Pension Fund Global (GPFG). Norges Bank (the central bank of Norway), is responsible for the operational management of the Fund, within the mandate issued by the Ministry of Finance. As of the end of third quarter 2017, the Fund managed assets worth NOK 7,952 billion. The GPFG is mainly invested in listed equity, fixed income and unlisted real estate, outside Norway.

Norges Bank's management of GPFG seeks to achieve the highest possible return after costs within the applicable management framework. The Ministry of Finance covers the bank's actual management costs within an upper limit. The limit was set to 8 basis points in 2016. Coverage of performance-based fees to external managers comes in addition. The Executive Board of Norges Bank prepares a budget proposal for the bank's management of GPFG that is approved by the Supervisory Council of Norges Bank. The Ministry of Finance emphasizes that Norges Bank shall implement the management mandate in a cost efficient manner[1].

As part of its monitoring of the cost level, the Ministry has contracted the Canadian consultant CEM Benchmarking Inc. to benchmark GPFG's return, excess return and management costs[2] against other comparable funds internationally on an annual basis. CEM Benchmarking Inc. is an independent global benchmarking company that provides benchmarking information to large investors such as pension funds, endowments/foundations and sovereign wealth funds. CEM Benchmarking collects the management costs using self-reported data from a large number of institutional investors, in order to benchmark costs across investors.

As part of its review of Norges Bank's management of the GPFG, the Norwegian Ministry of Finance has asked McKinsey & Company to create a tailor-made cost benchmarking report based on the CEM database, with a more focused peer group of other large funds, as size is considered an important driver of differences in management costs.

Specifically, the mandate includes:

- A benchmarking of Norges Bank's costs related to the management of GPFG against other large funds, based on the CEM database for 2016. The management costs should be benchmarked within each asset class (equities, fixed income and unlisted real estate), as well as on an aggregated level.

- A high-level estimate of the management costs incurred if the GPFG actual benchmark portfolio were to be managed using a passive indexing strategy only[3].

1 Ministry of Finance (2016).

2 Transaction costs are not included in the management costs as measured by CEM (nor what is defined as GPFG's total management costs throughout this report).

3 Excluding real estate investments, in line with GPFG's benchmark index (62.5 percent in equities and 37.5 percent in fixed income).

- A documentation of the calculation and a discussion of the uncertainty of the estimate of management costs incurred by passive indexing.

It is important to note that the scope of the analysis of management costs incurred by passive indexing does not include impact on investment returns, including the potential value-add from active investments, but focuses only on management costs[4] based on estimates using the CEM database. Thus, the resulting indicative estimate is both high-level and only a partial analysis; it needs to be complemented by analysing the impact on total cost and on investment returns together.

For a fact-based discussion on how the GPFG portfolio should be managed, additional analysis is essential. For example, Norges Bank regularly reviews their ability to add value from actively managing their portfolio. This analysis is conducted by comparing the net return of GPFG with the net return they could expect if the fund were managed passively. The starting point for this comparison is the GPFG's gross excess return, i.e. the realized return above the benchmark index. This is then adjusted for several cost and return components. First, they adjust for the difference in management costs between the current active management strategy, and estimated costs for a passive management strategy. Second, they adjust for transaction costs related to a passive strategy, including estimated costs related to replicating the benchmark index, to inflows of capital into the fund and to strategic changes in the benchmark. The last adjustment is for revenues from securities lending activities. This report only assesses one of these above-mentioned factors, which is an estimate of the management costs if the fund were managed passively.

The first part of the report provides an overview of GPFG's management costs and how it breaks down into different cost components. The second part gives an overview of how these costs compare to peers, leveraging the CEM database. Lastly, the third part gives a high-level estimate of management costs if GPFG were managed passively.

4 Transactions costs not in scope of analysis.

Overview of GPFG management costs

In 2016, the total management costs for GPFG were NOK 3,831 million[5] or 5.3 basis points[6] of the average NOK 7,214 billion assets under management in 2016. This continues a trend of falling costs from a peak of 14 basis points in 2009. The absolute cost, however, has increased from NOK 3,228 million in 2009. Total management costs can be split into asset management costs and overhead costs, accounting for around 70 and 30 percent of GPFG's 2016 management costs respectively (Exhibit 1). Asset management costs include costs for internal asset management and external asset management, both varying depending on asset classes, management styles and markets. Overhead costs may not be bound to a specific asset class. They include overseeing the fund, consulting and performance measurement, trustee and custodial, and audit expenses.

Asset management costs

For internal asset management, the typical costs are often related to personnel, such as salaries and benefits including performance bonus, and administrative costs specifically related to the asset class, such as share of premises costs, IT and support. The size of the personnel costs is driven by number of employees and wages. Number of employees is affected by the scope and characteristics of the internal management including the mandate (e.g. number of asset classes and geographies, passive or active management).

For external asset management, the three major cost buckets are base (management) and performance fees paid to external managers, and costs of internally overseeing the external mandates. Base fees are usually paid as a percentage of the assets under management, hence the driver of this cost is the size of capital invested through external managers. Performance fees are paid to the external managers when they realize returns beyond an agreed target. The size of this cost is driven by the performance of the external managers, and the amount of capital employed with external managers that have a performance fee.

The asset management costs can be further broken down into costs per asset class, such as stocks, fixed income and real estate, for internally and externally managed assets. Internally and externally managed stocks were the two largest cost buckets (NOK 957 and 875 million) constituting 2.5 out of 3.7 basis points in total asset management cost, as summarized in Exhibit 1.

Overhead costs

Overhead costs were NOK 1,135 million, or 1.6 basis points, in 2016. The major component is oversight of the fund (0.9 basis points), including direct expenses and salaries for executives and staff responsible for the total fund or overseeing multiple asset classes. Consulting and performance measurement include third party costs for services such as manager searches, scenario testing, and system consulting, as well as internal or external costs for performance measurement. Cost drivers include for example operational set-up and management style.

5 Including management costs for unlisted real estate subsidiaries.

6 One basis point equals 0.01%.

Costs related to trustee and custodial, which are fees paid for safekeeping of assets, are driven by the size of assets under management. The break-down of overhead costs is summarized in Exhibit 1.

Exhibit 1
GPFG management costs

Cost components	Management costs (NOKm)	Contribution to GPFG total management costs (bps)	Share of total management cost (%)
Internal asset management			
Stocks	957	1.3	25.0
Fixed Income	376	0.5	9.8
Real Estate (excl. REITs)	441	0.6	11.5
External asset management			
Stocks	875	1.2	22.8
Fixed income	47	0.1	1.2
Total asset management costs	**2,696**	**3.7**	**70.4**
Overhead			
Oversight of the fund	622	0.9	16.2
Consulting and performance measurement	89	0.1	2.3
Trustee and custodial	367	0.5	9.6
Audit	57	0.1	1.5
Other	-		
Total overhead costs	**1,135**	**1.6**	**29.6**
Total GPFG management costs (excl. transactions costs)	**3,831**	**5.3**	**100**

Benchmarking of GPFG management costs

Methodology

The benchmark of GPFG's management costs is based on a tailored peer group consisting of nine large institutional investors. The peer group comprises some of the largest comparable funds in the CEM database, as size is an important driver for management costs. Two of the funds are from Asia-Pacific, two are from Europe, two from Canada and three from the U.S. Due to the large size of GPFG though, it is not feasible to create a peer group of similar scale to compare robustly. For that reason, the funds in the peer group are smaller, with a median fund size of NOK 1,589 billion in assets under management, the smallest holding NOK 1,236 billion and the largest NOK 3,560 billion, compared to GPFG's average asset under management in 2016 of NOK 7,214 billion. Thus, cost benchmarks do not fully reflect benefits of scale expected for a fund of similar size as GPFG.

CEM Benchmarking defines four different "management styles" based on how the fund manages its assets. An institutional investor manages its portfolio either passively or actively, and for each of these, either through an external manager (externally) or in-house (internally). Passive managers attempt to construct portfolios to closely approximate the performance of their benchmarks, e.g. S&P 500 index (large U.S. companies) and FTSE 100 (large European stocks). Active investors manage their portfolio under the assumption that they can outperform the market by generating higher risk-adjusted return than an index portfolio (or higher absolute return for a given risk profile). Passive investing will typically have lower management costs than active, as active investing requires more time and research. Management costs for both passive and active investing are usually lower when carried out in-house than through external managers. In practice, there is a spectrum of management styles across passive to active investing. However, as the CEM Benchmarking database is limited to classifying mandates into either passive or active, this split is used for the analysis. It is worth noting that CEM Benchmarking classifies all styles that are not purely passive as active. As a result, as defined by CEM Benchmarking, GPFG takes an active approach to asset management, although it might commonly be referred to as "close to index" rather than "active". For GPFG, 100 percent of assets under management are categorized as actively managed (96 percent internally and 4 percent externally). In comparison, the peer group includes only 36 percent internal active management and 33 percent external active management, with 26 percent internal passive management and 4 percent external passive management.

CEM constructs a benchmark management cost for GPFG, based on GPFG's current asset allocation (e.g. share of stocks, fixed income and real estate). GPFG's cost is compared per asset class with the cost for the median peer using the average mix of management style in the peer group[7]. Hence, it represents the costs that peers would incur if they had GPFG's asset allocation. The GPFG actual management costs are then compared to the benchmark.

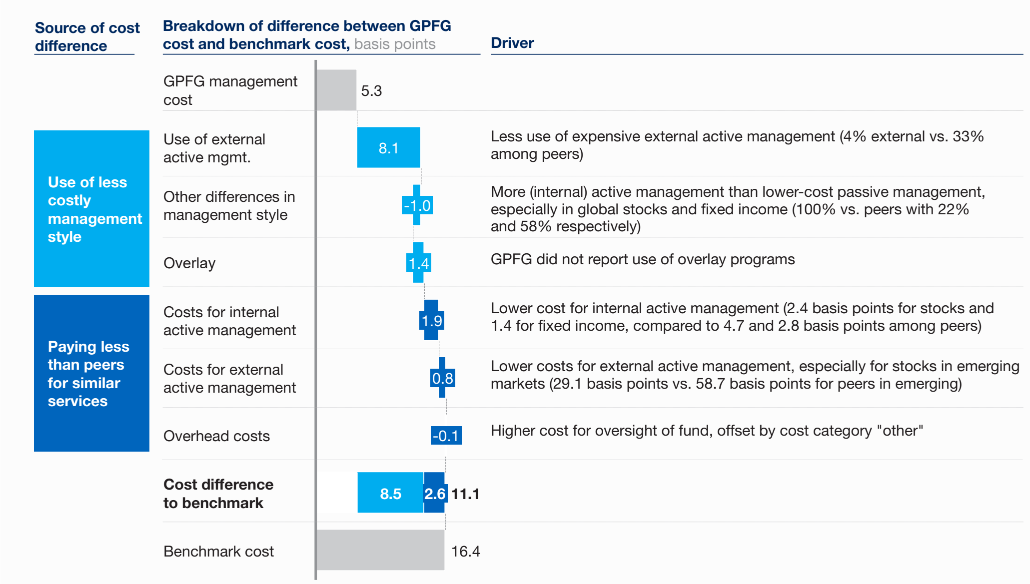
7 The weighted peer median cost for asset management is the style-weighted average of the peer median costs for all management styles (i.e., internal passive, internal active, external passive, external active).

Benchmarking results – total management costs

GPFG actual management costs of 5.3 basis points are 11.1 basis points lower than the benchmark cost of 16.4 basis points. This difference corresponds to NOK 8,000 million, based on the size of GPFG, implying a benchmark cost in absolute terms of NOK 11,832 million for a fund with similar size and asset allocation. The difference of 11.1 basis points is driven by two major factors: a high share of internal management, which drives a more cost efficient management style than peers (8.5 basis points of the difference) and the ability to realize scale benefits, paying less than peers for similar services (2.6 basis points) (Exhibit 2).

Exhibit 2

Overview of drivers of difference between GPFG and benchmark management costs



In terms of management style, the most important driver is the lower use of external active management (4 percent of assets under management for GPFG compared to 33 percent in the peer group), which represents 8.1 basis points of the difference. In terms of scale benefits, GPFG pursues active management at around half the cost levels of peers for both internal and external active management, representing 1.9 and 0.8 basis points of the difference respectively.

GPFG's overhead costs are slightly higher than for peers (0.1 basis points). This is driven by higher costs for oversight of the fund (0.4 basis points), trustee and custodial (0.2 basis points) and audit (0.1 basis points), which are offset by lower "other" costs (0.3 basis points) and lower costs for consulting and performance measurement (0.1 basis points)[8]. This indicates, all else equal, that GPFG does not seem to realize benefits of scale in total overhead costs compared to this peer group of other large funds, although costs of oversight of fund may be driven by the investment style.

8 Total overhead cost difference of 0.1 bps is smaller than if adding the individual cost differences, which is only due to a rounding error.

The benchmark cost of 16.4 basis points is adjusted for asset mix (i.e. the benchmark mirrors GPFG's asset mix). Without this adjustment, the actual median peer management cost is 26.1 basis points higher, at 42.5 basis points. This reflects the difference in asset mix, as for example a higher share of alternative assets drives up management costs for peers.

If adjusting for both asset mix and asset management style (but not adjusting for overlay programs), the benchmark cost would be reduced to 9.3 basis points (7.9 if adjusting for overlay programs). This indicates that GFPG's costs of 5.3 basis points are 4.0 basis points (or 2.6 adjusting for overlay programs) lower than the median peer would achieve given GPFG's asset mix and management style. This difference corresponds to NOK 2,886 million.

Benchmarking results – management costs per asset class

When breaking down costs into asset classes, two factors drive the contribution to the total cost difference: the asset class' share of total assets under management and the difference to benchmark cost per asset class (measured in basis points). Cost difference per asset class is summarized in Exhibit 3, first when comparing to peers with similar asset mix but different management style, and second when comparing to peers with both similar asset mix and management style as GPFG.

Costs related to asset management of the specific asset classes contribute to 9.8 of the 11.1 basis points difference between GPFG's management costs and the benchmark, before adjusting for differences in management style, while overlay programs and overhead contribute to the remaining 1.3 basis points difference. Of the total asset management costs difference of 9.8 basis points across asset classes (excluding overlays and overhead), 2.7 is related to paying less for similar management style, while the remaining 7.1 is related to GPFG using a more cost-efficient management style than peers across asset classes (less use of external active management).

This section will focus on the 2.7 basis points difference in management costs per asset class after adjusting for differences in asset management style. This difference is driven by scale benefits and, potentially, different geographical exposure for the underlying stock portfolio of peers compared to GPFG (not quantifiable as peers' geographical breakdown is not available).

Internally managed stocks, which constituted 56 percent of GPFG's assets under management in 2016, contribute to 1.3 of the 2.7 basis points (excluding overlays and overhead) difference between GPFG to benchmark costs (4.0 basis points difference in total). Beyond stocks constituting a large share of total assets under management, GPFG also has a significantly lower cost of management (2.4 basis points vs. 4.7 basis points for peers). Internally managed fixed income, which constituted 36 percent of the asset under management in 2016, contributes 0.5 basis points of the 2.7 basis points difference. Similarly, real estate contributes to 0.1 basis points of the 2.7 cost difference.

Exhibit 3

Overview of difference between GPFG and benchmark management costs per asset class

			Cost comparison with median peer (bps)			Comparison with median peer with similar management style (bps)		
	GPFG AuM (NOKm)	GPFG cost (bps) (A)	Benchmark cost* (B1)	Difference to benchmark cost (B1-A)	Contribution to total cost difference	Benchmark cost** (B2)	Difference to benchmark cost (B2-A)	Contribution to total cost difference
GPFG's internally managed assets								
Stocks	4,060,749	2.4	14.2	11.8	6.7	4.7	2.3	1.3
Fixed Income	2,622,143	1.4	7.2	5.8	2.1	2.8	1.4	0.5
Real Estate	224,349	19.7	53.5	33.8	1.1	21.5	1.8	0.1
GPFG's externally managed assets								
Stocks	287,844	30.4	29.8	-0.6	0.0	50.6	20.2	0.8
Fixed Income (emerging markets)	19,288	24.3	27.6	3.3	0.0	31.5	7.2	0.0
Total, excl. overlays and overhead	**7,214,372**	**3.7**	**13.5**		**9.8**	**6.4**		**2.7**
Overlay programs		0.0	1.4	1.4	1.4	1.4	1.4	1.4
Overhead		1.6	1.5	-0.1	-0.1	1.5	-0.1	-0.1
Total	**7,214,372**	**5.3**	**16.4**		**11.1**	**9.3**		**4.0**

* Cost for the median peer with same asset mix but different management style (weighted across the four management styles).

** Cost for the median peer with same asset mix and same management style as GPFG (internal active for first group, and external active for last).

External management of stocks[9] constitutes a small share of the portfolio, but given significant lower actual management costs for GPFG compared to benchmark (30.4 basis points vs. 50.6 basis points), this contributes to 0.8 basis points of the overall cost difference. The impact of external management of fixed income to the total cost difference is negligible.

9 Primarily comprised by stocks in emerging markets.

High-level estimate of management costs incurred if GPFG were managed passively

This section gives a high-level indicative estimate of what the management costs would be if GPFG were to be managed passively, based on a simple calculation applying CEM Benchmarking data. It is based on the current benchmark index for GPFG[10], which consists of only stocks and fixed income. However, to capture all of the assets under management in this analysis, GPFG's allocation to real estate has been assumed to be invested in equity and fixed income with similar proportions as the rest of the actual portfolio (in terms of asset mix and geographic mix)[11]. The actual allocation is used to reflect the actual geographical and asset split, and make the estimate comparable to GPFG's actual cost.

This analysis does not include transaction costs, which may be sizeable. Norges Bank Investment Management estimated transaction costs for passive management to be approximately 6 basis points annually over the last five years, with 3 basis points related to replication of benchmark index and 3 basis points related to inflows and strategic changes in the benchmark index[12].

The estimate of the costs incurred for passive management is based on the 2016 asset allocation and benchmarking data under two different scenarios. Under these criteria, a high-level estimated cost of passively managing GPFG would be approximately 2.8-2.9 basis points (NOK 2,041-2,072 million), depending on scenario. This estimate would need to be substantiated and complemented with a comprehensive analysis before using it to discuss how to manage GPFG.

Scenario 1 assumes that the current external and internal split of asset management remains, but that all assets are transitioned to passive management[13]. This generates a cost estimate of 2.9 basis points (NOK 2,072 million). As an alternative, Scenario 2 assumes that GPFG's entire portfolio is managed internally, in which total management costs would be at 2.8 basis points (NOK 2,041 million). Across both scenarios, no impact on overhead costs is assumed (impact on overhead costs from shifting to passive management not estimated separately), although these are likely to be lower for passive management.

Both scenarios assume that GPFG will be able to achieve first quartile cost level, because of its scale advantage. From the analysis in the previous section, this seems like a realistic assumption given that GPFG is realizing scale benefits in its management costs today. Both scenarios also assume that GPFG can maintain its lower cost level, if GPFG's current actual costs are lower than the benchmark cost for a particular asset class and implementation style. The underlying assumption is that passive management will not be more costly than active management for GPFG. The estimated management costs may be viewed as conservative on the basis that no impact on overhead costs is assumed and that it is assumed that the application of first quartile cost level appropriately reflects GPFG scale advantages (although GPFG is significantly larger than peers in sample).

10 Ministry of Finance, Report to the Storting (2016).

11 However, as this would imply a discontinuation of real estate investments, the cost incurred is separated out in Exhibit 3, from the cost incurred if only the current stock and fixed income portfolios were managed passively.

12 Norges Bank Investment Management (2016).

13 For fixed income, in all scenarios, CEMs full data sample is used instead of the peer group due to limited data for the latter (n= 1 observation).

Exhibit 4
High-level estimate of management costs incurred if GPFG were managed passively

		Current costs		Benchmark target costs (bps)		Estimated mgmt. costs incurred (NOKm)	
Cost item	AUM (NOKm)	Costs (NOKm)	(Bps)	Sc 1	Sc 2	Sc 1	Sc 2
Internal asset management							
Stocks – Global	4,060,749	957	2.4	0.9	0.9	354	354
Fixed Income – Global	2,622,143	376	1.4	1.4	1.4	364	364
External asset management							
Stock – US	7,129	17	23.8	1.5	0.4	1	0
Stock – EAFE	75,551	234	30.9	3.0	1.2	23	9
Stock — Emerging	205,163	624	30.4	7.3	7.0	150	144
Fixed income – Emgerging	19,288	47	24.3	8.4	3.4	16	7
Total, excl. real estate & overhead	**6,990,023**	**2,255**	**3.2**	**1.3**	**1.3**	**908**	**877**
Real estate*	224,349	441	19.7	1.3	1.3	29	28
Total, excl. overhead	**7,214,372**	**2,696**	**3.7**	**1.3**	**1.3**	**937**	**906**
Overhead		1,135	1.6	1.6	1.6	1,135	1,135
Total	**7,214,372**	**3,831**	**5.3**	**2.9**	**2.8**	**2,072**	**2,041**

* Note: When calculating real estate benchmark cost, the current real estate investment is assumed to be split according to the rest of the actual portfolio. Numbers don't add up some places due to rounding errors.
Scenarios
1 - Current external and internal asset mgmt. split remains, but all assets managed passively (external active --> external passive, internal active --> internal passive) (1st quartile).
2 - Internal passive only (1st quartile).

Some investors apply "enhanced indexing", which combines features of active and passive management. There are many variations of this investment style, but the aim is typically to generate modest excess returns to passive management but at lower cost than active management. The CEM data set does not allow for analysis of costs related to "enhanced indexing".

As discussed in the introduction, the scope of this report includes a high-level estimate of the management costs incurred if GPFG were managed passively. It is important to note that for a fact-based discussion on how the GPFG portfolio should be managed, a more comprehensive analysis would be needed including assessment of other factors such as returns and other cost and income components (e.g. transactions costs and income related to securities lending). To further strengthen robustness to this high-level estimate of management costs, several factors could be considered. Importantly, the management costs will be driven by whether specific mandates (e.g. within specific geographies) are managed passively internally or externally. The most advantageous investment style for each asset class and geography will be dependent on the cost and feasibility of GPFG to do internal management. This in turn will depend on their starting point (including for example team set-up, capabilities, IT platform and infrastructure), and actual fee rates (management costs[14]) GPFG would be able to realize by using external managers.

14 Including both management fees and performance fees.

Appendix: Overview of GPFG and weighted peer management costs

Cost components	GPFG costs (bps)	Weighted peer median cost[1] (bps)
Internal asset management		
Stock – Global	2.4	14.2
Fixed Income – Global	1.4	7.2
Real Estate ex-REITs – Active	19.7	53.5
External asset management		
Stock – US	23.4	9.5
Stock – EAFE	30.4	11.1
Stock – Emerging	29.1	37.4
Fixed Income – Emerging	33.5	27.6
Other asset management costs		
Overlay	-	1.4
Total asset management costs	**3.7**	**14.9**
Overhead		
Oversight of the fund	0.9	0.5
Consulting and performance measurement	0.1	0.2
Trustee and custodial	0.5	0.3
Audit	0.1	0.0
Other	0.0	0.3
Total overhead	**1.6**	**1.5**
Total costs (excl. transactions costs)	**5.3**	**16.4**

1. The weighted peer median cost for asset management is the weighted average of the peer median costs for all management styles. Numbers don't add up some places due to rounding errors.

References

CEM Benchmarking Inc. (n.d.). Database.

Ministry of Finance. (2017, August). Expert group assessing the management of the GPFG. *Retrieved September 2017, from https://www.regjeringen.no/en/aktuelt/expert-group-assessing-the-management-of-the-gpfg/id2567416/*

Ministry of Finance. (2016, March). Meld. St. 26 (2016–2017). *Retrieved November 2017, from https://www.regjeringen.no/en/dokumenter/meld.-st.-26-20162017/id2545354/*

Norges Bank Investment Management. (2016). Return and Risk – Government Pension Fund Global. *Retrieved from https://www.nbim.no/contentassets/34b2d497426841208dbaadcc50c0d6f0/government-pension-fund-global---return-and-risk-2016.pdf*

Norges Bank Investment Management. (2002). *From passive to enhanced index management of equities. Retrieved from https://www.nbim.no/globalassets/documents/features/2003-2006/2002-from-passive-to-enhanced-index-management-of-equities.pdf*

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