Pension administration economies of scale quantified

based on a Dutch case study, supplemented with global data

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Introduction

Large pension plans are commonly understood to benefit from economies of scale. For example, in the Netherlands, pension plans have continually consolidated in the last twenty years on the premise that size drives costs. Where the number of funds totaled 1,060 in 1997, this number has dwindled to about 250 funds today (De Nederlandsche Bank, 2017).

How do funds benefit from economies of scale exactly? At CEM Benchmarking (CEM) we are in the unique position of being able to answer this question based on cost and performance data for a universe of global funds. We can quantify to what extent pension plans benefit from economies of scale and can provide insight into which funds benefit the most.

In past research initiatives, CEM has quantified the economy of scale advantages of large institutional investors. Based on twenty-five years of data and 7,563 datasets, net value added is predicted to increase by 13.7 basis points for every tenfold increase in assets under management due to lower investment management costs. CEM also provides clients with detailed insight into how staffing levels change as assets grow.

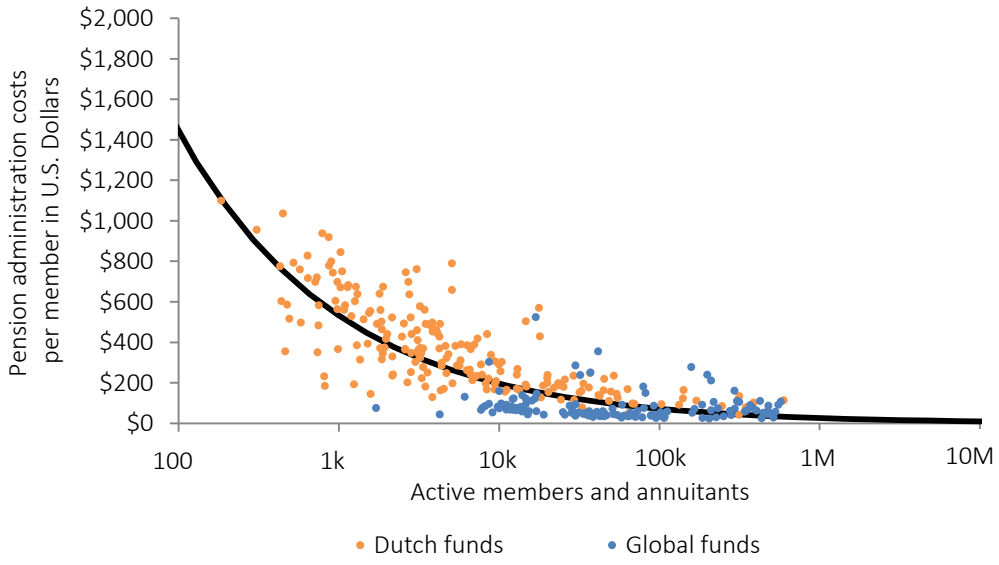
The primary objective of this research, however, is to understand how pension administrators benefit from economies of scale. Here too, it is widely held that economies of scale can be realized by spreading fixed pension administration costs over a large membership base.

Research results are based on data drawn from annual reports, supplemented with data from CEM's global administration database comprising 62 pension plans. These 368 Defined Benefit (DB) plans range in size from 27 active members and annuitants to nearly six million. 218 of these plans are Dutch.

Small pension plans stand to benefit most from economies of scale

Total pension administration cost per active member and annuitant decreases by 63%, on average, for every tenfold increase in the number of active members and annuitants. Scale advantages diminish as membership increases. This implies that economies of scale are especially material for small funds. For example, a fund that grows from 1 member to 10,000 members (i.e., four tenfold increases in membership) is predicted to decrease their administration cost per member by 98%. A one million member fund would have to grow by nine million members to realize a further 63% decrease in their administration cost per member. There is no evidence of diseconomies of scale in our dataset.

Figure 1. Total pension administration cost per member versus membership[1].



This economy of scale model is very robust. As a result, CEM can quantify the impact of differences in various other factors on a pension plan's relative pension administration costs by correcting for scale advantages or disadvantages. These factors include transaction volumes, workload and productivity.

Economy of scale advantages are most material for pension administration activities with large fixed costs. Advantages are greatest for governance and support functions, which include audit, actuarial, legal, financial administration, HR management and building costs. Transaction-driven activities such as pension payments, inceptions, member communication, collections and data maintenance are subject to smaller economy of scale advantages.

As an example, for the subset of Dutch funds for which CEM has activity cost data, governance cost per active member and annuitant is predicted to decrease by 62% for every tenfold increase in membership. Pension communication cost per member is predicted to decrease by 33% for every tenfold increase in membership.

[1] For presentation purposes, membership is shown on a logarithmic scale. Outliers have been removed to maintain client confidentiality.

Scale advantages in IT are not as large as might be expected. IT operations, oversight and major project costs per member decrease by 49% for every tenfold increase in membership. Two factors should be considered however:

- Large pension administrators spend more on building custom administration systems and automating transactions. It is beneficial for larger plans to automate rules even for minor plan segments, because they experience higher transaction volumes within these segments. Small plans can manually deal with this complexity.

- Large pension administrators spend more on IT innovation, with the intent of improving member and employer service.

There are concerns the Dutch market may become less competitive

Currently, the Dutch pension administration market is characterized by a multi-client service model. In 2016, nearly 85% of Dutch pension plans outsourced their pension administration. The average service provider administers pensions on behalf of 7 pension plans.

Ten years ago, many large pension funds split their organizations into a pension plan and a third-party pension administrator, so the administrator could also service other pension plans. The founding pension plan became the main client and majority shareholder of the new third-party service provider. In the last ten years, service providers have competed with one another to increase their client numbers.

In 2017, Pensioen Pro reports this trend has reversed (de Vos, 2017): Large pension plans are instructing their service providers to reduce or fix client numbers, so the provider can focus more exclusively on them – their main client. Regulators and some subject matter experts have expressed their concern with this development, because it may result in a less cost competitive pension administration market.

What is the trend in costs?

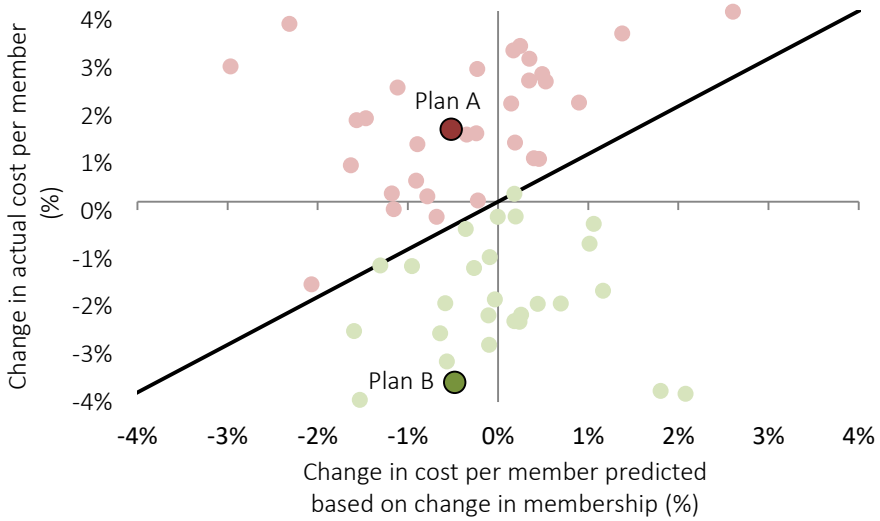
This research considers one of the desired outcomes of competition: cost reduction. Member and employer service are not considered. Inferences can be made about the cost competitiveness of the pension administration industry based on the economy of scale data and model.

The results presented here are only based on the Dutch market. It makes little sense to analyze global markets when different countries have different service models and competitive structures.
Between 2015 and 2016, Dutch pension plans collectively reduced administration costs (after correcting for inflation). Pension administration cost per member for the industry as a whole have decreased by 1.6%, or USD$2.43 per member. In 2016, the collective cost per member equates to USD$154.

Understandably, there is a large disparity in cost per member between funds, because plans range in size from 27 to about two million members.

The question of whether a pension plan can continue to incentivize its service provider to be cost-competitive is one that has to be addressed for each plan individually. The question becomes: Can a fund reduce administration costs beyond what is predicted based on year-over-year changes in membership?

Figure 2. Change in actual and predicted administration cost per member between 2015 and 2016.



Membership growth obviously does not guarantee that cost per member will decrease. Managerial decisions and operational efficiency also impact cost. For example, between 2015 and 2016, Plan A's cost per member was predicted to decrease by 0.5% given their growth in membership. However, their cost per member increased by 1.5%. On the other hand, Plan B reduced their cost per member by 3.8%, which is 3.3% more than predicted. Plan B and all plans colored green reduced their administration costs beyond what was expected based on their year-over-year membership changes.

Spending more than predicted in a given year is not necessarily bad. For example, Plan A may be investing now to reduce costs in the future. Alternatively, they may be spending more to improve member or employer service.

Nonetheless, it is interesting to monitor how a fund's member-adjusted pension administration cost changes over a longer time period. For example, if a plan has recently modernized their member services systems, is this investment resulting in reduced costs as well? CEM will continue to provide plans with insight into these cost trends.

About CEM Benchmarking

CEM is a Toronto-based provider of investment and administration cost and performance benchmarking for large institutional investors including pension funds (defined benefit and defined contribution), sovereign wealth funds, buffer funds, and others. For information on benchmarking with CEM or other data inquiries please contact:

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