

Behavioural Insurance:
The impact of having (too) many options
on choosing social security

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1 Summary

“The fact that some choice is good does not necessarily mean that more choice is better”

- Barry Schwartz, *The Paradox of Choice*

In many countries individuals can choose whether they want to obtain coverage in addition to the public provision of insurance, e.g. for retirement. In the US, for example, 401(k) plans exist as an employer-sponsored private retirement savings model. With 401(k) retirement plans, the employer decides what options to offer; the employee chooses on an option and how much they want to contribute. In addition, there can be a variety of possible investment types within a plan. This freedom of decision facilitates portfolio diversification, but also increases complexity. Allowing for more choice may thus have detrimental effects. Iyengar, Jiang & Huberman (2003) point out that while the average plan increased the number of investment options available between 1998 and 2001, participation rates were declining.

An underlying question here is what cognitive-motivational effects offering choice has. Theoretical and empirical findings from psychology indicate that freedom of choice can be motivating. This fits with the economic “love of variety” assumption. However, too much choice can be overwhelming. A “choice overload” can reduce both the motivation to make a decision and the satisfaction with the decision later on. A potential mechanism here is that with more choices available the feeling of responsibility for making a good choice increases. More choices may also lead to the perception that a decision requires (too much) expertise. In short, choosers may feel overwhelmed with complex choice-making processes.

To empirically investigate whether “choice overload” effects exist with regard to choices about retirement insurance Iyengar et al. (2003) examine the association between the number of funds offered and the likelihood of employees’ participation with cross-industry data.¹ They find a negative correlation: In plants with more options to choose from, fewer employees take up any offer.

The recommendation derived from this finding is that limiting the number of options to a few is desirable. Alternatively, a firm could declare a “default” option in which employees are enrolled automatically, unless they opt out or choose a different plan. This could also address the issue that many fail to inform themselves.

Cronqvist and Thaler (2004) address the relevance of default settings in more detail. Taking the rollout of private social security in Sweden as an example, they discuss how well-intentioned design choices can result in undesirable choices.

The features of this plan seem desirable from a standard neoclassical economic perspective. There are many options, few restrictions. Participants could choose a default portfolio or make an active choice. The Swedish government specifically encouraged the

¹Employee and plant level characteristics are controlled for in the analysis.

latter via an advertising campaign. To form their own portfolio, participants could select up to five funds from an approved list containing a total of 456 options. Information about each fund was available. Participants could change balances and future contributions at any time. Funds set their own fees and were allowed to advertise.

Policy makers have a variety of choices in designing such a choice architecture, for instance with respect to default settings. In the case of Sweden, a default was set, but participants were discouraged from choosing it. When the program started in 2000, the majority of participants (66.9%) made an active choice. This share decreased in subsequent years. The government also reduced spending on the marketing campaign after the initial rollout phase. Comparing characteristics of the mean actively chosen portfolio (MACP) and the default portfolio indicates that active choices were likely influenced by biases and heuristics. For instance, a striking feature of the MACP is a strong preference for equities (96.2% vs. 82% in the default portfolio), especially for Swedish ones (48.2% vs. 17%). This indicates a home bias, and also suggests that timing matters. Among the actively chosen funds, the one with the largest market share was a fund primarily investing in technology. While this fund had performed surpassingly up until the introduction of the Swedish plan, it decreased in value after the dotcom bubble reached its peak in 2000. This illustrates that *when* a choice architecture is introduced can have a strong effect on *how* people choose, especially when individuals do not change their initial portfolio. In fact, later adoptions of choices were rare.

Similar to Iyengar et al. (2003), Cronqvist and Thaler (2004) conclude that offering fewer options increases welfare. Such a limitation can guide ill-informed or poorly motivated individuals to better choices, but will not (or only insignificantly) affect more sophisticated others. Further, it could reduce administrative costs and potentially also fees, and limit the impact of private advertising.

2 Discussion

Considering heuristics and biases is key to understand behavioural problems in insurance such as why more options may result in more sub-optimal choices or in no choice at all. Systematic deviations from the optimal choice can arise due to complexity in several aspects. For instance, decisions about retirement savings require a trade-off between present and future. Assessments of risk and uncertainty are necessary. And as choosing a retirement plan is a rather infrequent choice, there are few benchmarks or learnings. All of these aspects may contribute to the emergence of overload as described by Iyengar et al. (2003). This is also consistent with the idea of Iyengar et al. (2003) that the “choice overload” is particularly severe when stakes are high, i.e. when the costs associated with making a suboptimal choice are grave.

The Swedish case study exemplifies further biases. Individuals opting for a large num-

ber of equities in the MACP relative to the default fund, and investing in technology shares in particular, could be interpreted as an extrapolation bias or also an availability bias. Likely Swedish participants had frequently heard about the boom in technology equities from 1995 onwards and could therefore easily think of successful technology firms. Further, individuals rarely changing their selected portfolios despite poor performance indicates a status quo bias or endowment effect.

Whether it was the government's advertisement efforts, the marketing effort by the providers or something completely different that resulted in the majority of participants selecting their own portfolio in 2000, will be difficult, if not impossible, to assess. However, it is likely a fair assumption that individuals are particularly susceptible to persuasion when in a new, complex and stressful situation. This (supposedly well-intended) help could be a default setting, another person's suggestion or choice, or the promises of a provider.

Exactly in these choice situations, soft interventions in the sense of liberterian paternalism may be welfare-enhancing. After all, nudges are needed most in decision problems of high complexity, with low frequency, limited (immediate) feedback about consequences, high levels of uncertainty, postponed costs. In short, decisions such as saving or retirement provision. Setting a default option, e.g. for a 401(k), is arguably an easy intervention and relatively cheap to avoid. It thus qualifies as a helpful nudge. Are there also adverse effects? A common criticism claims nudges are manipulative. As already shown in the example of the default setting, a choice architect is powerful. Conflicts of interest are imaginable. In the context of 401(k) plans, for example, companies construct a choice architecture, e.g. by choosing which options to offer or setting a default. In doing so, they are arguably not neutral, but could, for example, try to place their own shares as profitably as possible. This is where transparency as a guideline comes into play.

In sum, as humans are not econs and may make sub-optimal decisions when there are too many options, nudging can help to navigate between "analysis paralysis" and "extinct by instinct".

References

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