

Morningstar Research

October 2013

Expenses in Nordic Investment Funds in a European Context

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Executive Summary

This report analyses the level of expenses of investment funds domiciled in the Nordics (Denmark, Finland, Norway and Sweden) within a broader European context. It includes all share classes of European-domiciled open-end funds for which the necessary data was available at the time of our analysis, encompassing 22,979 unique funds and 48,666 share classes and covering 82% of assets under management in Europe. We use the ongoing charge as the cost measure in our analysis given that it is the measure required for UCITS offerings and therefore the de facto standard in Europe¹.

We find that the Nordic countries as a group are attractive in terms of ongoing charge compared with the other European countries in our analysis. Based on asset-weighted ongoing charge², investors in Nordic-domiciled share classes on average pay less than investors in classes domiciled in European markets outside the Nordics. This holds true across all asset classes, but also on the four broad categories – equity, fixed income, allocation and money market. Disaggregating the Nordics into their four component markets, we find that the asset-weighted ongoing charge for each is in line with or below the average of the other European countries.

We also examine the relationship between ongoing charge and key characteristics for each share class. We identify a number of different variables that we believe are explanatory for the ongoing charge. Based on these regression results, we create 10 hypothetical funds. They differ according to the variables in our regression model, such as broad asset class, institutional focus, active/passive approach, etc. Across all 10 hypothetical funds, the four Nordic countries have lower ongoing charges relative to the other European countries in our analysis. Within the Nordic countries, Norway, Sweden and Denmark generally stand out as having the lowest ongoing charges. Finland typically falls out as the most costly of the four Nordic countries. Outside the Nordics we generally find the Netherlands cheap on ongoing charge. Among equity funds, our regression found the United Kingdom and Ireland have low ongoing charges, whereas Spain is cheap for allocation funds and Austria for fixed-income funds. Depending on the specific hypothetical funds, Italy, Luxembourg and France are among the most expensive countries in Europe.

We also examined the issue of economies of scale. We assume that there are economies of scale in the fund industry as assets under management increase, but we wished to assess whether or not the benefits were passed through to the end investors. In our regression, we constructed two variables to capture the potential economies of scale for the investors that a given share class might exhibit. The two variables are able to capture the effects of economies of scale based on the actual size of the share class and the size of the fund company.

1 The most significant difference between ongoing charge and total expense ratio is that performance fee is included in the latter but not in ongoing charge. Performance fee is a variable in our regression model. This allows us to analyse how these funds are priced before performance fee

2 Based on how investors actually invest

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For 11 out of 15 countries, we found that at least one of the two variables was significant with negative parameter estimate. This means that these countries all exhibit some degree of economies of scale for fund investors. Europe, Europe ex. Nordics and the Nordics as a whole also show some degree of scale economies to the benefit of investors.

For four countries, we did not find any economies of scale for end investors. We believe there are in fact economies of scale within the share classes and fund companies, but instead of passing these forward to investors, related partners are receiving these scale economies. The four countries for which we are unable to identify economies of scale are Belgium, Norway, Italy and the Netherlands. Norway is the only Nordic country without economies of scale. These countries are in general characterised as relatively smaller markets with a high concentration of a few dominant players in each of the markets. For the Netherlands one variable was slightly positive, which means that larger fund companies are more expensive than smaller companies.

Depending on the specific hypothetical fund, we found that a typical European equity or allocation fund investor could save about 20% in ongoing charge by choosing a large share class and/or fund company relative to a smaller one. For fixed-income investors, the savings are even larger. On the equity side, institutional and passive products are better off and achieve economies of scale to a greater extent on a relative basis.

We also found that the economies of scale are largest at the low end. This seems a bit counterintuitive as investors might expect the largest savings by choosing the largest classes and fund companies, where economies of scale seem more likely.

We observe that for the majority of the countries with a significant performance fee estimate, share classes with performance fees have a higher ongoing charge compared with share classes without performance fees, if all other variables are kept constant. This is not intuitive, as one might expect that share classes with performance fees actually should start out with a lower "fixed" fee base. The fee structure in most European countries seems asymmetrical to the benefit of the fund company.

Finally, we change the regression to take into account the individual countries. We now assign a dummy variable to each country except the U.K., which thereby becomes the reference group. By taking this approach, we find that Norway is the most attractive country. Norwegian-domiciled funds get a 32-basis-point reduction in ongoing charge compared with a U.K. fund. Spain and Sweden also get a reduction in ongoing charge. On the other hand, Luxembourg and Italy get the largest addition to the ongoing charge relative to a U.K. fund. The results here are largely in line with our other findings throughout this analysis.



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About the Analysis

The market for investment funds has grown significantly over the years and it is with good reason that most retail investors have invested large parts of their assets in investment funds. The product offers many good qualities, including, inter alia: professional asset management, regulated requirements for risk diversification, access to asset classes that would otherwise be inaccessible to most retail investors, and daily liquidity. In addition, local regulators supervise the investment fund industry, giving investors a material degree of protection against bad or fraudulent practices.

For these services investors pay a recurring fee to the fund. The question is how ongoing charges differ among European countries and if the strong growth in these markets for investment funds – with consequent opportunities for economies of scale – actually worked to the benefit of investors. This is the focus of the analysis. We will take a Nordic perspective but also compare the Nordic countries to the broader European market.

Traditionally, the most common and accurate figure of the fees has been the total expense ratio (TER). Apart from trading costs, it covers all the fees of owning a particular fund. It is therefore a good indication of what it costs investors to invest in mutual funds. However, with the introduction of the KIID (Key Investor Information Document) in July 2011, a new fee figure came into play. This new figure is called ongoing charge and is required to be disclosed in all KIID documents³.

From an analytical perspective, a new measure will often reduce the benefits of comparison over time due to different calculation methodologies. However, as we will not analyse how fees actually have evolved over time, our report is not materially affected by this issue. Given the regulatory support for ongoing charge as the standard cost disclosure to investors, it is also replacing TER in documents other than the KIID, including annual and semiannual reports. We thus decided to use ongoing charge as the preferred fee figure in this analysis. We will highlight the differences between ongoing charge and TER later in the report.

The analysis of ongoing charges includes all active European-domiciled share classes in Morningstar's database that have an ongoing charge and fulfil our other criteria for inclusion⁴. A total of 22,979 unique funds and 48,666 share classes from 21 different countries are included in this part. We analyse on the share class level as expenses typically differ on not only the fund level but also on the share class level. Smaller markets are pooled and named "Smaller countries" in the report (including Estonia, Jersey, Latvia, Liechtenstein and Malta). Nordic

³ For funds domiciled in Switzerland, the KIID requirement takes effect from July 7, 2014. Hence, only a minor part of the funds from Switzerland currently publish ongoing charge and we decided not to include Switzerland in this part of the analysis due to a low coverage. However, Switzerland is still included in our description of the European fund market.

⁴ See the chapter "Our Approach" for further details.

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is defined as Denmark, Finland, Norway and Sweden. The total market cap covered in this part of the analysis is EUR 4,900 billion. Our focus is where the funds are domiciled and not where they are sold.

Despite our very large data set it is still a sample and not the full population of the European fund market. We estimate that this part of the analysis covers 80%-85% of the total fund market in Europe. Reasons for exclusion can be found in the section "Our Approach".

We start the analysis with a brief description of the Nordic and European mutual fund market. For this part we use data from Morningstar Asset Flows module, which is the most comprehensive coverage we have on the European market. In the market description, more than 30,000 unique funds and 68,000 share classes are included. We have also here pooled smaller countries into one group named "Smaller countries". Up to 23 small countries are included, with Liechtenstein and Portugal as the largest fund markets in this group of countries. The market cap covered in this descriptive part exceeds EUR 5,500 billion (excluding funds of funds and feeder funds).

After the market description we start with general views on the expenses in each of the countries covered in the report. We then introduce our multiple regression model and estimate expenses for different hypothetical funds for a typical investor, and finally we analyse economies of scale across Europe.

Our findings are as follows.



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Definition of Ongoing Charge

Ongoing charges are payments deducted from the assets of a UCITS fund where such deductions are required or permitted by national law and regulation, the fund rules or instrument of incorporation of the UCITS fund, or its prospectus, including all types of cost borne by the UCITS fund, whether they represent expenses necessarily incurred in its operation, or the remuneration of any party connected with it or providing services to it. These costs may be expressed or calculated in a variety of ways (e.g., a flat fee, a proportion of assets, a charge per transaction, etc.).

Ongoing charge includes:

(a) All payments to the following persons, including any person to whom they have delegated any function:

- The management company of the UCITS fund
- Directors of the UCITS fund if an investment company
- The depositary
- The custodian(s)
- Any investment adviser

(b) All payments to any person providing outsourced services to any of the above, including:

- Providers of valuation and fund accounting services
- Shareholder service providers, such as the transfer agent and broker/dealers that are record owners of the UCITS fund's shares and provide subaccounting services to the beneficial owners of those shares

(c) Registration fees, regulatory fees and similar charges

(d) Audit fees

(e) Payments to legal and professional advisers

(f) Any costs of distribution

(g) Transaction-based payments made to any of the persons listed in (a) or (b).

(h) Subscription and/or redemption fees that are payable by the UCITS fund in relation to the acquisition or disposal of units in an underlying CIU (collective investment undertakings).

Ongoing charge excludes:

a) Entry/exit charges or commissions, or any other amount paid directly by the investor or deducted from a payment received from or due to the investor

(b) A performance-related fee payable to the management company or any investment adviser

(c) Interest on borrowing

(d) Payments to third parties to meet costs necessarily incurred in connection with the acquisition or disposal of

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any asset for the UCITS fund's portfolio, whether those costs are explicit (e.g., brokerage charges, taxes and linked charges) or implicit (e.g. costs of dealing in fixed interest securities, market impact costs)

(e) Payments incurred for the holding of financial derivative instruments (e.g. margin calls)

(f) The value of goods or services received by the management company or any connected person in exchange for placing of dealing orders (soft commissions or any similar arrangement)

The above definition is according to "CESR's guidelines on the methodology for calculation of the ongoing charges figure in the Key Investor Information Document".

The most significant difference between TER and ongoing charge is that the performance fee is included in the TER but not in the ongoing charge. Therefore, the ongoing charge may understate actual fees for funds with a performance fee. In our multiple regressions later in the analysis, we use performance fee as an explanatory variable to examine whether funds with a performance fee actually have a lower fixed fee base than funds without this fee.

Based on our experience, we know that TER does not always include all layers of expenses – especially in fund-of-funds structures we have found that TER may understate investors' real expenses. This should no longer be an issue with ongoing charge, in which all layers of expenses are included.

Another difference between TER and ongoing charge is that the latter can be an estimated value. This allows us to include funds in our analysis that have not yet existed for one full accounting statement year.



Characteristics of the European Fund Market

The total assets under management tracked by Morningstar in the European fund market come to more than EUR 5,500 billion⁵. The assets are invested across more than 68,000 share classes from 30,000 unique funds. These funds are domiciled in countries across Europe, most of which have their own well established fund markets. In addition, funds domiciled in Luxembourg and Ireland are primarily sold cross-border. As a consequence, only a minor part of the assets of these funds may actually be held by the two countries' populations.

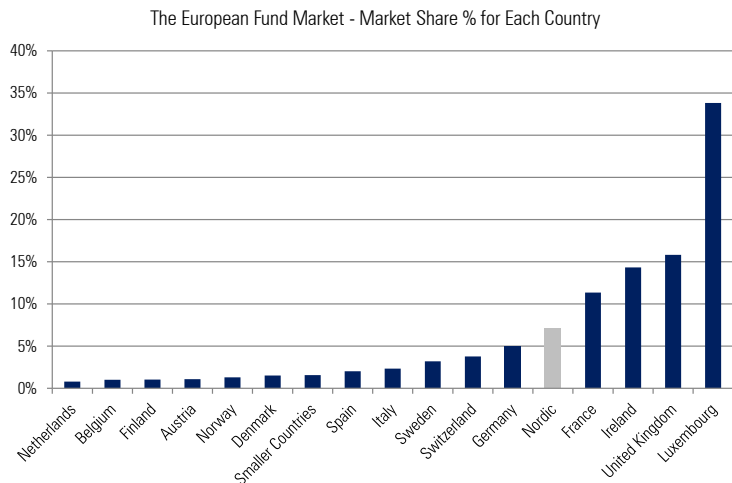
In Europe, no less than EUR 1,881 billion or one third of all assets are managed by funds domiciled in Luxembourg. It is thus without question the largest fund market among the European countries. The U.K. is the second-largest market in Europe, but it is still less than half of the market in Luxembourg. It has a market share of 16% of the European market and total capital of EUR 880 billion. Ireland and France follow the U.K. as the third- and fourth-largest fund markets in Europe, with market shares of approximately 14% and 11%, equivalent to EUR 800 billion and EUR 630 billion invested in funds domiciled in the two countries.

In our study, a number of smaller countries such as Latvia, Liechtenstein, Portugal, Poland and others are merged into the group named "Smaller countries". Based on assets under management tracked by Morningstar, funds domiciled in these countries as a group account for 1.6% of the European fund market. Among the other markets included in the study, the Netherlands, Belgium and Finland have the smallest share of European AUM in their locally domiciled funds. The assets in these countries ranges from EUR 45 billion to EUR 58 billion, and each is less than 1% of the total European fund market.

Austria, Norway and Denmark are also among the smaller European fund markets with assets under management ranging from EUR 61 billion to EUR 84 billion.

Nordic countries – Denmark, Finland, Norway and Sweden – together constitute 7% of the European fund market.

A total of EUR 393 billion are invested in funds domiciled in



Graph 1: Market share for each country in our analysis. Based on data from Morningstar Asset Flows module. FoF and Master Feeder are not included. Group average Nordic is marked with gray.

⁵ This is based on data from Morningstar Asset Flows module. Only traditional mutual funds are included in this analysis. Hedge funds, ETFs, closed-end funds, etc., are not part of the analysis.

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the four Nordic countries.

Sweden stands out as by far the largest fund market in the Nordic region, with almost EUR 180 billion invested in Swedish funds. This is twice the size of the Danish market, which is the second-largest among the Nordic countries. Finland is the smallest fund market in the Nordic region.

The Danish and Norwegian fund markets are roughly at the same level based on assets, while the number of funds is significantly larger in Denmark. Nordic share classes are twice as large as the typical European fund class in terms of *class-level* net assets. This likely owes to the predominance of the single-class structure in the Nordic markets, compared with a prevalence of funds with large numbers of share classes in the rest of Europe, particularly the major cross-border domiciles of Luxembourg and Ireland.

Broad Asset Classes – Composition of the European Fund Market

Across the European countries, four broad asset classes attract most of the managed assets: equity, fixed income, allocation and money market funds. They are the cornerstones of European asset management. Commodity funds, direct property funds and funds focused on alternative investment strategies also get some attention from investors, but they are much less common than the four main classes.

In Europe, close to 32% of total open-end fund assets are invested in equity funds, but there is considerable variation across markets. Among European countries, Sweden and the U.K. exhibit the largest equity allocation. In these two markets, the equity allocation is 60% or more. This is significantly more than the overall average for all countries. In the Netherlands and Norway, equity funds count for 50% of all managed fund assets. The lowest allocation to equities is found in Spain and Italy, where the proportion of equity funds is 11% and 13%, respectively. On the other hand, the two countries have a relatively larger exposure to allocation funds than most of the other European countries. This implies the exposure of end-investors to equities is not as small as it might appear from the equity fund figures. Similarly, a relatively high proportion of the Spanish fund market is concentrated in guaranteed funds, which also often have a degree of equity exposure via derivatives.

In Luxembourg, the percentage of assets in equity funds is in line with the European average, and somewhat above the allocation for Ireland.

Across the Nordic countries, the equity fund allocation is 52%, significantly more than the European average. All four countries contribute to this high proportion and it is, as previously mentioned, particularly Sweden and Norway that raise the average. In Finland and Denmark, the allocation of equity funds is around 36%; in other words, it is a bit higher than but largely in line with the European average.

For fixed-income funds (excluding money market funds), the allocation is 28% on average across the European countries. Austria and Italy stand out as the two countries with the largest allocation to this asset class. Here, the allocation is 62% and 59%, respectively. The fund markets in Ireland and Luxembourg are also dominated by



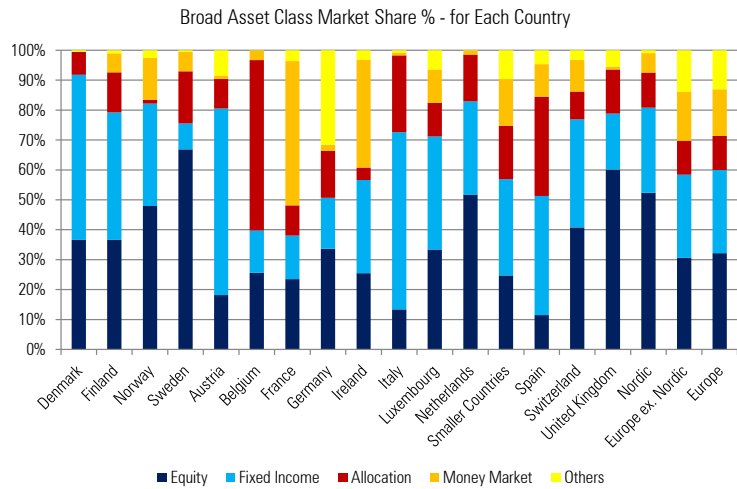
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fixed-income funds. The lowest exposure to this asset class of pure fixed-income funds is found in Sweden (9%). Sweden is followed by Belgium and France with allocations of 14%. In the U.K., the allocation is 19%.

The allocation to fixed-income funds among the Nordic countries is generally close to but slightly higher than the typical European allocation. The average for the Nordic countries is 28.3% compared with 27.8% for Europe. Among the four Nordic countries, Denmark stands out with a much larger allocation to fixed-income funds than the other three. The allocation in Denmark is 55%.



Graph 2: Composition of the market in each country. The four most common broad categories are shown explicitly while the minor categories are grouped as Others. Based on data from Morningstar Asset Flows module. FoF and Master Feeder are not included. Group averages are shown to the right.

This level is among the highest in Europe together with Austria and Italy. The allocation in Finland and Norway is also above the European average. Sweden, on the other hand, stands out with the lowest allocation to fixed-income funds across all European countries in this analysis and pulls down the Nordic average.

For the whole of Europe, money market funds count for 16% of the total allocation, but this masks a considerable variation between the countries. Some countries have no – or very limited – allocation to this asset class, while the allocation in other countries exceeds 30%. The large variation may be linked to the fact that the use of traditional savings accounts in banks can vary across the European countries.

With an allocation of 48% to money market funds, France has the highest allocation to this asset class in Europe. France is followed by Ireland with an allocation of 36%. The proportion of money market funds domiciled in Luxembourg, Spain and Switzerland is 11%, whereas in the U.K. it is 1%. The Netherlands, Austria and Italy also have low allocations to money market funds, while the market share is near zero in Denmark.

In the Nordics, 6% of fund assets are invested in money market funds, considerably below the European average. Norway, with 14%, has the largest allocation among the Nordic countries. Finland and Sweden both have around 6%, while the Danish share, as noted above, is near zero.

The last of the four most widely used asset classes is allocation funds, which typically invest in both equities and bonds (directly or via funds and, to an increasing extent, via derivatives). On average, these funds account for 11% of AUM, although this conceals considerable variations across countries in the analysis. The highest proportion is found in Belgium, where close to 57% of total fund assets are invested in allocation funds.



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Allocation funds are also popular in Italy (26%) and Spain (33%). Luxembourg and the U.K. are closer to the European average at 11% and 15%, respectively.

With just 4% of AUM devoted to allocation funds, Ireland has the smallest proportion invested in this asset class in Europe outside of the Nordics. However, Norway has an even lower proportion at 1%. Denmark and Switzerland also exhibit relatively small proportions of AUM in allocation funds compared with other European countries.

Allocation funds account for 11.7% of the total fund market among the Nordic countries – slightly above the European average. Sweden in particular and also Finland have higher proportions of AUM in allocation funds, while Norway and Denmark – as mentioned above – invest less in such offerings.

The classification of funds as equity, fixed income, money market, allocation and commodities are included as explanatory dummy variables in our regression later in the analysis.

Demand for Passive Funds across Europe

Passive funds (index-trackers) have become more popular among investors and are gaining importance in the portfolio construction process. This is not surprising given their ability to help investors to implement broad portfolios at very low fees and the difficulty many active managers have in beating their benchmarks after costs.

Passive investments have grown their market share in recent years. The growth especially has been driven by ETFs, which is not part of this analysis. Hence, the estimated allocation and penetration of index funds in this analysis should be considered relative to the European fund market in the traditional sense, which is the market we want to study in the analysis.

Based on data from Morningstar Asset Flows we find that 4.6% of the assets included in our analysis are invested in passive funds. Despite increased investor focus the proportion is low and covers some variation across countries. Switzerland by far tops the penetration of index funds in Europe with an allocation exceeding 31%. Switzerland's quite significant deployment of passive funds is mainly due to its pension system, which promotes the use of low-cost index funds.

The U.K., Norway and Ireland follow Switzerland in the European context of countries with the most extensive use of passive products in locally domiciled fund ranges – but they still lag far behind Switzerland. The three countries have an allocation to locally domiciled passives of around 7% to 10%, while such funds (again, not including ETFs) are not a significant factor in Austria, Germany and Italy.

It should be emphasised that this is not necessarily a statement regarding the popularity of passives in various markets. The analysis focuses only on the domicile of the funds and not where they are sold. The large Luxembourg and Ireland fund universes are sold across Europe and could change the figures were it possible to determine the source of assets flows. The exclusion of ETFs also means that a large source of passive



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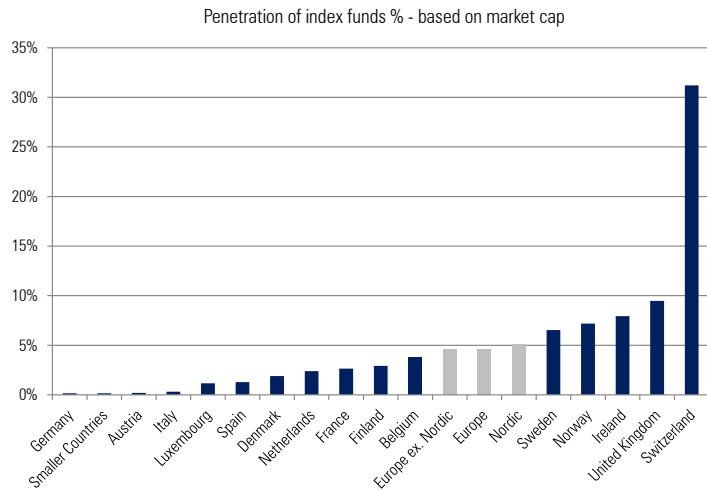
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investment is not accounted for, and even if it were, the source of funds by market would not be possible to obtain.

In Luxembourg, only 1% of the assets in locally domiciled funds are in passives.

Among the Nordic countries, the average allocation is 5% and thus slightly above the overall European average. Norway in particular pulls up the average, as does Sweden to an extent. The AUM in passive funds is somewhat lower in Denmark and Finland - below the European average.



Graph 3: Passive funds' market share in each country. Based on data from Morningstar Asset Flows module. FoF and Master Feeder are not included. Group averages is marked with gray.

To capture passives, the data point "index fund" is included as an explanatory dummy variable in our regression later in the analysis.

Institutional focus across Europe

Institutional share classes are characterised by a more favourable fee structure than share classes targeted retail investors. Close to 18% of total assets among the funds included in our analysis in this analysis are invested in institutional funds or share classes, as captured by the "institutional" tag in Morningstar's database.

This figure covers quite a large variation between the countries. In the Nordic countries institutional classes are only used to a limited extent. In Denmark, it only recently became possible for fund providers to offer classes of the same fund with different fees per class. This has undoubtedly contributed to the limited use of the cheaper institutional share classes. In the other Nordic countries, the prevalence is even less than in the Danish market. Overall, institutional classes comprise less than 4% of the total assets of funds domiciled in Nordic markets.

Both Ireland and Luxembourg, which are the focal points for cross border funds, allocate 28% and 23%, respectively, to institutional classes. France also has an allocation that exceeds 20%.

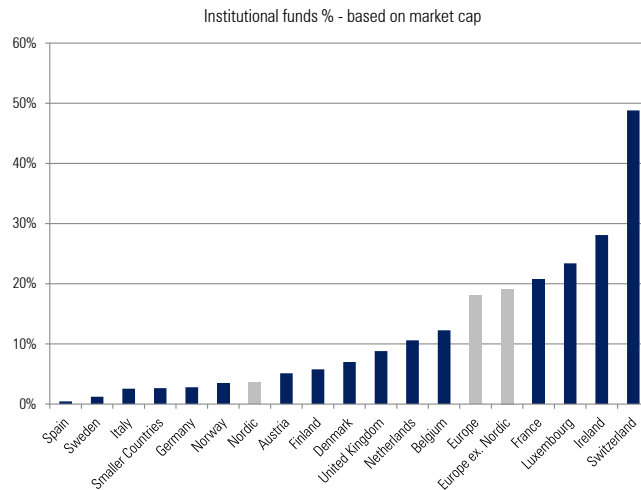
However, institutional share classes are by far most common in Switzerland across the European countries. Close to half of all assets in funds domiciled in Switzerland are invested in institutional funds.

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In the U.K., 9% is invested in institutional share classes. In Spain, less than 1% of assets are in institutional classes. The allocation to institutional funds is also low in Italy and Germany.

The data point “institutional share class” is an explanatory dummy variable in our regression later in the analysis.



Graph 4: Institutional funds market share in each country. Based on data from Morningstar Asset Flows module. FoF and Master Feeder are not included. Group averages are marked with gray.

Performance Fees in the European Fund Market

One element that can affect the level of expenses in investment funds is the way investment managers are remunerated. Typically, fund expenses are calculated as a percentage of assets. This means that the larger the assets under management, the more expenses are paid in absolute terms, and accordingly less is paid when the asset base is lower.

A performance fee structure, usually implemented on top of the usual percentage of asset fee, is an attempt to incentivise managers to deliver better performance by rewarding them with higher fees if they outperform a stated benchmark. Whether the fee is helpful in this respect is debatable and depends materially on its design. The lack of a high-water mark, for example, or the use of an inappropriate benchmark may make such fees harmful to investors or reward luck rather than skill. Further, the frequent layering of performance fees on top of full, rather than reduced management fees, suggests that they are frequently structured to provide all upside for the asset managers, with no or little downside risk. Performance fees are specifically excluded from the mandated ongoing charge figure. Consequently, the real cost for the investors in a fund with a performance fee may be materially higher than the ongoing charge of the fund indicates.

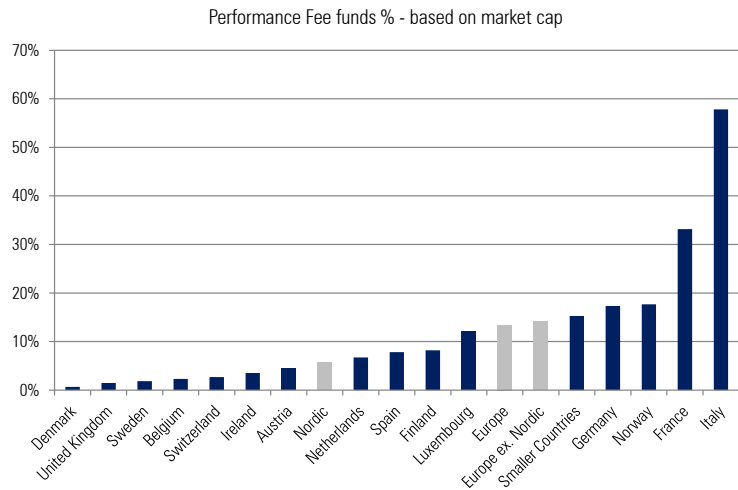
We included the data point “performance fee” as an explanatory variable in our regression later in the analysis, which allows us to separate funds with performance fees from those without. We were thus able to analyse the relative ongoing charges of funds with performance fees compared with those without such fees.

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At the pan-European level, 13% of the managed fund assets are allocated to funds with performance fees.

The structure is most common in Italy, where as much as 58% of assets are subject to the performance-based fee structure. France has the second-highest proportion at 33%.



Norway and Germany follow with an allocation just over 17%. In Luxembourg, the share is 12% and in the U.K. it is just 1%.

Among the Nordic countries, the allocation to classes with performance fees is 5%, and thus far below the European average. Due to regulatory issues, the performance fee structure is relatively new in Denmark, and remains nearly entirely absent from the market. In Sweden, the proportion is also low--in the region of 2%--while Norway is the Nordic country with the largest allocation at nearly 20%. However, a major portion of the assets in classes bearing performance fees in Norway is invested in two funds from SKAGEN Fondene.

Ongoing Charges across Europe – An Overall Perspective

This part of the analysis provides a comparison of the level of expenses across national borders in the Nordic countries and Europe. The comparison is based on the broad asset classes and in a more general perspective without taking into account the different variations in the fund market in the individual European countries, as this will be covered later in the analysis. This dataset is not exactly identical to the dataset used for the market description as we here include only share classes with an ongoing charge and share class net assets⁶.

The table below shows the asset-weighted ongoing charge for the full fund universe in each country and for each asset class. The four first countries in the table are Nordic countries – sorted alphabetically – then the other European countries follow and the last three rows are summations of Nordic, Europe ex. Nordic and Europe (including the Nordics).

With an asset-weighted ongoing charge of just 0.72% across the full fund universe, investors in Norwegian-domiciled share classes pay the lowest costs in Europe--well below the European average of 1.08%. This appears to owe to a combination of a relatively large allocation to passive vehicles and passive funds that are among the absolute cheapest in Europe. Following Norway, the asset-weighted expenses are lowest in Ireland, France and the group of countries under "Smaller countries".

In Luxembourg and the U.K., ongoing charge is 1.22% on an asset-weighted basis and thus above the average for Europe. Investors in Belgium and Italy pay the highest expenses in Europe with ongoing charge of 1.53% and 1.33%, respectively. Belgium has a relatively heavy allocation to allocation funds, which in general are expensive funds. Investors in the Nordic share classes as a whole pay lower expenses than their other European countrymen.

The asset-weighted ongoing charge is 0.98% in the Nordics compared with 1.09% in Europe ex. Nordic.

Norwegian investors pay less followed by Swedish investors, while Danish and Finnish investors pay on par with the rest of Europe.

Isolating equity funds, the asset-weighted ongoing charge for

Asset Weighted Ongoing Charges %

Country	Overall	Equity	Fixed Income	Allocation	Money Market
Denmark	1.07	1.45	0.81	1.03	-
Finland	1.10	1.60	0.62	1.25	0.32
Norway	0.72	1.11	0.28	1.20	0.21
Sweden	1.03	1.09	0.52	1.14	0.37
Austria	1.12	1.95	0.68	1.69	0.20
Belgium	1.53	1.40	0.99	1.73	0.59
France	0.85	1.61	0.64	1.67	0.17
Germany	1.18	1.49	0.75	1.59	0.51
Ireland	0.78	1.14	0.87	1.71	0.27
Italy	1.33	2.11	0.98	1.62	0.44
Luxembourg	1.22	1.58	1.00	1.64	0.26
Netherlands	1.18	1.29	0.84	1.27	-
Smaller Countries	0.85	1.73	0.85	1.20	0.34
Spain	1.04	1.87	0.81	1.14	0.56
United Kingdom	1.22	1.26	0.86	1.49	0.23
Nordic	0.98	1.17	0.61	1.14	0.29
Europe ex. Nordic	1.09	1.46	0.91	1.59	0.23
Europe	1.08	1.42	0.89	1.55	0.23

Table 1: Asset-weighted ongoing charges across the European countries and markets

⁶ See the chapter Our Approach for further details.

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Europe is 1.42% and the Nordic countries once again exhibit the lowest expenses.

Sweden is the low-cost leader at 1.09%, but Norwegian investors are also at the low end in equity share classes with an asset-weighted ongoing charge of just 1.11%. Of the two remaining Nordic countries, Denmark is largely in line with the rest of Europe, while Finnish investors, with an asset-weighted ongoing charge of 1.60%, pay somewhat more.

Outside the Nordic region, investors in Irish equity funds are targeting cheaper classes, as evident from an asset-weighted ongoing charge of just 1.14%. This makes Ireland the third-cheapest country for equity classes in the analysis, following Sweden and Norway. U.K. investors pay an asset-weighted ongoing charge of 1.26% in equity funds. Luxembourg is a bit above the average at 1.58%, while Italian, Austrian and Spanish investors face high ongoing charges in equity share classes. The asset-weighted ongoing charge is 2.11% in Italy, the highest in all of Europe.

On the fixed-income side, the asset-weighted ongoing charge across all countries is 0.89%. The Nordics are again considerably cheaper than the European norm and Norwegian investors pay the lowest amount when investing in fixed-income share classes. The asset-weighted ongoing charge for Norwegians is an extraordinarily low 0.28%, followed by Swedish and Finnish investors who pay 0.52% and 0.62%, respectively. Investors in Denmark pay 0.81% on an asset-weighted basis, the highest among the Nordic countries for fixed-income share classes, albeit below the average for the non-Nordic countries.

Among the other countries, investors in fixed-income share classes domiciled in Austria and France pay less than the European average. Luxembourg, Italy and Belgium are the most expensive and the asset-weighted ongoing charge is virtually identical, in the region of 1.0%. For fixed-income share classes Belgium is one of just two countries in Europe with an asset-weighted ongoing charge above the simple average for the funds⁷. In the U.K., investors pay 0.86% for fixed-income share classes, and in Ireland, the level is 0.87%.

Allocation funds invest in stocks, bonds and, in some cases, to a lesser degree in property and alternatives. Funds-of-funds structures are more common among allocation funds. In these cases, ongoing charge accounts for expenses in all layers of funds such that the ongoing charge reflects the investor's full ongoing charge of investment (excluding the performance fee, etc., as described earlier).

For share classes of allocation funds, the European asset-weighted average is 1.55%. Nordic investors pay relatively lower expenses with an asset-weighted ongoing charge of 1.14%. Investors in Danish share classes from allocation funds pay the lowest expenses across all European countries. Sweden, Norway and Finland are also cheaper than the European average.

⁷ Simple average, median etc. can be found in appendix 2

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France, Belgium and Ireland pay the highest asset-weighted ongoing charges in Europe for classes of allocation funds. Outside the Nordic region, Spain is cheapest with a weighted ongoing charge of 1.14%, while in the U.K. investors pay 1.49% and in Luxembourg the weighted ongoing charge is 1.64%.

The last broad asset class we will mention here is money market. The asset class has a strong presence in some countries, while it is nearly absent from others. Across countries, the typical European investor pays 0.23% to invest in money market funds.

In the Nordic countries, the ongoing charge is 0.29% and thus slightly higher than the European average. Among the Nordic countries, money market funds are most common in Norway where the weighted ongoing charge is 0.21%. In Finland and Norway, the expenses are 0.32% and 0.37%, respectively. The asset class is most prevalent in France, where investors pay 0.17% in weighted ongoing charge, which is the lowest ongoing charge across the countries. In Luxembourg and Ireland 0.26% and 0.27% is paid, respectively.



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Empirical Analysis of Determinant Variables for Ongoing Charge

We have examined the relationship between the ongoing charge and the characteristics for each share class. For our regression, we identified a number of different variables that we believe are explanatory for the ongoing charge.

For this regression, the data set consists of 48,666 share classes from a total of 21 European countries. In this data set, we also pooled a group of countries with small market size under the label "Smaller countries". The countries in this category consist of Estonia, Jersey, Latvia, Liechtenstein, Lithuania, and Malta. Countries such as Poland, Portugal and others are not included in this group as we do not have ongoing charges for funds domiciled in these countries.

The data set for each of the share classes includes the following data points:

- The percentage ongoing charge reported in the Key Investor Information Document (KIID) of the fund as of the year 2013 or the most recent registered ongoing charge up to this date.
- The three-year standard deviation of returns. If the fund has not existed for three years, we have chosen the three-year standard deviation of the relevant Morningstar category as a proxy for the risk of the fund.
- The total net asset (TNA) of the share classes in DKK.
- Total assets under management (AUM) in DKK of the company under which the fund is branded. Assets are defined as the sum of TNA of all share classes of the company included in this analysis.
- The percentage performance fee, if the funds have such.
- Indicators if the fund is a fund-of-funds (FoF), index fund and/or institutional fund.
- Domicile and Global Broad Category Group of the fund.

It is given that share classes without an ongoing charge have been excluded, since this is the dependent variable in our regression. We have likewise excluded classes if not all of the above data points were available. Finally, we have chosen not to include share classes with a TNA value below EUR 500,000. This criterion ensures that we only analyse share classes that are active and supposedly contain real market participants. In the data set, only month-end data is used for TNA and AUM to ensure high data quality and consistency in the observations. As mentioned earlier, the collected data points for Switzerland are limited due to the national KIID regulations. In particular the Swiss regulator does not require asset managers to produce KIIDs before 7 July 2014. Hence, only a fraction of the Swiss-domiciled funds produce KIIDs, which means that only these share classes calculate an ongoing charge. We decided to include the Swiss share classes in the European estimates, but not to show estimates for Switzerland as these might be skewed.

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Methodology

To set up the regression, we start out by defining the variables that should be included. We assume a relationship between the dependent variable, the ongoing charge, and the explanatory variables, which are defined in the following way:

- *Risk*. The annualised three-year standard deviation of returns, expressed as a percentage.
- *Performance fee*. The percentage performance fee, if the share class has such, otherwise the data point is set to zero.
- *Index*. A dummy variable that takes the value 1 if it is an index fund and 0 otherwise.
- *Institutional*. A dummy variable that takes the value 1 if it is an institutional share class and 0 otherwise.
- *FoF*. A dummy variable that takes the value 1 if the fund is a fund of funds and 0 otherwise.
- *Equity*. A dummy variable that takes the value 1 if the fund is in the Global Broad Category Group of Equity and 0 otherwise.
- *Allocation*. A dummy variable that takes the value 1 if the fund is in the Global Broad Category Group of Allocation and 0 otherwise.
- *FI*. A dummy variable that takes the value 1 if the fund is in the Global Broad Category Group of Fixed Income and 0 otherwise.
- *Money market*. A dummy variable that takes the value 1 if the fund is in the Global Broad Category Group of Money Market and 0 otherwise.
- *Commodity*. A dummy variable that takes the value 1 if the fund is in the Global Broad Category Group of Commodity and 0 otherwise.
- *SizeTNA*. A variable that measures potential economies of scale of the total net assets (TNA) of the share class.
- *SizeAUM*. A variable that measures potential economies of scale of total assets under management (AUM) of the company under which the fund is branded. Assets are defined as the sum of TNA of all share classes of the company included in this analysis.

A dummy variable is assigned to each of the five main Global Broad Category Groups; equity, allocation, fixed income, money market and commodity. Additionally, four minor category groups are represented in the data set; alternative, convertibles, miscellaneous and property. As these categories have no dummy assigned, the base group consists of these four minor categories and is used for comparisons to the five main categories.

The two variables, SizeTNA and SizeAUM, are constructed to capture the potential economies of scale that the given share class might exhibit. It is reasonable to consider that any economy of scale of a share class does not only originate from the actual size of the share class (TNA) but may also be affected by the size of the fund company (AUM).

Hence, we choose the two variables, SizeTNA and SizeAUM and in this way, we will be able to capture “economies of scale” effects from both the actual size of the share class and the size of the fund company.



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The size of the fund company is defined as total assets under management (AUM) of the company under which the fund is branded. Assets are the sum of TNA of all share classes of the company included in this analysis. This means that TNAs of funds domiciled in different countries, but branded under the same company, will be summed together.

For both size variables we take the logarithm of the product to avoid extremely large numbers.

Estimation

We set up a multiple regression using the variables defined previously. As the relationship between the dependent variable and the explanatory variables is assumed to be linear, the model becomes the following.

$$OGC_i = \beta_1 + \beta_2 Risk_i + \beta_3 Performance\ fee_i + \beta_4 Index_i + \beta_5 Institutional_i + \beta_6 FoFi + \beta_7 Equity_i \\ + \beta_8 Allocation_i + \beta_9 FI_i + \beta_{10} Money\ market_i + \beta_{11} Commodity_i + \beta_{12} LN(SizeTNA)_i \\ + \beta_{13} LN(SizeAUM)_i$$

To reduce outlier effects, we estimate the parameters using a robust fitting method, which is less sensitive than OLS to large changes in small parts of the data. Robust regression works by assigning a weight to each data point. Weighting is done automatically and iteratively using a process called *iteratively reweighted least squares*. In the first iteration, each point is assigned equal weight and model coefficients are estimated using OLS. At subsequent iterations, weights are recomputed so that points farther from model predictions in the previous iteration are given lower weight. Model coefficients are then recomputed using weighted least squares. The process continues until the values of the coefficient estimates converge within a specified tolerance. Furthermore, we use corrected coefficient standard errors calculated from the heteroscedasticity and autocorrelation consistent covariance estimators.

Regression Results

By running the regression for each country – as well as for Europe, Nordic, and Europe ex. Nordic – the following estimation results are obtained.

In the table below, the beta values of each explanatory variable are presented. It applies to most estimates that they are significant on a 1% level while 11 estimates are on a 5% level and eight estimates are significant on a 10% level. If the estimate is insignificant, the value is left out and no beta value is reported in the table. This is mainly done because we excluded the most insignificant variable and then estimated the model again. We continued this procedure until all parameter estimates were significant on a 10% level.

As described earlier, the four minor Global Broad Category Groups -- alternative, convertibles, miscellaneous and property -- constitute the basis of comparison for the dummy variables equity, fixed income, commodities, and money market. For Norway, there are no share classes in any of the minor categories. The category money market is therefore chosen as base group and consequently, this category is not assigned a dummy variable in the regression.



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Estimation Results - Beta Values

Country	No. of Obs.	Intercept	Risk	Performance fee	Index	Institutional	Fund of funds	Equity	Allocation	Fixed Income	Money market	Commodities	SizeTNA	SizeAUM
Denmark	540	1.4929	0.0329	-	-0.9469	-0.5151	-	-	-	-0.2990	-0.7110	-	<u>-0.0243</u>	-
Finland	324	1.5614	0.0639	-0.0372	-0.9664	-0.2651	-	-0.3681	-	-0.5713	-0.6979	-	<u>-0.0289</u>	-
Norway	380	0.3297	<u>0.0122</u>	-0.0399	-1.2785	-0.4986	-	1.0012	0.8314	-	-	-	-	-
Sweden	618	1.8548	0.0544	-0.0246	-0.9106	-0.3806	0.6546	-	-	-	-0.1776	-	-	-0.0532
Austria	1807	2.8432	0.0265	-	-0.5888	-0.2375	0.4723	0.4141	0.2179	-0.4819	-0.8198	-	-0.0406	-0.0413
Belgium	623	0.8659	0.0197	-	-0.7098	-0.7134	-	0.6108	0.7184	-	-	-	-	-
France	5747	3.3285	0.0198	<i>0.0057</i>	-0.7226	-0.4249	0.4246	0.5168	0.3296	-0.3079	-0.5948	-	-0.0377	-0.0643
Germany	1781	2.3373	0.0152	0.0104	-0.6377	-0.4643	0.7249	0.2784	0.3653	-0.2801	-0.6135	-	-0.0683	-
Ireland	5080	2.6398	<u>0.0067</u>	<i>0.0105</i>	-0.8955	-0.3024	0.9650	-	-	-0.2916	-0.9817	-	-0.0658	-
Italy	612	0.8100	0.0348	<i>0.0061</i>	<u>-0.3040</u>	-0.6175	0.3500	0.6079	0.5046	-	-0.4441	-	-	-
Luxembourg	22628	3.4030	0.0193	0.0136	-0.8329	-0.7184	0.3945	0.1954	0.2263	-0.2162	-0.7619	-0.1439	-0.0443	-0.0474
Netherlands	228	-	0.0455	-	-0.7099	-	-	-	<u>0.2487</u>	-	-	3.9969	-	0.0228
Smaller countries	202	4.6475	<i>0.0180</i>	-	-	-	-	-	-	-0.6602	-0.8964	-	-	-0.1364
Spain	3508	3.0104	<i>-0.0066</i>	-	-0.5768	-	0.5433	0.8928	-0.1296	-0.2548	-0.5479	-	-0.0680	-0.0210
United Kingdom	4332	2.6832	0.0186	-	-0.8677	-0.3612	0.4206	-0.1316	-	-0.3385	-0.9320	0.4754	<i>0.0127</i>	-0.0660
Nordic	1862	2.4067	0.0372	-0.0268	-1.0200	-0.3851	<i>0.1336</i>	-0.4471	-0.3644	-0.8096	-1.0371	-	<u>-0.0263</u>	<u>-0.0214</u>
Europe ex. Nordic	46804	2.5042	0.0122	0.0145	-0.8127	-0.5256	0.5144	0.2777	<u>0.0518</u>	-0.2257	-0.7845	-	-0.0423	-0.0184
Europe	48666	2.4772	0.0131	0.0144	-0.8538	-0.5151	0.4824	0.2546	<u>0.0498</u>	-0.2385	-0.7844	-	-0.0456	-0.0152

Table 2: Estimation results for our regression. Normal font: 1% significance, *Italic* font: 5% significance and *italic with underline*: 10% significance. We excluded the most insignificant variable and then estimated the model again. We continued this procedure until all parameter estimates were significant on a 10% level.

In the next part of the analysis, we will use the beta values to estimate ongoing charges for specific hypothetical funds across the European countries. However, we will at this point briefly comment on the estimation results.

The two size variables are constructed to capture the potential economies of scale. When we take a closer look at the parameter estimates from the table above we do not find any significant economies of scale in four of the 15 countries in our analysis.

For the remaining 11 countries, the significant parameter estimates are all negative in at least one of the two size variables, which mean that these countries all exhibit some degree of economies of scale. Europe, Europe ex. Nordic and Nordic as a whole also exhibit some degree of economies of scale to the benefit of investors.

The countries without at least one significant negative parameter estimate can be interpreted to have no economies of scale. These are Belgium, Norway, Italy and the Netherlands. Norway is the only Nordic country without economies of scale. Sweden is the only Nordic country with a significant sizeAUM on a 1% level. For Denmark sizeTNA is only significant on a 10% level, 5% for Finland, and for Norway both size variables are insignificant.

These countries, for which we are unable to identify economies of scale, are in general characterised as relatively smaller markets with a high concentration of few dominant players in each of the markets. Based on asset under management, the top 10 branding names cover between 87% and up to 97% of the total market cap (Belgium 95%, Norway 97%, Italy 87% and the Netherlands 93%).



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We also observe that the Netherlands actually has a significant but positive sizeAUM variable. This means that expenses go up with increasing AUM of the companies under which the funds are branded.

Of the 11 countries with economies of scale, four countries exhibit economies of scale from both size variables and for the remaining seven countries the benefits come from one of the two variables.

We observe that for the majority of the countries with a significant performance fee estimate, share classes with performance fees have a higher ongoing charge compared with funds without performance fees, if all other variables are kept constant. This is not intuitive, as one might expect that share classes with performance fees actually should start out with a lower "fixed" fee base. However, this tends not always to be the case, as only three countries (Finland, Norway and Sweden) in fact do get a reduction in ongoing charge for share classes with performance fees. For the majority of the countries with a significant performance fee estimate, the performance fee structure seems asymmetrical to the benefit of the fund company. The companies are able to charge extra in good years but face no downside risk given the above-average base fees.

For risk, we see a clear positive relationship with ongoing charges across all countries except for Norway and Ireland (significant on a 10% level) and Spain for which the relationship is slightly negative (significant on a 5% level).

The general tendency for choosing a fixed-income share class is that the ongoing charge will decrease, because all parameter estimates are negative. From the results, we furthermore see that choosing a fund of funds, all else equal, will increase the ongoing charge, since all parameter estimates are positive. When choosing money market funds, institutional funds, index funds or a combination thereof, the ongoing charge will decline regardless of the country.

The variable commodity is in general insignificant.



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Estimating Ongoing Charge

Based on our regression results, we have estimated ongoing charges for different hypothetical funds. We have created these particular hypotheticals in order to represent how typical European investors invest and diversify across asset classes.

For instance, our first hypothetical fund is an estimate of expenses for a retail-oriented actively managed equity fund with a three-year standard deviation (risk) of 17 and thus a proxy for a global large-cap fund. The table below highlights the characteristics and results of each of our 10 funds. In addition, we show the rank of the ongoing charge within each of the hypothetical funds.

Estimated Ongoing Charge % based on 10 hypothetical funds

Country	Hypo fund 1		Hypo fund 2		Hypo fund 3		Hypo fund 4		Hypo fund 5		Hypo fund 6		Hypo fund 7		Hypo fund 8		Hypo fund 9		Hypo fund 10	
	OGC %	Rank	OGC %	Rank	OGC %	Rank	OGC %	Rank	OGC %	Rank	OGC %	Rank	OGC %	Rank	OGC %	Rank	OGC %	Rank	OGC %	Rank
Denmark	1.60	9	1.73	9	1.08	4	0.65	6	1.60	8	0.87	10	1.05	11	1.19	3	1.29	4	1.39	6
Finland	1.74	12	1.99	17	1.47	16	0.77	8	1.37	4	0.70	6	1.06	13	1.31	6	1.51	6	1.71	16
Norway	1.54	6	1.59	5	1.04	3	0.26	1	1.14	1	0.38	1	0.45	1	1.22	4	1.25	3	1.29	3
Sweden	1.40	3	1.61	6	1.02	1	0.49	2	1.15	2	0.69	4	0.99	8	1.38	7	1.55	7	1.06	2
Austria	1.88	16	1.98	16	1.64	17	1.29	15	1.88	15	0.63	3	0.78	3	1.82	13	1.91	14	1.52	13
Belgium	1.81	14	1.89	13	1.10	5	1.10	14	1.81	11	0.94	13	1.05	12	1.67	9	1.74	9	1.80	18
France	1.80	13	1.88	12	1.38	13	1.08	13	1.86	13	0.72	7	0.83	4	1.80	11	1.86	11	1.49	12
Germany	1.60	8	1.66	7	1.13	6	0.96	11	1.70	10	0.84	9	0.92	7	2.22	17	2.27	17	1.59	14
Ireland	1.52	5	1.55	4	1.22	11	0.63	5	1.63	9	1.14	17	1.18	17	2.40	18	2.42	18	1.48	11
Italy	2.01	18	2.15	18	1.39	14	1.71	18	2.07	18	0.95	14	1.14	16	1.82	14	1.93	15	1.69	15
Luxembourg	1.86	15	1.94	14	1.14	7	1.03	12	2.00	17	1.20	18	1.31	18	2.05	16	2.11	16	1.77	17
Netherlands	1.37	1	1.55	3	1.37	12	0.66	7	1.37	5	0.78	8	1.03	9	1.05	1	1.19	1	1.33	5
Smaller countries	1.41	4	1.48	2	1.41	15	1.41	17	1.41	7	0.51	2	0.61	2	1.18	2	1.24	2	1.30	4
Spain	1.97	17	1.95	15	1.97	18	1.40	16	1.97	16	0.91	11	0.87	5	1.58	8	1.55	8	0.99	1
United Kingdom	1.39	2	1.47	1	1.03	2	0.52	4	1.39	6	0.94	12	1.05	10	1.71	10	1.77	10	1.41	8
Nordic	1.54	7	1.69	8	1.16	8	0.52	3	1.28	3	0.70	5	0.90	6	1.30	5	1.41	5	1.40	7
Europe ex. Nordic	1.72	11	1.77	11	1.19	10	0.91	10	1.86	14	1.06	16	1.12	15	1.86	15	1.89	13	1.42	9
Europe	1.71	10	1.76	10	1.19	9	0.85	9	1.85	12	1.04	15	1.12	14	1.82	12	1.86	12	1.42	10
Scenario	Global	GEM	Global Inst.	Global Index	Global Pf.fee	Global Bond	High Yield	Cautious	Moderate	Aggressive										
Allocation																				
Fixed Income						x	x													
Equity	x	x	x	x	x															
Index				x																
Fund of Funds																				
Institutional			x																	
Performance fee %					10.0															
Risk	17.0	21.0	17.0	17.0	17.0	4.0	9.5	4.6	7.7	10.8										
Size TNA	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)										
Size AUM	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)	Median (Eur)										

Table 3: Estimates of ongoing charges for 10 different hypothetical funds and the rank of the ongoing charges within each of the 10 funds. The lower part of the table illustrates the construction of each fund. For median sizeAUM and sizeTNA the medians for Europe are chosen. For hypo fund 3, no funds in Spain, the Netherlands and the group Smaller countries exist. The same is true for Italy and the group Smaller countries for hypo fund 4.

For our first hypothetical fund, the typical ongoing charge across Europe is 1.71% and 1.54% for the Nordics. The Netherlands is the most efficient country with an ongoing charge at 1.37% followed by the U.K. with 1.39%. On the other hand, Italy is most expensive with an ongoing charge at 2.01%. followed by Spain with 1.97%. Ireland



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also looks cheap whereas Luxembourg is among the most expensive countries. In the Nordic region, Sweden is the most attractive in terms of ongoing charge in this scenario, and Finland is the most expensive. Sweden, Norway and Denmark are cheaper than the European average, whereas Finland is more expensive than the average for Europe. In Appendix 6 we tested how “clean” (free of distribution charges) share classes that were recently launched as a result of the U.K.’s retail distribution review (RDR) affect our regression results for the U.K. We assigned a dummy variable to all “clean” share classes in our data set for the U.K. and ran the regression again. Not surprisingly we found this new explanatory variable significant on a 1% level with a negative estimate. We also recalculated the ongoing charge for hypothetical fund 1 with our new parameter estimates for the U.K. Instead of 1.41% in ongoing charge our new estimate is 1.49%. For a clean share class we estimate ongoing charge of 1.13% for hypothetical fund 1. Despite a slightly higher ongoing charge for hypothetical fund 1 when clean classes are excluded, the U.K. keeps its rank as one of the cheapest countries. For the clean share class the U.K. becomes the most attractive country on the basis of ongoing charge in our analysis. The Netherlands, in second place, is 24 basis points more expensive for this hypothetical fund (the Netherlands is also seeing clean classes launched in anticipation of new regulations coming into force in that market in 2014).

Hypothetical fund 2 is similar to the first fund except for an increased three-year standard deviation of 21. Hence, this fund can be interpreted as a proxy for a global emerging-markets equity fund. Overall, ongoing charge increases across Europe with an average increase of 5 basis points. The only country without an increase in ongoing charges compared with hypothetical fund 1 is Spain, for which the variable risk is slightly negative. However, Spain remains expensive relative to the other countries. The Nordic region in general becomes slightly less attractive in terms of ongoing charge as risk increases relative to the other European countries. The U.K., the Netherlands and Ireland are again the cheapest countries and Italy falls out as the most expensive of all countries. Across our 10 hypothetical funds, this one is the most expensive among the Nordic countries as a whole. Especially Finland becomes more expensive as risk increases. For Europe ex. Nordic other hypothetical funds are more expensive.

Hypothetical fund 3 is the same as fund 1 (global, actively managed, large-cap equity fund) except that it is for institutional investors. Not surprisingly, we see a sharp reduction in ongoing charge. Institutional investors save an average of 52 basis points compared with retail investors. Institutions buying funds domiciled in Sweden get the most attractive ongoing charges on a relative basis but in general the U.K., Denmark, Norway and Belgium also offer institutional investors attractive terms. Spain and Austria offer the least attractive terms for institutional investors. The variable is insignificant for Spain and the Netherlands so there is no reduction for institutional investors in these two countries (no such funds with characteristics similar to this hypothetical fund 3 were represented in our data set for these two countries after our screens for class level net assets and ongoing charges were applied). In addition to Luxembourg and Belgium, institutional investors in funds domiciled



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in Italy get a large absolute reduction. That's of little comfort, however: Given its higher starting point, Italy remains among the most expensive countries across Europe for institutional investors.

Hypothetical fund 4 is also close to our first fund, but the focus is now shifted to an ongoing charge estimate for passively managed global equity funds. As with institutional investors, passively managed funds also exhibit a heavy reduction in ongoing charge compared with the actively managed approach. Across the 10 hypothetical funds, this passive offering is the most efficient hypothetical fund on ongoing charge for the Nordics as well as the other European countries on average. While the U.K., Ireland and Sweden still remain cheap on ongoing charge, Norway by far offers the cheapest passive funds. The reduction for an index fund is 128 basis points and our estimate for a Norwegian passive global large-cap fund is just 0.26%. The asset-weighted ongoing charge for passive funds in Norway is 0.14% and even lower than our estimate for a global large-cap passive fund. The passive fund market in Norway is dominated by KLP and Storebrand and Norwegian retail investors are able to invest in some of these low-cost passive funds. The average across Europe is 0.85% and in Sweden – the second-cheapest country – the ongoing charge estimate is 0.49%. The U.K. is also cheap – the ongoing charge estimate is 0.52%. The Nordics remain attractive and all four countries are cheaper than the average European ongoing charge for passive funds. Italy is most expensive as the variable is only significant on a 10% level. This owes to a lack of non-ETF passive funds in our data set for Italy (with characteristics similar to this hypothetical fund) after our screening requirements were deployed.

Our last equity case – Scenario 5 – is with a performance fee of 10%. Relative to our hypothetical fund 1, the Nordic region as a whole becomes cheaper (recall that we are observing the change in base fee, exclusive of the assumed performance fee) whereas ongoing charges increase in all other countries for which the variable is significant. The Nordic average is 1.28% compared with 1.86% for Europe ex. Nordic. Norway, Sweden and partly Finland are among the cheapest countries, followed by the U.K. and the Netherlands. Italy, Luxembourg and Spain are the most expensive countries. For Denmark the variable is insignificant and the estimated ongoing charge is the same as for hypothetical fund 1. For Europe ex. Nordic this is the most expensive equity fund on an ongoing charge basis. This does not seem intuitive as one would think instead that funds with performance fees would need to charge lower base fees than those without if they are to be attractive to investors.

The next two hypothetical funds are fixed-income related and only differ in terms of risk. Scenario 6 can be seen as a proxy for a global bond fund (currency exposure hedged back to euro) and the more volatile hypothetical fund 7 illustrates a high-yield bond fund. In Scenario 6, the Nordic countries seem attractive and Norway is the cheapest across all countries with an estimated ongoing charge of 0.38%. Despite a somewhat higher ongoing charge of 0.63%, Austria is the second-cheapest country in this case. The Nordic average is 0.70% with Denmark as the most expensive of the Nordic countries. However, all Nordic countries are well below the European ex. Nordic average of 1.06%. Luxembourg is the most expensive domicile with an ongoing charge of 1.20%, and Ireland, which is cheap on the equity side, is relatively expensive on the fixed-income side. France, which in general has been relatively expensive on the equity side, seems more attractive in terms of ongoing



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charge on the fixed-income side – especially as risk increases. For the European countries ex. Nordic, the less-volatile fixed-income Scenario 6 is the second-most-attractive scenario across all 10 hypothetical funds.

Our last three hypothetical funds 8-10 all relate to allocation funds. Scenarios 8 and 9 both have a fund-of-funds structure and only differ in terms of risk. In the last hypothetical fund, the risk is even higher – reflecting an aggressive allocation – but with no use of subfunds. For the most risk-averse hypothetical fund 8, the Netherlands are cheapest among all countries with an ongoing charge of 1.05% followed by all four Nordic countries with Denmark as the second-cheapest with an ongoing charge of 1.19%. Ireland, Germany and Luxembourg are the most expensive and Ireland has an ongoing charge of 2.40%. Moving to hypothetical fund 9 – a moderate allocation in a fund-of-funds structure – it is more or less the same order in the most efficient and most expensive end. The Netherlands come out as most attractive with an ongoing charge of 1.19%, again followed by the Nordic countries, with Norway and Denmark as the second- and third-cheapest. Norway is one of just two countries in our analysis with significance on the 10% level for risk as explanatory variable. Hence, the ongoing charge estimates in hypothetical fund 8 and 9 differ by just 3 basis points for Norway. Ireland, Germany and Luxembourg are most expensive and for Ireland the estimated ongoing charge is 2.42% and even higher than the previous fund. For Europe ex. Nordic, hypothetical fund 9 is the most expensive across our 10 hypothetical funds with an ongoing charge of 1.89%.

In our last hypothetical fund, we do not have a fund-of-funds structure. This means that compared with funds 8 and 9, some countries now become cheaper on ongoing charge without any “extra layer” of fees. For instance, Spain, Sweden and Ireland all become more attractive on a relative basis whereas countries including Belgium, Finland and Denmark lose efficiency on ongoing charge. Norway and the Netherlands remain attractive. Spain is now the cheapest country in our analysis for this hypothetical fund, followed by Sweden and Norway.

In summary, the Nordic region is on average cheaper than the Europe ex. Nordics across the different hypothetical funds. Sweden and Norway seem to be relatively more attractive in terms of ongoing charge compared with Finland and partly Denmark. Finland is relatively more costly in several of the hypothetical equity funds. The country is cheap in certain equity hypotheticals, but becomes relatively attractive in terms of ongoing charge in our hypothetical fixed-income and allocation funds. Outside the Nordics, the Netherlands stand out as particularly cheap on ongoing charge using our hypotheticals; Ireland and the U.K. are cheap on equity funds, but lose strength on fixed-income and allocation funds. Italy and Luxembourg remain relatively expensive throughout the 10 hypothetical funds.

How Does Risk Affect Ongoing Charge?

Our aim with the 10 hypothetical funds above was to illustrate how ongoing charge changes across asset classes and a number of chosen characteristics and how ongoing charge differs among the European countries. In this section, we examine how expenses evolve due to changes in risk. Our default hypothetical fund is an actively managed fund targeting retail investors. The fund and fund company are assumed to be of median size.



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The only explanatory variable we will change is the risk (three-year standard deviation) for 12 funds in the three asset classes: fixed income, allocation and equity.

We start with a standard deviation of 2, which can be seen as a proxy for a diversified bond fund with high-quality issues, and end with a proxy for a BRIC fund with a standard deviation of 23. Except for three, all countries and groups in our analysis have a strong positive relationship between ongoing charge and risk. For Norway and Ireland, the variable is significant on the 10% level and in Spain the relation is slightly negative on a 5% significance level. For all other countries the variable is significant on a 1% level.

The results are in the table below.

Estimated Ongoing Charge in euro for a 100,000 euro investment - Based on different risk profiles																								
Country	Hypo fund 1	Hypo fund 2	Hypo fund 3	Hypo fund 4	Hypo fund 5	Hypo fund 6	Hypo fund 7	Hypo fund 8	Hypo fund 9	Hypo fund 10	Hypo fund 11	Hypo fund 12												
Asset class	Diversified Bond	Global Bond Hdg. Euro	GEM Bonds	High Yield	Cautious	Moderate	Aggressive	Equity Income	Europe Large Cap	Global Large Cap	Global Em.mkt.	BRIC												
Risk	2.0	4.1	7.6	9.5	4.6	7.7	10.8	12.4	13.4	17.6	20.5	23.0												
Est. OGC in Euro	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank										
Denmark	805	9	874	10	988	11	1,051	11	1,191	6	1,293	7	1,393	6	1,448	7	1,478	6	1,617	9	1,714	9	1,795	11
Finland	576	3	709	6	931	9	1,054	13	1,316	9	1,514	14	1,708	16	1,447	6	1,505	9	1,774	12	1,963	16	2,121	17
Norway	354	1	379	1	422	1	445	1	1,218	7	1,255	5	1,292	3	1,482	8	1,494	7	1,545	6	1,581	5	1,611	4
Sweden	581	4	694	4	884	6	988	8	725	1	893	1	1,059	2	1,150	1	1,199	1	1,428	4	1,589	6	1,723	7
Austria	582	5	637	3	729	3	780	3	1,352	12	1,434	11	1,515	13	1,755	15	1,779	15	1,891	16	1,970	17	2,035	16
Belgium	905	12	946	13	1,014	13	1,052	12	1,676	18	1,736	18	1,796	18	1,721	14	1,739	14	1,822	14	1,880	13	1,929	13
France	683	7	724	7	793	4	831	4	1,373	13	1,434	12	1,494	12	1,714	13	1,732	13	1,816	13	1,874	12	1,923	12
Germany	809	10	840	9	893	8	922	7	1,494	16	1,541	15	1,588	14	1,526	10	1,540	10	1,604	8	1,649	7	1,687	6
Ireland	1,130	17	1,144	17	1,167	17	1,180	17	1,439	14	1,460	13	1,480	11	1,492	9	1,498	8	1,526	5	1,546	4	1,562	3
Italy	879	11	952	14	1,073	14	1,140	16	1,476	15	1,584	16	1,690	15	1,852	17	1,883	17	2,030	18	2,133	18	2,219	18
Luxembourg	1,163	18	1,203	18	1,270	18	1,307	18	1,656	17	1,716	17	1,774	17	1,776	16	1,793	16	1,874	15	1,931	14	1,979	15
Netherlands	684	8	778	8	937	10	1,024	9	1,053	3	1,194	3	1,332	5	1,159	2	1,201	2	1,392	1	1,527	3	1,640	5
Smaller countries	478	2	515	2	578	2	613	2	1,186	5	1,241	4	1,296	4	1,326	4	1,343	4	1,419	3	1,472	2	1,517	2
Spain	924	14	910	11	887	7	875	5	1,032	2	1,011	2	991	1	2,003	18	1,997	18	1,969	17	1,949	15	1,933	14
United Kingdom	906	13	945	12	1,009	12	1,045	10	1,294	8	1,351	8	1,408	8	1,307	3	1,324	3	1,402	2	1,457	1	1,503	1
Nordic	623	6	701	5	830	5	901	6	1,167	4	1,282	6	1,395	7	1,374	5	1,408	5	1,564	7	1,674	8	1,766	8
Europe ex. Nordic	1,032	16	1,058	16	1,100	16	1,124	15	1,342	11	1,380	9	1,417	9	1,664	12	1,675	12	1,726	11	1,762	11	1,793	10
Europe	1,017	15	1,044	15	1,090	15	1,115	14	1,340	10	1,381	10	1,420	10	1,647	11	1,659	11	1,714	10	1,753	10	1,785	9
Scenario																								
Allocation																								
Fixed Income	x		x		x		x		x		x													
Equity															x		x		x		x		x	
Size TNA	Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)	
Size AUM	Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)		Median (Eur)	

Table 4: Estimates of ongoing charges for 12 different risk profiles keeping other variable constant (except for asset class variables that are also changed). The rank of the ongoing charges within each hypothetical fund is also shown. For median sizeAUM and sizeTNA the medians for Europe are chosen.

It should be of no surprise to many that funds with the lowest risk on average have the lowest ongoing charge and that riskier funds are more expensive. From the table, we see that for less-volatile funds Norway is by far the cheapest country. Our ongoing charge estimate for a EUR 100,000 investment is just EUR 354 for Norwegian-domiciled funds with very low risk. Finland and Sweden are also efficient in this end of the risk scale. Low-risk funds are most expensive in Denmark among the Nordic countries, but still less-costly relative to the broader Europe. Outside the Nordics, low-risk funds domiciled in Austria, France and the Netherlands are relatively inexpensive. Luxembourg and Ireland are the most expensive. The group "Smaller countries" benefits

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from the European median for size resulting in greater economies of scale compared with the median sizes for the group.

Moving up the risk scale but still on the fixed-income side, we see some trends within the asset class. Among the Nordic countries, Finland in particular and also Sweden become relatively more expensive as risk increases. Norway maintains its attractive position as the cheapest country across all European countries. Overall, the Nordics are slightly more expensive compared with the other European countries.

Outside the Nordics, countries like Spain, France and Germany all exhibit improvement in their relative ongoing charge terms. Together with Austria they all follow Norway as the cheapest countries for fixed-income classes with the highest risk level. Luxembourg remains expensive and Italy becomes more expensive as risk is increased on fixed-income funds.

Focusing on allocation funds, Sweden, the Netherlands and Spain are most efficient – both on the less volatile end as well as for riskier allocation funds. In the Nordics, Sweden, Denmark and Norway stay attractive whether the focus is on low- or high-risk allocation funds. Finland loses attractiveness and becomes more costly on ongoing charge with increasing risk, whereas Norway becomes cheaper and more attractive. For the remaining countries, the picture is more or less the same independent of risk – however, Ireland seems a bit more attractive on the riskier end of the scale. Spain is most attractive outside the Nordics together with the Netherlands.

Moving further up the risk scale to equity funds, we find that Sweden, the Netherlands, the U.K., Finland and Denmark are most attractive for equity funds with the lowest risk. While the Netherlands and the U.K. keep their competitiveness when risk is increased, Sweden, Finland and Denmark all lose some relative strength. However, within the Nordics, Norway actually gains relative strength as risk is increased, whereas Finland especially loses relative strength. Finland becomes more expensive than the average of the non-Nordic countries when risk is increased. The U.K., Ireland and the Netherlands are relatively most efficient on ongoing charge in asset classes with most risk.

In general, the Nordic countries slightly lose strength as risk is increased with Finland in particular becoming relatively more expensive. The Nordic region as a whole is the sixth-cheapest of all our single-country and regional groups for fund 1 (minimum risk). This number drops to eight for hypothetical fund 12 – our case with maximum risk. On the other hand, Europe ex. Nordic gains relative strength when risk is increased.



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Economies of Scale

Given that asset management is an inherently scalable business insofar as management costs tend to increase much more slowly than assets under management grow, it is of interest to investigate whether investors are receiving the benefits of economies of scale. In the case where economies of scale are visible, the correlation between assets and ongoing charges should be significantly negative, such that ongoing charges fall with an increase in assets.

The Mechanism

The approach we have taken toward economies of scale is that both the size of the share class and the size of the fund company might influence the potential for economies of scale. For this purpose, we use these two variables to measure the possible effects from both share class size and company size. Economies of scale are achieved when cost per unit of output decreases as the scale is increased. In this way, the fixed cost is spread over a larger amount of output, which makes the production price per unit a decreasing function of scale.

From the share class size point of view, economies of scale may arise when the share class grows and assets increase. Hence, if we assume that the costs of administrating and managing the share class are close to fixed, this means that inflows will only slightly increase the costs of running the share class.

With this type of structure, we should easily observe economies of scale, since the fixed cost constitutes a large part of the total cost. Therefore, when the share class has an inflow, the units of production will increase. On the other hand, as administration costs do not increase significantly, the cost per unit of production – in this case the ongoing charge – will decrease and economies of scale have been achieved in the fund company.

Consequently if economies of scales are passed through to the end investor, we would expect that larger share classes, which have experienced a large amount of inflows over time, should be priced at a lower ongoing charge. If not, the primary beneficiaries of larger inflows will be related partners to the share class and fund company for providing their services.

From the fund company point of view, we believe that a large fund company with more funds and assets under management will be capable of introducing new funds or share classes or managing large inflows more efficiently than smaller companies. The fixed cost of the fund company will therefore be spread among more units of production. Thus, the fund company will realize economies of scale. Given that these scale effects are passed through to the investors – which will be the case in highly competitive markets or in markets where the company represents the best interests of the investor – the price per unit, here the ongoing charge, will obviously decrease.

In our regression the two size variables, LN(SizeTNA) and LN(SizeAUM), are constructed to capture the potential economies of scale that a given share class might exhibit. One is related to the TNA value of the share

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class and one to the AUM of the fund company under which the share class is branded. In this way, we will be able to capture “economies of scale” effects from both the actual size of the share class and the size of the fund company.

By taking this approach with a focus on the size of the share class instead of fund size (sum of all share class TNAs) we will as such not be able to identify economies of scale on fund size level. We have chosen to focus on share class TNA because ongoing charges vary on the share class level and not only the fund level.

Economies of Scale Vary from -38% to 68%

We have estimated potential economies of scale for the 10 hypothetical funds that we already described in this report. Complete and detailed estimates for each of them can be found in Appendix 8. Here we will bring a summary of our findings.

For 11 out of the 15 countries in our analysis, we found that at least one of our two size variable were significant and with negative parameter estimates, which means that these countries all exhibit some degree of economies of scale. Europe, Europe ex. Nordic and Nordic as a whole also exhibit some degree of economies of scale to the benefit of investors.

For four countries, we found there are no economies of scale for the investors. We assume there are in fact economies of scale within the share class and fund companies, but instead of passing these forward to the investors, related partners are receiving these benefits. The countries are Belgium, Norway, Italy and the Netherlands. Norway is the only Nordic country without economies of scale. For the Netherlands we found that one of the parameter estimates was positive. This means that ongoing charge goes up with increasing AUM for fund companies in the Netherlands. However, both Norway and the Netherlands are among the cheapest countries in Europe. Hence, even though those expenses remain the same in Norway and increase in the Netherlands, the ongoing charges remain attractive in the two countries as investors prefer larger funds and fund companies. On the other hand, both Italy and Belgium become less efficient as larger funds and fund companies are chosen by the investors.

The countries for which we are unable to identify economies of scale are in general characterised by relatively smaller markets with a high concentration of a few dominant players in each of the markets. Based on assets under management, the top 10 branding names cover between 87% and up to 97% of the total market cap (Belgium 95%, Norway 97%, Italy 87% and the Netherlands 93%).

Some countries with economies of scale are also concentrated markets dominated by a few very large fund companies, but in general we find industry concentration lower for countries with significant economies of scale. In the U.K., the top 10 branding names sit on a market share of 50%; in Ireland the top 10's share is 56%, 71% in France, 79% in Germany and 83% in Sweden.



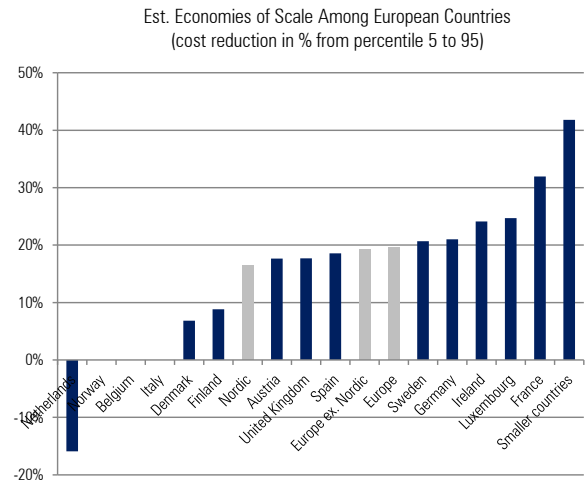
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The graph to the right illustrates the estimated economies of scale for hypothetical fund 1 moving from percentile 5 to 95 (actively managed equity fund focusing on retail investors with a risk of 17, no performance fee). The four countries without economies of scale are to the left, all with columns of zero and even negative for the Netherlands.

The European average is 20%, which means that investors on average save 20% in ongoing charge by choosing a larger share class/fund company compared with a small one.



Graph 6: Estimated economies of scale for hypothetical fund 1. Savings in % by moving from percentile 5 to 95

The Nordic average is 16% and somewhat below the European average. Among the Nordic countries, Swedish-domiciled fund companies give most of the economies of scale back to the investors, as the savings here hit 20%. Finland gives 9% back and for Denmark, we estimate the economies of scale is 7%. For Norway – the only Nordic country without economies of scale – the results mean that although Norway is the most attractive among the Nordic countries (and also relative to the other European countries) for the smallest share classes and fund companies, it loses this relative strength as—assuming all else is equal—expenses in the other countries fall as share class size and/or fund company size grow.

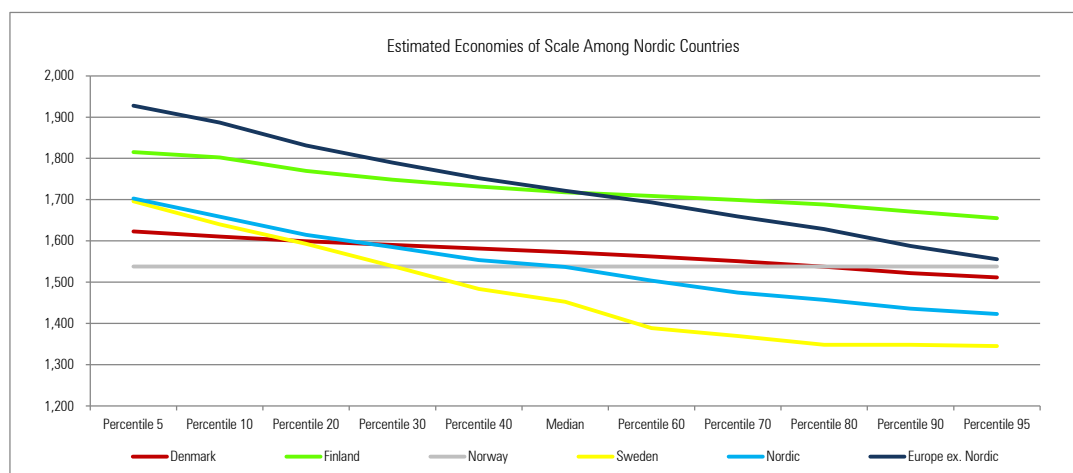
The chart below shows the estimated ongoing charges for a EUR 100,000 investment in the four Nordic countries and also compared with the average for the Nordics and Europe ex. Nordic. In the smaller end, Sweden is third-cheapest but rapidly becomes the most attractive as investors benefit from economies of scale. Denmark maintains its position as second-cheapest, whereas Finland remains the most-expensive country in this hypothetical fund. The straight gray line for Norway illustrates no economies of scale. Even in percentile 95 Norway remains cheaper than the estimate for Europe ex. Nordic.

Some large funds (in terms of AUM) in Sweden are the funds from AP-Fonder and AMF Fonder. AP7 is a special government vehicle used in the government premium pension system. AMF is a non-profit pension saving company set up in cooperation between SAF (employers) and PTK (most white-collar unions) to manage company pension savings, but its funds are available to everyone. These funds are in general very inexpensive in terms of ongoing charge. We therefore decided to test how the funds affect economies of scale in Sweden. First we assigned a dummy variable to the funds from one of these two companies and confirmed that they do have significantly lower ongoing charges. Next we excluded these funds from the dataset for Sweden and ran our regressions again. With these funds excluded the variable SizeAUM is still significant and the parameter

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estimate negative, which means that economies of scale in Sweden cannot purely be linked to the AP-Fonder and AMF Fonder.



Graph 7: Illustration of the trend in ongoing charge in euro for a EUR 100,000 investment in hypothetical fund 1. The Nordic countries are shown as well as the average for Nordic and Europe ex. Nordic

Outside the Nordic countries and apart from the group “Smaller countries” (which exhibit the largest economies of scale) we generally find that French-, Irish- and Lux-domiciled funds show the strongest economies of scale. In the U.K., we estimate the savings to be 18%. For the U.K., the sizeTNA variable is actually slightly positive, but due to the significant and relatively strong negative beta coefficient on the sizeAUM variable, the U.K. is among the countries that exhibit the largest degree of economies of scale to the benefit of investors.

Notably, we also find that the economies of scale are largest in the low end of the size spectrum. For example, investors in Europe will on average save 11% by moving from percentile 5 to 50, whereas they just save another 10% from percentile 50 to 95. This seems a bit counterintuitive as investors might expect the largest savings by choosing the largest share classes and fund companies where economies of scale seem more likely given the relatively fixed nature of certain costs.

Despite some countries achieving larger benefits from economies of scale this does not per definition mean that these countries are most attractive. An example of this is France. For our hypothetical fund 1, French-domiciled funds have the largest economies of scale – 28 % in ongoing charge savings by moving from percentile 5 to 95. However, the absolute level of ongoing charge for French funds is not very attractive. France starts out (5th percentile) as the most expensive country (apart from the group “Smaller countries”) in our analysis for this fund, but despite the huge savings, the French funds end on rank 12 (95th percentile), illustrating that eight countries are still cheaper.

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Estimated Ongoing Charge Rank - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	4	4	5	6	7	8	8	8	7	7	8	12
Finland	10	9	9	9	9	10	11	11	12	12	14	14
Norway	2	2	3	3	4	6	6	7	8	8	10	13
Sweden	5	5	4	4	3	3	3	2	2	2	3	4
Austria	14	14	15	17	16	16	16	16	16	15	15	16
Belgium	9	10	10	12	12	12	14	15	15	16	17	17
France	17	17	16	14	15	14	12	12	11	10	12	9
Germany	8	7	8	8	8	7	7	6	6	5	5	2
Ireland	7	8	7	7	6	4	4	4	4	3	1	1
Italy	13	13	14	16	17	17	17	18	18	18	18	18
Luxembourg	15	15	13	13	14	13	13	14	14	13	13	11
Netherlands	1	1	1	1	1	1	2	3	3	4	6	10
Smaller countries	18	18	18	15	13	15	15	13	13	14	4	3
Spain	16	16	17	18	18	18	18	17	17	17	16	15
United Kingdom	3	3	2	2	2	2	1	1	1	1	2	7
Nordic	6	6	6	5	5	5	5	5	5	6	7	6
Europe ex. Nordic	12	12	12	11	11	11	10	10	10	11	11	8
Europe	11	11	11	10	10	9	9	9	9	9	9	5

Table 5: Rank of the estimated ongoing charge for hypothetical fund 1. The table shows the relative strength of each country when investors move up the scale and invest in larger funds/fund companies.

It is of no surprise that the four countries without economies of scale lose strength as investors in the other countries benefit from reductions in ongoing charge. Of those four the Netherlands and partly Norway remain attractive in terms of ongoing charge throughout the scale – even despite the fact that ongoing charges in the Netherlands are positively related to the variable sizeAUM. The two countries remain relatively cheap because the level of ongoing charge in the countries is very attractive relative to the other European countries in our analysis.

Estimated Economies of Scale across All 10 Hypothetical Funds

The table below illustrates the estimated economies of scale across all 10 hypothetical funds. The results show the savings in ongoing charge in percentage by moving from percentile 5 to 95.

Across the 10 hypothetical funds, we see that passive investors benefit most from economies of scale (hypothetical fund 4) on a relative basis. The average reduction in ongoing charge for Europe is 35% and especially in Ireland, Sweden, France and Luxembourg passive investors achieve large reductions. For the Nordic countries, the savings are even higher – average of 41% – ranging from 0% in Norway to 44.7% in Sweden.

Institutional investors also seem to be better off compared with retail investors. Institutions save 26.7% on average compared with 19.5% for retail investors. This is on a relative basis as the savings in absolute terms are lower as ongoing charge becomes more attractive. The ongoing charge savings from allocation funds are somewhat in line with equity funds, whereas our two fixed-income hypothetical funds in general on a relative basis seem to pass on potential economies of scale to investors.



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Estimated Economies of scale in % - from size percentile 5 to 95

Country	Hypo fund 1	Hypo fund 2	Hypo fund 3	Hypo fund 4	Hypo fund 5	Hypo fund 6	Hypo fund 7	Hypo fund 8	Hypo fund 9	Hypo fund 10
Denmark	6.9%	6.3%	10.0%	16.5%	6.9%	12.4%	10.3%	9.2%	8.4%	7.8%
Finland	8.8%	7.7%	10.3%	18.9%	11.1%	20.5%	14.1%	11.5%	10.1%	9.0%
Norway	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sweden	20.7%	18.3%	26.7%	44.7%	24.2%	35.5%	27.2%	20.9%	19.0%	25.8%
Austria	17.6%	16.8%	19.9%	24.5%	17.6%	42.8%	36.6%	18.1%	17.4%	21.3%
Belgium	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
France	31.9%	30.9%	39.2%	46.6%	31.2%	60.5%	55.5%	32.0%	31.2%	36.9%
Germany	21.0%	20.3%	28.7%	33.3%	19.8%	37.3%	34.4%	15.5%	15.1%	21.1%
Ireland	24.1%	23.7%	29.2%	50.1%	22.7%	30.9%	30.1%	16.0%	15.8%	24.7%
Italy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Luxembourg	24.7%	23.9%	36.8%	40.0%	23.2%	35.5%	33.2%	22.7%	22.2%	25.7%
Netherlands	-15.9%	-13.8%	-15.9%	-38.4%	-15.9%	-31.1%	-22.2%	-21.5%	-18.6%	-16.4%
Smaller countries	41.8%	40.5%	41.8%	41.8%	41.8%	67.7%	63.3%	46.2%	45.0%	43.9%
Spain	18.6%	18.8%	18.6%	25.1%	18.6%	35.6%	36.7%	22.6%	22.9%	33.3%
United Kingdom	17.7%	16.9%	22.8%	38.2%	17.7%	24.5%	22.5%	14.7%	14.3%	17.5%
Nordic	16.4%	15.1%	21.2%	41.0%	19.5%	32.7%	26.4%	19.2%	17.8%	18.0%
Europe ex. Nordic	19.3%	18.8%	26.5%	33.4%	17.9%	29.4%	27.9%	18.0%	17.7%	22.9%
Europe	19.5%	19.0%	26.7%	35.3%	18.1%	29.9%	28.3%	18.4%	18.0%	22.9%
Scenario	Global	GEM	Global Inst.	Global Index	Global Pf. fee	Global Bond	High Yield	Cautious	Moderate	Aggressive
Allocation								x	x	x
Fixed Income						x	x			
Equity	x	x	x	x	x					
Index				x						
Fund of Funds								x	x	
Institutional			x							
Performance fee %					10.0					
Risk	17.0	21.0	17.0	17.0	17.0	4.0	9.5	4.6	7.7	10.8

Table 6: Estimated economies of scale within each country for the 10 hypothetical funds. Savings in ongoing charge in percentage by moving from percentile 5 to 95 of the size span within each country.

Contribution to Economies of Scale

As already described, economies of scale passed on to investors in a share class can either come from the size of the share class, the size of the fund company or from a combination of the two.

Out of the 11 countries in our analysis (including the subgroup “Smaller countries”) for which economies of scale are passed on to investors to some degree, we found that investors in four countries benefit from economies of scale from both parameters. We also found that the U.K. was significant on both variables, but for sizeTNA the slope is slightly positive. The four countries are Austria, France, Luxembourg and Spain.

For Denmark, Finland, Germany and Ireland only sizeTNA is significant, while the variable sizeAUM is the only contributor to economies of scale for investors in Sweden, the U.K. and the subgroup “Smaller countries”.

The table below shows how each of the two variables contribute to economies of scale in the countries in our analysis for hypothetical fund 1. For instance, the first column – 5 to 20 percentiles – AUM shows how much investors will save in each of the countries by investing in a larger fund company while keeping sizeTNA constant at the median.



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On the other hand, the column TNA shows how much an investor will save by investing in a larger share class while keeping sizeAUM constant at the median. For those countries with only one significant size variable, the full savings is allocated to one of the two.

Of the countries for which both variables contribute to economies of scale for the investors, size of the fund company contributes most in France, whereas the savings are more and less equally divided between the two in Austria and Luxembourg. In Spain, size of the share classes seems to be the largest contributor to economies of scale.

For overall Europe, the variable sizeTNA gives investors the largest economies of scale.

Contribution to Estimated Economies of Scale Moving From Smaller to Larger Percentiles																				
Country	5 to 20 perct.		5 to 40 perct.		5 to 60 perct.		5 to 80 perct.		5 to 95 perct.		10 to 90 perct.		20 to 80 perct.		40 to 60 perct.		5 to 50 perct.		50 to 95 perct.	
Contribution from	AUM	TNA	AUM	TNA	AUM	TNA	AUM	TNA	AUM	TNA	AUM	TNA	AUM	TNA	AUM	TNA	AUM	TNA	AUM	TNA
Denmark	0%	1%	0%	3%	0%	4%	0%	5%	0%	7%	0%	6%	0%	4%	0%	1%	0%	3%	0%	4%
Finland	0%	3%	0%	5%	0%	6%	0%	7%	0%	9%	0%	7%	0%	5%	0%	1%	0%	5%	0%	4%
Norway	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	6%	0%	13%	0%	18%	0%	21%	0%	21%	0%	18%	0%	15%	0%	6%	0%	14%	0%	7%	0%
Austria	0%	2%	1%	4%	4%	6%	5%	8%	8%	10%	8%	8%	4%	6%	3%	2%	4%	5%	4%	5%
Belgium	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	7%	3%	14%	5%	18%	7%	21%	9%	23%	11%	22%	9%	14%	6%	4%	2%	16%	6%	9%	6%
Germany	0%	5%	0%	8%	0%	11%	0%	15%	0%	21%	0%	17%	0%	11%	0%	3%	0%	10%	0%	13%
Ireland	0%	5%	0%	9%	0%	14%	0%	18%	0%	24%	0%	20%	0%	14%	0%	5%	0%	11%	0%	14%
Italy	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	6%	3%	9%	6%	11%	8%	12%	10%	14%	13%	11%	11%	7%	7%	2%	2%	11%	7%	3%	7%
Netherlands	-4%	0%	-10%	0%	-13%	0%	-13%	0%	-16%	0%	-14%	0%	-9%	0%	-3%	0%	-10%	0%	-6%	0%
Smaller countries	6%	0%	21%	0%	21%	0%	27%	0%	42%	0%	25%	0%	22%	0%	0%	0%	21%	0%	26%	0%
Spain	1%	1%	2%	3%	4%	5%	5%	9%	6%	13%	6%	11%	4%	8%	1%	2%	3%	4%	3%	9%
United Kingdom	8%	-1%	16%	-2%	19%	-4%	20%	-5%	22%	-6%	18%	-5%	14%	-4%	4%	-1%	17%	-3%	7%	-3%
Nordic	3%	2%	5%	4%	7%	5%	8%	7%	8%	9%	7%	7%	5%	5%	2%	1%	6%	5%	3%	4%
Europe ex. Nordic	2%	3%	4%	5%	5%	8%	6%	10%	7%	14%	6%	11%	4%	8%	1%	2%	5%	7%	2%	8%
Europe	2%	3%	4%	6%	4%	8%	5%	11%	6%	15%	5%	12%	3%	8%	1%	3%	4%	7%	2%	8%

Table 6A: Estimated economies of scale for hypothetical fund 1. Savings in ongoing charge in percentage by moving from different percentiles of one of the two size spans while keeping the other size variable constant at the median. The savings are split between the two size variables.

Changing the Setup

In order to better compare the overall level of the ongoing charge between the countries, we now change the regression to take into account the individual countries. To make the comparison, we now assign a dummy variable to each country except the U.K., which thereby becomes the reference group. In this way the regression is based on the same explanatory variables as previously, now containing an additional 15 dummy variables – one for each country except the U.K. By using the methodology described earlier, we obtain the below results.

In the table, the estimates of each country are presented along with the estimates of the variables introduced earlier. All estimates except for Finland, Denmark, the Netherlands and smaller countries are significant when tested on 1% and 5% level. In this overall regression for Europe, we see that investing in commodity funds, fixed-income funds, index funds, institutional funds, money market funds, or a combination of these, will all result in a lower ongoing charge. Choosing an equity fund, fund of funds or allocation fund will, all else equal, generate a higher ongoing charge, relatively.

Furthermore, we observe that the ongoing charge is a positive function of risk, though the absolute influence is relatively moderate. The surprising result of the performance fee parameter is consistent with the result of the first regression: By choosing a fund with a performance fee the ongoing charge will increase (keep in mind that the performance fee is not part of the ongoing charge calculation). Finally, Europe in general seems to exhibit a decent amount of economies of scale, as the ongoing charge is reduced when TNA, AUM or both increase.

When taking this approach, we find that Norway is the most attractive country. Norwegian-domiciled funds' ongoing charges are 32 basis points lower than U.K. funds' ongoing charges. Spain and Sweden also get a reduction in ongoing charge. On the other hand, Luxembourg and Italy get the largest addition to the ongoing charge relative to a U.K. fund.

The results here are largely in line with our other findings throughout this analysis.

Results - Beta Values

Explanatory Variable	Parameter Estimate
(Intercept)	2.758
Risk	0.014
PerformanceFee	0.011
Index	-0.785
Institutionel	-0.584
FundOfFunds	0.490
Equity	0.218
Allocation	0.117
FixedIncome	-0.273
MoneyMarketFond	-0.758
Commodities	<i>-0.133</i>
SizeTNA	-0.036
SizeAUM	-0.039
Austria	<i>0.077</i>
Belgium	0.207
France	0.102
Germany	0.126
Ireland	0.155
Italy	0.231
Luxembourg	0.343
Norway	-0.317
Spain	-0.230
Sweden	<i>-0.104</i>

Table 6: Beta values for the regression with each country assigned a dummy variable. Normal font: 1% significance, *Italic* font: 5% significance

Our Approach

For the part of this analysis that covers ongoing charges a total of 22,979 unique funds and 48,666 share classes from 21 different countries are included in the analysis. Smaller markets are pooled and named “Smaller countries” in the report (includes Estonia, Jersey, Latvia, Liechtenstein and Malta). Nordic is defined as Denmark, Finland, Norway and Sweden. The total market cap covered in this part is EUR 4,900 billion. Our focus is where funds are domiciled and not where they are sold.

Ongoing charge is mandatory in all KIID documents, so we decided to use the ongoing charge as the preferred fee figure in this analysis. For funds domiciled in Switzerland, the KIID requirement takes effect from July 7, 2014. Hence, only a minor portion of the funds from Switzerland currently publish ongoing charge and the funds that do not publish this fee figure are consequently not included in this analysis.

In Finland it is common practice to state assets only on the fund level and not on the share class level. As expenses may vary on the share class level, we have not been able to identify how fees are allocated within the share classes. Hence, funds without data on the share class level have been excluded from our regression model, and therefore our coverage for Finland is somewhat below the actual size of the Finnish fund market (the descriptive part of this analysis). To ensure that our descriptive statistics for Finland are not affected by this practice, we have used assets on the fund level for this part of the report.

Finally, we have chosen not to include all share classes with a TNA value below EUR 500,000 for the part of the analysis that focuses on ongoing charges. This criterion ensures that we only analyse funds that are active and supposedly contains real market participants. In this data set, only month-end data is used for TNA and AUM to ensure high data quality and consistency in the observations. Funds with total net assets on the fund level and not the share class level are excluded.

In the regression analysis, we used the three-year standard deviation of the fund as a risk measure. If this is not available, the Morningstar category standard deviation was used as a proxy.

In the market description in the analysis we use data from the Morningstar Asset Flows module, which is the most comprehensive coverage we have on the European market. In the market description more than 30,000 unique funds and 68,000 share classes are included. We have also here pooled smaller countries into one group named “Smaller countries”. Up to 23 small countries are included, with Liechtenstein and Portugal as the largest fund markets in this group of countries. The market cap covered in the descriptive part exceeds EUR 5,500 billion (excluding fund of funds and feeder funds).

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We estimate that the part of this analysis that focuses on ongoing charges covers about 80%-85% of the total European fund market. The 15%-20% gap are funds that are excluded due to missing ongoing charges, missing total net assets on the share class level, our EUR 500,000 criteria, or other circumstances.

Data Analysts Jens Nielsen and Troels Jørgensen, Morningstar Denmark, contributed to the preparation of this analysis.

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Appendix

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Appendix 1: Overview of the European market composition – asset-weighted

	(A) AUM in bill. EUR (ex. FoF, MF)	(B) Equity	(C) Fixed Income	(D) Allocation	(E) Commodities	(F) Money Market	(G) Alternative
Country							
Denmark	84	36.6%	55.2%	7.7%	0.0%	0.0%	0.5%
Finland	58	36.6%	42.6%	13.4%	0.1%	6.4%	0.9%
Norway	73	48.0%	34.2%	1.3%	0.0%	13.9%	0.0%
Sweden	178	66.9%	8.7%	17.4%	0.0%	6.5%	0.6%
Austria	61	18.2%	62.4%	9.9%	0.1%	1.0%	1.0%
Belgium	57	25.6%	14.2%	56.9%	0.0%	3.1%	0.0%
France	632	23.5%	14.5%	10.1%	0.1%	48.2%	1.3%
Germany	277	33.7%	17.0%	15.7%	0.4%	2.0%	1.1%
Ireland	796	25.5%	31.1%	4.2%	0.3%	36.0%	2.6%
Italy	130	13.4%	59.2%	25.7%	0.0%	0.9%	0.7%
Luxembourg	1,881	33.4%	37.7%	11.3%	0.7%	11.1%	3.8%
Netherlands	45	51.8%	31.1%	15.7%	0.0%	1.2%	0.1%
Smaller Countries		24.7%	32.2%	17.8%	0.8%	15.6%	1.5%
Spain	113	11.5%	39.8%	33.2%	0.0%	10.8%	1.3%
Switzerland	211	40.8%	36.1%	9.3%	1.5%	10.6%	0.1%
United Kingdom	880	60.1%	18.7%	14.7%	0.0%	1.0%	3.5%
Nordic	393	52.4%	28.3%	11.7%	0.0%	6.5%	0.5%
Europe ex. Nordic	5,169	30.6%	27.8%	11.4%	0.4%	16.3%	2.7%
Europe	5,562	32.2%	27.8%	11.4%	0.4%	15.6%	2.5%

	(H) Index	(I) Institutional	(J) Performance Fee	(K) FoF + MF	(L) AUM FoF, MF in bill. EUR	(M) AUM Total in bill. EUR	(N) AUM for OGC in bill. EUR
Country							
Denmark	1.9%	7.0%	0.7%	0.3%	0	84	84
Finland	2.9%	5.8%	8.2%	17.6%	12	70	26
Norway	7.2%	3.4%	17.7%	10.2%	8	81	80
Sweden	6.5%	1.2%	1.9%	10.3%	20	198	198
Austria	0.2%	5.1%	4.4%	18.5%	14	75	64
Belgium	3.8%	12.2%	2.3%	13.5%	9	66	49
France	2.6%	20.7%	33.2%	19.6%	154	786	721
Germany	0.2%	2.8%	17.3%	5.9%	17	294	292
Ireland	7.9%	28.1%	3.5%	1.4%	11	807	628
Italy	0.3%	2.6%	57.8%	7.9%	11	141	137
Luxembourg	1.2%	23.4%	12.1%	3.6%	70	1,951	1,817
Netherlands	2.4%	10.6%	6.7%	15.2%	8	53	44
Smaller Countries	0.2%	2.6%	15.3%	5.6%	5	93	10
Spain	1.3%	0.4%	7.8%	6.2%	7	120	120
Switzerland	31.2%	48.8%	2.7%	3.9%	9	219	N/A
United Kingdom	9.5%	8.8%	1.4%	9.1%	88	967	592
Nordic	5.1%	3.5%	5.8%	9.5%	41	434	389
Europe ex. Nordic	4.6%	19.1%	14.1%	7.2%	404	5,572	4,517
Europe	4.6%	18.0%	13.4%	7.4%	445	6,007	4,906

Table 7: Characteristics of the European market, overall and for each country. Asset weighted. Column A-I is based on Morningstar Asset Flows, universe Europe OE & MM ex. FoF ex Feeder (domiciled). Column A is Morningstar's most comprehensive estimate of the European market size ex. FoF and Feeder structures. Column K is market cap invested in FoF and Master Feeder funds – based on Morningstar Asset Flows, universe Europe OE FoF & Feeder funds only (domiciled). Column M is the sum of A+L. Column K is L divided by M. Column J Performance Fee asset weights is based in funds included in the analysis of ongoing charges. There may be some kind of double counting in columns L and M with A as we do not for sure know which funds the fund of funds actually invest in. The last column N is the market cap of funds included in the part of the report that analyses ongoing charges across the countries. The total European coverage for this part is approximately 82%.



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Appendix 2: Overview of Ongoing Charge

Ongoing Charges - Overall

Country	Asset Weighted %	Simple Average %	Median %	95 Percentile	5 Percentile	Span between 95-5
Denmark	1.07	1.22	1.27	2.03	0.38	1.65
Finland	1.10	1.40	1.31	2.80	0.33	2.47
Norway	0.72	0.96	0.90	2.00	0.13	1.87
Sweden	1.03	1.27	1.40	2.52	0.30	2.23
Austria	1.12	1.43	1.32	2.79	0.38	2.41
Belgium	1.53	1.50	1.64	2.53	0.44	2.09
France	0.85	1.50	1.34	3.31	0.18	3.13
Germany	1.18	1.51	1.42	2.78	0.42	2.36
Ireland	0.78	1.35	1.27	2.76	0.17	2.59
Italy	1.33	1.61	1.55	2.98	0.50	2.48
Luxembourg	1.22	1.55	1.49	2.92	0.21	2.71
Netherlands	1.18	1.37	1.26	2.84	0.38	2.46
Smaller Countries	0.85	1.73	1.59	3.60	0.15	3.45
Spain	1.04	1.20	1.09	2.40	0.41	1.99
United Kingdom	1.22	1.29	1.27	2.32	0.26	2.06
Nordic	0.98	1.21	1.26	2.38	0.20	2.18
Europe ex. Nordic	1.09	1.46	1.38	2.88	0.22	2.66
Europe	1.08	1.45	1.37	2.86	0.22	2.64

Table 8: Overall estimates. Shows the asset-weighted ongoing charge %, arithmetic mean, median and percentile 5 and 95 and the span between those two percentiles

Ongoing Charges - Equity

Country	Asset Weighted %	Simple Average %	Median %	95 Percentile	5 Percentile	Span between 95-5
Denmark	1.45	1.46	1.56	2.12	0.52	1.60
Finland	1.60	1.67	1.80	3.27	0.43	2.84
Norway	1.11	1.27	1.50	2.00	0.14	1.87
Sweden	1.09	1.37	1.47	2.52	0.40	2.12
Austria	1.95	2.08	2.07	3.20	1.15	2.05
Belgium	1.40	1.64	1.80	2.40	0.54	1.86
France	1.61	1.95	1.80	3.68	0.52	3.16
Germany	1.49	1.64	1.65	2.75	0.69	2.06
Ireland	1.14	1.56	1.55	2.91	0.30	2.61
Italy	2.11	2.20	2.10	3.21	1.24	1.97
Luxembourg	1.58	1.80	1.89	3.03	0.29	2.74
Netherlands	1.29	1.38	1.36	2.27	0.52	1.75
Smaller Countries	1.73	2.17	2.00	3.95	1.34	2.61
Spain	1.87	2.03	2.11	3.21	0.80	2.41
United Kingdom	1.26	1.31	1.31	2.05	0.25	1.80
Nordic	1.17	1.43	1.50	2.50	0.40	2.10
Europe ex. Nordic	1.46	1.73	1.75	3.02	0.35	2.67
Europe	1.42	1.71	1.73	3.00	0.36	2.64

Table 9: Equity estimates. Shows the asset-weighted ongoing charge %, arithmetic mean, median and percentile 5 and 95 and the span between those two percentiles



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Ongoing Charges - Fixed Income

Country	Asset Weighted %	Simple Average %	Median %	95 Percentile	5 Percentile	Span between 95-5
Denmark	0.81	0.82	0.75	1.37	0.30	1.06
Finland	0.62	0.67	0.65	1.18	0.23	0.95
Norway	0.28	0.39	0.35	0.80	0.15	0.65
Sweden	0.52	0.67	0.65	1.50	0.16	1.35
Austria	0.68	0.75	0.69	1.30	0.33	0.97
Belgium	0.99	0.75	0.69	1.32	0.34	0.99
France	0.64	0.81	0.75	1.64	0.18	1.46
Germany	0.75	0.83	0.76	1.47	0.33	1.14
Ireland	0.87	1.10	1.03	2.06	0.20	1.86
Italy	0.98	1.02	1.03	1.62	0.38	1.24
Luxembourg	1.00	1.14	1.06	2.25	0.17	2.08
Netherlands	0.84	0.82	0.77	1.82	0.37	1.44
Smaller Countries	0.85	1.00	1.05	1.70	0.23	1.47
Spain	0.81	0.93	0.88	1.67	0.28	1.39
United Kingdom	0.86	0.93	0.93	1.57	0.15	1.42
Nordic	0.61	0.68	0.60	1.33	0.15	1.18
Europe ex. Nordic	0.91	1.05	0.97	2.10	0.20	1.90
Europe	0.89	1.03	0.96	2.10	0.20	1.90

Table 10: Fixed Income estimates. Shows the asset-weighted ongoing charge %, arithmetic mean, median and percentile 5 and 95 and the span between those two percentiles

Ongoing Charges - Allocation

Country	Asset Weighted %	Simple Average %	Median %	95 Percentile	5 Percentile	Span between 95-5
Denmark	1.03	1.30	1.30	2.15	0.55	1.60
Finland	1.25	1.48	1.32	2.31	0.90	1.41
Norway	1.20	1.28	1.25	2.40	0.52	1.88
Sweden	1.14	1.39	1.29	2.87	0.41	2.46
Austria	1.69	1.82	1.75	3.05	0.79	2.26
Belgium	1.73	1.74	1.66	2.94	0.50	2.44
France	1.67	1.93	1.76	3.70	0.61	3.09
Germany	1.59	1.80	1.75	3.04	0.73	2.31
Ireland	1.71	1.86	1.78	3.74	0.45	3.29
Italy	1.62	1.85	1.81	3.19	0.98	2.21
Luxembourg	1.64	1.95	1.82	3.66	0.59	3.07
Netherlands	1.27	1.25	1.16	2.12	0.30	1.82
Smaller Countries	1.20	1.83	1.88	3.66	0.15	3.51
Spain	1.14	1.17	1.07	2.23	0.45	1.78
United Kingdom	1.49	1.57	1.59	2.53	0.65	1.88
Nordic	1.14	1.38	1.30	2.50	0.50	2.00
Europe ex. Nordic	1.59	1.70	1.58	3.21	0.54	2.67
Europe	1.55	1.69	1.57	3.20	0.53	2.67

Table 11: Allocation estimates. Shows the asset-weighted ongoing charge %, arithmetic mean, median and percentile 5 and 95 and the span between those two percentiles



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Ongoing Charges - Money Market

Country	Asset Weighted %	Simple Average %	Median %	95 Percentile	5 Percentile	Span between 95-5
Denmark	0.39	0.39	0.39	0.39	0.39	0.00
Finland	0.32	0.30	0.32	0.40	0.18	0.22
Norway	0.21	0.27	0.25	0.50	0.10	0.40
Sweden	0.37	0.36	0.37	0.54	0.13	0.42
Austria	0.20	0.38	0.48	0.63	0.16	0.47
Belgium	0.59	0.50	0.59	0.60	0.20	0.40
France	0.17	0.29	0.24	0.61	0.06	0.55
Germany	0.51	0.40	0.37	0.72	0.15	0.57
Ireland	0.27	0.24	0.20	0.56	0.03	0.53
Italy	0.44	0.48	0.41	0.75	0.27	0.47
Luxembourg	0.26	0.36	0.28	0.83	0.06	0.77
Netherlands	-	-	-	-	-	-
Smaller Countries	0.34	0.32	0.31	0.56	0.08	0.48
Spain	0.56	0.63	0.61	1.16	0.18	0.98
United Kingdom	0.23	0.34	0.33	0.63	0.08	0.54
Nordic	0.29	0.31	0.30	0.50	0.10	0.40
Europe ex. Nordic	0.23	0.33	0.25	0.75	0.06	0.69
Europe	0.23	0.33	0.25	0.75	0.06	0.69

Table 11: Money Market estimates. Shows the asset-weighted ongoing charge %, arithmetic mean, median and percentile 5 and 95 and the span between those two percentiles

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Appendix 3: Estimated Ongoing Charge % based on country median size

Estimated Ongoing Charge % based on 10 hypothetical funds

Country	Hypo fund 1 OGC % Rank	Hypo fund 2 OGC % Rank	Hypo fund 3 OGC % Rank	Hypo fund 4 OGC % Rank	Hypo fund 5 OGC % Rank	Hypo fund 6 OGC % Rank	Hypo fund 7 OGC % Rank	Hypo fund 8 OGC % Rank	Hypo fund 9 OGC % Rank	Hypo fund 10 OGC % Rank
Denmark	1.57 8	1.70 8	1.06 3	0.63 6	1.57 7	0.85 9	1.03 8	1.16 2	1.27 3	1.37 5
Finland	1.72 10	1.97 15	1.45 15	0.75 8	1.35 5	0.68 3	1.04 10	1.29 5	1.49 5	1.69 14
Norway	1.54 6	1.59 4	1.04 2	0.26 1	1.14 1	0.38 1	0.45 1	1.22 3	1.25 2	1.29 3
Sweden	1.45 3	1.67 6	1.07 4	0.54 4	1.21 2	0.75 6	1.04 12	1.43 6	1.60 6	1.12 2
Austria	1.92 16	2.03 16	1.68 16	1.33 15	1.92 15	0.68 2	0.83 2	1.87 15	1.95 15	1.56 13
Belgium	1.81 12	1.89 11	1.10 5	1.10 13	1.81 10	0.94 11	1.05 13	1.67 9	1.74 9	1.80 18
France	1.84 14	1.92 14	1.41 14	1.11 14	1.89 14	0.76 7	0.86 3	1.83 13	1.89 12	1.53 11
Germany	1.57 7	1.63 5	1.10 6	0.93 11	1.67 9	0.81 8	0.89 4	2.19 17	2.24 17	1.56 12
Ireland	1.53 4	1.56 3	1.23 11	0.63 7	1.63 8	1.15 17	1.19 17	2.41 18	2.43 18	1.49 10
Italy	2.01 17	2.15 18	1.39 13	1.71 17	2.07 18	0.95 13	1.14 16	1.82 12	1.93 14	1.69 15
Luxembourg	1.83 13	1.91 12	1.11 7	1.00 12	1.97 16	1.17 18	1.28 18	2.02 16	2.08 16	1.74 17
Netherlands	1.33 1	1.51 2	1.33 12	0.62 5	1.33 4	0.74 5	0.99 7	1.02 1	1.16 1	1.30 4
Smaller countries	1.84 15	1.91 13	1.84 17	1.84 18	1.84 11	0.95 12	1.04 11	1.62 7	1.67 8	1.73 16
Spain	2.06 18	2.04 17	2.06 18	1.49 16	2.06 17	1.00 14	0.96 6	1.67 8	1.64 7	1.08 1
United Kingdom	1.38 2	1.45 1	1.02 1	0.51 2	1.38 6	0.93 10	1.03 9	1.70 10	1.76 10	1.40 7
Nordic	1.54 5	1.69 7	1.15 8	0.52 3	1.27 3	0.69 4	0.90 5	1.29 4	1.41 4	1.39 6
Europe ex. Nordic	1.72 11	1.77 10	1.20 10	0.91 10	1.87 13	1.06 16	1.13 15	1.86 14	1.90 13	1.42 8
Europe	1.71 9	1.76 9	1.19 9	0.85 9	1.85 12	1.04 15	1.12 14	1.82 11	1.86 11	1.42 9
Scenario	Global	GEM	Global Inst.	Global Index	Global Pf.fee	Global Bond	High Yield	Cautious	Moderate	Aggressive
Allocation								x	x	x
Fixed Income						x	x			
Equity	x	x	x	x	x					
Index				x						
Fund of Funds								x	x	
Institutional			x							
Performance fee %					10.0					
Risk	17.0	21.0	17.0	17.0	17.0	4.0	9.5	4.6	7.7	10.8
Size TNA	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)
Size AUM	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)	Median (dom)

Table 10: Estimates of ongoing charges for 10 different hypothetical funds and the rank of the ongoing charges within each of the 10 funds.

The lower part of the table illustrates the case behind each fund. This table is similar to Table 3, except that in Table 3 the median size for Europe is chosen as size. In this table 10 the median size of each country is chosen.

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Appendix 4: Estimated Ongoing Charge in EUR based on different risk profiles and country median size

Estimated Ongoing Charge in euro for a 100,000 euro investment - Based on different risk profiles																									
Country	Hypo fund 1		Hypo fund 2		Hypo fund 3		Hypo fund 4		Hypo fund 5		Hypo fund 6		Hypo fund 7		Hypo fund 8		Hypo fund 9		Hypo fund 10		Hypo fund 11		Hypo fund 12		
Asset class	Diversified Bond		Global Bond Hdq. Euro		GEM Bonds		High Yield		Cautious		Moderate		Aggressive		Equity Income		Europe Large Cap		Global Large Cap		Global Em.mkt.		BRIC		
Risk	2.0		4.1		7.6		9.5		4.6		7.7		10.8		12.4		13.4		17.6		20.5		23.0		
Est. OGC in Euro	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	OGC	Rank	
Denmark	780	9	848	9	963	9	1,026	8	1,166	5	1,268	5	1,368	5	1,423	5	1,453	5	1,591	8	1,689	8	1,770	7	
Finland	556	2	689	3	911	7	1,034	10	1,297	8	1,494	13	1,688	14	1,427	6	1,485	6	1,754	11	1,943	15	2,101	17	
Norway	354	1	379	1	422	1	445	1	1,218	6	1,255	4	1,292	3	1,482	7	1,494	7	1,545	5	1,581	4	1,611	4	
Sweden	636	5	750	6	939	8	1,043	11	781	1	949	1	1,114	2	1,205	2	1,254	2	1,483	3	1,644	6	1,778	8	
Austria	627	4	682	2	774	2	825	2	1,397	11	1,479	12	1,560	13	1,800	16	1,824	16	1,936	16	2,015	16	2,080	16	
Belgium	905	12	946	11	1,014	13	1,052	13	1,676	18	1,736	18	1,796	18	1,721	12	1,739	12	1,822	12	1,880	11	1,929	11	
France	716	7	757	7	826	4	863	3	1,406	12	1,467	10	1,527	11	1,747	14	1,765	14	1,848	14	1,907	14	1,955	14	
Germany	779	8	810	8	863	5	892	4	1,464	14	1,511	14	1,558	12	1,496	8	1,510	9	1,574	7	1,619	5	1,657	5	
Ireland	1,137	18	1,151	17	1,175	17	1,187	17	1,447	13	1,467	11	1,488	10	1,499	9	1,505	8	1,533	4	1,553	3	1,570	2	
Italy	879	10	952	13	1,073	14	1,140	16	1,476	15	1,584	15	1,690	15	1,852	17	1,883	17	2,030	17	2,133	18	2,219	18	
Luxembourg	1,131	17	1,171	18	1,238	18	1,275	18	1,624	17	1,684	17	1,742	17	1,743	13	1,761	13	1,842	13	1,899	12	1,947	12	
Netherlands	648	6	743	5	901	6	988	7	1,018	2	1,158	3	1,297	4	1,124	1	1,165	1	1,357	1	1,491	2	1,604	3	
Smaller countries	909	13	946	12	1,009	12	1,044	12	1,617	16	1,673	16	1,728	16	1,758	15	1,774	15	1,850	15	1,903	13	1,948	13	
Spain	1,014	14	1,001	14	978	10	965	6	1,122	3	1,101	2	1,081	1	2,093	18	2,087	18	2,059	18	2,039	17	2,023	15	
United Kingdom	895	11	933	10	998	11	1,033	9	1,282	7	1,340	7	1,396	7	1,296	3	1,313	3	1,391	2	1,446	1	1,492	1	
Nordic	617	3	694	4	823	3	895	5	1,160	4	1,275	6	1,388	6	1,368	4	1,402	4	1,558	6	1,668	7	1,760	6	
Europe ex. Nordic	1,034	16	1,060	16	1,102	16	1,126	15	1,344	10	1,382	9	1,419	8	1,666	11	1,677	11	1,728	10	1,764	10	1,795	10	
Europe	1,017	15	1,044	15	1,090	15	1,115	14	1,340	9	1,381	8	1,420	9	1,647	10	1,659	10	1,714	9	1,753	9	1,785	9	
Scenario																									
Allocation									x		x		x												
Fixed Income	x		x		x		x																		
Equity														x		x		x		x		x		x	
Size TNA	Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)
Size AUM	Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)		Median (dom)

Table 11: Estimates of ongoing charges for 12 different risk profiles. The rank of the ongoing charges within each hypothetical fund is also shown. The lower part of the table illustrates the case behind each fund. This table is similar to Table 4 except that in Table 4, the median size for Europe is chosen as size. In this table, the median size of each country is chosen.

Appendix 5: Performance fee

Performance fee is not included in ongoing charge. As such, the true expenses of the investor are understated. This means that expenses in countries with a high number of funds subject to performance fees may be higher than ongoing charges indicate. On the other hand, the potential “extra layer” of fees will be related to performance and only be charged if the fund fulfilled the criteria for the performance fee.

From our regression results, we observe that performance fee as an explanatory variable was insignificant for six countries. This means that the “fixed” fee base for these funds is in line with the “fixed” fee base for funds without a performance fee. We find this a bit counterintuitive as we would have expected to find a lower starting point for funds with a performance fee. For the nine countries for which the variable was significant, we actually found that six of those have a starting point that was even higher than for funds without a performance fee. Only in three countries did we find that funds with a performance fee actually had a significant lower starting point.

The structure with a performance fee is most commonly used in Italy. Close to 58% of the market cap is invested in funds with a performance fee. Despite this widely used structure, we do find in our analysis that Italy is among the most expensive European countries – even before the performance fee. Ongoing charges for Italian funds are in general unattractive compared with those for the other countries. French investors also have a large allocation to funds with performance fees. The French funds are generally more expensive than our estimates for Europe. However, they seem to be cheaper than Italian funds.

Among the Nordic countries, Norwegian investors have the highest allocation to funds with performance fees (18%). The main part of this allocation is tied to three funds from one single fund company. We estimate that more than 80% of the allocations in funds with a performance fee in Norway are invested in SKAGEN Fondene.

The question is how much of the total expenses are left out in ongoing charge. We made a comparison of total expense ratios reported for 2012 with our registered ongoing charges for funds with a performance fee. For Norwegian-domiciled funds, we found the average gap was 118 basis points. However, the asset-weighted gap was just 1.8 basis points and hence substantially lower. One reason for this huge difference can be attributed to the fact that SKAGEN Kon-Tiki underperformed in 2012.

For Italian funds, the average gap is 25 basis points and for French domiciled funds the gap was 29 basis points on average. For all of Europe, the gap was 13 basis points on average between the reported total expense ratio and ongoing charge.

Appendix 6: Retail Distribution Review RDR

The Financial Services Authority (FSA) in the U.K., which regulates the U.K. financial industry, created the Retail Distribution Review (RDR), which is a set of rules and regulations that was put in place on Dec. 31, 2012, that fundamentally changed the way the financial advice industry operates within the U.K. The rules were being put in place to ensure more transparency and fairness in the investment industry.

A part of the new rules was related to the fact that financial advisers make money through commissions. The new RDR rules stipulate that all advisers are no longer able to receive commissions from fund companies for selling new funds to clients in 2013. Taking commissions out of the equation will be a game-changer for the industry as a whole. As of 2013, all independent and restricted advisers must ensure that they have an upfront, transparent agreement with each of their clients about fees before giving financial advice. The new rules requiring an upfront agreement on client fees instead of commissions make advisers' charges more transparent for investors and ensure investors receive unbiased investment advice.

A result of these new rules is that the numbers of so-called "clean" share classes without distribution fees have increased significantly. It is not unusual that the removal of the distribution fee layer has resulted in a 50% reduction in fees to be paid out of fund assets for equity funds.

We tested how these "clean" classes affect our regression results for the U.K. First, we assigned a dummy variable to all "clean" share classes in our data set for the U.K. Next we ran our regression again for the U.K. Not surprisingly, we found our new explanatory variable was significant on a 1% level. The estimation result for a "clean" share class gives a reduction in the ongoing charge on 38 basis points. All else being equal investors can save 38 basis points by choosing a clean share class.

However, the other estimation results were also affected by including an extra explanatory variable. Hence, we recalculated the ongoing charge for hypothetical fund 1 (Table 3) with our new parameter estimates for the U.K. Instead of 1.41% in ongoing charge our new estimate is 1.49% and slightly higher for a fund with a distribution fee. For a "clean" share class we estimate the ongoing charge is 1.13% for hypothetical fund 1.

Despite a slightly higher ongoing charge for hypothetical fund 1 with a distribution fee, the U.K. keeps its rank as one of the cheapest countries. For the "clean" share class the U.K. becomes the cheapest country on ongoing charge in our analysis with a 24-basis-point margin over the Netherlands, which is now second-cheapest for this hypothetical fund.

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Appendix 7: Estimated Extra Fee in % relative to most-efficient country on ongoing charge

The tables in this appendix show how much extra investors pay in each of the countries in the analysis relative to the cheapest country for each percentile. For instance 1.14% in one country versus 1.00% in the cheapest country gives 14% in the tables below.

Hypothetical fund 1

Equity fund, Actively managed

3-year standard deviation: 17 (Global Equity Fund)

Non-institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	34%	30%	27%	25%	19%	18%	16%	16%	15%	14%	15%	36%
Finland	50%	46%	41%	38%	30%	29%	27%	27%	26%	25%	26%	49%
Norway	27%	24%	22%	21%	16%	16%	14%	15%	15%	15%	17%	41%
Sweden	40%	33%	27%	21%	12%	9%	3%	2%	1%	1%	3%	20%
Austria	74%	69%	64%	59%	51%	44%	41%	40%	39%	32%	33%	52%
Belgium	49%	46%	44%	42%	36%	36%	35%	35%	35%	35%	38%	66%
France	89%	79%	65%	55%	42%	38%	32%	27%	24%	18%	19%	29%
Germany	43%	37%	31%	27%	20%	18%	14%	12%	9%	5%	4%	6%
Ireland	42%	37%	31%	26%	18%	15%	11%	9%	5%	1%	0%	0%
Italy	66%	63%	60%	58%	51%	51%	49%	50%	50%	50%	54%	85%
Luxembourg	80%	70%	60%	52%	41%	38%	33%	32%	29%	25%	25%	31%
Netherlands	0%	0%	0%	0%	0%	0%	2%	3%	3%	5%	7%	29%
Smaller countries	93%	85%	74%	58%	38%	38%	37%	30%	28%	28%	4%	18%
Spain	83%	78%	73%	68%	59%	55%	51%	47%	43%	38%	38%	49%
United Kingdom	33%	27%	19%	12%	4%	4%	0%	0%	0%	0%	2%	23%
Nordic	40%	34%	28%	25%	17%	15%	12%	10%	9%	7%	9%	22%
Europe ex. Nordic	59%	53%	46%	41%	32%	29%	26%	24%	22%	18%	19%	24%
Europe	57%	51%	44%	40%	31%	28%	25%	23%	20%	17%	17%	22%

Hypothetical fund 2

Equity fund, Actively managed, 3-year standard deviation: 21 (Global Emerging-Markets Equity Fund)

Non-institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	26%	23%	20%	19%	17%	17%	19%	19%	18%	19%	23%	45%
Finland	48%	45%	41%	38%	36%	36%	38%	38%	37%	39%	43%	68%
Norway	14%	12%	10%	9%	9%	9%	12%	12%	12%	15%	19%	42%
Sweden	37%	31%	26%	21%	17%	15%	13%	12%	11%	13%	17%	37%
Austria	59%	55%	50%	47%	44%	39%	42%	40%	39%	35%	38%	58%
Belgium	35%	33%	31%	30%	29%	30%	33%	34%	34%	36%	41%	69%
France	70%	62%	50%	41%	34%	32%	31%	26%	23%	20%	23%	33%
Germany	28%	23%	19%	16%	13%	12%	13%	11%	8%	6%	7%	9%
Ireland	26%	21%	16%	12%	9%	7%	7%	5%	2%	0%	0%	0%
Italy	54%	51%	49%	48%	47%	48%	51%	52%	52%	55%	61%	93%
Luxembourg	62%	54%	45%	38%	34%	31%	32%	30%	28%	27%	29%	35%
Netherlands	0%	0%	0%	0%	4%	4%	9%	10%	10%	15%	19%	42%
Smaller countries	73%	66%	57%	43%	31%	31%	35%	28%	26%	29%	7%	21%
Spain	57%	53%	49%	45%	43%	40%	41%	38%	34%	32%	33%	43%
United Kingdom	21%	16%	9%	3%	0%	0%	0%	0%	0%	2%	5%	27%
Nordic	33%	27%	22%	19%	17%	16%	16%	15%	14%	14%	18%	32%
Europe ex. Nordic	42%	36%	31%	27%	23%	22%	23%	21%	19%	18%	20%	26%
Europe	41%	35%	30%	26%	23%	21%	22%	20%	18%	17%	19%	23%



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Estimated Extra Fee in % relative to most-efficient country on ongoing charge

Hypothetical fund 3

Equity fund

Actively managed

3-year standard deviation: 17 (Global Equity Fund)

Institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	7%	5%	4%	3%	4%	4%	6%	6%	6%	6%	10%	41%
Finland	49%	48%	45%	43%	43%	43%	47%	47%	47%	49%	54%	97%
Norway	0%	0%	0%	0%	1%	2%	6%	6%	7%	10%	15%	51%
Sweden	27%	21%	17%	11%	8%	5%	2%	1%	0%	2%	7%	35%
Austria	80%	78%	75%	72%	72%	65%	69%	68%	68%	61%	66%	107%
Belgium	6%	6%	6%	6%	7%	8%	11%	12%	13%	16%	22%	60%
France	79%	73%	59%	48%	42%	39%	37%	31%	28%	23%	26%	43%
Germany	22%	18%	14%	11%	10%	8%	9%	6%	3%	0%	0%	0%
Ireland	37%	34%	29%	25%	23%	20%	21%	18%	14%	12%	11%	15%
Italy	34%	34%	34%	34%	36%	37%	41%	42%	44%	47%	54%	103%
Luxembourg	41%	33%	24%	17%	13%	9%	9%	7%	4%	2%	2%	3%
Netherlands	17%	19%	21%	22%	30%	31%	39%	41%	42%	49%	56%	105%
Smaller countries	125%	120%	111%	93%	80%	81%	87%	78%	77%	81%	51%	87%
Spain	113%	112%	109%	105%	106%	102%	106%	102%	99%	96%	100%	136%
United Kingdom	21%	16%	9%	2%	0%	0%	0%	0%	1%	4%	7%	43%
Nordic	27%	23%	18%	15%	14%	13%	14%	11%	11%	11%	15%	37%
Europe ex. Nordic	35%	31%	26%	22%	20%	17%	19%	16%	14%	12%	14%	21%
Europe	34%	30%	25%	21%	19%	17%	18%	16%	14%	12%	13%	18%

Hypothetical fund 4

Equity fund

Passively managed

3-year standard deviation: 17 (Global Equity Fund)

Non-institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	161%	156%	151%	148%	145%	141%	137%	133%	128%	122%	118%	177%
Finland	227%	222%	210%	201%	195%	190%	186%	182%	178%	172%	165%	237%
Norway	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	34%
Sweden	203%	181%	163%	142%	121%	109%	84%	77%	69%	69%	67%	104%
Austria	487%	478%	466%	453%	444%	413%	407%	397%	389%	353%	343%	453%
Belgium	324%	324%	324%	324%	324%	324%	324%	324%	324%	324%	324%	470%
France	504%	477%	421%	378%	347%	329%	307%	279%	264%	232%	222%	253%
Germany	322%	305%	289%	278%	268%	258%	247%	233%	219%	198%	181%	165%
Ireland	220%	209%	189%	173%	158%	144%	130%	115%	98%	78%	60%	0%
Italy	558%	558%	558%	558%	558%	558%	558%	558%	558%	558%	558%	783%
Luxembourg	419%	389%	353%	324%	304%	285%	271%	259%	245%	227%	212%	207%
Netherlands	94%	103%	111%	116%	139%	139%	155%	156%	156%	168%	168%	266%
Smaller countries	802%	780%	744%	673%	609%	609%	609%	570%	561%	561%	425%	564%
Spain	533%	526%	516%	500%	490%	473%	459%	438%	418%	390%	374%	439%
United Kingdom	188%	169%	143%	115%	99%	98%	84%	82%	82%	82%	78%	145%
Nordic	163%	146%	129%	118%	106%	99%	87%	75%	68%	60%	55%	59%
Europe ex. Nordic	330%	314%	293%	277%	262%	250%	239%	226%	215%	199%	186%	181%
Europe	307%	291%	271%	255%	241%	229%	218%	205%	193%	176%	163%	143%



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Estimated Extra Fee in % relative to most-efficient country on ongoing charge

Hypothetical fund 5

Equity fund

Actively managed

3-year standard deviation: 17 (Global Equity Fund)

Non-institutional

Performance fee 10%

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	42%	41%	40%	40%	39%	38%	37%	38%	40%	38%	38%	40%
Finland	27%	26%	23%	21%	19%	18%	17%	18%	19%	18%	17%	18%
Norway	0%	0%	0%	0%	0%	0%	0%	1%	3%	3%	4%	8%
Sweden	27%	22%	18%	13%	9%	6%	0%	0%	0%	0%	0%	0%
Austria	85%	83%	81%	78%	76%	69%	67%	67%	69%	60%	58%	56%
Belgium	59%	59%	59%	59%	59%	59%	59%	61%	64%	64%	65%	71%
France	106%	100%	87%	77%	70%	66%	61%	57%	56%	49%	47%	38%
Germany	61%	57%	54%	51%	49%	47%	44%	43%	42%	37%	34%	18%
Ireland	61%	58%	54%	50%	47%	44%	40%	39%	37%	33%	29%	13%
Italy	82%	82%	82%	82%	82%	82%	82%	84%	88%	88%	88%	96%
Luxembourg	103%	97%	88%	82%	77%	73%	70%	69%	69%	65%	62%	47%
Netherlands	6%	9%	10%	12%	17%	17%	20%	22%	25%	28%	28%	33%
Smaller countries	105%	100%	92%	76%	62%	62%	62%	55%	56%	56%	24%	21%
Spain	95%	93%	91%	87%	85%	81%	78%	76%	74%	68%	64%	53%
United Kingdom	42%	37%	31%	25%	22%	21%	18%	19%	22%	22%	21%	27%
Nordic	26%	22%	18%	16%	13%	11%	9%	7%	8%	6%	5%	0%
Europe ex. Nordic	82%	78%	74%	70%	67%	64%	61%	61%	61%	57%	55%	42%
Europe	80%	77%	72%	68%	65%	62%	60%	59%	59%	55%	53%	39%

Hypothetical fund 6

Fixed Income fund

Actively managed

3-year standard deviation: 4 (Global Bond EUR Hdg.)

Non-institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	137%	134%	131%	128%	126%	124%	121%	118%	114%	110%	107%	133%
Finland	106%	103%	94%	89%	85%	81%	78%	76%	73%	68%	64%	80%
Norway	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%
Sweden	161%	147%	134%	120%	105%	97%	80%	75%	70%	70%	69%	85%
Austria	130%	124%	116%	107%	101%	80%	75%	68%	63%	38%	32%	29%
Belgium	150%	150%	150%	150%	150%	150%	150%	150%	150%	150%	150%	192%
France	219%	201%	162%	133%	112%	100%	84%	65%	55%	33%	26%	0%
Germany	158%	147%	135%	128%	121%	114%	107%	97%	87%	73%	62%	22%
Ireland	256%	248%	235%	224%	213%	204%	194%	184%	172%	159%	146%	119%
Italy	151%	151%	151%	151%	151%	151%	151%	151%	151%	151%	151%	193%
Luxembourg	301%	281%	256%	236%	222%	209%	199%	191%	182%	169%	159%	136%
Netherlands	64%	71%	76%	80%	95%	95%	106%	107%	107%	115%	115%	152%
Smaller countries	282%	267%	242%	193%	150%	150%	150%	123%	117%	117%	23%	20%
Spain	206%	201%	194%	183%	177%	165%	155%	141%	127%	108%	97%	72%
United Kingdom	208%	195%	177%	158%	148%	146%	137%	135%	136%	136%	133%	176%
Nordic	127%	115%	103%	95%	87%	83%	74%	66%	62%	56%	53%	49%
Europe ex. Nordic	234%	224%	209%	198%	188%	180%	173%	163%	155%	145%	136%	114%
Europe	229%	219%	205%	194%	184%	176%	168%	159%	151%	140%	131%	104%



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Estimated Extra Fee in % relative to most-efficient country on ongoing charge

Hypothetical fund 7

Fixed-Income fund

Actively managed

3-year standard deviation: 9.5 (High Yield)

Non-institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	142%	139%	137%	135%	132%	131%	128%	126%	123%	119%	117%	117%
Finland	154%	152%	144%	139%	136%	133%	131%	128%	126%	122%	118%	116%
Norway	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%
Sweden	189%	177%	166%	154%	142%	135%	120%	116%	111%	111%	110%	108%
Austria	128%	123%	116%	108%	103%	85%	82%	76%	71%	50%	45%	30%
Belgium	136%	136%	136%	136%	136%	136%	136%	136%	136%	136%	136%	143%
France	196%	180%	147%	123%	104%	94%	81%	65%	56%	37%	32%	0%
Germany	138%	128%	119%	112%	107%	100%	95%	86%	78%	66%	56%	10%
Ireland	211%	204%	193%	184%	175%	167%	158%	150%	140%	128%	117%	73%
Italy	156%	156%	156%	156%	156%	156%	156%	156%	156%	156%	156%	164%
Luxembourg	264%	247%	226%	209%	197%	186%	178%	171%	163%	152%	144%	101%
Netherlands	96%	101%	106%	109%	122%	122%	131%	132%	132%	139%	139%	146%
Smaller countries	247%	234%	213%	171%	134%	134%	134%	112%	107%	107%	27%	13%
Spain	151%	148%	142%	132%	127%	117%	109%	96%	85%	69%	59%	21%
United Kingdom	185%	174%	158%	143%	133%	132%	125%	123%	123%	123%	121%	130%
Nordic	138%	128%	119%	112%	105%	101%	94%	87%	83%	78%	76%	59%
Europe ex. Nordic	199%	190%	178%	168%	160%	153%	147%	139%	132%	123%	116%	76%
Europe	196%	187%	175%	166%	157%	150%	144%	136%	130%	120%	112%	69%

Hypothetical fund 8

Allocation fund

Actively managed

Fund of funds

3-year standard deviation: 4.6 (Cautious)

Non-institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	35%	31%	26%	24%	16%	15%	9%	8%	7%	2%	1%	1%
Finland	55%	50%	43%	39%	29%	27%	22%	20%	19%	14%	13%	13%
Norway	36%	32%	29%	27%	20%	20%	15%	15%	15%	12%	12%	15%
Sweden	87%	76%	67%	59%	44%	41%	30%	27%	25%	22%	22%	21%
Austria	129%	121%	113%	106%	92%	84%	75%	72%	70%	57%	55%	52%
Belgium	87%	82%	78%	75%	65%	65%	59%	58%	58%	54%	54%	58%
France	154%	140%	119%	105%	85%	80%	68%	60%	57%	45%	42%	32%
Germany	162%	151%	141%	135%	119%	116%	105%	100%	97%	86%	83%	67%
Ireland	191%	180%	168%	160%	141%	137%	125%	120%	116%	105%	101%	86%
Italy	103%	98%	94%	91%	80%	80%	73%	72%	72%	67%	67%	72%
Luxembourg	164%	148%	133%	122%	104%	99%	88%	84%	81%	71%	68%	52%
Netherlands	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%
Smaller countries	136%	124%	109%	86%	59%	59%	53%	43%	41%	37%	4%	0%
Spain	103%	96%	89%	82%	69%	64%	55%	49%	44%	33%	29%	15%
United Kingdom	116%	105%	93%	83%	68%	68%	58%	57%	57%	52%	51%	57%
Nordic	63%	53%	45%	40%	29%	27%	19%	16%	14%	9%	8%	2%
Europe ex. Nordic	130%	120%	109%	102%	86%	83%	73%	70%	67%	58%	55%	41%
Europe	126%	115%	105%	98%	83%	79%	70%	66%	63%	55%	51%	36%



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Expenses in Nordic Investment Funds in a European Context

October 2013

Estimated Extra Fee in % relative to most-efficient country on ongoing charge

Hypothetical fund 9

Allocation fund

Actively managed

Fund of funds

3-year standard deviation: 7.7 (Moderate Risk)

Non-institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	27%	23%	19%	17%	10%	10%	5%	4%	3%	0%	1%	5%
Finland	53%	48%	42%	39%	30%	29%	24%	23%	22%	19%	20%	25%
Norway	21%	18%	16%	14%	9%	8%	5%	5%	5%	3%	5%	13%
Sweden	78%	68%	61%	54%	41%	38%	28%	26%	25%	23%	25%	30%
Austria	106%	99%	93%	87%	76%	69%	62%	59%	57%	47%	48%	51%
Belgium	67%	63%	60%	58%	50%	50%	45%	45%	45%	43%	45%	56%
France	126%	114%	96%	84%	68%	63%	53%	47%	43%	35%	35%	31%
Germany	131%	122%	114%	109%	96%	93%	85%	81%	78%	71%	71%	63%
Ireland	153%	145%	135%	129%	114%	110%	100%	96%	93%	86%	85%	79%
Italy	86%	82%	78%	76%	67%	67%	62%	61%	61%	59%	62%	73%
Luxembourg	134%	121%	108%	99%	84%	80%	71%	67%	64%	58%	58%	50%
Netherlands	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	10%
Smaller countries	109%	99%	87%	67%	45%	45%	40%	31%	29%	27%	0%	0%
Spain	73%	68%	62%	56%	46%	42%	35%	29%	25%	18%	16%	8%
United Kingdom	92%	83%	73%	65%	53%	52%	44%	43%	43%	41%	43%	54%
Nordic	52%	44%	37%	33%	23%	22%	15%	12%	11%	7%	8%	7%
Europe ex. Nordic	102%	94%	85%	79%	67%	64%	56%	53%	50%	45%	45%	37%
Europe	99%	91%	82%	76%	64%	61%	53%	50%	47%	42%	42%	33%

Hypothetical fund 10

Allocation fund

Actively managed

3-year standard deviation: 10.8 (Aggressive)

Non-institutional

No performance fee

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	20%	17%	17%	20%	22%	27%	30%	36%	42%	52%	58%	100%
Finland	52%	47%	46%	49%	51%	56%	61%	69%	77%	89%	97%	149%
Norway	10%	7%	8%	12%	15%	20%	23%	30%	38%	49%	57%	103%
Sweden	15%	8%	5%	4%	2%	3%	0%	4%	8%	17%	22%	52%
Austria	48%	43%	42%	44%	46%	44%	47%	53%	59%	62%	67%	103%
Belgium	52%	49%	51%	56%	59%	66%	72%	81%	91%	107%	118%	182%
France	68%	59%	48%	44%	40%	41%	40%	41%	45%	47%	51%	72%
Germany	46%	40%	37%	40%	41%	44%	46%	51%	55%	62%	65%	79%
Ireland	43%	38%	34%	36%	35%	38%	39%	42%	46%	52%	54%	64%
Italy	43%	41%	42%	47%	50%	56%	62%	71%	80%	95%	105%	165%
Luxembourg	77%	67%	61%	60%	59%	61%	63%	69%	75%	83%	88%	110%
Netherlands	0%	0%	3%	7%	15%	20%	28%	35%	43%	58%	66%	115%
Smaller countries	89%	80%	74%	64%	53%	60%	65%	64%	71%	85%	52%	84%
Spain	5%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
United Kingdom	38%	31%	27%	25%	24%	29%	30%	37%	44%	56%	63%	113%
Nordic	32%	26%	23%	25%	25%	28%	30%	34%	39%	48%	55%	85%
Europe ex. Nordic	38%	32%	28%	29%	29%	31%	33%	37%	41%	48%	52%	65%
Europe	38%	32%	28%	29%	29%	31%	33%	37%	41%	48%	52%	63%



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Appendix 8: The 10 hypothetical funds

The next 10 pages relates to our 10 hypothetical funds mentioned in the analysis. Each hypothetical fund has its own fact sheet highlighting results from our regression and includes:

Appendix Table 1: Estimated Ongoing Charges – Overview: Shows the estimated fees in nominal value for a EUR 100,000 investment and an estimate of ongoing charge in percentage. For these two columns, a median size fund/fund company (based on domicile) is assumed. The remaining columns in this table show the estimated savings in ongoing charge by moving from lower percentiles (smaller funds/fund companies) to larger percentiles (larger funds/fund companies).

Appendix Graph 1: Estimated Ongoing Charges %: A ranking of the estimated ongoing charges from Column 3 in Table 1. Group averages are marked with gray.

Appendix Graph 2: Estimated Economies of Scale among European Countries: A ranking of the estimated savings in ongoing charge in percentage by moving from percentile 5 to 95 (Column 8 in Table 1). Group averages are to the right.

Appendix Table 2: Estimated Annual Ongoing Charge for a EUR 100,000 Investment – Based on percentiles of size: Estimate of annual ongoing charge in euro for 12 different percentiles. The table is an illustration of the economies of scale in each country.

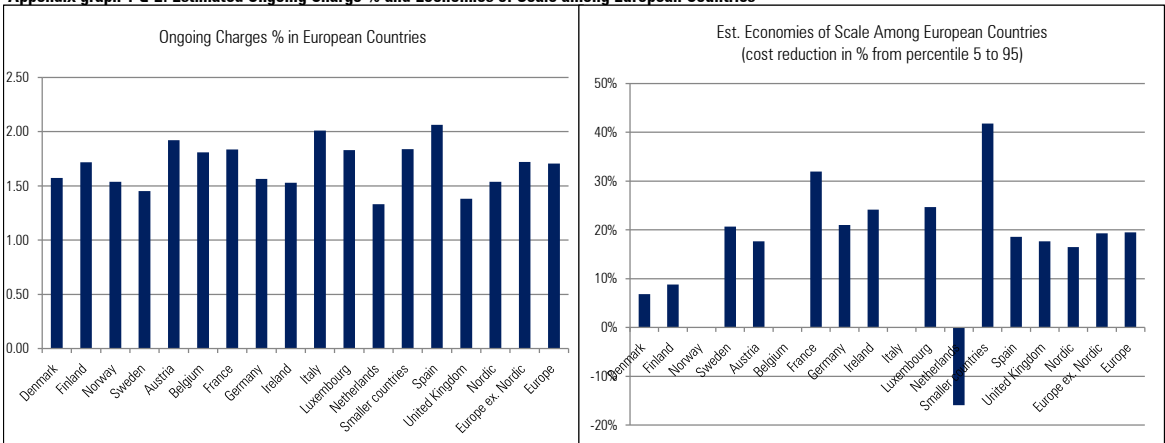
Appendix Table 3: Estimated Ongoing Charge Rank – Based on percentiles of size: A ranking of the results from Table 2.

Hypothetical fund 1 Equity fund Actively managed 3 yrs. standard deviation: 17 (Global Equity Fund)
 Non-institutional No performance fee

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	1,573	1.57	1%	3%	4%	5%	7%	6%	4%	1%	3%	4%
Finland	1,718	1.72	3%	5%	6%	7%	9%	7%	5%	1%	5%	4%
Norway	1,538	1.54	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	1,452	1.45	6%	13%	18%	21%	21%	18%	15%	6%	14%	7%
Austria	1,921	1.92	3%	5%	10%	12%	18%	16%	10%	5%	9%	9%
Belgium	1,811	1.81	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	1,837	1.84	9%	18%	22%	27%	32%	29%	20%	6%	20%	15%
Germany	1,566	1.57	5%	8%	11%	15%	21%	17%	11%	3%	10%	13%
Ireland	1,530	1.53	5%	9%	14%	18%	24%	20%	14%	5%	11%	14%
Italy	2,010	2.01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	1,831	1.83	8%	14%	18%	21%	25%	20%	14%	5%	16%	10%
Netherlands	1,331	1.33	-4%	-10%	-13%	-13%	-16%	-14%	-9%	-3%	-10%	-6%
Smaller countries	1,840	1.84	6%	21%	21%	27%	42%	25%	22%	0%	21%	26%
Spain	2,063	2.06	2%	5%	9%	13%	19%	16%	12%	4%	7%	12%
United Kingdom	1,380	1.38	7%	14%	17%	17%	18%	14%	11%	3%	15%	4%
Nordic	1,537	1.54	5%	9%	12%	14%	16%	13%	10%	3%	10%	7%
Europe ex. Nordic	1,721	1.72	5%	9%	12%	15%	19%	16%	11%	3%	11%	10%
Europe	1,707	1.71	5%	9%	12%	15%	20%	16%	11%	3%	11%	10%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	1,623	1,611	1,599	1,590	1,581	1,573	1,562	1,551	1,537	1,522	1,512	1,482
Finland	1,815	1,803	1,769	1,748	1,732	1,718	1,709	1,699	1,688	1,671	1,655	1,617
Norway	1,538	1,538	1,538	1,538	1,538	1,538	1,538	1,538	1,538	1,538	1,538	1,538
Sweden	1,696	1,640	1,593	1,539	1,483	1,452	1,388	1,369	1,348	1,348	1,345	1,306
Austria	2,111	2,087	2,058	2,023	2,001	1,921	1,904	1,879	1,859	1,763	1,739	1,657
Belgium	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811
France	2,290	2,219	2,075	1,964	1,883	1,837	1,778	1,707	1,668	1,585	1,559	1,405
Germany	1,731	1,690	1,647	1,619	1,592	1,566	1,539	1,501	1,464	1,410	1,368	1,150
Ireland	1,725	1,697	1,646	1,605	1,565	1,530	1,492	1,454	1,410	1,357	1,309	1,089
Italy	2,010	2,010	2,010	2,010	2,010	2,010	2,010	2,010	2,010	2,010	2,010	2,010
Luxembourg	2,179	2,102	2,008	1,933	1,880	1,831	1,795	1,764	1,728	1,680	1,641	1,426
Netherlands	1,213	1,237	1,258	1,271	1,329	1,331	1,371	1,375	1,375	1,406	1,406	1,406
Smaller countries	2,340	2,283	2,191	2,005	1,840	1,840	1,840	1,739	1,715	1,715	1,362	1,283
Spain	2,218	2,200	2,174	2,133	2,108	2,063	2,028	1,972	1,921	1,849	1,806	1,619
United Kingdom	1,615	1,566	1,497	1,426	1,385	1,380	1,346	1,339	1,340	1,340	1,330	1,342
Nordic	1,703	1,659	1,615	1,585	1,554	1,537	1,504	1,475	1,457	1,436	1,423	1,328
Europe ex. Nordic	1,928	1,887	1,831	1,790	1,752	1,721	1,693	1,659	1,629	1,588	1,556	1,355
Europe	1,909	1,869	1,816	1,775	1,738	1,707	1,678	1,645	1,614	1,570	1,537	1,324

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

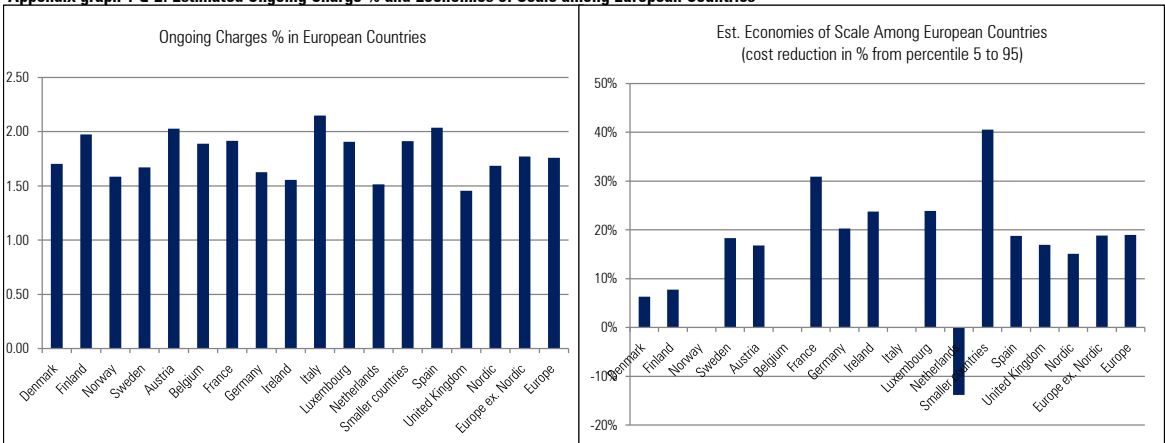
Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	4	4	5	6	7	8	8	8	7	7	8	12
Finland	10	9	9	9	9	10	11	11	12	12	14	14
Norway	2	2	3	3	4	6	6	7	8	8	10	13
Sweden	5	5	4	4	3	3	3	2	2	2	3	4
Austria	14	14	15	17	16	16	16	16	15	15	15	16
Belgium	9	10	10	12	12	12	14	15	15	16	17	17
France	17	17	16	14	15	14	12	12	11	10	12	9
Germany	8	7	8	8	8	7	7	6	6	5	5	2
Ireland	7	8	7	7	6	4	4	4	4	3	1	1
Italy	13	13	14	16	17	17	17	18	18	18	18	18
Luxembourg	15	15	13	13	14	13	13	14	14	13	13	11
Netherlands	1	1	1	1	1	1	2	3	3	4	6	10
Smaller countries	18	18	18	15	13	15	15	13	13	14	4	3
Spain	16	16	17	18	18	18	18	17	17	17	16	15
United Kingdom	3	3	2	2	2	2	1	1	1	1	2	7
Nordic	6	6	6	5	5	5	5	5	5	6	7	6
Europe ex. Nordic	12	12	12	11	11	11	10	10	10	11	11	8
Europe	11	11	11	10	10	9	9	9	9	9	9	5

Hypothetical fund 2 Equity fund Actively managed 3 yrs. standard deviation: 21 (Global Emerging Market Equity Fund)
 Non-institutional No performance fee

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	1,704	1.70	1%	2%	3%	5%	6%	5%	4%	1%	3%	4%
Finland	1,974	1.97	2%	4%	5%	6%	8%	6%	4%	1%	5%	3%
Norway	1,587	1.59	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	1,670	1.67	5%	11%	16%	18%	18%	16%	14%	6%	13%	6%
Austria	2,027	2.03	2%	5%	9%	11%	17%	15%	9%	5%	9%	9%
Belgium	1,889	1.89	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	1,916	1.92	9%	17%	22%	26%	31%	28%	19%	5%	19%	15%
Germany	1,626	1.63	5%	8%	11%	15%	20%	16%	11%	3%	9%	12%
Ireland	1,557	1.56	5%	9%	13%	18%	24%	20%	14%	5%	11%	14%
Italy	2,150	2.15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	1,908	1.91	8%	13%	17%	20%	24%	19%	13%	4%	15%	10%
Netherlands	1,513	1.51	-3%	-8%	-11%	-12%	-14%	-12%	-8%	-3%	-8%	-5%
Smaller countries	1,912	1.91	6%	21%	21%	26%	41%	24%	21%	0%	21%	25%
Spain	2,036	2.04	2%	5%	9%	14%	19%	16%	12%	4%	7%	13%
United Kingdom	1,454	1.45	7%	14%	16%	16%	17%	14%	10%	3%	14%	3%
Nordic	1,686	1.69	5%	8%	11%	13%	15%	12%	9%	3%	9%	7%
Europe ex. Nordic	1,770	1.77	5%	9%	12%	15%	19%	15%	11%	3%	10%	9%
Europe	1,759	1.76	5%	9%	12%	15%	19%	16%	11%	3%	10%	10%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	1,754	1,742	1,731	1,722	1,713	1,704	1,694	1,683	1,669	1,654	1,643	1,614
Finland	2,071	2,058	2,025	2,004	1,988	1,974	1,965	1,954	1,944	1,927	1,911	1,873
Norway	1,587	1,587	1,587	1,587	1,587	1,587	1,587	1,587	1,587	1,587	1,587	1,587
Sweden	1,914	1,858	1,810	1,756	1,701	1,670	1,606	1,587	1,566	1,566	1,563	1,523
Austria	2,218	2,193	2,165	2,129	2,107	2,027	2,010	1,985	1,965	1,869	1,845	1,764
Belgium	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889
France	2,369	2,298	2,154	2,043	1,962	1,916	1,857	1,786	1,747	1,664	1,638	1,484
Germany	1,792	1,750	1,708	1,680	1,653	1,626	1,600	1,562	1,525	1,471	1,428	1,211
Ireland	1,752	1,724	1,673	1,632	1,592	1,557	1,519	1,481	1,437	1,384	1,336	1,116
Italy	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150
Luxembourg	2,256	2,179	2,085	2,010	1,957	1,908	1,872	1,841	1,805	1,757	1,718	1,503
Netherlands	1,395	1,419	1,440	1,453	1,512	1,513	1,553	1,557	1,557	1,588	1,588	1,588
Smaller countries	2,413	2,356	2,263	2,077	1,912	1,912	1,912	1,811	1,788	1,788	1,434	1,355
Spain	2,191	2,174	2,148	2,107	2,081	2,036	2,002	1,946	1,895	1,823	1,780	1,593
United Kingdom	1,690	1,640	1,572	1,501	1,459	1,454	1,421	1,413	1,414	1,415	1,404	1,416
Nordic	1,852	1,807	1,763	1,734	1,702	1,686	1,653	1,623	1,606	1,585	1,572	1,476
Europe ex. Nordic	1,977	1,936	1,880	1,839	1,801	1,770	1,742	1,708	1,678	1,636	1,605	1,404
Europe	1,962	1,922	1,868	1,828	1,790	1,759	1,731	1,697	1,666	1,622	1,589	1,376

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

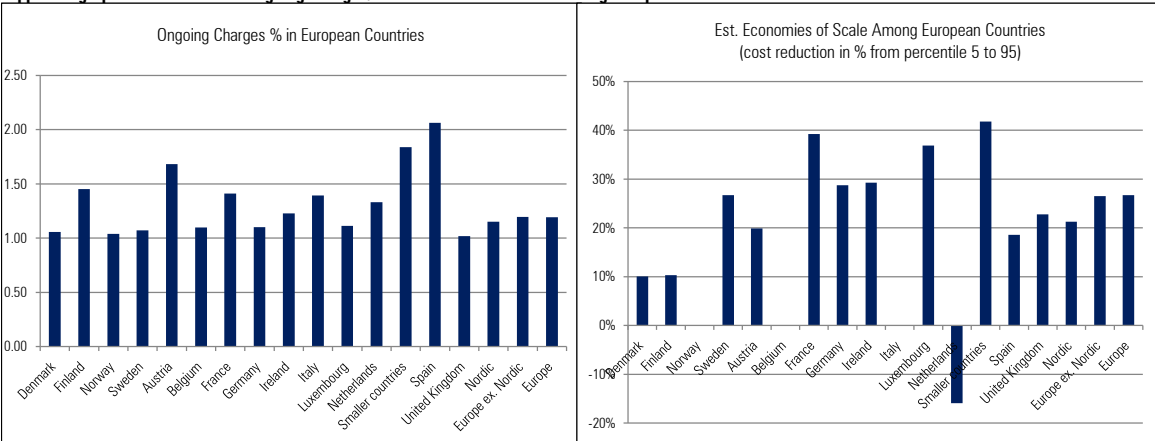
Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	5	5	6	6	8	8	8	8	9	10	12	14
Finland	12	12	12	12	15	15	15	16	16	17	17	16
Norway	2	2	3	3	3	4	4	5	6	6	7	11
Sweden	9	8	8	8	6	6	6	6	5	4	5	10
Austria	15	16	17	17	17	16	17	17	15	15	15	15
Belgium	8	9	11	11	11	11	13	14	14	16	16	17
France	17	17	16	14	14	14	11	11	11	11	11	8
Germany	6	6	5	5	5	5	5	4	3	3	3	2
Ireland	4	4	4	4	4	3	2	2	2	1	1	1
Italy	13	13	15	18	18	18	18	18	18	18	18	18
Luxembourg	16	15	13	13	13	12	12	13	13	12	13	9
Netherlands	1	1	1	1	2	2	3	3	4	7	8	12
Smaller countries	18	18	18	15	12	13	14	12	12	13	4	3
Spain	14	14	14	16	16	17	16	15	15	14	14	13
United Kingdom	3	3	2	2	1	1	1	1	1	2	2	6
Nordic	7	7	7	7	7	7	7	7	7	5	6	7
Europe ex. Nordic	11	11	10	10	10	10	10	10	10	9	10	5
Europe	10	10	9	9	9	9	9	9	8	8	9	4

Hypothetical fund 3 Equity fund Actively managed 3 yrs. standard deviation: 17 (Global Equity Fund)
 Institutional No performance fee

Appendix table 1: Estimated Ongoing Charges - Overview **Estimated Economies of Scale Moving From Smaller to Larger Percentiles**

Country	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	1,058	1.06	2%	4%	5%	8%	10%	8%	6%	2%	5%	6%
Finland	1,453	1.45	3%	5%	7%	8%	10%	9%	5%	2%	6%	4%
Norway	1,039	1.04	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	1,072	1.07	8%	16%	23%	26%	27%	23%	20%	9%	19%	10%
Austria	1,684	1.68	3%	6%	11%	13%	20%	18%	11%	6%	10%	11%
Belgium	1,097	1.10	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	1,412	1.41	12%	22%	27%	33%	39%	35%	25%	7%	24%	20%
Germany	1,101	1.10	7%	11%	15%	21%	29%	23%	15%	5%	13%	18%
Ireland	1,227	1.23	6%	11%	16%	22%	29%	24%	18%	6%	14%	18%
Italy	1,393	1.39	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	1,113	1.11	12%	21%	26%	31%	37%	31%	22%	7%	24%	17%
Netherlands	1,331	1.33	-4%	-10%	-13%	-13%	-16%	-14%	-9%	-3%	-10%	-6%
Smaller countries	1,840	1.84	6%	21%	21%	27%	42%	25%	22%	0%	21%	26%
Spain	2,063	2.06	2%	5%	9%	13%	19%	16%	12%	4%	7%	12%
United Kingdom	1,019	1.02	9%	18%	21%	22%	23%	19%	14%	4%	19%	5%
Nordic	1,152	1.15	7%	11%	15%	19%	21%	17%	13%	4%	13%	10%
Europe ex. Nordic	1,196	1.20	7%	13%	17%	21%	27%	22%	15%	5%	15%	14%
Europe	1,192	1.19	7%	12%	17%	21%	27%	22%	16%	5%	15%	14%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	1,108	1,096	1,084	1,075	1,066	1,058	1,047	1,036	1,022	1,007	996	967
Finland	1,550	1,537	1,504	1,483	1,467	1,453	1,444	1,434	1,423	1,406	1,390	1,352
Norway	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039
Sweden	1,315	1,260	1,212	1,158	1,103	1,072	1,008	989	968	968	965	925
Austria	1,874	1,850	1,821	1,785	1,764	1,684	1,667	1,641	1,621	1,525	1,501	1,420
Belgium	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097
France	1,865	1,794	1,650	1,539	1,458	1,412	1,353	1,282	1,243	1,160	1,134	980
Germany	1,267	1,225	1,183	1,155	1,128	1,101	1,075	1,037	1,000	946	903	686
Ireland	1,423	1,394	1,344	1,303	1,263	1,227	1,190	1,152	1,107	1,055	1,007	786
Italy	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393
Luxembourg	1,461	1,384	1,289	1,214	1,161	1,113	1,077	1,046	1,010	962	923	708
Netherlands	1,213	1,237	1,258	1,271	1,329	1,331	1,371	1,375	1,375	1,406	1,406	1,406
Smaller countries	2,340	2,283	2,191	2,005	1,840	1,840	1,840	1,739	1,715	1,715	1,362	1,283
Spain	2,218	2,200	2,174	2,133	2,108	2,063	2,028	1,972	1,921	1,849	1,806	1,619
United Kingdom	1,254	1,205	1,136	1,065	1,024	1,019	985	978	979	979	968	981
Nordic	1,318	1,274	1,230	1,200	1,168	1,152	1,119	1,090	1,072	1,051	1,038	943
Europe ex. Nordic	1,402	1,361	1,306	1,264	1,227	1,196	1,168	1,134	1,103	1,062	1,030	830
Europe	1,394	1,354	1,301	1,260	1,222	1,192	1,163	1,130	1,099	1,055	1,022	809

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

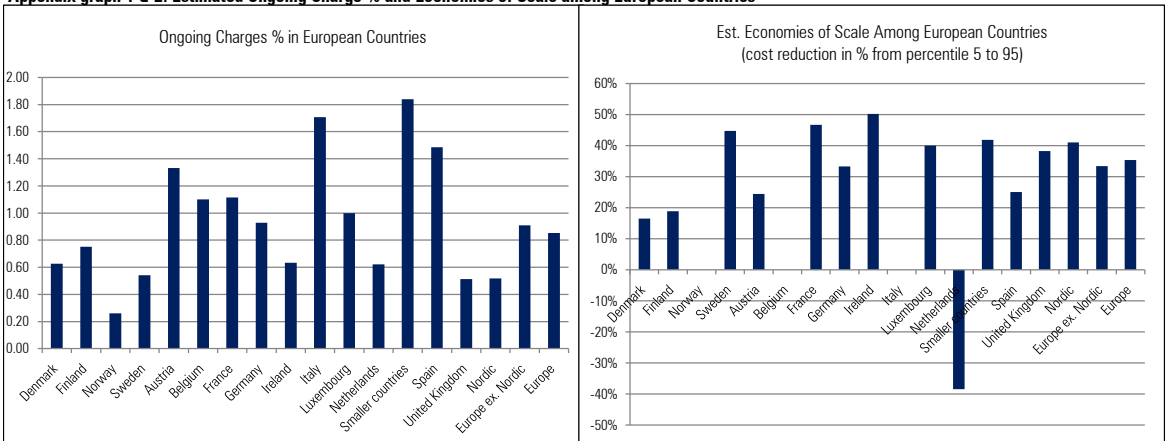
Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	3	2	2	3	3	3	4	3	5	5	5	8
Finland	14	14	14	14	15	15	15	15	15	14	14	14
Norway	1	1	1	1	2	2	3	5	6	6	10	11
Sweden	7	7	6	6	5	4	2	2	1	3	3	6
Austria	16	16	16	16	16	16	16	16	16	16	17	17
Belgium	2	3	3	4	4	5	7	8	8	11	11	12
France	15	15	15	15	14	14	12	12	12	12	12	9
Germany	6	5	5	5	6	6	5	4	3	1	1	1
Ireland	12	13	12	12	11	11	11	11	11	9	6	3
Italy	9	12	13	13	13	13	14	14	14	13	15	15
Luxembourg	13	11	9	8	7	7	6	6	4	2	2	2
Netherlands	4	6	8	11	12	12	13	13	13	15	16	16
Smaller countries	18	18	18	17	17	17	17	17	17	17	13	13
Spain	17	17	17	18	18	18	18	18	18	18	18	18
United Kingdom	5	4	4	2	1	1	1	1	2	4	4	10
Nordic	8	8	7	7	8	8	8	7	7	7	9	7
Europe ex. Nordic	11	10	11	10	10	10	10	10	10	10	8	5
Europe	10	9	10	9	9	9	9	9	9	8	7	4

Hypothetical fund 4 Equity fund Passive managed 3 yrs. standard deviation: 17 (Global Equity Fund)
 Non-Institutional No performance fee

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	626	0.63	3%	6%	9%	13%	16%	13%	9%	3%	7%	10%
Finland	752	0.75	5%	10%	12%	15%	19%	16%	10%	3%	11%	8%
Norway	259	0.26	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	542	0.54	13%	27%	39%	44%	45%	40%	36%	17%	31%	20%
Austria	1,332	1.33	3%	7%	14%	17%	24%	22%	14%	7%	12%	14%
Belgium	1,101	1.10	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	1,114	1.11	14%	26%	33%	40%	47%	42%	30%	9%	29%	25%
Germany	928	0.93	8%	13%	18%	24%	33%	27%	18%	6%	15%	21%
Ireland	634	0.63	10%	19%	28%	38%	50%	42%	32%	11%	24%	35%
Italy	1,706	1.71	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	998	1.00	13%	22%	29%	34%	40%	33%	24%	8%	26%	19%
Netherlands	621	0.62	-9%	-23%	-31%	-32%	-38%	-32%	-21%	-7%	-24%	-12%
Smaller countries	1,840	1.84	6%	21%	21%	27%	42%	25%	22%	0%	21%	26%
Spain	1,486	1.49	3%	7%	12%	18%	25%	22%	16%	5%	9%	17%
United Kingdom	513	0.51	16%	31%	36%	37%	38%	32%	25%	8%	31%	10%
Nordic	517	0.52	13%	22%	29%	36%	41%	35%	26%	9%	24%	22%
Europe ex. Nordic	909	0.91	9%	16%	21%	27%	33%	28%	20%	6%	19%	18%
Europe	853	0.85	9%	16%	22%	28%	35%	29%	21%	7%	19%	20%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	676	664	652	644	635	626	615	604	591	575	565	535
Finland	849	836	803	782	766	752	743	733	722	705	689	651
Norway	259	259	259	259	259	259	259	259	259	259	259	259
Sweden	785	730	682	628	573	542	478	459	438	438	435	395
Austria	1,522	1,498	1,470	1,434	1,412	1,332	1,315	1,290	1,270	1,174	1,150	1,069
Belgium	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101
France	1,568	1,496	1,352	1,241	1,160	1,114	1,056	984	945	862	836	683
Germany	1,094	1,052	1,009	981	955	928	902	863	827	772	730	513
Ireland	830	801	751	710	670	634	596	558	514	462	414	193
Italy	1,706	1,706	1,706	1,706	1,706	1,706	1,706	1,706	1,706	1,706	1,706	1,706
Luxembourg	1,347	1,269	1,175	1,100	1,047	998	962	931	895	847	808	593
Netherlands	503	527	548	561	620	621	661	665	665	696	696	696
Smaller countries	2,340	2,283	2,191	2,005	1,840	1,840	1,840	1,739	1,715	1,715	1,362	1,283
Spain	1,641	1,624	1,598	1,556	1,531	1,486	1,451	1,396	1,344	1,272	1,230	1,042
United Kingdom	748	698	630	559	518	513	479	471	472	473	462	474
Nordic	683	639	595	565	534	517	484	455	437	416	403	308
Europe ex. Nordic	1,115	1,074	1,018	977	939	909	881	847	816	775	743	543
Europe	1,055	1,015	962	922	884	853	824	791	760	716	683	470

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

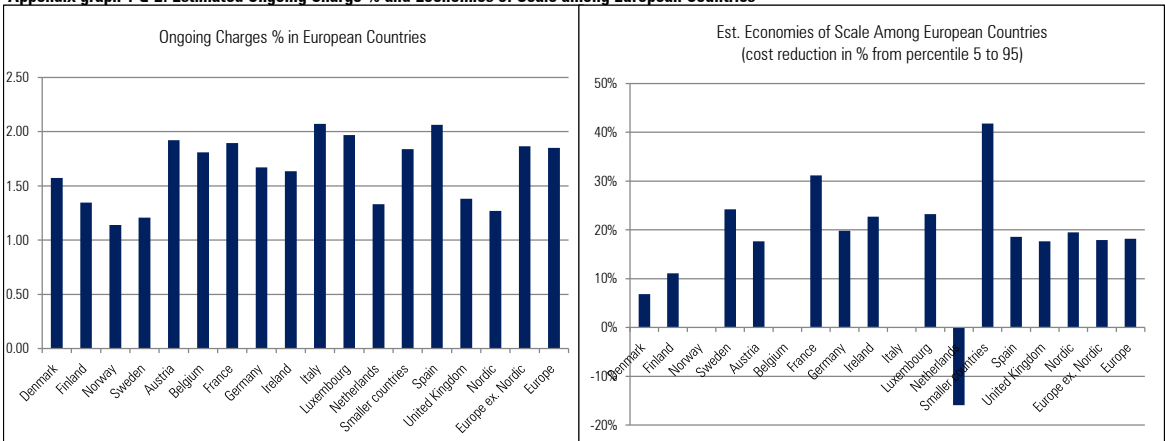
Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	3	4	5	6	6	6	6	6	6	6	6	8
Finland	8	8	8	8	8	8	8	8	8	8	8	11
Norway	1	1	1	1	1	1	1	1	1	1	1	2
Sweden	6	6	6	5	4	4	2	3	3	3	4	4
Austria	14	15	15	15	15	15	15	15	15	15	15	15
Belgium	11	12	12	13	13	13	14	14	14	14	14	16
France	15	14	14	14	14	14	13	13	13	13	13	12
Germany	10	10	10	11	11	11	11	11	11	10	10	7
Ireland	7	7	7	7	7	7	5	5	5	4	3	1
Italy	17	17	17	17	17	17	17	17	17	17	18	18
Luxembourg	13	13	13	12	12	12	12	12	12	12	12	10
Netherlands	2	2	2	3	5	5	7	7	7	7	9	13
Smaller countries	18	18	18	18	18	18	18	18	18	18	17	17
Spain	16	16	16	16	16	16	16	16	16	16	16	14
United Kingdom	5	5	4	2	2	2	3	4	4	5	5	6
Nordic	4	3	3	4	3	3	4	2	2	2	2	3
Europe ex. Nordic	12	11	11	10	10	10	10	10	10	11	11	9
Europe	9	9	9	9	9	9	9	9	9	9	7	5

Hypothetical fund 5 Equity fund Actively managed 3 yrs. standard deviation: 17 (Global Equity Fund)
 Non-Institutional 10% Performance fee

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	1,573	1.57	1%	3%	4%	5%	7%	6%	4%	1%	3%	4%
Finland	1,346	1.35	3%	6%	7%	9%	11%	9%	6%	2%	7%	5%
Norway	1,139	1.14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	1,206	1.21	7%	15%	21%	24%	24%	21%	18%	8%	17%	9%
Austria	1,921	1.92	3%	5%	10%	12%	18%	16%	10%	5%	9%	9%
Belgium	1,811	1.81	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	1,894	1.89	9%	17%	22%	27%	31%	28%	19%	5%	19%	15%
Germany	1,670	1.67	5%	8%	10%	15%	20%	16%	10%	3%	9%	12%
Ireland	1,635	1.63	4%	9%	13%	17%	23%	19%	14%	4%	11%	13%
Italy	2,071	2.07	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	1,968	1.97	7%	13%	17%	19%	23%	19%	13%	4%	15%	10%
Netherlands	1,331	1.33	-4%	-10%	-13%	-13%	-16%	-14%	-9%	-3%	-10%	-6%
Smaller countries	1,840	1.84	6%	21%	21%	27%	42%	25%	22%	0%	21%	26%
Spain	2,063	2.06	2%	5%	9%	13%	19%	16%	12%	4%	7%	12%
United Kingdom	1,380	1.38	7%	14%	17%	17%	18%	14%	11%	3%	15%	4%
Nordic	1,269	1.27	6%	10%	14%	17%	20%	16%	12%	4%	12%	9%
Europe ex. Nordic	1,867	1.87	5%	8%	11%	14%	18%	15%	10%	3%	10%	9%
Europe	1,850	1.85	5%	8%	11%	14%	18%	15%	10%	3%	10%	9%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	1,623	1,611	1,599	1,590	1,581	1,573	1,562	1,551	1,537	1,522	1,512	1,482
Finland	1,443	1,431	1,397	1,376	1,360	1,346	1,337	1,327	1,316	1,299	1,283	1,245
Norway	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139
Sweden	1,450	1,394	1,347	1,293	1,237	1,206	1,142	1,123	1,102	1,102	1,099	1,059
Austria	2,111	2,087	2,058	2,023	2,001	1,921	1,904	1,879	1,859	1,763	1,739	1,657
Belgium	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811	1,811
France	2,347	2,276	2,132	2,021	1,939	1,894	1,835	1,764	1,724	1,642	1,616	1,462
Germany	1,835	1,794	1,751	1,723	1,696	1,670	1,643	1,605	1,568	1,514	1,472	1,254
Ireland	1,831	1,802	1,751	1,710	1,670	1,635	1,597	1,559	1,515	1,463	1,415	1,194
Italy	2,071	2,071	2,071	2,071	2,071	2,071	2,071	2,071	2,071	2,071	2,071	2,071
Luxembourg	2,316	2,239	2,144	2,069	2,016	1,968	1,931	1,901	1,865	1,816	1,778	1,563
Netherlands	1,213	1,237	1,258	1,271	1,329	1,331	1,371	1,375	1,375	1,406	1,406	1,406
Smaller countries	2,340	2,283	2,191	2,005	1,840	1,840	1,840	1,739	1,715	1,715	1,362	1,283
Spain	2,218	2,200	2,174	2,133	2,108	2,063	2,028	1,972	1,921	1,849	1,806	1,619
United Kingdom	1,615	1,566	1,497	1,426	1,385	1,380	1,346	1,339	1,340	1,340	1,330	1,342
Nordic	1,435	1,391	1,347	1,318	1,286	1,269	1,236	1,207	1,190	1,168	1,155	1,060
Europe ex. Nordic	2,073	2,032	1,976	1,935	1,897	1,867	1,839	1,805	1,774	1,733	1,701	1,501
Europe	2,053	2,013	1,959	1,919	1,881	1,850	1,822	1,788	1,758	1,713	1,680	1,468

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

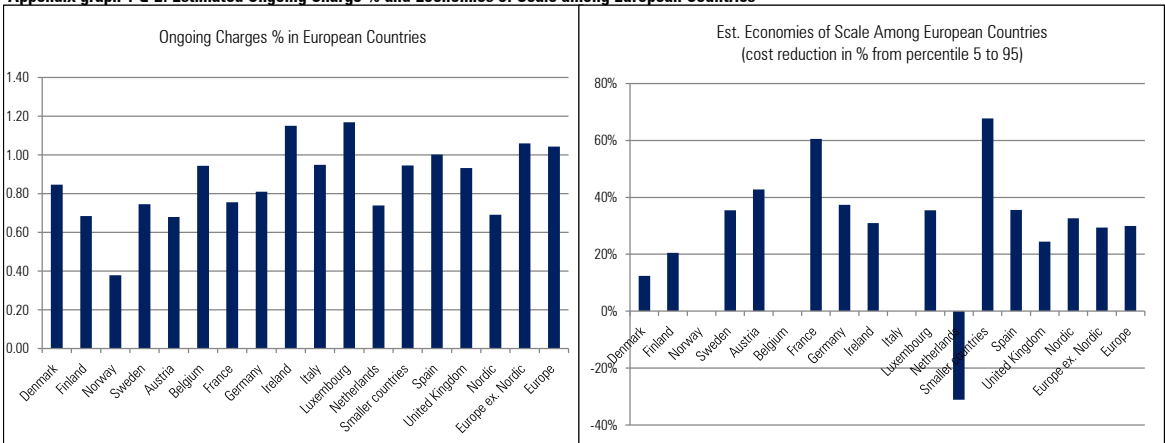
Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	7	7	7	7	7	7	7	7	8	9	10	12
Finland	4	5	5	5	5	5	4	4	4	4	4	5
Norway	1	1	1	1	1	1	1	2	2	2	2	3
Sweden	5	4	3	3	2	2	2	1	1	1	1	1
Austria	14	14	13	15	15	15	15	15	15	14	14	16
Belgium	8	10	10	10	10	10	10	14	14	15	17	17
France	18	17	15	14	14	14	12	11	11	10	11	10
Germany	10	8	8	9	9	9	9	9	9	8	9	6
Ireland	9	9	9	8	8	8	8	8	7	7	8	4
Italy	12	13	14	17	17	18	18	18	18	18	18	18
Luxembourg	16	16	16	16	16	16	16	16	16	16	15	14
Netherlands	2	2	2	2	4	4	6	6	6	6	7	9
Smaller countries	17	18	18	13	11	11	14	10	10	12	6	7
Spain	15	15	17	18	18	17	17	17	17	17	16	15
United Kingdom	6	6	6	6	6	6	5	5	5	5	5	8
Nordic	3	3	4	4	3	3	3	3	3	3	3	2
Europe ex. Nordic	13	12	12	12	13	13	13	13	13	13	13	13
Europe	11	11	11	11	12	12	11	12	12	11	12	11

Hypothetical fund 6 Fixed Income fund Actively managed 3 yrs. standard deviation: 4 (Global Bond EUR Hdg. Fund)
 Non-Institutional No Performance fee

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	846	0.85	3%	5%	7%	10%	12%	10%	7%	2%	6%	7%
Finland	684	0.68	6%	11%	14%	16%	20%	17%	11%	3%	12%	9%
Norway	378	0.38	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	746	0.75	10%	21%	31%	35%	35%	31%	28%	12%	25%	14%
Austria	680	0.68	6%	13%	24%	29%	43%	38%	24%	13%	22%	27%
Belgium	945	0.94	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	755	0.76	18%	34%	42%	52%	60%	56%	41%	13%	38%	37%
Germany	809	0.81	9%	14%	20%	27%	37%	30%	20%	6%	17%	24%
Ireland	1,151	1.15	6%	12%	17%	23%	31%	26%	19%	6%	15%	19%
Italy	949	0.95	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	1,169	1.17	11%	20%	25%	30%	35%	29%	21%	7%	23%	16%
Netherlands	740	0.74	-7%	-19%	-25%	-26%	-31%	-26%	-18%	-6%	-19%	-10%
Smaller countries	945	0.95	10%	35%	35%	43%	68%	41%	37%	0%	35%	51%
Spain	1,001	1.00	4%	10%	16%	26%	36%	31%	23%	8%	13%	26%
United Kingdom	932	0.93	10%	20%	23%	24%	24%	20%	15%	4%	20%	5%
Nordic	691	0.69	10%	17%	23%	29%	33%	27%	20%	7%	19%	16%
Europe ex. Nordic	1,059	1.06	8%	14%	19%	24%	29%	24%	17%	5%	16%	16%
Europe	1,043	1.04	7%	14%	19%	24%	30%	25%	18%	6%	16%	16%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile											
	5	10	20	30	40	Median	60	70	80	90	95	100
Denmark	896	884	873	864	855	846	835	824	811	795	785	755
Finland	781	769	736	715	698	684	675	665	654	637	621	583
Norway	378	378	378	378	378	378	378	378	378	378	378	378
Sweden	989	933	886	832	777	746	682	662	641	641	638	599
Austria	870	846	817	782	760	680	663	637	617	522	498	416
Belgium	945	945	945	945	945	945	945	945	945	945	945	945
France	1,209	1,137	993	883	801	755	697	625	586	503	477	324
Germany	975	933	891	863	836	809	783	745	708	654	611	394
Ireland	1,346	1,318	1,267	1,226	1,186	1,151	1,113	1,075	1,031	978	930	710
Italy	949	949	949	949	949	949	949	949	949	949	949	949
Luxembourg	1,518	1,440	1,346	1,271	1,218	1,169	1,133	1,102	1,066	1,018	979	764
Netherlands	621	645	667	679	738	740	779	784	784	814	814	814
Smaller countries	1,446	1,389	1,296	1,110	945	945	945	844	821	821	467	388
Spain	1,156	1,139	1,113	1,072	1,046	1,001	967	911	860	788	745	558
United Kingdom	1,167	1,118	1,049	978	937	932	898	891	892	892	881	894
Nordic	857	813	769	739	708	691	658	629	612	590	577	482
Europe ex. Nordic	1,265	1,224	1,169	1,128	1,090	1,059	1,031	997	967	925	893	693
Europe	1,246	1,206	1,152	1,112	1,074	1,043	1,015	981	951	907	873	661

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

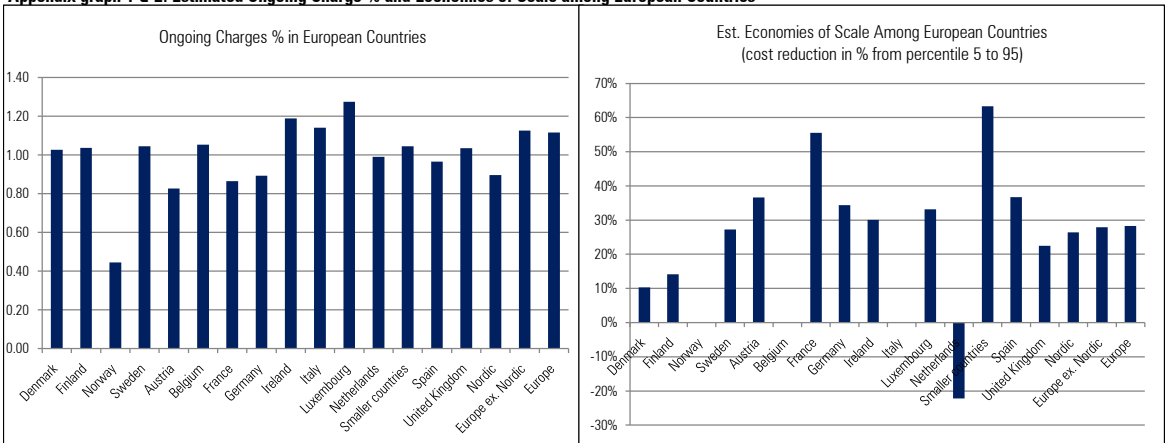
Country	Percentile											
	5	10	20	30	40	Median	60	70	80	90	95	100
Denmark	6	6	6	8	9	9	9	9	9	9	10	13
Finland	3	3	3	3	2	3	4	6	6	5	7	8
Norway	1	1	1	1	1	1	1	1	1	1	1	2
Sweden	10	8	7	6	6	6	5	5	5	6	8	9
Austria	5	5	5	5	5	2	3	4	4	3	4	5
Belgium	7	9	9	10	11	11	11	13	13	15	16	17
France	13	12	11	9	7	7	6	2	2	2	3	1
Germany	9	7	8	7	8	8	8	7	7	7	6	4
Ireland	16	16	16	17	17	17	17	17	17	17	15	12
Italy	8	10	10	11	13	13	13	14	14	16	17	18
Luxembourg	18	18	18	18	18	18	18	18	18	18	18	14
Netherlands	2	2	2	2	4	5	7	8	8	10	11	15
Smaller countries	17	17	17	14	12	12	12	10	10	11	2	3
Spain	11	13	13	13	14	14	14	12	11	8	9	7
United Kingdom	12	11	12	12	10	10	10	11	12	12	13	16
Nordic	4	4	4	4	3	4	2	3	3	4	5	6
Europe ex. Nordic	15	15	15	16	16	16	16	16	16	14	14	11
Europe	14	14	14	15	15	15	15	15	15	13	12	10

Hypothetical fund 7 Fixed Income fund Actively managed 3 yrs. standard deviation: 9.5 (High Yield Bond Fund)
 Non-Institutional No Performance fee

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	1,027	1.03	2%	4%	6%	8%	10%	8%	6%	2%	5%	6%
Finland	1,036	1.04	4%	7%	9%	11%	14%	12%	7%	2%	9%	6%
Norway	445	0.45	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	1,045	1.04	8%	17%	24%	27%	27%	24%	21%	9%	19%	10%
Austria	826	0.83	5%	11%	20%	25%	37%	33%	21%	11%	19%	22%
Belgium	1,053	1.05	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	864	0.86	16%	31%	39%	47%	56%	51%	37%	11%	34%	32%
Germany	893	0.89	8%	13%	18%	25%	34%	27%	19%	6%	16%	22%
Ireland	1,188	1.19	6%	12%	17%	23%	30%	25%	18%	6%	14%	19%
Italy	1,141	1.14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	1,275	1.28	11%	18%	24%	28%	33%	27%	19%	6%	21%	15%
Netherlands	990	0.99	-5%	-13%	-18%	-19%	-22%	-19%	-13%	-4%	-14%	-8%
Smaller countries	1,044	1.04	10%	32%	32%	40%	63%	38%	34%	0%	32%	46%
Spain	965	0.96	4%	10%	17%	27%	37%	32%	24%	8%	14%	27%
United Kingdom	1,034	1.03	9%	18%	21%	22%	23%	19%	14%	4%	19%	5%
Nordic	896	0.90	8%	14%	19%	23%	26%	22%	16%	5%	16%	13%
Europe ex. Nordic	1,126	1.13	7%	13%	18%	22%	28%	23%	16%	5%	15%	15%
Europe	1,115	1.12	7%	13%	18%	22%	28%	23%	16%	5%	15%	15%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	1,077	1,065	1,054	1,045	1,036	1,027	1,016	1,005	992	976	966	936
Finland	1,133	1,120	1,087	1,066	1,050	1,036	1,027	1,017	1,006	989	973	935
Norway	445	445	445	445	445	445	445	445	445	445	445	445
Sweden	1,288	1,233	1,185	1,131	1,076	1,045	981	962	940	940	937	898
Austria	1,016	992	963	928	906	826	809	783	763	668	644	562
Belgium	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053
France	1,317	1,246	1,102	991	910	864	805	734	695	612	586	432
Germany	1,059	1,017	974	946	920	893	867	828	792	737	695	478
Ireland	1,383	1,355	1,304	1,263	1,223	1,188	1,150	1,112	1,068	1,015	967	747
Italy	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141
Luxembourg	1,623	1,546	1,452	1,377	1,324	1,275	1,239	1,208	1,172	1,124	1,085	870
Netherlands	872	896	917	930	988	990	1,030	1,034	1,034	1,065	1,065	1,065
Smaller countries	1,545	1,488	1,395	1,209	1,044	1,044	1,044	943	920	920	567	487
Spain	1,120	1,102	1,076	1,035	1,010	965	930	875	823	751	708	521
United Kingdom	1,269	1,220	1,151	1,080	1,039	1,034	1,000	993	994	994	984	996
Nordic	1,062	1,018	973	944	912	896	863	834	816	795	782	687
Europe ex. Nordic	1,333	1,292	1,236	1,195	1,157	1,126	1,098	1,064	1,034	992	961	760
Europe	1,318	1,278	1,224	1,184	1,146	1,115	1,087	1,053	1,023	979	945	733

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

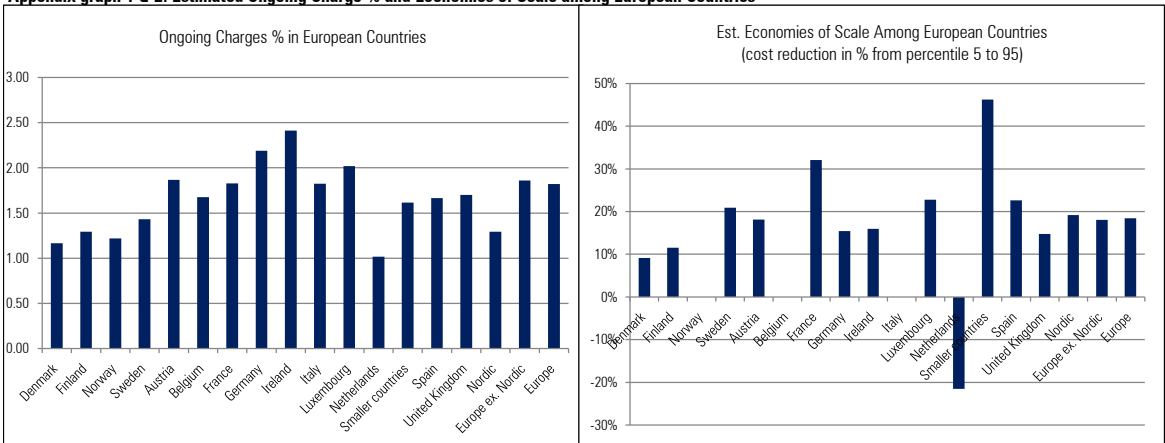
Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	7	7	7	8	8	8	9	10	9	9	11	14
Finland	9	9	9	10	11	10	10	11	11	11	13	13
Norway	1	1	1	1	1	1	1	1	1	1	1	2
Sweden	12	12	13	12	13	12	7	8	8	8	8	12
Austria	3	3	3	2	2	2	3	3	3	3	4	6
Belgium	4	6	6	9	12	13	13	13	15	15	15	16
France	13	13	10	6	3	3	2	2	2	2	3	1
Germany	5	4	5	5	5	4	5	4	4	4	5	3
Ireland	16	16	16	17	17	17	17	16	16	14	12	9
Italy	10	10	11	13	14	16	16	17	17	18	18	18
Luxembourg	18	18	18	18	18	18	18	18	18	17	17	11
Netherlands	2	2	2	3	6	7	11	12	14	16	16	17
Smaller countries	17	17	17	16	10	11	12	7	7	7	2	4
Spain	8	8	8	7	7	6	6	6	6	5	6	5
United Kingdom	11	11	12	11	9	9	8	9	10	13	14	15
Nordic	6	5	4	4	4	5	4	5	5	6	7	7
Europe ex. Nordic	15	15	15	15	16	15	15	15	13	12	10	10
Europe	14	14	14	14	15	14	14	14	12	10	9	8

Hypothetical fund 8 Allocation fund Actively managed 3 yrs. standard deviation: 4.6 (Cautious Allocation Fund)
 Non-Institutional No Performance fee Fund of funds

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	1,165	1.16	2%	3%	5%	7%	9%	7%	5%	2%	4%	5%
Finland	1,294	1.29	3%	6%	8%	9%	12%	10%	6%	2%	7%	5%
Norway	1,217	1.22	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	1,433	1.43	6%	13%	18%	21%	21%	18%	16%	6%	15%	7%
Austria	1,868	1.87	3%	5%	10%	12%	18%	16%	10%	5%	9%	10%
Belgium	1,675	1.67	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	1,829	1.83	9%	18%	22%	27%	32%	29%	20%	6%	20%	15%
Germany	2,189	2.19	4%	6%	8%	11%	15%	12%	8%	2%	7%	9%
Ireland	2,411	2.41	3%	6%	9%	12%	16%	13%	9%	3%	8%	9%
Italy	1,825	1.82	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	2,018	2.02	7%	13%	16%	19%	23%	18%	13%	4%	15%	9%
Netherlands	1,016	1.02	-5%	-13%	-18%	-18%	-22%	-18%	-12%	-4%	-13%	-7%
Smaller countries	1,616	1.62	7%	24%	24%	30%	46%	28%	24%	0%	24%	30%
Spain	1,665	1.67	2%	6%	10%	16%	23%	19%	14%	5%	9%	15%
United Kingdom	1,702	1.70	6%	12%	14%	14%	15%	12%	9%	2%	12%	3%
Nordic	1,292	1.29	6%	10%	14%	17%	19%	16%	12%	4%	11%	9%
Europe ex. Nordic	1,858	1.86	5%	8%	11%	14%	18%	15%	10%	3%	10%	9%
Europe	1,822	1.82	5%	8%	11%	15%	18%	15%	10%	3%	10%	9%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	1,215	1,203	1,191	1,182	1,173	1,165	1,154	1,143	1,129	1,114	1,103	1,074
Finland	1,391	1,379	1,345	1,324	1,308	1,294	1,285	1,275	1,264	1,247	1,231	1,193
Norway	1,217	1,217	1,217	1,217	1,217	1,217	1,217	1,217	1,217	1,217	1,217	1,217
Sweden	1,676	1,621	1,573	1,519	1,464	1,433	1,369	1,350	1,329	1,329	1,326	1,286
Austria	2,058	2,034	2,005	1,970	1,948	1,868	1,851	1,826	1,805	1,710	1,686	1,604
Belgium	1,675	1,675	1,675	1,675	1,675	1,675	1,675	1,675	1,675	1,675	1,675	1,675
France	2,283	2,211	2,067	1,956	1,875	1,829	1,771	1,699	1,660	1,577	1,551	1,398
Germany	2,355	2,313	2,270	2,242	2,216	2,189	2,162	2,124	2,088	2,033	1,991	1,774
Ireland	2,607	2,578	2,528	2,487	2,447	2,411	2,374	2,336	2,291	2,239	2,191	1,970
Italy	1,825	1,825	1,825	1,825	1,825	1,825	1,825	1,825	1,825	1,825	1,825	1,825
Luxembourg	2,366	2,289	2,194	2,120	2,067	2,018	1,982	1,951	1,915	1,867	1,828	1,613
Netherlands	897	921	943	956	1,014	1,016	1,055	1,060	1,060	1,090	1,090	1,090
Smaller countries	2,117	2,060	1,967	1,781	1,616	1,616	1,616	1,515	1,492	1,492	1,138	1,059
Spain	1,821	1,803	1,777	1,736	1,711	1,665	1,631	1,575	1,524	1,452	1,409	1,222
United Kingdom	1,937	1,888	1,819	1,748	1,707	1,702	1,668	1,661	1,662	1,662	1,652	1,664
Nordic	1,458	1,414	1,370	1,340	1,309	1,292	1,259	1,230	1,213	1,191	1,178	1,083
Europe ex. Nordic	2,065	2,024	1,968	1,927	1,889	1,858	1,830	1,796	1,766	1,724	1,693	1,492
Europe	2,024	1,984	1,931	1,891	1,853	1,822	1,793	1,760	1,729	1,685	1,652	1,439

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

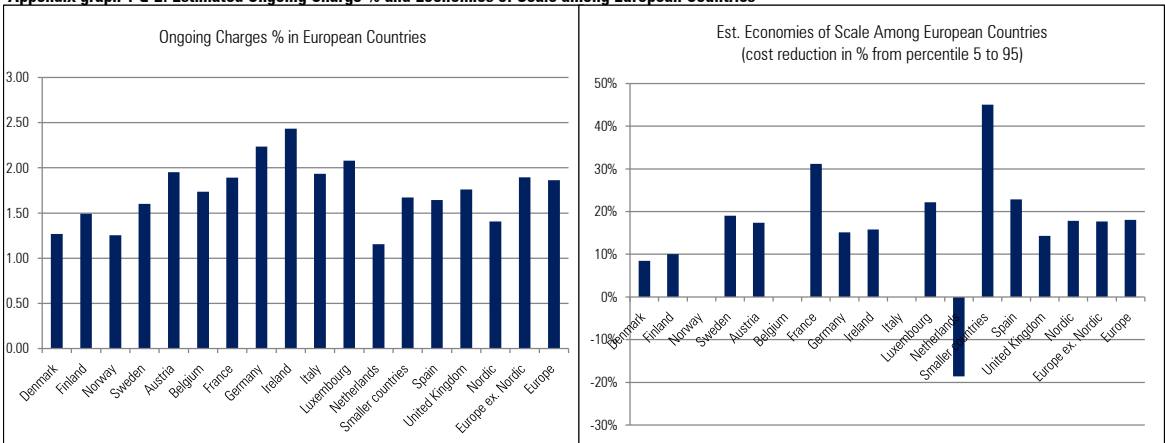
Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	2	2	2	2	2	2	2	2	2	2	2	2
Finland	4	4	4	4	4	4	5	5	5	5	6	5
Norway	3	3	3	3	3	3	3	3	3	4	4	6
Sweden	7	6	6	6	6	6	6	6	6	6	7	8
Austria	12	13	14	15	15	15	15	15	14	13	13	12
Belgium	6	7	7	7	8	9	10	10	11	11	12	15
France	15	15	15	14	13	13	11	11	9	9	9	9
Germany	16	17	17	17	17	17	17	17	17	17	17	16
Ireland	18	18	18	18	18	18	18	18	18	18	18	18
Italy	9	9	10	11	11	12	13	14	15	15	15	17
Luxembourg	17	16	16	16	16	16	16	16	16	16	16	13
Netherlands	1	1	1	1	1	1	1	1	1	1	1	4
Smaller countries	14	14	12	10	7	7	7	7	7	8	3	1
Spain	8	8	8	8	10	8	8	8	8	7	8	7
United Kingdom	10	10	9	9	9	10	9	9	10	10	10	14
Nordic	5	5	5	5	5	4	4	4	3	3	4	3
Europe ex. Nordic	13	12	13	13	14	14	14	13	13	14	14	11
Europe	11	11	11	12	12	11	12	12	12	12	11	10

Hypothetical fund 9 Allocation fund Actively managed 3 yrs. standard deviation: 7.7 (Moderate Allocation Fund)
 Non-Institutional No Performance fee Fund of funds

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	1,267	1.27	2%	3%	5%	6%	8%	7%	5%	2%	4%	5%
Finland	1,492	1.49	3%	5%	7%	8%	10%	8%	5%	2%	6%	4%
Norway	1,255	1.25	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	1,601	1.60	6%	12%	17%	19%	19%	16%	14%	6%	13%	7%
Austria	1,950	1.95	2%	5%	10%	12%	17%	15%	10%	5%	9%	9%
Belgium	1,736	1.74	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	1,891	1.89	9%	17%	22%	27%	31%	28%	19%	5%	19%	15%
Germany	2,236	2.24	4%	6%	8%	11%	15%	12%	8%	2%	7%	9%
Ireland	2,432	2.43	3%	6%	9%	12%	16%	13%	9%	3%	7%	9%
Italy	1,933	1.93	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	2,078	2.08	7%	12%	16%	19%	22%	18%	12%	4%	14%	9%
Netherlands	1,157	1.16	-4%	-11%	-15%	-16%	-19%	-16%	-11%	-4%	-11%	-6%
Smaller countries	1,672	1.67	7%	23%	23%	29%	45%	27%	23%	0%	23%	29%
Spain	1,645	1.64	2%	6%	11%	16%	23%	20%	14%	5%	9%	16%
United Kingdom	1,760	1.76	6%	12%	13%	14%	14%	12%	8%	2%	12%	3%
Nordic	1,408	1.41	6%	9%	13%	16%	18%	15%	11%	3%	11%	8%
Europe ex. Nordic	1,896	1.90	5%	8%	11%	14%	18%	15%	10%	3%	10%	9%
Europe	1,863	1.86	5%	8%	11%	14%	18%	15%	10%	3%	10%	9%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	1,317	1,305	1,293	1,284	1,275	1,267	1,256	1,245	1,231	1,216	1,206	1,176
Finland	1,589	1,577	1,543	1,522	1,506	1,492	1,483	1,473	1,462	1,445	1,429	1,391
Norway	1,255	1,255	1,255	1,255	1,255	1,255	1,255	1,255	1,255	1,255	1,255	1,255
Sweden	1,845	1,789	1,742	1,688	1,632	1,601	1,537	1,518	1,497	1,497	1,494	1,455
Austria	2,141	2,116	2,088	2,052	2,030	1,950	1,933	1,908	1,888	1,792	1,768	1,687
Belgium	1,736	1,736	1,736	1,736	1,736	1,736	1,736	1,736	1,736	1,736	1,736	1,736
France	2,344	2,273	2,128	2,018	1,936	1,891	1,832	1,761	1,721	1,638	1,613	1,459
Germany	2,402	2,360	2,317	2,289	2,263	2,236	2,210	2,171	2,135	2,080	2,038	1,821
Ireland	2,628	2,599	2,549	2,508	2,468	2,432	2,394	2,356	2,312	2,260	2,212	1,991
Italy	1,933	1,933	1,933	1,933	1,933	1,933	1,933	1,933	1,933	1,933	1,933	1,933
Luxembourg	2,426	2,349	2,254	2,179	2,126	2,078	2,041	2,011	1,975	1,926	1,888	1,673
Netherlands	1,038	1,062	1,084	1,097	1,155	1,157	1,196	1,201	1,201	1,232	1,232	1,232
Smaller countries	2,172	2,116	2,023	1,872	1,672	1,672	1,672	1,571	1,548	1,548	1,194	1,115
Spain	1,800	1,783	1,757	1,716	1,690	1,645	1,611	1,555	1,504	1,431	1,389	1,202
United Kingdom	1,995	1,946	1,877	1,806	1,765	1,760	1,726	1,719	1,720	1,720	1,709	1,722
Nordic	1,574	1,529	1,485	1,456	1,424	1,408	1,375	1,345	1,328	1,307	1,294	1,198
Europe ex. Nordic	2,102	2,062	2,006	1,965	1,927	1,896	1,868	1,834	1,804	1,762	1,730	1,530
Europe	2,065	2,025	1,972	1,931	1,893	1,863	1,834	1,801	1,770	1,726	1,692	1,480

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

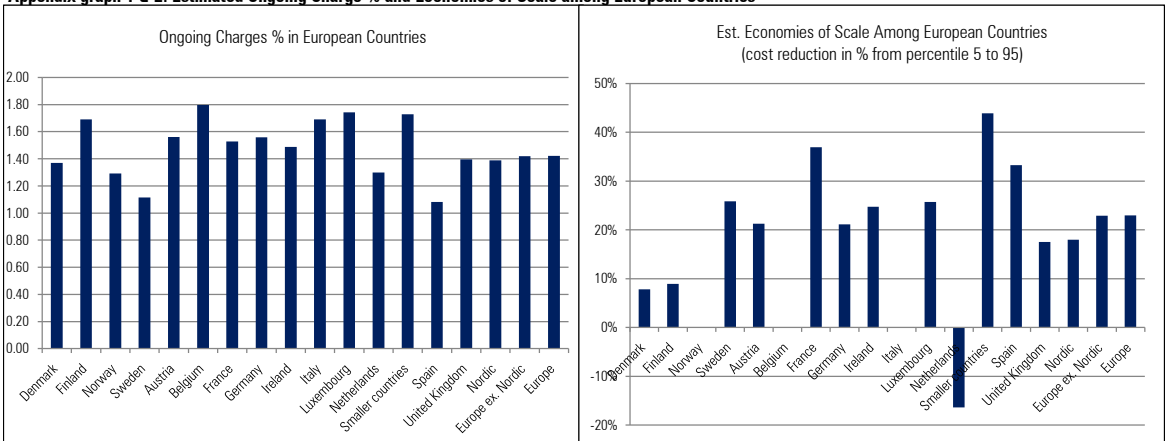
Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	3	3	3	3	3	3	3	3	2	2	1	2
Finland	5	5	5	5	5	5	5	5	5	5	6	7
Norway	2	2	2	2	2	2	2	3	3	3	4	6
Sweden	8	8	7	6	6	6	6	6	6	7	8	8
Austria	13	14	14	15	15	15	15	14	14	14	14	13
Belgium	6	6	6	8	9	9	10	10	11	12	13	15
France	15	15	15	14	14	12	11	11	10	9	9	9
Germany	16	17	17	17	17	17	17	17	17	17	17	16
Ireland	18	18	18	18	18	18	18	18	18	18	18	18
Italy	9	9	10	12	13	14	14	15	15	16	16	17
Luxembourg	17	16	16	16	16	16	16	16	16	15	15	12
Netherlands	1	1	1	1	1	1	1	1	1	2	3	5
Smaller countries	14	13	13	10	7	8	8	8	8	8	1	1
Spain	7	7	8	7	8	7	7	7	7	5	6	4
United Kingdom	10	10	9	9	10	10	9	9	9	10	11	14
Nordic	4	4	4	4	4	4	4	4	4	4	5	3
Europe ex. Nordic	12	12	12	13	12	13	13	13	13	13	12	11
Europe	11	11	11	11	11	11	12	12	12	11	10	10

Hypothetical fund 10 Allocation fund Actively managed 3 yrs. standard deviation: 10.8 (Aggressive Allocation Fund)
 Non-Institutional No Performance fee

Appendix table 1: Estimated Ongoing Charges - Overview

Country	Estimated Economies of Scale Moving From Smaller to Larger Percentiles											
	Est. Costs in EUR	Est. Ongoing Charge %	5 to 20 perct.	5 to 40 perct.	5 to 60 perct.	5 to 80 perct.	5 to 95 perct.	10 to 90 perct.	20 to 80 perct.	40 to 60 perct.	5 to 50 perct.	50 to 95 perct.
Denmark	1,369	1.37	2%	3%	4%	6%	8%	6%	4%	1%	4%	4%
Finland	1,690	1.69	3%	5%	6%	7%	9%	7%	5%	1%	5%	4%
Norway	1,293	1.29	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sweden	1,115	1.12	8%	16%	23%	26%	26%	22%	19%	8%	18%	10%
Austria	1,560	1.56	3%	6%	12%	14%	21%	19%	12%	6%	11%	12%
Belgium	1,797	1.80	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
France	1,527	1.53	11%	21%	26%	31%	37%	33%	23%	7%	23%	18%
Germany	1,558	1.56	5%	8%	11%	15%	21%	17%	11%	3%	10%	13%
Ireland	1,488	1.49	5%	10%	14%	19%	25%	20%	15%	5%	12%	15%
Italy	1,691	1.69	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Luxembourg	1,743	1.74	8%	14%	18%	22%	26%	21%	15%	5%	17%	11%
Netherlands	1,298	1.30	-4%	-10%	-13%	-14%	-16%	-14%	-10%	-3%	-10%	-6%
Smaller countries	1,728	1.73	7%	22%	22%	28%	44%	26%	23%	0%	22%	28%
Spain	1,081	1.08	4%	9%	15%	24%	33%	29%	21%	7%	13%	24%
United Kingdom	1,397	1.40	7%	14%	16%	17%	18%	14%	10%	3%	14%	4%
Nordic	1,389	1.39	6%	10%	13%	16%	18%	15%	11%	4%	11%	8%
Europe ex. Nordic	1,420	1.42	6%	11%	14%	18%	23%	19%	13%	4%	13%	12%
Europe	1,421	1.42	6%	11%	14%	18%	23%	19%	13%	4%	12%	12%

Appendix graph 1 & 2: Estimated Ongoing Charge % and Economies of Scale among European Countries



Appendix table 2: Estimated Annual Costs for a 100,000 Euro Investment - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	1,419	1,407	1,395	1,386	1,377	1,369	1,358	1,347	1,333	1,318	1,308	1,278
Finland	1,787	1,775	1,741	1,720	1,704	1,690	1,681	1,671	1,660	1,643	1,627	1,589
Norway	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293
Sweden	1,359	1,303	1,256	1,202	1,146	1,115	1,051	1,032	1,011	1,011	1,008	969
Austria	1,751	1,726	1,698	1,662	1,640	1,560	1,543	1,518	1,498	1,402	1,378	1,297
Belgium	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797
France	1,981	1,909	1,765	1,654	1,573	1,527	1,468	1,397	1,358	1,275	1,249	1,096
Germany	1,724	1,682	1,639	1,612	1,585	1,558	1,532	1,494	1,457	1,403	1,360	1,143
Ireland	1,684	1,655	1,605	1,563	1,523	1,488	1,450	1,412	1,368	1,316	1,268	1,047
Italy	1,691	1,691	1,691	1,691	1,691	1,691	1,691	1,691	1,691	1,691	1,691	1,691
Luxembourg	2,091	2,014	1,919	1,844	1,791	1,743	1,707	1,676	1,640	1,592	1,553	1,338
Netherlands	1,180	1,204	1,225	1,238	1,296	1,298	1,338	1,342	1,342	1,373	1,373	1,373
Smaller countries	2,228	2,172	2,079	1,893	1,728	1,728	1,627	1,603	1,603	1,603	1,250	1,171
Spain	1,237	1,219	1,193	1,152	1,127	1,081	1,047	991	940	868	825	638
United Kingdom	1,632	1,583	1,514	1,443	1,402	1,397	1,363	1,356	1,356	1,357	1,346	1,359
Nordic	1,555	1,511	1,467	1,437	1,406	1,389	1,356	1,327	1,309	1,288	1,275	1,180
Europe ex. Nordic	1,626	1,585	1,529	1,488	1,450	1,420	1,392	1,358	1,327	1,286	1,254	1,054
Europe	1,623	1,583	1,530	1,489	1,452	1,421	1,392	1,359	1,328	1,284	1,251	1,038

Appendix table 3: Estimated Ongoing Charge Rank - Based on percentiles of size

Country	Percentile 5	Percentile 10	Percentile 20	Percentile 30	Percentile 40	Median	Percentile 60	Percentile 70	Percentile 80	Percentile 90	Percentile 95	Percentile 100
Denmark	5	5	5	5	5	5	6	6	7	9	10	10
Finland	14	14	14	15	15	14	14	15	16	16	16	16
Norway	3	3	4	4	3	3	3	3	3	7	9	11
Sweden	4	4	3	2	2	2	2	2	2	2	2	2
Austria	13	13	13	13	13	13	13	13	13	12	14	12
Belgium	15	15	16	16	18	18	18	18	18	18	18	18
France	16	16	15	12	11	11	11	10	10	3	3	6
Germany	12	11	11	11	12	12	12	12	12	13	12	7
Ireland	10	10	10	10	10	10	10	11	11	8	7	4
Italy	11	12	12	14	14	15	15	17	17	17	17	17
Luxembourg	17	17	17	17	17	17	16	16	15	14	15	13
Netherlands	1	1	2	3	4	4	4	5	8	11	13	15
Smaller countries	18	18	18	18	16	16	17	14	14	15	4	8
Spain	2	2	1	1	1	1	1	1	1	1	1	1
United Kingdom	9	7	7	7	6	7	7	7	9	10	11	14
Nordic	6	6	6	6	7	6	5	4	4	6	8	9
Europe ex. Nordic	8	9	8	8	8	8	8	8	5	5	6	5
Europe	7	8	9	9	9	9	9	9	6	4	5	3