EIOPA REGULAR USE

EIOPA-BOS-18/013
30 01 2018

2017 Market development report on occupational pensions and cross-border IORPs

EIOPA – Westhafen Tower, Westhafenplatz 1 - 60327 Frankfurt – Germany - Tel. + 49 69-951119-20;
Fax. + 49 69-951119-19; email: info@eiopa.europa.eu site: www.eiopa.europa.eu

Table of Contents

Executive Summary

The 2017 Market Development Report is the 11th report in a series of market development reports. It provides an overview of the landscape for Institutions for Occupational Retirement Provision (IORPs) and Article 4 ring-fenced funds in the European Economic Area (EEA). In addition, it draws attention to some market trends over the past years as well as on the developments in cross-border arrangements of IORPs.

Continued increased coverage of IORPs and Article 4 ring-fenced funds in the EEA

The aggregated participation[1] rate of occupational pension schemes provided by IORPs has continuously increased over the past years. Currently 15 percent of the employees in the EEA, excluding France and the UK[2], aged between 15 and 64 are an active member of an IORP or Article 4 ring-fenced funds.

At the same time, IORPs' and Article 4 ring-fenced funds' assets totalled EUR 3.8 trillion at the end of 2016. This is a very slight decrease compared to the assets at the end of 2015. The main reason is the change in the euro/pound exchange rate.

However, there are significant differences in terms of IORPs assets and participation rates across the EEA as a result of the diversity in national pension systems and regulations.

Continued shift from DB to DC in many EEA countries

Based on the number of active members, the vast majority of Member States - that are not solely operating DB[3] or already DC schemes - show a shift from Defined Benefit (DB) to Defined Contribution (DC) schemes.

As a result of this transition, financial risks and costs are transferred from employers and IORPs to scheme members. In addition, it often coincides with a trend towards lower overall contribution rates. These changes may directly impact the future retirement income of DC scheme members.

Therefore, it is crucial that DC scheme members are adequately informed about the risks they bear and about the costs and charges involved. The IORP II Directive[4] contains detailed requirements on information to be given to members and beneficiaries, and also on governance and risk management.

---

[1] In this report participation rate is calculated as the number of active members relative to the number of employees aged between 20 and 64. The latter is a proxy for the total number of employees in a country.

[2] Membership data was not available for France and the UK.

[3] There are often legal obstacles in those Member States to set-up DC schemes, for example SLL.

[4] Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs) (OJ L 354, 23.12.2016, p. 37).

Further stagnation in the number of cross-border IORPs

The number of active cross-border IORPs equalled 73 at the end of 2016. The number of cross-border IORPs initially grew albeit at a slow pace when the IORP Directive[5] became applicable in 2005 and has stalled since 2010.

Sponsors, cross-border practitioners, social partners and academia pointed out that an increase in the number of cross-border IORPs should not be expected further. They highlighted that while Social and Labour Law (SLL) sets the legal framework for the protection of members and beneficiaries at national level and has to be complied with; from an economic perspective it also remains a challenge for cross-border IORPs.

The complexity of managing different SLLs may increase IORPs' operational risks and make the reduction of operational costs for the effective management of pension plans more difficult.

Increase in the number of multi-employer (cross-border) IORPs and expansion of multi-country cross-border IORPs

Although the aggregate growth has come to a halt, two developments have recently emerged: (1) More IORPs are expanding (or seeking to expand) their cross-border activities in additional host countries and (2) The number of cross-border IORPs established by service providers to attract multiple unconnected employers is rising. Taking advantage of economies of scale and reducing costs could be driving forces behind their increase.

At the end of 2016, the 14 multi-country cross-border IORPs operate in 13 of the 14 host countries to cross-border IORPs. Member States in which multi-employer cross-border IORPs exist also attracted more sponsoring undertakings joining these cross-border IORPs.

The amended notification process set out in the IORP II Directive may further facilitate these multi-employer and multi-country cross-border IORPs. In addition, EIOPA is reviewing the process of cooperation and exchange of information between National Competent Authorities (NCAs). Its review aims to ensure alignment with the IORP II Directive and to improve procedural transparency and efficiency.

Overall, the emerging trend of IORPs set up in a number of countries by service providers for multiple unrelated employers breaks with the traditional image of IORPs established by a sponsor or a group of sponsors (e.g. for industry-wide schemes) to manage the DB pension schemes of employees in these countries. Whilst that trend may contribute to market consolidation (for example, with the introduction of the General Pension Funds in the Netherlands[6]), it should also be monitored whether, from a supervisory perspective, it affects the triangular relationship between the employee, the employer and the IORP and if so, how it could particularly impact on the governance and management of IORPs.

---

[5] Directive 2003/41/EC of the European Parliament and of the Council of 3 June 2003 on the activities and supervision of institutions for occupational retirement provision (IORPs) (OJ L 235, 23.9.2003, p. 10–21). This Directive will be repealed on 13 January 2019 when the IORP II Directive will need to be implemented.

[6] See page 11 of this report for further information.

1. Methodology

The 2017 Market Development report provides an overview of the landscape **for entities that fall within the scope of the IORP Directive (IORPs and Article 4 ring-fenced funds), as well as on the developments in cross-border arrangements of IORPs**.

The report does not include information on occupational pensions provided by other arrangements, such as book reserves schemes, pension funds not covered by the IORP Directive or occupational pensions provided by insurance undertakings that do not fall under Article 4 of the IORP Directive.

EIOPA draws on quantitative and qualitative information collected from NCAs[7].

In general, the 2017 report presents findings based on pension data as at 31 December 2016. However, IORPs and Article 4 ring-fenced funds are not necessarily required to report their assets as at 31 December. Therefore, the aggregate figures might refer to different reporting periods and not represent the exact totals held on 31 December 2016. Totals may also not add up due to rounding differences.

Countries that are not part of the Euro area have been asked to calculate the reported financial figures in euro[8]. Therefore, especially when considering developments over time, foreign exchange rates have had an impact on the figures.

It is worth noting that due to differences in objective, scope, coverage and reporting period or timing of the data received by EIOPA, information reported in EIOPA reports may differ. Differences compared to the data included in earlier Market Development Reports can be explained by updated figures provided by NCAs for previous years.

The diversity of the pension sector and different data availability make it challenging to obtain a comprehensive picture of the IORPs landscape. In addition, valuation rules differ due to different prudential regimes across the EU.

The 2017 report includes relevant feedback[9] from multi-country sponsors, cross-border practitioners, social partners and academia interested in the idea of a pan-European occupational DC framework in blue text boxes.

Definitions of the terms used in this report can be found in annex I.

[7] Data was not received for Greece. Therefore, Greece is not included in any of the statistics included in the report.

[8] NCAs were requested to use ECB exchange rates as at the end of each year.

[9] Feedback was collated in the period of March to August 2017 in an online engagement survey and follow-up workshop and meetings.

2. IORPs and Article 4 ring-fenced funds in the EEA

2.1. Overview of the landscape

2.1.1. Key figures: status and development

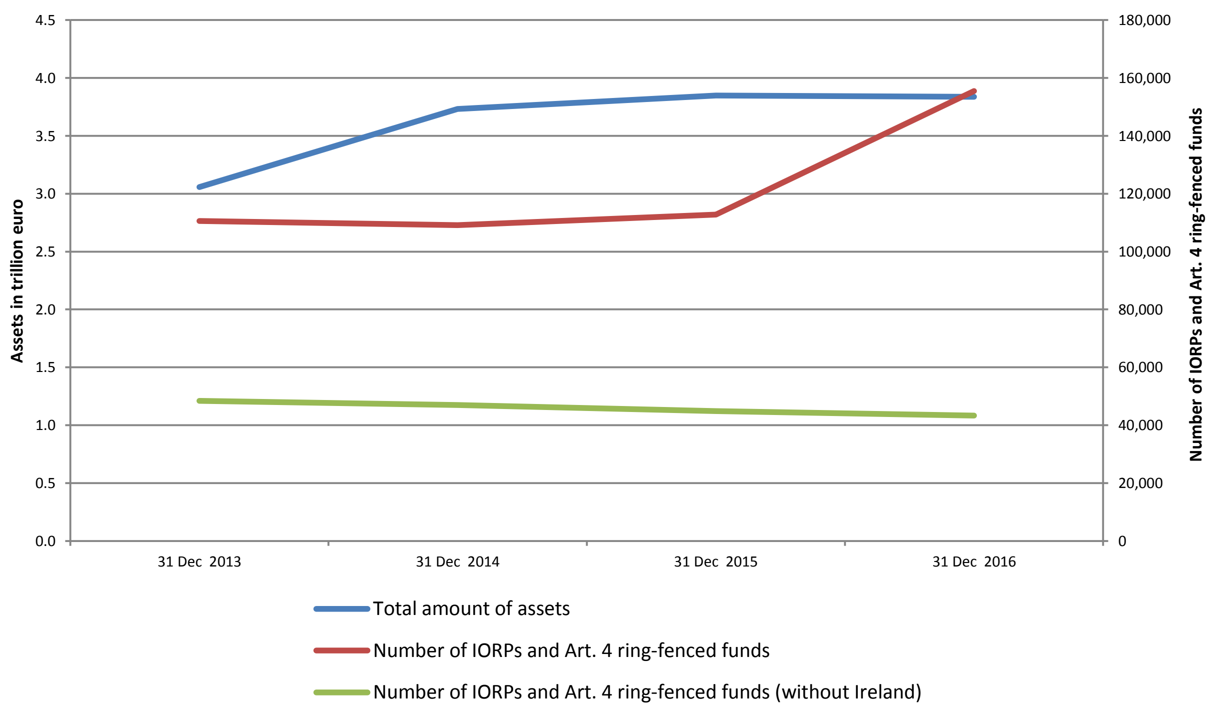
Assets

As shown in figure 1, the total amount of assets under management (hereafter 'assets') held by IORPs and Article 4 ring-fenced funds in the EEA equals EUR 3.8 trillion.

Asset values increased in almost all countries. However, the overall asset values in euro reduced very slightly by less than one percent. This reduction follows from a 16 percent decrease in the euro/pound exchange rate over the past year.

In particular IORPs with at least 100 members show an increase in assets. Article 5 specifies that, with the exception of Article 19 on management and custody, Member States can choose not to apply the IORP Directive to schemes with less than 100 members. For the latter category, assets remained more or less constant over the past 4 years.

Figure 1: Development of IORPs and Article 4 ring-fenced funds



Number of IORPs and Article 4 ring-fenced funds

In contrast to the decrease in assets, the number of IORPs and Article 4 ring-fenced funds appeared to rise by 38 percent to total 155,481 IORPs. This increase could be explained due to the Irish end 2016 data now also including DC IORPs that are closed to new members and/or that are in the process of winding-up. These IORPs were not included previously, i.e. in the figures prior to 2016.

Excluding Ireland from the data, the total number of IORPs and Article 4 ring-fenced funds decreased continuously, in total by 11 percent over the last three years. This decrease is further analysed in section 2.1.3.

Members and beneficiaries

By the end of 2016, IORPs and Article 4 ring-fenced funds provide services to almost 46 million members and beneficiaries[10]. This is a ten percent increase compared to the end of 2013 (five percent over 2016).

From these 46 million, more than 24 million were active members at the end of 2016. This is an increase of six percent compared to the end of 2013 (four percent over 2016).

However, it should be taken into account that individuals can be both active and deferred members at the same time and may have several arrangements, in which they are deferred members.

Contributions and benefits paid

Contributions remained relatively stable over the past year with at least EUR 79 billion[11] paid into IORPs and Article 4 ring-fenced funds.

Benefits paid increased by five percent compared to last year totalling to at least EUR 63 billion[12]. While benefits paid are fluctuating from year to year and from country to country, the aggregated DB and hybrid benefits paid have constantly increased over the past three years.

Article 17 IORPs

377 IORPs are subject to Article 17 (1) [13] of the IORP Directive. These IORPs are obliged to hold a minimum surplus of assets over the technical provisions to serve as a buffer on a permanent basis. The minimum amount of those assets is laid down in Article 17 (2) of the IORP Directive.

The number of Article 17 (1) IORPs decreased by 20 IORPs compared to last year. However, their assets grew by ten percent representing a market share of 35 percent of the total assets of all IORPs.

Article 4 ring-fenced funds

There are three countries that have Article 4 ring-fenced funds in their jurisdiction, namely France, Sweden and Slovenia. Article 4 ring-fenced funds refers to the occupational retirement provision business of insurance undertakings to which certain provisions of the IORP Directive are applied in accordance with Article 4 of the IORP Directive.

---

[10] Data on the number of members and beneficiaries for the end of 2016 was not available for Cyprus and UK. For Sweden an approximation was received.

[11] Data on contributions received during 2016 was not available for Cyprus, France and the UK.

[12] Data on benefits paid during 2016 was not available for Cyprus, France and the UK.

[13] Article 17 (1) IORPs can be found in Finland, Croatia, Italy, Liechtenstein, the Netherlands, Norway, Sweden and Slovenia. A few NCAs highlighted that there are no Article 17 (1) IORPs in their jurisdiction despite the fact that IORPs do underwrite biometric risks or offer guarantees. This is due to the fact that the national SLL sets out that the sponsor remains liable for the promise made to employees, even if the IORP provides guarantees or covers certain risks. These Member States often impose capital requirements at national level in accordance with Article 17 (3) of the IORP Directive, which sets out the Member State option to require IORPs to hold regulatory own funds even if the requirements for the application of Article 17(1) are not met.

In aggregate numbers the number of Article 4 ring-fenced funds decreased by one compared to last year. Assets have increased by 13 percent over the last year and by 50 percent over the last three years.

In France, traditionally a Member State without any IORPs, a new legislation was adopted allowing the creation of IORPs. The new legislation introduces a new type of undertaking (Fonds de Retraite Professionelle Supplémentaire - FRPS) subject to a framework compliant with the IORP Directive. Insurance companies will be allowed to transfer parts of or their entire occupational pension plans into these entities.

2.1.2. Heterogeneity across the EEA

The occupational pensions landscape is very fragmented. Differences in financial systems, the importance of the public pensions and personal pension savings, together with national specificities result in different stages of development of IORPs and Article 4 ring-fenced funds between Member States.

Figure 2 and 3 show that the Netherlands and the UK are by far the largest Member States in terms of assets. Together, IORPs in these countries account for 76 percent of the EEA IORPs' and Article 4 ring-fenced funds' total assets.

The aggregated sum of the assets of the countries not included in the figure 3 is less than one percent of the total assets.

Figure 2: market share in assets

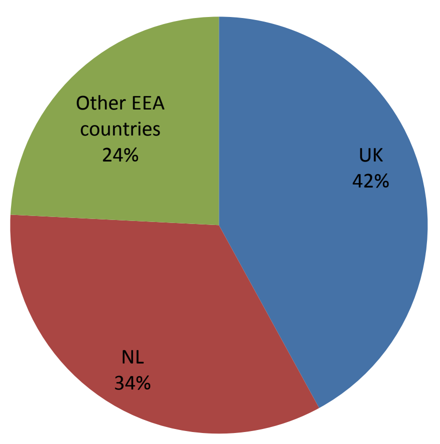
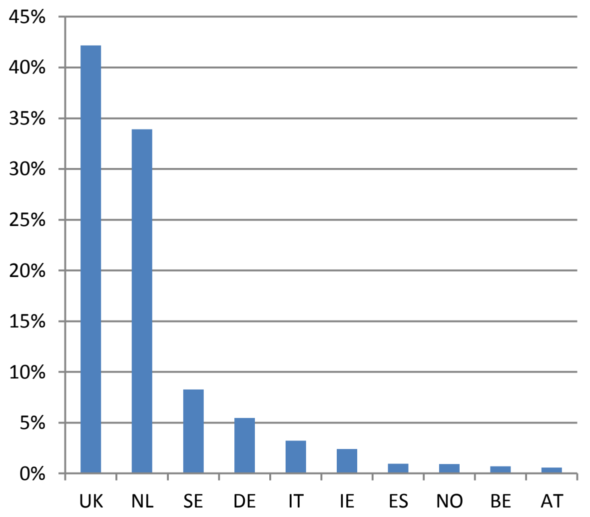


Figure 3: market share in assets



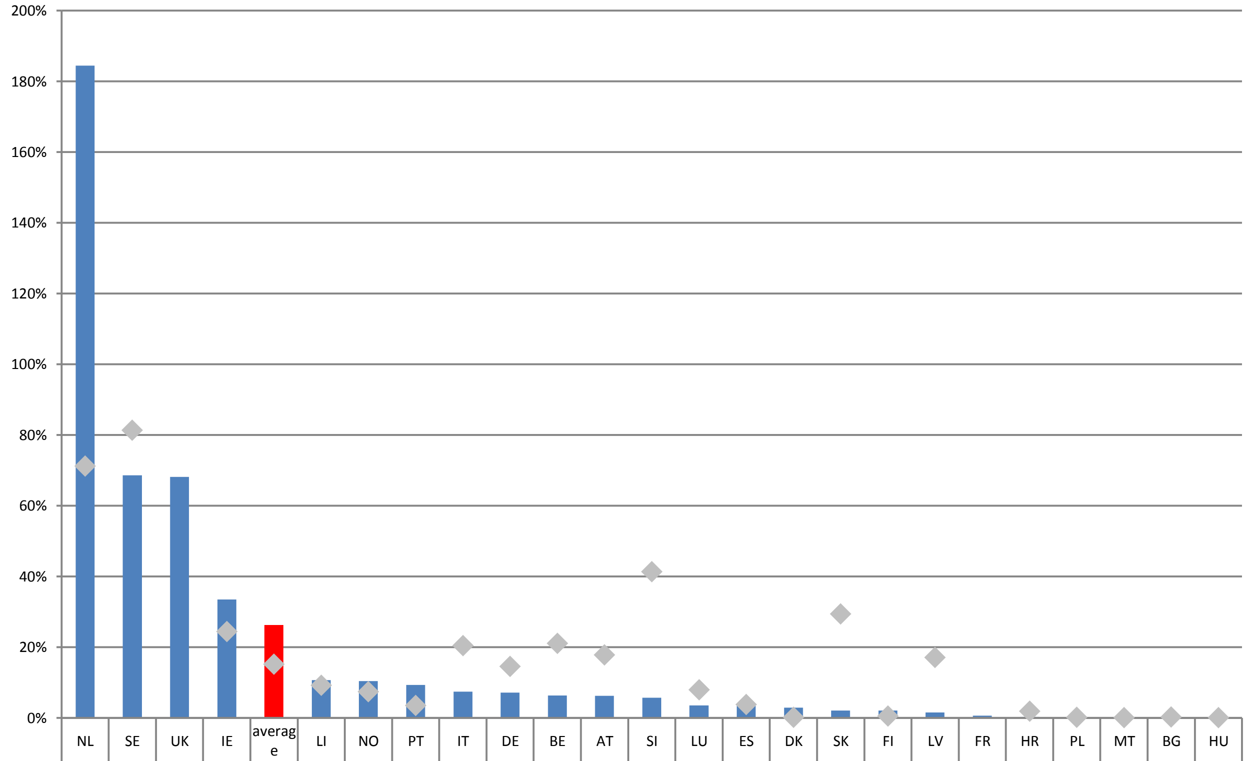
In the EEA, the penetration rate (the ratio of assets to GDP[14]) ranges from less than one percent in a few Member States to more than 180 percent in the Netherlands. This ratio provides insights in the relative size and importance of the IORP and Article 4 ring-fenced funds sector in the domestic economy.

As shown in figure 4, the weighted average penetration rate is 25 percent. Solely four countries have a penetration rate higher than the average due to the significant IORP sectors in the UK and the Netherlands, both in terms of assets and relative importance. This shows the large differences in terms of IORPs' and Article 4 ring-fenced funds' importance across the EU.

[14] Eurostat 2016 GDP (23/11/2017). Please remark that the Liechtenstein 2016 GDP was not yet available and the 2015 figure has been included in figure 4.

The average penetration rate of EEA countries remained constant over the past few years. Also at national level, the penetration rate stayed mostly stable. Only in two countries (Netherlands and Sweden) a substantial increase was observed, whereas in two countries (Ireland and the UK) a significant decrease occurred.

Figure 4: Penetration (blue) and participation rate (grey)



	NL	SE	UK	IE	average	LI	NO	PT	IT	DE	BE	AT	SI	LU	ES	DK	SK	FI	LV	FR	HR	PL	MT	BG	HU
■	184%	69%	68%	34%	26%	11%	10%	9%	7%	7%	6%	6%	6%	4%	3%	3%	2%	2%	2%	1%	0.25%	0.09%	0.02%	0.01%	0.00%
◆	71%	81%		24%	15%	9%	7%	3%	20%	14%	21%	18%	41%	8%	4%	0%	29%	0%	17%		2%	0.13%	0.05%	0.25%	0.01%

IORP and Article 4 ring-fenced fund sectors' maturity plays a role in the penetration rate. Since Member States where IORPs and Article 4 ring-fenced funds were introduced or developed at a later stage had less time to accumulate capital, their penetration rate is expected to be lower. Therefore, taking the participation rate as the ratio of the number of active members to the active employees between 15 and 64[15] provides a different picture.

While changes in the aggregated participation ratio were relatively small from year to year, the ratio increased continuously. Similarly to the penetration ratio, the participation ratio remains relatively stable at a national level without any countries showing a deviation of more than three percent over the past three years.

Again, this ratio confirms the heterogeneity of the IORPs' and Article 4 ring-fenced funds' landscape with the participation rate varying from less than one percent in a few Member States to over 80 percent in Sweden. Membership data was not available in the UK. However, a significant increase in membership is expected as the result of auto-enrolment which commenced in 2012 in the UK.

[15] Please remark that in figure 4, the number of active members was reported as at 31 December 2016, whereas the population between 20 and 64 was extracted from the Eurostat database as at 1 January 2016. Furthermore, there was no information available on the number of employees for Liechtenstein. For Liechtenstein, the active population aged between 15 and 64 has been used as a proxy. As such, also a part of the population which has no access to occupational pensions, for example due to unemployment, has been included for Liechtenstein and may have pushed its ratio lower.

Furthermore, the participation rate shows that especially in Latvia, Slovakia and Slovenia, IORPs and Article 4 ring-fenced funds are becoming increasingly important. At the same time, it also shows the decline of the sector in the provision of occupational pensions in Denmark and Finland.

Higher than average penetration or participation rates do not necessarily reflect the importance of the overall pension system in a particular country. The relevance of occupational pensions is linked to the strength of the first (public pensions) or third pillar (individual retirement savings).

In addition, occupational pensions can be provided by other entities than IORPs, for example, insurers. This is the case inter alia in the Czech Republic, Estonia, Iceland, Lithuania and Romania which are not included in figure 4[16]. These countries do not have any domestic IORPs or Article 4 ring-fenced funds.

Finally, in some Member States, IORPs' and Article 4 ring-fenced funds' importance appears to be insignificant compared to the GDP or to the estimated active population. However, in some of these countries, for example Bulgaria and Croatia, a significant increase in the number of active members can be observed in 2016. This is the result of the increase in demand for occupational pensions and the relative small share of members approaching retirement age.

2.1.3. Decrease in the number of IORPs

As explained in section 2.1.1, excluding Ireland, the number of reported IORPs and Article 4 ring-fenced funds in the EEA decreased over the past few years. This decrease is mainly the result of a decrease in the number of IORPs in the UK.

Further, however limited[17], analysis shows that the number of IORPs remains relatively constant over the last three years for all categories defined by Article 5 of the IORP II Directive (see figure 5[18]). However, using different parameters to categorise IORPs, the number of IORPs with more than EUR 500 million in assets[19] increased over the last three years. Conversely, the number of smaller IORPs decreased (see figure 6[20]).

---

[16] Cyprus was not included in figure 4 as there was no financial data from the end of 2016 available.

[17] The analysis is not including Cyprus, Ireland and the UK.

[18] Data for Cyprus, Italy, Ireland and the UK was not available. As a consequence, the graphs cover only the 1,504 IORPs in the 20 other countries were IORPs exist.

[19] At the end of 2016, these IORPs with more than EUR 500 million in assets represent 82% of the members and beneficiaries and 92% of the total assets under management excluding Cyprus, Ireland and the UK.

[20] In addition to the countries mentioned in footnote 19, data for Italy was not included in the graph as data was only available for the last two years.

Figure 5: Development in number of IORPs by membership (2013-2016)

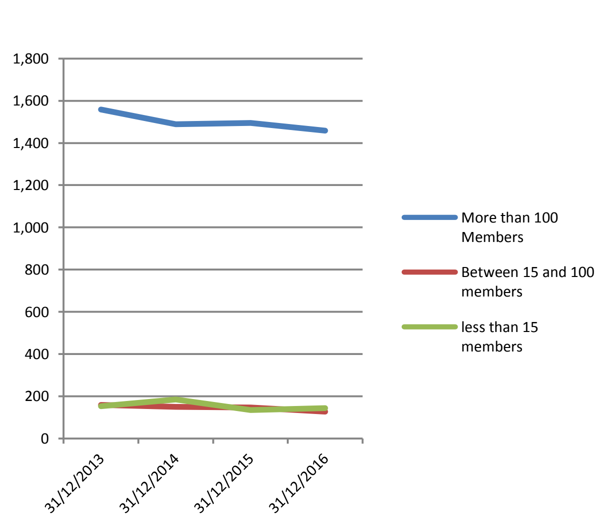
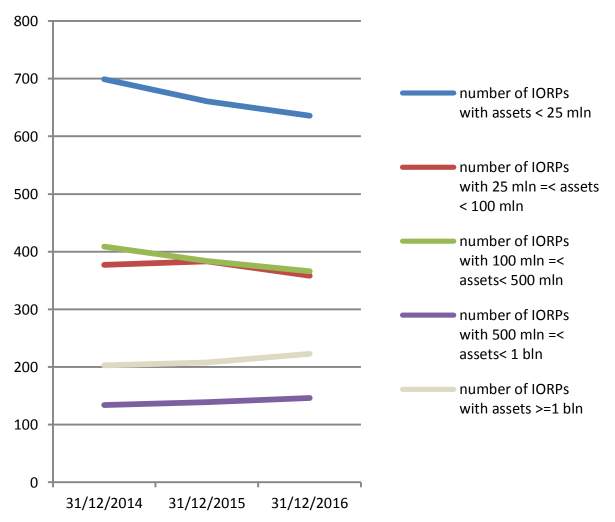


Figure 6: Development in number of IORPs by asset size (2014-2016)



Out of the 24 Member States that have IORPs (see annex II), the number of IORPs has decreased in 11 Member States over the past three years.

Only in three Member States, experts from NCAs reported to have observed a market consolidation, triggered by a combination of factors:

- Stricter and more complex regulatory and governance requirements increasing compliance costs, especially for smaller IORPs;
- The challenging macro-economic environment; and
- Sometimes the difficulty to find suitable members for key functions.

Furthermore, in the Netherlands a law allowing the creation of the General Pension Funds (APF) became effective on 1 January 2016. It allows the set-up of vehicles that can harbour multiple, ring-fenced, pension schemes. This law has already facilitated market consolidation over the past year and further consolidation is expected in the future. Currently, all but mandatory sector-wide pension funds are allowed access to a General Pension Fund.

In the other eight countries that showed a decrease in the number of IORPs, the decrease is marginal or is due to other factors than a market consolidation. For example, in four Member States IORP's portfolios were transferred to life insurers and investment funds and the IORPs wound-up.

At the same time, the market remained stable in eight countries. Except for Sweden, the number of IORPs in these Member States is already very small. In the near future, experts from these countries' NCAs expressed the view that an increase/decrease in the number of IORPs is strongly correlated to the role and degree of maturity of the occupational pension market. Sometimes other forms of saving for retirement are more embedded in the national culture which explains the slow growth of occupational pensions and accordingly in the interest in setting up IORPs.

Moreover, some NCAs with a limited number of IORPs highlighted that an increase in the number of IORPs and consequently in a greater choice for sponsors or in the choice of pension service providers with respect to outsourcing services (e.g. asset management) could be more beneficial to the members and beneficiaries.

In Member States with a high number of IORPs, market consolidation could generate efficiency gains for members and beneficiaries, and create economies of scale. For example, increased economies of scale can reduce fixed costs and increase bargaining powers with outsourcing entities thus increasing value for money.

Taking advantage of economies of scale and minimising costs are also arguments behind the increase in the number of multi-employer IORPs. The total number of multi-employer IORPs increased over 2016 by five[21], totalling 390 multi-employer IORPs[22]. Over the last three years, an increase of more than six percent[23] was noted.

In some Member States (e.g. Cyprus and Italy), small IORPs, often providing DC schemes, were wound-up and their assets were transferred to multi-employer IORPs. Nevertheless, the rise in multi-employer IORPs could also suggest lower employer involvement with the governance of the IORP in the future. Future EIOPA work might therefore look into the rise of multi-employer IORPs as a catalyst for market consolidation in a few Member States.

2.2. Scheme information

2.2.1. Scheme and IORP types as at 31 December 2016

In the EEA, most IORPs provide services to DC schemes alone (see figure 7). However, without counting the many small IORPs in Cyprus, Ireland and the UK this result looks differently (see figure 8). Then, IORPs operating only DB schemes account for more than 54 percent of the IORPs. IORPs managing DC schemes total 28 percent of the market. Ten percent of the IORPs provide services to multiple scheme types (DB, DC and hybrid schemes).

Figure 7: IORPs split by type of IORPs (as at 31 December 2016)

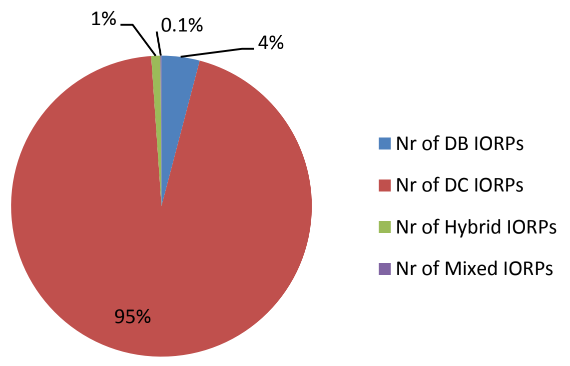
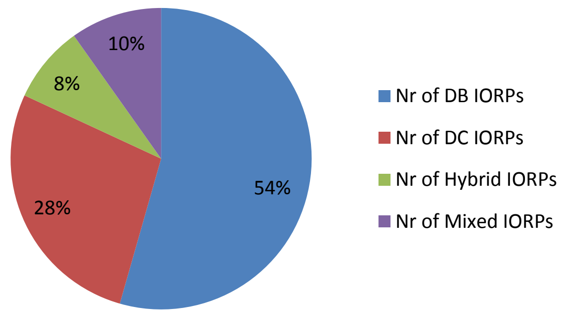


Figure 8: IORPs split by type of IORPs (as at 31 December 2016 - excluding Cyprus, Ireland and UK)



In addition, in most countries DC and mixed IORPs manage more different schemes than DB and hybrid IORPs. For example, the 11 Dutch DC IORPs manage more than 4,000 DC schemes whereas the 255 Dutch DB[24] IORPs administer only 385 DB schemes.

---

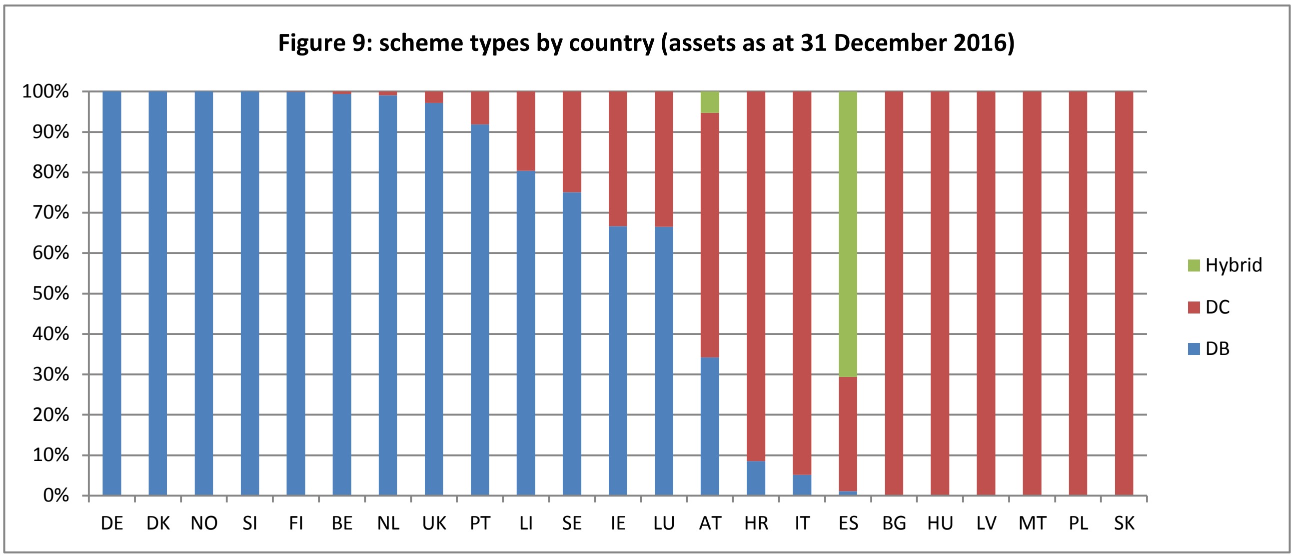
[21] The increase in multi-employer IORPs does not include data from Italy as only the number as at the end of 2016 was available.

[22] Data on multi-employer IORPs as at the end of 2016 was not available in Germany, Ireland, Finland and UK. Multi-employer IORPs account for 11 percent of the total number of IORPs, excluding these countries where data was not available.

[23] Data from Germany, Finland, Ireland, Italy and the UK was not available over the last three years and has not been included in this statistic.

[24] For Dutch IORPs, it is not always possible to identify whether an IORP operates only DB schemes, hybrid schemes or a combination. Therefore, all figures for Dutch IORPs providing DB or hybrid schemes are reported as DB schemes. Most schemes are currently career average DB-plans with conditional indexation and intergenerational risk sharing,

Figure 9[25] below shows that in 13 of the 23[26] EEA countries that reported financial data, investments from DB schemes outweighed those in DC schemes. This is largely due to their historical prominence as the favoured arrangement for occupational pensions in those countries. Aggregated data also confirms that the vast majority of IORPs' assets are invested by DB schemes.



In terms of members, only in 10 of the 21[27] EEA countries that reported membership data there are proportionally more members in DB schemes than in DC schemes. This will be further discussed in the next chapter. Noteworthy is that, except in Slovenia, IORPs in all central and eastern European countries only provided DC schemes to their active members.

Scheme types for Article 4 ring-fenced funds are dominated both in terms of assets and in terms of members by DC schemes in France and Sweden and by DB schemes in Slovenia. Only in Sweden Article 4 ring-fenced funds provide both DB and DC schemes.

Article 17 (1) IORPs mainly provide DB schemes. Only in Italy, both DC and DB schemes are covered by Article 17(1).

2.2.2. Shift from DB to DC

Signs in quantitative and qualitative information

As indicated above, due to their historical prominence, the vast majority of IORPs assets are related to DB schemes. However, numerous DB schemes have struggled over the past years to obtain returns in line with the guaranteed levels and have therefore been under pressure in many countries.

As a consequence, some of these schemes have lowered their pension promises, for example through benefit reductions. Alternatively, in order to de-risk from a sponsor perspective many DB occupational schemes were closed to new members and/or have been replaced (for future accrual) by DC schemes which could be managed by the

which provides for a small DC-element. There are still some (legacy) traditional DB-schemes, but these are all operated within pension funds that also operate career average or even DC-schemes.

[25] Although DC schemes for Portugal have all been classified as pure DC in this report, in some cases pension fund management entities or the sponsor can offer financial guarantees.

[26] Financial data at the end of 2016 was not available for Cyprus. There are no IORPs in six Member States.

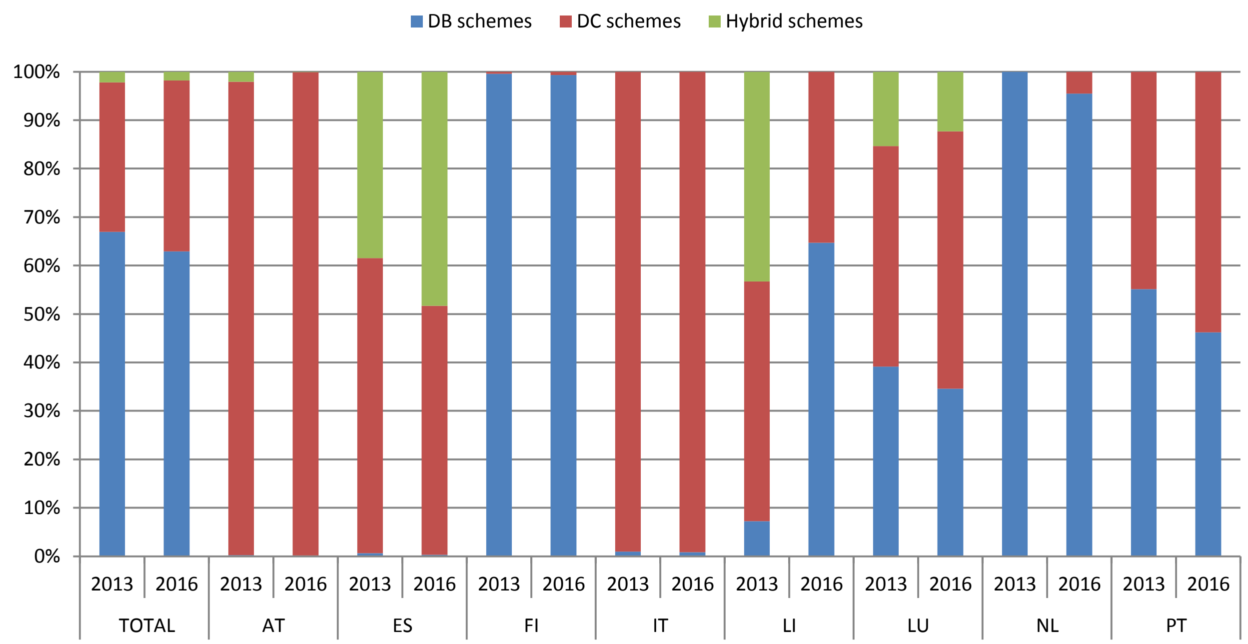
[27] Membership data was not available for Cyprus, Sweden and the UK. There are no IORPs in six Member States.

same IORP or their liabilities, technical provisions, and other obligations and rights as well as corresponding assets or cash equivalent thereof were transferred to another IORP or another type of provider (e.g. insurance company).

While a shift from DB to DC is generally seen in most Member States, figure 10 below confirms this with the underlying data: in the majority of Member States[28], - that do not solely have DB schemes[29] or already DC schemes[30] - the number of **active members** of DC schemes compared to the number of active members of DB schemes increased since the end of 2013.

As a result, the total number of active members shows a shift towards DC. The number of active DC members has increased slightly from 31 to 35 percent[31] over the past three years.

Figure 10: IORPs' scheme type development by country (active members as at the end of 2013 and 2016)



Figures expressed by **assets** also show a shift from DB to DC in many countries. This is the case for example for Sweden and the UK where information on the membership was not available. However, these data are affected by a number of factors which are not correlated to the shift from DB to DC, e.g. investment returns and funding requirements. In addition, long-term transitional rules for phasing out the DB components of older plans can make the shift less visible in terms of assets.

In terms of **contributions**, the aggregated increase in DC contributions outweighs the increase in DB contributions. However, this parameter is also biased by external

[28] For Spain and Liechtenstein, the proportionate reduction came from the drop in number of members over the past year. Many of these members had a DC scheme. Asset figures for Spain show a clear shift from DB to DC. In Liechtenstein, there is only one DB plan left for the mandatory occupational pension schemes. All the remaining DB schemes changed to DC plans over the last couple of years.

[29] Germany, Denmark, Norway and Slovenia.

[30] Bulgaria, Croatia (Croatia has only one DB scheme which covers only the decumulation phase), Hungary, Latvia, Malta, Poland and Slovakia.

[31] The Total in figure 10 does not include data from Belgium and Ireland because data was not available for the end of 2013. In addition, the total does not include Cyprus, Sweden and the UK which do not have membership data available split by scheme types.

factors. For example, in one Member State, the contributions for DB schemes were negative as the result of an actuarial correction in favour of a large IORP.

Furthermore, also from a **qualitative perspective** a transition from DB to DC was noted. Many NCAs highlighted that their DB schemes are closed to new members and are in the run-off with a view to paying out accrued benefits as they come due in the near future. In other countries the transition from DB to DC occurs outside the IORP Directive with DC schemes being offered by other providers than pension funds.

Finally, in some countries where all schemes have been classified as DB schemes, a shift from pure DB to other scheme types with different risk sharing characteristics can be observed. Additionally, in Germany the latest pension reform ("Betriebsrentenstärkungsgesetz" - BRSG) will allow the set-up of pure DC schemes in case certain provisions are met. National Dutch negotiations on a new additional pension contract may also - depending on its final characteristics - stimulate transition from DB to DC schemes.

Reasons and consequences

Next to some regulatory developments, the volatility of costs for the sponsoring undertaking is the main reason behind the shift from DB to DC. Decreasing interest rates make it very costly for the sponsor to cover the increase of the liabilities. Assets accounted by market value possibly further augment funding needs.

In addition, DC schemes may be more beneficial to the increasingly mobile employees as opposed to traditional DB schemes which are usually to the benefit of "long-term" workers.

On the other hand, contributions to DC schemes tend to be lower than for DB schemes. Indeed, almost all countries where both DB and DC schemes are provided reported a lower average contribution for its DC schemes compared to DB schemes[32].

The shift from DB to DC is also changing the share of responsibilities and involvement between employer, IORP and scheme members. Moreover, next to the transfer of investment risk from employers to employees and the lower employer contributions; the transfer of part or all costs and charges from sponsors to DC members are two further consequences which directly impact on the potential future retirement income of DC members.

Therefore, there is a need to ensure that there is sufficient member awareness about the costs and charges, and about the risks and benefits of DC pension schemes. The revised IORP Directive recognizes these challenges and contains detailed requirements on information to be given to members and beneficiaries.

Further initiatives to introduce adequate safeguards to protect members through strengthened regulation and consistent and convergent application of supervisory practises could for example be:

- Ensuring suitability of investment options compared to target members' risk and return characteristics,
- Ensuring that members and beneficiaries can assess if the cost and charges they are paying offers good 'value for money' during the accumulation and decumulation phase,

[32] The average contribution is calculated based on the total amount of DB and DC contributions and the number of active members reported for these categories by NCAs. Austria was not included due to its negative contributions for DB schemes.

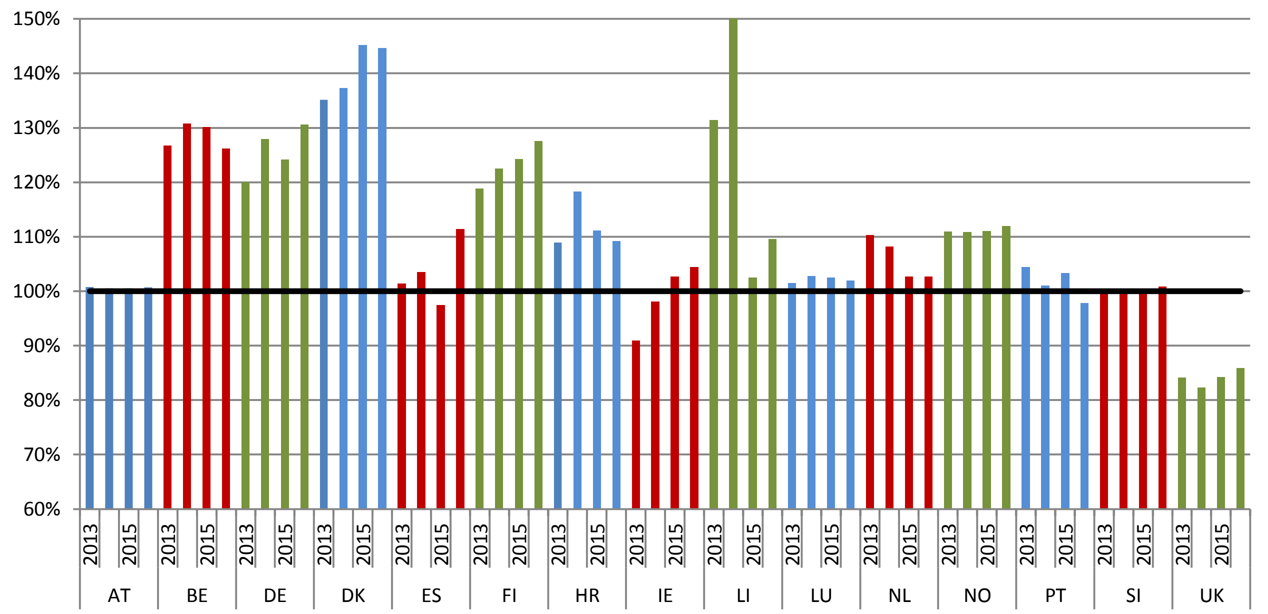
- Ensuring appropriate robust governance standards taking into account a potential increase in pension outsourcing services and conflicts of interest between the service provider and the employer,
- Ensuring effective management of operational risks to assess / identify / prevent potential operational failures whose associated costs are borne by scheme members in most cases, and
- Ensuring efficiency of the retirement income market.

2.3. Funding position

Figure 11 shows the developments of the funding position - calculated as assets over liabilities - at the end of the last four years. As also indicated in the 2016 market development report[33], the overall comparability of the data is affected, due to different national valuation methods to report on the assets and to calculate the liabilities across the EEA. However, the graph does provide an indication of the developments of the funding positions in every country.

It shows that most countries have a surplus of assets over liabilities. Furthermore, some countries have managed to recover from a deficit shown in previous years. At the same time, a deficit occurred for Portugal[34] while the UK deficit decreased. The fact that no EEA wide trends in terms of increases or decreases of the surplus/deficit can be found, adds to the heterogeneity of the pensions landscape.

Figure 11: DB Assets over liabilities IORPs (end of 2013-2016)



For Irish schemes, the percentage of schemes reported as meeting the statutory funding standard was 74 percent as at the end of 2016. This was a slight increase compared to the end of 2015 were 30 percent of the schemes were below the statutory funding standard. Increased/accelerated contributions helped to increase the funding ratio. Over 2016 also three schemes lowered their accrued benefits.

---

33 EIOPA (2016) Market Development Report on occupational pensions and cross-border IORPs. Please refer to section 2.4 on funding, page 19 ff.

34 For PT, the amount of liabilities reported corresponds to the one calculated under the financing scenario. At the end of 2016 this amount was higher than the amount calculated according to the applicable funding requirements. Therefore, the fact that assets are lower than liabilities does not necessarily mean that the market is in deficit in terms of applicable funding requirements.

In Spain, good returns on assets and a reduction of the benefits in some schemes ensured a recovery of the funding ratio. In Slovenia, the funding ratio has remained stable after the hair-cut in 2013.

For Belgian DB and hybrid schemes[35], the amount of liabilities significantly increased due to the increase in number of members, transfers from cross-border schemes and the use of a lower discount rate by many IORPs. It is expected that this lowering of the discount rate will continue over 2017 and all other factors being equal lower the funding ratio.

In the Netherlands the country average masks a distinction between the larger IORPs - quite a few of which have challenging funding positions - and the rest of the sector.

Austria and Spain all have funding positions of more than 100 percent for their hybrid schemes.

Equally, the aggregated country funding level for Article 17 (1) IORPs is positive in all countries.

[35] For Belgium and UK, data shown in figure 9 includes both DB and hybrid schemes.

3. Zooming in on cross-border IORPs

3.1. Introduction

Directive 2003/41/EC (IORP Directive) has been described as a first step towards the creation of an internal market for occupational pensions in Europe.

The organisation of social protection and occupational pensions remains a matter for Member States. However, the Directive enables IORPs to take advantage of the internal market by accepting sponsorship and managing an occupational pension scheme from a company located in another Member State. It should then follow the SLL of the "host Member States" whilst applying the prudential rules of the "home Member State" in which it is established.

Prior to the IORP Directive, IORPs would tend to operate in the Member State in which they are established. Only between the UK and Ireland cross-border activities existed. As a result, a company operating in 15 Member States would have called on the services of 15 different IORPs incurring a cost of up to €40 million a year[36].

One of the main advantages of operating a cross-border activity is to achieve economies of scale. This can be accomplished by centralising the management of all the various occupational pension schemes of a company operating in several Member States in a single IORP (i.e. home cross-border IORP).

Combining the management of pension schemes in different EU Member States in a single home IORP may not only bring efficiency gains from a streamlined governance and standardised administration (e.g. standardised processes and technology) but may also improve financial performance. The consolidation of scheme assets in one place not only provides automatic asset pooling but can also improve access to investment opportunities[37] and increase the home IORP's bargaining power to negotiate lower investment and adviser fees.

For cross-border practitioners, the benefits of starting a cross-border activity may largely depend on both the perspective taken (i.e. sponsor, IORP) and the sponsoring company's strategy:

- Some European companies[38] are increasingly seeking to gain a better understanding of their costs and risks, including for occupational pensions, in order to maintain their competitiveness. Through its standardised and streamlined governance, a cross-border IORP gives a sponsor better oversight and effective management of costs and risks. Legal complexity and compliance risk could be reduced as a result of the cross-border IORP implementing consistent risk-management and cost-control processes on cross-border activities concerning all host Member States;

- For some companies, starting a cross-border activity forms part of implementing an employee benefit strategy either at a global or European level, to offer a comprehensive and coherent benefit package to all their employees;

---

36 Source: European Commission, press release IP/03/669.

37 Prior to the cross-border activity, smaller schemes, may not have had accessed to investment opportunities e.g. disproportionate investment costs relative to the value of the scheme assets.

38 The term "European companies" refers to businesses that operate within the Single Market and have employees based in several EU locations. We should distinguish between those companies who have not started a cross-border activity from those who have but do not seem to have extended to other Member States.

- For other companies primarily looking to encourage geographical mobility in the EU, a cross-border IORP may provide their mobile employees with a "one-stop-shop" for their pensions which are easier to administer as a result of their move between Member States.

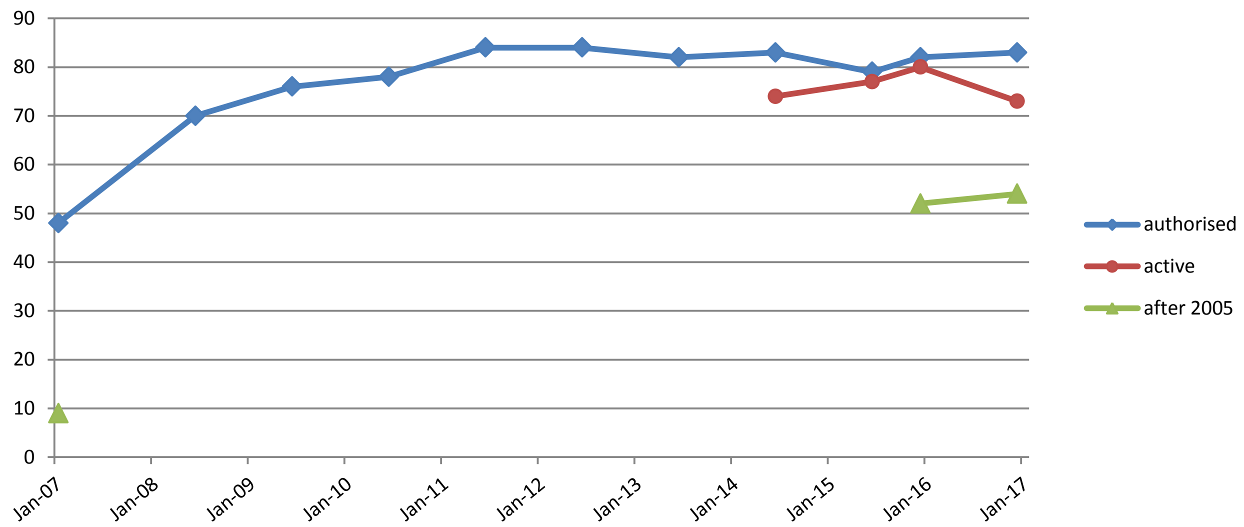
3.2. Overview of cross-border developments

3.2.1. Stagnation in the number of cross-border IORPs

The IORP Directive became applicable in 2005. EIOPA (and previously CEIOPS) started to collect annual information on the amount of cross-border IORPs as of 2007. The 2007 market development report showed immediately a sharp rise in the number of authorised cross-border IORPs, mainly due to the pre-existing transnational arrangements between Ireland and the UK. EIOPA's first market development reported[39] nine out of the 48 cross-border IORPs set-up after the IORP Directive was implemented. Looking at this year's results, none of the 54 active non-UK[40] cross-border IORPs existed before the IORP Directive was implemented.

However, following the initial increase, the amount of authorised cross-border IORPs that finalised the notification procedure grew at a much lower pace in the following years and stabilised the last six years (see figure 12).

Figure 12: Developments in cross border IORPs



As at 31 December 2016, there were 83 IORPs[41] that finalised the notification procedure for operating cross-border. Out of these 83 IORPs, 73 are actively operating on a cross-border basis (see table 1). 14 of these are active in multiple countries.

As shown in table 1, Ireland remains the home country with most cross-border IORPs, followed by the UK and Belgium. Liechtenstein is the only country that has cross-border IORPs subject to Article 17(1) of the IORP Directive.

[39] Source: EIOPA (2007) Report on market development. The report indicated on page two if an IORP was setup before or after the implementation of the IORP Directive.

[40] Information on the set-up date of cross-border IORPs in the UK is not available.

[41] A correction was made to the number of authorised cross-border IORPs in Ireland in the reports published in previous years.

Table 1: overview of authorised and active cross-border IORPs

Country	Nr. of authorised cross-border IORPs 2015	Nr. of authorised cross-border IORPs 2016	Nr. of active cross-border IORPs 2015	Nr. of active cross-border IORPs 2016
AT	1	1	1	1
BE	14	18	13	14
DE	4	4	4	4
IE	28	27	28	26
LI	4	4	4	4
LUCAA	1	1	1	1
LUCSSF	2	3	2	3
MT	1	1	1	1
NO	1	1	0	0
UK	26	23	26	19
Total	**82**	**83**	**80**	**73**

Similar to last year's report, the number of active cross-border IORPs is lower than the number of IORPs that completed the notification procedure to operate cross-border. One of the reasons is that it may take some time, even after the notification procedure is finalised, before the cross-border activity can actually start. This might improve in the future as a result of the IORP II Directive's clarification of the notification procedure. In addition, EIOPA is also reviewing the collaboration and exchange of information between NCAs to ensure alignment with the IORP II Directive and improve transparency and efficiency (Budapest protocol).

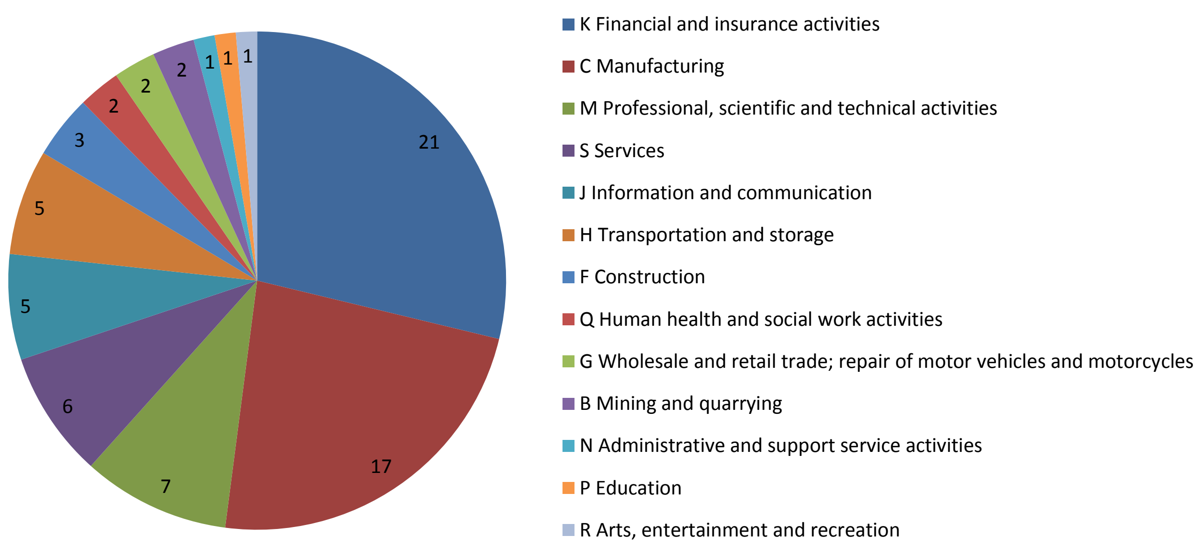
The decrease between 31 December 2015 and 31 December 2016 in the number of active IORPs is the result of three active IORPs ceasing its cross-border activities while only two new active IORPs were set-up over the same period (see annex VII). The remaining differences are due to corrections and clarifications to the UK cross-border reporting.

These corrections also explains why although **six new** cross-border IORPs were set up in 2016, there is only a small increase in the number of authorised cross border IORPs. Four of these were set-up in Belgium, one in Ireland and one in Luxembourg.

Figure 13 shows that cross-border IORPs were predominantly set-up - according to the NACE codes[42] - by sponsors active in financial and insurance activities and by sponsors active in manufacturing. The latter category is quite comprehensive as it includes manufacturing of industrial goods but also producing consumer goods and electronics. This chart also shows that the sectors in which sponsors of cross-border IORPs operate their business are wide-ranging and that there is no clustering around certain sectors.

[42] Source: European Commission () NACE Rev. 2: a statistical classification of economic activities in the EU. Page 57 sets out the broad structure of NACE Rev. 2 used in our analysis.

Figure 13: Cross-border IORPs by sector (of the sponsor where relevant)



3.2.2. Increase in the number of multi-employer (cross-border) IORPs and expansion of multi-country cross-border IORPs

Although in the majority of cases cross-border IORPs operate one or several schemes for a single sponsor[43], a more recent development relates to newly created cross-border IORPs, often by a service provider, aimed at multiple unconnected employers.

Multi-employers cross-border IORPs can be found in Austria (1), Belgium (2) Liechtenstein (4), and Luxembourg (4)[44]. While the increase is relatively small, both new active IORPs are multi-employer cross-border IORPs. Moreover, the presence of multi-employer IORPs goes together with an increase in sponsoring undertakings of cross-border IORPs which was noticed in Austria, Belgium, Ireland, Liechtenstein and Luxembourg.

At the same time, three existing cross-border IORPs have expanded their business, adding six additional host countries to their activities (see annex VII - Number of new host countries for existing XB schemes).

Such active multi-country cross-border IORPs have home Member States in Austria (1), Belgium (4), Ireland (3), Liechtenstein (2), Luxembourg (3) and the UK (1). Together they have cross-border activities in 13 of the 14 host Member States.

In contrast, the 59 single-country cross-border IORPs are active in solely seven host Member States. Moreover, single-country cross-border IORPs are less spread geographically (see annex VIII) with the host country closely correlated to the home Member State. For example, all Irish single-country cross-border IORPs have the UK as host country and all Liechtenstein single country cross-border IORPs have Germany as host country. Both home Member States have four different host countries for their active multi-country cross-border IORPs.

---

[43] Note, however, that this includes IORPs who operate the same scheme(s) for several connected sponsors e.g. subsidiaries of a corporate group.

[44] Information on the existence of multi-employer sponsors was not available for Germany, Ireland and UK.

3.3. Reasons for a stagnating cross-border IORP market

Despite the potential benefits of starting a cross-border activity as highlighted in section 3.1, there has been little and only marginal increase in the numbers of cross-border IORPs.

In this context, both the number of members and beneficiaries and the assets under management - reaching respectively 777,274 members and beneficiaries and EUR 63 billion assets under management including the domestic activities of the cross-border IORPs[45] - are small compared to the total IORP market. Indeed, assets represent only 1.65 percent of IORPs total assets under management.

The facility for IORPs to manage occupational pension schemes on a cross-border basis has been available for over a decade. Cross-border practitioners highlighted the following market developments as potential enablers for facilitating cross-border business.

Some market developments as potential enablers

- All things equal[46], cross-border practitioners indicated that **more providers** offering cross-border pension services and a **shift toward a more centralised management of employee benefits** can be regarded as two factors that could influence some European companies to start a cross-border activity.

- They also highlighted that recent **IT innovation** has contributed to easing the administration of cross-border activities. Specialised providers have started to create distinct solutions that enable the efficient functioning of cross-border activities, including multi-country administration, asset pooling, IT and insurance solutions.

Nevertheless, the reasons for not starting a cross-border activity listed below help explain the low take-up in cross-border activities.

Reasons provided by European companies for not considering a cross-border activity

- ***Lack of awareness*** of the existence of the current framework and hence possibilities offered by the IORP Directive to start a cross-border activity.

- ***Different maturities*** in the trend toward a centralised management of employee benefits at a corporate level. For many such plans are in development but not yet implemented.

- ***Lack of critical mass*** in terms of the number of people employed across the various EU locations. For these businesses, the costs of starting and sponsoring a cross-border IORP, on their own, would outweigh any benefits due to the lack of scale.

Reasons provided by European companies for considering but not pressing ahead with a cross-border activity

[45] For LU(CSSF), the data includes only its cross-border activities.

[46] In addition to the benefits of starting a cross-border activity outlined in Section 3.1.

- ***Length of the process***. In addition, under the current rules, the IORP is required to start a new notification procedure for each new employer even if there is no change in the existing cross-border activity.

- ***Too onerous administrative process*** for starting a cross-border activity due to a lack of information and transparency on the requirements to start a cross-border activity or local resistance (e.g. local management, social partners).

- Cross-border IORPs are ***not always the effective means***[47] to provide occupational pensions to their mobile employees[48], mainly due to scale and cost issues, including the need for retaining some local administration to ensure compliance with national SLL.

- ***Lack of sufficient scale*** to make the case for a cross-border activity worthwhile. For example, combining various different schemes across Europe including the diversity in local SLL requirements could make for a complex and costly case whereby the benefits of operating a cross-border activity and probability of success outweigh the costs and risks.

- ***SLL requirements*** might have a prudential impact, making a cross-border activity a complex undertaking. For instance, national differences in governance requirements for minimum employee representation or requirements to appoint a pension administrator or investment manager locally in the host Member State can make the administration of a cross-border IORP costly.

- Last but not least, the ***lack of providers*** capable of single-handedly delivering services (e.g. pension administration, IT platform) covering all EU/EEA Member States. Those cross-border IORPs operating in several EU locations equally reported on resorting to more than one service provider which increases complexity and hence operational risks.

SLLs provide the legal boundaries for the protection of scheme members and beneficiaries at national level that has to be complied with. However, from an EU perspective they are also a challenge for IORPs operating or wishing to operate cross-border. Also recital 16[49] of the IORP II Directive acknowledges its limitations due to SLL.

In practice, the complexity and potential compartmentalised administration inherent to managing different SLL may not only push upward the break-even point[50] to make cross-border activities worthwhile but also may act as a potential implicit barrier to market entry for service providers to cross-border IORPs.

The application of different SLL may prevent the full centralisation of pension fund operations "under one roof" and may hence impede on an optimal reduction in

47 Some of the alternatives mentioned include the development of expat schemes, allowing mobile employees to continue contributing to their national occupational pension in the country of origin for a fixed time period, or compensate them with other benefits and/or higher salary if the provision of a pension scheme during the expatriation period is not a viable and attractive option.

48 One stakeholder explained that encouraging the mobility of employees played an essential role following the merger of two companies based in different Member States and hence cultures in order to lift cultural barriers and promoting the sharing of knowledge and expertise between different EU locations.

49 Despite the entry into force of Directive 2003/41/EC, cross-border activity has been limited due to the differences in national SLL [...]

50 In terms of having sufficient critical mass to justify the business case for starting cross-border activities. For instance, national differences in governance requirements for minimum employee representation or requirements to appoint a pension administrator or investment manager locally in the host Member State can make the administration of a cross-border IORP too costly and hence not sustainable.

operational costs for the effective management of pension plans EU-wide. This is because some operations may need to continue being administered locally to mitigate non-compliance risk with respect to the host Member State's SLL[51]. The potential retention of a local administration would defeat a corporate objective to reduce all operational costs through a centralised administration.

Other European companies who, despite sufficient scale, do not consider cross-border activities may opt for asset pooling as an alternative strategy and hence keep the local administration in each Member States where they provide occupational pensions to employees.

> Although cross-border practitioners welcome the clarifications on the notification procedure and the scope of prudential supervision for cross-border activities set in the IORP II Directive, the vast majority also do not believe that the IORP II Directive would have significant impact on the future development of cross-border activities, mainly as a result of applying different SLLs locally.

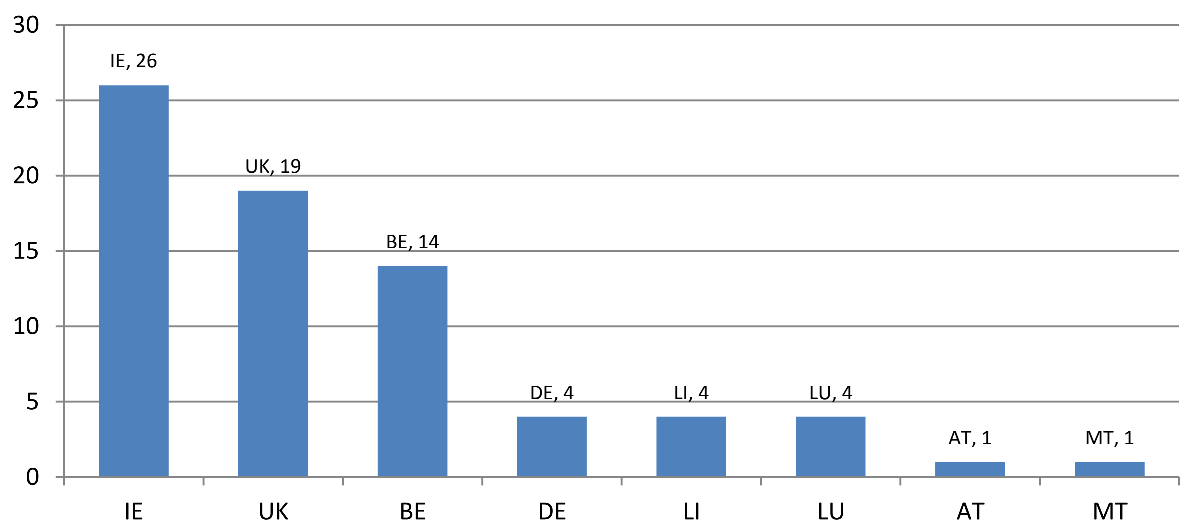
3.4. State of play of home and host Member States as at 31 December 2016

The majority of the cross-border IORPs operate between Ireland and the UK. Over the past years, cross-border activities appear to be clustered around a group of EU/EEA Member States. Indeed, there exist 17 EEA countries without any home or host activity. As shown also in annex VIII, Belgium is the home Member State with the most geographical spread of cross-border activities which cover eight host Member States. The following subsections provide a brief overview about the impetus or obstacles to develop cross-border activity based on stakeholders and NCA experts input.

Home Member States

The number of home countries for cross-border IORPs remained constant over 2016 with the same eight home countries as reported in 2015.

Figure 14, home Member States, number of active cross-border IORPs



51 It is assumed that local administration/management would be closer to regulatory changes in SLL.

Following NCA experts' responses, there is often no interest from IORPs to operate cross-border in their Member States. Often this is linked to the presence and size of the IORPs in the national markets.

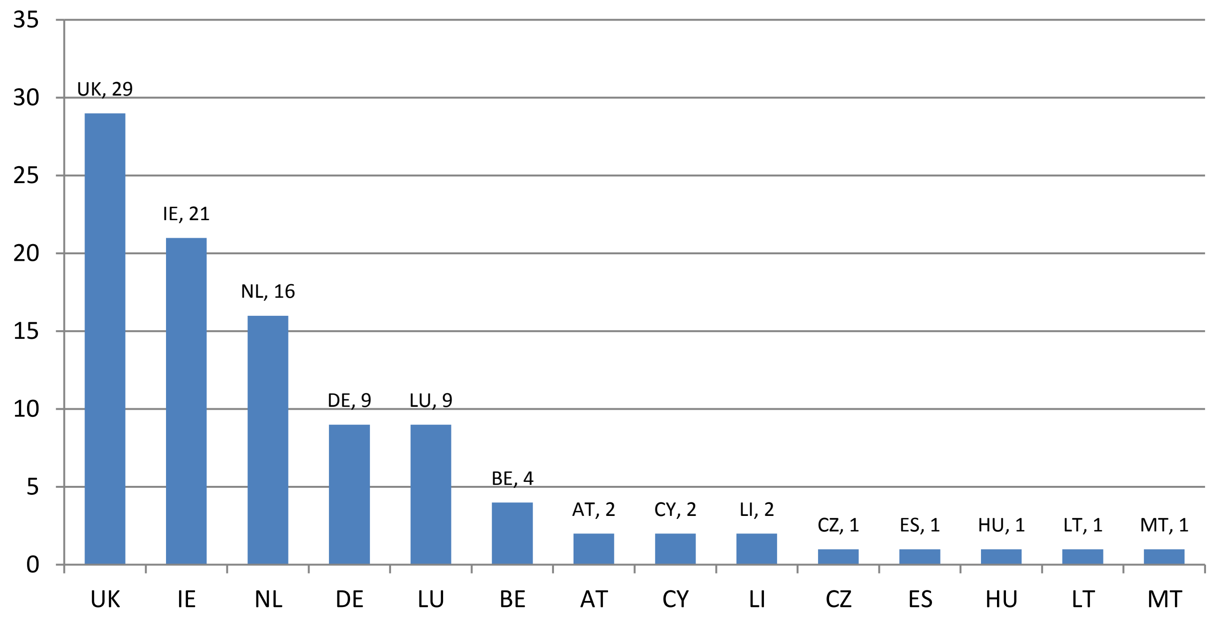
In some of the smaller Member States, cross-border IORPs were seen as an opportunity to reach economies of scale. However, successful cross-border activities will often remain limited to certain home Member States where they have sufficient critical mass and where risks are low.

In some countries, multi-country benefit provision is being sought from other providers such as insurance companies that can also provide pooling solutions.

Host Member States

There are substantially more host Member States for cross-border IORPs than there are home Member States. However, only a minority of EEA countries host one or more cross-border IORPs. As a result of the corrections mentioned in section 3.1.1, the number of host countries dropped from 17 as reported in last year's report to 14.

Figure 15: Host states for the 73 active crossborder IORPs



The existence of IORPs in a host Member State is not a prerequisite to starting a cross-border activity. Whilst Czech Republic and Lithuania do not have any IORPs at a national level, both countries are host Member States to a cross-border activity.

Next to the cross-border IORPs between the UK and Ireland, an international work force and/or multinational employers were considered as reasons to be host Member States.

In addition, local rules, e.g. on investments, can make it more beneficial for local employers and employees to manage pension contributions abroad.

Looking towards the future, **cross-border practitioners remain sceptical about achieving full EU coverage**

Setting aside European companies' future plans for consolidating the management of occupational retirement provisions into a single cross-border IORP, many cross-border practitioners indicated their scepticism about the ability to bring in all potential host Member States into an already active IORP for several reasons:

- The sponsoring company may have little room for manoeuvre because occupational retirement provisions are part of industry-wide pension schemes agreed through ***collective agreements***.

- In smaller Member States the ***lack of critical mass*** due to the small number of employees was regarded as one of the most important challenges to start a cross-border DC activity[52].

- The compartmentalised administration of occupational DC retirement provisions by Member State section necessary to apply differences in ***SLL requirements*** between host Member States represents one of the largest costs to operating a cross-border IORP. This may not only prevent some European companies to start a cross-border IORP but also refrain existing cross-border IORPs (and their sponsoring companies) from extending their cross-border activities to other host Member States.

As a result of the increasing mobility of workforce and the presence of multinationals in more and more Member States, more host countries would be suitable to set-up cross-border IORPs.

3.5. Scheme information

Figure 16: Cross-border IORPs split by scheme type

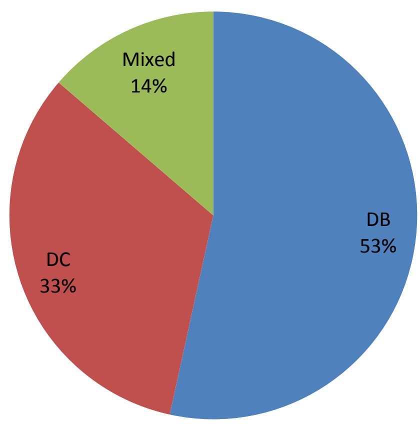


Figure 17: Cross-border scheme types split by assets

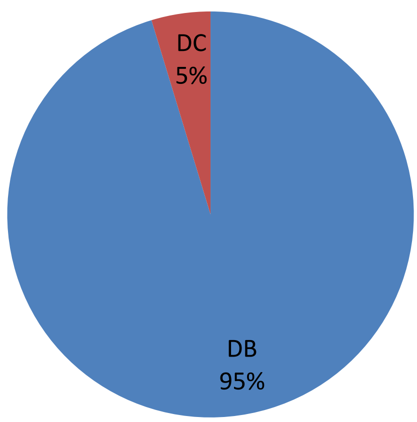


Figure 17, showing the scheme types of cross-border IORPs split by total assets values, confirms that also for cross-border IORPs, DB schemes are by far the predominant type in terms of asset values. Almost 95 percent[53] of the assets are under the management of DB schemes.

---

[52] Findings with regards to this bullet point and the last one where highlighted in the context of DC schemes but equally apply to DB schemes.

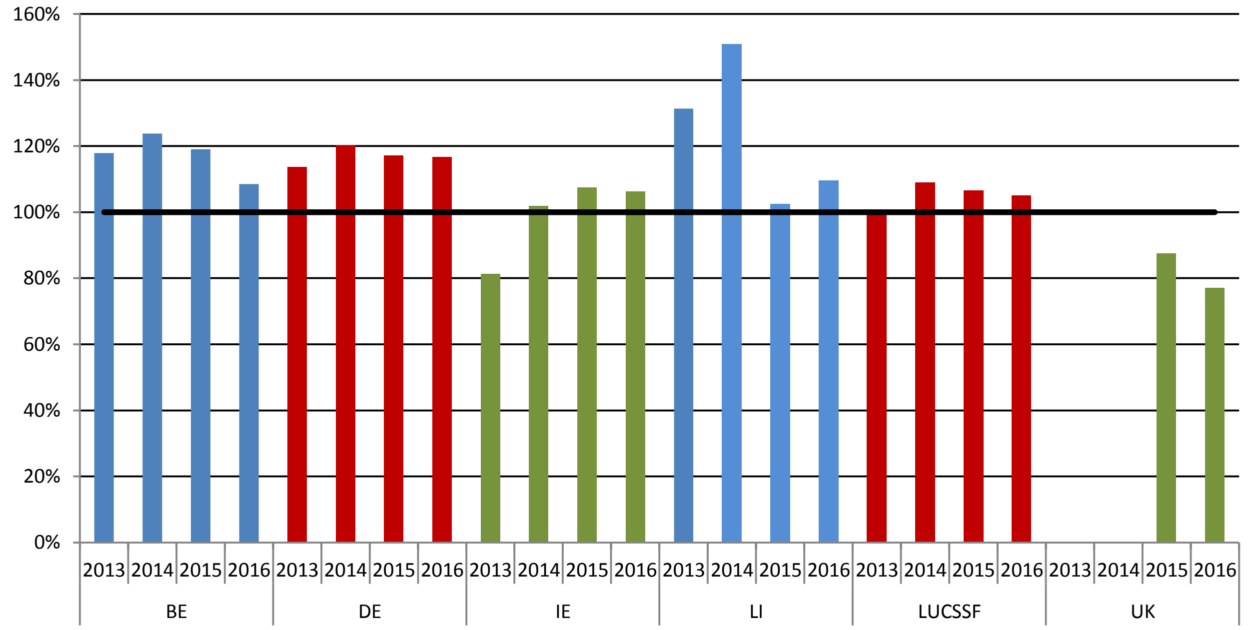
[53] Asset data was not available for Austria.

3.6. Funding position of cross-border IORPs

Figure 18 shows the development of the funding positions - calculated as assets over liabilities - over the last four years[54]. Trends are generally similar to those for the IORPs. However, in almost all Member States, aggregated funding ratios by the end of 2016 are lower for cross-border IORPs compared with funding ratio's considering all IORPs in a country (see section 2.3).

For the UK, this also means a deterioration of the negative funding position when it comes to cross-border IORPs. This may in part be explained by the fact that yields decreased substantially in the UK in mid-2016. All other countries' funding ratio is positive with Ireland recovering from its negative funding ratio over the last few years.

Figure 18: Cross-border DB assets over liabilities (end of 2013-2016)



[54] Asset and liability data was not available for Austria. There are no DB schemes in Malta and LU(CAA).

Annexes:

Annex I: Glossary

General IORP information	
IORPs	Institutions for Occupational Retirement Provision
Article 4 ring-fenced funds	Art. 4 ring-fenced funds refers to the occupational retirement provision business of insurance undertakings covered by Directive 2009/138/EC to which certain provisions of the IORP Directive are applied in accordance with Article 4 of the IORP Directive 2003/41/EC. In that case, all assets and liabilities corresponding to the said business shall be ring-fenced, managed and organised separately from the other activities of the life insurance undertaking, without any possibility of transfer.
Article 17(1) IORPs	Article 17(1) IORPs are IORPs where the institution itself, and not the sponsoring undertaking, underwrites the liability to cover against biometric risk, or guarantees a given investment performance or a given level of benefits, in accordance with Article 17(1) of the IORP Directive 2003/41/EC.
Multi-employer IORPs	A multi-employer IORP is an IORP that manages the pension schemes of two or more unrelated employers.
Member	A person, other than a beneficiary or a prospective member, whose past or current occupational activities entitle or will entitle him/her to retirement benefits in accordance with the provisions of a pension scheme. This includes both active members and deferred members.

Scheme types	
Occupational pension scheme	Means a contract, an agreement, a trust deed or rules stipulating which occupational retirement benefits are granted and under which conditions.

DB schemes[55]	DB schemes are defined as: * Retirement benefit plans under which amounts to be paid as retirement benefits are determined by reference to a formula usually based on employees' earnings and/or years of service. * Schemes which operates like a DC scheme but which targets a specified level of benefits at retirement. * Schemes which operates like a DC scheme but which guarantees a minimum rate of investment return on contributions paid. A plan which operates like a DC scheme but which guarantees a certain annuity purchase price (annuity conversion factor). * Schemes which operate like a DC scheme but which guarantees that at least the sum of contributions paid is returned. * Schemes in which benefits are mostly determined by the contributions paid and the results of their investment, but that offers minimum guarantees and in the case of occupational pensions the employer has the final responsibility for the minimum guarantees.
DC schemes[56]	DC schemes are defined as schemes where the only obligation of the plan sponsor is to pay a specified contribution (normally expressed as a percentage of the employee's salary) to the plan on the employee behalf. There are no further promises or 'guarantees' made by the sponsor.
Hybrid schemes[57]	Hybrid schemes are defined as schemes that have separate DB and DC components, but which are treated as part of the same scheme.

IORP types	
DB IORP	IORP where all schemes provided are DB.
DC IORP	IORP where all schemes provided are DC.
Hybrid IORP	IORP where all schemes provided are hybrid.
Mixed IORP	IORP providing multiple scheme types.

55 Source: https://eiopa.europa.eu/fileadmin/tx_dam/files/publications/Pensions_Register/EIOPA-BoS-13-054_Database_of_pension_plans_and_products_in_EEA_Guide_for_compilation.pdf

56 Source: https://eiopa.europa.eu/fileadmin/tx_dam/files/publications/Pensions_Register/EIOPA-BoS-13-054_Database_of_pension_plans_and_products_in_EEA_Guide_for_compilation.pdf

57 Source: https://eiopa.europa.eu/fileadmin/tx_dam/files/publications/Pensions_Register/EIOPA-BoS-13-054_Database_of_pension_plans_and_products_in_EEA_Guide_for_compilation.pdf

Cross-border information	
Cross-border activity	'Cross-border activity' means operating a pension scheme where: (i) the relationship between the sponsoring undertaking, and the members and beneficiaries concerned, or (ii) the accrued pension rights of the members and beneficiaries when there is no sponsoring undertaking anymore, are governed by the SLL relevant to the field of occupational pension schemes of a Member State other than the home Member State.
Authorised cross-border IORPs	IORPs which are authorised to operate cross-border, and have finalised the notification procedure.
Active cross-border IORPs	Authorised cross-border IORPs which have finalised the notification procedure and hold assets and liabilities relating to their cross-border activity.

Statistical information included in the annexes	
0	The amount or the value of the figures is 0 or lower than 0.5.
N/A	The requested information is not available
:	The requested information is not applicable.

Annex II: IORP data

2016 IORP information

Country	Nr. of IORPs	Nr. of multi-employer IORPs	Nr. of occupational pension schemes	Nr. of DB IORPs	Nr. of DC IORPs	Nr. of hybrid IORPs	Nr. of Mixed IORPs
AT	12	6	150	1	4	1	6
BE	194	5	503	187	1	0	6
BG	2	2	11	0	2	0	0
CY	2,086	9	2,086	7	2,079	0	0
DE	167	N/A	N/A	167	0	0	0
DK	18	0	18	18	0	0	0
ES	341	175	1,335	3	143	120	75
FI	45	0	46	44	0	0	1
HR	19	0	19	1	18	0	0
HU	1	0	1	0	1	0	0
IE	112,212	N/A	112,212	677	111,425	0	0
IT	267	98	323	17	229	21	0
LI	5	5	1,358	2	3	0	0
LUCAA	3	1	89	2	1	0	0
LUCSSF	14	8	29	4	7	1	2
LV	6	5	17	0	6	0	0
MT	2	0	2	0	2	0	0
NL	266	17	4,890	255	11	0	0
NO	87	0	87	87	0	0	0
PL	3	1	29	0	3	0	0
PT	186	47	698	73	37	0	74
SE	86	8	N/A	77	3	0	6
SI	3	3	4	3	0	0	0
SK	4	0	17	0	4	0	0
UK	39,412	N/A	39,412	4,991	33,290	1,131	0
TOTAL	**155,441**	**390**	**163,336**	**6,616**	**147,269**	**1,274**	**170**

2016 Financial and member information

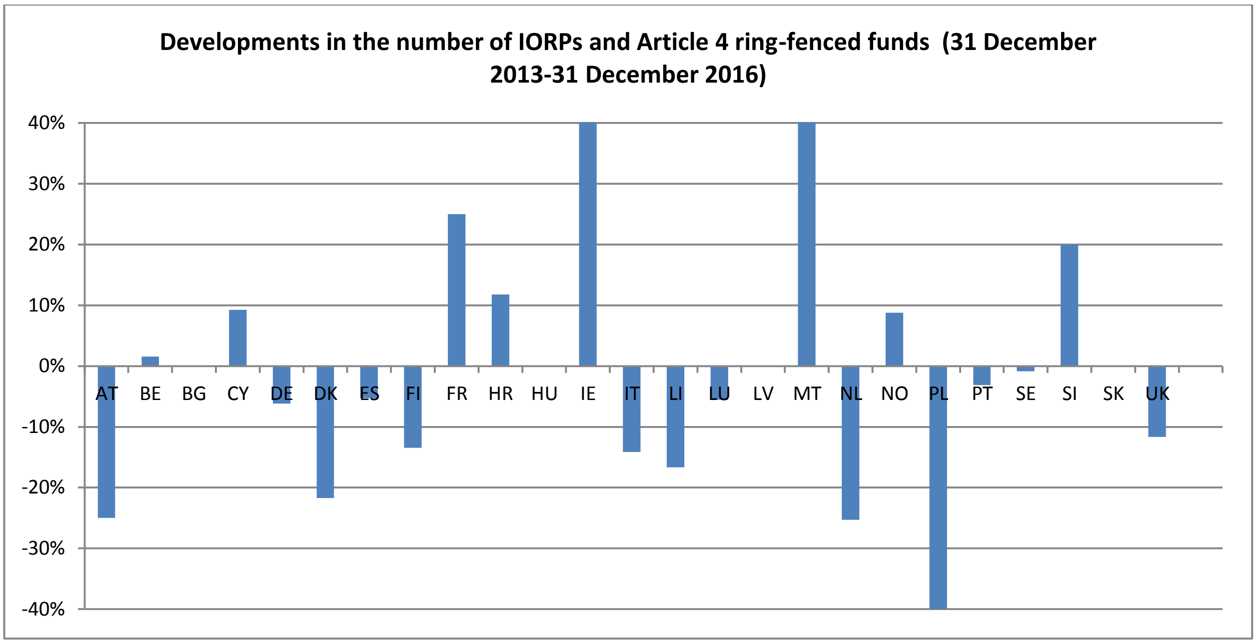
Country	Assets (in EUR mil.)	Liabilities (in EUR mil.)[58]	Contributions (in EUR mil.)	Benefits Paid (in EUR mil.)	Active members	Deferred members	beneficiaries
AT	21,751	20,801	1,173	860	737,306	66,196	93,599
BE	26,825	21,260	1,334	693	955,597	670,964	32,879
BG	6	:	1	0	7,257	0	108
CY	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DE	224,231	171,637	9,572	6,865	5,822,367	2,516,858	1,598,473
DK	7,954	5,501	34	223	2,748	N/A	10,214
ES	37,018	25,598	1,124	1,931	689,946	1,349,471	117,993
FI	4,465	3,500	4	249	11,301	10,187	48,791
HR	113	9	14	4	29,237	N/A	3,635
HU	1	:	0	0	617	0	0
IE	92,364	58,945	4,367	4,636	476,760	677,105	103,262
IT	123,645	N/A	10,064	5,138	4,530,230	3,841	104,056
LI	600	440	80	40	2,172	N/A	1,320
LUCAA	430	429	75	48	8,267	N/A	N/A
LUCSSF	1,508	1,484	76	56	12,249	2,010	2,213
LV	383	2	72	31	147,129	80,361	44,719
MT	2	:	1	0	88	0	N/A
NL	1,296,044	1,256,818	29,036	28,863	5,850,823	9,762,316	3,243,113
NO	35,038	31,307	1,692	892	187,297	199,423	90,883
PL	402	:	30	18	20,270	19,070	1,658
PT	17,275	16,226	811	578	151,807	12,416	125,415
SE[59]	40,462	12,653	817	501	N/A	N/A	N/A
SI	634	629	65	32	101,363	29,669	N/A
SK	1,709	:	233	105	725,052	N/A	34,902
UK	1,612,765	1,825,625	N/A	N/A	N/A	N/A	N/A
TOTAL	**3,545,625**	**3,452,503**	**60,675**	**51,764**	**20,469,883**	**15,399,887**	**5,657,233**

[58] With the exception of the figures for Austria and Luxembourg, the liabilities of the DC schemes were not included or equal to zero. In contrast, assets of DC schemes are included in the column "assets" for all countries.

[59] Swedish data only includes Article 17(1) for liabilities, contributions and benefits paid (in distinction from the assets which includes both Article 17 (1) IORPs and Pension Foundations). The number of active members is approximately 1.875 million.

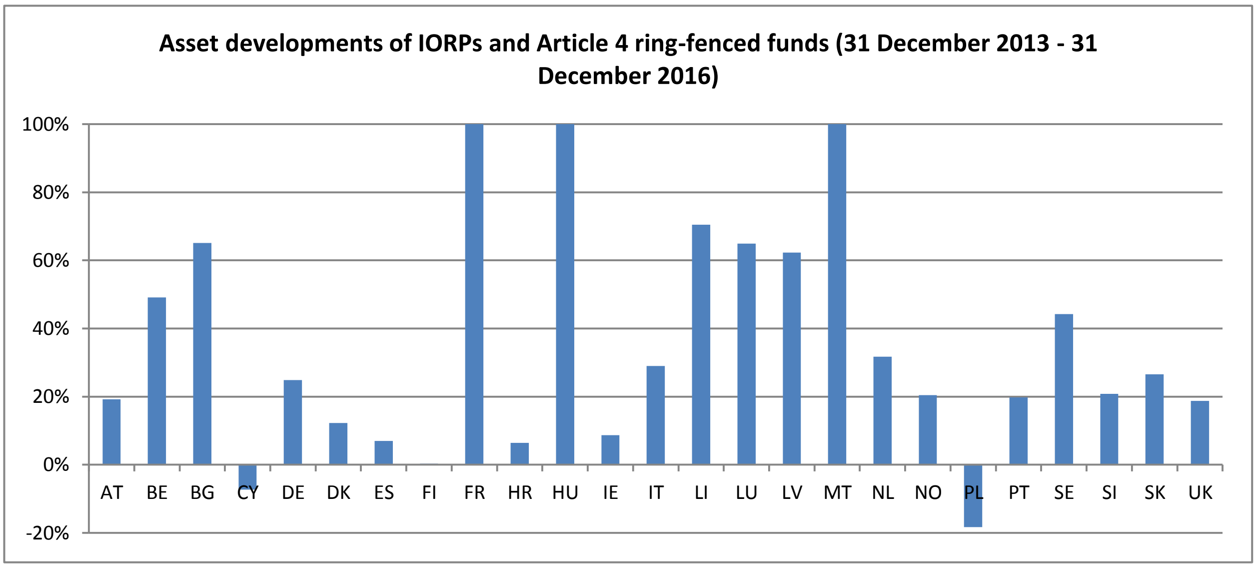
Annex III: Changes over the past three years by country

Number of IORPs and Article 4 ring-fenced funds



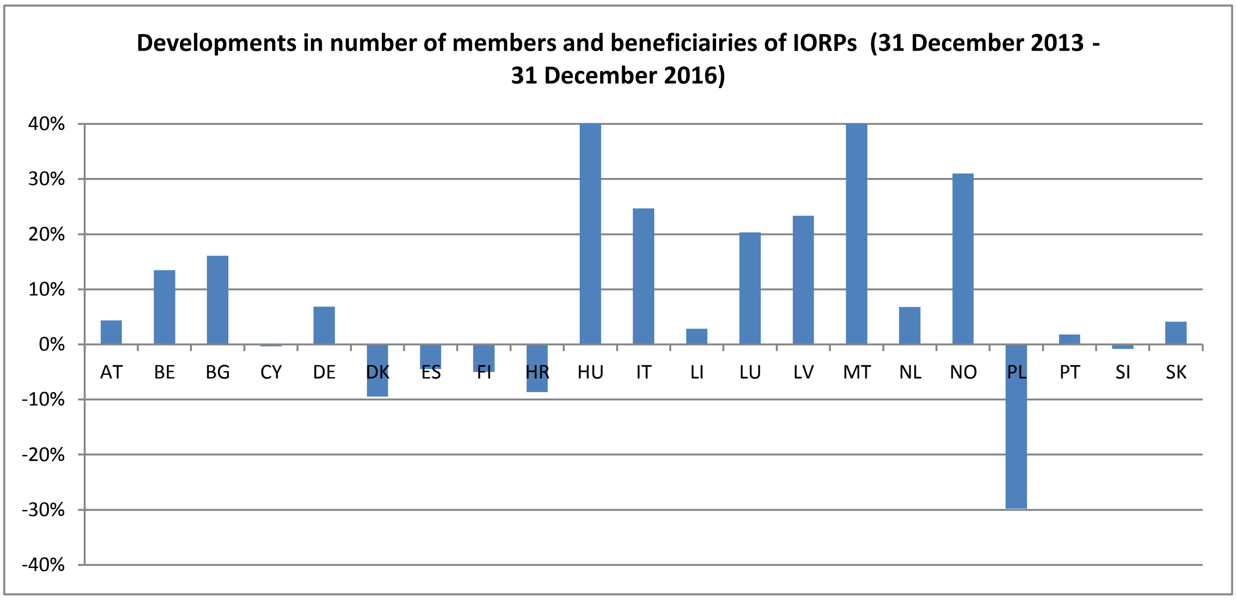
Note: The figures for Ireland and Malta amount to respectively 81 and 100 percent. For Ireland, the increase could be explained due to the Irish data including DC IORPs that are closed to new members and/or that are in the process of winding-up as of 2016. For Malta, the number of IORPs was doubled due to the set-up of a new IORP during 2016.

Assets



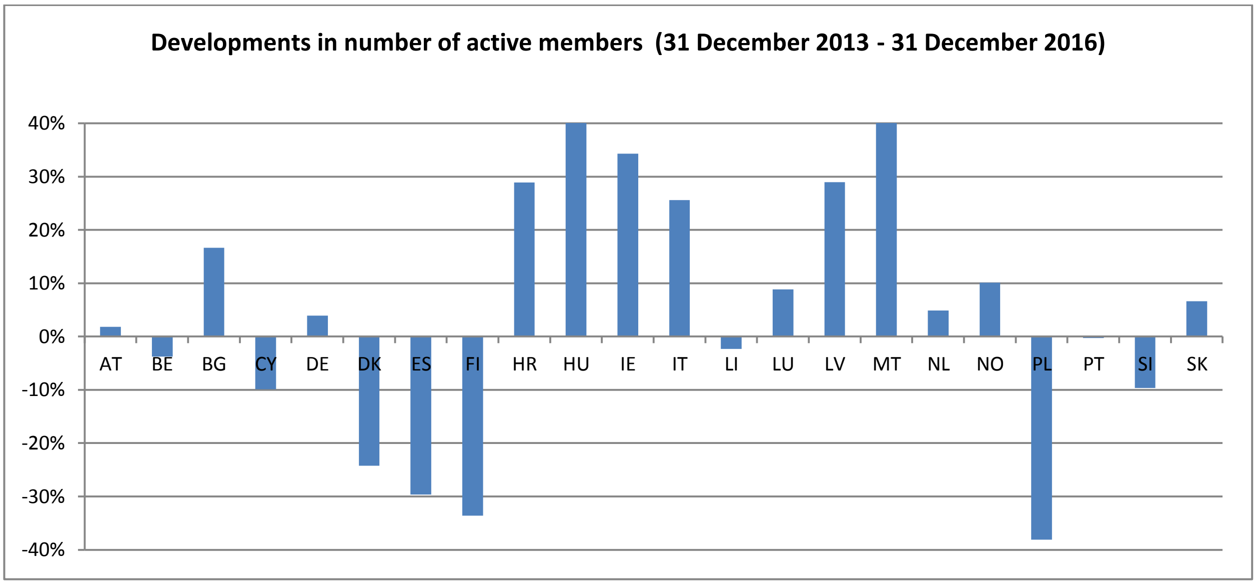
Note: The figures for France, Hungary amount to respectively 1094 and 371 percent. For France, the increase is largely due to one insurer having transferred a substantial amount from its own general fund to its Article. 4 ring-fenced fund. For Hungary, the assets were relatively small at the end of 2013 and have therefore grown considerably. Malta did not have active IORPs at the end of 2013.

Number of members and beneficiaries



Note: The figure for Hungary amount to 231 percent. Its numbers of members and beneficiaries were relatively small at the end of 2013 and have therefore grown considerably. The Maltase IORP did not have members and beneficiaries as at the end of 2013.

Number of active members



Note: The figure for Hungary amount to more 331 percent. Its numbers of active members was relatively small at the end of 2013 and has therefore grown considerably. The Maltase IORP did not have active members as at the end of 2013.

Annex IV: Article 4 ring-fenced funds data

2016 Article 4 ring-fenced funds information

Country	Nr. of Article 4 ring-fenced funds	Nr. of Multi-employer Article 4 ring-fenced funds	Nr. of occupational pension schemes	Nr. of DB Article 4 ring-fenced funds	Nr. of DC Article 4 ring-fenced funds	Nr. of hybrid Article 4 ring-fenced funds	Nr. of Mixed Article 4 ring-fenced funds
FR	5	N/A	5	N/A	N/A	N/A	N/A
SE	26	26	N/A	2	17	0	7
SI	9	9	9	9	0	0	0
TOTAL	**40**	**35**	**14**	**11**	**17**	**0**	**7**

2016 Financial and member information

Country	Assets (in EUR mil.)	Liabilities (in EUR mil.)	Contributions (in EUR mil.)	Benefits Paid (in EUR mil.)	Active members	Deferred members	beneficiaries
FR	13,704	:	N/A	N/A	N/A	N/A	N/A
SE[60]	276,408	211,065	17,913	10,882	N/A	N/A	N/A
SI	1,658	1,651	88	53	271,857	107,658	N/A
TOTAL	**291,770**	**212,716**	**18,001**	**10,935**	**271,857**	**107,658**	**0**

[60] The number of active members is approximately 2 million.

Annex V: Article 17 (1) data

2016 Article 17 (1) information

Country	Nr. of IORPs	Nr. of Multi-employer IORPs	Nr. of occupational pension schemes	Nr. of DB IORPs	Nr. of DC IORPs	Nr. of hybrid IORPs	Nr. of Mixed IORPs
FI	1	0	1	1	0	0	0
HR	1	0	1	1	0	0	0
IT	15	2	23	5	2	8	0
LI	4	4	4	2	2	0	0
NL	255	6	385	255	0	0	0
NO	87	0	87	87	0	0	0
SE	11	8	N/A	2	3	0	6
SI	3	3	4	3	0	0	0
TOTAL	**377**	**23**	**505**	**356**	**7**	**8**	**6**

2016 Financial and member information

Country	Assets (in EUR mil.)	Liabilities (in EUR mil.)[61]	Contributions (in EUR mil.)	Benefits Paid (in EUR mil.)	Active members	Deferred members	beneficiaries
FI	22	16	0	0	28	5	27
HR	10	9	3	3	0	N/A	2,944
IT	8,140	N/A	422	526	95,544	2,395	45,227
LI	599	440	80	40	2,172	N/A	1,320
NL	1,290,791	1,251,565	29,035	28,863	5,588,600	9,599,178	3,243,113
NO	35,038	31,307	1,692	892	187,297	199,423	90,883
SE[62]	15,730	12,653	817	501	N/A	N/A	N/A
SI	634	629	65	32	101,363	29,669	N/A
TOTAL	**1,350,963**	**1,296,618**	**32,115**	**30,858**	**5,975,004**	**9,830,670**	**3,383,514**

[61] For Liechtenstein, the liabilities of the DC schemes were not included in the figure or equal to zero.
[62] The number of active members is approximately 1 million.

Annex VI: 2016 Cross-border IORP data[63]

Country	Nr. of authorised cross-border schemes	Nr. of active cross-border schemes	Nr. of sponsoring undertakings	Nr. of members	Nr. of beneficiaries	Assets (in EUR mil.)	Liabilities (in EUR mil.)
AT	1	1	19	N/A	N/A	N/A	1,586
BE	18	14	126	16,436	3,836	5,080	4,683
DE	4	4	N/A	443,884	138,362	34,694	29,742
IE	27	26	32	58,429	15,460	13,608	12,423
LI	4	4	1,358	2,172	1,320	599	440
LUCAA	1	1	84	7,418	N/A	362	362
LUCSSF	3	3	11	1,466	1,157	453	433
MT	1	1	1	88	N/A	2	:
NO	1	:	:	:	:	:	:
UK	23	19	103	87,246	N/A	8,453	8,320
Total	**83**	**73**	**1,734**	**617,139**	**160,135**	**63,250**	**57,626**

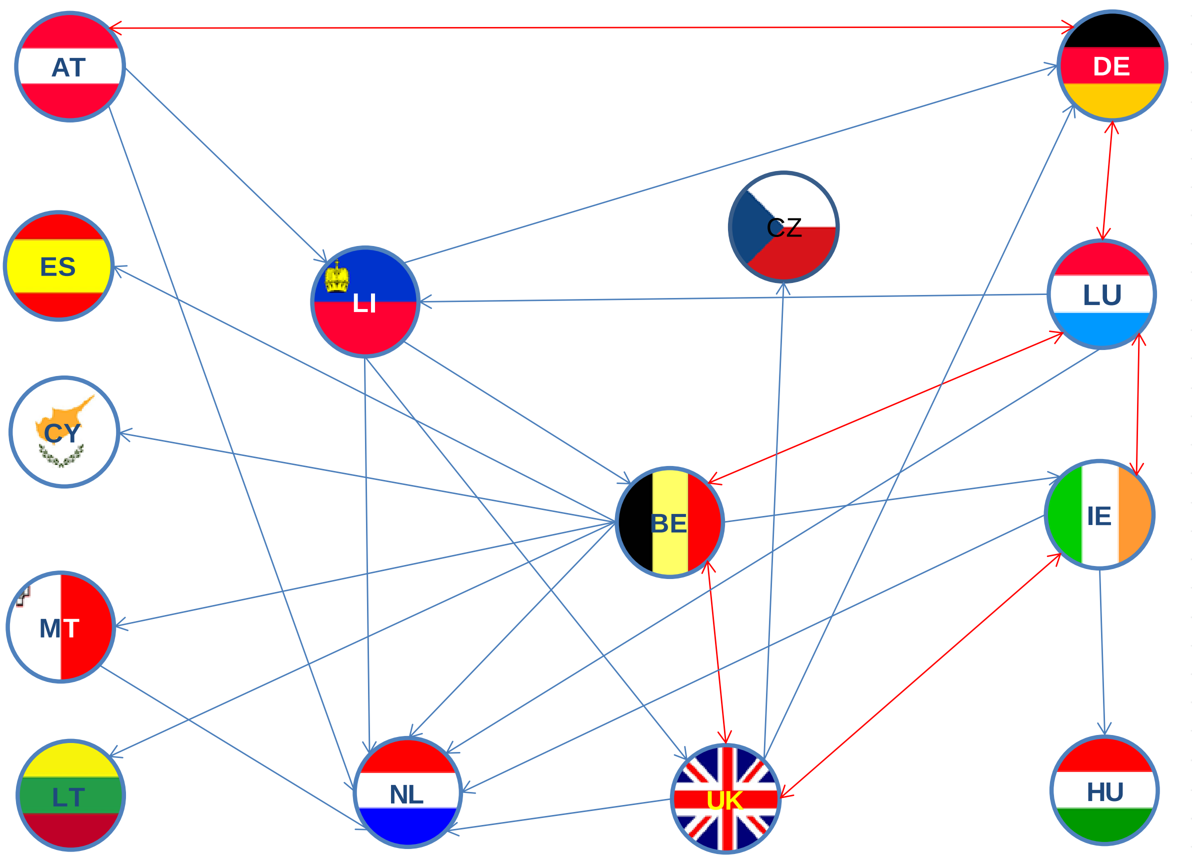
[63] Data on amount of assets and liabilities and the number of member and beneficiaries included both cross-border and domestic activities. Only for LU(CSSF), the data only includes cross-border activities.

Annex VII: Cross-border changes over 2016

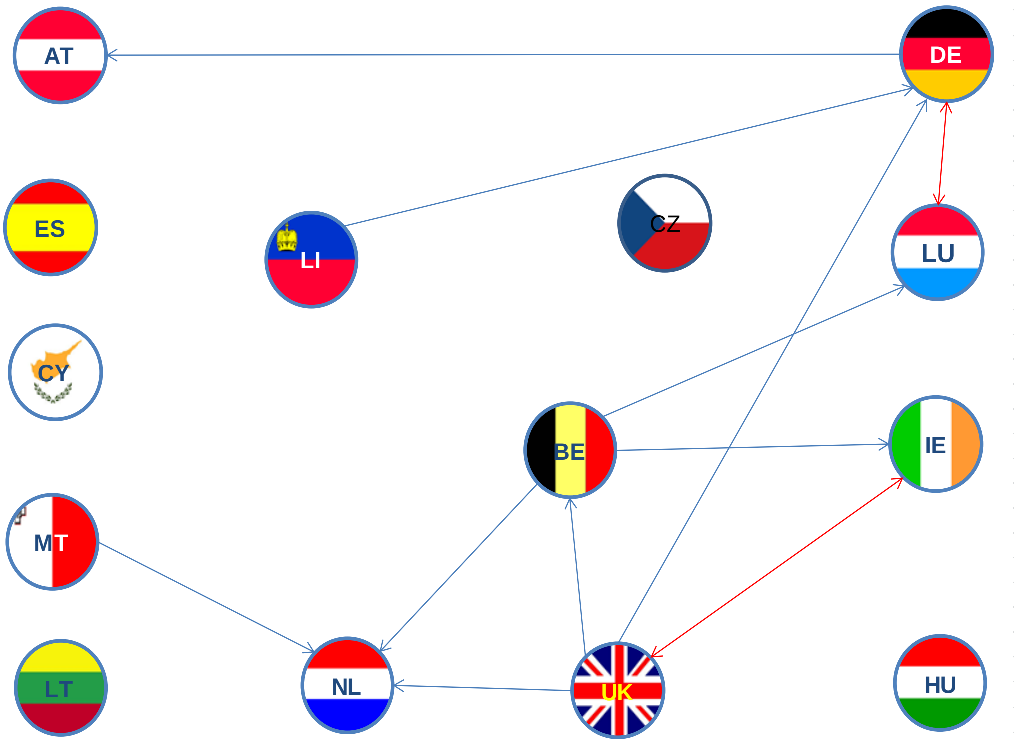
XB changes		
Number of new authorised XB IORPs	**Home country**	**Host country**
1	Belgium	Ireland
2	Belgium	Netherlands
1	Belgium	Hungary
1	Ireland	Portugal
1	Luxembourg	Germany
Number of new active XB IORPs	**Home country**	**Host country**
1	Belgium	Ireland
1	Luxembourg	Germany
Number of XB IORP withdrawals	**Home country**	**Host country**
1	Austria	Germany (inactive)
1	Ireland	Belgium
1	Ireland	UK
1	UK	Germany
		Ireland
		the Netherlands
Number of new host countries for existing XB schemes	**Home country**	**Host country**
2	Belgium	Netherlands
1	Luxembourg	UK
1	Luxembourg	Germany
1	Luxembourg	Belgium
1	Luxembourg	Italy (inactive)
Number of host countries withdrawn from existing XB schemes	**Home country**	**Host country**
1	Liechtenstein	Sweden (became inactive)

Annex VIII: Overview of the host-home relationships of active cross-border IORPs

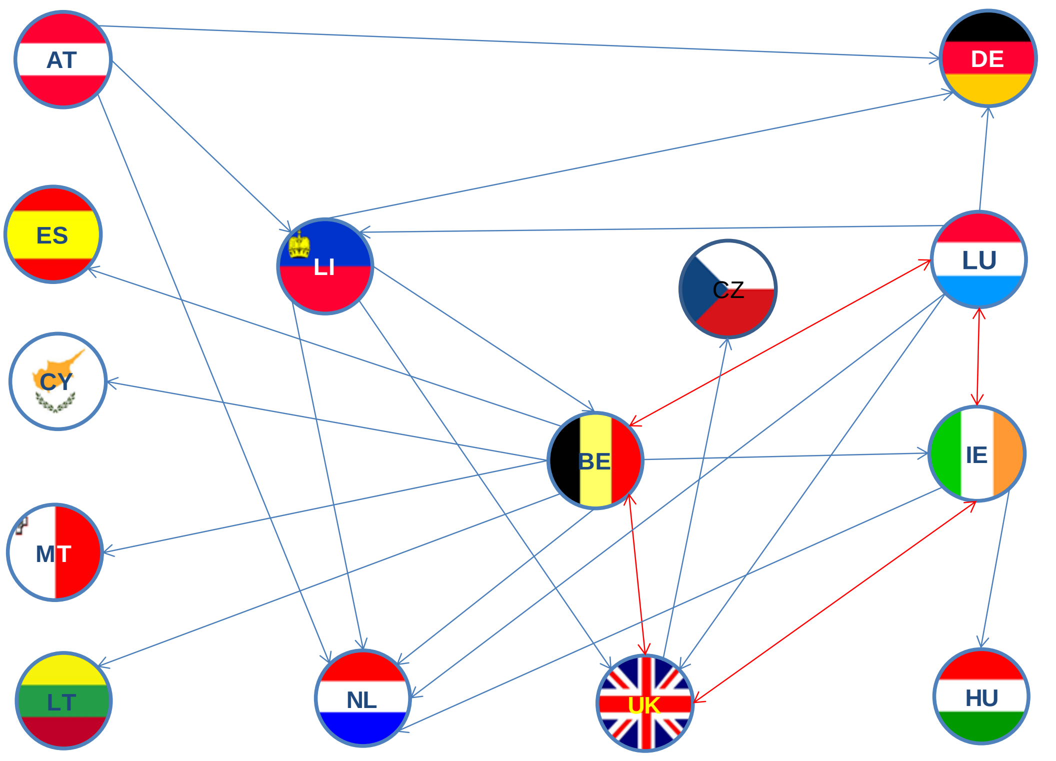
All cross-border IORPs



Single-country cross-border IORPs



Multi-country cross-border IORPs



Annex IX: Home and host States to active IORPs as at 31 December 2016

	Home State		Host State	
Country	2016	2015	2016	2015
AT	Yes	Yes	Yes	Yes
BE	Yes	Yes	Yes	Yes
BG	-	-	-	-
CY	-	-	Yes	Yes
CZ	-	-	Yes	Yes
DE	Yes	Yes	Yes	Yes
DK	-	-	-	-
EE	-	-	-	-
EL	-	-	-	-
ES	-	-	Yes	Yes
FR	-	-	-	-
FI	-	-	-	-
HR	-	-	-	-
HU	-	-	Yes	Yes
IE	Yes	Yes	Yes	Yes
IS	-	-	-	-
IT	-	-	-	-
LI	Yes	Yes	Yes	Yes
LT	-	-	Yes	Yes
LU	Yes	Yes	Yes	Yes
LV	-	-	-	-
MT	Yes	Yes	Yes	Yes
NL	-	-	Yes	Yes
NO	-	-	-	-
PL	-	-	-	-
PT	-	-	-	-
RO	-	-	-	-
SE	-	-	-	Yes
SI	-	-	-	-
SK	-	-	-	-
UK	Yes	Yes	Yes	Yes

Annex X: List of active cross-border IORPs

Presented below is a list of active cross-border IORPs as at 31 December 2016.

Home country	Host countries	Name IORP
AT	DE, NL, LI	APK Pensionkasse AG
BE	CY, IE, LT, LU, MT, UK	CITCO IBP, instelling voor bedrijfspensioenvoorziening
BE	CY, ES, IE, NL	BP Pensioenfonds
BE	IE	Chevron Organisme voor de Financiering van Pensioenen
BE	IE, LU	Nestlé Europees Pensioenfonds (NEPF) | Fonds de Pensions Européen Nestlé (FPEN)
BE	IE, NL	J&J Pensions Fund OFP
BE	IE	GE European Pension Fund
BE	NL	ALCON Pensioenfonds
BE	NL	Euroclear Pension Fund
BE	NL	Pension&co IBP
BE	NL	United Pensions
BE	LU	Pensioenfonds Groep-Staal | Fonds de Pension Groupacier
BE	LU	Pensioenfonds Ricoh | Fonds de Pension Ricoh
BE	LU	Pensioenfonds van Groep Brussel Lambert | Fonds de Pension du Groupe Bruxelles Lambert
BE	LU	Pfizer Pensioenfonds | Fonds de Pension Pfizer
DE	AT	Nestlé Pensionfonds AG
DE	AT	NÜRNBERGER Pensionkasse AG
DE	LU	R+V Pensionsversicherung a.G.
DE	LU	BVV Versicherungsverein des Bankgewerbes a.G.
IE	UK	AerCap Ireland Ltd Employee Benefit Plan
IE	UK	The Church of Ireland Clergy Pensions Fund
IE	UK	The Allianz Group Pension Scheme
IE	UK	The Greencore Group Pension Scheme
IE	UK	AIB Group Irish Pension Scheme
IE	UK	Commerzbank Irish Pension Scheme
IE	UK	Irish Times Limited Pension and Life Assurance Plans
IE	UK	The KPMG Staff Pension Scheme
IE	UK	SIPTU Pension and Life Assurance Plan
IE	UK	Bank of Ireland Affiliated Pension Fund
IE	UK	Irish Airlines (General Employees) Superannuation Scheme
IE	UK	The Bank of Ireland Staff Pensions Fund
IE	UK	Irish National Teachers' Organisation Pension Scheme
IE	UK	The 1991 Concern Retirement Benefits Scheme
IE	UK	The Aecom Ireland DC Pension Scheme
IE	UK	Six Nations Rugby Limited Retirement Benefits Scheme
IE	UK	2004 Sicon Ltd Group Defined Contribution Pension and Death Benefits Scheme
IE	UK	The Mercer DC Master Trust
IE	UK	The Second Aer Lingus Supplementary Scheme

IE	NL, UK	Xtratherm Limited Pension Plan
IE	HU, UK	Intel Pan-European Pension Plan
IE	UK	Gaelectric Holdings Plc Pension Scheme
IE	UK	Irish Continental Group Defined Contribution Pension Scheme
IE	LU, UK	The Kennedy Wilson Europe Ltd Pension Scheme
IE	UK	Sisk Healthcare European Pension Scheme
IE	UK	Actavo Group Limited
LI	DE	AAK Allgemeine Ausgleichskasse AG
LI	DE	LV1871 Pensionsfond AG
LI	BE, DE, NL	Swiss Life International Employee Benefits Pension Fund
LI	NL, UK	Rofenberg Stiftung fur Personalvorsorge
LU	DE, LI, NL	Swiss Life International Pension Fund
LU	BE, DE, NL, UK	Amundi Pension Fund
LU	IE, NL	The Unilever Pension Plan
LU	DE	ePension Fund Europe (ASSEP)
MT	NL	Plegt-Vos Retirement Scheme
UK	DE	E.ON (Cross-Border) Pension Scheme
UK	DE	The SciSys Plc Section 615 Pension Plan for Overseas Employees
UK	IE	Thomson Reuters UK Retirement Plan
UK	IE	The RNLI 1983 Contributory Pension Scheme
UK	IE	TSSA Staff Pension Scheme
UK	IE	Hella Limited Retirement Benefits Scheme
UK	BE, CZ, IE	VF Corporation UK Pension Plan
UK	IE	SunGard Retirement Benefits Scheme - SunGard Section
UK	IE	Merck International Pension Scheme
UK	IE	Trinity Mirror Pension Plan
UK	IE	Robert Bosch Limited Money Purchase Plan
UK	IE	NUJ Irish Staff Pension Scheme
UK	IE	The Capita International Retirement Benefit Scheme
UK	IE	ExxonMobil Pension Plan
UK	IE	The Conlon Retirement Benefit Scheme
UK	IE	Poole Lighting Retirement & Death Benefit Plan
UK	NL	TNT Group Pension Scheme
UK	NL	Vodafone UK Defined Contribution Pension Plan
UK	BE	The Associated Press Defined Contribution Retirement Plan