The Intelligent Investor

Why and How to Invest in the Stock Market

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Contribution to the course «Financial Markets and Institutions» held by Prof. Alberto Dreassi – Department of Economics, Business, Mathematics and Statistics - University of Trieste

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Agenda

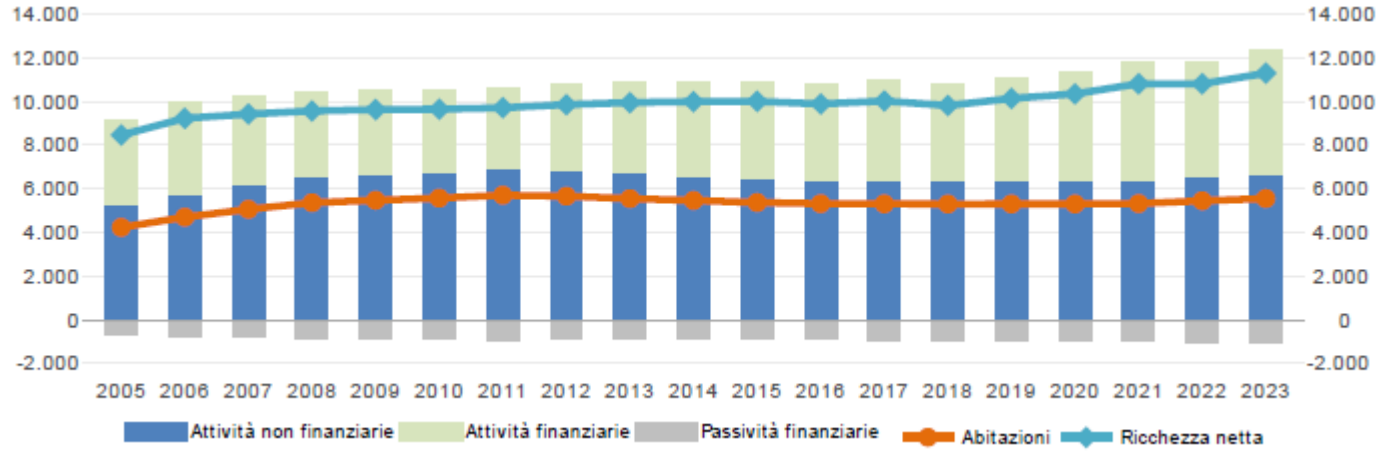
1. Italian families' investment
2. Pension fund investment
3. Expected returns on various asset classes
4. Lessons from the biggest investors
5. Conclusions

Section 1

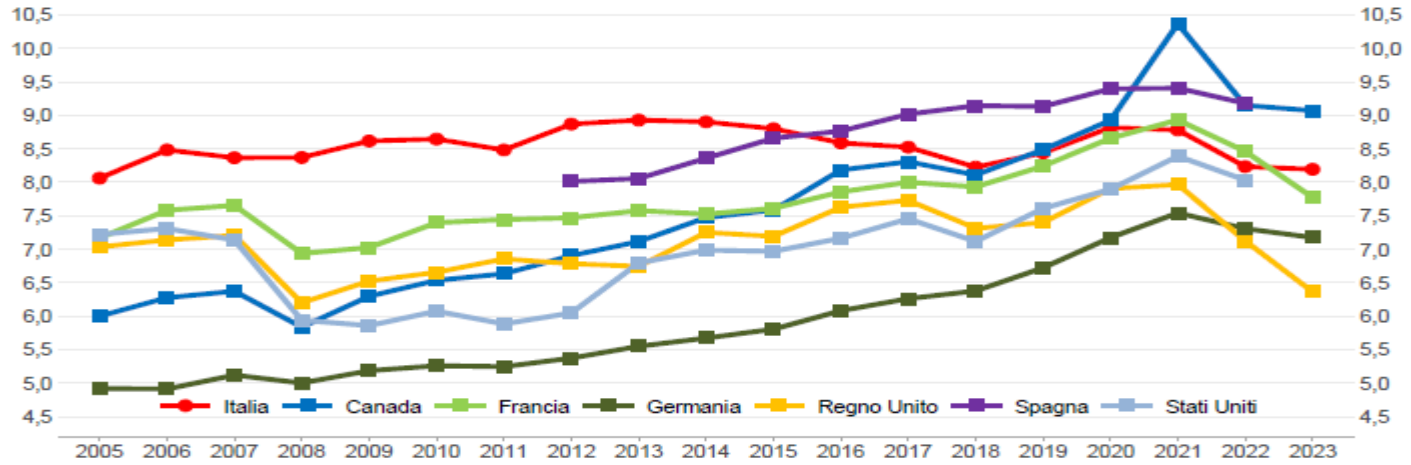
Italian families' investment

1.1 The wealth of Italian families compared to other countries (1/2)

Wealth of Italian families (billions of euros) (1)



Net wealth of households in international comparison (in relation to gross disposable income) (2)



The wealth of Italian families increased from 9.1 to 12.3 billion between 2005 and 2023, with an increase of 35.1%

Since the loss of purchase value due to inflation in the same period was 38.4%, in real terms net wealth nevertheless decreased by 3.3%.

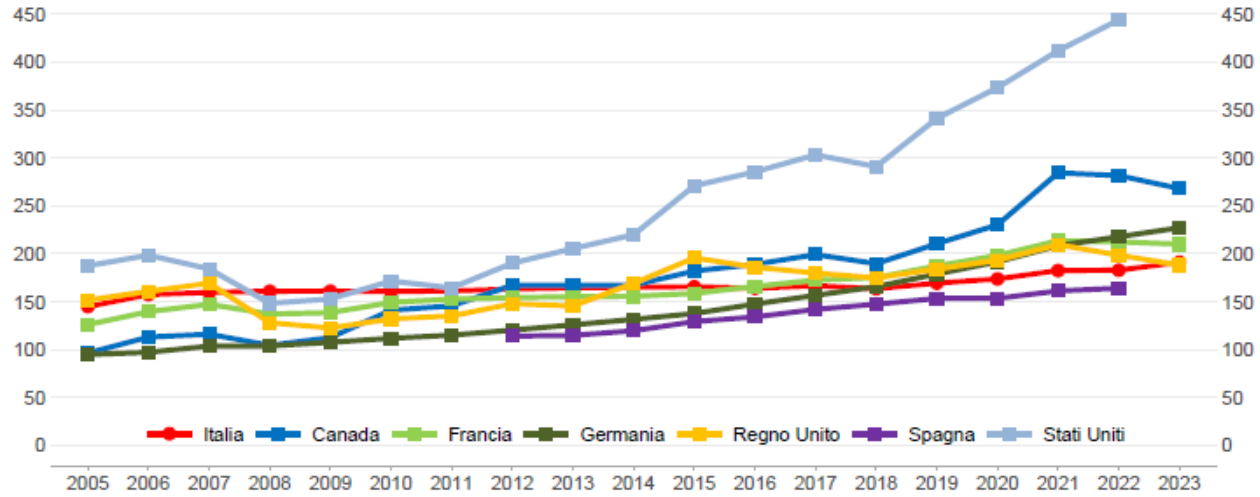
At international level, in relation to gross disposable income, the wealth of Italian families was by far the highest in 2005 but, having remained almost stable over the period, it is now lower or equal to that of several other countries.

(1) «The Wealth of Institutional Sectors in Italy 2005 | 2023» fig. 2, page 5, by the Bank of Italy and Istat

(2) «The Wealth of Institutional Sectors in Italy 2005 | 2023» fig. 4, page 8, by the Bank of Italy and Istat

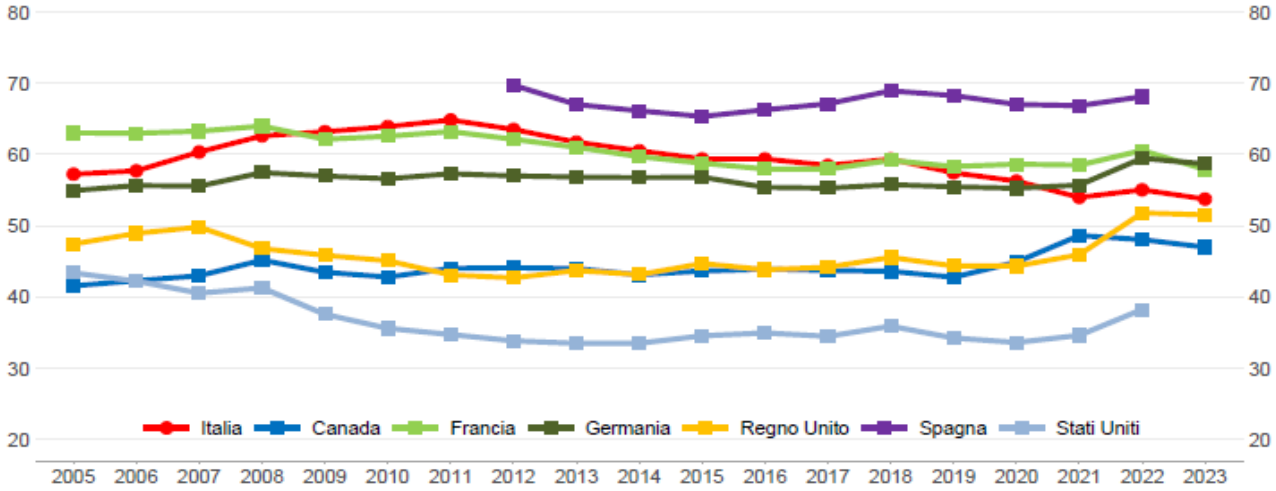
1.1 The wealth of Italian families compared to other countries (2/2)

Net wealth per capita of households (thousands of euros) (1)



Non-financial activities of households

(in relation to gross wealth; percentage values) (2)



In the period 2005-2023, the per capita wealth of Italian families went from third to fifth place, with an income less than half that of the richest country (the USA); in 2005 the difference was only 20%

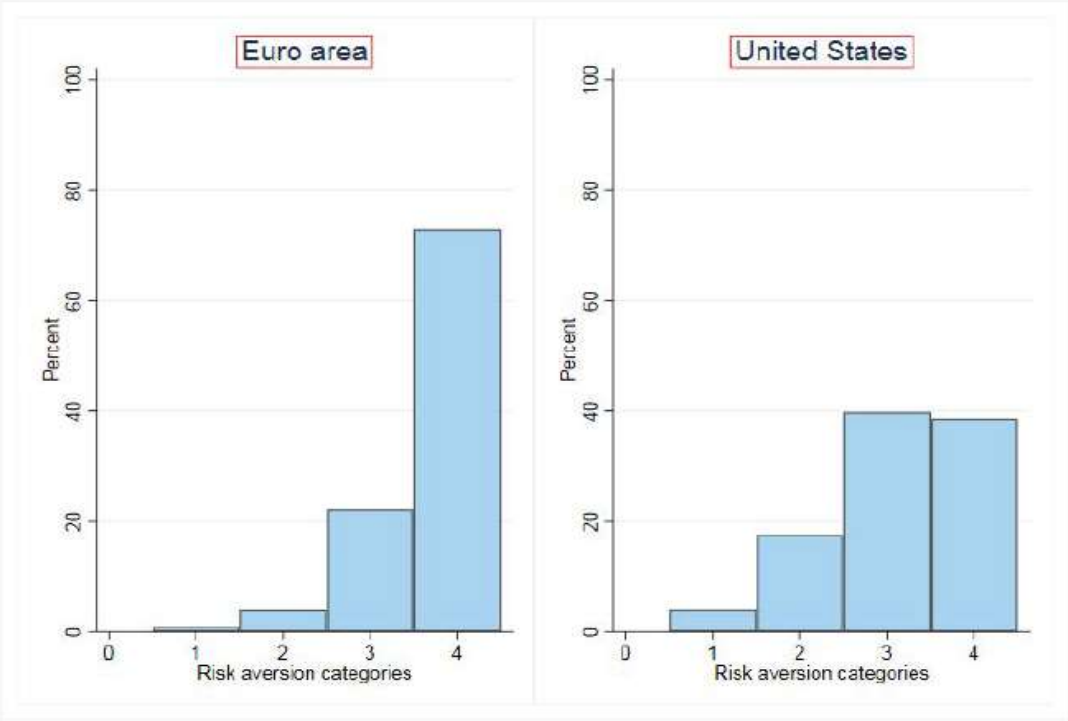
Italy, together with other European countries, has the highest share of wealth invested in non-financial assets while the two countries that have had the greatest increase in per capita income (USA and Canada) have the lowest percentage.

(1) «The Wealth of Institutional Sectors in Italy 2005 | 2023» fig. 5, page 9, by the Bank of Italy and Istat

(2) «The Wealth of Institutional Sectors in Italy 2005 | 2023» fig. 6, page 9, by the Bank of Italy and Istat

1.2 Household risk attitude in investment decisions: Euro area vs US

Risk Attitude in investment decisions (1)



Definition of Risk aversion categories

Which of the following statements comes closest to the amount of financial risk that you are willing to take when you save or make investments?

(1) Willing to take substantial risk if substantial return is expected
(2) Willing to take above average risk if above average return is expected
(3) Willing to take average risk if average return is expected
(4) Not willing to take any financial risks

According to research by the European Central Bank, Eurozone households show a much higher risk aversion than US households: 77% of the former wish not to take any financial risk, compared to only 39% of the latter.

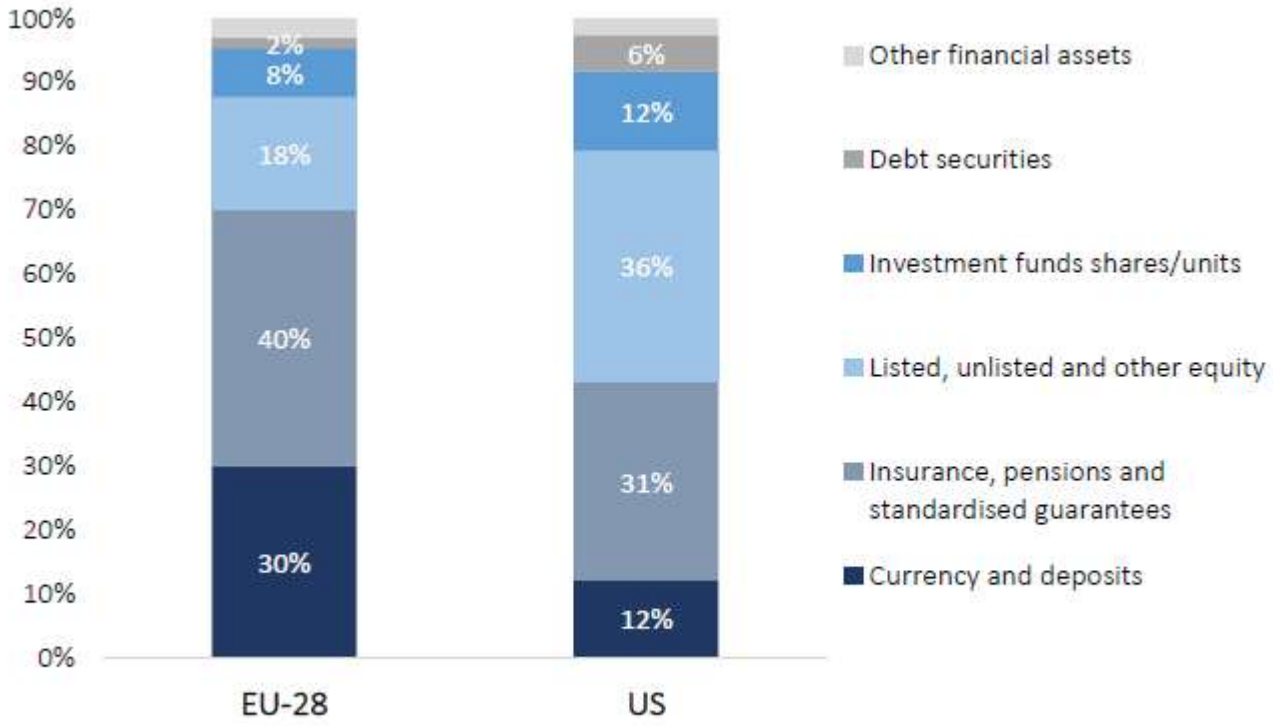
The reasons for these differences are economic, institutional and cultural in nature and in particular depend mainly on the following factors:

- interpersonal trust
- level of financial intermediation
- size of stock markets
- protection offered by welfare systems
- protection offered to the retail investor

(1) European Central Bank, « Risky assets in Europe and the US: risk vulnerability, risk aversion and economic environment », by Karim Bekhtiar , Pirmin Fessler , Peter Lindner, Woking Paper Series, n.2270 April 2019, fig. 1, page 10

1.3 Household asset allocation : EU-28 vs US

Asset allocation by retail investors (EU-28 vs US) (1)



Sources: Eurostat (Q3 2019) and US Fed (Q4 2019)

The asset allocation of European households is very different from that of US households, consistent with the different degree of risk aversion

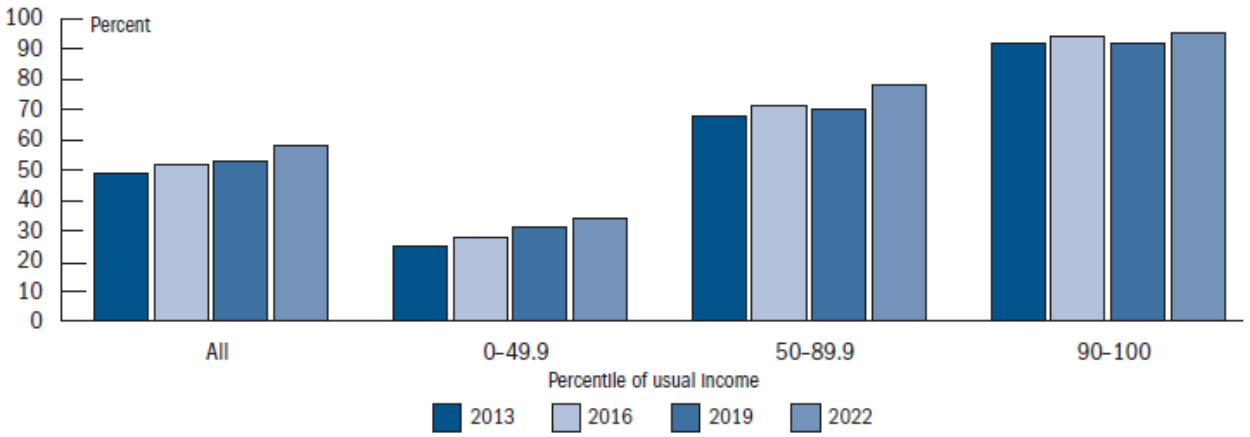
As much as 30% of European household assets are invested in bank deposits and liquidity, compared to 12% for US households; the situation is however very different between European countries, for example in Scandinavian countries the percentage is less than 16% while it is around 60% in Greece, Cyprus and Slovakia.

The investment in equity of European families is only 18% compared to 36% of US families, but even in Europe there are some countries - Sweden, Finland, Estonia and Bulgaria - with percentages similar to those of the US.

(1) ECMII –European Capital Market Institute «Asset Allocation in Europe - Reality vs Expectations » Task Force Report, April 2020, fig. 1, page 15

1.4 Focus: Investing in US Household Stocks

US families with direct and indirect holdings of stock, by usual income group, 2013–22 surveys (1)



Median and mean levels of directly and indirectly held stock, by usual income group, 2013–22 surveys (Thousands of 2022 $) (2)

	2013	2016	2019	2022
Conditional median value	**45.8**	**49.3**	**46.4**	**52.0**
Median for 0-49.9	12.7	12.9	11.5	12.6
Median for 50-89.9	44.3	49.3	46.4	53.2
Median for 90-100	360.3	439.1	508.3	608.0
Conditional mean value	**343.5**	**424.8**	**432.6**	**491.8**
Mean for 0-49.9	68.3	64.5	64.6	81.5
Mean for 50-89.9	168.3	188.8	202.6	217.4
Mean for 90-100	1233.7	1684.1	1744.8	2138.2

The share of direct or indirect participation (mainly through retirement accounts) in 2022 of US families is very high: 34%, 78% and 95% starting from the lowest to the highest income class.

The mean value of stock holdings is significantly higher than the median value for all 3 groups, indicating that a small group of families within each group holds most of the value.

From 2013 to 2022, the median remained almost constant for the lowest class while it increased significantly for the intermediate class (+20%) and especially for the highest class (+69%)

The average value, however, increased for all classes but especially for the one with the highest income, respectively +19%, +29% and +73% and always to a greater extent than the median.

In the same period, the growth of the stock markets was much higher (+108% S&P index) which indicates that families with the highest income benefited most from the increase.

(1) FED – « Changes in US Family Finances from 2019 to 2022 - Evidence from the Survey of Consumer Finances » , October 2023, fig. A, page 19

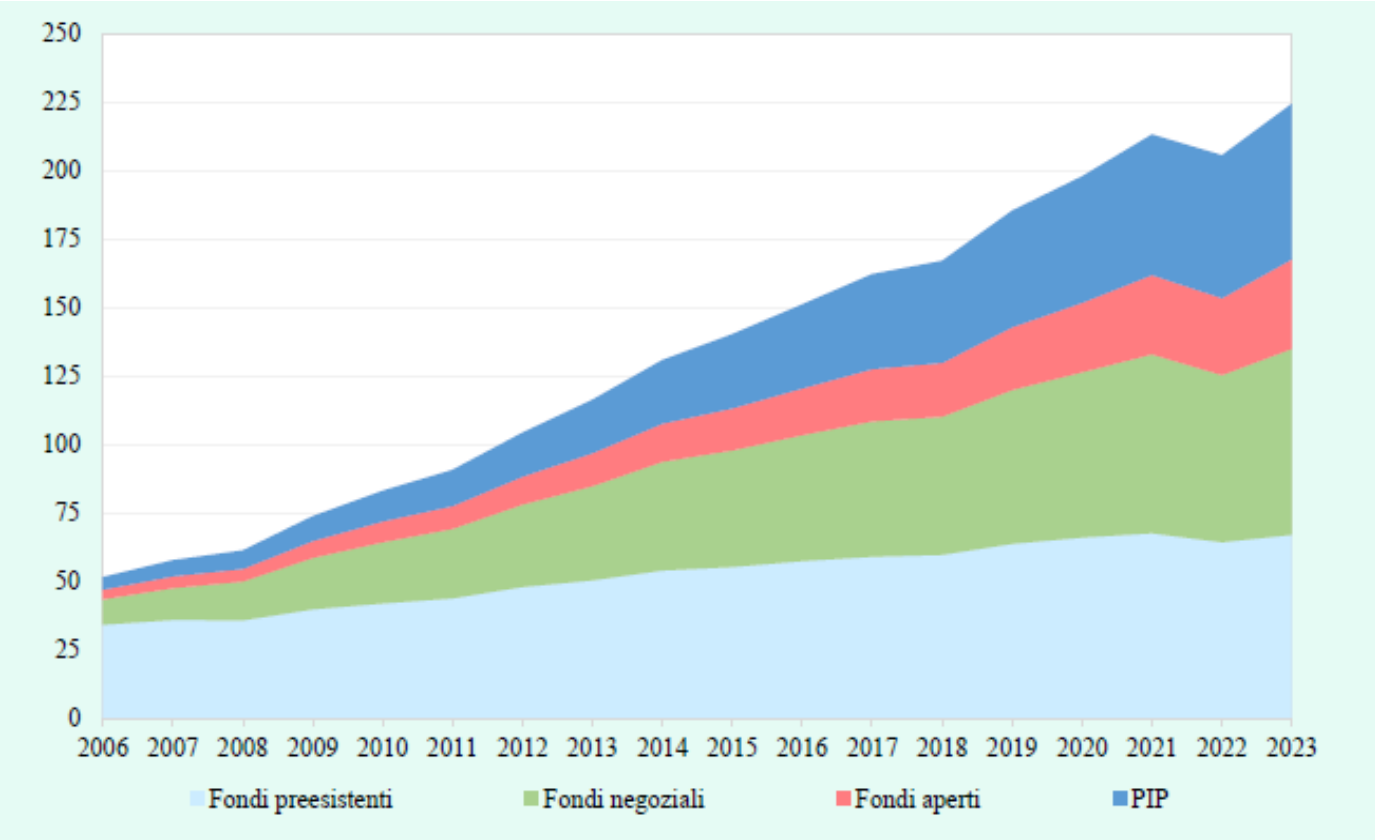
(2) FED – « Changes in US Family Finances from 2019 to 2022 - Evidence from the Survey of Consumer Finances » , October 2023, tab. A, page 20

Section 2

Investing in Pension Funds

2.1 The forms of supplementary pension provision in Italy

Resources allocated to benefits by type of supplementary pension scheme (billions of euros) (1)



Supplementary pension provision in Italy is based on three types of pension schemes (excluding funds existing prior to the entry into force of the reform pursuant to Legislative Decree 124/1993):

- Negotiated Funds: set up within the relevant economic sector by trade unions or trade associations
- Open funds: managed by banks, SGR, SIM and insurance companies
- PIP: Individual pension plans implemented through life insurance contracts

Overall, the resources allocated to benefits amount to €217 billion at the end of 2023, with a growth of 334% compared to 2006.

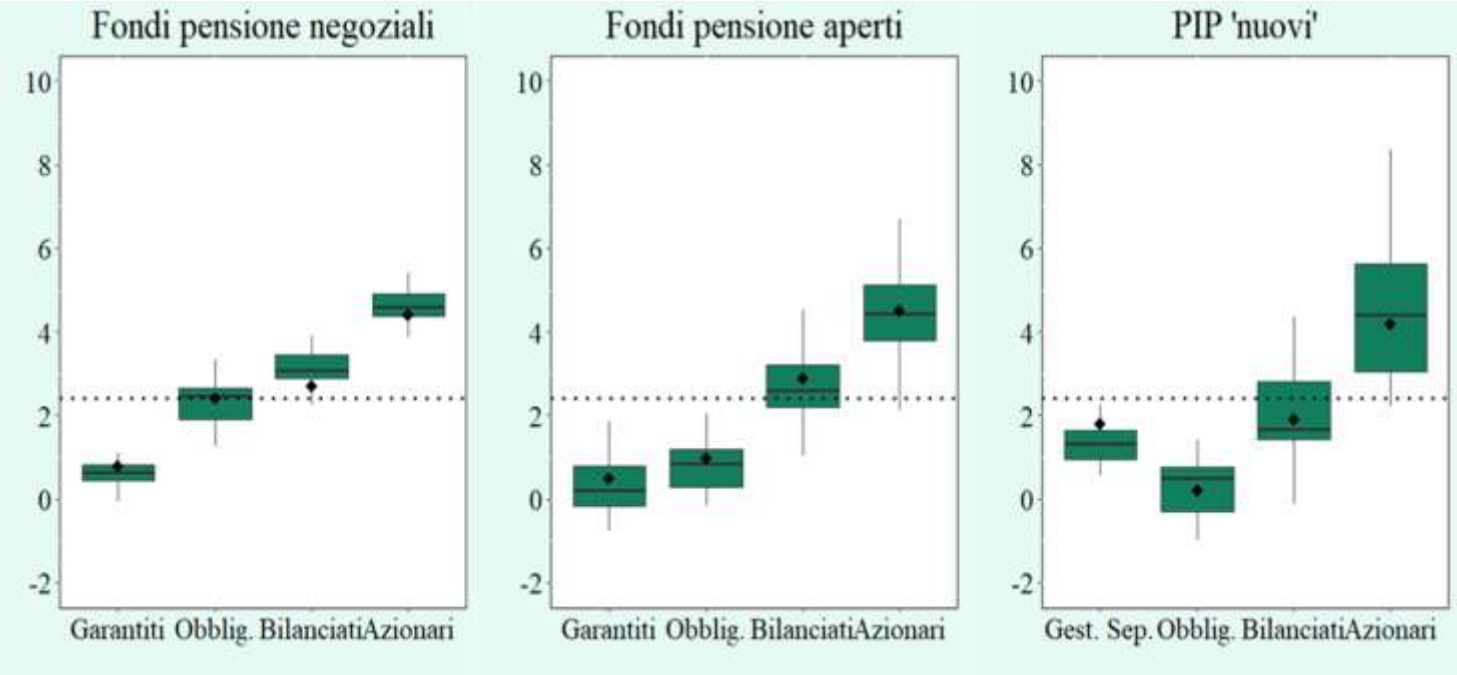
Despite the strong growth, the average capital per capita is still low, being equal to approximately €23,350 with 9.3 million members.

(1) Covip «Report for the year 2023», table 1.31, page 46

2.2 The returns of supplementary pension schemes

Supplementary pension schemes – Distribution (box plot) of the average annual compound net returns

(end 2013-end 2023; percentage values) (1)



Note:
The extreme values of the box (*box*) represent the first (Q1) and third (Q3) quartiles of the return distribution, whose height therefore represents the interquartile range *given* by (Q3-Q1). The segments outside the *box* are called whiskers , whose maximum length is determined by subtracting/adding 1.5 x (Q3-Q1) to the first/third quartile, where (Q3-Q1) constitutes the interquartile *range* .
Pure and mixed bond sectors were considered together.
The returns of the guaranteed compartments do not incorporate the guarantee mechanism.
The dotted line represents the average annual compound revaluation rate of the TFR.

The average ten-year return, net of management costs and taxes, in the period 2013-23 was generally positive for all pension plans and for all investment lines

The return on the equity line was the highest in the range of 4.2-4.5%, 2.6-3.2 pp higher than the overall return of all the sectors; also over 20 years (2003-2023) the return was the highest, equal to 3.9%-4.3%, 1.1 – 1.3 pp higher than the overall return of all the sectors.

Compared to the revaluation of the TFR equal to 2.4% in the period (with an inflation of 1.7%), the equity line has always produced much higher returns in the period, the balanced line higher only in some cases, the bond line higher only in few cases and only for the negotiated funds and the guaranteed line has always generated lower returns than the TFR.

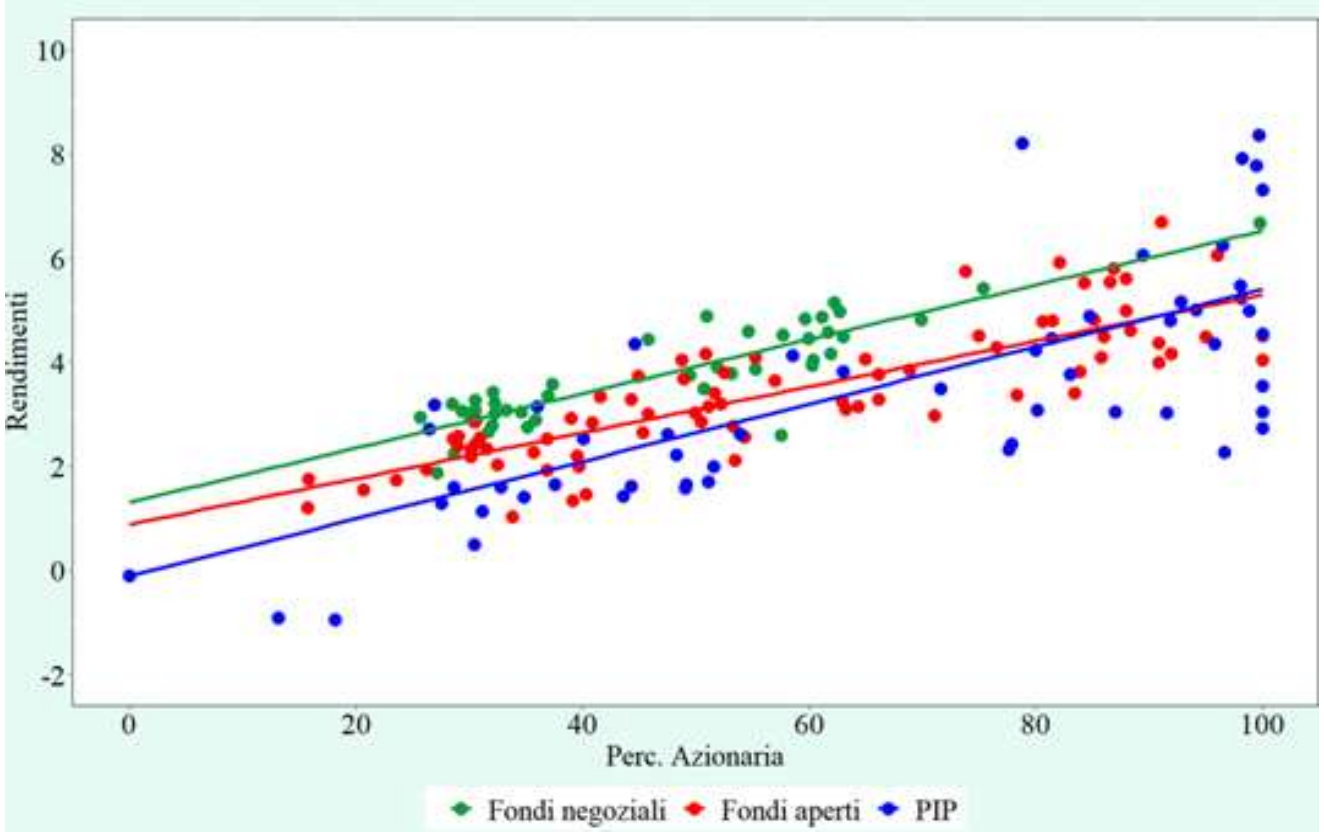
In terms of dispersion of values, these are higher for open funds and PIPs than for negotiated funds, probably also due to the higher level of costs of these pension schemes.

(1) Covip «Report for the year 2023», table 1.55, page 74

2.3 The return on investment in shares

Supplementary pension schemes – Equity and balanced funds – Relationship between average annual net compound returns and shareholding

(end 2013-end 2023; percentage values) (1)



The share percentage is calculated taking into account direct investments and those made through UCITS.

There is a clear positive correlation between the level of returns and the share of stock held, both in general and for each type of fund (negotiable, open, PIP)

The funds with the highest returns are the ones with the greater equity exposure and are almost all related to open-ended funds and PIPs)

Comparing the interpolating lines relating to the three pension schemes, with the same shareholding, the returns of the occupational funds are on average higher than those of the open funds and PIPs.

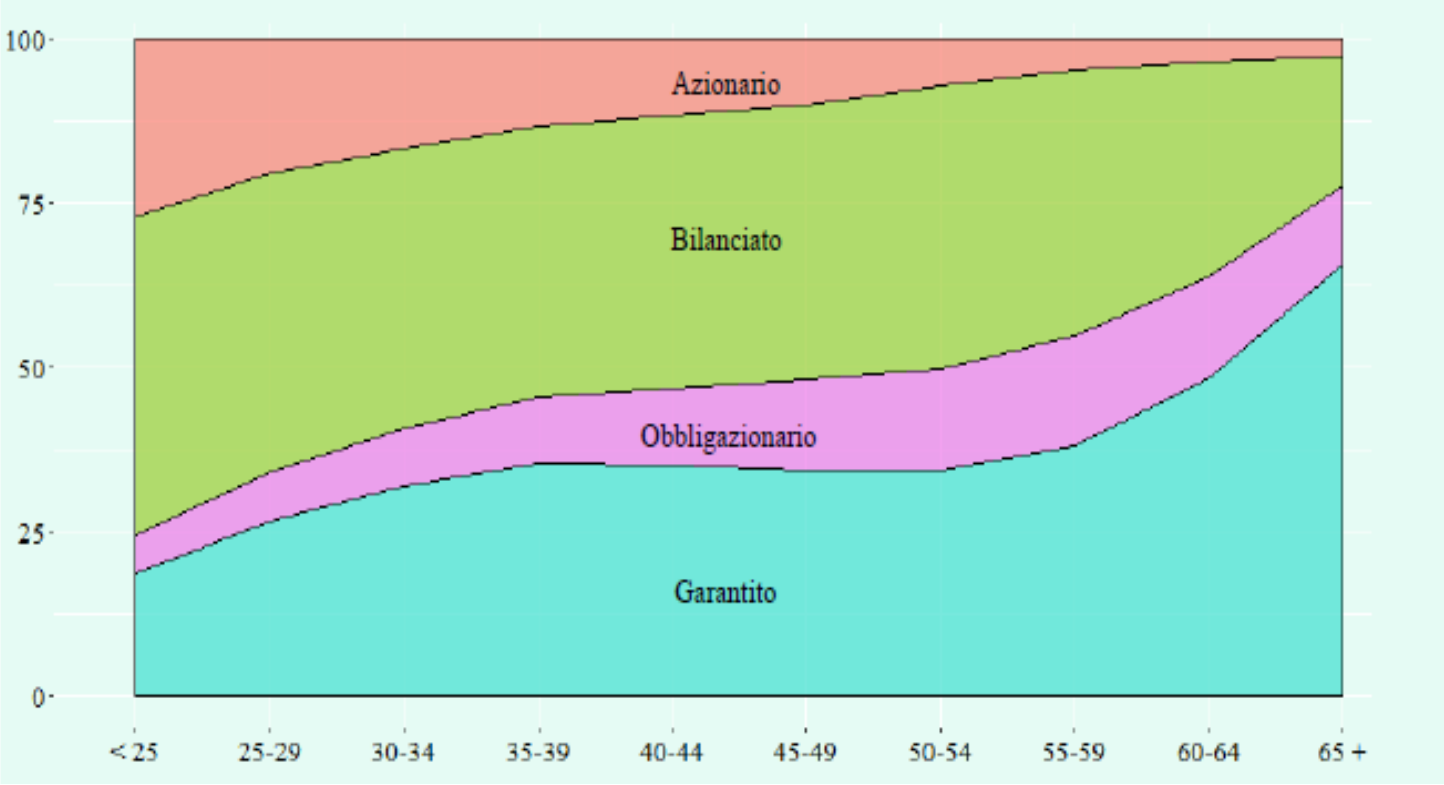
As reported by Covip itself, these differences can be attributed to the higher costs that characterise open funds and PIP, costs that obviously affect net returns.

(1) Covip «Report for the year 2023», table 1.56, page 76

2.4 Choosing the investment line according to age

Supplementary pension schemes – Members by investment profile and age groups

(end-2023 data; percentage values) (1)



In the very young age groups, a greater propensity for equity and balanced profiles is observed, in the central bands, where the majority of members are located, the lowest risk profiles remain at levels between 45 and 50 percent, with 30% made up of guaranteed lines, who gradually assume a predominant weight starting from the age of 55.

PIP members mostly enroll, and at a very young age, in a guaranteed profile, while in the other types of form, the weight of the guaranteed is initially lower and tends to grow beyond the age of 50.

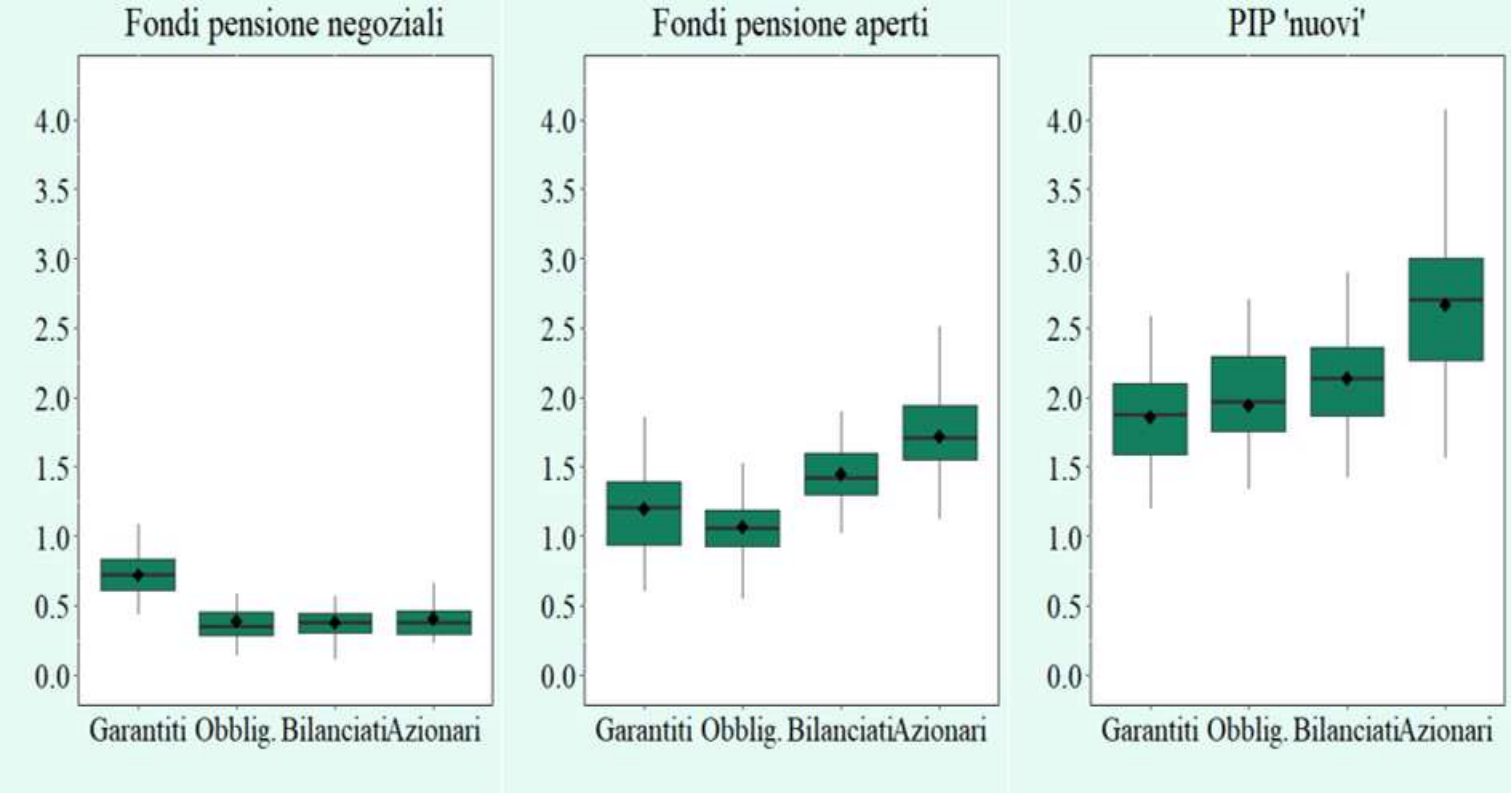
Distinguishing by gender, men are more inclined towards riskier profiles than women, with a gap that remains around 10-15 percentage points for all age groups up to 54 years.

(1) Covip «Report for the year 2023», table 1.45, page 61

2.5 Management costs of supplementary pension schemes

“New” Pension Funds and PIPs – Distribution (box plot) of 10-year ISC values

(end-2023 data; percentage values) (1)



The synthetic cost indicator (ISC) over a 10-year period shows how the costs of open-ended funds and PIPs are much higher than those of negotiated funds, probably also due to the higher commercial costs of the former: on average the cost of PIPs is 2.17% against 1.35% of open-ended funds and 0.50% of negotiated funds.

With the exception of negotiation funds, the cost of equity lines is much higher, even by 2 pp, than balanced and bond lines.

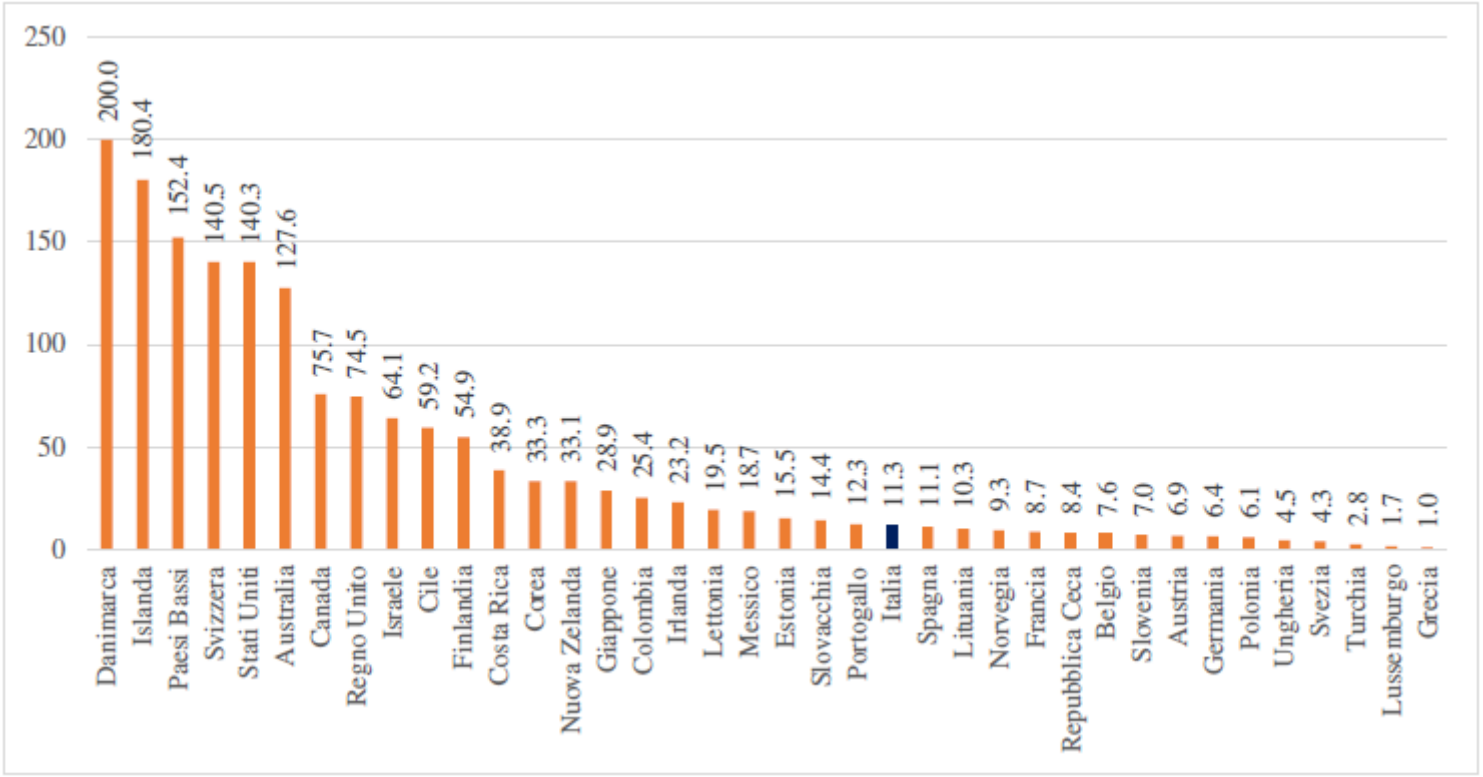
In terms of dispersion, considering all investment lines, this is minimal for negotiation funds while it is very high for open funds and especially for PIPs, particularly for equity lines.

Over the 2015-2023 time horizon, Covip notes that the management costs of the various pension schemes have remained substantially stable without any narrowing of the gap between the costs of negotiated funds and those of open funds and PIPs.

(1) Covip «Report for the year 2023», table 1.53, page 70

2.6 The weight of pension funds in OECD countries

Pension fund assets in relation to GDP in OECD countries 2023 (1)



The size of supplementary pension provision, expressed in terms of assets relative to GDP, is very heterogeneous among different countries.

The development of supplementary pension provision is generally inversely proportional to the weight of the public pension system

In the 2023 ranking that compares pension fund assets to GDP, Italy is in 23rd place among OECD countries with a ratio of 11.3%

In absolute terms, in the ranking of countries by pension fund assets, Italy is in 14th place out of 38 countries belonging to the OECD area with assets of $ 260 billion; in first place is the United States with an overall asset of $ 38.8 triillion, followed by the United Kingdom ($ 2.4 trillion) and Australia ($ 2.2 trillion).

(1) Itinerari Previdenziali «Eleventh Annual Report Italian institutional investors: members, resources and managers for the year 2023», year 2024, fig. 1.2, page 11

Section 3

Expected returns of various asset classes

3.1 Analysis of the returns of the various asset classes – data source

This section illustrates the results of the analysis of the historical returns of the main asset classes on the American market from 1/1/1897 to 1/1/2025, elaborated on the basis of the data available on the internet site « Longtermtrends » which in turn used different data sources:

- **Stock:** Total Return index based on the MSCI USA (Gross) index from 1999 to today, while for the previous years, since this index was not available, the S&P 500 total return index based on data from Robert Shiller has been used.
- **Gold** : data from Comex (the New York Stock Exchange specializing in the trading of precious metals) extracted from Yahoo.Finance website from 2000 onwards and for previous years the data available on the « Onlygold » website have been used.
- **Silver :** as for gold, Comex data from 2000 onwards have been used, and for previous years the data available on the « Macrotrends » and « Chards » websites.
- **Bonds** : The index is based on the work of Edward MacQuarrie, which in turn draws on the research of Jeremy Siegel, and uses yields on long-term government and municipal bonds and top-grade corporate bonds (Aaa and Aa).
- **Real Estate** : the Case-Shiller Home Price Index has been used, which estimates the value of homes since 1987, while for historical data, data processed by Robert Shiller have been used. In the absence of data available on the total returns of residential Real estate, it has been added to the above index the contribution of the rents (net of management costs) estimated at 4% net and maintained fixed for all years. (1)

(1) In estimating the yield on net rents, the research « The Rate of Return on Everything, 1870–2015" in « Federal Reserve Bank of San Francisco – working paper series» by Oscar Jorda, Katharina Knoll, Dmirty Kuvshinov, Moritz Schularick, Alan M. Taylor - December 2017

3.2 Analysis of the returns of the various asset classes – methodology

The following slides show the performance of stocks and then of shares with respect to the various asset classes, in various time horizons (1-5-10-20 years) by calculating the relative performance on the basis of the following formula derived from that of compound capitalization:

$$Y_{n,t} = \left(\frac{I_n}{I_{n-t}}\right)^{1/t} - 1$$

Where:

$Y_{n,t}$ = Yield of year «n» calculated for a period of «t» years

I_n = value of the index at the end of year «n»

So, for example, the 10-year stock return calculated with reference to the year 2024 corresponds to the stock return calculated from the end of 2014 to the end of 2024. In formula:

$$Y_{2024,10} = \left(\frac{I_{2024}}{I_{2014}}\right)^{1/10} - 1$$

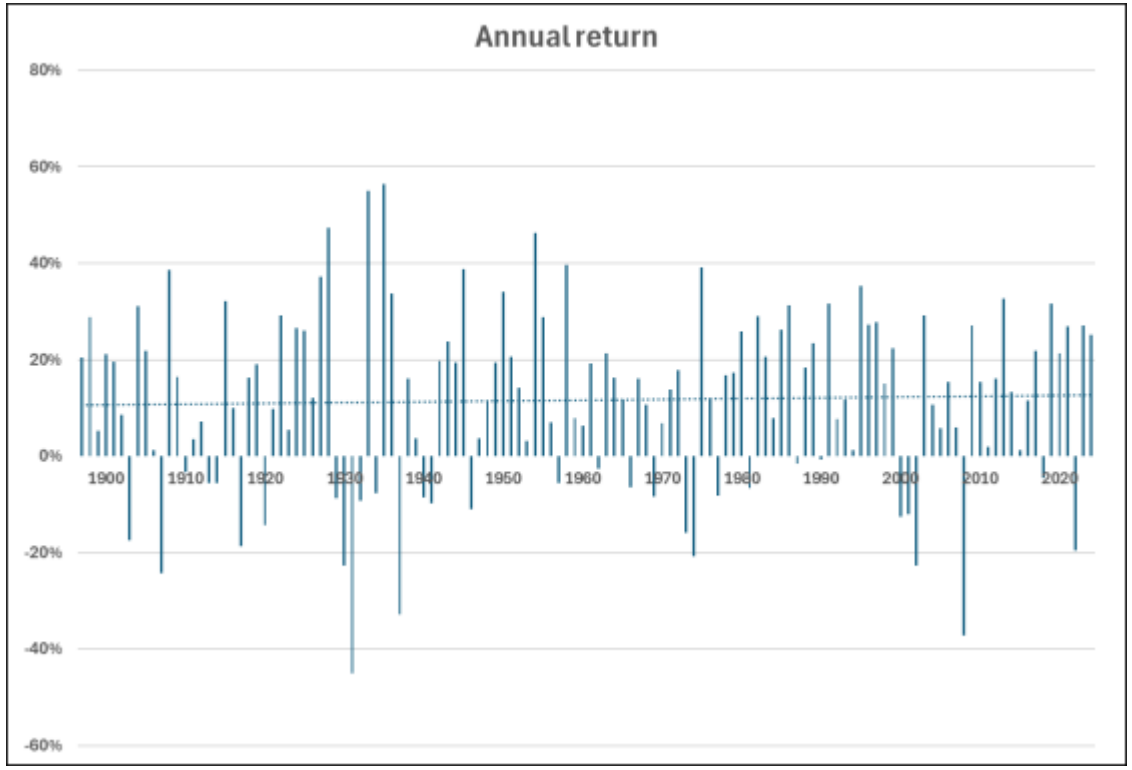
It was decided to use this type of performance calculation, instead of, for example, taking moving averages of returns, as it reflects well the objective of an investor which is in fact to capitalize on his initial investment over a period of "n" years.

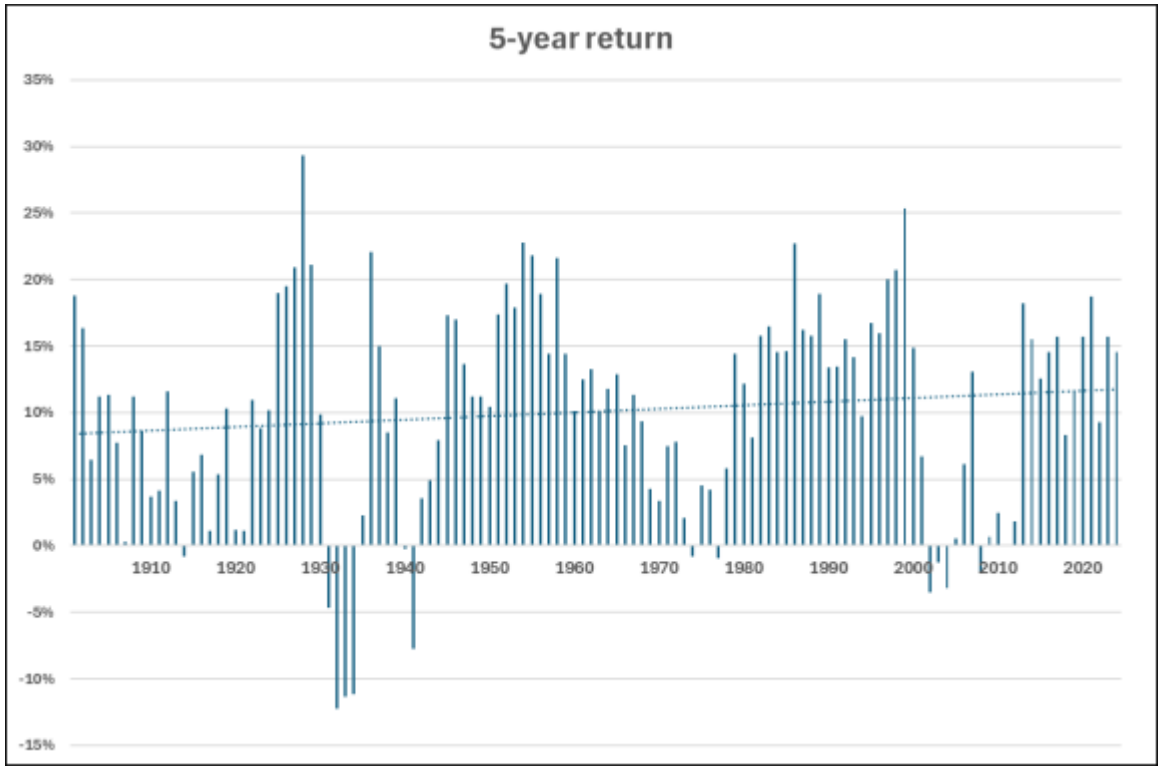
Obviously this type of performance calculation, compared for example to a moving average, is greatly influenced by the value of the index at the end and at the beginning of the capitalization period, as happens in the case of a real investment.

3.3 Total return return of shares (1/2)

Total annual return of stocks shows extreme variability, reaching a maximum in 1935 (+56.4%) and a minimum in 1931 (-44.9%); the collapse of 2008 is also significant (-37.1%)

The 5-year yield, therefore a time horizon more consistent with an equity investment, shows less spread out results with a peak in 1928 (+29.3%) and a lower yield in 1932 (-12.4%) due to the strong decline that began in 1929; with the 5-year yields the periods with the highest yields are better noted, namely the 20s, 50s-60s, 80s-2000s, 2010s-24s.

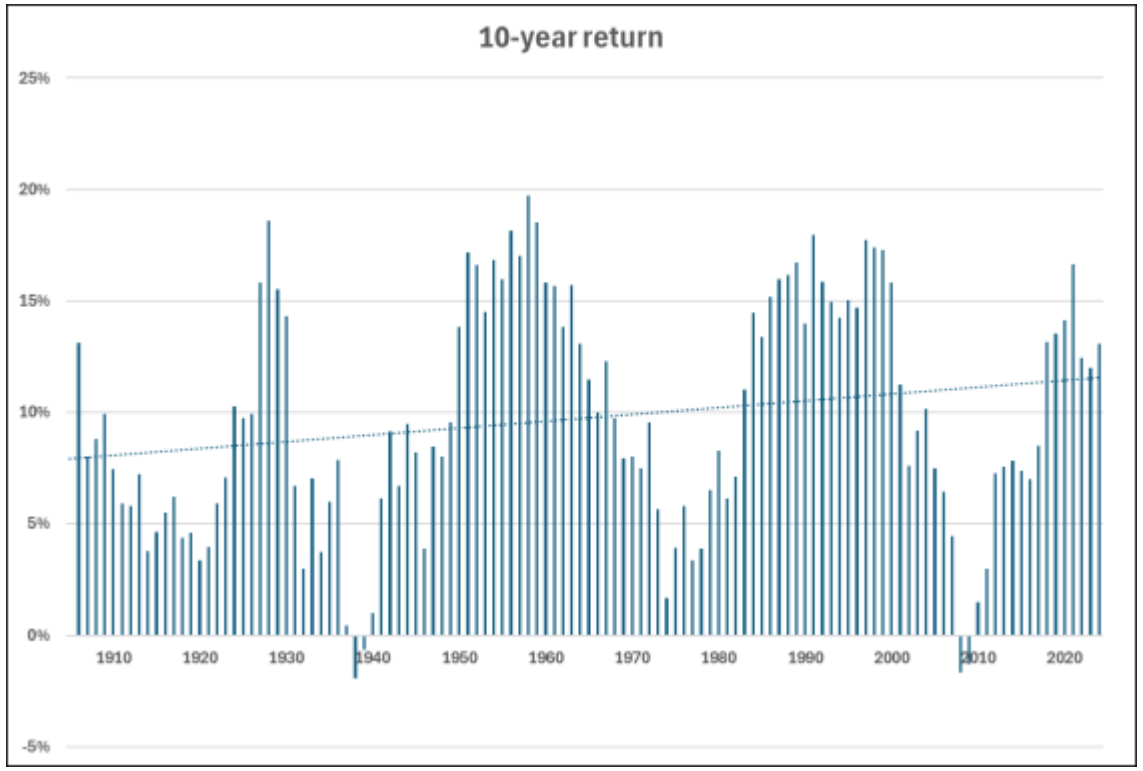


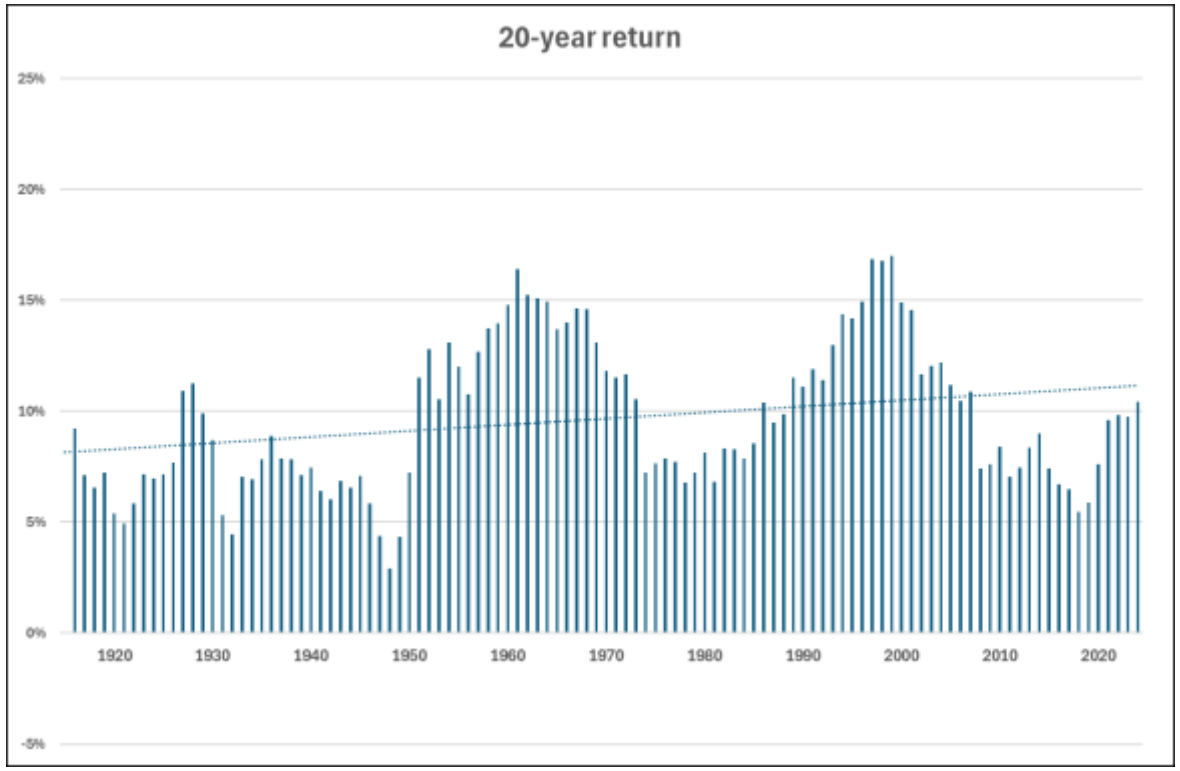


3.3 The performance of shares (2/2)

The 10-year yield allows us to appreciate the cyclical trend of yields by clearly showing 4 macro-cycles of growth-degrowth: 1920-1939, 1939-1974, 1974-2009, 2009-2024; the current cycle has already reached high values (+16.6% in 2021) without however exceeding the maximums reached in the 3 previous cycles (+18.6% in 1928, +19.7% in 1958 and +18.0% in 1991)

The 20-year yield allows us to appreciate even better the cyclical trend of yields and the flattening of results, also showing that no 20-year yield has been negative, with a minimum value of 2.9% in 1947 and a maximum value of 17.0% in 1998.





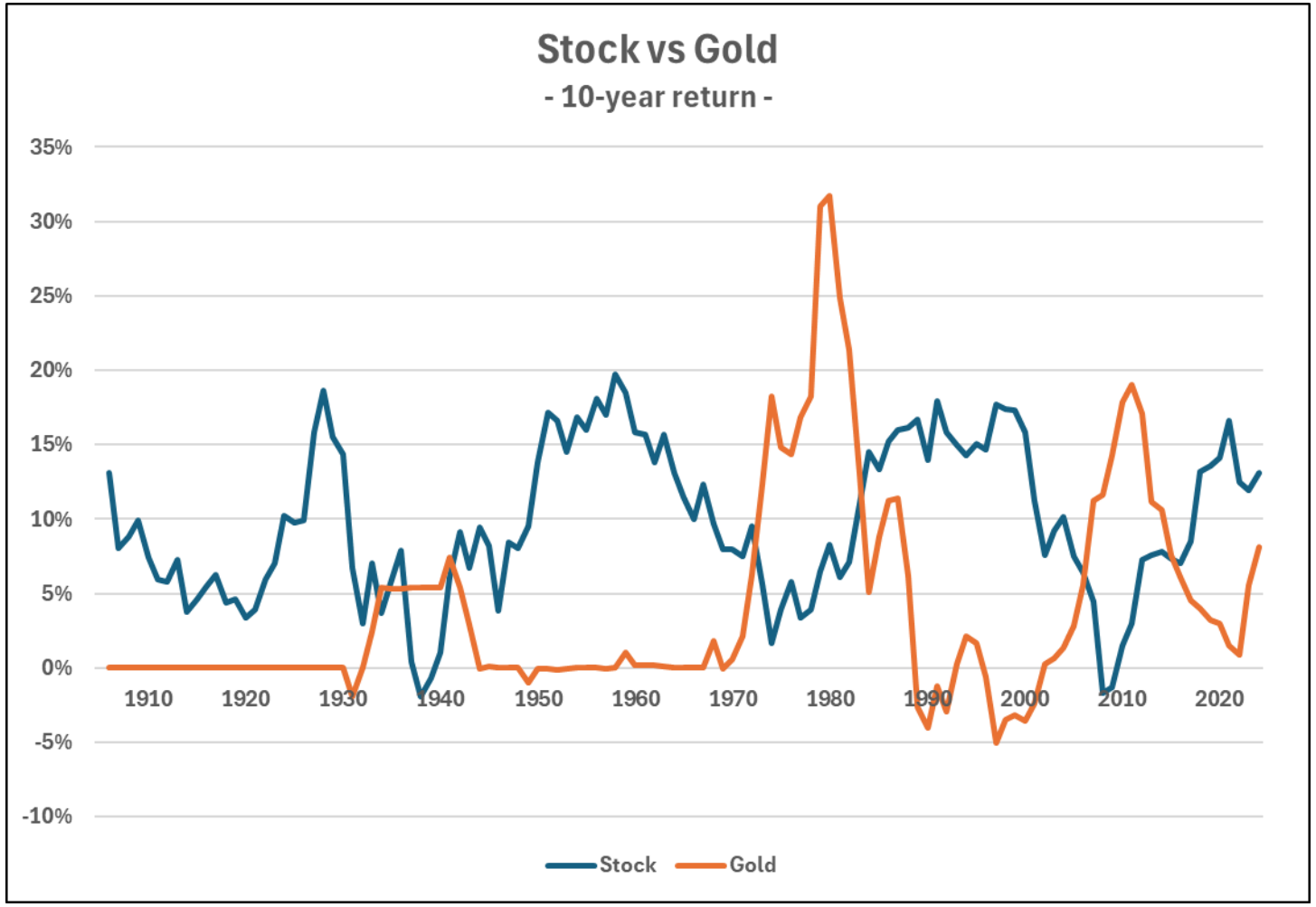
3.4 The comparative performance of stocks versus gold

This and the following slides show the performance of stocks relative to each of the alternative asset classes over a 10-year time horizon, which is the normal period for evaluating the performance of an investment.

In this slide, stocks are compared to gold: the comparison is meaningful only after the abandonment in 1971 of the Bretton Woods agreements that provided for the fixed exchange rate of gold with dollar.

It can be noted that gold performs better than stocks during periods of greater political and financial instability:

- 1973-1983: period characterized by the oil crisis that began in 1973, high inflation and political instability that negatively impacted stock returns and allowed gold to reach a 10-year return of 31.8% in 1980, more than 50% of the all-time high achieved by stocks
- 2007-2015: the period is affected by the effects of the double financial crisis of 2000 (dot.com bubble) and 2008 (subprime bubble)
- Starting in 2023, following the pandemic and the war in Ukraine, inflation increases and the 10-year gold yield rises again.



3.5 The comparative performance of stocks versus silver

Stocks also outperform silver, except for the same periods seen in the previous slide when gold outperformed stocks; silver also outperformed stocks in 1918-19, and in 1946 at the end of World War I and World War II respectively, when the dollar was pegged to gold.

The performance of silver follows that of gold to which it is obviously correlated, but compared to gold, silver has greater fluctuations with a maximum performance of 33.5% (higher than the 31.8% of gold and the 19.7% of stocks) and a minimum performance of -16.6% (lower than the -5.1% of gold and the -1.9% of stocks).

The larger fluctuations are explained by the fact that silver is not only a precious metal like gold but also has various industrial applications (electronics, solar panels, wind turbines, medical devices, ...) and above all by the fact that, since the production of silver is very concentrated, it can be subject to strong speculative phenomena, as happened in particular in 1979 because of "Hunt brothers bubble" (in that year the price of silver grew by 435%).

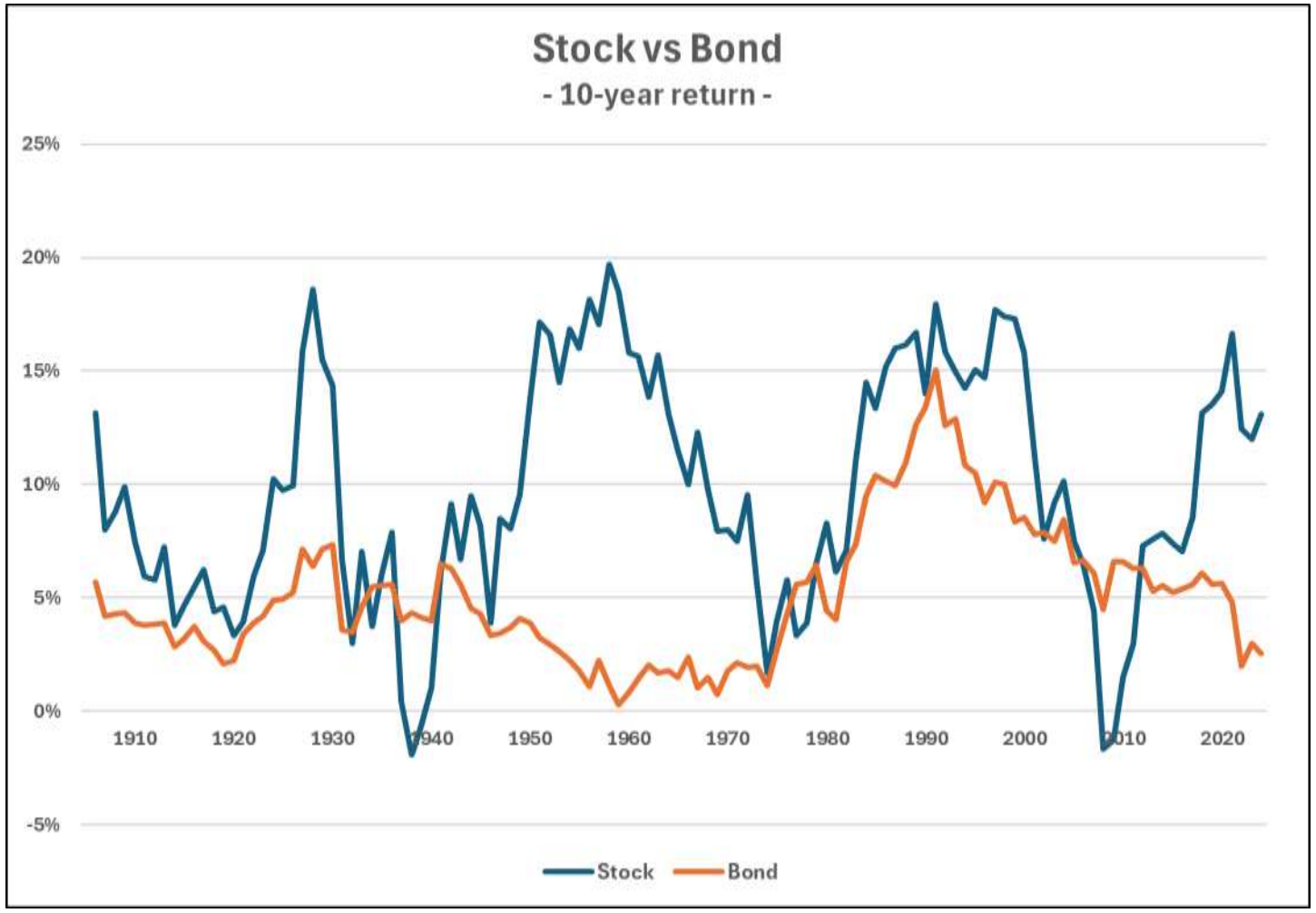
3.6 The comparative performance of stocks versus bonds

The performance of stocks is always higher than that of bonds except for a few short periods such as in 1937-1941, 1977-1978 and 2006-2011 and always not because of the high performance of bonds but because of the very low, if not negative, return of stocks.

It is interesting to note that, despite being considered a safe asset, the yield on bonds still shows marked fluctuations, going from a maximum of 15.1% in 1991 to a minimum of 0.3% in 1959.

The 1991 peak was achieved thanks to the constant decline in inflation in the previous years, which had peaked in 1980 (13.9%), a decline that allowed the reduction of interest rates, thus increasing the price of previously issued bonds.

The 1959 low was reached because of the rise in market interest rates in the late 1950s after several years of bond issuance at low rates, in line with the very low level of inflation during the 1950s.



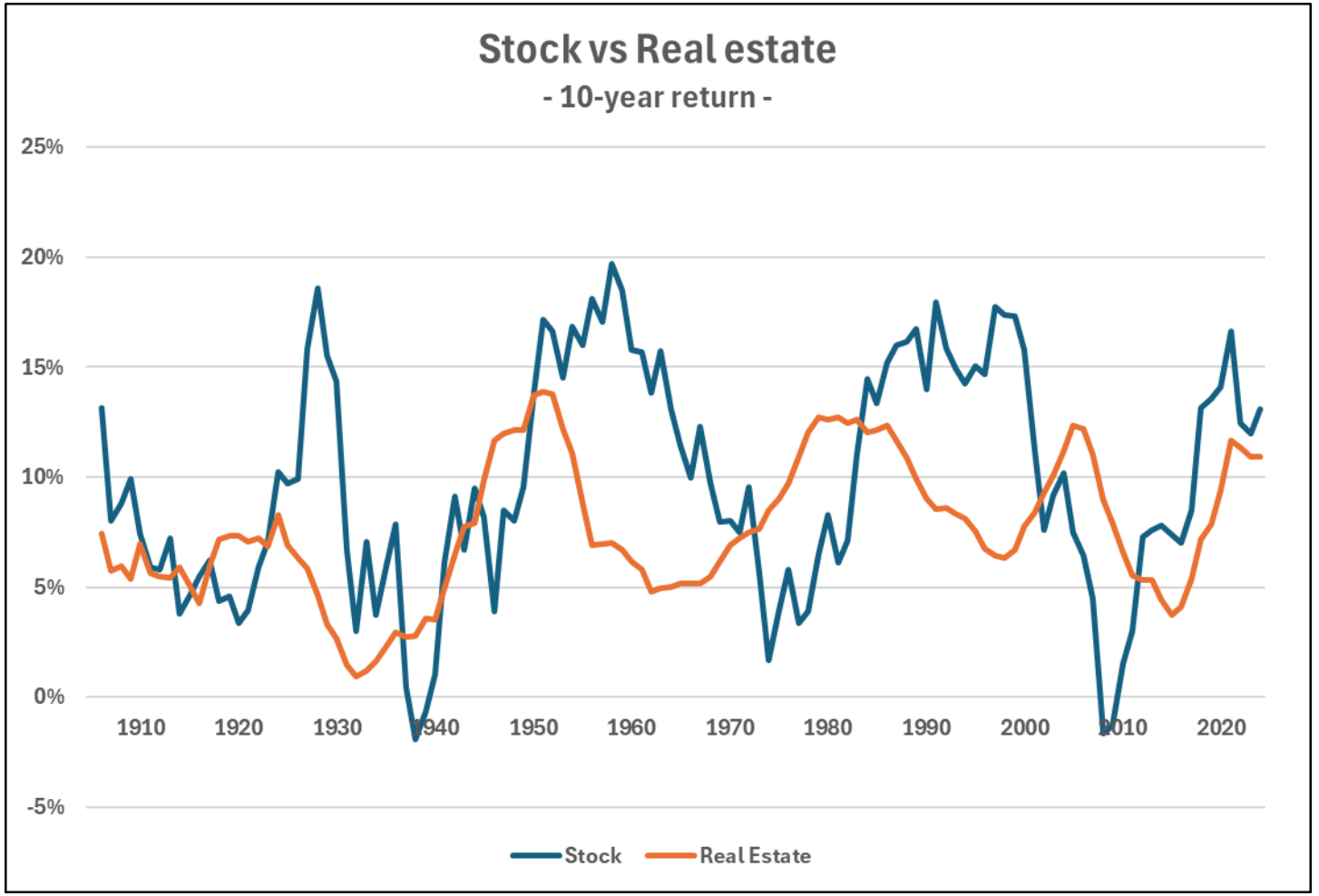
3.7 The comparative performance of stocks versus residential Real estate

Real estate average return 2 pp lower than stocks but less variability: values in the range of +13.9% to 0.9% compared to +19.7% and -1.9% for stocks.

Compare returns of real estate vs stocks is questionable because stocks are extremely liquid with a price updated in real time, while price of real estate is the result of an estimate updated, at best, every month. Comparison of volatilities makes little sense, as demonstrated by the fact that the volatility of a listed real estate fund is similar to that of other listed stocks.

Real estate performed better than stocks in:

- 1914-1915 and 1918-1922: high inflation due to war penalizing stocks and favoring Real estate;
- 1937-1941: stocks had very low or negative return;
- 1943 and 1945-1949: high inflation due to war;
- 1973-1983: also in this case better performance due to high inflation for oil crisis;
- 2002-2011: better performance due to high price of Real estate generated by the «subprime» bubble and low yield of stocks due to the bursting of the «dot.com» bubble.



(1) In the aforementioned research « The Rate of Return on Everything, 1870–2015» in « Federal Reserve Bank of San Francisco – working paper series» by Oscar Jorda, Katharina Knoll, Dmirty Kuvshinov , Moritz Schularick , Alan M. Taylor - December 2017, yes esteem that the performance historical from the actions in the last 100 years in 16 countries included in the analysis was overall similar to that from the actions , except that in the US where the shares they have significantly Real estate

3.8 Analysis of the returns of the various asset classes – summary data

	annual return						5-year return						10-year return						20-year return					
	stock	gold	silver	bond	r. estate	inflation	stock	gold	silver	bond	r. estate	inflation	stock	gold	silver	bond	r. estate	inflation	stock	gold	silver	bond	r. estate	inflation
1897-2024																								
average	11,7%	5,2%	7,1%	5,3%	7,9%	3,2%	10,1%	4,1%	3,6%	5,1%	7,8%	3,1%	9,8%	3,9%	3,2%	5,1%	7,6%	3,1%	9,7%	4,0%	3,3%	5,2%	7,7%	3,1%
maximum	56,4%	133,4%	434,8%	35,5%	28,1%	19,7%	29,3%	39,7%	48,4%	20,2%	20,9%	13,8%	19,7%	31,8%	33,5%	15,1%	13,9%	8,7%	17,0%	15,1%	19,5%	11,4%	11,5%	6,4%
minimum	-44,9%	-32,1%	-51,9%	-18,3%	-12,1%	-11,1%	-12,3%	-11,1%	-27,9%	-3,4%	-1,8%	-5,7%	-1,9%	-5,1%	-16,6%	0,3%	0,9%	-2,7%	2,9%	-3,8%	-8,6%	0,5%	3,1%	-1,6%
standard deviation	18,5%	18,7%	43,4%	7,6%	6,7%	5,0%	7,9%	8,9%	10,6%	3,7%	4,2%	3,1%	5,2%	6,9%	7,2%	3,0%	3,1%	2,5%	3,3%	4,5%	4,6%	2,6%	2,1%	1,7%
sharpe ratio	0,40	0,05	0,07	0,14	0,55		0,76	0,00	-0,05	0,27	0,87		1,10	-0,02	-0,11	0,35	1,15		1,70	-0,04	-0,18	0,40	1,72	
1950-2024																								
average	12,6%	8,1%	11,1%	5,7%	8,7%	3,6%	11,0%	6,5%	5,6%	5,8%	8,5%	3,5%	10,5%	6,4%	5,2%	6,1%	8,5%	3,6%	10,1%	6,9%	5,4%	6,6%	8,8%	3,9%
maximum	46,3%	133,4%	434,8%	35,5%	23,4%	13,9%	25,4%	39,7%	48,4%	20,2%	15,9%	10,0%	18,0%	31,8%	33,5%	15,1%	12,7%	8,7%	17,0%	15,1%	19,5%	11,4%	11,5%	6,4%
minimum	-37,1%	-32,1%	-51,9%	-15,4%	-8,5%	-0,7%	-3,5%	-11,1%	-27,9%	-3,4%	-1,8%	0,8%	-1,7%	-5,1%	-16,6%	0,7%	3,7%	1,2%	5,5%	-3,8%	-8,6%	1,3%	6,1%	2,0%
standar deviation	16,2%	23,2%	54,6%	8,4%	5,1%	2,8%	6,9%	10,9%	12,2%	4,4%	3,8%	2,3%	4,9%	8,4%	8,4%	3,6%	2,7%	2,0%	2,9%	4,7%	4,9%	2,9%	1,4%	1,6%
sharpe ratio	0,50	0,15	0,12	0,13	0,80		0,94	0,18	0,09	0,29	1,07		1,19	0,21	0,08	0,41	1,45		1,78	0,42	0,09	0,59	2,75	

The table reports the overall results of the analysis for the entire sample and from 1950 to today. It is noted that:

- returns since 1950 across all asset classes and inflation are higher than the entire sample;
- The average return on stocks is always higher than that of other asset classes;
- by increasing the time horizon, for all asset classes the maximum returns decrease and the minimum returns increase, consistently with the reduction of the standard deviation, and the increase of the Sharpe ratio;
- The Sharpe ratio is a risk-adjusted return measure that is calculated by comparing the excess return to the standard deviation; the excess return is calculated by subtracting the risk-free return from the return of the asset class, which normally corresponds to the return on short-term government bonds; in this analysis it was estimated to be equal to inflation plus 1 percentage point; the higher the Sharpe ratio, the better the risk-return ratio and vice versa
- stocks have a much higher Sharpe ratio than bonds, even though the latter are commonly considered a safe asset; the comparison with Real estate is not significant since, as already noted, the values of stocks - that is, a liquid asset listed on a regulated market – are compared with the values of residential Real estate - that is, a non-liquid asset whose prices are only estimated, at best on a monthly basis and therefore do not correspond to the price obtainable from an actual sale which can diverge significantly from the estimated prices.

Section 4

Lessons from the Greatest Investors

4.1.1 Benjamin Graham – the father of Value Investing

London, May 9th,1894 – Aix-en-Provence, September 21st, 1976

Main works :

- «Security Analysis» co-written with David Dodd in 1934
- «The Intelligent Investor» first edition in 1949, first Italian edition in 2020

Essential Biography

- At 1 year old he moved with his parents to New York, at 9 years old his father died, at 13 his mother lost the family fortune due to a bad investment, leaving the family in serious financial difficulty
- He graduated thanks to a scholarship at Columbia University at the age of 20
- He began working on Wall Street, as a clerk, for $12 a week for the brokerage firm Newburger, Henderson & Loeb, then became an analyst, at 25 years old he earned $600,000 a year (about €16 million today) and a year later he became partner in the firm.
- In 1926, together with Jerome Newman, he founded an investment company, which 30 years later would have hired Warren Buffet; the company, despite the crash of 1929, achieved a return of 670% in the first 10 years, a performance 40% higher than the main mutual funds of the time and on average obtained a return of 17% per year, until the company was dissolved in 1956.
- In 1928 he joined Columbia Business School as a faculty member and remained there until 1955.
- In 1948, Graham-Newman Partnership purchased the insurance company Government Employee Insurance Co., ("GEICO"), Graham's most profitable investment.
- After 1956 he moved to California where he taught at various universities, while in his last years he moved to France, in Provence, where in 1973 he wrote the fourth edition of «The Intelligent Investor» and died in 1976 at the age of 82, leaving his heirs a fortune of «only» $3 million, after having donated most of his assets to charity during his life.

4.1.2 The Teachings of Benjamin Graham (1/3)

The Intelligent Investor

- the (negative) example of Isaac Newton

The Difference Between Investment and Speculation

- "An investment transaction is an activity that, after thorough analysis, promises security of capital and an adequate return. Transactions that do not meet these requirements are speculative."

The two categories of intelligent investors

- The Defensive Investor
- The enterprising investor

The Defensive Investor

- He seeks security, freedom from worries and does not want to take up too much of his free time.
- Graham suggests the technique of " dollar cost averaging ": investing the same amount of money every month or every quarter.
- portfolio composed of 50% stocks and 50% bonds
- limit yourself to stocks of major companies with a long history of profits and in solid financial condition such as the 30 stocks of the Dow Jones Industrial Average (DJIA) or buy shares of a well-established mutual fund
- Graham's advice brought to the present day: choose within the DJIA, Italian MIB 30, German DAX,... or global ETF
- Bonds: maximum 5 years duration, to avoid significant fluctuations in the value of bonds due to increases in interest rates, choose government bonds of safe countries or corporate bonds issued by companies included in the above-mentioned indexes.

The enterprising investor

- can expect a higher return based on his commitment to the investment activity, the time he devotes to it, his knowledge and his expertise.

4.1.2 The Teachings of Benjamin Graham (2/3)

The Enterprising Investor (continued)

- the commitment must be adequate, deciding to dedicate just a little more time to studying investments risks producing opposite effects, it is better then to remain a defensive investor.
- the risk associated with the investment grows dramatically if the investor:
  - does not possess appropriate knowledge and skills
  - he risks more money in speculation than he can afford to lose
  - he follows the market, allowing himself to be influenced by the judgment of others and overwhelmed by emotions.
- Even the enterprising investor should invest in a balanced portfolio of stocks and bonds but the share of stocks can vary every 6 months from 50% to 25 or 75% depending on market conditions (i.e. depending on the level of stock prices) and only in exceptional cases can it be lower or higher.
- However, one should not emphasize the “timing” because it is not possible to predict exactly when is the right time to buy or sell and if you do so you end up speculating.
- As for the stocks to buy, Graham explains that the market overvalues the stocks that have had an excellent growth and that for some reason are popular and undervalues those that have had an unsatisfactory development, even if temporary: therefore, he recommends focusing on the stocks of large companies that are going through a period of low popularity due to bad management choices that can happen even to the best companies (e.g.: the new Coca Cola).
- Another category of stocks that can give good satisfaction is that of net-current-asset stocks, that is stocks that are listed at a value not exceeding 2/3 of their working capital, net of all debts and without considering tangible and intangible fixed assets: these kind stocks were very common after the crisis of the early 1930s but now they are situations that rarely occur, except on the occasion of strong stock market drops, such as for example that of 2008/2009 or 2020.
- Graham, however, advises most investors against directly selecting stocks, it is safer and more convenient to buy an investment fund (today he would probably say that it is better to buy an ETF).

4.1.2 The Teachings of Benjamin Graham (3/3)

Mr. Market

- Never be misled by market price fluctuations, the market must not become our master but rather our servant
- Never let yourself be taken by enthusiasm or discouragement but always keep your emotions under control
- Enthusiasm may be necessary to achieve great results elsewhere but in the stock market it almost always leads to disaster.

The Margin of Safety

- It is the principle of buying stocks at a discount to their intrinsic value to preserve the value of the investment if things go badly (like forbearance when building a bridge) and to earn a higher return.
- Graham does not give a univocal definition of the margin of safety; in "The Intelligent Investor" he states that a good margin of safety exists if one buys, for example, a stock with an expected return of 9% (P/E of 11) when the bond yield is 4%;
- In estimating the safety margin, we therefore look at the average past profits of large companies and it is therefore superfluous to estimate whether future profits will be better or worse than past ones; even “Growth stocks” can be purchased with a safety margin as long as in this case the estimate of future profits is made with caution.
- It is essential to diversify: no more than 5% invested in the same stock.
- If purchases are made at the average market level over several years, the prices paid should carry with them the guarantee of an adequate margin of safety: the danger lies in concentrating purchases when market prices are high or in buying securities of smaller companies that present a higher than average risk of a decline in “earnings power”.
- for the enterprising investor, investing in shares must be managed as if it were an investment in a company and therefore must be based on an in-depth analysis and a reliable initial calculation: if you are convinced of your conclusions based on the facts, you trust your judgment and you have reached an adequate level of knowledge, you must act accordingly with courage, even if others hesitate or waver.
- Graham concludes “The Intelligent Investor” with the following sentence, that contains both encouragement and warning: “It is easier than you think to obtain satisfactory results from an investment, but obtaining superior results is more difficult than it seems.”

4.2.1 Benjamin Graham's Best Disciples: Warren Buffet and Charlie Munger

Omaha (Nebraska), August 30th, 1930

Main works

- Berkshire Hathaway Shareholders' meeting Letters

Essential Biography

- Second of three children (only son) of Howard Buffet, who founded a small brokerage firm and was elected to Congress.
- He studies in New York at Columbia University with Graham.
- He joins the Graham-Newman Partnership, in 1956 Graham retires and offers him to become a partner but he instead returns to Omaha.
- In 1962 he bought his first shares in Berkshire Hathaway, a declining textile company (he considered it his "first mistake").
- In 1965 he was joined by his partner Charlie Munger who would become his alter ego and began to buy undervalued companies in every field: American Express, Coca-Cola, Kraft Heinz, Geico, General Re, Bank of America, BNSF Railway, Washington Post, Apple, Occidental Petroleum, BYD.
- Berkshire currently has about 400,000 employees, only 25 at its headquarters in Omaha; its annual shareholders' meeting is an event called the "Woodstock of Capitalism", attended by nearly 100,000 people, the largest annual event after baseball's College World Series; the company is among the 10 most highly capitalized in the world ($1.1 trillion as of end of May 2025).
- He decided to give 99% of his assets to charity with the consent of his children.

Omaha (Nebraska), January 1st, 1924 – Los Angeles, November 28th, 2023

Main works

- Poor Charlie's Almanack: the Wit and Wisdom of Charles T. Munger
- The Tao of Charlie Munger

Essential Biography

- As a teenager, he worked in the grocery store owned by Warren Buffet's grandfather
- He studied mathematics and then meteorology at various universities in California, enlisted in the army becoming a second lieutenant and graduated from Harvard Law School in 1948 at the age of 24.
- In 1959 he met Warren Buffet, in 1962 he left his profession as a lawyer and went to work at Berkshire Hathaway, where he became vice president, partner, friend and right-hand man of Warren Buffet; from then on he will dedicate himself only to investments, to the encyclopedic reading of heterogeneous scientific, historical and literary subjects and to the study of business cases.
- At 50 he loses his left eye due to a failed cataract surgery, risks losing the other eye as well and begins to study Braille but manages to keep his sight for the rest of his life
- In 2013 he donated $110 million to the University of Michigan
- He dies at 99; in addition to Buffet, several prominent figures in the business community such as Bill Gates, Tim Cook and Jamie Dimon released affectionate statements in his memory

4.2.2 The Thought of Warren Buffet and Charlie Munger

This slide summarizes the thinking of Warren Buffet and Charlie Munger on investments, although in reality it is essentially a joint creation as they both consider themselves students and admirers of Benjamin Graham and for 60 years they led Berkshire together as partners, managers and friends.

Warren Buffet

- It is necessary to invest in shares as if you were investing in a company, studying it thoroughly and with the aim of ideally holding it for life (the postponement of taxation on capital gains thanks to compound interest also has a non-negligible effect on returns)
- It is much better to select great companies at a good price rather than good companies at a great price (such as Graham's net-current-asset stocks or cigar-butts) because the former will continue to grow and bring results to the investor while the latter, once the initial gain has been achieved, risk no longer providing many benefits.
- The best companies are those that have a "franchise", that is, they are leaders in a particular market segment thanks to a brand, a way of producing or selling that cannot be easily imitated by others (e.g. Coca-Cola, Geico, Apple, BYD,...)
- When choosing a company, it is essential to look at the ability and integrity of the management.
- It is convenient to buy shares of a major company when a scandal, a big loss or other bad news has tarnished its image, without damaging its intrinsic ability to produce profits.

Charlie Munger

- In investments as in life, to best deal with the most complex problems it is useful to adopt a way of thinking, which is not learned at school or university, which consists in applying the conceptual models developed in various disciplines and from time to time more suitable such as: elementary algebra, probability calculus, double entry bookkeeping, redundancy and engineering breaking points, natural selection, eco-systems, winner takes all, critical mass, economies of scale, cognitive dysfunctions of our brain, Pavlovian associations, subconscious reactions,....
- It is important to invest within your own circle of expertise (this is why Berkshire has never invested in tech stocks with the notable exception of Apple)
- Investments must be selected with great care, analyzing them in depth from every point of view, the opportunities are extremely rare, but to make an investor's fortune a handful is enough for a lifetime and therefore you need to have a lot of patience; however, when it happens that an investment exceptionally passes all the tests you need to act decisively and invest heavily without worrying too much about diversification and keep it for a long time.

4.3.1 Peter Lynch – an original follower of the principles of Value investing

Newton, Massachusetts, January 19th, 1944

Main works :

- «One Up on Wall Street» written in 1989, Italian edition published in 2022
- « Beating the Street » written in 1994
- « Learn to earn » written in 1996

Essential Biography

- When Peter is 7 years old his father was diagnosed with brain cancer, he died 3 years later, his mother had to support the family alone and Peter worked as a caddy to give support
- While attending college in Boston he invested his savings in 100 shares of Flying Tiger Airlines at $7 per share which he then sold for $80 with a profit of 1140% which helped him pay for his studies and he graduated in 1965 at the age of 21 in history; in 1968 he took an MBA from the Wharton School in Philadelphia.
- In 1966 he joined Fidelity Investments as an intern, also thanks to the fact that he had been a caddy for president George Sullivan, and after 2 years of military service he joined Fidelity in 1969 as a permanent analyst and from 1974 to 1977 he became director of research.
- In 1977 he became manager of a small fund, the Magellan Fund with $8 million in assets and when he retired in 1990 at 46 years old, the fund had reached $14 billion with 1,000 positions in the portfolio, obtaining an average annual return of 29.2%, more than double the S&P 500 index in the same period; the most profitable stocks purchased were Fanni Mae, Ford, Philip Morris, MCI, Volvo, General Electric
- After 1990 he continued to work at Fidelity as vice president in charge of training young analysts and dedicated himself to various philanthropic activities, including establishing a foundation that bears his name with $125 million in capital in 2013.

4.3.2 The teachings of Peter Lynch (1/2)

Peter Lynch's Classification of Stocks

- The Slow Growers: they are large and historic companies that grow slightly more than the GDP and that pay a large dividend, often they were fast growers in the past that stopped growing strongly (for example, starting from the 20s of the last century: railways, cars, steel, chemicals, electricity companies, computers, ...); Peter Lynch chose a few of them, 2-4% of his portfolio essentially for the dividends.
- The Stalwarts: large companies that grow 10-12% per year (e.g. Coca-Cola, Procter and Gamble, Colgate-Palmolive,...), if you buy them at the right price and time and hold them for a few years you can make good capital gains of up to 30-50% in 2 years but it is useless to expect more from these companies and therefore, once this level of capital gain is reached, it is better to sell the stock and look for another; it is good to have a good share of these stocks in your portfolio (10-20%) because they offer good protection during periods of recession and stock market drops.
- The Fast Growers: small, aggressive companies that grow 20-25% per year, they are Peter Lynch's favorites (30-40% of his portfolio), here you can find the 10-40 baggers or even the 200-baggers, one or two of these definitely make the difference: it is not said that these companies must belong to a growing sector (ex: Marriot grew in the 80s of the last century at 20% per year in the hotel sector that grew at 2%; other examples are Wal-Mart, GAP, Taco Bell,..); it is very important to monitor them because if they stop growing and become slow growers they are heavily penalized by the market.
- The Cyclicals: companies whose sales and profits go up and down on a regular basis although not completely predictably, such as companies in the automotive, aeronautics, steel, chemical, financial sectors: timing is everything for these stocks and to understand when it is best to enter or exit, working in the same sector in which the company operates is a great advantage (Lynch invested 10-20% of the portfolio here).
- Turnarounds: once healthy companies that have fallen from grace: for example Chrysler (in 1982 Peter Lynch bought them up to 5% of his total portfolio: 15-baggers in 5 years), General Public Utilities, owner of Three Mile Island where there was the first seriuos nuclear accident in the world in 1979).
- The Asset Plays: a company that has a large hidden surplus value that the stock market has not yet discovered, for example a Real estate company that owns properties in an area with great development potential, a company with a large tax loss carryforward,...

How much to invest in stocks

- Since the short-medium term trend is not predictable, you should only invest in stocks what you can afford to lose, without the loss having an effect on your lifestyle in the near future.

You don't have to make money from every stock you own

- It is sufficient that 60% of the investments are successful, because the losses are limited to how much you invest in the stock while the profits have no limits: few big winners are enough to compensate for the losses.

4.3.2 The teachings of Peter Lynch (2/2)

Buying your home with a mortgage is the first investment to be made

- With a mortgage that covers 80% of the value of your home, assuming an increase in value of 5% per year, the annual return would be equal to 25% of the invested capital.
- Another advantage is that unlike a purchase of shares on loan with a 20% margin, the bank does not ask you to top up the invested portion of equity capital if the value of the house falls.

When selecting a company, the most important thing is the profits

- Stock prices fluctuate wherever they want in the short term and it is futile to try to predict them, but in the long term only earnings growth matters: in the absence of surprises, the performance of a stock after 10-20 years is relatively predictable while trying to predict what the price of a stock will be in 2-3 years is pointless: trying to predict the correct market timing to buy or sell is therefore a waste of time (see however the story of the cocktail party).
- It is preferable to buy stocks that predict high earnings growth; for example, it is much better to buy a stock with a P/E of 20 and a prospective earnings growth of 20% rather than a stock that has a P/E of 10 and a growth of 10%; to compare stocks it is useful to use the PEG Ratio (=PE ratio/EPS growth).
- It is important to also look at the liquid assets, debt and their variation from one year to the next in the balance sheet.
- Although it is easy to forget, it is important to remember that buying a stock is like buying not a lottery ticket but a share of a company.
- There are a thousand reasons to sell a stock simply by reading the news in the newspaper, because the pessimistic arguments always seem more intelligent than the optimistic ones, but after every fall the stock price has always recovered (it must be said however that Lynch operated in one of the periods of greatest growth of the stock market).

Individual investors have an advantage over Wall Street

- Large financial institutions tend to be conformist in their investment choices and cannot (for example for regulatory reasons) or do not want to (better to follow the herd and make mistakes together than to win alone) invest in new or small companies and therefore their performance tends to be mediocre.
- The individual investor does not have these constraints and therefore, if he acquires particular knowledge about a certain company or a certain sector (because he works in the sector, because he knows well the people who work in the company, because he uses its products,...) and then studies in depth its solidity and financial prospects he could have an advantage even compared to the financial giants.

Section 5

Conclusions

5.1 Conclusions (1/2)

Why invest in stocks

- In Italy, the wealth of Italian families from 2005 to 2023 decreased in real terms by 3.3%; in nominal terms, wealth increased in Italy by 35%, much less than other countries and especially the USA where wealth increased by 140%
- In Italy and the rest of Europe (but with important differences between countries) families invest mainly in bank deposits and real estate while in the USA investments in shares are predominant, a factor which, thanks to the stock market revaluation of recent years, has significantly increase the wealth of American families.
- Pension funds in Italy have grown in recent years but are still underdeveloped: Italy is in 23rd place among OECD countries in the ratio of pension fund assets to GDP.
- the net returns of the last 10 years of equity pension funds have been on average equal to 4.2-4.5%, more than 2-3 percentage points compared to all the other lines of investments (guaranteed, bond, balanced) and to the revaluation of the TFR; no equity fund has generated a result lower than 2% and there is a clear positive correlation between the level of returns and the share of stocks held.
- Analyzing the actual results of the US market from 1897 to 2024, we calculate that stocks have obtained an average return on a ten-year basis of 9.8%, far superior to all other asset classes (residential Real estate in second place with 7.6%)
- Compared to bonds, which are mistakenly considered a safe asset, stocks have a 10-year Sharpe ratio of 1.1 versus 0.35 for bonds and therefore have a much better risk-return profile than bonds.

5.2 Conclusions (2/2)

How to invest in stocks

- The first choice to make is to identify how much to invest in stocks based on your liquidity needs in the short and medium term: if you are not willing to leave the capital invested in stocks for at least 5 years it is better not to buy them.
- The second choice to make is the time and effort you want to dedicate to the stocks.
- If time and effort are limited, it is better to invest about 50% in stocks and the rest in 5-year bonds (BTP, bonds of well-known and solid companies); for the choice of stocks it is best to seek advice from a professional or if you want to do it yourself, it is more convenient and efficient to invest in an ETF that invests in the global, European, American, Italian market, ...; as regards timing, the best thing is to invest the same amount every month/quarter.
- If you have more time and are willing to commit seriously, you can expect a higher return by investing 25% to 75% of your capital in stocks, increasing or reducing the shareholding based on the level of market prices: to understand at what point in the market cycle you are, a good indicator is the Shiller P/E ratio which divides the price of the S&P 500 index by the earnings, adjusted for inflation, over the last 10 years.
- Even the enterprising investor (who is not inherently more intelligent than the defensive investor) can simply buy equity ETFs but could aim to achieve a higher return by choosing individual stocks instead, provided he has the appropriate skill, time, commitment, and discipline.
- Selecting individual stocks is like doing due diligence before buying a company and therefore you need to have a lot of patience, start from many potentially good ideas (the best are those that come from direct knowledge of the company, its products, those who work there, ..) and subject them to in-depth research by analyzing balance sheets, industrial plans, markets and competition and only when you are very convinced, proceed with the purchase and then remain firm and disciplined in your decision, even if mister market will probably make you suffer at the beginning.
- The ideal, except for cyclical stocks and those where you honestly admit you got your analysis wrong (it will certainly happen more than once), is to hold the stocks at the limit for the life to make the most of the power of compound interest, while benefiting from the deferral of capital gains taxation.

Thank you !

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