Index Investing

Time in the market, diversification and compounding: the trio to long-term wealth

Summary

1. Why this presentation?
2. The power of compounding
3. The importance of having an emergency fund
4. Taxes on investments in Belgium
5. Inflation
6. What you can do with your extra money
7. Deep dive into exchange-traded index funds
8. Questions

Why this presentation?

It’s typically not taught in school, or by parents…

…yet the sooner you start, the more you have to gain

Disclaimer

This presentation is *not* investment advice

You should cross-check any information presented and make up your own mind

The power of compounding

A 5% return doesn’t seem like much… until it snowballs

The effect of compounding

150 € monthly (25-65) vs 200 € monthly (35-65)

Amount invested (early start) | Amount invested (late start) | Investment value (early start) | Investment value (late start)

500 000,00 €
400 000,00 €
300 000,00 €
200 000,00 €
100 000,00 €
0,00 €

Age

Portfolio at retirement: 164k € vs 223k € (+36%)

Safeguarding financial growth
The importance of an emergency fund

Before even thinking of investing, you need an emergency fund:

- 6 months of expenses
- Any planned short-term big expenses

Without an emergency fund, you might be forced to sell your positions at a loss

Your emergency fund is your top priority!

Taxes on investments in Belgium

- Stock exchange transactions: 0.12-1.32%
- Dividends from stocks* and interest from bonds: 30%
- Investment accounts ≥ 1M €: 0.15%/year
- **No tax on capital gains**

* the first 800 € of stock dividends are exonerated (does not apply to funds)

Inflation

- Encourages spending and investing
- Stimulates the economy (when not extreme)

Lookback period	Average inflation per year
50 years	4.4%
40 years	2.4%
30 years	2.2%
20 years	2.4%
10 years	2.5%

What to do with your extra money?

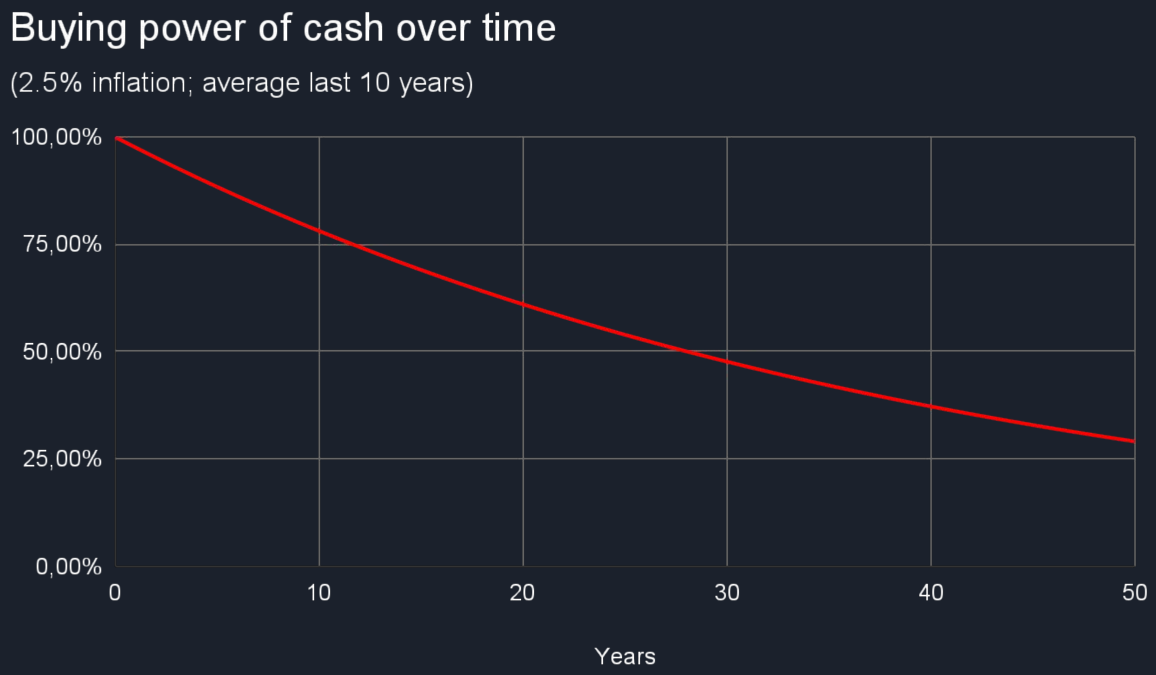
Option 1: stash it under your mattress

- Not insured
- Interest rate: 0%

→ You lose to inflation (and maybe bed bugs, too)

What to do with your extra money?

Option 1: stash it under your mattress



What to do with your extra money?
Option 2: put it in a savings account

- Theoretically insured up to 100k €/bank
- Interest rate: 0.86%/year* over the last 10 years
  → You still lose to inflation, just a bit less

* assumes the interest rate on your account accrues *monthly*, using the average interest rate of the previous month (source: https://stat.nbb.be/, MFI interest rates for deposits in EUR)

What to do with your extra money?

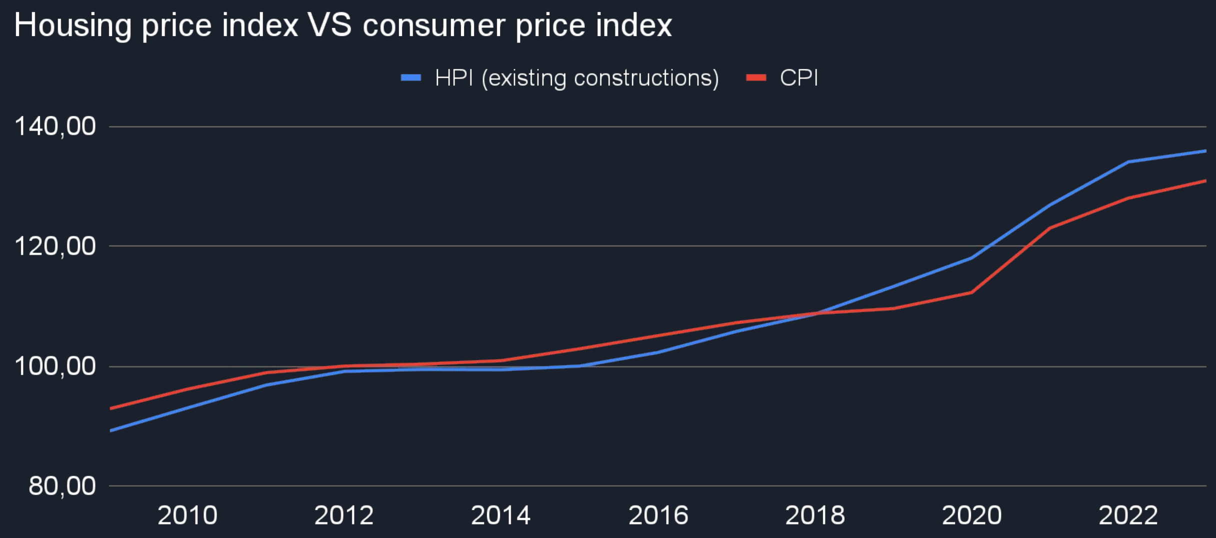
Option 2: put it in a savings account

What to do with your extra money?
Option 3: real estate

- Only interesting with a mortgage because it allows you to keep funds to invest
- Depreciating asset (maintenance = ~1% of purchase price/year)
- Sizeable transaction costs (registration rights + notary fees)
- Once your loan is repaid, your positive cash flow increases
- Keeps up with inflation… not accounting for maintenance

What to do with your extra money?

Option 3: real estate



What to do with your extra money?

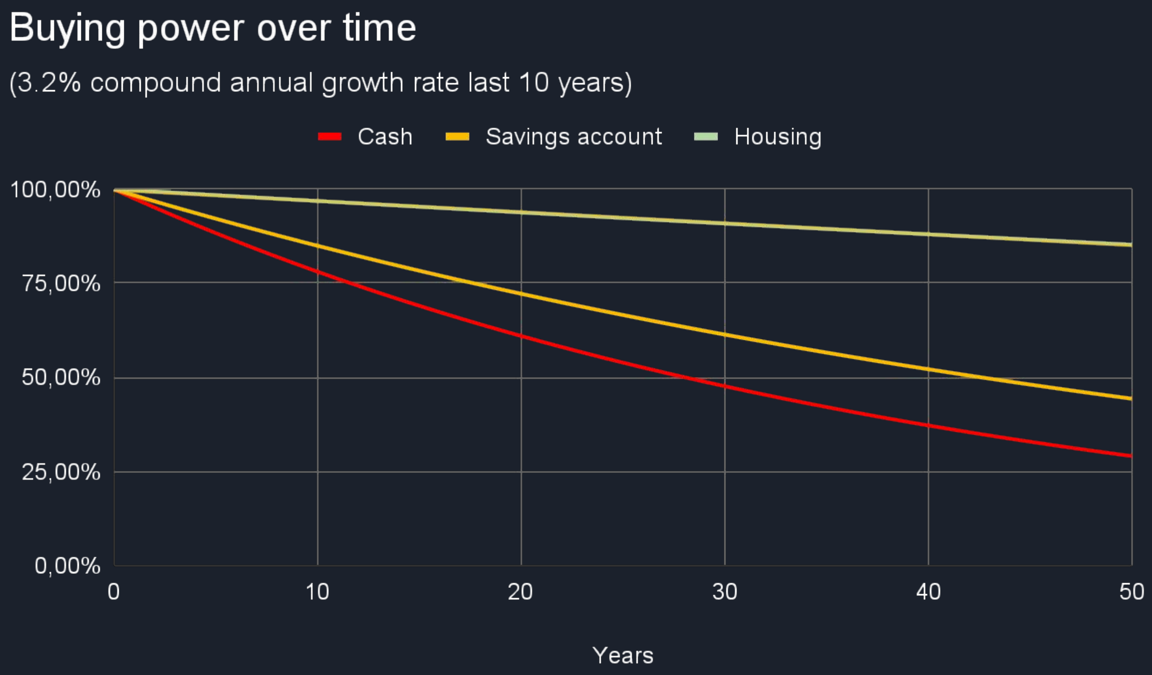
Option 3.1: buy a place to live

- No more rent to pay (and no more indexations!)
- No more landlord to deal with
- Diminishes your costs once retired
- Depending on the area, likely to perform worse than the stock market

⇒ not a direct financial investment, rather an investment in a roof over your head

What to do with your extra money?

Option 3.1: buy a place to live



What to do with your extra money?

Option 3.2: buy a place to rent

- Tenant possibly pays for mortgage
- Tenant risk (non-payment, damage, ...)
- Potential vacancies
- Management requires time
- Property taxes & insurance costs
- Not a liquid asset

What to do with your extra money?

Option 4: pick stocks

- Owning 100 different stocks ≠ diversified portfolio
- Nobody knows where a given stock is headed
- Let’s assume doing your research worked:
    - doing it for all companies in a diversified portfolio is impossible
    - the costs of buying and selling many different stocks stack up
- Dividend tax above 800 € of dividends/year
  → 30% of money that could be reinvested is lost

What to do with your extra money?

Option 5: put it in a mutual fund (1)

What to do with your extra money?
Option 5: put it in a mutual fund (2)

- No taxes except if ≥ 10% bonds
- Nobody knows where a given stock is headed…
  including fund managers

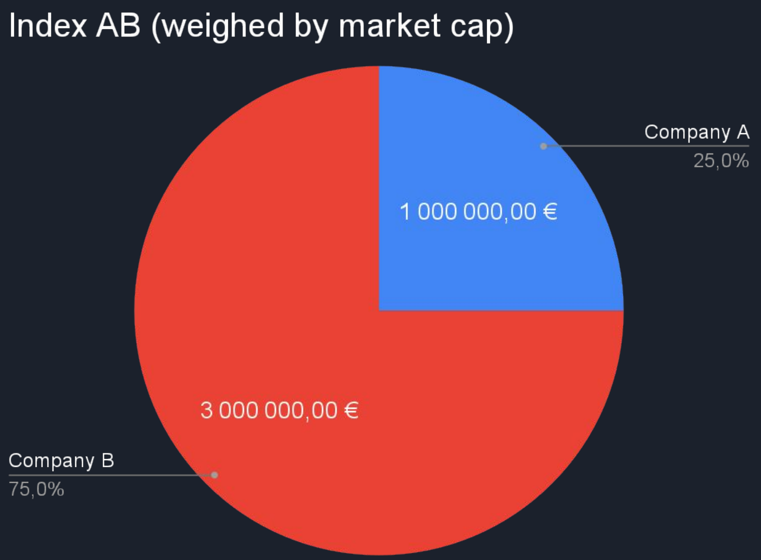
The average fund manager cannot be better than the market average; they *are* the market

Interlude: what’s an index?

- An index is a list of stocks and/or bonds
- Can track a sector, a country, …
- Can be weighed:
    - Equally: for 100 stocks, each stock has a 1% weight
    - By various metrics: dividends, earnings, sales, …
    - By market capitalisation (most common)
    - …

Interlude: what's an index?

Company A: market cap 1M
Company B: market cap 3M



Example: the S&P 500 ⇒ top-500 US companies by market cap

What to do with your extra money?
Option 5: put it in a mutual fund (3)

Standard & Poor’s SPIVA scorecards compare actively managed funds to a comparable index

Imagine a race with 2 categories of runners:

The active	The passive
Fund managers trying to pick the best stocks	A machine running at a steady pace = index tracking

1. Take a snapshot at different points during the race
2. Record the proportion of fund managers running behind their index at each point

What to do with your extra money?

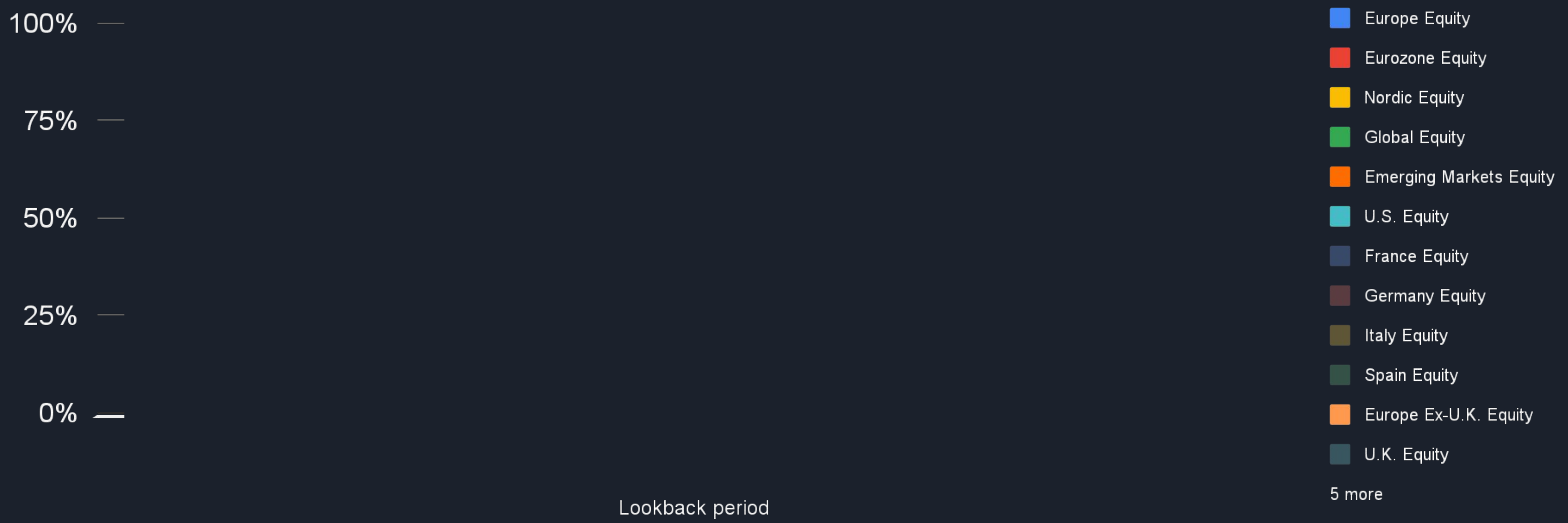
Option 5: put it in a mutual fund (4)

Source: [S&P SPIVA US Mid-Year 2023 Scorecard, page 9]

What to do with your extra money?

Option 5: put it in a mutual fund (5)

Percentage of EU Equity Funds Outperformed by Their Corresponding Index



Source: [S&P SPIVA Europe Mid-Year 2023 Scorecard, page 8]

What to do with your extra money?

Option 5: put it in a mutual fund (6)

But wait, it gets worse…

What to do with your extra money?

Option 5: put it in a mutual fund (7)

Two main reasons for underperforming the market:

- Trying to outsmart it
- High stock turnover ⇒ high internal transaction costs

Customers get even lower returns:

- Annual costs (0.38-2.75% in management & advertising fees)
- Purchase/sale fees (can be as high as 5%)

What to do with your extra money?
Option 5: put it in a mutual fund (8)

Imagine MarketFund™:

- Performs exactly like the market
- Total expense ratio (TER): 1%
- 20-year gross return: 8.38% per year
  → Net return: 7.38% per year

Let's invest 10k €:

- 8.38%/year over 20 years ⇒ 50k €
- 7.38%/year over 20 years ⇒ 41.5k €

The manager made off with **21%** of your gains!

With a market return of 3%, it would have been 40%…

What to do with your extra money?

Option 6: buy cryptocurrencies

- Highly volatile
- Lots of bullshit projects
- Secure long-term storage is a complex topic
- Cashing out can be complex depending on bank
- Taxation is getting clearer, but not straightforward yet
- Can be a small part (< 10%) of a diversified portfolio

The usually overlooked option:

Index funds

Exchange-traded index funds

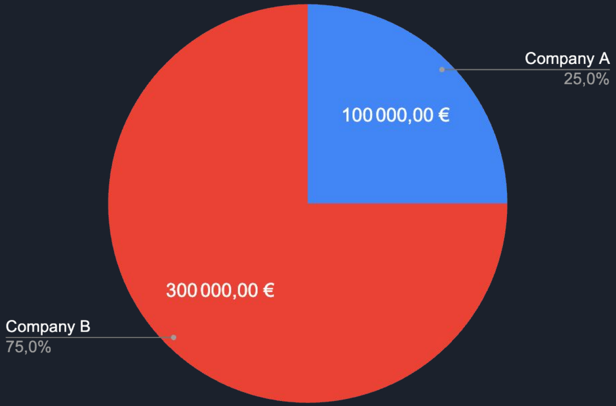
How and why they work (1)

Index AB:

- 25% Company A (1M)
- 75% Company B (3M)

Index AB (weighed by market cap)

Fund AB (400k €)



Exchange-traded index funds

How and why they work (2)

Company A triples its share price
⇒ new Company A market cap = 3M €

Index AB (weighed by market cap)

Fund AB (600k €)

Exchange-traded index funds

How and why they work (3)

ETFs:

- Track an index that is often weighed by market cap
  → no internal rebalancing necessary = less costs
- Trade on an exchange like any other asset
  → no third-party human involved in transactions = less costs

⇒ Annual costs are often ~0.20%

Exchange-traded index funds

How and why they work (4)

But isn't investing in the stock market risky?

All investments carry risk, but…

- As a whole, companies innovate and grow:
  - generates profit
  - translates to stock value and dividends
- In a portfolio, a minority of positions generate the bulk of the returns (Pareto principle)

  ⇒ makes picking winners virtually impossible

  ⇒ diversify, diversify, diversify

- If the whole economy crashes, you've got other problems to worry about

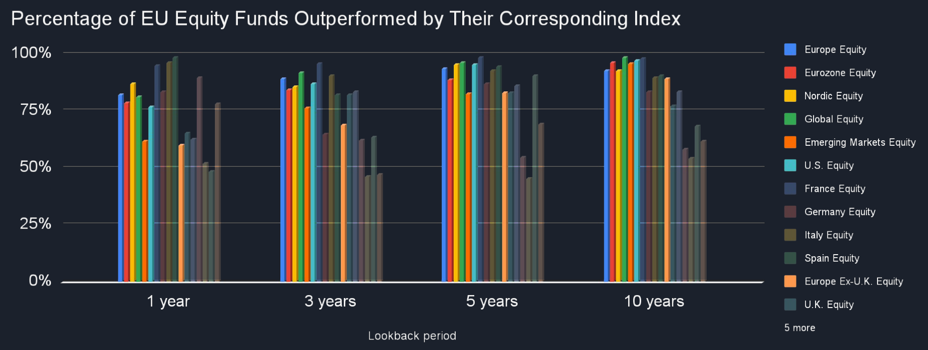
Exchange-traded index funds

A quick note on diversification

- Spreads risk across stocks
- Spreads risk across countries and sectors
- Increases your chances of holding the best performers
- Mitigates volatility

Exchange-traded index funds
How and why they work (5)

Remember this?



When you buy a broad-market index fund, these are the chances you will perform better than expensive fund managers who "know what they are doing"

Exchange-traded index funds

Historical performance of developed world and emerging market indices

Developed world index history

Tracks 1515 developed world positions

Average annual growth: 12.3%

Emerging markets history

Tracks 3200 emerging markets positions

Average annual growth: 5%

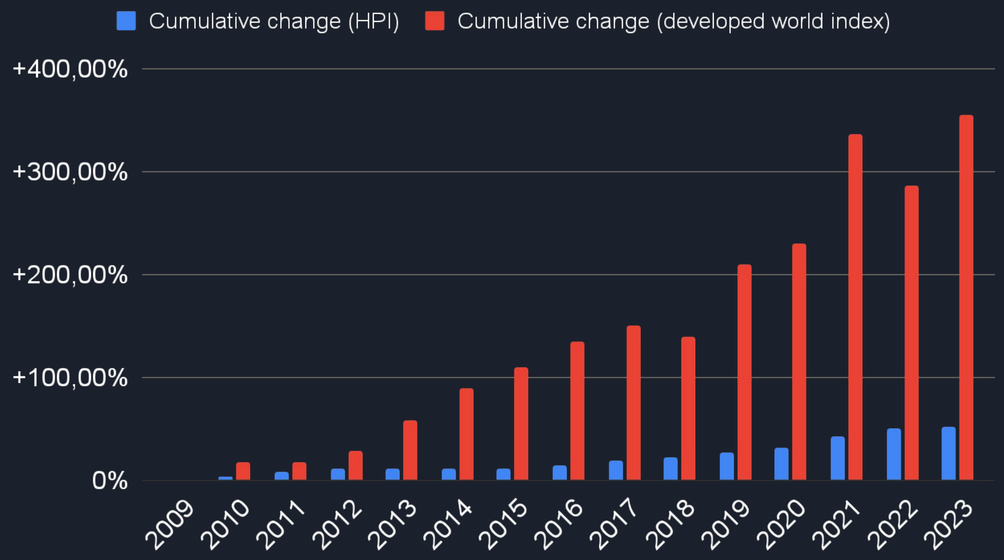
Exchange-traded index funds

Historical performance of developed world and emerging market indices

Average annual growth: 11.1%

Exchange-traded index funds

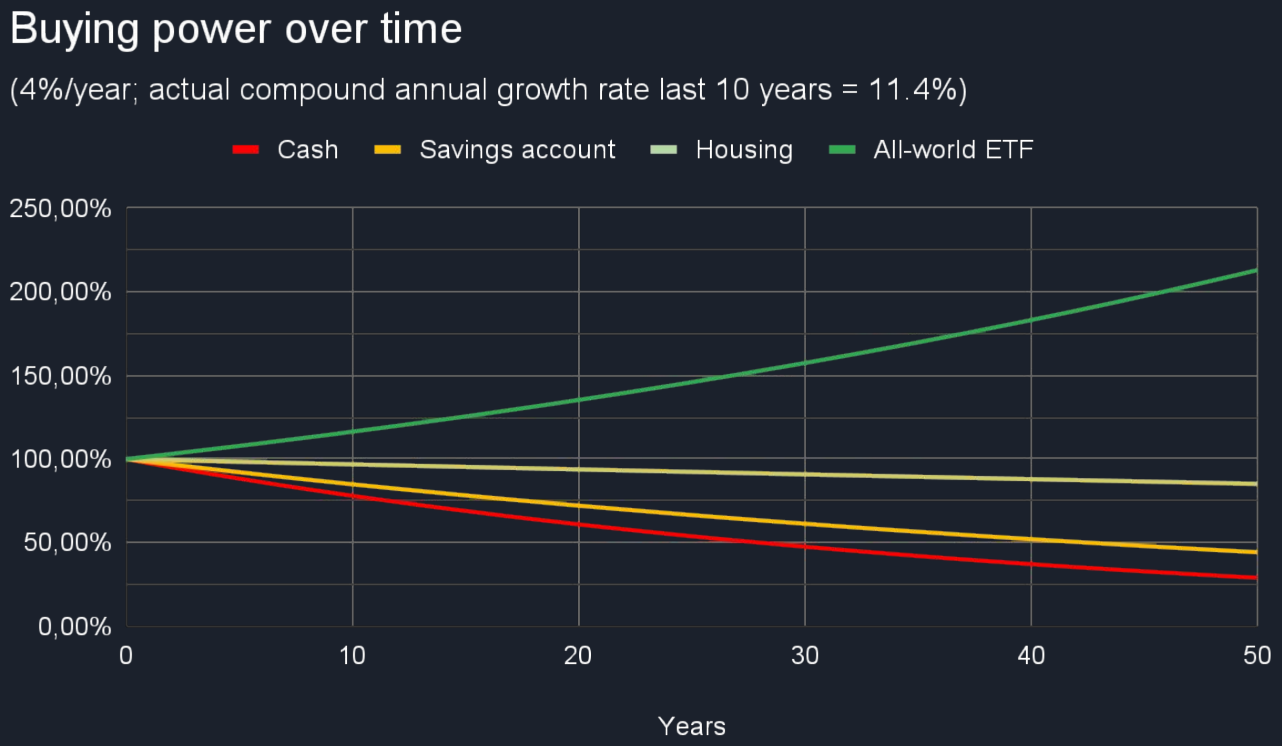
Performance of housing price index VS developed world index



Had you invested a lump sum in 2009, this is how it would have accrued in value over the years

Exchange-traded index funds

Performance comparison



Exchange-traded index funds

Taxation

What about taxes?

- ETFs domiciled in Ireland diminish taxation at the source
- If not registered in Belgium: 0.12% tax on transactions instead of 1.32%
- Accumulating ETFs reinvest dividends directly
  ⇒ paid into the fund and not directly to you ⇒ not taxed
- **No tax on capital gains**

Exchange-traded index funds

Recap

- High diversification
  ⇒ minimal risk, average returns
- Minimal costs
  ⇒ more money to compound
- Dividends are reinvested directly (for accumulating funds)
  ⇒ less taxes ⇒ more money to compound
- Low maintenance (buy & forget)

Okay but... what's the point?

1. Peace of mind
2. Options:
    - Complement your state pension
    - Retire once you achieve financial independence (aka FIRE)
    - Reduce your work time at some point
    - Build a legacy for your children, or perhaps a charity of your choosing
    - ...

Time in the market

The trio to lasting wealth

Diversification

Compounding

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Questions?

Further reading

Recommended books:

- The Little Book of Common Sense Investing — John C. Bogle
- The Psychology of Money — Morgan Housel
- Millionaire Teacher — Andrew Hallam
- The Four Pillars of Investing — William J. Bernstein

Reddit:

- /r/BEFire (wiki)

YouTube:

- Ben Felix