

Calculating the return

Calculating the return on Global Equity Guaranteed Investments (5-year term)

On February 8, 2012, John Doe purchases Global Equity Guaranteed Investments for \$20,000 for a term of 5 years. The return, which will be calculated at maturity, is based on fluctuations in the prices of the 15 global securities (ordinary stock). Each security carries the same weight in the portfolio.

Below are the details of his investment as indicated on the investment agreement:

Acquisition date:	February 8, 2012
Pre-issue interest rate (sales period):	1.00%
Issue date:	April 18, 2012
Maturity date:	April 18, 2017
Maximum growth:	25% (13% for 3.5 years)
Rate of participation:	100%
Return on investment (from issue date to maturity date):	Best 5 stocks receives weights of 110% instead of worst 5 stocks receives weights of 90%.

How the investment works

– From the acquisition date to the issue date, interest is earned at the pre-issue rate.

Amount invested	\$20,000.00
Interest calculated daily between February 8, 2012 to April 18, 2012 at a rate of 1.00%	<u>\$38.74</u>
Total	\$20,038.74

For the period between the date of issue and the date of maturity, the interest shall be determined at maturity according to the variation in price of the 15 global securities (common shares) described below ("securities"), in the following manner:

$$\text{Interest} = \text{Principal} \times \left\{ \left[\left(\frac{CP^2}{CP^1} \times F \text{ for } S_1 + \frac{CP^2}{CP^1} \times F \text{ for } S_2 + \dots + \frac{CP^2}{CP^1} \times F \text{ for } S_{15} \right) \times 1/15 \right] - 1 \right\} \times 100.000\%$$

Maximum : **25.000 %** of the principal

Principal	=	The initial amount of deposit plus the interest accrued between the date of acquisition and the date of issue.
S ₁ to S ₁₅	=	Each one of the 15 global securities listed below.
100.000%	=	The rate of participation in the growth of the basket of securities.

CP¹ = The closing price of each global security on **APRIL 11, 2012**.

CP² = The average closing price of each global security on **FEBRUARY 13, 2017, MARCH 13, 2017 AND APRIL 11, 2017** (or the following business day).

F = Adjustment factor, where:

F = 110%, if the performance of security S_i is among the five best in the basket.

F = 90%, if the performance of security S_i is among the five weakest in the basket.

F = 100%, in all other cases.

EXAMPLE OF YIELD CALCULATION AT MATURITY (5-year term) – Bull market

Security and corresponding Bloomberg rating	CP ¹	CP ²	CP ² / CP ¹ at maturity (before adjustment factor)	Third party	Adjustment factor	CP ² / CP ¹ at maturity (after adjustment factor)
S ₁ : ABB Ltd (ABBN VX EQUITY)	100	147	1.47	1	110 %	1.62
S ₂ : Vestas Wind System (VWS DC EQUITY)	100	140	1.40	1	110 %	1.54
S ₃ : Compagnie de Saint-Gobain (SGO FP EQUITY)	100	90	0.90	3	90 %	0.81
S ₄ : Linde AG (LIN GY EQUITY)	100	120	1.20	2	100 %	1.20
S ₅ : Siemens AG (SIE GY EQUITY)	100	135	1.35	2	100 %	1.35
S ₆ : Gdf Suez (GSZ FP EQUITY)	100	165	1.65	1	110 %	1.82
S ₇ : Veolia Environnement (VIE FP EQUITY)	100	105	1.05	3	90 %	0.95
S ₈ : Sharp Corp. (6753 JT EQUITY)	100	100	1.00	3	90 %	0.90
S ₉ : Toyota Motor Corp. (7203 JT EQUITY)	100	130	1.30	2	100 %	1.30
S ₁₀ : Du Pont (E.I.) de Nemours (DD UN EQUITY)	100	146	1.46	1	110 %	1.61
S ₁₁ : General Electric Co. (GE UN EQUITY)	100	115	1.15	2	100 %	1.15
S ₁₂ : IBM Corp. (IBM UN EQUITY)	100	145	1.45	1	110 %	1.60
S ₁₃ : Johnson Controls Inc. (JCI UN EQUITY)	100	125	1.25	2	100 %	1.25
S ₁₄ : First Solar Inc. (FSLR UQ EQUITY)	100	85	0.85	3	90 %	0.77
S ₁₅ : Waste Management Inc. (WM UN EQUITY)	100	95	0.95	3	90 %	0.86
Average CP²/CP¹			1.2287			1.2487
Cumulative appreciation			22.87%			24.87%
Compound annual yield*			4.20%			4.54%

*The yield is presented for information purposes only and is not indicative of future performance.

Calculation of interest on the principal

$$20,038.74 \times 1.2487 = \$25,022.37$$

In this example of a bull market, the cumulative stock market index growth of 24.87% corresponds to an annual rate of return of 4.54%.

Since the index growth rate is lower than 25%, the interest paid to the investor's account on April 18, 2017 will be equal to the total index growth.

EXAMPLE OF YIELD CALCULATION AT MATURITY (5-year term) – Bear market

Security and corresponding Bloomberg rating	CP ¹	CP ²	CP ² / CP ¹ at maturity (before adjustment factor)	Third party	Adjustment factor	CP ² / CP ¹ at maturity (after adjustment factor)
S ₁ : ABB Ltd (ABBN VX EQUITY)	100	87	0.87	3	90%	0.78
S ₂ : Vestas Wind System (VWS DC EQUITY)	100	95	0.95	2	100%	0.95
S ₃ : Compagnie de Saint-Gobain (SGO FP EQUITY)	100	90	0.90	2	100%	0.90
S ₄ : Linde AG (LIN GY EQUITY)	100	110	1.10	1	110%	1.21
S ₅ : Siemens AG (SIE GY EQUITY)	100	99	0.99	2	100%	0.99
S ₆ : Gdf Suez (GSZ FP EQUITY)	100	75	0.75	3	90%	0.68
S ₇ : Veolia Environnement (VIE FP EQUITY)	100	105	1.05	1	110%	1.16
S ₈ : Sharp Corp. (6753 JT EQUITY)	100	100	1.00	1	110%	1.10
S ₉ : Toyota Motor Corp. (7203 JT EQUITY)	100	80	0.80	3	90%	0.72
S ₁₀ : Du Pont (E.I.) de Nemours (DD UN EQUITY)	100	85	0.85	3	90%	0.77
S ₁₁ : General Electric Co. (GE UN EQUITY)	100	115	1.15	1	110%	1.27
S ₁₂ : IBM Corp. (IBM UN EQUITY)	100	96	0.96	2	100%	0.96
S ₁₃ : Johnson Controls Inc. (JCI UN EQUITY)	100	120	1.20	1	110%	1.32
S ₁₄ : First Solar Inc. (FSLR UQ EQUITY)	100	85	0.85	3	90%	0.77
S ₁₅ : Waste Management Inc. (WM UN EQUITY)	100	95	0.95	2	100%	0.95
Average CP²/CP¹			0.9580			0.9687
Cumulative appreciation			0.00%			0.00%
Compound annual yield*			0.00%			0.00%

*The yield is presented for information purposes only and is not indicative of future performance.

Calculation of interest on the principal

$$20,038.74 \times 1.0 = \$20,038.74$$

In this example of a bear market, the growth of the index is zero, therefore no interest will be paid to the account holder on April 18, 2017. Only the capital guarantee will apply.