ECONOMIC SITUATION AND STRATEGY

30 June 2022

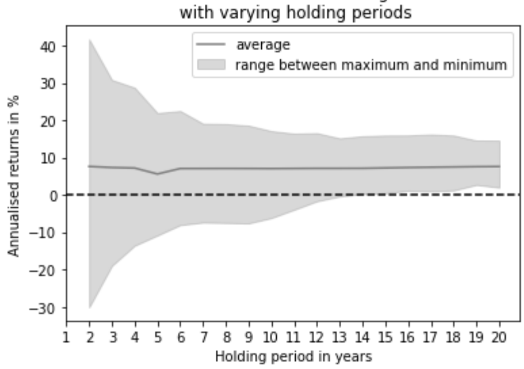
Patience on the stock markets pays off

A look at the developments on the stock markets this year is no joy. After the prices of shares from the technology sector initially came under pressure (e.g. Nasdaq with a loss of almost 30 percent since the beginning of the year), the "risk-off" mood on the stock markets continues to spread. High inflation rates, a more restrictive monetary policy and increasing fears of recession are weighing on the European and American stock markets. So is it still worth investing in shares at all?

Especially newcomers to the stock market are currently having doubts as to whether investing in shares is the right decision. For investors who have been investing in shares for a long time and have already experienced a bear market, the current setbacks on the stock markets are unpleasant when they look at their own portfolio, but they are unlikely to change course. Because it is no secret that staying power pays off on the stock markets. We have taken a closer look at this widespread stock market wisdom and calculated how much return stock investors would have achieved historically with a one-time investment. In addition, savings plans are becoming increasingly popular. Private investors, in particular, invest part of their monthly income in savings plans and, for example, make provisions for their private old age. We have also analysed how lucrative savings plans have been in the past and whether they have historically performed better than a one-time investment.

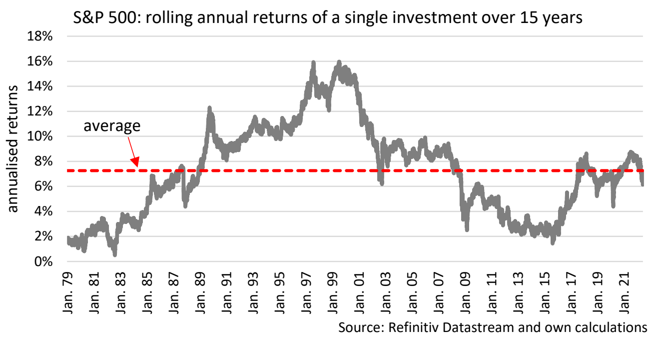
What kind of return could investors who invest their assets once now expect? In order to look at a period as long as possible, we use the daily closing prices of the S&P 500 since 1964 to answer this question. The good news is that, relatively independent of the holding period of their one-time investment in the S&P 500, stock investors would have achieved an annualised return of around seven percent on average and doubled their assets after about ten years.

S&P 500: annualised returns of a single investment with varying holding periods



Source: Refinitiv Datastream and own calculations

But how does this result fit in with the current losses on the stock markets? On the one hand side, it is a historical mean value and deviations upwards or downwards have occurred in the past as a matter of course - this is inherent in the construction of a mean value. On the other hand side, the reason is the different distribution and range of returns with regard to different investment horizons. As the first chart shows, the range between the minimum and maximum annual returns is very wide for a shorter investment horizon. In the worst case, an investor would have invested in the S&P 500 on 7 March 2007 and sold it two years later with a loss of over 50 percent (annualised: -30.1 percent). In contrast, an investor who invested on 23 March 2020 during the Corona pandemic would have been rewarded for his courage, as his investment would have more than doubled (annualised: 41.8 per cent) within two years. So what can investors do to reduce the probability of large losses in value? The easiest way is to extend their investment horizon. A look at the first chart shows that the maximum and minimum returns gradually approach the mean value of around seven percent with increasing holding periods - capital market participants refer to this as "mean reversion". If an investor had not only invested in the S&P 500 for two years, but had remained invested for fifteen years, the minimum annualised return over all rolling 15-year periods would have been 0.5 percent in the extreme case - in no historical case would the equity investor have suffered a loss in value over this period. Patience on the stock markets therefore pays off. In return, the maximum annual return would have fallen to around 16 percent. The longer the investment horizon, the more likely an annual return of around seven percent.



In addition to the one-time investment, the savings plan is an important component of asset formation for many investors. The number of savings plans among private investors has increased enormously in recent years. On the one hand side, this is due to the fact that regular investment in share or bond indices via ETFs is a convenient and efficient method of saving. Especially for investors who cannot or do not want to deal with the financial markets on a daily basis, an automated savings plan is very attractive. On the other hand side, a one-time investment is out of the question for many investors because they simply do not have the necessary capital. But investors with a high level of assets also tend to invest their assets in several steps for psychological reasons. This is because a division into purchase tranches reduces the pressure to find the perfect entry point. It also reduces the risk of being annoyed in retrospect that one did not enter at a better price sooner or later.

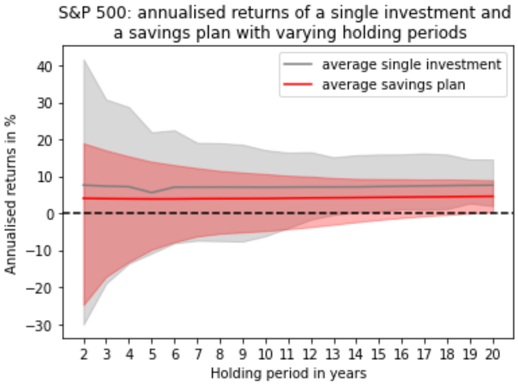
In this context, the cost-average effect is cited as a major advantage of a savings plan. The idea behind it: If an investor invests a fixed amount in individual shares or share indices every month, he acquires relatively fewer shares when prices are rising and correspondingly more shares when prices are falling. This leads to a reduction in average costs compared to a one-time investment, especially in very volatile and downwardly sloping markets (compare scenarios 1 and 2 in Table 1). At the same time, newcomers to the stock market gradually become familiar with the financial markets and get used to price fluctuations. However, in times of less volatile and upward-oriented markets, a savings plan is inferior to a one-time investment in terms of average costs (see scenario 3). Furthermore, with a savings plan the investor misses out on possible dividend distributions, as he only increases the number of shares in the portfolio over time.

Table 1: comparison of the average costs of a single investment and a savings plan

	Scenario 1		Scenario 2		Scenario 3	
	Single investment	Savings plan	Single investment	Savings plan	Single investment	Savings plan
1st purchase	100	100	100	100	100	100
2nd purchase		98		134		103
3rd purchase		96		72		99
4th purchase		94		82		106
Ø costs	100	97	100	97	100	102

Now it gets exciting: analogous to our return calculations for a one-time investment, we examined what return investors would have expected if they had invested a fixed sum in the S&P 500 at the beginning of each month. The supposedly bad news is that the average return of around 4.2 percent is lower than for a one-time investment[1]. However, the range between the historical maximum and minimum annual return is smaller compared to a one-time investment. In other words, the probability of achieving very extreme deviations from the average annual return with a savings plan decreases. This is good news especially for investors who do not have nerves of steel.

[1] To determine the annual returns of the savings plans, the value of all acquired units at the end of the investment period was calculated, set in relation to the total invested capital and then annualised. The average annual returns tend to be biased downwards because the average capital commitment is significantly lower compared to a one-time investment and therefore the compound interest effects are less significant. Modifying the calculation and determining the annualised return of each monthly investment individually results in an average annual return of over eight percent. Analogous to the first calculation method, the corridor between the maximum and minimum annual return narrows with increasing investment periods.



Source: Refinitiv Datastream and own calculations

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But why is the average expected return of a savings plan lower than that of a one-off investment for the same holding period? The most obvious reason is that the average costs of a savings plan have been higher on average in the past compared to a one-off investment, since the price trend of the S&P 500 most closely resembles the hypothetical scenario 3. Although the American stock market index was characterised by stock market crashes and bear markets during the analysis period, such as in the course of the dotcom bubble or the global financial crisis, the longer-term trend was always upwards. Another and more technical reason for the relatively better average performance of a one-time investment is the average holding period of the acquired equity shares. In a savings plan over ten years, the holding period for the share units from the first purchase is ten years. However, the shares from the second purchase are only held for nine years and eleven months, the shares from the third purchase only for nine years and ten months, and so on. And as already explained, the spread of the return distribution increases significantly for investments with a shorter horizon. This increases the risk that the performance of the most recently purchased units will be strongly negative and depress the total return. By the way: In our analysis, it makes no statistical difference at what point in time the savings plan was exercised. Investors could therefore not systematically outperform if they had executed the savings plan in the middle of the month instead of at the beginning of the month, for example.

However, investors with a savings plan should not be put off by these results. As already mentioned, a one-time investment over ten years cannot be directly compared with a savings plan over ten years. Especially since it is unlikely that investors will sell their savings plan completely after it expires. Frequently, the invested capital is either left lying around in reality, so that there is still further potential for return, or it is withdrawn piecemeal. Ultimately, the choice between a one-time investment and a savings plan depends on one's own well-being and risk profile as well as personal wealth. But whatever you decide: Historically, both investment strategies have paid off. Even rapid setbacks on the stock markets, as can be observed at present, do not change this basic statement. However, investors should be patient and have an investment horizon of at least ten years - preferably 15 years. We maintain that it is still worthwhile for long-term investors to invest in equities, even if the headwinds have increased noticeably in the short term.

Market data

Stock marktes	As of 30.06.2022 11:21	Change versus 22.06.2022 -1 week	27.05.2022 -1 month	28.03.2022 -3 months	28.06.2021 -1 year	31.12.2021 YTD
Dow Jones	31029	1,8%	-6,6%	-11,2%	-9,5%	-14,6%
S&P 500	3819	1,6%	-8,2%	-16,5%	-11,0%	-19,9%
Nasdaq	11178	1,1%	-7,9%	-22,1%	-22,9%	-28,6%
DAX	12679	-3,5%	-12,3%	-12,1%	-18,5%	-20,2%
MDAX	25671	-5,8%	-13,7%	-17,8%	-25,1%	-26,9%
TecDAX	2857	0,0%	-10,1%	-12,7%	-20,2%	-27,1%
EuroStoxx 50	3445	-0,6%	-9,6%	-11,4%	-15,8%	-19,9%
Stoxx 50	3450	1,6%	-6,1%	-6,7%	-2,3%	-9,7%
SMI (Swiss Market Index)	10671	1,4%	-8,4%	-12,2%	-11,1%	-17,1%
Nikkei 225	26393	0,9%	-1,5%	-5,5%	-9,1%	-8,3%
Brasilien BOVESPA	99622	0,1%	-11,0%	-16,1%	-21,8%	-5,0%
Russland RTS	1335	-4,9%	17,7%	62,2%	-20,0%	-16,3%
Indien BSE 30	53164	2,6%	-3,1%	-7,7%	0,8%	-8,7%
China CSI 300	4485	5,0%	12,1%	8,1%	-14,6%	-9,2%
MSCI Welt	2574	1,5%	-8,1%	-15,9%	-14,9%	-20,3%
MSCI Emerging Markets	1013	2,0%	-2,9%	-9,9%	-26,6%	-17,8%
Bond markets						
Bund-Future	146,99	171	-675	-1133	-2527	-2438
Bobl-Future	123,82	187	-365	-511	-1022	-942
Schatz-Future	109,07	72	-131	-177	-307	-297
3 Monats Euribor	-0,19	39	39	39	35	40
3M Euribor Future, Dec 2017	1,26	-20	52	0	179	2
3 Monats $ Libor	2,23	5	63	124	208	202
Fed Funds Future, Dec 2017	3,31	-8	78	0	322	3
10 year US Treasuries	3,06	-10	30	58	158	156
10 year Bunds	1,43	-19	47	89	166	161
10 year JGB	0,24	-1	1	-1	18	17
10 year Swiss Government	1,18	-20	43	58	137	131
US Treas 10Y Performance	601,85	-0,4%	-3,1%	-6,1%	-12,9%	-13,8%
Bund 10Y Performance	561,61	-0,1%	-6,1%	-9,3%	-15,4%	-15,2%
REX Performance Index	450,55	0,4%	-2,8%	-4,3%	-8,6%	-8,2%
US mortgage rate	0,00	0	0	0	0	0
IBOXX AA, €	2,83	-2	89	145	254	235
IBOXX BBB, €	3,97	5	109	186	329	310
ML US High Yield	8,58	-3	149	221	402	368
Convertible Bonds, Exane 25	6321	0,0%	-7,8%	-14,1%	-24,4%	-22,8%
Commodities						
MG Base Metal Index	417,61	-2,1%	-10,2%	-22,3%	-1,4%	-9,5%
Crude oil Brent	116,08	3,9%	-2,9%	3,2%	55,3%	48,1%
Gold	1813,00	-1,4%	-2,1%	-6,4%	1,8%	-0,5%
Silver	20,91	-2,7%	-5,3%	-16,5%	-20,0%	-10,1%
Aluminium	2467,75	0,1%	-13,2%	-31,3%	-0,2%	-12,1%
Copper	8360,00	-4,7%	-11,6%	-19,2%	-10,7%	-14,2%
Iron ore	130,46	2,0%	-2,0%	-13,1%	-39,4%	16,0%
Freight rates Baltic Dry Index	2186	-6,9%	-18,5%	-12,0%	-34,2%	-1,4%
Currencies						
EUR/ USD	1,0426	-0,9%	-2,8%	-4,9%	-12,5%	-7,9%
EUR/ GBP	0,8592	-0,2%	1,2%	2,5%	0,0%	2,3%
EUR/ JPY	141,96	-0,8%	4,3%	4,4%	7,4%	8,9%
EUR/ CHF	0,9970	-1,8%	-2,8%	-2,8%	-9,1%	-3,5%
USD/ CNY	6,6961	-0,1%	-0,1%	5,1%	3,7%	5,3%
USD/ JPY	136,14	-0,1%	7,1%	9,9%	23,1%	18,3%
USD/ GBP	0,82	1,5%	4,0%	7,9%	14,5%	11,7%

Source: Refinitiv Datastream

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