

# Popular Personal Financial Advice<sup>\*</sup>

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## Abstract

I survey the advice given by the fifty most popular personal finance books and compare it to the prescriptions of normative academic economic models. Popular advice frequently departs from normative principles derived from economic theory, which should motivate new hypotheses about why households make the financial choices they do, as well as what financial choices households *should* make. I cover advice on asset allocation, savings rates, the advisability of being a wealthy hand-to-mouth consumer, non-mortgage debt management, simultaneous holding of high-interest debt and low-interest savings, and mortgage choices.

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One of the tasks of economists is to create normative models of household financial choices. But professional economists are far from the only source of financial advice in the world. Popular authors such as Robert Kiyosaki, Suze Orman, and Dave Ramsey have sold millions of books on personal finance and dispense financial advice to millions of people through other media channels as well.<sup>1</sup> These authors are arguably more influential than economists are; Chopra (2021) finds that exposure to Dave Ramsey’s radio show, which promotes high saving rates, reduces household spending by at least 5.4%. Furthermore, the logic of market share in a competitive environment suggests that these media figures might offer better advice than economists do.

In this article, I survey the advice given by the 50 most popular personal finance books as ranked by the website Goodreads on May 2019 (listed in Appendix Table 1) and compare this advice to the prescriptions of economists’ normative models.<sup>2</sup> Three of the books contain no advice on the topics I focus on, resulting in a final sample of 47 books written by 35 author teams (a solo author is counted as a team of one). To summarize, I find that popular advice frequently departs in systematic ways from normative principles derived from economic theory.

Understanding popular personal financial advice is interesting for several reasons. First, popular financial advice may help us interpret why the financial choices we observe empirically arise. It is plausible that some choices that depart from economists’ theoretical predictions are being driven by the reasoning and recommendations described by popular authors.<sup>3</sup> Second, even if popular financial advice is not exactly optimal, it may be second-best in a way that illuminates the constraints faced by individuals. Third, popular advice might contain valuable normative insights that economists have overlooked. For example, Canner, Mankiw, and Weil (1997) observed that popular advisors recommend that the ratio of stock to long-term-bond holdings in one’s portfolio decrease as risk aversion increases. This advice contradicts the classic mutual fund separation theorem (Tobin 1958; Markowitz 1959), which recommends that this ratio be the same for all investors, with risk aversion being accommodated by adjusting how much cash is held.

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<sup>1</sup> Robert Kiyosaki’s *Rich Dad Poor Dad* has sold 32 million copies since 1997 (Lisa 2021). Suze Orman’s website says that she has sold over 25 million copies of her books. Dave Ramsey’s *Total Money Makeover* has sold 1.5 million copies since 2013 (NPD, 2020), his website reports that his radio show attracts 18 million listeners per week, and uploads of his radio show to YouTube have been viewed 647 million times (Chopra 2021).

<sup>2</sup> Goodreads ranks these books by the number of its users who have placed the book in their virtual “personal finance” shelf.

<sup>3</sup> Respondents to surveys conducted by Choi and Robertson (2020) and Bender et al. (2021) rate “advice from a book or an article I read, or somebody on TV, radio, or the internet” as one of the least important factors for determining their portfolio’s equity share. However, individuals’ choices could be driven by lay reasoning that is *reflected* in the authors’ writings, even if they are not causally affected by the authors.

Canner, Mankiw, and Weil (1997) were unable to reconcile the popular advice with investor rationality. However, Brennan and Xia (2000), Campbell and Viceira (2001), and Wachter (2003) later showed that long-term bonds are the risk-free asset for long-term investors; cash is in fact risky for long-term investors because it must be reinvested each period at a stochastic short-term interest rate. Therefore, the ratio of stock to long-term-bond holdings *optimally* decreases with risk aversion, consistent with popular advice.

I begin by covering advice on asset allocation—the fraction of one’s financial portfolio that should be invested in stocks, market timing and dollar-cost averaging, securities that pay dividends or interest, equity styles (colloquially known as “smart beta”), international diversification, and active versus passive mutual fund investment. Next, I survey advice on choosing savings rates over the lifecycle, as well as the advisability of being a wealthy hand-to-mouth consumer who has substantial illiquid assets such as housing but almost no liquid wealth. The third section summarizes recommended strategies for managing non-mortgage debt—in particular, which debts to prioritize repaying, and whether simultaneously holding low-interest-earning assets and high-interest debt is a good idea. The final section covers advice about mortgage choices—fixed-rate versus adjustable rate, the size of the down payment, maturity, paying principal ahead of schedule, and refinancing.

## **Asset Allocation**

### **Equity Share of the Financial Portfolio**

Investment time horizon is of paramount concern in popular financial advice. Thirty-one of the 45 books that offer some form of asset allocation advice (representing 23 of the 33 author teams that offer asset allocation advice) assert that stocks become less risky as the holding period increases.<sup>4</sup> For example, Ramsey (2013, p. 145) writes that stocks “are lousy short-term investments because they go up and down in value, but they are excellent long-term investments when leaving the money longer than five years” because “one hundred percent of the fifteen-year periods in the stock market’s history have made money.” Bogle (1999, p. 13) notes, “The longer

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<sup>4</sup> Several authors appear multiple times in the sample. Authors not infrequently contradict themselves, even within the same book, and sometimes subjective interpretation is required to discern what they are ultimately advising. When a book offers both an argument for  $X$  and *not*  $X$ , and I judge that it is more strongly advising  $X$ , I classify the book as advising  $X$ . If an author advises  $X$  in one book and *not*  $X$  in another book, I count the author as advising both  $X$  and *not*  $X$ . My classifications of each book’s advice, along with the relevant textual excerpts, are available in the AEA Data and Code Repository.

the time horizon, the less variability in average annual [stock] returns,” and Bogle (2017, p. 20) writes that although “I have almost no idea how to forecast these short-term swings in investor emotions... largely because the arithmetic of investing is so basic, I have been able to forecast the long-term economics of investing with remarkably high odds of success.” Four books express a belief in mean reversion of stock returns by likening stocks to being “on sale” after a large price decline. Only Bernstein (2017, pp. 15, 70) offers some nuance in the opposite direction, noting that “when you measure risk as the standard deviation of end wealth, stocks actually become *riskier* with time,” even as he notes that “in the long run, stocks will almost always have higher returns than bonds” and that “asset returns have a tendency to ‘mean revert’ over long time periods.”

In contrast, Campbell, Lo, and MacKinlay (1997, p. 80) survey the academic literature and conclude that “there is little evidence of mean reversion of long-horizon [stock market] returns.”<sup>5</sup> Although the market’s price-dividend ratio does, with some caveats, negatively predict future market returns (Stambaugh 1999; Cochrane 2008), a market return realization may or may not accompany a change in the price-dividend ratio. Only returns that change the price-dividend ratio predict future returns. Because about half of annual stock market return movements do not affect the price-dividend ratio (Cochrane 2005), past returns alone are poor predictors of future returns. Barberis (2000) finds that if one takes into account today’s price-dividend ratio and expectations of how it will evolve in the future, the annualized *conditional* variance of future stock market returns does decline with horizon. Conditional, not unconditional, variances are the theoretically relevant consideration for an investment decision. However, Pastor and Stambaugh (2012) argue that an expansive view of parameter and model uncertainty implies that annualized conditional return variance *increases* with horizon.

For popular authors, stock market risk decreasing with holding length leads to the recommendation that stock allocations should increase with investment horizon. Money is often bucketed by when it will be needed, and a different investment allocation is recommended for each bucket. Twenty-eight books written by 22 author teams say that money that might be spent soon should be held entirely in cash. In particular, emergency savings should be held in cash, usually in a bank account. The amount of recommended emergency savings is typically between three and

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<sup>5</sup> Cochrane (2005) shows that from 1926 to 1996, the annualized standard deviation of NYSE returns in excess of the U.S. Treasury bill return is decreasing with holding length when returns are measured in logs, but increasing when returns are measured in levels. In the post-1947 period, the annualized standard deviation is flat or rising with horizon for both log and level returns.

12 months of living expenses. Many authors also recommend that non-emergency savings that will be needed in the near term should be held in cash or fixed income, where “near term” is defined as one year (one book), one or two years (one book), one to three years (one book), five years (seven books), two to seven years (one book), or even as long as ten years (two books).

Longer-term money such as retirement savings is to be invested more heavily in equities, although 14 books by 11 author teams warn against allocating 100% to equities because such a portfolio is too risky and lacks diversification across asset classes. Twenty-six books by 21 author teams recommend that asset allocation become more conservative with age, with seven citing a variant of the “hold 100 minus your age in stocks” rule. Four books by two author teams recommend that *any* money not needed in the near-term be invested in stocks, which implicitly creates a hump-shaped pattern of portfolio equity share with respect to age, since the young have little surplus money that is not needed in the near term and the old are approaching or are in retirement, when they will need to rely on their assets to fund consumption. The inflation rate is mentioned by 11 books (ten author teams) as a reference point that is important to exceed. For example, Tobias (2016, p. 137) writes, “Unlike bonds, stocks offer at least the potential of keeping up with inflation.” Ferri (2010, p. 94) recommends, “Each asset class to be held in a portfolio for the long term should be expected to earn a return greater than the inflation rate.” Following such a decision rule implies that risk-taking will increase when real interest rates become negative.

Economic theory also generally recommends that long-horizon investors hold more stock than short-horizon investors when returns are mean-reverting (Barberis 2000; Campbell, Chan, and Viceira 2003). Wachter (2003) finds that when stock returns are mean-reverting and perfectly correlated with a return predictor (e.g., the dividend-price ratio), the investor optimally breaks up his portfolio into subaccounts for funding each consumption event. Money that is intended to be spent further in the future should be invested more aggressively. This bucketing strategy is akin to the approach popular authors recommend, although money intended for near-term use should not generally be invested entirely in cash. Theory also departs from popular advice in not regarding the *level* of the risk-free interest rate as relevant for portfolio allocation, but only the *difference* between expected risky asset returns and the risk-free interest rate. In other words, one should not become more prone to reach for yield in low-interest-rate environments if risk premia remain unchanged.

A justification for portfolio equity shares that decline with age that does not depend upon return mean reversion lies with human capital (Bodie, Merton, and Samuelson 1992). If labor income is like a bond interest payment that is relatively uncorrelated with stock returns, then a young person has an implicit fixed-income position whose value is usually enormous relative to her financial assets. As the person ages, the present value of future labor income declines because she has fewer wage payments remaining. To offset the decline in implicit fixed-income holdings, the financial portfolio should hold more fixed income over time. Labor supply flexibility also increases the capacity to bear risk in one's financial portfolio, since a low investment return can be mitigated by working more. If the young have more labor supply flexibility than the old, then this is another reason for the young to hold a greater share of stocks in their portfolios than the old. Cocco, Gomes, and Maenhout (2005) find that in a lifecycle model with fixed labor supply, human capital causes an agent whose risk aversion is at the upper boundary of what is usually thought to be plausible to allocate 100% of his portfolio to equities for much of working life. Despite the importance of human capital, only eight books by eight author teams mention it as a relevant consideration for lifecycle asset allocation. All eight indicate that higher future wage earnings increase optimal risk-taking in the financial portfolio, but none explicitly mention labor supply flexibility, instead writing things like, “[the young] can use wages to cover any losses from increased risk” (Malkiel 2019, p. 344).

Popular advice suggests an explanation for stock market non-participation that is, to my knowledge, absent from the academic literature. Only half of U.S. households hold any stock either directly or indirectly via mutual funds or pension funds (Guiso and Sodini 2013). Non-participation is a puzzle for economic theory because under expected utility preferences, everybody should hold at least a small amount of stock provided that their non-stock income is not too positively correlated with stock returns (Haliassos and Bertaut 1995; Barberis, Huang, and Thaler 2006).<sup>6</sup> The fact that stock market participation rises with wealth has caused the existence of fixed costs of participation to become a leading candidate explanation for non-participation (Vissing-Jørgensen 2004). But if many people believe that any money that may be spent in the near term should not be invested in stocks, then low stock market participation rates that rise with wealth are a natural outcome even in the absence of fixed costs.

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<sup>6</sup> Any strictly increasing differentiable utility function is locally linear, so agents with such utility functions should be risk-neutral with respect to a small risk (Rabin 2000).

Popular advice also offers guidance on how to interpret empirical patterns in lifecycle asset allocation. Ameriks and Zeldes (2004) point out that even with perfect panel data, it is impossible to econometrically identify how asset allocation changes with age without imposing a strong identifying assumption because age, cohort, and calendar time effects are perfectly collinear—a person’s age equals the calendar year minus her birth year. Depending on the identifying assumption used, they find that the percent of portfolio allocated to equities is either strongly rising or hump-shaped with respect to age. In contrast to this econometric ambiguity, none of the books in the sample recommends that one’s stock allocation should be everywhere increasing with age, and most recommend stock allocations that decrease with age. The strong weight of popular recommendations suggests that individuals do not have portfolio rules in mind that increase equity share with age.

It is interesting as well that two concepts that are foundational for portfolio choice theory are rarely if ever mentioned by popular authors: diminishing marginal utility of consumption and return covariance with marginal utility.

Economists conceive of risk aversion as being driven by the speed at which marginal utility diminishes as consumption increases. Only five books by four author teams suggest that diminishing marginal utility should be a determinant of one’s portfolio equity share. All five give the impression that diminishing marginal utility is relevant only after one achieves or is close to achieving one’s target wealth level. For example, Ferri (2010, p. 285) writes, “You only take the amount of risk that you need to accomplish a financial objective... There is no need to invest at your peak risk tolerance level once you have accumulated enough assets to easily reach your investment objectives with lower risk.” Bernstein (2017, p. viii) writes, “once you’ve achieved your LMP [a liability matching portfolio with a balance equal to about 25 years of living expenses], you should start de-risking your portfolio.” Ferri (2010), Lindauer, Larimore, and LeBouef (2014), and Bernstein (2017) argue that investors do not know their own risk tolerance—which they define as the ability to not sell one’s stock in a bear market rather than the speed with which marginal utility diminishes—until they have lived through a major market decline. Thus, they recommend that younger investors scale back the risk of their portfolios until they have gained such experience.

Another fundamental driver of asset allocation in economic models is the covariance between marginal utility and each asset’s return; holding fixed the expected return of an asset, investors should be more reluctant to hold assets that tend to deliver low returns when marginal

utility is high. The celebrated equity premium puzzle (Mehra and Prescott 1986) stems from the fact that stocks seem to be an anomalously good deal given their apparently low covariance with marginal utility, as proxied by consumption growth. It is striking that *none* of the popular advice books mentions period-by-period covariance with marginal utility as a consideration for asset allocation. This suggests that consumption-based asset pricing models fail because people simply don't make portfolio decisions with covariances between returns and marginal utility in mind.

The closest any author comes to this notion is a concern mentioned by 11 books (11 author teams) that one might be forced to sell prematurely at a loss. The act of selling plays a central role. Orman (2012, p. 246) writes, "If you don't have the time to leave this money sitting there, it is possible that when you do need to take it out, that need will arise at the worst possible time... One year later, you find the house you want and make the offer, which is accepted—on April 14, 2000, a day the market goes down considerably, and the day you had decided to sell. You will most likely take out far less than you initially put in. If you could have just waited—but you could not, for you needed the money to buy your home." Similarly, Bogle (2017, p. 230) writes, "They must also recognize that volatility of returns is an imperfect measure of risk. Far more meaningful is the risk that they will unexpectedly have to liquidate assets when cash is needed to meet living expenses—often in depressed markets—and perhaps receive less in proceeds than the original cost of the assets." Notice that the concern described by these authors would apply even to risky assets whose returns are uncorrelated with marginal utility, and that it would not apply if other assets were sold to finance expenses while the underwater asset were held. As Robin and Dominguez (2018, p. 292) write, in the minds of popular authors, "The only days you care about an investment's value are the day you buy it and the day you sell it."

### **Market Timing and Dollar-Cost Averaging**

Predictability of stock returns implies that there are gains to timing the market—investing more in stocks when their expected returns are high. Despite general agreement that the expected return of the stock market is time-varying, the usefulness of market timing strategies is controversial among economists (Goyal and Welch 2008; Campbell and Thompson 2008). In our sample of popular books, ten (by nine author teams) say that successful market timing is infeasible, while three (by three author teams) suggest that it is possible by comparing prices to current fundamentals or waiting for sharp market movements.



Dollar-cost averaging is an alternative strategy for investing that ostensibly avoids market timing by buying the same dollar amount of stocks at regular intervals, rather than buying into the market at once. The idea is that this strategy buys more shares when the market is cheap, thus lowering your cost basis, and diversifies your risk across time by avoiding buying all your shares at a single overvalued price. Economists take a dim view of dollar-cost averaging on the grounds that it causes two investors who are identical except for which assets they are initially endowed with to have different asset allocation paths (Constantinides 1979). Nine popular books by eight author teams endorse dollar-cost averaging. However, three of these same books by three author teams say that if one has received a lump sum that needs to be invested, it is best to move it to its ultimate optimal allocation immediately. Ironically, this advice about lump sums negates the relevance of these three books' advice that dollar-cost averaging is a good idea, because if one does not have a lump sum that needs to be allocated but is investing out of income that is received over time, then one has no choice but to basically dollar-cost average. Two books by two author teams unequivocally argue against dollar-cost averaging, both on the grounds that the strategy only works when the stock market drops, but the market rises more often than it falls.

### **Dividends and Interest**

Modigliani and Miller (1961) prove that in a frictionless market with no taxes, a firm's payout policy is irrelevant for its valuation. The intuition is that any investor who desires a certain amount of cash from her investment can generate it by selling shares instead of relying on a dividend. In the real world, dividends and interest are tax-disadvantaged relative to capital gains in the U.S., which makes the prevalence of dividends a puzzle (Baker and Weigand 2015).

Nine of the books by nine author teams in our sample reject the dividend irrelevance theorem, and no book recommends eschewing dividends or interest for tax reasons. Multiple books refer to the need for "income," particularly when the investor is older, for which bonds are the preferred source. Malkiel (2019) recommends coping with the current low-interest-rate environment by holding relatively stable dividend-paying stocks in place of what would be bond holdings in normal times. Kiyosaki (2012) dismisses the relevance of capital gains, arguing that cashflow from the investment is the only relevant factor. Relatedly, Ferri (2010, p. 30) writes that commodities have lower expected returns than stocks because they "pay no interest, have no earnings, and pay no dividends," which seems to be an expression of the fallacy that dividend

payments do not come at the expense of capital gains (Hartzmark and Solomon 2019). Lynch (1989, p. 205) argues that “the presence of the dividend can keep the stock price from falling as far” because “if investors are sure that the high [dividend] yield will hold up, they’ll buy the stock just for that.” But inconsistent with this assertion, from July 1927 to October 2021, a value-weighted portfolio of all non-dividend-paying stocks has more positively skewed monthly returns than the bottom two terciles of positive-dividend-yield stocks.<sup>7</sup>

## Equity Styles

Stocks with certain characteristics—or styles—have historically had higher average returns than stocks with the opposite characteristics. For example, value stocks (which have low prices relative to their current fundamentals such as book equity, dividends, or earnings) have had higher returns than growth stocks, and small-cap stocks have had higher returns than large-cap stocks (Fama and French 1992). These average return differences do not appear to be compensation for bearing the classical measure of risk, market beta (the responsiveness of an asset’s return to the aggregate stock market’s return). This has led to an active debate about whether style return spreads are due to mispricing or rational compensation for non-market-beta risk. The finance industry has responded by creating “smart beta” funds that seek to earn style-based returns for investors.

Twenty-six books by 18 author teams make a recommendation about equity style tilts. Eight books by eight author teams recommend tilting one’s portfolio towards value stocks, while one book recommends tilting towards growth stocks. Sixteen books by 12 author teams recommend tilting towards small stocks. The advice to diversify across opposing styles is common, which acts to weaken style tilts. Eleven books by eight author teams recommend holding both growth and value stocks, while twelve books by nine author teams recommend holding both large and small stocks in a way that creates a small-cap tilt.

Many fewer books say that these tilts could entail taking on more risk, which suggests that most authors think that their recommended tilts generate superior risk-adjusted returns. Only three books by two author teams mention the possibility that value stocks are riskier than growth stocks. Ferri (2010, p. 91) writes that “growth stocks tend to perform well in a recession and early

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<sup>7</sup> Value-weighted portfolio returns are obtained from Kenneth French’s website. Stocks are sorted by dividend yield as of each June-end.

recovery, while value stocks tend to do best well into a recovery and at economic peaks.” This appears to be untrue in the data; from July 1926 to October 2021, the Fama and French (1993) value minus growth factor HML has an average monthly return of 0.36% during NBER recessions plus the first year of recovery, and 0.32% otherwise.<sup>8</sup> Bernstein (2010, p. 120) writes that “Fama and French... insist that the higher return of value stocks reflects the fact that these companies... are weaker and thus more vulnerable in hard times...” but notes that “growth stocks demonstrate their own peculiar risks” because “from time to time, the public becomes overly enthusiastic about the prospects for companies at the leading edge of the era’s technology.” Bernstein (2017, p. 124) warns about value stocks’ risks for particular investors: “Employees of cyclical ‘value’ companies should be particularly wary of value portfolios, as in the event of a severe recession both their job prospects and their portfolios will suffer disproportionately.” In contrast, six books by five author teams say that growth stocks are riskier than value stocks, which is true by the market beta measure of risk once market capitalization is controlled for (Cochrane 1999). Three books by two author teams say that small stocks are riskier than large stocks, and no books say the opposite.

## **International Diversification**

In a benchmark frictionless market with homogeneous investors, every investor should hold each country’s securities in proportion to their market capitalization. In practice, investors heavily overweight the securities of their own country, foregoing significant diversification benefits (French and Poterba 1991; Tesar and Werner 1995).

Twenty-six books by 20 author teams have something to say about international equity investment. Only three books by two authors recommend not diversifying internationally at all. The remainder recommend holding international stocks, but of those that give specific portfolio percentages, all recommend allocations that are below the 59% of global stock market capitalization that non-U.S. stocks constitute as of 2021 (SIFMA 2021). The average recommended weight is 25% of equity holdings, with the range being from 15% to 50%.

Most books give no reasoning for why they underweight international stocks. Seven books by six author teams say that international stocks are riskier than U.S. stocks, citing higher return volatility, currency risk, lower liquidity, subpar accounting and financial transparency standards,

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<sup>8</sup> The sign of the difference in averages holds even excluding the COVID-19 recession or using a single sort on book-to-market ratios instead of the double sort on size and book-to-market that is used to construct HML.

and political instability. Bogle (1999, 2017) notes that a significant portion of the revenue and profits of S&P 500 companies comes from other nations, so U.S. stocks already provide international exposure, and Collins (2016) writes that increasing cross-border market integration has reduced the diversification benefits of holding foreign stocks. Bogle (1999, 2017) and Collins (2016) also argue that the U.S. is the most attractive market to invest in because its economy will experience the strongest future growth. Bernstein (2017, p. 79) says that one's international stock exposure should be limited by how tolerable one finds it when one's portfolio "often temporarily underperforms everybody else's," given that one will be surrounded by other investors whose portfolios are home-biased.

Coeurdacier and Rey (2013) survey the academic literature on home bias. Many papers rationalize home bias by creating models where domestic equities are a hedge against nontradeable income risk, a motive that is not mentioned in the popular books. Conversely, the motives for underweighting international stocks that do appear in popular books tend to be rejected by economists. The foreign trading costs and perceived foreign risk due to low information quality necessary to rationalize the observed level of home bias are too large to be plausible (French and Poterba 1991; Cooper and Kaplanis 1994; Jeske 2001; Glassman and Riddick 2001). Currency risk can be hedged away at a cost that is negligible in major currencies (Perold and Schulman 1988; Gilmore and Hayashi 2011). The correlation of multinationals' stock returns with their domestic stock market is very high, limiting the international diversification benefit obtained by buying the multinational stocks of one's own country (Lewis 1999; Rowland and Tesar 2004). Bekaert, Hodrick, and Zhang (2009) find no upward trend in cross-national stock market return correlations over time, except within Europe. Christoffersen et al. (2012) find that correlations among stock markets during tail events have trended upward over time but conclude that while the benefits of diversifying among developed markets have decreased, there remain significant benefits to diversifying into emerging markets. Although emerging markets do suffer from frequent crises, they tend to be idiosyncratic to each country and thus of little concern to a diversified investor. Finally, a security does not necessarily have higher expected returns because it has higher expected cashflow growth; the security's expected return equals its discount rate, regardless of its expected cashflow growth. Therefore, the perceived strength of the U.S. economy is not a reason to overweight it if the market efficiently prices this strength.

## Active vs. Passive Mutual Fund Management

The average actively managed U.S. equity mutual fund that tries to beat the market's return underperforms the average passive fund that tries to match the market's return by 67 basis points per year (French, 2011). Nevertheless, 60% of mutual fund and ETF assets in 2020 are invested in actively managed funds (Investment Company Institute 2021).

Popular authors overwhelmingly advise investing in passive index funds rather than actively managed funds. Twenty-one books by 20 author teams recommend indexing. Only four books by two author teams recommend active management. One of these authors is Peter Lynch, whose advice is not surprising given that he made his fortune as an active mutual fund manager. Lynch (1989) says that active managers should be judged by their performance relative to the S&P 500 over a three-to-five-year horizon. Ramsey (2003, 2011, 2013) advises picking funds with a good five-year track record, and preferably one with a good 10-to-15-year track record. Empirically, money flows into mutual funds strongly chase past returns (Chevalier and Ellison 1997), but evidence that performance persists is weak (Carhart 1997; Choi and Zhao 2020).

## Consumption and Savings

### Savings Rates Over the Lifecycle

The way that economists think about optimal savings rates is probably counterintuitive to the layperson. Economic theory targets an optimal *consumption* rate each period. The optimal savings rate is whatever the difference happens to be between income and optimal consumption.

In the standard lifecycle/permanent income hypothesis model with neither borrowing constraints nor lifespan uncertainty, individuals follow the Euler equation—they smooth their marginal utility of consumption over time so that its expected growth rate plus one is the reciprocal of the product of their subjective time discount factor and the gross risk-free interest rate, subject to their lifetime budget constraint. If individuals have constant relative risk aversion utility, the expected change in the log of their consumption from  $t$  to  $t + 1$  is approximately equal to  $(r_{f,t+1} - \rho)/\gamma + 0.5\gamma\sigma_t^2$ , where  $r_{f,t+1}$  is the log risk-free interest rate earned from  $t$  to  $t + 1$ ,  $\rho$  is the time preference rate,  $\gamma$  is relative risk aversion, and  $\sigma_t^2$  is the variance (conditional on information available at  $t$ ) in the change of log consumption from  $t$  to  $t + 1$ . If  $r_{f,t+1} = \rho$  for every  $t$  and there is no uncertainty, then individuals consume the same amount every period. Greater uncertainty increases the expected growth rate of consumption by raising precautionary savings today.

Because income tends to be hump-shaped over the lifecycle, savings rates should on average be low or negative early in life, high in midlife, and negative during retirement.

Carroll (1997) shows that if individuals are sufficiently impatient relative to the expected growth rate of their income and labor income is risky, they will be buffer-stock savers, aiming to accumulate only a few months' worth of income in assets to insulate against income fluctuations.<sup>9</sup> After the target asset level is reached, their average savings rate is close to zero, adjusting mainly to keep asset balances near the target level. In order to guard against the possibility of a catastrophic labor income realization, buffer-stock savers do not borrow (or at most borrow minimally if social insurance keeps income from falling to zero). Carroll (1997) and Gourinchas and Parker (2002) estimate that the typical household is a buffer-stock saver until midlife, at which point it switches over to accumulating greater sums in order to prepare for retirement.

The 45 books by 33 popular author teams that offer some sort of savings advice overwhelmingly recommend higher savings rates in early life than economic theory does. Contrary to the standard lifecycle/permanent income hypothesis model's advice that the young should often have negative net worth, 27 books by 21 author teams explicitly mention the need for everybody to prioritize building an emergency savings buffer of between \$1,000 to two years of income. Chilton (2011, p. 108) is somewhat negative on prioritizing emergency savings, but only because "the vast majority of people never hit their target of six- to nine-months' income before the funds are diverted to a not-so-emergency emergency," causing them to never start saving in a tax-advantaged retirement account.

Orman (2007) alone says that it is reasonable to lean on credit card debt in one's younger years in anticipation of higher future income; she advises that no more than 1% of current pretax annual income be charged each month to the credit card, and these charges should only be for absolute necessities. Thirty-one books by 24 author teams warn against borrowing on credit cards, usually in strong terms such as, "Credit card debt is never good" (Kobliner 2017, p. 33). Ramsey (2013, p. 126) gives the most extreme advice against high-frequency consumption smoothing using debt, writing, "The worst time to borrow is when times are bad," on the grounds that the debt payments will be burdensome if income doesn't recover. Eighteen books by 16 author teams give some variant of the advice that debt can be good when used to fund investments in things that

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<sup>9</sup> See Deaton (1991) for a closely related model.

appreciate, such as houses and human capital, but is bad otherwise. Seven books by six authors advise against student loans.

Readers are also counseled not to act like buffer-stock savers, but to continue saving at a high rate even after an adequate emergency savings fund has been established. Chilton (2011, pp. 95-96) demonstrates awareness of economists' recommendation to smooth consumption over the lifecycle and explicitly rejects it:

Strangely, a few economists and mathematicians have been pushing the idea of intentionally not saving in your early working years because your income is low and your starting-out-in-life costs are high. They advocate ramping up efforts big time in your middle years... Do not heed that advice... it seldom works in the living room. First, costs have a funny way of never stabilizing. Second, most people aren't going to be able to transition from setting aside nothing to being supersavers at the flip of a switch. Psychologically, that's just not realistic. Finally, I can't get the numbers to work anyway.

Fisker (2010, p. 49) denigrates consumption smoothing as a "fake it until you make it" strategy that traps people into becoming a "wage slave" who must work "harder or longer for their consumption" than they wish.

Thirty-two books by 26 author teams stress the importance of starting to save immediately. Many of these recommendations to save early are motivated by the power of compound interest, about which 30 books by 22 author teams regale the reader. Popular authors seem very much under the impression that readers underestimate the opportunity cost of consumption because they underestimate how quickly exponential series grow.<sup>10</sup>

Twenty-one books by 16 author teams recommend a positive savings rate that does not vary by age. Ten to 15 percent of income is a range that encompasses most of the recommendations. Four books recommend 20 percent or a range that includes 20 percent, and two recommend 50 percent or more on the premise that one should achieve financial independence from one's job early in life. The advice of Robbins (2014, p. 58) is typical in running counter to consumption smoothing: "Whatever that [savings percentage] number is, you've got to stick to it. In good times and bad. No matter what. Why? Because the laws of compounding punish even one missed contribution. Don't think of it in terms of what you can afford to set aside—that's a sure way to sell yourself short. And don't put yourself in a position where you can suspend (or even

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<sup>10</sup> Stango and Zinman (2009) document the prevalence of such exponential growth bias in the population.

invade) your savings if your income slows to a trickle some months and money is tight.”<sup>11</sup> Only one of the above 21 books suggests taking into account the amount one has already saved when choosing one’s current savings rate. Nine other books advise starting with a target for wealth at retirement and computing the constant dollar savings flow per period that is needed to achieve that goal. Only four books by three author teams recommend taking Social Security benefits into account when choosing a savings rate, despite Social Security replacing 64% of final working-life earnings for the median new beneficiary aged 64-66 in 2005 (Biggs and Springstead, 2008).

If your employer matches employee contributions to a 401(k) retirement savings plan, 11 books by nine author teams recommend contributing enough to earn the maximum possible match. Failing to do so is “like walking away from free money” (Kobliner 2017, p. 136). Nobody recommends adjusting one’s savings rate in response to how generous the match is. As Ramsey (2003, p. 158) puts it, “if your employer matches... that amount is gravy.” The maximum allowable annual contribution to one’s 401(k) or Individual Retirement Account is another focal amount recommended by six books by five author teams.

Fourteen books by ten author teams recommend increasing one’s savings rate over time. If income is rising over time, this strategy is consistent with consumption smoothing. Indeed, four books recommend diverting some of future salary increases to savings rate increases. However, three books recommend increasing one’s savings rate by 1% of income per month over the next few months—faster than plausible income growth for most people—on the theory that one can acclimate to a higher savings rate over time. Nine books by eight author teams say that a lower consumption level becomes easier to tolerate with the passage of time.

Standard economic theory does not earmark portions of household savings for specific purposes; money is fungible. In contrast, 17 books by 13 author teams advocate subdividing wealth into mental accounts devoted to different goals (Thaler 1985). Malkiel (2019, p. 358) writes, “A specific need must be funded with specific assets dedicated to that need.” According to Kobliner (2017, p. 28), “Research also suggests that labeling a savings account with a goal... actually results in people adding even more money to their savings pot.” Commonly mentioned mental accounts are a fund for emergencies, a retirement savings fund, a fund for major purchases such as a house

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<sup>11</sup> Popular author Dacyczyn (1998, p. 548) makes the economist-like observation that “the semiresponsible admonition to save 10 percent of your income essentially endorses the constant contracting and expanding of family expenditures. But surprisingly, life is easier and more enjoyable if spending always stays, on average, at a modest level.”



or a car, and a fund for children's college tuition. The previously mentioned recommended savings rates are usually for the retirement and/or emergency funds alone; saving for other expenses is to be done in addition to the baseline savings level.

One trope recurs so often that it is worth mentioning. Clason (1926/1988) was the first to reframe saving as a payment to yourself rather than a sacrifice, while current spending is reframed as a payment to others (and hence a loss to yourself). His rule that you should "pay yourself first" appears in 16 books by 12 author teams. The idea is that as soon as one receives income, a predetermined fraction should be sent off into a separate account at once—automatically, advise many modern books—and this money is not to be touched. "The secret... is that you can't spend what you don't see" (Bach 2004, p. 20). The remaining money can be freely spent without careful budgeting. This advice is frequently accompanied by Clason's (1926/1988, p. 19) statement that after increasing one's savings rate by 10 percentage points, "strange as it may seem, I was no shorter of funds than before. I noticed little difference as I managed to get along without it." The idea that a significant amount of the money we spend brings us almost no marginal utility—making additional saving painless—is endorsed by 18 books by 13 author teams.

Moving to the end of the lifecycle, 15 books by 12 author teams give advice on spending in retirement. Two books advise planning on lower spending in retirement than during working life, whereas two books advise keeping spending constant across the retirement threshold. Therefore, there is little light shed on the optimality of the empirically observed drop in spending that occurs upon retirement (Bernheim, Skinner, and Weinberg 2001; Aguiar and Hurst 2005).

One book advises spending 3% of your financial wealth per year in retirement, seven books advise 4%, one advises 5%, one advises 6.7%, and two (both by Dave Ramsey) advise 8% on the theory that nominal investment returns will be 12% and the inflation rate will be 4%.<sup>12</sup> Five books explicitly tie their recommended withdrawal rate to be at or below a stated expected real portfolio return, implying that preserving the real level of capital is the goal, rather than spending down wealth as the lifecycle model recommends. The classic model of Yaari (1965) advocates fully annuitizing wealth to eliminate the risk of outliving one's savings, but only four books recommend buying life annuities to manage longevity risk. No book explicitly recommends against life

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<sup>12</sup> Some books advise spending  $X\%$  of your wealth during your first year of retirement, and to then grow that spending amount at the inflation rate. Other books are vague about how spending should adjust over time in response to changes in one's portfolio value.

annuities, but we might gain some insight into why households buy so few annuities from some of the drawbacks listed or refuted by the books that do encourage annuitization: the risk of early death, the loss of control over one's money, low current interest rates, and the fact that most annuities lack inflation protection.

### **Wealthy Hand-to-Mouth Status**

Kaplan, Violante, and Weidner (2014) document that about 20% of U.S. households are “wealthy hand-to-mouth,” in that they have positive illiquid assets, such as housing and retirement account balances, but almost no liquid assets. Kaplan, Violante, and Weidner (2014) and Kaplan and Violante (2014) find that such a portfolio composition can be rationalized despite the resulting inability to cushion consumption from income shocks if illiquid assets have extremely high risk-adjusted returns. Angeletos et al. (2001) instead interpret this pattern as the result of households storing wealth in illiquid forms to protect it from their lack of self-control.

Do popular authors believe that illiquid assets yield such high returns that it is worth foregoing any liquid asset buffer? I have already mentioned that 27 books explicitly mention the need for everybody to prioritize building emergency savings, which is contrary to being a wealthy hand-to-mouth household. Fourteen books by 12 author teams say that a house is not a good financial investment. Of the seven books by six author teams that say that a house is a good investment, six recommend building emergency savings of at least three months' income/expenses, and two warn against becoming a wealthy hand-to-mouth household in order to buy a more expensive house.

Thus, there is no evidence that popular authors believe that it is advisable to become a hand-to-mouth consumer in order to invest in housing. However, there is some indication that going without a liquid asset buffer in order to take advantage of 401(k) matching contributions—a high, instantaneous, and risk-free return on investment—is viewed more sympathetically. Many of the 11 books that recommend contributing enough to receive the maximum possible 401(k) match do not give advice on how to trade off 401(k) contributions against emergency savings. But three books by two author teams do recommend prioritizing 401(k) contributions over building an emergency cash buffer.

## Non-Mortgage Debt Management

Twenty-three books written by 18 author teams give advice on how to pay down non-mortgage debt, focusing predominantly credit card debt. For economists, a very basic principle of optimal debt repayment is to prioritize paying down the debt charging the highest interest rate.<sup>13</sup> In practice, households often do not follow this principle (Gathergood et al. 2019a,b).

Surprisingly, ten books by eight author teams recommend *not* prioritizing one's highest-interest debt, versus ten books by seven author teams that endorse prioritizing one's high-interest debt. Nine books endorse some variant of the debt snowball method, which is famously associated with Dave Ramsey. The debt snowball prioritizes paying off the smallest-balance debt first while paying the minimum required payment on the others. When the smallest-balance debt is paid off, the money that was being applied towards it now goes towards paying off the next-smallest-balance debt (in addition to the minimum payment on this next debt), and so on until all debts are paid off. Ramsey (2011, p. 100) writes, "People sometimes say, 'But Dave, doesn't it make more sense mathematically to pay off the highest interest rates first?' Maybe. But if you were doing math, you wouldn't have credit card debt, would you? This is about behavior modification. You need some quick wins or you will lose steam and get discouraged... every time you cross a debt off the list, you get more energy and momentum..." With a similar eye towards motivation, two books by two author teams recommend prioritizing the debt that bothers you the most, regardless of its interest rate.<sup>14</sup>

Twelve books by ten author teams say that in order to pay off one's debt, it is important to establish a firm rule that one will not borrow anything more. For example, Warren and Tyagi (2005, p. 144) write, "This is the moment to look at yourself in the mirror and say out loud, '*The debt stops here.*' Every morning tell yourself, 'I will not take on more debt today.'"

The existence of this rule potentially gives some insight into the co-holding puzzle—the fact that 96% of households who are borrowing on their credit cards at a high interest rate simultaneously hold positive liquid assets earning low interest rates, and 33% hold at least one month of income in liquid assets (Gross and Souleles 2002). Economists have tried to rationalize

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<sup>13</sup> There are some caveats to this principle if defaulting on some debts is a significant possibility. For example, if a high-interest debt is easier to discharge in bankruptcy than a low-interest debt, it may make sense to deprioritize the former. If a low-interest debt is collateralized with an asset such as a house or a car that can be seized in default, it may be optimal to prioritize paying this debt over an uncollateralized debt with a higher interest rate.

<sup>14</sup> One of these books suggests either using the debt snowball method or prioritizing the most bothersome debt.

co-holding by appealing to the fact that some expenses must be paid by cash or check (Zinman 2007; Telyukova and Wright 2008; Telyukova 2013), strategic maneuvering in advance of bankruptcy (Lehnert and Maki 2007), attempts to limit household spending by reducing unused credit capacity (Bertaut, Haliassos, and Reiter 2008), and insuring against the risk that one's credit limit will be reduced (Fulford 2015; Druedahl and Jørgensen 2018; Gorbachev and Luengo-Prado 2019).

Thirteen books by 12 author teams endorse co-holding. Only one of them mentions in passing any justification found in the academic literature.<sup>15</sup> Among the nine books by seven author teams that say something against co-holding, four nonetheless recommend some positive amount of co-holding. The most frequently cited justification for co-holding (mentioned by seven books) is that it prevents borrowing additional amounts. Warren and Tyagi (2005, p. 147) write, “This [emergency savings buffer] is the money that will keep you from sliding back into the credit card trap when something goes wrong.” Ramsey (2013, p. 100) says that he used to recommend devoting all assets to paying down debt, but “I discovered that people would stop their whole Total Money Makeover because of an emergency—they felt guilty that they had to stop debt-reducing to survive... If you use debt after swearing off it, you lose the momentum to keep going.” Four books refer to the motivation created by building assets even while paying down debt. Bach (2004, p. 204) writes, “If you were to direct all of your available cash flow to debt reduction...it might literally be years before you could begin saving for the future. This is too negative—so negative, in fact, that many people who follow this path get discouraged, give up early, and never get to the saving part.” Three books endorse building up “long-term” savings in particular while paying down debt, ignoring the return differential between borrowed money and invested money. Lowry (2017, p. 215) writes, “Why bother saving when you have debt? Because trying to play catch-up later is a pain! Did that compound interest example show you nothing?!”

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<sup>15</sup> Tyson (2019, p. 76) writes, in the context of recommending maintaining an emergency cash cushion despite outstanding debt balances, “On the other hand, if you use savings to pay down credit-card debt, you can run your credit-card balances back up in a financial pinch (unless your card gets canceled).”

## Mortgage Choices

Fixed-rate mortgages (FRMs) are exposed to inflation risk; stable inflation increases the real present value of payments by borrowers relative to rising inflation.<sup>16</sup> In contrast, the real present value of adjustable-rate mortgage (ARM) payments is almost unaffected by inflation because changes in expected inflation change nominal ARM interest rates roughly one-for-one. However, ARM borrowers are exposed to the risk that real interest rates change. They are also exposed to short-run variability in real mortgage payments, since an increase in expected future inflation raises interest payments today even though the price level has not risen yet. In general, ARMs will charge lower average interest rates than FRMs because ARM interest rates are pegged to short-term interest rates, whereas FRM interest rates are pegged to long-term interest rates and include a premium for offering the option to call the mortgage at its face value (i.e., refinance). Campbell and Cocco (2003) and Van Hemert (2010) find that borrowers should generally prefer ARMs over FRMs. Guren, Krishnamurthy, and McQuade (2021) and Campbell, Clara, and Cocco (2021) find that ARMs are also better than FRMs for macroeconomic stability because ARMs' required payments tend to drop during recessions.

Twenty-four books by 17 author teams give advice about making choices about mortgages. The purported macroeconomic stabilization benefits of ARMs notwithstanding, 11 books by nine author teams say that ARMs are riskier than FRMs, with discussion focusing on the fluctuating monthly payments of ARMs. Only two books mention that FRMs are exposed to inflation risk, but they see this exposure as advantageous—either as a hedge or a profit opportunity. Given views on the risks of ARMs, it is not surprising that eight books by seven author teams recommend choosing an FRM instead of an ARM. Only two books recommend choosing a hybrid ARM, but they both advise avoiding exposure to the floating interest rate phase of the contract by choosing an initial fixed-rate period that corresponds to how long you plan to stay in the home.

Four books by three author teams write approvingly of obtaining a mortgage with a 5% down payment or less in order to become a homeowner sooner, but all of these books were published before 2008. Five books by five author teams recommend trying to make a down payment of at least 20% of the home's purchase price. None of the books in my sample suggest decreasing one's down payment if one is pessimistic about housing returns, as recommended by

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<sup>16</sup> FRM borrowers can protect themselves against unexpectedly low inflation that lowers nominal interest rates by refinancing.

the risk-shifting model of Bailey et al. (2019) when homeowners are constrained from adjusting the size of their house in response to pessimism.<sup>17</sup>

Six books by five author teams recommend taking a 30-year mortgage, citing the flexibility created by the lower monthly payments and the ability to lock in an interest rate for 30 years. Three books, all by Dave Ramsey, recommend a 15-year term. Ramsey (2013, p. 173) writes, “The really interesting thing I have observed is that fifteen-year mortgages always pay off in fifteen years... Thirty-year mortgages are for people who enjoy slavery so much they want to extend it for fifteen more years and pay thousands of dollars more for the privilege.”

Paying off your mortgage ahead of schedule is recommended by 12 books written by eight author teams. Although the interest savings from doing so is mentioned by seven books, just as many books cite the emotional reward from owning your house debt-free as a reason. On the other hand, one book recommends against accelerating mortgage payments, citing higher expected returns from investing in the stock market, and five books are ambivalent about whether one should repay more quickly. The academic literature offers little guidance on this question.

Advice on when to refinance an FRM is found in only five books by five author teams. Chilton (1998) recommends refinancing if interest rates fall by at least 1%. Tyson (2019, p. 303) writes that refinancing is optimal “if you can recover the expenses of the refinance within a few years” or if you will keep the property and mortgage for at least as long as it will take to recover the refinancing expenses. Olen and Pollack (2016) say that refinancing is rarely worthwhile if the interest rate has dropped by less than 1% and otherwise depends on your tax rate, the outstanding mortgage balance, and when you expect to move homes; they refer readers to consult calculators on the Internet. Ramsey (2013, p. 173) writes that “the best time to refinance is when you can save on interest,” while Roth (2010, p. 216) says that the “standard advice” to wait until interest rates have dropped 2% is obsolete because closing costs are lower now. Both of these authors refer readers to online calculators that no longer exist.<sup>18</sup> Popular advice is considerably less nuanced than the approximately optimal refinancing rule derived by Agarwal, Driscoll, and Laibson (2013).

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<sup>17</sup> Bailey et al. (2019) provide numerous examples of popular financial advice to follow such a risk-shifting strategy. The fact that it does not appear in my sample suggests that such advice has had limited penetration.

<sup>18</sup> Ramsey (2013) refers the reader to a calculator on his website. This website now hosts an article that advises refinancing when it drops your interest rate by 1-2% and you plan on staying in your home long enough that the cumulative undiscounted interest savings on the mortgage during your tenure will exceed the refinancing cost (<https://www.ramseysolutions.com/real-estate/is-a-mortgage-refinance-right-for-you>, accessed January 7, 2022). This article also recommends refinancing into a shorter-maturity mortgage, even if it raises your monthly payments.

The optimal strategy is complicated because of the option value of waiting for the interest rate to potentially fall further before paying the refinancing cost. The interest rate threshold for refinancing depends on the standard deviation of the mortgage interest rate, the cost of refinancing, the discount rate for future cashflows, the outstanding mortgage balance, the marginal tax rate against which mortgage interest can be deducted, and the expected time until the borrower will sell the home.

## Conclusion

The content of popular financial advice should motivate new hypotheses about why households make the financial choices they do, as well as what financial choices households *should* make.

According to popular financial advice, portfolio risk-taking should be driven primarily by investment horizon. The longer the expected time until a given dollar will be spent, the riskier the recommended investment of that dollar because the stock market is perceived to become safer as holding periods increase. Money that may be spent in the next few years is to be held entirely in cash, which suggests a new potential explanation for stock market non-participation. Staying ahead of the inflation rate is highlighted as an important benchmark, implying that risk-taking will increase as real interest rates become negative. Diminishing marginal utility and return covariance with marginal utility play almost no role in asset allocation advice. Many authors recommend equity style tilts in order to enhance returns, and few associate such tilts with greater risk. The average recommended non-U.S. stock allocation is 25% of one's stock holdings, far below the non-U.S. share of global market capitalization. Passive funds are overwhelmingly recommended over actively managed funds.

When it comes to savings, popular authors recommend much higher savings rates early in life than economic models do, and their advice frequently runs counter to consumption smoothing. Credit card debt is almost universally frowned upon. The power of compound interest is regularly cited as justification for starting to save when young. Savings rate advice is often surprisingly unnuanced—save a certain percentage of your income (most often 10-15%) without regard to age, already accumulated savings, expected future income growth, or Social Security benefits. Any 401(k) matching contributions are to be fully exploited by contributing at least to the 401(k) match threshold, but recommended savings rates do not adjust in response to the generosity of the match.

Readers are warned against being a wealthy hand-to-mouth individual who is “house-rich, cash-poor.” Many authors believe that savings becomes easier over time because of habit formation, or that saving more is painless because many dollars are spent on things that bring zero marginal utility. Reframing saving as “paying yourself” is a frequent rhetorical device used to encourage more saving. Savings should be subdivided into various mental accounts earmarked for different purposes. In retirement, many spending rules seek to preserve principal indefinitely instead of decumulating wealth as recommended by economic models.

Many books deal with strategies for paying down non-mortgage debt. Rather than minimizing costs by prioritizing repayment of the highest-interest debt, many authors recommend prioritizing repayment of the lowest-balance debt in order to create quick wins that build psychological motivation to continue lowering debt. Motivational reasons also lie behind frequent recommendations that readers should hold assets that earn low interest rates despite carrying debts that charge high interest rates. Adhering to a rule that one will not borrow any additional amounts is thought to be helpful for getting out of debt. An asset buffer allows unexpected expenses to be paid without adding to one’s debt. In addition, exclusively focusing on reducing debt balances without building asset balances is thought to be too demotivating and detrimental to long-term wealth accumulation.

Regarding mortgages, popular authors overwhelmingly recommend fixed-rate mortgages despite academic research finding that floating rate mortgages should be more attractive to borrowers. Approval of low down payments has disappeared in books published since 2008. Popular authors are split on whether paying down a mortgage ahead of schedule is advisable, but among those who do advise accelerated payoff, the emotional benefit of owning a house debt-free is just as important as the interest savings. Few books give refinancing advice, and those that do advise rather simple strategies.

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Appendix Table 1

**Books included in sample**

| Author(s)                                       | Publication year | Title   | Goodreads rank |
|---|------------------|---|----------------|
| Bach, David                                     | 2002             | <i>Smart Couples Finish Rich</i>  | 36             |
| Bach, David                                     | 2002             | <i>Smart Women Finish Rich</i> , 2nd edition  | 29             |
| Bach, David                                     | 2004             | <i>The Automatic Millionaire</i>  | 9              |
| Bernstein, William                              | 2010             | <i>The Four Pillars of Investing</i>  | 14             |
| Bernstein, William                              | 2017             | <i>The Intelligent Asset Allocator</i> , 2nd edition  | 47             |
| Bogle, John                                     | 1999             | <i>Common Sense on Mutual Funds</i>   | 38             |
| Bogle, John                                     | 2017             | <i>The Little Book of Common Sense Investing</i> , 10th anniversary edition                       | 11             |
| Chilton, David                                  | 1998             | <i>The Wealthy Barber</i> , updated 3rd edition   | 19             |
| Chilton, David                                  | 2011             | <i>The Wealthy Barber Returns</i>   | 34             |
| Clason, George                                  | 1926/1988        | <i>The Richest Man in Babylon</i>   | 6              |
| Collins, J. L.                                  | 2016             | <i>The Simple Path to Wealth</i>  | 15             |
| Dacyczyn, Amy                                   | 1998             | <i>The Complete Tightwad Gazette</i>  | 48             |
| DeMarco, M. J.                                  | 2018             | <i>The Millionaire Fastlane</i>   | 39             |
| Eker, T. Harv                                   | 2005             | <i>Secrets of the Millionaire Mind</i>  | 21             |
| Ferri, Richard                                  | 2010             | <i>All About Asset Allocation</i> , 2nd edition   | 46             |
| Fisker, Jacob Lund                              | 2010             | <i>Early Retirement Extreme</i>   | 26             |
| Graham, Benjamin, Jason Zweig                   | 2003             | <i>The Intelligent Investor</i> , 4th revised edition, updated with new commentary by Jason Zweig | 7              |
| Hallam, Andrew                                  | 2017             | <i>Millionaire Teacher</i> , 2nd edition  | 27             |
| Kiyosaki, Robert                                | 2017             | <i>Rich Dad Poor Dad</i> , 20th anniversary edition   | 2              |
| Kiyosaki, Robert                                | 2012             | <i>Rich Dad's Cashflow Quadrant</i> , 1st Plata Publishing edition                                | 16             |
| Kobliner, Beth                                  | 2017             | <i>Get A Financial Life</i>   | 20             |
| Lindauer, Mel, Taylor Larimore, Michael LeBoeuf | 2014             | <i>The Bogleheads' Guide to Investing</i> , 2nd edition   | 12             |
| Lowry, Erin                                     | 2017             | <i>Broke Millennial</i>   | 33             |
| Lynch, Peter                                    | 1989             | <i>One Up on Wall Street</i>  | 32             |
| Malkiel, Burton                                 | 2019             | <i>A Random Walk Down Wall Street</i>   | 10             |
| Mecham, Jesse                                   | 2017             | <i>You Need a Budget</i>  | 28             |
| Olen, Helaine; Pollack, Harold                  | 2016             | <i>The Index Card</i>   | 23             |
| Orman, Suze                                     | 2012             | <i>The 9 Steps to Financial Freedom</i> , 3rd paperback edition                                   | 35             |
| Orman, Suze                                     | 2007             | <i>The Money Book for the Young, Fabulous &amp; Broke</i>   | 13             |

|   |           |   |    |
|---|-----------|---|----|
| Orman, Suze   | 2007      | <i>Women &amp; Money</i>  | 37 |
| Ramsey, Dave  | 2003      | <i>Financial Peace Revisited</i>  | 25 |
| Ramsey, Dave  | 2011      | <i>Dave Ramsey's Complete Guide to Money</i>                                  | 43 |
| Ramsey, Dave  | 2013      | <i>The Total Money Makeover</i> , classic edition                             | 3  |
| Richards, Carl  | 2015      | <i>The One-Page Financial Plan</i>  | 50 |
| Robbins, Tony   | 2014      | <i>Money: Master the Game</i>   | 18 |
| Robbins, Tony   | 2017      | <i>Unshakeable</i>  | 22 |
| Robin, Vicki, Joe Dominguez                                       | 2018      | <i>Your Money or Your Life</i>  | 4  |
| Roth, J. D.   | 2010      | <i>Your Money: The Missing Manual</i>   | 49 |
| Sethi, Ramit  | 2019      | <i>I Will Teach You to Be Rich</i> , 2nd edition                              | 5  |
| Sincero, Jen  | 2017      | <i>You Are a Badass at Making Money</i>                                       | 41 |
| Stanley, Thomas   | 2001      | <i>The Millionaire Mind</i>   | 17 |
| Stanley, Thomas   | 2009      | <i>Stop Acting Rich... And Start Living Like a Real Millionaire</i>           | 42 |
| Stanley, Thomas, William Danko                                    | 1996      | <i>The Millionaire Next Door</i>  | 1  |
| Thames, Elizabeth Willard   | 2018      | <i>Meet the Frugalwoods</i>   | 44 |
| Tobias, Andrew  | 2016      | <i>The Only Investment Guide You'll Ever Need</i> , 2nd Mariner Books edition | 24 |
| Tyson, Eric   | 2019      | <i>Personal Finance for Dummies</i> , 9th edition                             | 31 |
| Warren, Elizabeth, Amelia Warren Tyagi                            | 2005      | <i>All Your Worth</i>   | 30 |
| <hr/> <i>Books that contain no advice on covered topics</i> <hr/> |           |   |    |
| Ferris, Timothy   | 2009      | <i>The 4-Hour Workweek</i> , expanded and updated edition                     | 40 |
| Hill, Napoleon  | 1967/2018 | <i>Think and Grow Rich</i>  | 8  |
| Wattles, Wallace  | 1910/2007 | <i>The Science of Getting Rich</i>  | 45 |