

Alternative investment funds in Luxembourg record another year of robust growth

The results of three surveys published on the occasion of the ALFI PE & RE Conference 2019 in Luxembourg on 26 and 27 November reveal continued solid growth in alternative investment funds in the Grand Duchy.

The ALFI/Deloitte Private Equity and Venture Capital Investment Fund Survey 2019 found that the size of the average private equity fund domiciled in Luxembourg has increased by 50% since 2018, with the number of PE funds holding assets worth more than €1 billion doubling over the same 12-month period. Luxembourg now accounts for 4.3% of the global private equity fund industry. The survey also shows unregulated investment vehicles such as RAIFs



and limited partnerships saw a 20-point increase up to Q3 2019, following a similar 20-point increase a year earlier, these fund structures now represent 51% of all Luxembourg PE funds.

Luxembourg has now been embraced by large PE houses, especially North American funds who represent 8% of the Luxembourg private equity population, the percentage of non-EU initiators in the market has gone up from 9% to 13%.

The ALFI/KPMG Private Debt Fund Survey 2019 showed a 14.5% climb in assets under management (AuM) in Luxembourg private debt funds, to a total of over €56 billion, representing an impressive 40% increase in the last two years. This builds on the 23.5% growth in AuM seen from 2017. The number of private debt funds using a RAIF structure rose from 13% to 20% of total funds in 2019.

Direct lending strategies almost doubled to 32% of the private loan market, up from 18%. High yield bond strategies remained stable at 22% whilst senior loans dropped from 35% in 2018 to 22% in 2019.

The survey also discusses the rise of sustainable finance and green loans as it relates to the industry. The adoption of the European Parliament's new environmental regulations will oblige firms to release environmental impact assessments making high-carbon investments an increasingly unattractive option moving forward. Green loans are becoming more attractive as their issuance rose up to \$60 bn globally in 2018, up more than 30% from 2017.

The ALFI REIF Survey 2019 found a flourishing sector, with asset managers seeing increased interest from non-EU countries and in particular North America; US investments were at 18% of the total in 2019 compared to 11% the year prior. Fewer of these funds are being invested in European countries, with the percentage leaving the EU rising from 23% to 29%.

The multi-sector strategy is slightly less prevailing, with only 33% of funds investing in real estate from a variety of sectors, 67% choose to focus on single sector e.g. with an office, retail or industrial strategy.

The number of launches of Reserved Alternative Investment Funds (RAIFs) focused on property grew from 27 in 2018 to 63 in 2019, an increase of 133%. The number of Alternative Investment Funds has also seen a marked expansion, from 27 manager-regulated AIFs in 2018, to 41 in 2019 – an increase of 51.9%. The increase in the number of fund launches corresponds with a rise in net AuM of Luxembourg real estate funds. As of Q3 2019, it stands at €79.93 billion; up by 7.44 billion from €70.49 billion at the end of 2018. This represents an increase of 13.4%.

Commenting on the survey results, Corinne Lamesch (picture), Chairperson of ALFI, said: "These reports highlight robust growth across all three asset classes for Luxembourg-domiciled funds as they become increasingly attractive outside the EU, both in terms of new AIFs set up in Luxembourg and the breadth of non-European institutional investment into these funds. From a global perspective the next few years should represent an era of significant continued growth for alternative investment funds, having witnessed global AuM tripling to nearly \$9 trillion in the decade up to 2017. With the global AIF industry set to more than double in size over the next five years and over three quarters of investors expecting to increase their allocation to alternatives, we believe Luxembourg-domiciled AIFs are in a strong position to capitalise on this growth in interest and investment."

Research in Finance

On brokerage and structured product sales

It is well known that distribution channels have an impact on financial product performance, notably fund performance. Funds distributed through more intermediaries perform less. Basically, if funds are sold directly to investors they face more incentives to perform than if they are sold through brokers. In the same vein, a recent paper by Egan (2019), analyses how brokers might bias the investments of retail investors in structured products.

The author studies the market for equity reverse convertible bonds. A reverse convertible bond is equivalent to a standard coupon paying bond with the exception that the final principal payment of reverse convertibles can be converted into shares of a pre-specified reference equity. The reference equity should be different from the bond issuer. At maturity the holder of the reverse convertible bond receives 100% of the principal provided the underlying reference equity is above a pre-specified convertible trigger price. If the underlying equity reference, however, falls below the convertible trigger price during the life of the bond, the holders receive a fixed number of equity shares instead of the full principal payment.

The fixed number of shares is determined at inception as the initial principal investment divided by the reference equity price at the date the bond is issued. Thus, if the share price falls during the life of the bond, the value of the shares at maturity can be substantially lower than the principal. Continuous-observation and single-observation products can also be distinguished depending on whether the principal can be converted at any point before maturity or only at maturity.

The reverse convertible bond can be seen as a way for investors to sell equity put options to issuers, but instead of receiving a put premium, investors receive a standard coupon paying bond with a relatively high coupon. Those products are sold extensively to retail investors and are seen as the "Gold Standard" of retailed structured products. From an issuing perspective, the product provides financial institutions with possibilities to purchase equity options from retail customers without having to worry about counterparty risk. This

thus enables retail investors to "sell" equity options without margin requirements but the SEC requires to disclose details of reverse convertible bonds that are issued, including the fee and kick-back the issuer pays to the broker. Those characteristics enable Egan (2019) to analyse the retail financial market.

The reverse convertible market typically consists of three players, namely product issuers, brokers and retail investors. The product issuers are typically the investment banks that create and issue the products. The brokers then purchase the converse reversible bonds from those product issuers to sell them to retail investors.

Basically, at the beginning of a month the product issuer determines the characteristics of the product and markets them to brokers who then solicit orders from retail investors. At the end of the month all orders are collected and the products are issued. The issuers sell the products at a fixed par price 100% minus a fixed broker fee and the brokers then sell the product at par 100% to retail investors, implicitly collecting the fee. The fee is thus a transfer from the issuer to the broker and the retail investor should thus be indifferent conditionally on the risk-return performance of the product. The reverse convertible bond is straightforward to evaluate. Its implied value can be calculated by removing the option premium from the value of the fixed rate bond. In the sample analysed, by Egan (2019) some products are "unambiguously dominated" in the sense that there are two literally reverse convertible bonds issued at the same date for the same price but different coupon payments. The results also indicate that retail investors actually buy more of the worst products than the good products.

Standard models suggest that this might be due to heterogeneity in investor sophistication and search costs. The author, however, analyses broker incentives more in detail. The fees paid to brokers vary from 0.5% to 5% of the notional. Those fees thus provide economically significant incentives. Indeed, there is a strong negative relationship between implied values and broker fees. Brokers thus seem to sell worse performing structured products to cash in higher fees.

Econometric analysis indicates that, all else equal, investors buy more products with higher broker fees. As the investors are in principle not directly affected by higher brokerage fees (paid by issuers),

the results suggest that brokers are directing investors to higher fee products. This is concerning, as the conflicts of interest faced by the brokers might lead the worst products being sold for the highest fees. Egan (2019) thus analyses the relationship between fees, coupons, option premiums and default risk of the bond. If the coefficient on coupons is negative but the coefficients on option premium and default risk are positive, brokers are selling worse products to cash in fees. The results indeed seem to corroborate the conflict of interest assumptions as lower coupon paying products and higher option premium and credit risk products are sold for higher fees.

Egan (2019) then formulates a theoretical model where brokers face sophisticated and unsophisticated investors and select the structured products offered to them. Econometric results indicate that investors are indifferent between a one-percentage increase in coupon and 0.66 percentage-point decrease in the option premium. Moreover, they trade off a one-percentage point increase in coupon with a 4.18 percentage point decrease in the relevant CDS spread. Given the observed behaviour, approximately 75% seem to be sophisticated investors. The average search cost of sophisticated investors is about 140 bps. It is interesting to compare this estimate with those in the Mortgage and Fund Market, where estimated search costs are 100 bps for mortgages (Hall and Woodward (2012) and 25bps for funds (Hortaçsu and Syverson(2004)).

Those results are interesting from a marketing of financial products perspective as well as regulatory perspective to protect investors.

Dr. Michel VERLAINE
ICN Business School
Head of the Banks, Funds and Markets Master specialization
Michel.verlaine@icn-artem.com

References

Egan, M. (2019) "Brokers versus Retail Investors: Conflicting Interests and Dominated Products", *The Journal of Finance*, Vol. LXXIV, No 3.
Hall, E. and Woodward, S. (2012) "Diagnosing consumer confusion and sub-optimal shopping effort: Theory and mortgage market evidence", *American Economic Review* 102, 3249-3276.
Hortaçsu, A. and Syverson, C. (2004) "Product differentiation, search costs, and competition in the mutual fund industry: A case of S&P500 index funds", *Quarterly Journal of Economics* 119, 403-456.



Actions luxembourgeoises	Devise	au 29/11	au 31/10	Var	Plus haut	Plus bas
Aperam	EUR	27,20	22,86	18,99 %	30,22	19,25
ArcelorMittal	EUR	15,60	13,23	17,94 %	21,66	11,21
BlueMarHoldings	EUR	4,00	3,50	14,29 %	5,00	3,50
Brederode	EUR	71,20	70,40	1,14 %	73,60	50,30
EDIFY act. ord.	EUR	53,00	53,00	-	55,00	48,60
ImmoLux-Airport	EUR	6,40	4,20	52,38 %	290,00	2,56
Luxempart	EUR	54,00	54,50	-0,92 %	55,50	47,20
ReinetInvest	EUR	18,20	15,80	15,19 %	19,30	11,70
RTLGroup	EUR	43,30	45,56	-4,96 %	52,90	39,42
SEO .prvb	EUR	228,00	-	-	268,00	185,00
SEO 1/5prvb	EUR	40,20	55,00	-26,91 %	62,00	40,20
SES FDR	EUR	12,00	17,37	-30,89 %	19,43	10,94
Socfinaf	EUR	10,90	10,70	1,87 %	12,20	8,10
Socfinasia	EUR	15,00	13,40	11,94 %	15,10	11,50
SocFinCaboutchcs	EUR	25,80	23,60	9,32 %	29,00	23,20
Actions étrangères	Devise	au 29/11	au 31/10	Var	Plus haut	Plus bas
Brait ord	EUR	0,98	1,02	-4,41 %	2,00	0,68
Engie	EUR	14,36	15,00	-4,23 %	15,16	12,22
FidRealEstate	EUR	193,00	192,00	0,52 %	194,00	168,00
FiducOffSolut	EUR	28,20	28,20	-	29,00	27,60
HellaGmbBHKGaa	EUR	48,98	43,62	12,29 %	50,35	34,02
Prosiebensat1Me	EUR	13,61	13,24	2,79 %	16,76	10,70
RobSGloStEqFd cat A	EUR	45,00	43,20	4,17 %	45,00	35,20
Rolinco ord A	EUR	46,80	44,60	4,93 %	46,80	35,00
Volkswagen ord	EUR	173,15	169,90	1,91 %	182,50	135,50
Volkswagen prv	EUR	175,48	170,70	2,80 %	184,24	134,48
Vonovia	EUR	47,29	47,71	-0,88 %	48,84	39,56
GDRs	Devise	au 29/11	au 31/10	Var	Plus haut	Plus bas
AsustekComputer Reg S GDS	USD	37,80	33,80	11,83 %	39,40	31,60
ChinaSteelCorp GDS	USD	15,30	15,40	-0,65 %	16,60	14,60
Hindalcolnd GDR	USD	2,78	2,64	5,30 %	3,16	2,26
HTC Corporation GDR	USD	4,60	4,82	-4,56 %	5,75	4,14
HyundaiMotor ord GDS	USD	51,00	52,00	-1,92 %	61,50	51,00
RelianceCommun GDR	USD	0,01	0,01	27,78 %	0,20	0,01
RelianceInd GDS	USD	43,25	41,25	4,85 %	44,15	30,90
SamsungElec GDS	USD	864,00	878,00	-1,59 %	944,00	678,00
SKhynixInc. 05 GDS	USD	68,50	70,00	-2,14 %	78,50	51,00
OPC	Devise	au 29/11	au 31/10	Var	Plus haut	Plus bas
BlackRock Global Funds	USD	37,32	36,59	2,00 %	40,51	33,34
Candriam Bonds Global	EUR	137,22	137,44	-0,16 %	138,82	136,40
Lumyna Funds Lumyna -	GBP	137,02	137,14	-0,09 %	140,08	134,04
Xtrackers S&P 500 Swap UCITS	USD	58,16	56,08	3,71 %	58,16	44,36
Obligations		au 29/11	au 31/10	Var	Plus haut	Plus bas
EUR Luxembourg 2,125% 10/07/2023		109,603	109,934	-0,30 %	111,980	109,590
EUR Luxembourg 2,25% 19/03/2028		120,754	120,947	-0,16 %	125,040	115,155
EUR Luxembourg 2,25% 21/03/2022		106,675	107,025	-0,32 %	108,618	106,675
EUR Luxembourg 2,75% 20/08/2043		143,669	-	-	-	-
EUR Luxembourg 3,375% 18/05/2020		101,785	102,105	-0,31 %	105,434	101,785
Remdements obligataires		au 29/11	au 31/10	Var	Plus haut	Plus bas
EUR AAA-BBB SSA 3-5 yield Index		-0,443	-0,486	-8,94 %	-0,098	-0,748
EUR AAA-BBB Corporate 3-5 yield		0,103	0,068	51,54 %	0,890	-0,126
EUR AAA-BBB Financial 3-5 yield Index		-0,286	-0,306	-6,50 %	0,353	-0,566
USD AAA-BBB SSA 3-5 yield Index		1,879	1,842	1,97 %	2,974	1,682
USD AAA-BBB Corporate 3-5 yield		3,294	3,236	1,78 %	4,479	3,219
USD AAA-BBB Financial 3-5 yield Index		2,656	2,572	3,24 %	3,301	2,320
Indices		au 29/11	au 31/10	Var	Plus haut	Plus bas
LuxX Price Index		1364,14	1356,14	0,59 %	1512,24	1146,08
LuxX Return Index		2319,09	2301,32	0,77 %	2494,03	1935,35
Lux GDRs India Index		1606,89	1556,46	3,24 %	2033,52	1,16
Lux GDRs Taiwan Index		1535,72	1560,99	-1,62 %	1606,12	1386,11
Lux RI Fund Index		1714,02	1667,57	2,79 %	1714,88	1390,83