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**IDENTIFICATION OF FUNDS
MARKETED THROUGH LIFE
INSURANCE OR USED BY INSURERS
AS INVESTMENT VEHICLES: NEW
DATA COLLECTED AND PRELIMINARY
ANALYSIS IN RELATION TO LIQUIDITY
MANAGEMENT TOOLS**

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AUTORITÉ
DES MARCHÉS FINANCIERS



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Identification of funds marketed through life insurance or used by insurers as investment vehicles: new data collected and preliminary analysis in relation to liquidity management tools

Executive Summary

The question of how much marketing of French funds takes place through life insurance has been asked repeatedly, but no precise quantitative answer has yet been provided. More generally, it is difficult to measure the proportion that institutional investors represent on the liability side of funds.

Knowledge of fund liabilities remains very incomplete, both for the regulator and for the fund managers themselves. The Banque de France's quarterly collection of statistics on securities holdings (PROTIDE) can be used on an ad hoc basis to provide an overall view of holdings by major category of market participant, but it does not seem sufficiently granular.

Within the framework of a one-off data sharing agreement (CLA-99), the authority in charge of the supervision of insurers in France (the Autorité de Contrôle Prudentiel et de Résolution, ACPR) sent us the details of French insurers' holdings of funds as of 30 June 2020 (insurer by insurer, broken down between non-life and life business lines, the latter further subdivided between euro and unit-linked). Since we are unable to study fund liabilities using data from fund managers, we looked at the funds held as assets by insurers, which are major institutional investors in France.

The main observations are as follows:

- French funds account for 73% of unit-linked investments in funds reported by insurers to the ACPR (in terms of assets under management).
- Insurers hold €477 billion in French funds (total net assets of French funds amount to €1.617 trillion). The life insurance business accounts for €450 billion, split almost equally between euro-denominated and unit-linked products.
- The proportion of fund liabilities held by insurers varies widely. Insurers hold more than 80% of the assets in almost 1,000 French funds as investment for unit-linked policies (holdings of €130 billion).
- The group structure is very pronounced: insurers invest mostly in funds managed by asset management companies belonging to the same conglomerate. Conversely, asset management companies almost exclusively manage investments from insurers in the same group. This result is hardly surprising considering that some large insurance groups have specifically created asset management subsidiaries to manage the group's assets, but it does raise the question of the prevention of conflicts of interest.

Identifying these funds significantly owned by insurers will provide an opportunity for subsequent studies to analyse the extent to which the specific decision to market through unit-linked products affects certain parameters (introduction of liquidity management tools in the fund prospectuses, pricing, etc.).

By way of illustration, a supplement to the Darpeix et al. (2020) study on the use of liquidity management tools in French funds is proposed. This additional analysis shows that caps on subscriptions or redemptions (i.e. gates) and swing pricing are less widely adopted in funds dedicated to euro-denominated policies. Similarly, equity funds that are used almost exclusively as unit-linked vehicles adopt swing pricing (0% versus 7% in the total population) and gates (2% versus 13% in the total population) to a much lesser extent. The same pattern is true for diversified funds that are predominantly used as unit-linked products.

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The authors would like to thank **Nicolas Mème** and **Marko Novakovic** (from the Banque de France) for their help with the section on liquidity management tools. They would also like to thank the ACPR for providing insurers' portfolio data. Any errors and omissions are the responsibility of the authors.

1. INTRODUCTION

According to the data collected for this study, as of 30 June 2020, French insurers' total investments amounted to €2.666 trillion, of which €707 billion were fund units, split between life (€665 billion) and non-life (€42 billion) business lines. The funds identified by an ISIN code¹ by insurers accounted for €605 billion (i.e. 86% of the fund units held, with 14,600 separate ISINs). These are discussed in Section 2.

Based on the first letters of the ISIN code (indicating the country of the issuer), we can break down French insurers' investments in funds as shown in Table 1.

French funds identified in the AMF's databases by means of their ISIN (first line) accounted for €477 billion, of which €450 billion for life insurance alone.²

Table 1: Funds in French insurers' portfolios, by domicile indicated in the ISIN

	Non-Life Business		Life Business		Grand Total
	Euro	Euro	Unit-linked	Total (Euro + Unit-Linked)	
FR: France	26,530,374,141	222,986,716,465	227,480,692,067	450,467,408,532	476,997,782,673
FR: France not in BIO	227,204,077	3,027,361,008	552,555,778	3,579,916,786	3,807,120,863
LU: Luxembourg	3,678,347,799	40,505,760,971	55,498,897,358	96,004,658,329	99,683,006,128
IE: Ireland	2,454,333,004	13,403,567,628	3,748,125,356	17,151,692,984	19,606,025,987
TW: Taiwan		33,924,518	1,686,546,726	1,720,471,245	1,720,471,245
DE: Germany	3,804,105	85,364,966	1,069,756,379	1,155,121,346	1,158,925,451
Other funds with ISIN	55,084,218	1,632,871,046	310,338,700	1,943,209,746	1,998,293,965
Funds without ISIN	8,908,906,571	74,254,183,040	18,835,388,647	93,089,571,687	101,998,478,259
TOTAL	41,858,053,916	355,929,749,643	309,182,301,011	665,112,050,654	706,970,104,570

Source: Insurers' portfolios reporting (ACPR), BIO database (AMF)

At the end of June 2020, the French Insurance Federation (FFA) estimated that the mathematical provisions³ of the French "life" market stood at €1.697 trillion, of which €376 billion related to unit-linked policies (and therefore €1.321 trillion to euro-denominated policies).⁴ Leaving aside possible differences in scope and accounting, more than 80% of the assets held as investments for mathematical provisions of unit-linked policies are made up of undertakings for collective investment (€309 billion). Of these €309 billion in fund units held by insurers for unit-linked policies, €227 billion correspond to fund units identified in the AMF's databases. French funds identified in the AMF's databases therefore account for slightly more than 60% of the mathematical provisions of unit-linked policies. By contrast, funds (whether French or not, and with or without an ISIN) account for only 27% of investments covering non-unit-linked (euro) policies.

2. ANALYSIS OF THE FUNDS WITH ISIN CODES FOUND IN THE BIO DATABASE

We built a repository of all funds in the AMF's supervisory database (BIO) by collecting all available net asset values prior to 30 June 2020 (date of the ACPR's insurers' portfolio extract). The net assets of all funds domiciled in France amounted to €1.617 trillion as at 30 June 2020.

Using the ISINs of fund share classes in the BIO database, we were able to identify 6,844 fund share classes in the aggregate portfolios of French insurers. These fund share classes corresponded to 4,923 French-domiciled investment funds.

¹ The ISIN (or International Securities Identification Number) is the ISO 6166 standard for identifying financial securities, consisting of two letters indicating the country of issue followed by ten digits. Note that some of the codes provided by insurers are not real ISINs because the ten characters following the first two letters are not all numbers. These "pseudo-ISINs" are treated as ISINs in this study.

² No information on 109 ISINs beginning with "FR" was found in the AMF's or Refinitiv's (a data provider) databases. However, these funds account for only €4 billion of French insurers' portfolios.

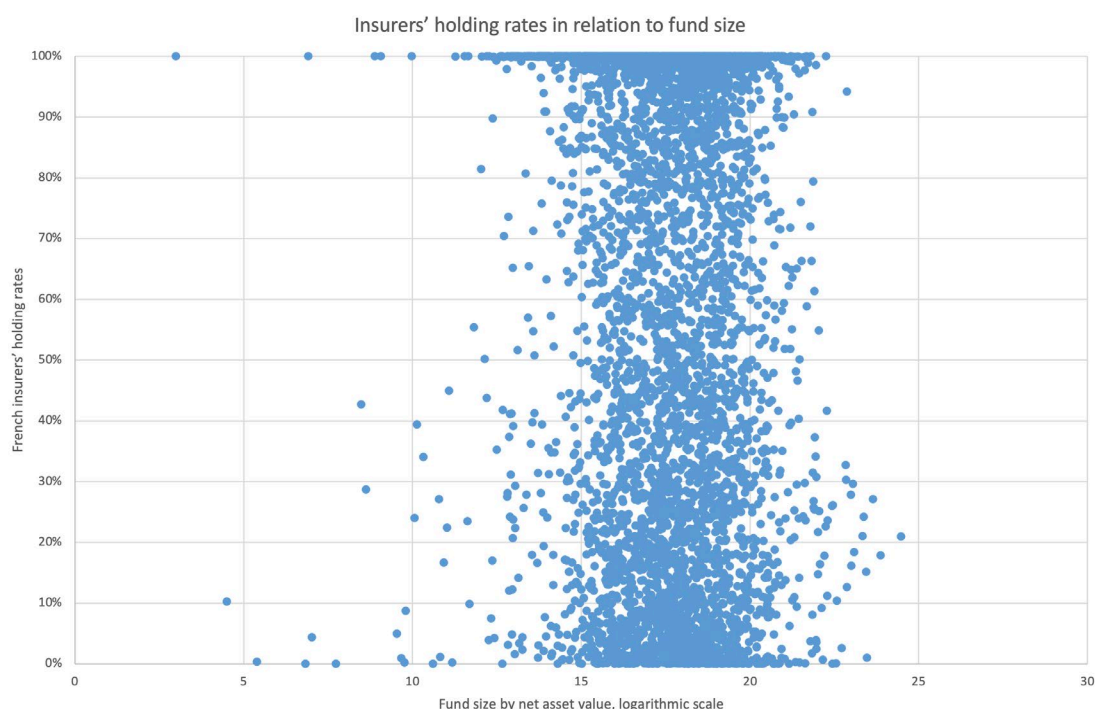
³ Mathematical provisions are a liability of life insurers. They reflect the insurer's commitments to its policyholders. They are an estimate of the amounts that the insurer will have to pay to its policyholders at the end of their policy. This estimate takes into account the amounts of savings deposited with the insurer, financial interests, and the mortality tables of the insured population.

⁴ See FFA, *Données mensuelles des principaux indicateurs du marché vie et capitalisation (affaires directes)* [Monthly data for the main indicators of the life and capitalisation market (direct business)], data updated on 19 January 2021.

The total net assets of the French funds found in insurers' portfolios amounted to €1.060 trillion. With €477 billion worth of shares, the insurers therefore held, in aggregate, approximately 45% of the liabilities of these funds.

Using a logarithmic scale to represent the total net assets of the funds, it is clear that the degree to which insurers invest in a fund varies greatly, and the size of the fund does not give any indication of the proportion of its liabilities held by insurers.

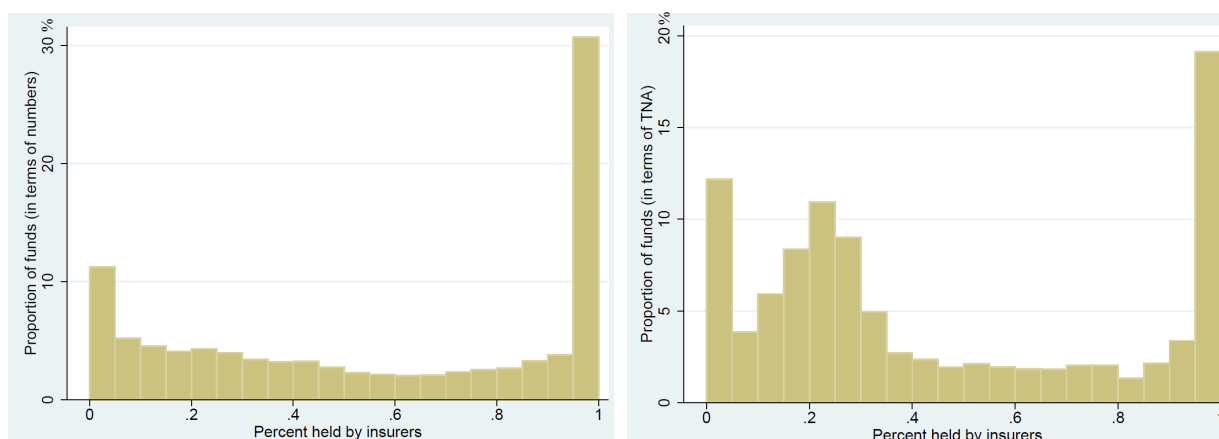
Figure 1: Insurers' holding rates in relation to fund size



Source: Insurers' portfolios reporting (ACPR), BIO database (AMF)

Insurers held a majority stake (i.e. more than 50%) in 2,614 funds. They held more than 80% of 1,961 funds and more than 95% of 1,489 funds.

Figure 2: Bar chart of funds used by insurers by holding rate



Source: Insurers' portfolios reporting (ACPR), BIO database (AMF)

Of the 1,961 funds in which insurers held more than 80%, 989 were held only through unit-linked products.

2.1. RELATIONSHIPS BETWEEN INSURERS AND ASSET MANAGEMENT COMPANIES

We can now look at the diversification of insurers' portfolios in terms of asset management companies (AMCs). We restrict ourselves here to the French funds that could be identified as assets held by French insurers (i.e. the total scope of €477 billion invested in French funds).

Fifteen insurance groups each held more than €7 billion of French fund units in their portfolios. These 15 groups had a total of €407 billion invested in French funds. The percentage of French collective investment undertakings (CIUs) in insurers' portfolios managed by AMCs affiliated to the same group is displayed below.⁵

Table 2: Percentage of funds invested by insurers in the funds of AMCs in the same group (as a proportion of the insurer's total investments in French CIUs)

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10	Group 11	Group 13	Group 15	Group 16	Group 17
Percentage of French CIUs in portfolios managed by an AMC in same group	93%	60%	81%	63%	63%	70%	82%	90%	3%	59%	63%	55%	48%	91%	29%

Source: Insurers' portfolios reporting (ACPR), BIO database (AMF)

This shows an extreme concentration of assets under management with a strong group structure. Group 9, a French subsidiary of a foreign group, is an exception.

At the same time, the asset management companies almost exclusively manage the assets of their group's insurers. Fifteen AMCs manage more than €5 billion of French fund units on behalf of French insurers. These 15 AMCs together are responsible for €371 billion of funds in insurers' portfolios.

Table 3: Percentage of funds managed by AMCs on behalf of insurers in the same group (as a proportion of total CIUs managed by the AMC in insurers' portfolios)

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 10	Group 11	Group 12	Group 13	Group 14	Group 15	Group 16
Percentage of funds managed on behalf of an insurer in same group as the AMC	65%	71%	90%	74%	61%	82%	91%	84%	81%	89%	56%	66%	NA	36%	87%

Group 14 is an independent AMC, which explains the N/A.

A similar exercise can be carried out on unit-linked investments alone. The findings are the same. The unit-linked products offered to policyholders are primarily funds managed by an AMC belonging to the same group. Conversely, the fund managers almost exclusively deal with unit-linked products of insurance companies belonging to the same group. This result is hardly surprising considering that some large insurance groups have created asset management subsidiaries specifically to manage the group's assets. However, this very strong relationship between insurers and their management company does raise the question of how to prevent conflicts of interest.

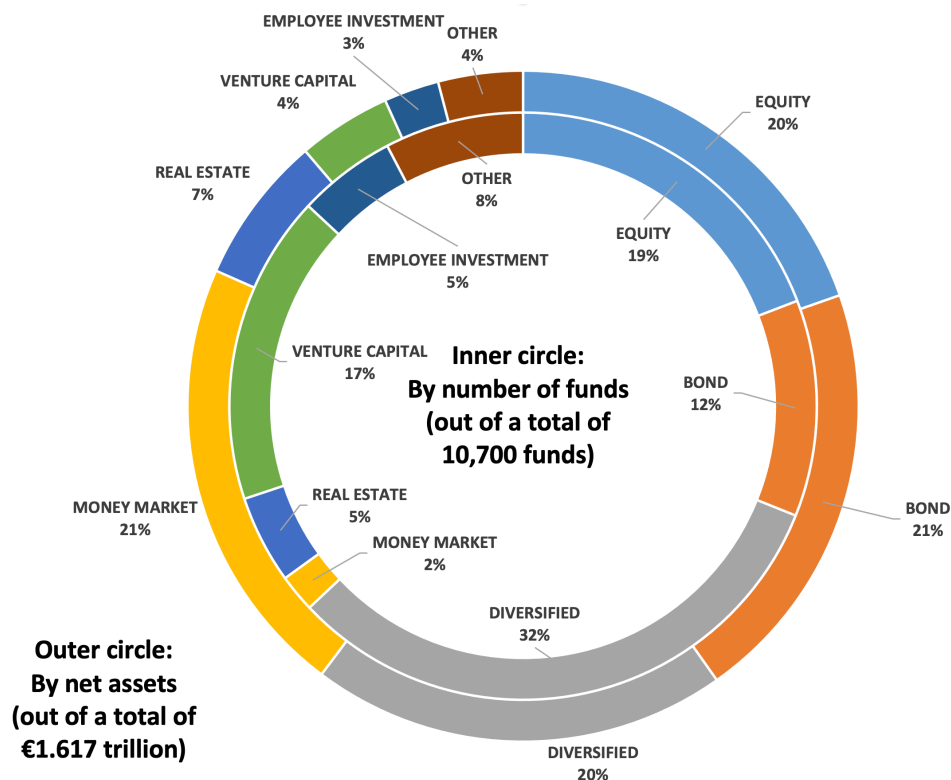
⁵ Two special cases are reported:

- The insurer CNP was included in two separate groups: the one linked to La Banque Postale and the one linked to BPCE. CNP's investments in AMCs linked to La Banque Postale or AMCs linked to BPCE are therefore considered as two separate intra-group flows;
- Société Générale Gestion and Etoile Gestion (which historically belonged to the Société Générale Group, but which are now subsidiaries of Amundi) were considered to be linked to Amundi and Société Générale.

2.2. DESCRIPTION OF FUNDS HELD IN PART BY INSURERS

We now turn to the characteristics of the funds in insurers' portfolios. We begin by reminding ourselves of the structure of the French fund market as of 30 June 2020:

Figure 3: Structure of the French investment fund market as at 30 June 2020



Source: BIO database (AMF)

Table 4 below shows the cumulative net assets of French funds by major fund category and the percentage of unit-linked, non-unit-linked (euro-denominated) and non-life policies respectively in the liabilities of these funds. It shows that 30% of diversified funds and slightly less than a quarter of French equity funds are marketed through French insurers' unit-linked policies.

When all insurance segments are considered, insurers' investments account for 43% of the liabilities of French diversified funds, more than a third of equity funds, nearly half of other funds and nearly a quarter of bond and real estate funds.

Table 4: Percentage of French insurers' policies in French fund liabilities, by major fund category.

	BIO Total Net Assets as at 30/06/2020 in millions of euros	Percentage of unit-linked policies in FR fund liabilities, by major category	Percentage of euro policies in FR fund liabilities, by major French fund category	Percentage of non-life business in FR fund liabilities, by major French fund category	Total FR fund liabilities held by insurers
EQUITY	317 451	22.7%	10.8%	1.3%	34.9%
BOND	332 586	4.8%	16.0%	2.5%	23.4%
DIVERSIFIED	324 195	29.5%	12.1%	1.1%	42.6%
MONEY MARKET	345 364	2.6%	18.4%	1.6%	22.6%
REAL ESTATE	115 489	14.9%	9.7%	1.2%	25.8%
VENTURE CAPITAL	72 773	0.6%	11.0%	1.1%	12.7%
EMPLOYEE INVESTMENT	43 013	0.0%	0.0%	0.0%	0.0%
OTHER	65 992	25.5%	18.3%	3.4%	47.1%
Grand Total	1 616 864	14.1%	13.7%	1.6%	29.4%

Source: Insurers' portfolios reporting (ACPR), BIO database (AMF)

3. LIQUIDITY MANAGEMENT TOOLS IN FUNDS HELD BY INSURERS⁶

This section looks at one possible application of the work done to identify funds that are mainly marketed through life insurance. In July 2020, the AMF and the Banque de France jointly published the results of a study that sought to quantify the inclusion of liquidity management tools (LMTs) in the prospectuses of French funds.⁷

One of the main reasons given by fund managers for the low inclusion of LMTs in prospectuses was that insurers did not want to see the liquidity of their investments reduced. By cross-checking the results of the automated reading of prospectuses in force on 31 December 2019 with information on insurers' fund units on 30 June 2020, we seek to verify whether this rationale is valid. The working assumption is that the funds in insurers' portfolios were the same, and were invested in the same proportions, as they were six months earlier.

All results presented below refer to net assets as at 31 December 2019.

As a starting point, we present here the results obtained for the total population of investment funds under French law:

⁶The authors would like to thank Nicolas Mème and Marko Novakovic for their help and comments on this section of the study.

⁷Darpeix, Le Moign, Mème, Novakovic (2020). [Overview and inventory of French funds' liquidity management tools](#). *AMF Risk and Trend Mapping*, July 2020, 34p.

**Table 5: Inclusion of liquidity management tools in the prospectuses of French funds
(as a percentage of total net assets)**

	Total net assets as at 31/12/19 (€m)	ADL	Swing Pricing	Redemption Cap	Subscription Cap	Repayment In Kind	Redemption Suspension	Subscription Suspension
Equity Funds	345 791	7.19%	6.93%	12.91%	67.93%	78.25%	90.48%	92.60%
Bond Funds	321 641	0.17%	19.38%	6.95%	59.72%	85.57%	86.48%	89.56%
Diversified Funds	332 103	0.03%	4.09%	10.62%	63.90%	81.52%	88.22%	89.91%
Money Market Funds	326 403	0.00%	0.01%	2.24%	81.15%	80.50%	91.19%	94.43%
Real Estate Funds	106 966	0.00%	0.00%	19.23%	9.45%	33.63%	48.03%	45.72%
Venture Capital	70 801	0.00%	0.00%	1.00%	2.61%	35.46%	5.91%	2.38%
Employee Investment	50 516	0.00%	0.00%	0.24%	23.87%	10.17%	75.48%	74.07%
Formula-based Funds	21 596	0.00%	0.00%	0.08%	51.13%	96.00%	98.64%	95.93%
Hedge Funds	6 360	0.00%	2.78%	31.80%	16.63%	63.95%	75.17%	58.30%
Other Funds	35 385	9.10%	0.38%	15.04%	28.43%	68.86%	78.29%	60.69%
TOTAL	1 617 562	1.78%	6.20%	8.55%	58.74%	73.86%	82.17%	83.40%

Source: Darpeix et al. (2020)

Note: For ease of reading, the figures referred to in the text below are highlighted in blue

We can then look at specific sub-populations, based on the percentage of fund liabilities held by insurers. To simplify the explanatory comments, each table (and therefore each sub-population) has been identified by a letter.

**Table 6: Inclusion of liquidity management tools in prospectuses: statistics by sub-populations
(as a percentage of total net assets)**

A. Funds in which insurers have declared no investments

	Total net assets as at 31/12/19 (€m)	ADL	Swing Pricing	Redemption Cap	Subscription Cap	Repayment In Kind	Redemption Suspension	Subscription Suspension
Equity Funds	91 111	0.88%	0.55%	1.97%	59.50%	71.61%	82.93%	83.10%
Bond Funds	123 063	0.03%	0.82%	2.56%	47.47%	70.14%	79.70%	79.02%
Diversified Funds	108 784	0.10%	1.45%	2.47%	55.06%	68.55%	81.82%	82.45%
Money Market Funds	24 158	0.00%	0.20%	0.00%	52.06%	13.22%	57.09%	56.62%
Real Estate Funds	69 564	0.00%	0.00%	16.18%	6.10%	32.10%	39.48%	38.23%
Venture Capital	39 124	0.00%	0.00%	1.41%	2.58%	35.32%	4.06%	1.50%
Employee Investment	50 516	0.00%	0.00%	0.24%	23.87%	10.17%	75.48%	74.07%
Formula-based Funds	7 492	0.00%	0.00%	0.22%	49.23%	88.47%	96.31%	88.26%
Hedge Funds	1 929	0.00%	4.45%	46.70%	11.00%	63.98%	77.30%	41.04%
Other Funds	12 711	3.45%	0.04%	6.82%	24.96%	65.70%	65.96%	41.03%
TOTAL	528 452	0.26%	0.61%	4.04%	39.64%	54.27%	68.26%	66.90%

B. Funds with more than 80% of their liabilities held by French insurers (euro-denominated contracts)

	Total net assets as at 31/12/19 (€m)	ADL	Swing Pricing	Redemption Cap	Subscription Cap	Repayment In Kind	Redemption Suspension	Subscription Suspension
Equity Funds	20 025	5.75%	0.28%	12.38%	35.48%	93.56%	96.11%	83.88%
Bond Funds	43 415	1.20%	0.88%	1.00%	52.49%	98.55%	96.61%	97.68%
Diversified Funds	31 817	0.00%	0.00%	1.09%	55.11%	95.62%	92.74%	94.01%
Money Market Funds	4 711	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%
Real Estate Funds	6 669	0.00%	0.00%	29.22%	0.00%	53.39%	73.00%	45.09%
Venture Capital	2 195	0.00%	0.00%	0.00%	0.00%	18.66%	1.14%	0.04%
Formula-based Funds	100	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%
Hedge Funds	2 301	0.00%	0.00%	20.74%	0.32%	63.71%	65.30%	53.03%
Other Funds	4 276	0.00%	2.03%	25.28%	3.04%	63.27%	78.12%	50.10%
TOTAL	115 509	1.45%	0.46%	5.86%	45.35%	90.81%	91.11%	86.83%

C. Funds with more than 20% of their liabilities held through unit-linked products

	Total net assets as at 31/12/19 (€m)	ADL	Swing Pricing	Redemption Cap	Subscription Cap	Repayment In Kind	Redemption Suspension	Subscription Suspension
Equity Funds	133 581	0.05%	13.29%	8.41%	72.82%	85.05%	90.61%	97.47%
Bond Funds	23 212	0.00%	52.67%	6.57%	53.01%	90.28%	89.65%	94.94%
Diversified Funds	129 317	0.00%	3.85%	8.98%	73.35%	89.14%	95.03%	96.83%
Money Market Funds	3 552	0.00%	0.00%	0.00%	88.92%	63.83%	97.75%	100.00%
Real Estate Funds	18 339	0.00%	0.00%	29.91%	27.86%	16.45%	49.55%	52.11%
Venture Capital	383	0.00%	0.00%	0.00%	0.00%	53.79%	4.80%	0.66%
Formula-based Funds	13 694	0.00%	0.00%	0.00%	52.97%	100.00%	99.87%	100.00%
Hedge Funds	622	0.00%	0.00%	10.07%	10.07%	100.00%	100.00%	100.00%
Other Funds	6 556	0.00%	0.40%	2.30%	48.73%	98.09%	99.98%	99.98%
TOTAL	329 257	0.02%	10.62%	9.13%	67.79%	83.85%	90.56%	94.59%

D. Funds with more than 80% of their liabilities held through unit-linked products

	Total net assets as at 31/12/19 (€m)	ADL	Swing Pricing	Redemption Cap	Subscription Cap	Repayment In Kind	Redemption Suspension	Subscription Suspension
Equity Funds	25 530	0.00%	0.00%	2.35%	82.67%	93.49%	92.57%	98.70%
Bond Funds	4 249	0.00%	27.90%	3.92%	70.94%	91.79%	82.93%	98.75%
Diversified Funds	66 234	0.00%	0.04%	6.88%	71.07%	89.00%	96.81%	98.83%
Money Market Funds	989	0.00%	0.00%	0.00%	60.19%	60.19%	100.00%	100.00%
Real Estate Funds	15 251	0.00%	0.00%	33.50%	33.50%	7.07%	40.56%	44.60%
Venture Capital	154	0.00%	0.00%	0.00%	0.00%	12.31%	0.00%	0.00%
Formula-based Funds	11 836	0.00%	0.00%	0.00%	55.31%	100.00%	99.85%	100.00%
Hedge Funds	61	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Other Funds	5 398	0.00%	0.49%	0.00%	51.28%	100.00%	100.00%	100.00%
TOTAL	129 701	0.00%	0.96%	8.09%	66.51%	81.50%	89.23%	92.47%

Source: Insurers' portfolios reporting (ACPR), BIO database (AMF), Darpeix et al. (2020)

Note: For ease of reading, the figures referred to in the text below are highlighted in blue

While care should be taken not to over-interpret these tables, especially the rows with a very limited number of funds and low amounts of total net assets, some interesting points can be made:

- Funds in which insurers do not invest at all seem to use fewer LMTs than the overall population, across all liquidity management tools (see **Table A** above);
- Caps on subscriptions or redemptions (i.e. gates) and swing pricing appear to be less widely adopted in funds receiving euro fund investments (i.e. where the insurer bears the market risk, see **Table B**).
 - The difference is particularly marked for the segment in which euro-denominated policies are the most invested (bond funds). While almost 20% of the overall net assets of bond funds are subject to swing pricing, this prevalence rate falls to 0.88% for funds with more than 80% of their liabilities coming from non-unit linked policies. For gates, the rate drops from 6.95% to 1.00%.
 - There is a substantial difference in diversified funds (in the total population, 4.09% use swing pricing and 10.62% use gates, compared with 0.00% and 1.09% respectively in the sub-population of funds receiving mainly investments from euro-denominated products).
 - For equity funds, only swing pricing is affected by the reduction (from 6.93% for the total population to 0.28% for the sub-population).
- With the exception of anti-dilution levies (ADLs), funds with more than 20% of their liabilities corresponding to unit-linked products seem to use more LMTs (see **Table C**). Swing pricing is particularly prevalent for equity funds (6.93% in the total population and 13.29% in the sub-population) and for bond funds (19.38% in the total population and 52.67% in the sub-population).

- Funds that are almost exclusively dedicated to unit-linked products have almost no ADLs (see **Table D**). Equity funds use swing pricing (0.00% versus 6.93% in the total population) and gates (2.35% versus 12.91% in the total population) to a much lesser extent. The same pattern is true for diversified funds. The other fund categories are not sufficiently represented in the sub-category for the results to be interpreted.