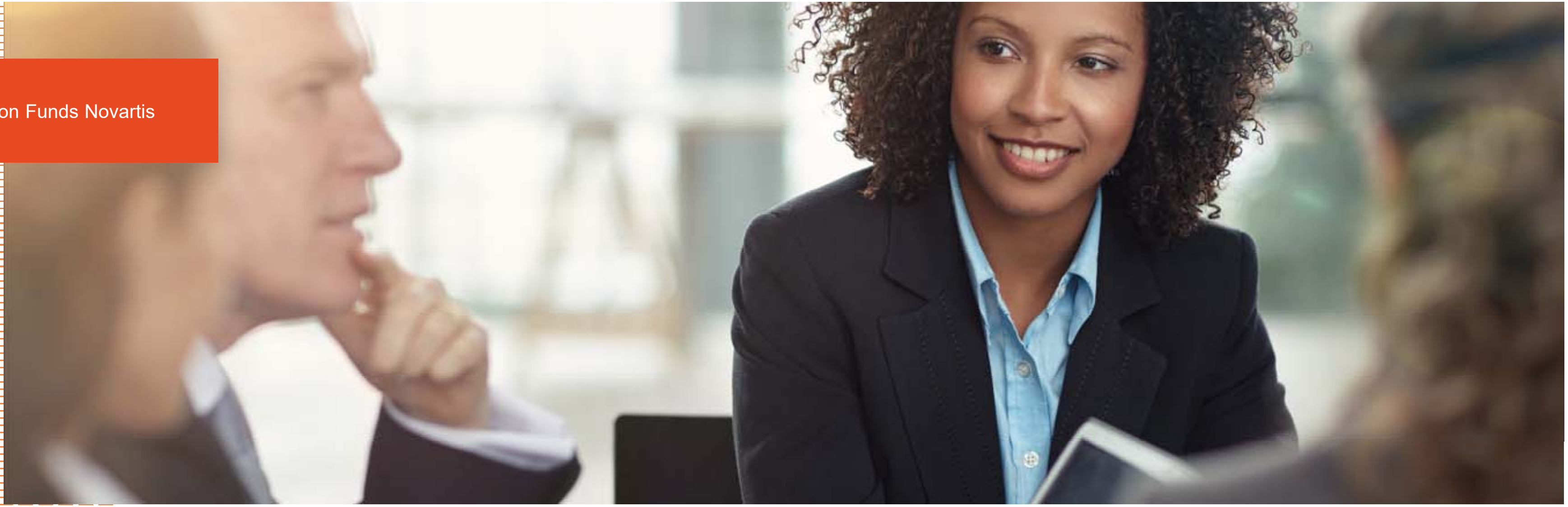
Pension Funds Novartis



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

Information events for Novartis associates
February 20, 2019 / May 15, 2019

NOVARTIS

Agenda

- Flexibility is key: The Novartis pension plan concept in Switzerland
  - The Novartis defined contributions concept at a glance
  - Investment allocation: 4 Basic strategies to choose from
  - (optimized portfolio composition)
  - The LifeCycle model as a 5th strategy: The way it works
- Presentation Vermögenszentrum (VZ)
  - Key factors of the risk structure
  - Impact of the risk structure
  - Payout of retirement benefits

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).

Flexibility is Key: The Swiss Pension Plans

- **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.

The Novartis defined contributions concept at a glance

Risk 0 – 220'000

150'000 – 220'000

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

Savings 0 – 150'000

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

Asset allocation: 4 optimized 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%

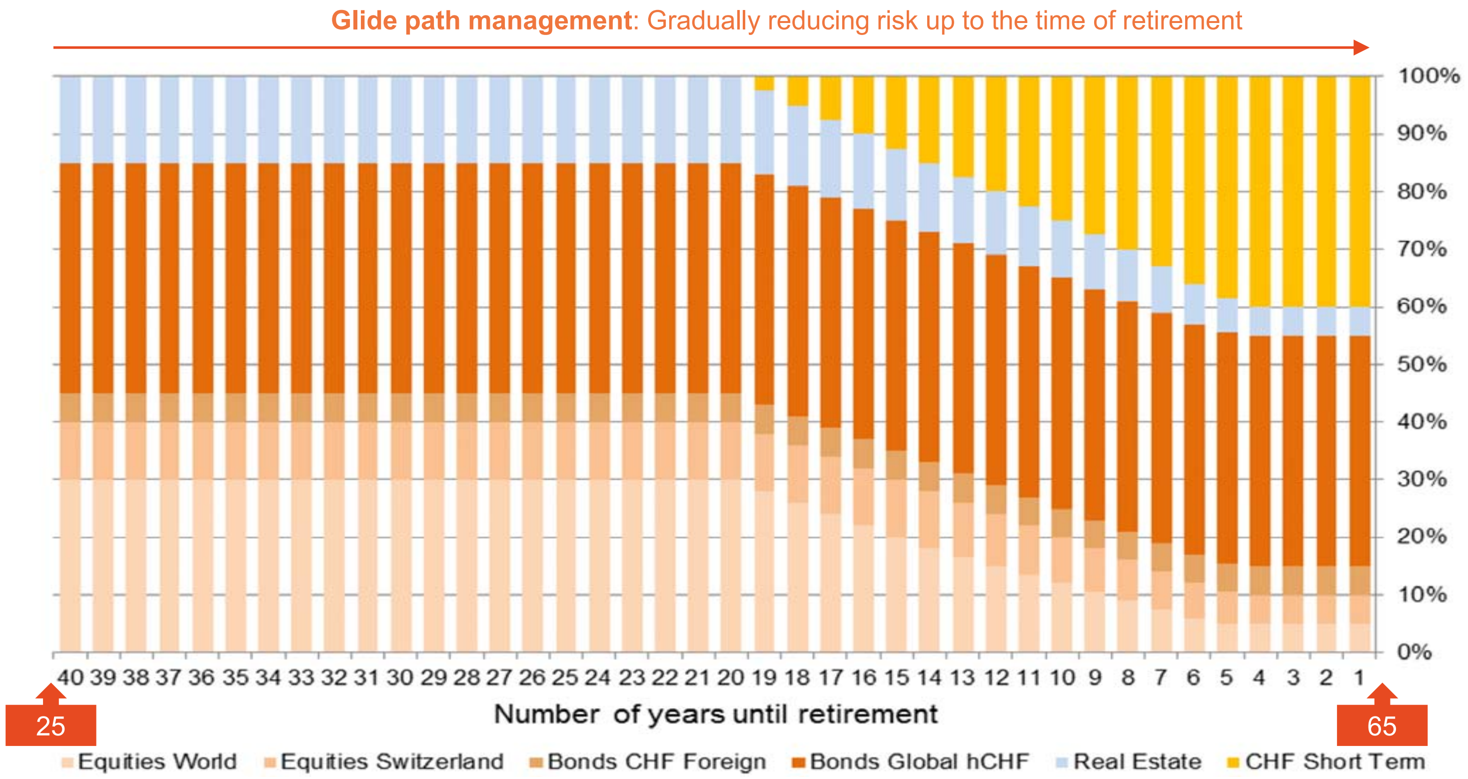
Asset allocation: 4 optimized strategies for selection

- The investment strategies were initially created in 2010 and served their purpose well. However, the investment environment has changed considerably since then.
- In particular, the low or negative yields for bonds (which represent a substantial component of each strategy, except Money Market) called for an **adjustment of the portfolio composition**:
  - Higher allocation to corporate bonds
  - Stronger diversification by adding real estate.
- The ultimate goal is (and has always been) to provide you with a selection of invest-ment strategies that are easy to understand and offer **appropriate returns** with a **reasonable level of risk**.
- As of **February 1, 2017**, the strategies have been optimized accordingly (**“Plus”**).
- For the insured members, the changes were **cost-free**.

The “LifeCycle”-Model as a 5th 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.
- The portfolio composition of the underlying strategies of the LifeCycle model was adapted automatically to the **optimized “Plus” structures**, too.

“LifeCycle”-Model: The way it works



VZ VermögensZentrum

Retirement Planning
Tax Consulting
Mortgage Consulting
Inheritance Planning
Asset Management

VZ VermögensZentrum
Aeschenvorstadt 48
CH-4051 Basel
Phone 061 279 89 89
Fax 061 279 89 90

vzbasel@vzch.com
www.vermoegenszentrum.ch

Portfolio Strategies for Pension Scheme Assets

Road Show for Novartis Employees

Basel, 20 February 2019

Contents

Introduction

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.

Contents

Definition of Risk Structure

Objective Factor

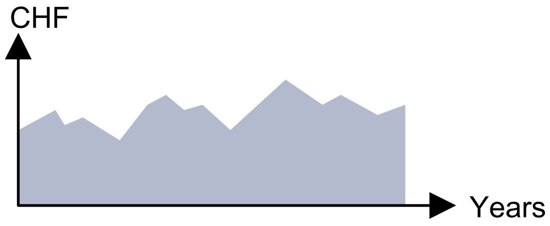
Investment Horizon
For how long should the capital be invested?

Subjective Factor

Risk Tolerance
Which value fluctuation is acceptable?

t

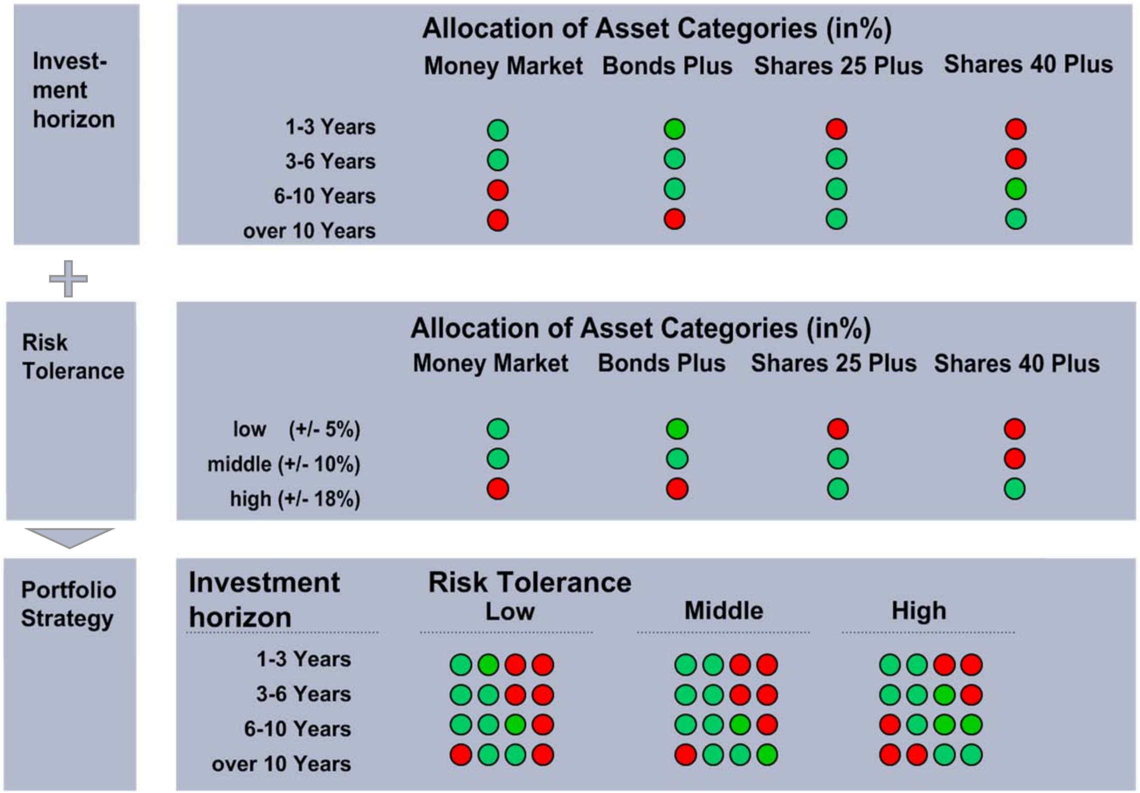
Year	2019	2020	2021	…
Age	50	51	52	…



Risk Structure

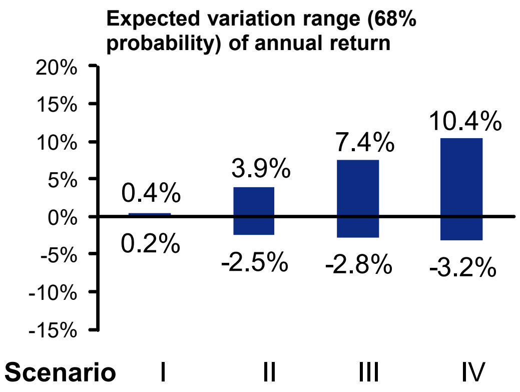
Should the capital be split
into different asset categories?
If so, how?

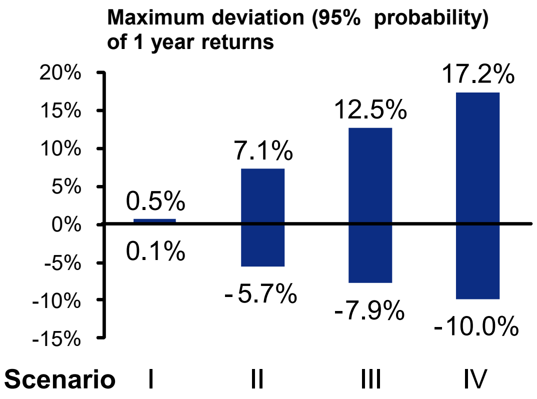
Derivation of the Risk Structure



Expected Return per Portfolio Strategy

Scenario	Strategy	Expected Return	Expected Variation		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

Scenario Asset Structure		Expected[1] Return	Risk	Expectations[3] Positive	Negative	Maximum Deviation[4] Best Case	Worst Case
I	**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
II	**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)

Contents

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. 2018

Return p.a.	1 Year	3 Years	5 Years	8 Years	10 Years	12 Years	15 Years
> 16%	41.3%	22.7%	14.3%	7.7%	5.4%	0.0%	0.0%
12-16%	2.2%	20.5%	19.0%	12.8%	13.5%	17.1%	18.8%
8-12%	10.9%	9.1%	19.0%	25.6%	29.7%	31.4%	28.1%
4-8%	6.5%	15.9%	14.3%	17.9%	24.3%	25.7%	25.0%
0-4%	6.5%	6.8%	9.5%	23.1%	13.5%	17.1%	25.0%
	26.1%	52.3%	61.9%	79.5%	81.1%	91.4%	96.6%
< 0%	32.6%	25.0%	23.8%	12.8%	13.5%	8.6%	3.1%

Since 1972, there have been five 10-year-periods, in which a negative performance appeared. The last one was 2002-2011.

Impact of the Investment Strategy on Assets

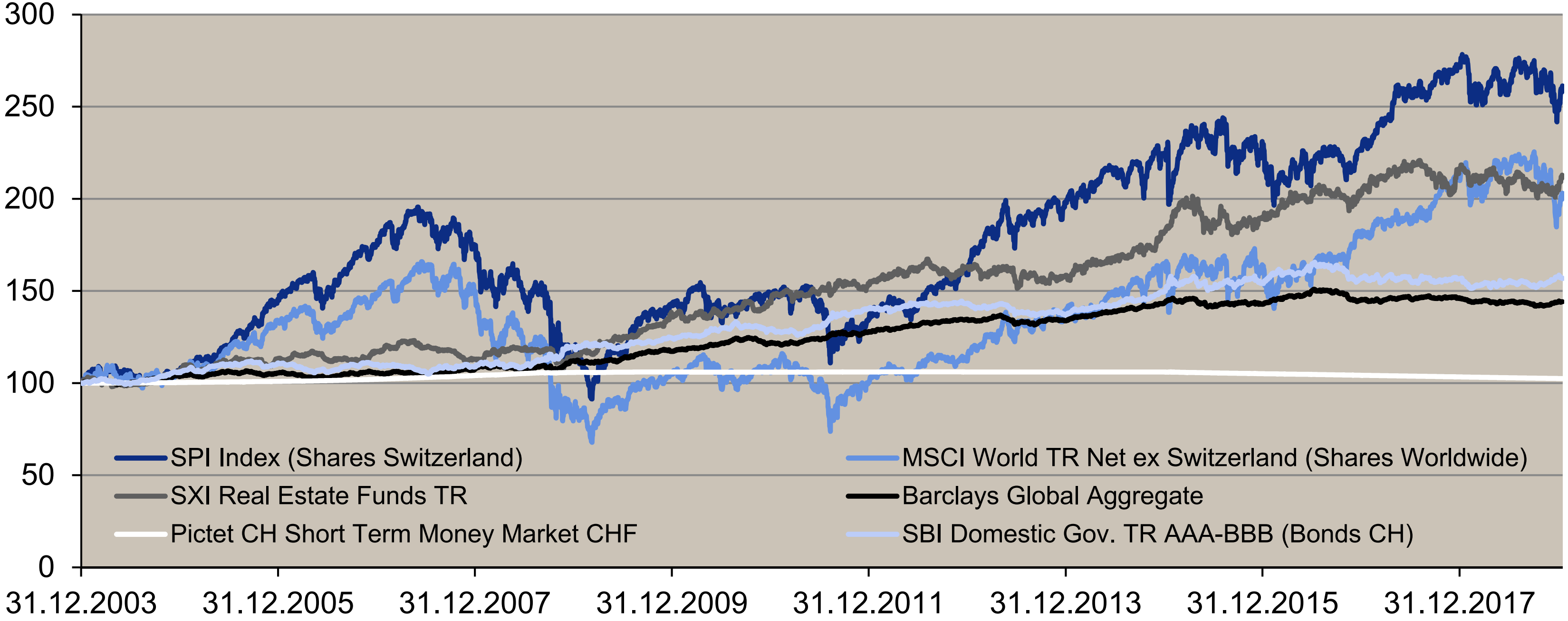
Assumption: Person is 50 years old, income 200.000 CHF; retirement at 65 (in CHF)

Investment Strategy	Money Market	Bonds Plus	Shares 25 Plus	Shares 40 Plus
Old Age Savings (1 June 2019)	100.000	100.000	100.000	100.000
Expected Return	0.3%	0.7%	2.3%	3.6%
Estimated Old Age Savings (30 June 2034)	272.000	283.000	336.000	387.000

Variation: + 42%

Benchmarking

Development of selected indices (from 31 December 2003 to 31 December 2018; in CHF)



Source: Bloomberg

Contents

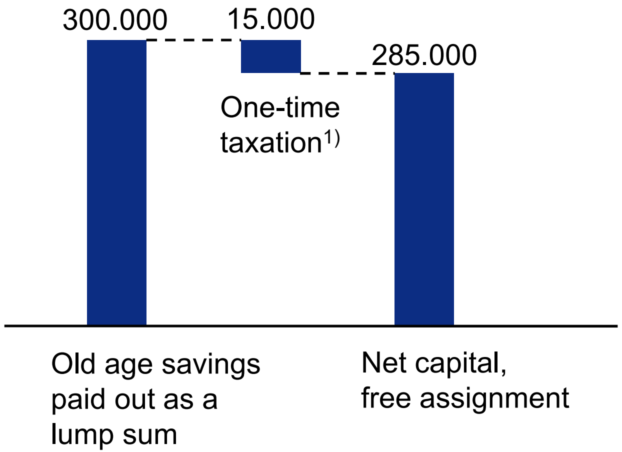
Pension or Lump Sum: Comparison of Criteria

	Pension	Lump Sum
Security	High security	Security depends on asset allocation
Flexibility	No flexibility	High flexibility
Pension	Pay-out according to pension scheme regulations	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

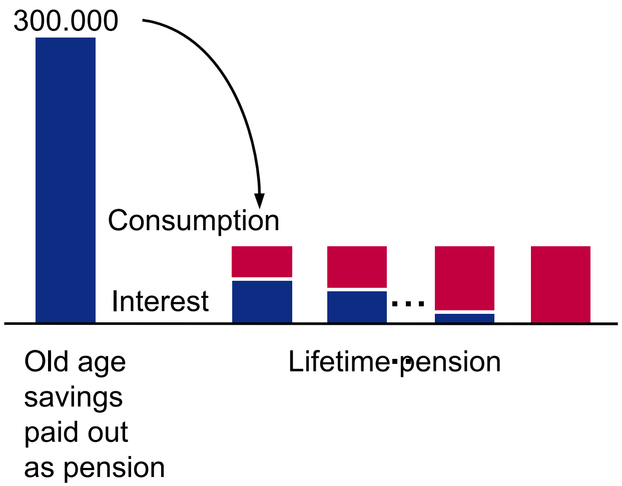
1) Statutory regulation; deviations possible depending on pension scheme
2) On condition of most-favoured treatment for widow / widower

Tax Treatment of Old Age Savings (in CHF)

Lump Sum Payment



Lifetime Pension[2)]



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	SZ	6'844	50'535
Chur	GR	7'050	36'660
Appenzell	AI	7'879	24'750
Liestal	BL	8'250	47'850
Zug	ZG	8'576	31'367
Schaffhausen	SH	8'889	30'295
Altdorf	UR	9'263	27'788
Bellinzona	TI	9'650	28'950
Zürich	ZH	10'950	66'948
Genève	GE	10'959	41'362
Bern	BE	11'671	48'619
Sion	VS	11'673	58'800
Glarus	GL	11'800	35'400
Aarau	AG	12'023	44'972
Solothurn	SO	12'231	42'131
Sarnen	OW	12'798	38'394
St. Gallen	SG	12'950	38'850
Frauenfeld	TG	13'150	39'450
Luzern	LU	13'573	46'922
Stans	NW	13'639	42'158
Herisau	AR	13'876	48'100
Delémont	JU	13'945	44'820
Neuchâtel	NE	15'034	49'534
Basel	BS	16'750	56'750
Fribourg	FR	18'705	73'185
Lausanne	VD	19'291	77'046

Contents

Thank you

NOVARTIS