

Funds·Axis
UCITS & AIFMD

Exposure calculations and
proposals for change

Complexity Made Simple

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PART 1: Background

Following the EU Directives on UCITS and AIFMD and ESMA's guidelines on the same, there are now 5 different calculations of exposure required. Additionally, there is a lack of clarity across the calculations on certain issues such as the treatment of share class FX, margin and borrowing.

These are considered below.

Funds-Axis suggestions for clarification and change are set-out in Part 2. This includes reduction of the number of calculation methods to only 3 measures of exposure.

Overview of Exposure Calculations

	AIFMD AUM Calculation - Article 3 *	AIFMD Gross Exposure	AIFMD Commitment Exposure	UCITS Global Exposure using Commitment Approach	UCITS Notional Exposure
Calculation level	Portfolio	Portfolio	Portfolio	Derivatives and exposures from EPM techniques.**	Derivatives
Delta Adjustment	Yes	Yes	Yes	Yes	No
Netting / hedging	No	No	Yes	Yes	No
Currency hedging (e.g. FFX)	No	No	Yes	Yes	No
Risk free assets	No	Yes	No, but long derivative exposure can be offset by "cash and cash equivalents"	No, but derivative exposure can be offset by "risk free assets"	No

* For AUM, you do not include investment in group CIS

**In practice, regards needs to be had to the entirety of the portfolio.

The key regulatory documents in this regard are:

- The key Regulatory text is CESR 10-788: CESR's Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS (the UCITS Guidelines);
- ESMA's Guidelines on ETFs and other UCITS Issues; and
- AIFMD Regulation.

PART 2: Funds-Axis recommendations for change

Based on the points raised in this document, Funds-Axis proposals for changes are as follows.

1. Given the acknowledgement at AIFMD Regulation Recital (11) that “... *best results can be achieved by combining the so-called ‘gross’ and ‘commitment’ methods,*” we would urge ESMA to remove the requirement for UCITS to disclose Notional Leverage from derivatives to investors. Notional leverage is an entirely unhelpful and misleading calculation of leverage.
2. To improve the consistency and clarity of investor and regulatory disclosures, it should be confirmed that (i) there is no intended difference between the UCITS Global Exposure calculated using the Commitment Approach and AIFMD Commitment exposure; and (ii) both AIFMD Commitment Exposure and UCITS Global Exposure should be consistent quoted having regard to the total exposure of the portfolio / NAV.

This will entail no change for AIFMD, but will require the following amends and clarification to UCITS Global Exposure:

- Consistent with AIFMD Commitment Exposure, the UCITS Global Exposure should be expressed as the ratio between the exposure of an AIF and its net asset value.

Currently, for a Portfolio AIF with 100 equity investment and a further 200 derivative, being 300 total exposure, and a NAV is 100, then it would have 3 times leverage, 300%. UCITS global exposure in contrast would be 200%.

- Clarification should be provided that, as with AIFMD Commitment exposure, leverage obtained from the reinvestment of borrowing should also be taken into account for UCITS Global Exposure;

As a related point it should also be confirmed whether the leverage from reinvestment contributes towards the 100% incremental exposure limit or whether that the limit increases to 110%, having regard to the UCITS 10% temporary borrowing limit.

- AIFMD Commitment exposure provides that derivative exposure can be reduced to the extent that it is backed by cash and “cash equivalents.” UCITS Global exposure provides similarly but refers to “Risk Free Assets.” It should be confirmed that there is no intended difference between these terms, noting that:
 - AIFMD cash equivalents specifies that the Cash Equivalents must be in the base currency of the Portfolio
 - AIFMD specifies that this reduction in exposure is only possible in the case of long derivatives.

3. It should be clarified that share class hedging FX should not be taken into account for any of the calculations.
4. The treatment of cash and cash equivalent for (i) AIFMD Commitment Exposure and for (ii) UCITS Global Exposure Risk Free Assets should be made consistent with one another the treatment under AIFMD Gross exposure, where it is excluded from the calculation.

Alternatively, if the difference is to be maintained, then It should be clarified that, for AIFMD Commitment Exposure and UCITS Global Exposure, the exposure from direct investments into equities and bonds can also be reduced to the extent that it is covered by risk free assets. This would be helpful to avoid the unhelpful scenario, outlined at examples 6 and 7 of this document in respect of deleverage.

5. The treatment of convertible bonds for the UCITS Global Exposure calculation should be clarified. See Example 8 in this document.

PART 3: Commitment Exposure – the difference between UCITS and AIFMD

AIFMD requires calculation of the commitment exposure of the AIF whereas UCITS requires calculation of the Global Exposure of the UCITS, using the commitment methodology.

It is not at all clear that any differences between UCITS Global Exposure and AIFMD Commitment exposure are intended. Indeed, it is worth noting that at AIFMD Regulation Recital (11), simply states that: *“In order to grant an objective overview of the leverage used, it is necessary to provide two methods to calculate the leverage. As it results from market studies, the best results can be achieved by combining the so-called ‘gross’ and ‘commitment’ methods.”*

Nevertheless, based on the current regulatory wording, there are potentially significant differences between the two calculations and the system logic required.

These are discussed below.

(i) Terminology and the Disclosure of leverage to investors

According to AIFMD Regulation, Article 6 the leverage of an AIF shall be expressed as the ratio between the exposure of an AIF and its net asset value.

For example, an AIF with 100 equity investment and a further 200 derivative exposure would have total commitment exposure of 300. If it's NAV is 100, then it would have 3 times leverage, 300% AIFMD Commitment Exposure.

UCITS global exposure in contrast *is a measure of the incremental exposure* and, therefore, in the above example, the UCITS global exposure would be 200%.

This difference is unnecessary and confusing to investors. Further, the UCITS calculation is not always simply 100% less than than the AIFMD calculation. This is explained further below.

(ii) Portfolio Exposure vs. Incremental Exposure from Derivatives

UCITS Global Exposure *is “a measure designed to limit either the incremental exposure and leverage generated by a UCITS through the use of financial derivative instruments (including embedded derivatives).”*

The above suggests / requires that are starting point, is to look at the derivatives on the portfolio.

Nevertheless, in practice, regard needs to be had to all portfolio assets in order to properly calculate UCITS Global Exposure, as:

- You need to take account of direct investments when considering the impact of netting and hedging,
- You need to take account of certain direct investments when reducing exposure having regard to Risk Free Assets under Box 4 of the UCITS Guidelines

- You need to have regard to all portfolio assets, when calculating the exposures arising from currency derivatives.
- Regard need also be had to transferable securities, Money market instruments, investment in CIS where these are invested into as part of reinvestment of collateral.

(iii) Calculation Methodology Differences

As set out in the table in Part 1, both require the calculation of exposure from derivatives based on the conversion of derivatives into the equivalent underlying positions; both provide for netting and hedging; both provide for delta adjustment and both provide for the same exceptions (with minor differences in wording) including in respect of cash and cash equivalents (see below).

Whilst AIFMD Commitment Exposure and UCITS Global Exposure are overwhelming similar and both, in practice (as explained above), require you to consider all portfolio assets in the calculations, nevertheless the UCITS calculation is not always simply 100% less than the AIFMD calculation. This is explained further below.

This is caused by, amongst other issues, differences in the treatment of borrowing and inclusion of unrealised gains or losses on derivatives. All of these difference, stem from the fact that the UCITS Guidelines prescribe a mechanical calculation for UCITS Global Exposure as follows, at Box 2, Para 2:

Box 2
2. The following steps must be taken by a UCITS when calculating global exposure using the commitment approach:

(iv) Cash and Cash Equivalents

AIFMD Gross exposure provides that you should not take into account the exposure from cash and cash equivalents.

Cash equivalents is defined at AIFMD Regulation, Article 7(a) as *“highly liquid investments held in the base currency of the AIF, that are readily convertible to a known amount of cash, are subject to an insignificant risk of change in value and provide a return no greater than the rate of a three-month high quality government bond.”*

AIFMD Commitment approach and UCITS Global Exposure take a different approach of permitting the reduction of derivative exposure to the extent that they are backed by cash and cash equivalents / risk free assets. In practice, though different, these calculations very often reach exactly the same conclusion.

Example:

	NAV	Derivative Exposure
Cash	100,000	
Future		100,000
NAV	100,000	

In the above example, the calculations for AIFMD Gross Exposure, AIFMD Commitment Exposure and UCITS Global Exposure all lead to the result that there is no leverage, but achieve this through 3 different calculation methodologies:

- The AIFMD Gross Exposure would be 100%, being 100,000 Derivative exposure and 0 cash exposure;
- The AIFMD Commitment exposure would be 100%, being 0 derivative exposure (as it is backed by the 100,000 cash) and 100 cash exposure; and
- The UCITS Global Exposure would be 0%, being 0 derivative exposure (as it is backed by the 100,000 cash).

There are also differences in the wording between AIFMD Commitment Exposure and UCITS Global Exposure.

AIFMD Commitment Exposure

AIFMD Regulation - Article 8 provides that

“... a derivative instrument shall not be converted into an equivalent position in the underlying asset when calculating the exposure according to the commitment method if it meets both of the following conditions: (a) the combined holding by the AIF of a derivative instrument relating to a financial asset and cash which is invested in **cash equivalent** as defined in Article 7(a) is equivalent to holding **a long position** in the given financial asset; (b) the derivative instrument shall not generate any incremental exposure and leverage or risk.

UCITS Global Exposure

For UCITS Global Exposure, it is provided in the UCITS Guidelines that a financial derivative instrument is not taken into account if the combined holding by the UCITS of a financial derivative instrument relating to a financial asset and **cash which is invested in risk free assets** is equivalent to holding a cash position in the given financial asset. (see UCITS Guidelines at Box 4).

In this context, Risk Free Assets: Assets which provide a risk-free return are generally accepted as those which provide the return of short-dated (generally 3-month) high quality government bonds, for example 3-month US T-bills.

Differences

Intentional or otherwise, the differences in wording includes, albeit the same could be quite possibly inferred for UCITS.

- AIFMD specifies that the cash equivalents must be in the base currency of the Portfolio; and
- AIFMD specifies that this is only available for “long” derivatives,

(v) Cash Borrowing

Under AIFMD Regulation, Article 6, Borrowing - AIFs shall exclude borrowing arrangements entered into if these are temporary in nature and are fully covered by contractual capital commitments from investors in the AIF. Other than that, Borrowing should be included. This is clarified further at Schedule 3, Annex 1 – methods of Increasing Exposure.

“Unsecured cash borrowings: When cash borrowings are invested they have the propensity to increase the exposure of the AIF by the total amount of those borrowings. Therefore, the minimum exposure is always the amount of the borrowing. It might be higher if the value of the investment realised with the borrowing is greater than the borrowed amount. To avoid double counting, cash borrowings that are used to finance the exposure shall not be included within the calculation. If the cash borrowings are not invested but remain in cash or cash equivalent as defined in Article 7(a) they will not increase the exposure of the AIF.”

Under UCITS, there is good argument that Borrowing does not need to be included when calculating Global Exposure. Our understanding is that only the UK FCA have specifically dealt with this, stating that borrowing need not be included – COLL 5.3.10(3).

The implication would be that 2 different UCITS could report the same Global Exposure, notwithstanding that one has in fact 11% more leverage than the other, see example x in Part 5. In our view, this is unhelpful confusing to investors.

There is an equally good argument that leverage should also be included for UCITS, but it is unclear whether that would be within the 100% limit or an increased 100% limit.

In this regard, whilst acknowledging that ESMA does not refer to taking into account borrowing in its Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS, it should also be noted that:

- Lux and Ireland regulations have historically taken the approach that UCITS cannot use borrowing for investment purposes and therefore the issue is not relevant. Other jurisdictions, however, have not taken the same approach re. reinvestment of borrowings.
- The definition in the guidelines is outdated given that the ESMA Guidelines and Q&A on EPM techniques and reinvestment of collateral etc. require you to include in the global exposure calculation the leverage from EPM activities of reinvestment of collateral into bonds etc. By the same logic, this should extend to where borrowings are reinvested.

Examples

Whilst the above can be dismissed as minor differences in terminology with no material impact, in Part 5 we consider some examples where the impact can be seen.

Example 1: Derivative supported by cash and risk-free assets

Day 1

	NAV	Derivative Exposure
Cash	100,000	
Future		100,000
NAV	100,000	

On Day 1, the fund has £100,000 cash and has taken out a future giving £100,000 exposure. The future has no unrealised gain or loss at this point. This is the scenario envisaged by CESR at Box 4 of the UCITS Guidelines.

On Day 2, the price of the underlying asset has increased and the future now has an exposure of £105,000 and has an unrealised gain of £5,000.

Day 2

	NAV	Derivative Exposure
Cash	100,000	
Future	5,000	105,000
NAV	105,000	

AIFMD Commitment Exposure:

- On Day 1, the AIFMD Commitment exposure is 100% (no incremental leverage). The derivative exposure is £100,000 but this is reduced by the cash / cash equivalents of £100,000. Therefore, the exposure is the £100,000 cash / £100,000 NAV – 100%
- On Day 2, the commitment exposure is still 100% (no incremental leverage). The derivative exposure is £105,000 but this is reduced by the cash / cash equivalents of £100,000, to give exposure of £5,000. £5,000 derivative exposure plus £100,000 cash exposure = £105,000 divided by the NAV of £105,000 is 100%

UCITS Global Exposure:

- On Day 1, the UCITS Global Exposure is zero. The derivative exposure is £100,000 but this is reduced by the cash / risk free assets of £100,000, to give global exposure of 0%.
- On Day 2, the UCITS Global Exposure is 4.762%. The derivative exposure is £105,000 but this is reduced by the cash / risk free assets of £100,000, to give exposure of £5,000. £5,000 divided by the NAV of £105,000 is 4.762%.



The AIFMD Commitment Exposure calculation is preferable. As outlined above, the UCITS Global Exposure indicates that the fund is leveraged on Day 2. That said, in our view, the argument can be that that the UCITS Global Exposure on Day 2 is still 0%, as it is also the scenario envisaged by CESR at Box 4 of the UCITS Guidelines, but simply with an unrealised gain on the transaction.

Example 2: The relevance of the Derivatives unrealised gain

	NAV	Derivative Exposure
Future 1	10,000	110,000
Future 2		10,000
Equities	100,000	
NAV	110,000	220,000

The portfolio has £100,000 Equities. It has taken another £100,000 of exposure through Future 1.

However, the price of the underlying of Future 1 has increased by 10% giving derivative exposure at £110,000 and with an unrealised gain of £10,000.

There is also a second future of 10,000 exposure with 0 unrealised gain/loss.

AIFMD Commitment Exposure:

The AIFMD Commitment Exposure is 200% (100% incremental leverage), being 220,000 portfolio exposure over 110,000 NAV.

UCITS Global Exposure:

Whilst the AIFMD calculation of 100% incremental leverage would be in keeping with the regulatory limits, the UCITS Global Exposure is 109%, which is not in compliance with the regulatory limits. This is calculated as the derivative exposure of £120,000 / £110,000 NAV.

Funds-Axis Comment

The AIFMD Commitment Exposure calculation is preferable. It is a more accurate expression of the total leverage of the fund.

The fund has total exposure of £220,000 and the NAV is £110,000. There is therefore £110,000 leverage (100%). All of that leverage stems directly from the use of derivatives.

Example 3: The relevance of the Derivatives unrealised loss

	NAV	Derivative Exposure
Cash	0	0
Equities	10,000	
Derivatives	-1,000	9,000
	9,000	

The portfolio has £10,000 Equities and has taken an additional £10,000 leverage through derivatives.

However, the price of the underlying of the derivatives has fallen by 10% leaving the derivative exposure at £9,000 and with an unrealised loss of -£1,000

AIFMD Commitment Exposure

The fund has total exposure of £19,000 (10,000 equities and 9,000 derivatives). The NAV is £9,000.

Therefore, the AIFMD commitment exposure is 211.11% (111.11% incremental exposure).

UCITS Global Exposure

The UCITS Global Exposure is 100%, being £9,000 derivative exposure / £9,000 NAV. This 100% is in compliance with the Regulations.

Funds-Axis View

The AIFMD Commitment Exposure calculation is preferable. The UCITS Global Exposure calculation as 100% is not an appropriate calculation of leverage.

The fund has total exposure of £19,000 and the NAV is £9,000, therefore £10,000 leverage. All of that leverage stems directly from the use of derivatives. Therefore, it makes sense that the UCITS Global Exposure should be 111.11% which is non-compliant.

EXAMPLE 4: Fund has borrowed cash to buy more equities

	NAV	Derivative Exposure
Cash	-900	
Equities	10,900	
Derivatives	-1,000	9,000
NAV	9,000	

This example is the same as example 3 above, except that now the fund has borrowed £900 cash and invested into equities, taking an additional £900 of exposure.

AIFMD Commitment Exposure

The AIFMD approach is that that commitment exposure is 221.11% (111.11% incremental leverage). This is calculated as 10,900 equities + 9,000 derivatives / 9,000 NAV.

As per AIFMD Regulation, Schedule 3, Annex 1 – methods of Increasing Exposure, to avoid double counting, cash borrowings that are used to finance the exposure shall not be included within the calculation.

UCITS Global Exposure

The UCITS Global Exposure calculation for the above example is exactly the same as in Example 3 - £9,000 derivatives exposure / £9,000 NAV = 100%, again in compliance with the 100% global exposure limit.

Fund-Axis View:

The AIFMD Commitment Exposure calculation is preferable. The UCITS Global Exposure calculation ignores the fact additional leverage has been introduced through the use of borrowing, as compared to example 3.

The UCITS calculation would calculate the UCITS Global exposure as 100%, compared to an AIFMD Commitment exposure calculation of 121% incremental leverage. This is a large difference.

In our view, the appropriate calculation is 121%. Further, it is clearly not helpful to investors to have a calculation of Global Exposure on Example 3 which is the same as in Example 4, when Example 4 clearly has more leverage.

EXAMPLE 5: Total Return Swap example

	NAV	Derivative Exposure
Portfolio	300m	
Swap leg 1 – Swap out portfolio exposure	0	-300m
Swap in negative portfolio exposure	0	-300m
CFD on S&P	0	300m
NAV	300m	

The Portfolio has a basket of £300m equities. The fund has entered into a swap to:

- swap out the performance £300m basket
- swap in the negative performance of the £300m basket

It has entered another swap /cfd giving long exposure to £300m of the S&P

On Day 1, the swaps do not have any unrealised P&L, hence the NAV of the fund remains at £300m.

AIFMD Commitment Exposure:

The AIFMD Commitment Exposure would be 200% (100% incremental exposure), being 600m derivative exposure / 300m NAV.

- The swap leg swapping out the £300m portfolio exposure can be netted with the £300m portfolio exposure and hence together they give no exposure;
- The swap leg swapping in the negative portfolio exposure is -£300m exposure, which becomes an absolute exposure;
- The S&P Swap gives another £300m exposure;
- Total £600m exposure.

UCITS Global Exposure:

The UCITS Global Exposure would be 200% and hence not consistent with the 100% limit for UCITS. In this regard,

- The swap leg swapping out the £300m portfolio exposure can be netted with the £300m portfolio exposure and hence gives no exposure;
- The swap leg swapping in the negative portfolio exposure is -£300m exposure, which becomes an absolute exposure;
- The S&P Swap gives another £300m exposure.

Therefore, there is £600m derivative exposure, which is 200% of the £300m NAV. This is not compliant with the UCITS provisions.

Note; the UCITS Guidelines at Box 3 do set out criteria for derivatives to be treated as not creating any global exposure. This covers swap leg 1 only, not swap leg.

Funds-Axis View

The AIFMD Commitment Exposure calculation is preferable.

The UCITS Global Exposure is intended to measure the incremental leverage through derivatives. In this case, there is clearly 600 total exposure compared to a NAV of 300 and the incremental leverage all comes through derivatives. However, it is not easy to reconcile this 100% calculations with the mechanical calculation steps set out at at Box 2, Para 2 of UCITS Guidelines which seem to require a calculation of 200%.

Example 6: Deleverage Example 1

Day 1

	NAV	Derivative Exposure
Cash	20,000	
Equities	80,000	
NAV	100,000	

The fund has £100,000 of NAV, but 20% has been left in cash and only 80% invested.

Day 2

	NAV	Derivative Exposure
Cash	20,000	
Equities	80,000	
Derivatives	0	20,000
NAV	100,000	

The fund has now taken an additional 20,000 exposure through derivatives. 20% has been left in cash and only 80% invested.

Note: In this example, we also consider the AIFMD Gross Exposure.

AIFMD Gross Exposure

- On Day 1, the AIFMD Gross Exposure is 80%, as the 20,000 cash and cash equivalent are not included; and
- On Day 2, the AIFMD Gross Exposure has increased to 100%, being 100,000 exposure and with the 20,000 cash and cash equivalent not being included.

AIFMD Commitment Exposure

- On Day 1, the AIFMD Commitment Exposure is 100% - as there are no derivatives;

- On Day 2, the AIFMD Commitment Exposure is still 100%. The 20,000 cash is still included along with the 80,000 equities, but the Derivative exposure is not included as it is offset by the cash.

UCITS Global Exposure

- On Day 1, the UCITS Global Exposure is 0% - as there are no derivatives;
- On Day 2, the UCITS Global Exposure is still 0%; the Derivative exposure is not included as it is offset by the cash.

Funds-Axis View

The Funds-Axis view is that the AIFMD Gross Exposure is preferable to the AIFMD Commitment Exposure and to the UCITS Global Exposure. It is equally important to know where portfolios are deleveraged as this helps in understanding whether they are meeting their investment objectives.

Example 7: Deleverage Example 2

	NAV	Derivative Exposure
UK Equities	100,000	
FTSE 100 Future		-50,000
NAV	100,000	

The fund has a NAV of £100,000 and has invested 100,000 in UK equities.

It has also entered into a qualifying hedge of £50,000 short position through a FTSE 100 future.

AIFMD Commitment Exposure

The AIFMD Commitment Exposure is 50% - 50,000 net exposure after taking account of hedging. In other words, the portfolio is 50% deleveraged.

UCITS Global Exposure

The UCITS Global Exposure is zero. The FTSE 100 future is a hedge and hence gives zero derivative exposure.

Funds-Axis View

The AIFMD approach is preferable.

It is equally important to know where funds are deleveraged, as this helps understanding whether they are meeting their investment objectives.

Example 8: Convertible Bonds

	NAV	Derivative Exposure
Portfolio of Convertible bonds	10,000,000	10,015,000
NAV	10,000,000	10,015,000

There is a portfolio of £10m of convertible bonds and no other assets.

If these are converted into the equivalent underlying assets the exposure would be 10,015,000.

AIFMD Commitment Exposure

The AIFMD Commitment Exposure is 100.15% (.15% Incremental leverage)

UCITS Global Exposure

The UCITS Commitment Exposure is unclear, with the range of possible answers ranging from 0% to 100.15% Global Exposure, which is in excess of the 100% limit on global exposure.

In the UCITS Guidelines, it is clearly set-out in Box 2 that the correct approach for calculating the commitment exposure of a convertible bond is as:

“Number of reference shares * market value of the underlying reference shares * delta”

This would lead to the calculation that the Global Exposure is 100.15%.

Funds-Axis View

The AIFMD approach is clearly preferable. The portfolio is effectively unleveraged and a calculation of 100.15% UCITS Global Exposure is not in keeping with the intention that.

To be able to conclude that the correct result for UCITS is also 0.15% global exposure / incremental exposure, we need to place emphasis on the words of Article 10 of the ESMA's guidelines concerning eligible assets for investment by UCITS provides that a proportionate approach can be taken to convertible bonds and other such instruments.

We would also note that this approach is consistent with the approach to fully-funded swaps, which are not considered to give incremental exposure. Fully funded swaps are swaps where the fund receives the relevant return and pays over the cash notional to the swap counterparty. In other words, they have been purchased for cash, just like the convertible bond.

The wider point is that this is an issue for UCITS Global Exposure because it refers to the incremental leverage from derivatives and provides a structured methodology for this, rather than simply looking at the total leverage of the whole portfolio.

Example 9: Future combined with Forward FX

	NAV	Derivative Exposure
Cash	366,000	
US index Future		366,000
FFX USD leg		366,000
NAV	366,000	

The fund has a base currency of GBP. It has 366,000 GBP cash.

It takes out a future to take 549,000 USD (369,000 GBP) exposure to a USD equity XYZ.

It also takes out a Forward FX to sell 366,000 GBP and buy \$549,000 USD.

AIFMD Commitment Exposure

The AIFMD Commitment Exposure would at first sight appear to be 200% (100% Incremental leverage). This is the £366,000 cash plus 366,000 derivative exposure (being the 732,000 derivative exposure reduced by the 366,000 cash exposure).

UCITS Global Exposure

The UCITS Global Exposure would also at first sight seem to be 100%, being the 732,000 derivative exposure less the 366,000 cash and risk-free assets, leaving 366,000 exposure compared to a NAV of 366,000.

Funds-Axis View

In Funds-Axis view the exposure is AIFMD exposure is 100% and the UCITS global Exposure is 0.

The XYZ future and the Forward FX, when considered together, represent the same exposure as buying the underlying securities. Buying the XYZ future by itself does not provide the same exposure as buying the underlying asset, because it doesn't capture the full currency exposure. Hence the Forward FX in this case, should not be regarded as adding more exposure.

This can be seen in the below example.

Example

There we have two different scenarios.

In Scenario 1, the GBP Portfolio has 1000 shares at a price of \$549 per share, which equates to a base currency value of £366,000

In Scenario 2, the Portfolio has instead, £366,000 of cash and takes out a future on 100 contracts for XYZ, each contract being worth 10 XYZ. With an underlying price of \$549, that will give exposure to \$549,000 (£366,000) XYZ exposure – as if the portfolio was invested into the cash assets.

Day 1

On Day 1, we have the underlying price at \$549 and we have a USD:GBP exchange rate of 1.5.

Scenario 1	No of shares	Price per share \$	Multiplier	Local MV	Ex Rate	Value Base Currency
XYZ Equity	1000	549		549000	1.5	366000
Scenario 2	No of shares	Price per share \$	Multiplier	Local MV	Ex Rate	Value Base Currency
Cash	366000	1		366000	1	366000
XYZ future	100	549	10	0	1.5	0
FFX leg 1 to sell 36600 GBP buy 549000 USD	-366000					0
FFX leg 2 to sell 36600 GBP buy 549000 USD	549000	1	1	0	1.5	0
						366000

Day 2

On Day 2, the holdings in XYZ Equity and the XYZ equity future and the price of XYZ have stayed exactly the same in the 2 different scenarios. However, the exchange rate has moved from 1.5 USD:GBP to 1.6.

We can see that in scenario 1, in portfolio base currency of GBP, the XYZ equity has fallen by £22,875 to £342,125. In contrast, the XYZ future by itself would have no gain / loss. To fully replicate the exposure to XYZ equity, the fund also needs the currency exposure. In scenario 2 we can see that the XYZ future couples with the currency exposure is equivalent to the direct position in XYZ equity.

Scenario 1	No of shares	Price per share \$	Multiplier	Local MV	Ex Rate	Value Base Currency
XYZ Equity	1000	549		549000	1.6	343125
						343125
Scenario 2	No of shares	Price per share \$	Multiplier	Local MV	Ex Rate	Value Base Currency
Cash	366000	1		366000	1	366000
XYZ future	100	549	10	0	1.6	0

FFX leg 1 to sell 36600 GBP buy549000 USD	-366000			-22875	1	-22875
FFX leg 2 to sell 36600 GBP buy549000 USD	549000	1	1	0	0	
						343125

Given that the XYZ future and the USD FFX, when considered together, give the same exposure as investing directly into 366,000 GBP of XYZ, then it seems appropriate that their combined exposure should be 366,000 GBP and not 732,000 GBP.

The relevant text in respect of treatment of cash and cash equivalents for AIFMD Commitment Exposure and for risk free assets for UCITS Global Exposure is considered at Part 3 of this document. The Funds-Axis recommended view set-out above is entirely consistent with that wording, with the proviso of a small substitution of “derivative” for “derivatives” as set out below.

*“[you do not need to take account of the exposure from ~~a derivative~~ derivatives-] if it meets both of the following conditions: (a) the combined holding by the AIF of ~~a derivative instruments~~s relating to a financial asset and cash which is invested in cash equivalent as defined in Article 7(a) is equivalent to holding **a long position** in the given financial asset; (b) the derivative instruments shall not generate any incremental exposure and leverage or risk.”*

END