Capital drawdown: why our intuition judges its effect far too optimistically

"We have 1.6 million. If we need 40'000 a year from it, that lasts forty years." The sentence feels right, and it would be if capital were a reservoir. It is a dam with a crack: the problem is not the water escaping today, but that the crack widens with every litre. Every franc drawn down is missing afterwards as an earning base, so the drawdown grows by itself.

THE STARTING POINT

Expenses incl. taxes	CHF 180'000
Pensions from AHV and pension fund	CHF 108'000
Required from capital	CHF 72'000
Investment return, 2% on CHF 1'600'000	CHF 32'000
Capital drawdown in the first year	**CHF 40'000**

Couple, 65, investable assets of CHF 1'600'000 excluding their home. First-year drawdown: 2.5% of capital. That sounds manageable.

HOW THE SAME HOUSEHOLD DEVELOPS

YEAR	AGE	RETURN	DRAWDOWN P.A.	CAPITAL
1	**66**	32'000	40'000	1'560'000
10	**75**	22'800	66'100	1'074'000
15	**80**	15'500	83'400	693'000
20	**85**	6'400	103'000	218'000
22	**87**	**0**	**113'000**	**depleted**

Model: net return 2% constant, pensions constant, expenses rising 1% a year. Without inflation: around CHF 628'000 left at 85.

2.5%
of capital is drawn down in the first year. That is the crack in the dam.

15 years
until the annual drawdown has doubled, with no change in lifestyle.

CHF 1.21
is what every franc of additional annual drawdown costs in capital over 20 years, not CHF 1.00.

87
Age at which the capital is depleted. Pensions then cover just under half of expenses.

WHY THE EFFECT COMPOUNDS

> Drawdown strikes three times: the capital, the return on it, and the growth the amount drawn would have produced.

In the first year, CHF 40'000 is missing. In the second year, the 2% return on that amount is missing too, another CHF 800, and the drawdown rises to CHF 40'800. This repeats every year on a growing base. After fifteen years the drawdown has doubled, although the household has changed nothing. Inflation on expenses accelerates the spiral; it does not cause it.

TIMING DECIDES, NOT THE AMOUNT

CHF 100'000 taken from capital at 65 is missing at 85 as around CHF 149'000. The same CHF 100'000 taken at 80 is missing at 85 as around CHF 110'000. Drawdown in the first ten years is the most expensive, because it has the longest effect.

Drawing down capital is still not wrong; it is what the capital is for. Anyone still holding the entire amount at 85 has lived below their means for twenty years. The question is not whether, but from when and from which pot.

TWO ALTERNATIVE CALCULATIONS: THE SAME HOUSEHOLD, ONE ASSUMPTION CHANGED EACH TIME

A

Inflation 2% instead of 1%

84
Age at which the capital is depleted (base case: 87)

75
Age from which the drawdown exceeds CHF 80'000, double the first year (base case: 80)

Everything else unchanged. At 80 around CHF 458'000 is left instead of 693'000. Pensions stay the same in nominal terms and cover less each year. That costs three years, without the household spending more in real terms.

B

Market crash of 30% in year five

82
Age at which the capital is depleted (base case: 87)

77
Age from which the drawdown exceeds CHF 80'000, double the first year (base case: 80)

At 70 the capital loses around CHF 427'000 in one go, then earns 2% again as before. At 80 around CHF 162'000 is left instead of 693'000. A single crash costs five years of runway, because the drawdown immediately grows faster on the smaller base.

WHAT THE TWO CALCULATIONS SHOW

> Inflation and markets decide over years of runway, and both are outside your control. The drawdown in the first decade is not.

One point of inflation costs three years, a single 30% crash five, even though markets then return to normal. A plan that relies on higher returns is therefore the weakest of all. The reliable levers come before retirement: the pension share taken from the pension fund, deferring the AHV pension, staggering lump-sum withdrawals, repaying an expensive mortgage, a mandate until 68. After that, the order of withdrawals matters, along with a liquidity reserve of two to three years' needs, so that a crash like B never has to be realised.

This is exactly the logic behind FR Advisory's planning. The reference case runs your reality over 40 years, the alternative path your wish, the stress test the negative course. For each scenario the report shows in how many years capital is drawn down, from when the drawdown becomes permanent, and what share of basic expenses the pensions cover. That year is the crack in the dam, and that is where the action plan starts.