

What's good to know for your personal financial & retirement planning

Information events for Novartis associates

25 March / 12 May 2022

Agenda

- Flexibility is key: The Novartis pension plans in Switzerland
 - The Novartis defined contributions concept at a glance
 - Investment allocation: 4 basic strategies to choose from
 - New: «Sustainable» investment strategy as a 5th option
 - The LifeCycle model as a 6th strategy: The way it works
- Presentation Vermögenszentrum (VZ)
 - Key factors of the risk structure
 - Impact of the risk structure
 - Payout of retirement benefits



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Flexibility is Key: The Swiss Pension Plans

- The contributions are age-related, with members being able to choose between three contribution scales ("Standard", "Standard Minus" and "Standard Plus").
- The funding arrangements are based on a **2:1 ratio of employer and employee contributions** (if the "Standard" contribution scale is chosen).
- **Early retirement** (also partially) is possible from age 60 onwards.
- An **additional savings plan** has been set up for all insured members aged 40 or older, based on equal contributions from associates/employer.
- At retirement, insured members may select a **lifelong survivor's pension** for their partner in the same amount as the retirement pension ("joint life" annuity).

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Flexibility is Key: The Swiss Pension Plans (2)

- **Investment strategy:** If your insured salary is partly covered in Pension Fund 2, then for your Pension Fund 2 retirement account you can choose from a variety of investment options.
- To make this possible, the Novartis Pension Fund had to be split into two separate legal entities, i.e., the **Pension Fund 1** and **Pension Fund 2**.
- As from January 2016, the Management Pension Fund also offers a choice of contribution scales and investment strategies.

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The Novartis defined contributions concept at a glance



220,000

50,000

Savings 0 - 150'000

Novartis Pension Fund 2 (PF 2)

- · Standard contributions of employer and insured members in ratio 2 : 1
- Savings process in defined contributions plan (interest = investment performance)
- Retirement benefits: lump sum
- · Risk benefits (death/disability): accrued capital, at least 400% of insured salary
- Individual choice of investment strategy

Novartis Pension Fund 1 (PF 1)

- Standard contributions of employer and insured members in ratio 2 : 1
- Savings process in defined contributions plan (minimum interest 0%)
- Retirement benefits: pension with sustainable conversion ratio / higher lump sum option (max. 50%)
- Risk benefits (death/disability) in the form of a pension
- Additional savings plan from age 40

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Asset allocation: 4 basic strategies for selection

	Money Market	Bonds Plus	Equity 25 Plus	Equity 40 Plus
Cash	100.0%			
	100.0%			
Fixed income		80.0%	60.0%	45.0%
Bonds CHF Foreign		10.0%	10.0%	5.0%
Bonds Global (hCHF)		50.0%	30.0%	30.0%
Corporate Bonds Global (hCHF)		20.0%	20.0%	10.0%
Equity			25.0%	40.0%
Equity Switzerland			5.0%	10.0%
Equity World			17.0%	20.0%
Equity World (hCHF)				5.0%
Equity Emerging Markets			3.0%	5.0%
Real Estate		20.0%	15.0%	15.0%
Real Estate Switzerland		20.0%	15.0%	10.0%
Real Estate World (hCHF)				5.0%
Total	100.0%	100.0%	100.0%	100.0%
FX Exposure	0.0%	0.0%	20.0%	25.0%

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New: Sustainable investment strategy Background

- The Pension Fund Novartis (PF1) was among the early adopters of the idea to introduce Environmental, Social & Governance (ESG) criteria to its investment strategy almost 20 years ago.
 - The current ESG guidelines are available on the Pension Funds' website: <u>https://www.pensionskassen-novartis.ch/fileadmin/pkn/Diverses/E_Anlagerichtlinien.pdf</u>
- With regard to Pension Fund Novartis 2 (PF2), all of the current strategies (Money Market, Bonds ^{Plus}, Equity 25 ^{Plus}, Equity 40 ^{Plus} and LifeCycle ^{Plus}) are in conformity with the exclusion list of the Swiss Association for Responsible Investments (SVVK–ASIR).
- In May 2020, we complemented the existing selection with an additional, specifically designed «ESG Strategy», sporting similar risk-return characteristics as the Equity 25 ^{Plus} investment option.

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New: Sustainable investment strategy «Equity 25 ESG» as a 5th investment option

- The UBS AST 2 BVG Equity 25 ^{ESG} investment option joins the existing range of strategies (Money Market, Bonds ^{Plus}, Equity 25 ^{Plus}, Equity 40 ^{Plus} and LifeCycle ^{Plus}) as an additional, particularly sustainable variant.
 - The underlying asset classes of the new strategy follow a multiple research **screening process** in order to make a meaningful contribution to a more sustainable world.
 - The applied **sustainability policies** exclude certain companies and prefer companies with a high ESG score and with a strong climate awareness
 - ... and seek to **vote** consistently in line with recognized ESG-principles.
- The new Equity 25 ^{ESG} investment option has a very similar risk/return profile as the existing Equity 25 ^{Plus} strategy,
 - ... with only slightly higher Total expense ratio (TER) and switching costs (dilution levies).

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Sustainable investment strategy «Equity 25 ESG»: Comprehensive policy / approach

	ESG - Approach						
Index	Exclusions	Climate focus	Sustainability	ESG voting	GRESB		
MSCI Switzerland IMI Socially Responsible	\checkmark		\checkmark	\checkmark			
Equities Global Climate Aware	\checkmark	\checkmark	\checkmark	\checkmark			
MSCI Emerging Markets Socially Responsible	\checkmark		\checkmark	\checkmark			
Global Bonds Climate Aware	\checkmark	\checkmark					
Global Corporate Bonds Climate Aware	\checkmark	\checkmark	\checkmark				
Swiss Real Estate Securities Selection Passive					\checkmark		

Climate Focus: Meaningful carbon reduction and aligned to forward-looking carbon reduction targets

Sustainability: Strategies with sustainability/SI policies playing a significant role in the investment process

ESG-Voting: Seek to vote consistently and in line with UBS governance principles across all portfolios

GRESB: Independent organization committed to assessing the environmental, social and governance performance of real estate portfolios across the world. GRESB is now recognized as the leading global sustainability benchmark.

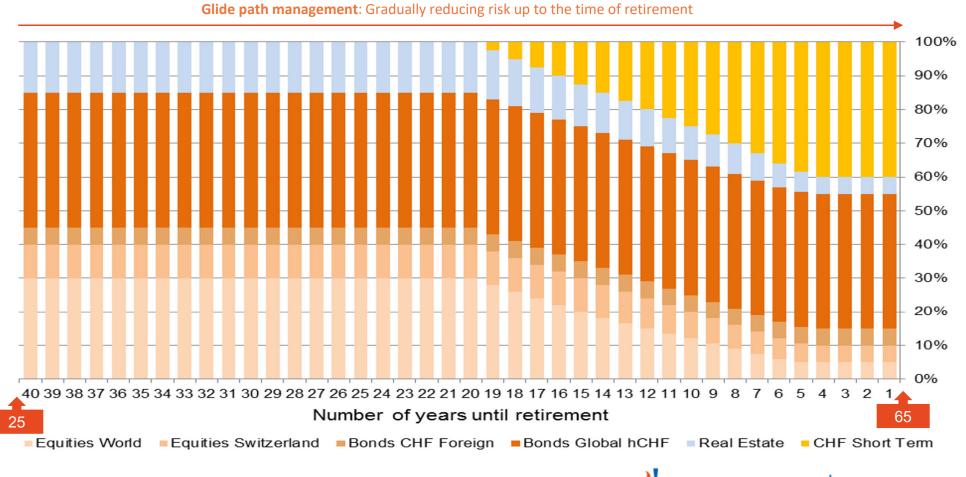
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"LifeCycle"-Model as a 6th strategy

- The LifeCycle solution works like a kind of "autopilot" that automatically factors in the investment horizon and risk.
- The fundamental concept is based on the assumption that the capacity to cope with investment volatility generally decreases the closer one gets to retirement.
- For this reason, the portion of Equities in the portfolio is gradually reduced.
- In view of a smooth implementation, focus was on **simplicity**:
 - Build-up based on the same indexed funds as already used by PF2 and MPF
 - Favorable pricing conditions
 - Reasonably staggered age-brackets so as not to unnecessarily complicate the setup (5-year "vintages" rather than 1 or 10-year spreads)

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"LifeCycle"-Model: The way it works



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VZ VermögensZentrum

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- 1. Derivation of Risk Structure
- 2. Impact on Risk Structure
- 3. Payout of Individual Pension Scheme Old Age Savings

Question and Answer Session

Speaker





Karl Flubacher, Executive Board Member

Karl Flubacher, MA in Economics and Business Administration, is Associate Partner at VZ VermögensZentrum. He regularly gives public and company-internal seminars. He specializes in sophisticated retirement and inheritance planning strategies.



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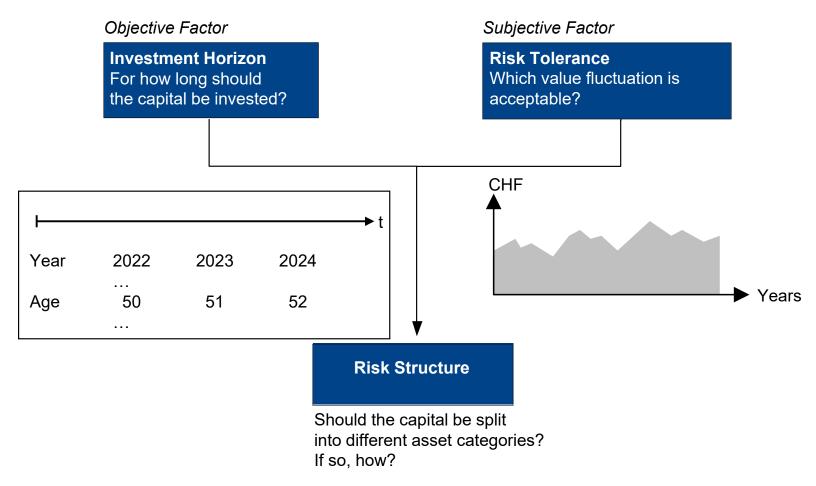
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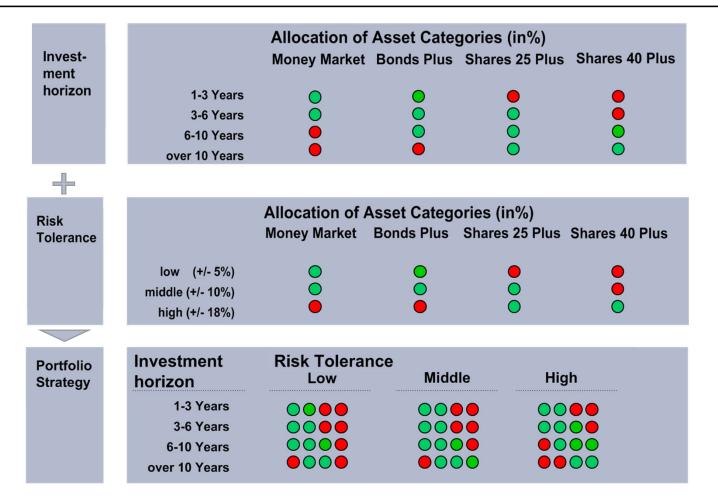


Definition of Risk Structure





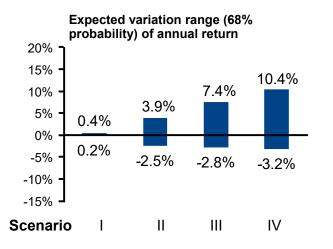
Derivation of the Risk Structure

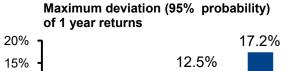


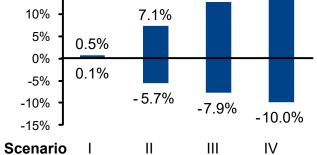


Expected Return per Portfolio Strategy

Scenario	Strategy	Expected Return	Expected Variation Range		Best Case	Worst Case
I	Money Market	0.3%	0.4%	0.2%	0.5%	0.1%
II	Bonds Plus	0.7%	3.9%	-2.5%	7.1%	-5.7%
III	Shares 25 Plus	2.3%	7.4%	-2.8%	12.5%	-7.9%
IV	Shares 40 Plus	3.6%	10.4%	-3.2%	17.2%	-10.0%









Impact on Expected Return and Risk

in CHF

Sce	enario Asset	Expected ¹⁾	Risk	Expecta	tions ³⁾	Maximum De	viation ⁴⁾
Str	ucture	Return		Positive	Negative	Best Case	Worst Case
Т	Money Market	+ 0.3%	+/- 0.1%	+ 0.4%	+ 0.2%	+ 0.5%	+ 0.1%
		+ 300 CHF	+/- 100 CHF	+ 400 CHF	+ 200 CHF	+ 500 CHF	+ 100 CHF
Ш	Bonds Plus	+ 0.7%	+/- 3.2%	+ 3.9%	- 2.5%	+ 7.1%	- 5.7%
		+ 700 CHF	+/- 3.200 CHF	+ 3.900 CHF	- 2.500 CHF	+ 7.100 CHF	- 5.700 CHF
III	Shares 25 Plus	+ 2.3%	+/- 5.1%	+ 7.4%	- 2.8%	+ 12.5%	- 7.9%
		+ 2.300 CHF	+/- 5.100 CHF	+ 7.400 CHF	- 2.800 CHF	+ 12.500 CHF	- 7.900 CHF
IV	Shares 40 Plus	+ 3.6%	+/- 6.8%	+ 10.4%	- 3.2%	+ 17.2%	- 10.0%
		+ 3.600 CHF	+/- 6.800 CHF	+ 10.400 CHF	- 3.200 CHF	+ 17.200 CHF	- 10.000 CHF

Investment Capital 100.000 CHF

1) Expected long-term mean return per year

2) Expected fluctuation margin per year, based on standard deviation, viz. in 68% of all cases observed

3) Expected return after one year with standard deviation (68% of all values observed)

4) Expected return after one year with 2 standard deviation (95% of all cases observed)



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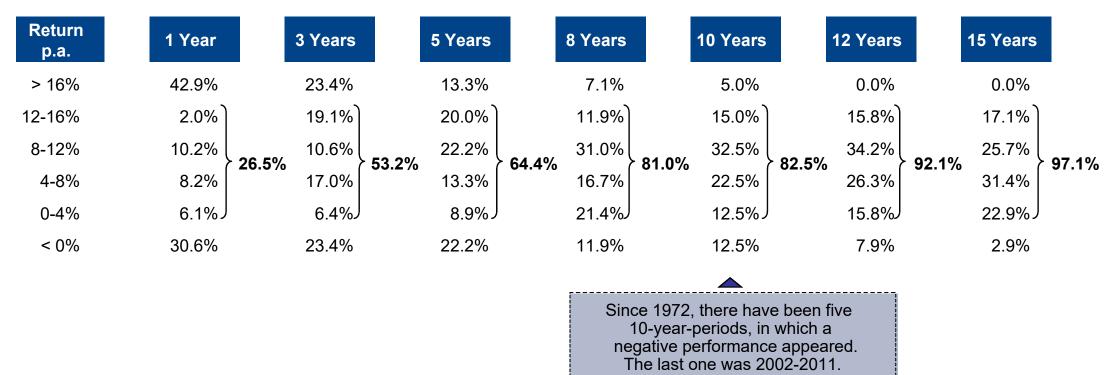
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VZ

Expected Returns for Different Investment Horizons

Source: MSCI World Total Return Index (in CHF) for all 1-, 3-, 5-, 8-, 10-, 12- and 15-year time series, from 31 Dec. 1972 until 31 Dec. 2021





Impact of the Investment Strategy on Assets

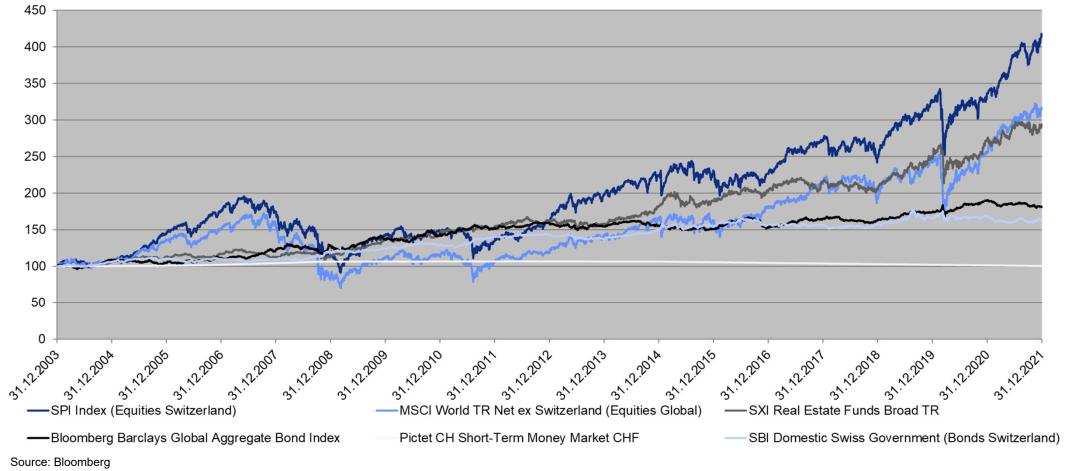
Assumption: Person is 50 years old, income 200.000 CHF; retirement at 65 (in CHF)

Investment Strategy	Money Market	Bonds Plus	Shares 25 Plus	Shares 40 Plus
Old Age Savings (1 June 2022)	100.000	100.000	100.000	100.000
Expected Return	0.3 %	0.7%	2.3 %	3.6 %
Estimated Old Age Savings (30 June 2037)	272.000	283.000 Varia + 42		387.000



Benchmarking

Development of selected indices (from 31 December 2003 to 31 December 2021; in CHF)





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Pension or Lump Sum: Comparison of Criteria

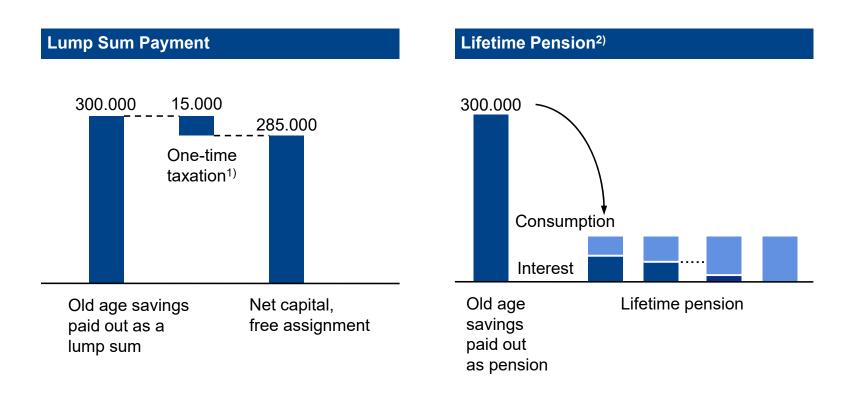
	Pension	Lump Sum
Security	High security	Security depends on asset allocation
Flexibility Pension	No flexibility Pay-out according to pension scheme regulations	High flexibility 3-6% return / remuneration, according to income-concept
Taxes • Pay-out	Not applicable, no pay-out	Non-recurring taxation 3-11% (BS) Non-recurring taxation 3-10% (BL)
Pension	Pension 100% taxable	Remuneration (from 0%) up to 100% taxable, according to income-concept
Inflationary Compensation	According to pension scheme	According to individual planning
Coverage widow	60% of old age pension ¹⁾	Up to 100% of income ²⁾
Surviving depend	No entitlement	According to inheritance law, testament

1) Statutory regulation; deviations possible depending on pension scheme

2) On condition of most-favoured treatment for widow / widower



Tax Treatment of Old Age Savings (in CHF)



1) Taxation separated from residual income with reduced rate of taxation (cantonal differences)

2) Taxation together with residual income (cantonal differences in income tax rate)



Lump Sum Payment with Domicile in Switzerland

Example: Person is married, 65 years old, domiciled in...

		Lump Sum: 250.000 CHF	Lump Sum: 750.000 CHF
Federal Tax		3'812	16'812
Canton Schwyz Chur Appenzell Zug Liestal Schaffhausen Stans Altdorf Bellinzona Geneva Zürich Glarus Berne Sion Aarau Solothurn Sarnen St. Gallen Frauenfeld Lucerne Herisau Delémont Neuchâtel Basel Fribourg	SZ GR AI ZG BL H W R TI GE H LL EL SG O W G G U R J LE S FR	6'405 7'050 7'545 8'209 8'250 8'497 8'524 9'263 9'500 10'916 10'950 11'520 11'522 11'673 11'988 12'059 12'798 12'800 13'050 13'573 13'876 13'910 14'268 16'750 18'540	47'296 28'200 23'700 30'023 47'850 28'958 26'349 27'788 28'500 41'274 66'948 34'560 48'249 58'800 44'907 41'541 38'394 38'400 39'150 46'922 48'100 44'785 56'750 72'540
Lausanne	VD	19/291	77'046

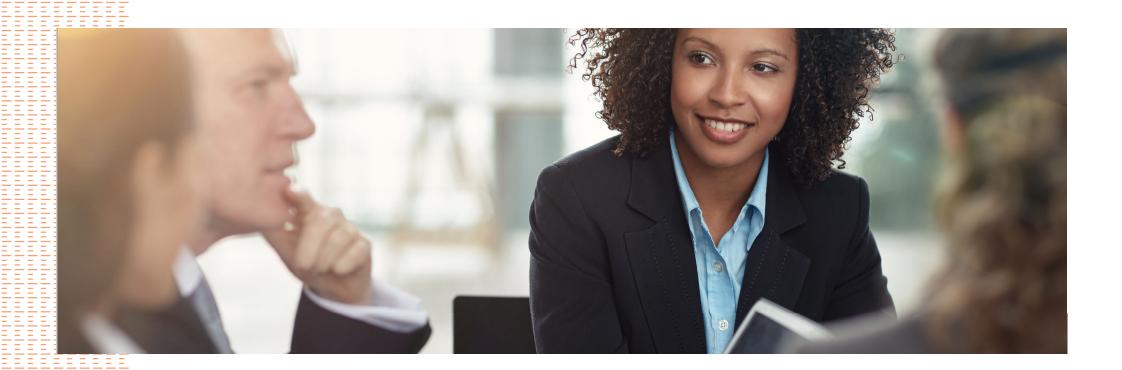


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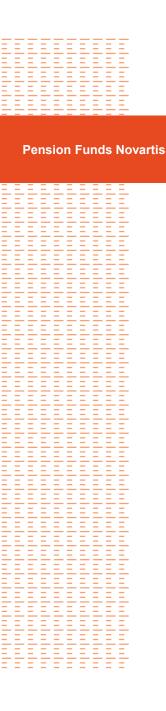
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Thank you

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Back up

3 contribution scales to choose from *e.g. Pension Fund Novartis 1*

Age	Retirement cre % of insured s	edits ("Standard") alary		Standard plus	Standard minus
	Member	Novartis	Total	Member	Member
25 – 29	4.25	8.50	12.75	6.25	2.25
30 – 34	4.90	9.80	14.70	6.90	2.90
35 – 39	5.55	11.10	16.65	7.55	3.55
40 – 44	6.20	12.40	18.60	8.20	4.20
45 – 49	7.50	15.00	22.50	9.50	5.50
50 – 54	8.15	16.30	24.45	10.15	6.15
55 – 59	8.80	17.60	26.40	10.80	6.80
60 - 65	9.45	18.90	28.35	11.45	7.45

A further credit of **3.50%** applies to all members aged 40 and over. This is paid into an **additional savings plan** within Pension Fund 1. Half of this amount (i.e., 1.75%) is contributed by Novartis and half by members. Further contributions are paid by members and by Novartis towards **risk benefits** (disability & death)

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Overview of contributions *Pension Fund 1*

Age	Savings Contribution ¹		Risk Contribution ²		Additional Savings Plan Contributions ³		Total Contributions	
	Employee ⁴	Employer	Employee	Employer	Employee	Employer	Employee ⁴	Employer
up to 25	-	-	0.5%	1.0%	-	-	0.50%	1.00%
25-29	4.25	8.50	0.6%	1.2%			4.85%	9.70%
30-34	4.90	9.80	0.6%	1.2%			5.50%	11.00%
35-39	5.55	11.10	0.6%	1.2%			6.15%	12.30%
40-44	6.20	12.40	0.6%	1.2%	1.75%	1.75%	8.55%	15.35%
45-49	7.50	15.00	0.6%	1.2%	1.75%	1.75%	9.85%	17.95%
50-54	8.15	16.30	0.6%	1.2%	1.75%	1.75%	10.50%	19.25%
55-59	8.80	17.60	0.6%	1.2%	1.75%	1.75%	11.15%	20.55%
60-65	9.45	18.90	0.6%	1.2%	1.75%	1.75%	11.80%	21.85%

¹ on insured salary PK1 (base salary plus incentive minus social security offset) up to CHF 150k

² on insured salary risk (base salary minus social security offset) up to CHF 220k base salary

³ on total insured salary (base salary plus incentive minus social security offset) up to CHF 220k base salary

⁴ indicates standard contribution; employees can chose to contribute 2% more or 2% less

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Overview of benefits *Pension Fund 1*

Age	Death	Disability
 Lifelong retirement pension Conversion rate at age: 65: 5.00% 64: 4.85% 63: 4.72% 62: 4.60% 61: 4.48% 60: 4.36% of the accrued retirement plan assets. Lump-sum pay-out instead of pension, up to max. 50% possible (time limit 3 months before retirement) Retirement child pension 20% of retirement pension up to age 20/25 Available savings plan assets may be used to finance a bridging pension until to statutory (AHV) retirement age (temporary retirement pension) or paid out as a one-off retirement lump sum. 	 Spouse's or domestic partner's pension for active insured members: 60% of insured/current disability pension for retirement pension recipients: 60% of retirement pension or, with the survivor's pension option, 100% of retirement pension Orphan's pension 20% of insured or current disability or retirement pension up to age 20/25 Lump sum on death Active insured members: 200% of insured disability pension plus accrued savings plan assets plus assets transferred from incentive/bonus and shift insurance on 1.1.2011 plus voluntary extra contributions since 1.1.2011 paid into retirement and savings account minus early withdrawals WEF / divorce transfers minus retirement/disability benefits already paid out 	 Disability pension 60% of insured salary Risk up to age 65 From age 65 onwards: conversion of accrued retirement assets, based on the current conversion rate (at present 5.00%) Disability child pension 20% of disability pension, up to age 20/25 Disability lump sum (with 100% disability) Accrued savings plan assets
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Overview of contributions *Pension Fund 2*

Age	Savings Contribution ¹		Risk Con	Risk Contribution ²		Total Contributions	
	Employee ³	Employer	Employee	Employer	Employee ³	Employer	
up to 25	-	-	0.4%	0.8%	0.40%	0.80%	
25-29	3.50%	7.0%	0.4%	0.8%	3.90%	7.80%	
30-34	4.00%	8.0%	0.4%	0.8%	4.40%	8.80%	
35-39	4.50%	9.0%	0.4%	0.8%	4.90%	9.80%	
40-44	5.00%	10.0%	0.4%	0.8%	5.40%	10.80%	
45-49	6.25%	12.5%	0.4%	0.8%	6.65%	13.30%	
50-54	6.75%	13.5%	0.4%	0.8%	7.15%	14.30%	
55-59	7.25%	14.5%	0.4%	0.8%	7.65%	15.30%	
60-65	7.75%	15.5%	0.4%	0.8%	8.15%	16.30%	

¹on insured salary PK2 (base salary plus incentive minus CHF 150k) up to 220k base salary ²on insured salary PK2 (base salary plus incentive minus CHF 150k) up to 220k base salary ³indicates standard contribution; employees can chose to contribute 2% more or 2% less

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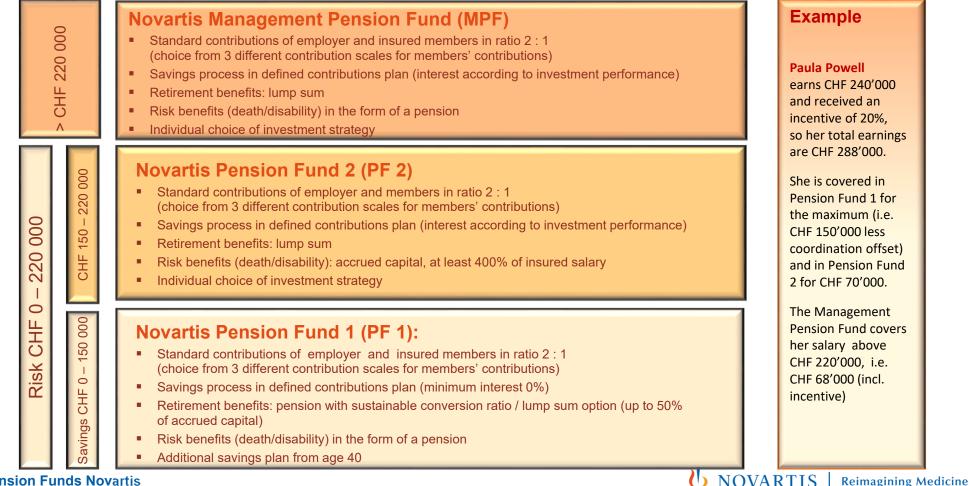
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Overview of benefits *Pension Fund 2*

Retirement	Death	Disability
Lump sum on retirement	Lump sum on death	Lump sum on disability
 Assets available at the time of retirement 	 Assets available at the time of death, 	 Assets available at the time when the disability pension starts,
	 at least 400% of insured salary 	 at least 400% of insured salary

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Management Pension Fund: A top-up plan



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Sustainable investment option «Equity 25 ESG»: Indices

Portfolio	Benchmark	Currency	Security Description	Weights current portfolio	Weights ESG portfolio
	Equity			25.00%	25.00%
UBS AST 2 EA BVG Equity-25 ^{Plus}	SPI® (Total Return)	CHF	UBS (CH) IF - Equities Switzerland Passive All I-X	5.00%	
	MSCI World ex Switzerland (net div. reinv.) (in CHF)	CHF	UBS (CH) IF 2 - Equities Global Passive I-X	17.00%	
	MSCI Emerging Markets (net div. reinv.) (in CHF)	CHF	UBS (CH) IF - Equities Emerging Markets Global Passive II (CHF) I-X	3.00%	
UBS AST 2 EA BVG Equity-25 ^{ESG}	MSCI Switzerland IMI Extended SRI 5% Issuer Capped NTR CHF	CHF	UBS ETF (CH) – MSCI Switzerland IMI Socially Responsible (CHF) A-acc		5.00%
	MSCI World ex Switzerland (net div. reinv.) (in CHF)	CHF	UBS (CH) IF 2 - Equities Global Climate Aware II I-X		17.00%
	MSCI Emerging Markets SRI 5% Issuer Capped Total Return Net	USD	UBS ETF – MSCI Emerging Markets Socially Responsible UCITS ETF (USD) A-acc		3.00%
	Fixed Income			60.00%	60.00%
UBS AST 2 EA BVG Equity-25 ^{Plus}	SBI [®] Foreign AAA-BBB (Total Return)	CHF	UBS (CH) IF - Bonds CHF Ausland Passive I-X	10.00%	
	Bloomberg Barclays Global Aggregate Bond Index (hedged in CHF)	CHF	UBS (CH) IF - Global Aggregate Bonds Passive (CHF hedged) II I-X	30.00%	
	Bloomberg Barclays Global Aggregate Corporate Index (hedged in CHF)	CHF	UBS (CH) IF - Global Corporate Bonds Passive (CHF hedged) II I-X	20.00%	
UBS AST 2 EA BVG Equity-25 ^{ESG}	FTSE Climate Risk-Adjusted World Government Bond Index (Climate WGBI; hedged CHF)	CHF	UBS (CH) IF- Global Bonds Passive Climate Aware (CHF hedged) II		24.00%
	Bloomberg Barclays Global Aggregate Corporate Index (hedged in CHF)	CHF	UBS (CH) InvF – Global Corporate Bonds Climate Aware (CHF hedged) II		36.00%
	Real Estate			15.00%	15.00%
UBS AST 2 EA BVG Equity-25 ^{Plus} Passive	SIX [®] Real Estate Funds (TR)	CHF	UBS (CH) IF 3 - Swiss Real Estate Securities Selection Passive II I-X	15.00%	
UBS AST 2 EA BVG Equity-25 ^{ESG}	SIX [®] Real Estate Funds (TR)	CHF	UBS (CH) IF 3 - Swiss Real Estate Securities Selection Passive II I-X		15.00%
			Total	100.00%	100.00%

"Dilution Protection" (Transaction Fee) as per January 2022

Changing the strategy means that the portfolio manager has to buy and sell positions accordingly. The rebalancing costs are the higher the more often such transactions take place. Without an appropriate compensating mechanism, the costs are borne by all investors, affecting their performance. The dilution levies shall protect the existing investors by allocating the transaction costs to those who cause them (cost-by-cause principle). **Money Market** 0.00 % / 0.00% (in/out) **Bonds** Plus 0.11 % / 0.03 % (in/out) **BVG Equity-25** Plus 0.11 % / 0.03 % (in/out) **BVG Equity- 25 ESG** 0.20 % / 0.06 % (in/out) **BVG Aktien-40** Plus 0.06 % / 0.02 % (in/out) LifeCycle Plus 2020 - 2035 0.07 % / 0.02 % (in/out) LifeCycle Plus 2040 - 2060 0.06 % / 0.02 % (in/out)