Alternatives to Financial Education

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Abstract

"Financial education" typically is used to refer to what might more accurately be called personal money management education. As conventionally conceived, it includes teaching information and skills directly related to saving, spending, investing, borrowing, insurance, remittances, and taxes, and planning or managing each of these. Many believe that this kind of financial education improves personal financial behavior[2] and that this leads to increased financial well-being. But does financial education do this? Can it? Do we have any better alternatives for improving people's financial lives?

The main points of the chapter are three-fold. First, financial education cannot produce financial well-being in the current marketplace. Second, alternative interventions have the potential to enhance individual capacity for, and reduce marketplace obstacles to, good financial outcomes. Third, even programs that arm individuals with optimized capacities and a marketplace that facilitates individually optimal actions will not be enough to ensure widespread financial well-being. That would require changes in our socioeconomic order that might require a different intervention—finance-informed citizenship education.

The Case against Reliance on Traditional Financial Education

The evidence that existing financial education programs lead to financial well-being is thin, and some programs pose the risk of perverse effects. Financial education likely cannot be made effective in the current marketplace.

Financial Education Does Not Demonstrably Improve Financial Well-Being

In 2009 I examined the then-leading studies of financial education programs and found no reliable evidence that these programs lead to improved financial outcomes (Willis, 2009). Although research in this area has exploded in the interceding years, more studies have not produced significantly different results. A 2014 meta-analysis conducted by Fernandes et al. was discouraging, showing very weak average effects of financial education on financial behavior and even weaker effects in low-income populations.

A new meta-analysis conducted by Kaiser et al. (2020) is titled "Financial Education Affects Financial Knowledge and Downstream Behaviors." As compared to prior work, this meta-analysis includes many more and more recent studies of an array of programs that aim to affect a host of outcomes related in some way to personal finance. The meta-analysis includes only studies employing randomized controlled testing and considers intent-to-treat effects when reported. The

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[2] Following convention, I use "financial behavior" to include decisions, actions, habits, and inertia.

authors apply a random effects model to reflect the likelihood of true heterogeneity in underlying treatment effects, which they estimate to be responsible for more than 80% of the variance in effect sizes among studies. This reflects the wide variety of underlying treatments, settings, populations, and outcome measures in the included studies.

This heterogeneity limits the practical utility of Kaiser et al.'s (2020) results. The meta-analysis leaves unclear which interventions in which settings with which populations affect knowledge or behavior. Inconsistency in outcomes measured in the underlying studies precludes a single clear conclusion. For example, one study reported a positive effect of an educational soap opera on a debt counseling helpline's call volume (Berg & Zia, 2017), another reported a null effect of an online program on respondent self-assessed likelihood of opening an individual retirement account (Barcellos et al., 2016), and another found negative effects of a lengthy high school curriculum, in that respondents self-reported more high-cost credit use and more late payments (Bruhn et al., 2016). Imagine a meta-analysis of the health effects of a class of drugs "D" that included some studies that found no effect of D_1 on heart function, others that found negative effects of D_2 on neurological function, and others that found extremely positive effects of drug D_3 on self-assessed sleep quality. A conclusion that this class of drugs improves health seems misleading. Meta-analyses are useful when there are a large number of studies "on the same empirical research question" to "estimate the average effects of a given program" (Kaiser et al., 2020, p. 5). But they are not as useful when the studies test different empirical questions about different programs.

On the other hand, heterogeneity in the studies included in Kaiser et al. (2020) allows a focused review of the types of outcomes that *might* be positively affected by *some* kind of intervention in *some* circumstances. The meta-analysis finds a positive effect of interventions on what the authors categorize as budgeting and savings "behavior;" it finds no statistically significant positive effects on credit, insurance, or remittances (Kaiser et al. 2020, Figure 4). These results are discouraging for several reasons, all of which likely bias the meta-analysis toward an unwarranted finding of efficacy.

First, all of the included studies that Kaiser et al. (2020) coded[3] as testing the effect of a treatment on budgeting relied on self-reports; this is understandable because observing written budgets or financial records could be challenging. More surprisingly, nearly all of the studies coded as testing for savings behavior relied exclusively or partially on self-reports rather than verified data. A number of these self-reports were vague, such as respondent self-assessments of how "good" they are at personal spending decisions (Batty et al., 2017, p. 8) or of how "often" they leave money in savings (Reich & Berman, 2015, p. 198).

However, as Kaiser et al. (2020) recognize, demand effects routinely drive up self-reports of behaviors the respondents think the researchers (or teachers administering the survey instrument) want to hear. For example, one study included in Kaiser et al. found that "self-reported savings levels … had little or no predictive value concerning actual savings" (Collins, 2013, p.

[3] See Table A1 in Kaiser et al. (2020) for their coding choices. I reviewed the versions of papers they cited, even when more recent versions were available. I followed the coding in their Table A1 except in the case of Gibson [3], which is miscoded as involving a measure of budgeting effects; this sample was not asked budgeting questions post-treatment (Gibson et al., 2014, p. 148 & Table 4).

156). Another found that financial education had some effect on self-reported behavior, but no effect on "broader measures of household well-being" (Abarcar et al., 2018, p. 8).

Second, Kaiser et al. (2020) code "positive attitude toward budgeting" and "having ... long-term aspirations" as budgeting "behavior" (Table A.3:C) and code "positive sentiment towards investing in (retirement) funds" as a savings "behavior" (Table A.3:D). For example, one study coded as measuring behavior asked respondents, "Is it good to save money?" (Batty et al., 2015, Table 1). Another asked whether budgeting is "helpful" (Carpena et al., 2017, Table 5). After being taught to save and budget, a positive response to these questions may reflect politeness or aspirations. Attitude is not behavior.

Third, several of the studies included in the meta-analysis treat answers to hypothetical budgeting or savings questions (e.g., if you were given $500, what would you do with it?) or actions in a game as financial behavior. It appears that where an included study takes this approach, the meta-analysis does too. However, answers to hypotheticals have weak external validity as a measure of actual budgeting and savings, given the absence of real world demands, constraints, and marketing. Other studies included in the meta-analysis, such as Doi et al. (2014) and Bruhn and Zia (2013), take the better approach of treating answers to hypotheticals as "applied knowledge."

Fourth, several studies included in the meta-analysis lacked proper controls. For example, one program provided participants with both financial education classes and matched funds for, e.g., retirement savings (Mills et al., 2004), but the control group was given neither, meaning that the relatively greater increase in retirement savings in the treated group could have been caused by the match. Another study tested the effects of a 14-week psychosocial parenting program that included "peer pressure and anticipated feelings of guilt associated with failure to reach goals" and a financial education component, using as a control not the same parenting program without a financial component but rather a one-day hygiene class (Steinert et al., 2018, p. 446). Several of the studies were of treatments designed for small businesses and included both financial (e.g., raising capital, financial recordkeeping) and business (e.g., marketing, inventory recordkeeping) content, leaving unclear which content affected savings.

Fifth, some of the studies underlying the meta-analysis demonstrated that interventions could affect financial behaviors, but these interventions were not financial education. They included patience training (Alan & Ertac, 2018); individualized financial counseling (telling people what to do and physically helping them prepare budgets, open bank accounts, etc.) (Carpena et al., 2017); nudges (text message reminders to save) (Adebe et al., 2018); financial incentives to open savings accounts (Cole et al., 2011) or to attend benefits fairs (Duflo & Saez, 2003); and alterations to disclosure forms (Choi et al., 2010). Where successful, these interventions warrant further inquiry, but they do not demonstrate the effect of financial education.

Studies Coded by Kaiser et al. (2020) as Testing the Effect of Financial Education on Savings and/or Budgeting Behavior

Author	Savings, budgeting, or both	Potential confounds or not financial education	If financial education, measured attitude or responses to hypotheticals/games, instead of or in addition to financial behavior	If financial education, and if any financial behavior measured, self-report or verified
1. Abebe et al. (2018)	Savings	Small business training		
2. Alan & Ertac (2018)	Savings	Patience training, not financial education		
3. Bruhn & Zia (2013)	Both	Small business training		
4-6. Choi et al. (2010) [Studies 1-3]	Savings	Disclosure format variations, not financial education		
7. Clark et al. (2014)	Savings	Informational flyer/nudge, not financial education		
8. Drexler et al. (2014)	Both	Small business training		
9. Duflo & Saez (2003)	Savings	Incentive to attend benefits fair, not education		
10. Giné & Mansuri (2014)	Savings	Small business training		
11. Mills et al. (2004)	Savings	Confound (savings match)		
12. Steinert et al. (2018)	Savings	Confound (psychosocial training & peer pressure)		
13. Barcellos et al. (2016)	Savings		Hypotheticals only	
14. Becchetti et al. (2013)	Savings		Hypotheticals only	
15. Boyer et al. (2019)	Savings		Hypotheticals only	

16-17. Brugiavini et al. (2015) [Studies 1, 2]	Savings		Hypotheticals only	
18. Kalwij et al. (2017)	Savings		Hypotheticals only	
19. Migheli & Moscarola (2017)	Savings		Game play only	
20. Attanasio et al. (2019)	Both		Attitudes & hypotheticals	Self-report budgeting; some savings verified
21-22. Batty et al. (2015) [Studies 1, 2]	Both		Attitudes	Self-report
23. Batty et al. (2017)	Both		Attitudes	Self-report
24. Bover et al. (2018)	Savings		Hypotheticals	Self-report
25. Bruhn & Zia (2016)	Both		Attitudes & hypotheticals	Self-report
26. Furtado et al. (2017)	Savings		Attitudes & hypotheticals	Self-report
27. Kaiser & Menkhoff (2018)	Both		Attitudes	Self-report
28. Lührmann et al. (2018)	Savings		Hypotheticals	Self-report
29. Shephard et al. (2017)	Both		Attitudes (budgeting)	Self-report (savings)
30. Supanantaroek et al. (2016)	Both		Attitudes	Self-report
31. Abarcar et al. (2018)	Savings			Self-report
32. Angel (2018)	Savings			Self-report
33. Barua et al. (2012)	Both			Self-report
34. Berg & Zia (2017)	Savings			Self-report
35. Berry et al. (2018)	Savings			Self-report
36. Bhutoria & Vignoles (2018)	Both			Self-report

37. Carter et al. (2016)	Savings			Self-report
38. Cole et al. (2011)	Savings			Self-report
39. Doi et al. (2014)	Savings			Self-report
40. Elbogen et al. (2016)	Savings			Self-report
41. Field et al. (2010)	Savings			Self-report
42. Flory (2018)	Savings			Self-report
43. Frisancho (2018)	Both			Self-report
44-45. Gibson et al. (2014) [Studies 1, 2]	Budgeting			Self-report
46. Han et al. (2009)	Savings			Self-report
47. Reich & Berman (2015)	Savings			Self-report
48. Seshan & Yang (2014)	Savings			Self-report
49. Bruhn et al. (2014)	Savings			Some savings verified
50. Calderone et al. (2018)	Savings			Some savings verified
51. Carpena et al. (2017)	Both			Self-report budgeting; some savings verified
52. Collins (2013)	Savings			Some savings verified
53. Collins & Urban (2016)	Both			Self-report budgeting, verified savings
54. Jamison et al. (2014)	Both			Self-report budgeting, some savings verified
55. Sayinzoga et al. (2016)	Savings			Some savings verified
56. Song (2012)	Savings			Verified

Table 1 lists the 56 studies that Kaiser et al. (2020) code as using randomized controlled testing to demonstrate the effect of financial education on savings and/or budgeting. The first 12 do not involve a financial education treatment, lack proper controls, and/or are small business

training. The next 18 use attitudinal measures and/or answers to hypothetical questions as a proxy, in whole or in part, for budgeting and/or savings behavior. Of the remaining 26, 25 rely in whole or in part on self-reported budgeting and/or savings. Attitudes or answers to hypotheticals sometimes correlate with behavior and self-reports are sometimes accurate. However, the nigh exclusive reliance on these in the included studies undermines the meta-analysis' conclusions about the effect of financial education on financial behavior. No matter how well a meta-analysis analyzes a group of studies, it cannot correct for bias in the original studies (Slavin, 1986).

The one remaining study (Song, 2012) sent enumerators into people's homes in China to announce the creation of government-managed pension accounts and solicit monthly pension contribution commitments to report back to the pension system. The enumerators also taught test subjects the importance of compounding. Controls received the announcement and the solicitation, without the education about compounding. Subsequently, subjects contributed more to the pension system than controls. It seems reasonable to conclude from this that one-on-one education about compounding might increase retirement savings amounts when these are selected at the immediate conclusion of the education. Broader conclusions about financial education and financial behavior are unwarranted.

Kaiser et al.'s (2020) demonstration that financial education improves knowledge is more robust, but it is not clear that the "knowledge" measured would have any effect on behavior or well-being. In at least one of the studies included in the meta-analysis, knowledge was self-assessed, using such questions as, "Generally, do you understand savings and investment product information?" (Bhutoria & Vignoles, 2018, p. 422 & Table 5). But people are poor judges of their own knowledge. In another included study, education improved "financial capability" assessed using a scale of four questions, three of which were about self-confidence, leaving it unclear whether the improvement reflected confidence or knowledge (Shephard et al., 2017, p. 314).

In other studies included in the meta-analysis, the content tested seems unlikely to be useful. In one study, the treatment slightly increased knowledge as measured by a 10-item multiple-choice quiz that asked, e.g., about the definitions of "net pay" and "disposable income" (Yetter & Suiter, 2015, pp. 27-28). Another study classified whether respondents had heard of the terms "interest rate" and "exchange rate" as a measure of "financial knowledge" (Doi et al., 2014, p. 45). It is unclear how knowing these definitions or having heard these terms would improve financial behavior.

Some studies included in the meta-analysis directly challenge the link between knowledge and behavior. Jamison et al. (2014, p. 25) state: "[O]ne could reasonably infer from our results that increased knowledge is not a necessary condition for increasing saving or income…." Other studies found that the treatments they examined improved knowledge, but not behavior or outcomes (e.g., Carpena et al., 2017; Gibson et al., 2014). One study included in the meta-analysis, Ambuehl et al. (2014), is particularly revealing. The authors found that the educational interventions they studied increased financial knowledge and improved self-reported decision strategies but did not improve ability to make a hypothetical decision presented in a realistic, complex manner. The authors concluded that "it is possible for financial education to be highly successful according to conventional outcome measures while failing to improve the quality of financial decision making" (p. 59). More recent work comes to the same conclusion; knowledge about personal finance topics appears to have little to no positive effect on financial behavior (Sharif et al., 2020) or subjective financial well-being (Barrafrem et al., 2020).

Financial Education Can Have Perverse Effects

Financial education has opportunity costs. Participants lose more productive uses of their time. Society suffers a diversion of time, money, and attention from alternatives with better prospects for successfully increasing financial well-being.

Financial education also can have paradoxical effects. It can increase financial confidence without a commensurate improvement in knowledge (Bucciol et al., 2020). For example, in Lusardi et al. (2017) four education treatments increased subjects' self-confidence about their financial knowledge, but only two of those treatments increased subjects' actual knowledge. Overconfidence in self-assessed financial knowledge has been linked to poor financial outcomes (Kim et al., 2020). Financial education can increase financial knowledge without a commensurate improvement in ability. More financial knowledge is linked to "speculative investment, higher share of risky assets, and overborrowing" (Kawamura et al., 2020, p. 32). Kawamura et al. note that typical financial knowledge questions "do not include any knowledge about asymmetric information, imperfect competition, and irrational behaviors, under which naïve consumers can easily be taken advantage of" by financial firms (p. 35). Perhaps this knowledge is crucial for consumers to defend themselves against the industry.

In addition, many programs intentionally inculcate trust in the current financial structure of society, and in the formal banking system in particular. However, unwarranted trust is financially dangerous and politically disempowering. An anecdote is instructive. To teach children about the banking system, a U.S. primary school walked its students to a local bank where each opened a savings account into which each deposited $5. Implicit in this activity is the message that the bank is trustworthy. Another bank then acquired that bank and charged all low balance accountholders a monthly maintenance fee that wiped out the children's savings. The children may have learned a more important lesson about the financial sector than the school intended.

Finally, financial education may increase market values at the expense of social and civic values. Tuominen and Thompson (2015) studied a financial education program that successfully taught several financial behaviors (e.g., save money each month) to low-income participants. These participants remained dependent on public assistance, but nonetheless so absorbed the ideology of the program that the participants blamed other people's reliance on public assistance on their poor financial behaviors. Numerous studies suggest that financial education programs in less-developed countries can increase child labor and decrease schooling (Berry et al., 2018; Bruhn et al., 2016).

We Should Not Expect Financial Education to Work

As Gomes et al. (2020) recently observed, households face a complicated and dynamic financial environment, in which they must "initiate and refinance collateralized debt obligations such as mortgages and automobile loans, manage their credit quality and unsecured loan obligations over time, decide an optimal intertemporal consumption and savings plan, and manage assets to finance short-term requirements, as well as longer-run needs such as consumption in retirement" (p. 97). Given the complexity of these tasks, the ways in which people make financial decisions, and the environment in which they must make them, the failure of financial education is unsurprising.

No matter how knowledgeable, consumers have limited cognitive resources with which to use that knowledge and limited willpower with which to execute decisions. Behavioral economists

have shown that people do not make decisions through a careful weighing of costs and benefits. Optimism bias, the illusion of control, impatience, procrastination, limited attention, exponential growth bias, anchoring, framing effects, choice overload, and more all skew consumer decisions and behaviors, particularly financial decisions and behaviors (e.g., Hirshleifer, 2015; Stango & Zinman, 2020).

Moreover, the financial industry is well-positioned to exploit limitations on consumer rationality and willpower. Financial education occurs at a remove from financial decisions; firm marketing is ubiquitous and sales tactics are deployed at the moment of consumer decisions. Marketing systems today increasingly are run by artificial intelligence systems that personalize electronic marketing materials and sales interfaces in real time. These systems can target individual consumers with materials that leverage biases and moments of vulnerability to poor decision-making (Willis, 2020).

For the poor, the premise that financial education will improve financial well-being rests on a kind of alchemy. Insufficient income to meet expenses necessary for human flourishing cannot be solved by changes in consumer financial behavior. A 10% return on zero, even compounded, is still zero. Nearly half of the planet's population lives on the local equivalent of less than US$5.50/day (World Bank, 2020). Income volatility in the U.S., particularly for those with lower incomes, has increased dramatically in recent decades. The Great Recession and COVID-19 pandemic have precipitated widespread lengthy periods of unemployment, but even before these, the proportion of U.S. households experiencing a 50% or larger drop in income over the prior two-year period had reached 10% (Dynan et al., 2012). For those with few resources and unpredictable income and expenses, many behaviors promoted by financial education programs, including saving and budgeting, are impossible.

Enhancing Individual Decision Behavior

Many interventions other than financial education show potential for improving individual decisions and actions, such as supports for early brain development. Financial advice and behavior assistance, whether provided by humans or technology, also might help. More ambitiously, society might ameliorate the assaults on human decision-making capacities caused by avoidable major life stressors. Enhancing consumer financial behavior can only go so far; structural barriers to financial well-being cannot be removed by individual action alone. But the suggestions here are also likely to help consumers become more engaged financial citizens, whose collective actions can change social structures.

Strengthening Consumer Capabilities

People's entire lives are substantially affected by their experiences in utero and at young ages. Improving prenatal and early life environments could improve numeracy, patience and self-control, and general decision-making capacity, all of which contribute to long-term financial outcomes. Adult cognitive functioning and executive function skills also can be enhanced through various interventions, although returns on investments in prenatal and early life interventions likely dwarf returns on investments in adults (García et al., 2020).

Examples of promising prenatal interventions are reducing exposure to alcohol and pollution and improving nutrition (Almond et al., 2018). Fetal alcohol exposure is associated with diminished educational attainment, cognitive abilities, and long-term labor market outcomes (Nilsson, 2017). It has a particularly damaging effect on brain structures implicated with numerical

ability (Glass et al., 2017), which may be important for financial behaviors (Gerardi et al., 2013). Exposure to certain types of pollution in utero adversely affects cognition (Bharadwaj et al., 2017) and adult wages (Isen et al., 2017). Poor prenatal nutrition depresses adult IQ and earnings (Black et al., 2007).

Executive function improvements are another potential route to greater financial well-being. Executive function refers to brain functions that produce the capacity to plan, focus attention, control impulses, and be patient, all of which facilitate welfare-enhancing financial behaviors (Drever et al., 2015). For example, individual levels of patience positively affect adult wealth (outside of the very poor), with effects at least as strong as educational attainment and about half as strong as parental wealth (Epper et al., 2020). Reducing the incidence of preterm births could help; those born very preterm demonstrate lower executive function in adulthood (Kroll et al., 2017). Childhood interventions can improve executive function, particularly for those with lower levels to start (Alan & Ertac, 2018).

Reducing prenatal and early childhood exposure to acute and chronic stress also could have positive long-term financial effects. Household stability is positively associated with executive function development (Andrews et al., 2021). Exposure to violence during the prenatal and early childhood periods is associated with reduced executive function (Sharkey et al., 2012) and IQ (Mueller & Tronick, 2019), and, in adulthood, depressed cognition and income (Duque, 2017).

Even in adults, decision-making and self-control capacities can be altered. For example, interventions that enhance physical health can improve current decisions (Hillman et al., 2008) and retard cognitive decline (Bherer et al., 2013), a significant cause of worsening financial decision quality after midlife (Agarwal et al., 2009). Increased income stability could help; income instability in adulthood appears to impair cognitive functioning and physical brain integrity at midlife (Grasset et al., 2019). Although self-control training has little effect on adults, they can benefit from mindfulness training. Mindfulness training reduces stress (Querstret et al., 2020), enhances attention, working memory, and self-control (Zainal & Newman, 2020), and has been found to improve specific financial behaviors (Celsi et al., 2017).

External Financial Decision and Behavior Supports

Professional and technological assistance could improve consumer financial outcomes. Supports include advice or counseling in which a professional or a computer program suggests specific actions to take or helps consumers engage in those actions, as well as coaching or nudging in which a professional or an app encourages or reminds individuals to take specific actions or even automatically takes specified actions for consumers. As previously noted, Carpena et al. (2017) found that individualized counseling was helpful in increasing people's savings where financial education was not, and Abebe et al. (2018) found the same for text message reminders to save.

Yet a significant caveat is in order. Although its value is so widely accepted that people spend billions of dollars on it every year, financial advice is also a financial service about which individuals must make good decisions. Audit studies find that financial advisors routinely give advice that favors their own interests over their clients' interests (Mullainathan et al., 2012). Conflicted investment advice is estimated to cost U.S. consumers in the aggregate $17 billion annually (U.S. Council of Economic Advisors, 2015). Automated advice systems might overcome this issue, but that is not guaranteed (Edwards, 2018). New regulation of these systems and enforcement of that regulation would be necessary, at significant social cost (Van Loo, 2017).

Curtailing External Stressors

Even consumers who otherwise have the cognitive and executive function capacities to make good decisions and carry them out can be derailed by acute stress. Not all stress is bad for decision-making. But some stressors assault people's decision-making capacities. Policies that reduce these stressors are good candidates for improving financial behaviors and outcomes.

Financial strain reduces cognitive and willpower functioning; people who can perform well in times of plenty can demonstrate lowered IQ scores and diminished willpower in times of scarcity (Mullainathan & Shafir, 2013). Job, housing, food, and physical insecurity can result in stress that overwhelms the brain, leaving too little cognitive or executive function bandwidth to make and carry out reasoned decisions, increasing reliance on intuitive and impulsive behaviors (Vohs & Faber, 2007). Stress impairs memory, reduces executive function, and exacerbates biases that impede decisions about financial risk (Porcelli & Delgado, 2009). The recent experience of a serious negative life event, such as the loss of a job, dramatically increases consumer vulnerability to financial fraud (Federal Trade Commission [FTC], 2013, Table 17 and Figure 17).

Policies to reduce these stressors might include universal basic income provision, unemployment compensation, and housing and food supports. These can directly improve the recipients' material welfare, reduce chronic income instability that impairs cognition at mid-life, and relieve stress. Programs that reduce violent crime, particularly domestic violence, would likely not only improve children's brain development, but also adults' stress levels, thereby improving capacities to engage in welfare-enhancing financial behaviors.

Reducing Challenges the Neoliberal Marketplace Poses to Good Decisions

Changes to the financial marketplace are another way to facilitate consumer financial well-being. The following briefly describes three: bolstering enforcement of current anti-fraud, anti-discrimination, and antitrust laws; changing the law to align financial firm incentives with consumer interests; and enabling consumer financial planning.

Bolstering Law Enforcement

Noncompliance with existing laws against consumer deception, discrimination, and anti-competitive conduct is rampant. U.S. consumers reported $1.9 billion lost to fraud in 2019, a number expected to rise in 2020 (FTC, 2020). Discrimination in employment and wages lowers the income of minorities and women in many countries (World Bank, 2018). Discrimination in the sale of financial services is well documented; Bartlett et al. (2019) estimate that discrimination in mortgage interest rates costs U.S. Latinx and African-American borrowers $765 million annually. Although measurement debates preclude quantification, rising concentration in consumer and labor markets costs consumers and workers dearly.

Law enforcement needs to be both broader and stronger. Deterrence is a function of both the probability of detection and the size of the penalty imposed, and both are too low. To take one example, defrauding consumers is often a winning proposition. On the extensive margin, revelations that U.S. enforcement agencies failed to take action against Wells Fargo Bank until more than 5,000 employees had opened 1.5 million unauthorized accounts is a reminder of the low probability of civil prosecution of even widespread domestic fraud (Corkery, 2016). On the intensive margin, payment processor PayPal was charged with tricking customers into using credit accounts when they thought they were using free transaction accounts and then sending emailed

bills that were treated as junk by spam filters so that PayPal could charge months of accrued interest and fees by the time customers became aware of the debt (Consumer Financial Protection Bureau [CFPB], 2015). The CFPB required the firm to pay $25 million in refunds and penalties, less than .002% of PayPal's annual sales revenue that year (MarketWatch, n.d.).

A marketplace where deception is not a pervasive threat would be easier to navigate than one in which consumers must each, one-by-one, attempt to protect themselves. Reducing discrimination and market concentration would raise incomes and reduce discriminatory overcharges for those who typically have the least income and wealth to begin with, easing the difficulty of their financial choices (Hamilton & Neighly, 2019).

Aligning Incentives

Financial firms frequently benefit from poor consumer choices. Credit card issuers earn more when cardholders do not pay off balance transfers before teaser interest rates end. Investment firms derive higher profits from high-fee funds that produce returns no better than index funds. Insurers benefit from policies that cost more and cover less. Competition does not drive inferior products out of the market, in large part because financial products are easily structured and marketed to obscure prices and exaggerate benefits.

Although creating consumers who can outsmart firms would change this dynamic, a more realistic alternative would be for the law to directly align firm and consumer incentives using performance-based regulation (Willis, 2015). Two routes are possible. First, the law could impose customer comprehension rules. Financial firms would be required to demonstrate, through third-party testing of samples of their customers, that their customers understand key facts about the financial transactions in which they are engaged. If a firm's customers do not understand a cost, risk, or limitation of a transaction, the firm could be sanctioned; for example, the firm might be required to reimburse a misunderstood investment fee or eliminate a misunderstood limitation on insurance coverage. Customer comprehension rules would induce firms to effectively explain transactions and to simplify products to make them easier for consumers to understand.

Second, the law could impose customer consequences rules. Regulators or firms (with public oversight) would define desired and/or adverse consequences of financial products. Firms would be incentivized to meet performance benchmarks for the proportion of the firm's customers that obtain (avoid) the desired (adverse) consequences. For example, small-dollar lenders might be required to demonstrate that their customers pay off their loans when due without relying on another loan to do so. Customer consequences rules would induce firms to channel products to customers who are likely to experience desired consequences and to eliminate product features that present a high risk of adverse consequences.

Enabling Consumer Financial Planning

Wealth and budget slack make the financial planning environment much easier. Households with these have the luxury of being able to budget vaguely, if at all. Consumers with wealth or a family safety net can take potentially lucrative financial gambles, such as starting a business or investing in riskier assets, without risking hunger or homelessness. They can predict their income and expenses with sufficient accuracy to engage in meaningful financial planning, which is strongly associated with wealth (Ameriks et al., 2003).

Households without wealth or budget slack must precisely track income and expenses. When the latter exceeds the former, these households often are pushed back further financially

because, for many, high-cost borrowing is the only option to bridge the gap (Barr, 2012). Even when they make ends meet, they have nothing left to save and manage. When income and necessary expenses (e.g., food, housing, medical, or disaster recovery costs) are unpredictable, planning becomes hopeless. These households need incomes that exceed expenses, not only in the obvious sense that what poor people need is money, but also because money is a prerequisite for financial planning. They also need predictability in income and expenses. Only public policies that increase wages and their predictability, provide social insurance against unpredictable expenses, and stabilize the cost of necessities, can begin to give all consumers a fair shot at financial planning.

In addition, many financial services, including basic bank accounts, payment devices, remittance services, insurance, and emergency credit, are necessities for planning or even transacting. These services can be priced well above cost, in part due to complexity of fee structures and in part because poorer consumers often need services immediately and locally, reducing competition. Switching costs also impede competition. Both better law enforcement and performance-based regulation would help to reduce prices, but a more efficient approach could be government-provided basic financial services, as many countries have begun to offer (Clotteau & Measho, 2016).

Directly Increasing Financial Well-Being

The most direct route to improved financial outcomes is simply the obvious: progressive redistribution of wealth from those who have more than enough to achieve financial well-being to those with too little, such as through minimum wage laws and tax and transfer programs.

Financial Citizenship Education

For any alternatives to financial education to be implemented at scale will require citizens who understand the current economic order and can envisage, support, and vote for change. In this process, education retains a place, but it is not conventional financial education. Instead, it is education that fosters the knowledge and mindset necessary for civic engagement with issues of economic policies and financial regulation (Willis, 2017).

Financial citizenship education must help students understand how the current economic order is constructed, but also that we, as a society, have constructed it and have the power and responsibility to reconstruct it as we want it to be. This requires understanding economic systems "as answers to the problems arising in different historical periods" and, within a single period, as reflecting "different, competing perspectives on … the role of the state" (Berti, 2016, p. 521). Although no pedagogy is neutral, this anthropological approach encourages students to develop their own views about how their economic system ought to be structured and regulated. Those views will necessarily support particular values. Financial citizenship pedagogy should help people understand which values are supported by particular policy choices, so they can take political action consonant with their values.

Traditional financial education conveys three messages that are at odds with financial citizenship education. First, current programs locate financial problems and their solutions in individual behavior. In so doing, they erase the effects of individual pre-existing financial, human, and social capital, which overwhelmingly are determined by family resources, which in turn, at least in the U.S., are overwhelmingly determined by race (McIntosh et al., 2020). Very low rates of intergenerational mobility, particularly for low-income people, is a global problem, one that the

World Bank has suggested calls not for individual behavior change but for investments in early childhood development, protection for workers from discrimination, and progressive tax systems to reduce inequality (World Bank, 2018). Second, traditional financial education's focus on changing individual behavior implicitly socializes people to accept the financial marketplace as it currently operates. Third, traditional financial education teaches falsehoods -- that credit prices reflect creditworthiness, that wages reflect what labor is worth, that the formal banking system is trustworthy, etc. Collectively, these messages are likely to lead to political complacency in the face of structural barriers to broadly-shared financial well-being, barriers that cannot be overcome by individual action.

On the other hand, some components of traditional financial education are part of financial citizenship education. Understanding how financial products work or do not work for consumers is part of understanding the financial system writ large. Teaching people money management skills, when done within a context of understanding that these skills are required because societies today have adopted social and regulatory policies that make these skills necessary, can illuminate the fairness or unfairness, efficiency or inefficiency, and wisdom or absurdity of those policies. For example, telling people how to make retirement savings and investing decisions might not help them do so. But a realistic pedagogical simulation in which they must try to do so and then are debriefed on their performance could reveal the enormity of the task. If they also are taught about the diverse approaches employed by different societies over the course of history to support people past working-age, they might appreciate the tradeoffs among different policy choices.

Knowledge of what consumers pay and receive in financial transactions must be complemented by an understanding of firm costs and profits and of how regulation shapes firm incentives. For example, consumers taught how buy and finance a car in the U.S. might not grasp the algebra. But if taught to understand the transaction from the consumer's, dealer's, and lender's perspectives, they likely will learn that prices are not set by some invisible hand; car and loan prices in tandem affect how much the consumer pays and the dealer receives; vulnerable, often minority group, consumers frequently pay more; and the law constrains this in some respects but facilitates it in others.

If our goal is widespread financial well-being, traditional financial education shows little sign of getting us there. The alternatives to financial education described in this chapter are all promising. We should pursue these and evaluate the results. But truly widespread financial well-being will require socioeconomic change, change only possible through finance-informed citizens who can move us to a system of citizen-informed finance.

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