## Target-Date Funds

Target-date funds (TDF) are an investment fund option whose portfolio asset allocation changes dynamically in the predetermined time frame (Miller et al., 2011). The funds are usually offered in five-year increments (e.g. 2015, 2020, 2025). For pension saving purposes, the target date is the expected year of the retirement. The funds offer a managed portfolio strategy that should remain appropriate to investor’s risk profile, even if it is left unreviewed (van Bilsen et al., n.d.). Target date fund is a fund of funds, where the portfolio is commonly diversified among stocks, bonds and cash (Bodie & Treussard, 2007).

Target-date funds are popular retirement investment vehicles in the US. Between the years 1997-201, the number of TDFs has increased from 9 to 632, total assets under management has grown from $1.1 billion to $1.1 trillion, and net new cash flow went from $128 million to $67.6 billion (Kilgour, 2019). The Pension Protection Act (PPA) of 2006 resulted in widespread adoption of TDFs as the default option in 401(k) retirement plans (employer-sponsored defined-contribution pension account) with automatic enrollment (Sandhya, n.d.).

TDFs offer a “glide path” portfolio, where in the beginning of the investment period the weight of the risky assets such as equities is high, and it gradually shifts more towards safer fixed-income assets when the target date approaches. The strategy of switching out of equities with time is also known as lifecycle investing (Basu et al., 2011). The asset allocation strategy in TDFs is commonly: equity 100% - the age of investor (Mantilla-Garcia et al., 2020). One element of the TDF investment strategy is whether this “glide path” adjustment of the investment portfolio is “to” or “through” the expected retirement date. If it is “to”, the plan stops at that point and remains in a very conservative approach to protect the principal. If it is “through”, then the plan will probably adopt a U-shaped strategy that reduces equity holdings to the retirement date and then increases them beginning at some point during retirement (Kilgour, 2019).

When investors start to save into the fund at young age, the fraction of equities is high, since in the case of a market crash, it is assumed that young people have time to recover from the losses and therefore can be invested in more riskily. On the other hand, older people who are close to retirement don’t have time to recover from losses and the total amount of money they have invested into funds is generally much higher than the younger people. Therefore, the asset allocation near the retirement should be less risky (Forsyth et al., n.d.).

There are other viewpoints, too. Typical regular contributions are normally a fixed percentage of the salary. In the beginning of the career, the employee’s contributions are small and grow larger in the later years. Therefore, to maximize the retirement fund’s returns, it could be beneficial to invest more in the equity in the later phase (Basu et al., 2011). Other studies by Basu and Drew (2009) Arnott et al (2013) Estrada (2014) argue, that the amount of equity during the lifetime of the investment period should follow a U-shaped pattern, meaning that in the beginning and end the fund should be heavily invested into equity, and less in the middle. If during the investment period there is a financial shock, the total returns of fund are not necessarily enough to last through the retirement. Another argument is that if the shock is at the end-side of the investment period when the amount of equities in the portfolio is low, the fund doesn’t benefit much of the following market recovery phase. However, the studies don’t take into account the possibility of a new financial shock near the retirement age, which could mean even greater losses.

**Suitability for retirement – for**

First, investing into retirement target-date funds is easy due to automatic enrollment and re-enrollment when changing job. Employees just need to choose the risk-level of the investment, and then the contributions are automatically deducted from their salary. Second, the fund’s portfolio managers take care of the investment decisions on behalf of the investor. This ensures that people who don’t know or don’t want to make active investment decisions, have their money invested according to their risk appetite, usually with the automatic reduction of stocks as time passes (Bodie & Treussard, 2007). Third, the 401(k)-retirement plan contributions can be deducted from the taxes. This makes it economically beneficial for employees to invest into, and encourages them to save for the retirement.

**Suitability for retirement – against**

First, there is no guarantee of the safety of the investment. Target-date funds don’t generally provide an annuity, and there are no guarantees on the returns (Mantilla-Garcia et al., 2020). This was evident in the 2008 financial crisis, where target-date funds experienced severe losses. If investor wants to have a less-risky investment vehicle, he or she needs to do active investment decisions, either choosing a safer target-date fund or another way of saving. Second, target-date funds are not necessarily an optimal way of retirement saving. Target-date funds apply a deterministic strategy, meaning they only consider the time remaining until target date in their portfolio composition (Forsyth & Vetzal, 2019). Adaptive investment strategies, that take into account the accumulated wealth, could perform better and be less risky than the deterministic strategy (Forsyth et al., n.d.) (Basu et al., 2011). However, the results of the authors are based only in statistical models. Third,

Not tailored, one-size-fits-all

One explanation is that TDFs could be unattractive because the simple age‐based rule is not personalized to individual preferences and circumstances (Ameriks, Hamilton, & Ren, [**2011**](https://onlinelibrary-wiley-com.vu-nl.idm.oclc.org/doi/full/10.1002/bdm.2122#bdm2122-bib-0002); Kim, Maurer, & Mitchell, [**2016**](https://onlinelibrary-wiley-com.vu-nl.idm.oclc.org/doi/full/10.1002/bdm.2122#bdm2122-bib-0055)). For example, conservative cash investors or aggressive equity investors may find TDFs inconsistent with their preferences (Pagliaro & Utkus, [**2017**](https://onlinelibrary-wiley-com.vu-nl.idm.oclc.org/doi/full/10.1002/bdm.2122#bdm2122-bib-0065)).

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TDF strategy unoptimal, people have different risk aversion

(Bodie & Treussard, 2007)

Description: “one-stop” or a “set it and forget it” retirement portfolio solution

Description: In retirement planning, the period of time beginning from when an individual starts working and saving for retirement up until the retirement date is termed the “accumulation phase.”

Popularity: TDFs were explicitly identified as a default alternative or “safe harbor” investment class where un-allocated employee DC contributions could be directed (Cusano, 2019)

Dataset: late 2017

Retirement income not taken into account (Garcia 2020), muita maita kuin usa tosin