View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Journal of Social Science Education (JSSE - Universität Bielefeld)

Volume 16, Number 4, Winter 2017 DOI 10.4119/UNIBI/jsse-v16-i4-1761

Lauren E. Willis

Finance-Informed Citizens, Citizen-Informed Finance: An Essay Occasioned by the International Handbook of Financial Literacy*

Purpose: Throughout the world, the dominant discourse treats "financial literacy" as both necessary and sufficient to improve the well-being of individuals and society.
Findings: This essay argues that financial literacy is neither, and that promoting financial literacy is a perverse way to address the inadequate retirement funding, overindebtedness, financial crises, and other social ills that have inspired governments and educators to pursue it. In its place, this essay suggests that the aim of financial education ought to be to foster finance-informed citizens, who have the capacity for civic engagement that can create citizen-informed economic policies and financial regulation.

Keywords:
Financial education, financial literacy, financial inclusion, civic education

1 Introduction

It is always challenging to review an anthology, and at 43 chapters from 74 contributors spanning 713 pages, the International Handbook of Financial Literacy (Springer 2016, Aprea, Wuttke, Bruer, Koh, Davies, Greimel-Fuhrmann, and Lopus, eds.) (hereinafter, the "Handbook") makes "challenging" an understatement. So I begin with the caveat that this is not so much a review as an essay occasioned—or perhaps stated more accurately, both provoked and inspired—by the Handbook.

The Handbook contains a comprehensive compilation of the latest research and most cutting-edge thinking from around the world on "financial literacy." The overarching takeaway from the volume is that we all know something is not right in our approach to this topic. Yet there is no clear agreement on what the problem is, or what to do about it.

Many of the chapters in the Handbook suggest potential prescriptions for this problem, but most address one aspect of the topic, disjointed from other equally-worthy concerns. In addition, despite many of the authors' critical perspectives on conventional thinking about financial literacy, most continue to shoehorn their policy suggestions into a neoliberal, individualist frame. Although pressing for reform in such a fashion can increase political palatability and social acceptance, the existing conception of financial literacy may be encumbered with too much ideology and wishful thinking to achieve meaningful change within its discourse.

After reading the Handbook I was thus left wanting to bring all of the authors into one room to discuss this topic together. To debate, and to clarify where they disagree. To expand upon areas of agreement. To move the discussion forward, leveraging the collective wisdom of the contributors. I do not have the power (or the financial means) to bring all the contributors together, and so I will use this essay in part to imagine what might transpire if they were to have such a conversation.

I will begin by describing the narrow and unproductive, if not downright harmful, conceptions of financial literacy that have dominated political and social discourse on the topic in both wealthy and less-wealthy countries. Next I will discuss the broader and potentially more useful approaches that many of the contributions in the Handbook bring to this topic. Finally, taking as inspiration the matters on which the more forward-thinking authors display a fair degree of consensus, I will suggest that widespread individual and collective material well-being can only be achieved through country-specific political change, and that political change requires financially-informed citizenship, not "financial literacy."

Lauren E. Willis is Professor of Law & Rains Senior Research Fellow at *Loyola Law School, Los Angeles/ CA 90015.*
//www.lls.edu/faculty/facultylists-z/willislauren/
Email: lauren.willis@lls.edu

2 Traditional conceptions of financial literacy

What *is* "financial literacy"? Four constructs have dominated discussions throughout the world to date: financial literacy as money management ability, financial literacy as socialization, financial "capability" but without financial resources, and financial literacy as panacea. Each construct is a bit different, but they all flow from and reinforce neoliberal ideology. Unfortunately, neo-liberalism is a leading culprit in the lack of financial well-being experienced around the world. Conceptions of financial literacy thus have little chance of improving individual and collective financial well-being. The following discusses and critiques each of the four traditional constructs in turn.

2.1 Financial literacy as money management ability

In the U.S., we favor individualist and ahistorical understandings of nearly everything, and financial literacy is no exception. Financial literacy is centrally viewed as knowledge and skills possessed by individuals. These cognitive capacities, it is believed, enable individuals to engage in money management practices that will improve individual material well-being. Similar constructs exist throughout the world.

This narrow traditional view of financial literacy as an individual's ability to produce her financial well-being through the application of her own financial knowledge and skills is grounded in neoliberal axioms: Financial literacy is a teachable cognitive capacity of individuals; individuals achieve success through autonomous action and success is measured in material wealth. (See, e.g., Henchoz, 2016, pp. 98-99, for more.) The existing economic order, including pre-existing resource distributions and the structure of the marketplace, is taken as an exogenous given. Community, politics, and power are absent from the model.

Particularly outside of the U.S., many have begun to rhetorically posit a broader construct of financial literacy that includes financially-informed citizenship. Yet, as astutely recognized by Retzmann and Seeber (2016) in their chapter in the Handbook, financial literacy assessment tools, including the OECD's Programme for International Student Assessment (PISA), continue to reflect and contribute to a narrower view (p. 12).

Financial literacy tests, particularly those used in wealthy countries, generally hew to an information, skills, and money management approach to financial literacy. This is apparent throughout the Handbook, such as in the test used to assess financial literacy in New Zealand described by Cameron and Wood (2016, p. 186), the list of questions used to measure financial literacy in Austria provided by Greimel-Fuhrmann, Silgoner, Weber, and Taborsky (2016, pp. 256-257), and the topics covered in assessments of financial literacy in Switzerland discussed by Ackermann and Eberle (2016, pp. 350-351).

As educators teach students to pass these tests, the assessment tools actively construct the very quality that they purport to measure. Thus, the money management conception of financial literacy is reflected in and perpetuated by financial education programs. For example, Hašek and Petrášková (2016) in their contribution describe topics covered in financial literacy education in the Czech Republic as consisting of "money, household management, and financial products" (p. 678).

Many financial education programs grounded in the money management view of financial literacy are fairly superficial, with an "emphasis ... on practical knowledge within a given setting at a given time" (Pang, 2016, p. 588). In the U.S., for example, the objective of financial education in secondary schools is "to equip students with practical decision-making skills" related to financial matters (Gutter, Copur, and Garrison, 2016, p. 215). More sophisticated pedagogical approaches are advocated by several of the chapters in the Handbook. For example, Pang presents an educational program introduced in Hong Kong that is deeper and more durable than most, in that it teaches how economic concepts can be used to make decisions that maximize individual wealth regardless of the particular products or circumstances involved (pp. 594-598).

However, even sophisticated money management pedagogy is imbued with ideology and false information. For example, the U.S. Council for Economic Education standards presented in the contribution from Bosshardt (2016) falsely imply that earning, saving, borrowing, investing and insuring all take place as a result of cost-benefit calculations by individuals (p. 172). That people's financial behaviors are overwhelmingly determined by their resources, opportunities, and other circumstances goes unmentioned. The U.S. standards further assume a context in which firms pay people what their labor is "worth" and charge people prices that reflect the actual cost and risk of the transaction to the firm (see ibid).

The assumptions of the economic theory on which this pedagogy is based are under increasing empirical stress. Witness, as Budd's (2016) creative contribution to the Handbook points out, the death of the efficient markets hypothesis (p. 623). Further, we know that economically-irrelevant factors such as perceived race or ethnicity affect employment decisions, even when controlling for all other factors (e.g., Bertrand & Mullainathan, 2004). Moreover, while exploitative pricing is nothing new, big data, proprietary algorithms, and machine learning are today institutionalizing price discrimination. For example, personal data is now used to predict the elasticity of each consumer's demand to set personalized prices for credit (Experian, 2013) and insurance (Earnix, n.d.).

Thus, both wage-setting and price-setting mechanisms do not function in accordance with theoretical notions of neutral market-wide supply and demand curves and consumer surplus. Financial education and the money management conception of financial literacy embedded within it are based on market ideology, not market reality.

2.2 Financial literacy as financial socialization

Individuals frequently fail to put the knowledge, skills, and money management practices imparted in financial education into action. This is attributed to a lack of confidence in financial abilities, a lack of self-control in financial decision-making, and a lack of trust in the financial marketplace. The understanding of financial literacy as money management ability has been broadened in many countries to include these non-cognitive qualities—confidence, self-control, and trust.

For example, Handbook contributors van der Schors and Simonse (2016) discuss the importance of trust, motivations, and attitudes in the Dutch context (p. 311). Stillwell (2016) notes that Welsh schools use financial education to instill "positive attitudes towards finance at an early age" (p. 360). The OECD (2012) likewise has incorporated attitude and behavior into its definition of financial literacy as "[a] combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (p. 2; see also, e.g., Financial Literacy and Education Commission, 2016, pp. 8-9, discussing the importance of confidence, self-control, and "comfort" for financial decision-making).

That financial literacy involves e non-cognitive components reveals that financial literacy is not a technical construct, but a culturally-defined and sociallized one. A striking example comes from the book's chapter on

financial education in Romania, where children are taught "how people should behave in a bank" (Lacatus, 2016, p. 324). Another comes from Indonesia, where the government's financial literacy campaign slogan was, "Let's go to the bank" (Amidjono, Brock, and Junaidi, 2016, p. 285).

Particularly in less well-off countries, where the failures of neoliberalism are more obvious, financial literacy measurement instruments reflect and reinforce a conception of financial literacy as financial socialization. In particular, individuals who trust financial institutions are viewed as financially literate. In Amidjono, Brock, and Junaidi's contribution about Indonesia, for example, the authors use ownership of a bank account, savings within the formal banking system rather than outside it, and use of a credit or debit card as their indicators of the population's "financial literacy" (p. 281). In another chapter, Peña (2016) measures Mexican youths' "bank appreciation." He then codes more positive impressions of banks, alongside more patience and more mathematical ability, as equating to better "financial culture" (pp. 474 and 482).

Yet the socialization purposes of financial education are not limited to less well-off countries. For example, in the U.S., students are taught about, e.g., "the benefits of having financial knowledge and healthy financial behaviors" and "the social desirability and impact of being a financially responsible person" (Danes, Deenanath, and Yang, 2016, p. 429).

In Germany, Handbook contributors Frühauf and Retzmann (2016) explain, financial literacy promotion has two orientations (pp. 270-271). One ("*Erziehung*") teaches people to protect themselves, provide for themselves, and otherwise behave according to societal standards (for example, by avoiding over-indebtedness). The other ("*Bildung*"), which the authors view as more "financially mature," promotes the idea that people should actively advance their personal financial well-being through well-informed autonomous choices, including choices that embrace risk in exchange for return. Although these orientations are different, both socialize people to accept the financial marketplace as it currently operates and both locate financial problems and their solutions within the individual.

The financial industry's embrace of financial education further reveals an implicit motive to "socialize" the populace. Industry is involved in some proportion of financial "education" in virtually every country discussed in the Handbook, from the U.S. (Heath, 2016, p. 378), Italy (Farsagli, Filotto, & Traclò, 2016, p. 539), and Singapore (Siu & Koh, 2016, p. 573), to South Africa (Wentzel, 2016, p. 333), Mexico (Ruiz-Durán, 2016, p. 297), and Zambia (Knoote, Partington, & Penner, 2016, p. 204). In Germany, "bank staff and even self-employed investment advisers" teach financial classes in the public schools (Frühauf & Retzmann, p. 267). Certainly, industry-supported pedagogy, even when it is not outright financial product and services marketing, aims to produce respect for the current economic order, not criticism or reform.

Financial education is thus conceived, whether more or less explicitly, as a method of financial socialization. Financial literacy continues to be seen as a capacity residing within individuals, having both cognitive and non-cognitive components. As Toni Williams (2007) recognized in her work published a decade ago, financial education teaches people to accept a reduced role of the state in consumer protection and in the provision of basic social welfare. Students are indoctrinated to embrace the role neoliberal ideology has assigned them as consumers capable of and responsible for pursuing their own material well-being without political change.

2.3 "Financial capability" without financial resources

The misleading term "financial capability" is increasingly used in place of "financial literacy" (see, e.g., Cameron and Wood, pp. 183-184; Farnsworth, 2016, p. 148). As a linguistic matter, one would think that "financial capability" would encompass an individual's economic and social resources, which are almost always the biggest determinant of an individual's capacity to achieve material well-being. But a closer look at materials employing this term demonstrates that individuals' resources are typically not considered part of their "financial capability" (see e.g., Financial Literacy and Education Commission, 2016, p. 7).

Instead, the "capability" advocates perpetuate the idea that teachable knowledge, skills, and money management practices as well as trainable confidence, self-control, and trust are not merely necessary for financial well-being; they are sufficient. The normative messages of this construct are clear—resource distributions are unquestioned, the market should not be interfered with, and the individual should maximize material wealth within the existing order. A recent article in JSSE found a similar pattern with respect to economics pedagogy: "A study of the eight economics textbooks used in contemporary American high schools found that seven do not address wealth distribution, a fundamental measure for evaluating the economic system of a given society" (Neumann, 2017, p. 11).

The only recognition that socioeconomic position might relate to financial well-being in the dominant financial literacy discourse is a nascent admission that financial education must "recognize" inequality. Disturbingly, what is meant by this, at least in the U.S., is not that society should ensure that the poor have a more equitable share of financial and social resources. Instead, "recognizing" inequality means that course content must be adapted—to a degree—to address the needs of those with fewer financial and social resources (Financial Literacy and Education Commission, 2016, p. 21). That is, pedagogy must assist the poor with the knowledge, skills, and money management practices that the current economic order demands of them. Other countries take a similar approach. For example, Cameron and Wood's chapter on New Zealand discusses the specialized financial training given to certain minority populations there, which is adapted to, e.g., focus on the types of products these populations are frequently sold (pp. 189-190).

The Handbook's chapter from Wentzel takes a quite progressive stance here, advocating that financial education be refocused to teach the poor how to minimize uncertainty rather than maximize wealth, increased certainty being more important for the well-being of the poor than increased wealth (p. 337-338). That material wealth might not be synonymous with well-being is a crucial insight. However, tying this insight back to teaching the individual to take particular financial actions maintains the idea that the marketplace is beyond democratic control and the individual must simply do her best to achieve well-being within it.

Still, Wentzel goes farther than most; the degree to which the dominant financial literacy discourse will recognize inequality is much more tightly circumscribed. For example, as Henchoz brilliantly observes in her chapter, ignoring dunning letters until one's financial circumstances change may be the best course for someone who cannot pay off current debts, in that it avoids stress and increases physical and psychological well-being; it may even increase financial well-being, to the extent that income is related to physical and psychological health (p. 108). But one cannot imagine even a "culturally sensitive" financial education program teaching people not to open their bills. Most financial educators would be appalled at the suggestion.

Instead, the recognition of inequality by conventional financial literacy proponents has led to the conclusion that society must work harder to socialize the poor to exercise self-control, to trust the system, and to believe that by their autonomous actions they can increase their personal wealth.

In Romania, for example, Lacatus observes that pain inflicted by the 2008 global financial crisis and generally low income levels have led to widespread "skeptic[ism] with respect to the long-run benefits of free markets" (p. 322). She appears to conclude from this *not* that critique and distrust of the current system is justified, but rather that the Romanian populace requires an extra dose of education to become financially socialized.

Others assert that financial education for disadvantaged groups can level the playing field for wealth accumulation (see, e.g., Pinto, 2016, p. 137, documenting the prevalence of the claim in the Canadian press; Hill & Asarta, 2016, pp. 555-556, noting gender differences in financial literacy, another leveling justification for financial education). The evidence does not support this conclusion. Very little money will remain very little money whether held in a bank account at 1% interest, invested in a booming stock fund, or stuck under a mattress. Net of fees, bank accounts and stock funds may well be worse for wealth accumulation than the mattress.

As thoroughly explained by Arthur (2016) in his fine contribution to the Handbook, the "financial capability" discussion challenges neither inequality nor the economic structures that produce it (pp. 113-125).

2.4 Financial literacy as panacea

Whether viewed as money management ability, sociallization, or capability, the conventional conceptions of financial literacy are all quite narrow. Yet the functions this narrow conception is expected to perform are prodigious. The oft-repeated trope in the Handbook's chapter from O'Neill and Hensley (2016) is illustrative:

> Perhaps at no other time in history has the need for financial education been as great as it is today. The global financial crisis clearly demonstrated what can happen when people do not understand complex financial instruments (e.g., option ARM loans and derivative securities).

(p. 640; see also Schuhen and Schürkmann, 2016, p. 384, making a similar claim). Financial literacy is imagined to be capable of thwarting financial crises.

However, the most financially knowledgeable people in the world—those working in the financial industry—*did* understand option ARM loans and derivative securities. The financial firms that failed in the crisis were not saved by the advanced finance and business degrees of their officers and employees. As Pinto observes in her Handbook contribution, the claim that financial literacy would have averted the 2008 global financial crisis is commonly asserted in Canada as well, but the evidence points to monetary policy failures, insufficient regulation, and risky, exploitative behavior by financial institutions as the causes of the crisis (p. 136-37).

Nonetheless, financial literacy is proposed as the cure to a multitude of financial ills throughout the world. In wealthy countries, including, e.g., the Netherlands (van der Schors & Simonse, p. 316), the U.K. (Stillwell, p. 358), Germany (Barry, 2016, p. 450), and Singapore (Koh, 2016, p. 500), three woes are commonly cited. First, financial literacy is suggested as an antidote for low savings rates, over-indebtedness, and bankruptcies. Second, financial literacy is suggested as a means to protect people against poor retirement-related decisions, includeing insufficient savings, overpriced investments, overly risky *and* insufficiently risky portfolios, and myopic asset withdrawal behavior during retirement. Third, financial literacy is expected to dispel consumers' confusion when they are faced with the growing complexity of financial products.

Curiously, financial literacy is also promoted on grounds that it is needed to "cope" with affluence in well-off countries. One of the chapters from Germany cites the prevalence of inheritances as calling for financial education because "[inheritance] beneficiaries can and must make investment decisions of considerable weight" (Frühauf & Retzmann, p. 264). Another chapter cites Singapore's recent surge in household wealth as calling for financial literacy interventions (Lee & Koh, 2016, pp. 415-416).

In less wealthy countries, financial education is believed to be the solution to very different problems, primarily low levels of involvement with the formal financial system, particularly among the poor. In Mexico,

financial education is part of the national strategy for "financial inclusion," meaning placing savings in accounts at and taking loans from formal financial institutions. The government has even set a goal of "increasing credit in the private sector from 28 to 40% of GDP" (Ruiz-Durán, pp. 293-296 and 302). In Indonesia, financial literacy campaigns aim to promote the population's use of savings and credit products from the formal banking sector (Amidjono, Brock, & Junaidi, pp. 285-286).

Thus, it appears that financial literacy in wealthy countries is medicine for too little savings and too *much* debt, and in poorer countries it is medicine for too little savings and too *little* debt.

The International Handbook of Financial Literacy itself begins with the panacea construct of financial literacy. In the introduction to Part 1 of the book, the editor asserts that "the promotion of financial literacy is of outstanding importance for individual and collective well-being in the twenty-first century" and that "[g]iven the complexity of economic, political, and social trends, it ... should be a concern for political and educational actions throughout all countries in the world" (Aprea, 2016, p. 5). Quite a few of the contributors either take a similar view or have seen it expressed in their country's popular and political discourse—the view that current economic, political, and social trends are inalterable, and individual financial literacy is the only way for people to keep up.

As with other traditional conceptions of financial literacy, the panacea conception locates the problem and solution in individuals. This perspective does not so much define the content of financial literacy as to simply assert that financial literacy is some set of qualities or behaviors of individuals—*other than their economic and social resources*—that will inoculate them against or even cure them of financial problems. It treats recent changes in social policies that place more financial responsibility and more financial risk on individuals and that generate greater inequality and widespread financial distress as givens.

However, these are not givens, they are all *choices*. Cameron and Wood's chapter explains that financial education in New Zealand was "born out of retirement income policy"—that is, a policy choice to cut rather than continue to fully fund public pensions, thereby making individuals responsible for providing for themselves in retirement (p. 182). In the British Parliament, Farnsworth explains, financial education has been supported as a way to address deception of consumers that is committed through complex financial product terms, such as terms found in credit card contracts (pp. 154-159). Rather than implementing policies to prevent sellers from engaging in deceptive practices, the policy choice is to arm consumers with financial literacy in the hope that they then can protect themselves. In Canada, financial education rather than, for example, monetary policies, regulation of financial institutions, or policies to directly reduce medical debt and poverty, has been promoted as a way to prevent national and personal financial crises (Pinto, pp. 136-138).

However, the cost-benefit method of calculating value so ardently promoted by mainstream financial pedagogy demonstrates that financial literacy is a suboptimal and even bizarre policy response choice for each of the problems at which it is aimed. Financial education is not terribly expensive. However, promoting financial literacy as it is conventionally defined has serious opportunity costs, because policy options with higher prospects for success are not pursued.

For example, Heath, in her chapter about the situation in the U.S., asserts the following non sequitur: "The sheer magnitude of student loans suggests a lack of financial education..." (p. 370). But people with college degrees, regardless of their student loan debt, fare far better on financial literacy tests and earn far more income than those without college degrees. Moreover, eliminating student loan debt could be achieved more surely through reducing college tuition and shuttering over-priced in-effective schools.

Teaching individuals to each manage their own re-tirement finances is a far less efficient response to poor retirement planning than maintaining public pensions. Similarly for financial product complexity, teaching every individual to understand complex products seems a less efficient and more uncertain course than making the products simpler or imposing fiduciary duties on those who sell these products. This is not to say that any of our financial woes are easy to solve, but that pursuing financial literacy has a lower probability of success than alternatives.

In less wealthy countries, the argument for prioritizing financial literacy is even less compelling. In Indonesia, the government promotes financial literacy "with the eventual objective of building a higher quality of life" (Amidjono, Brock, & Junaidi, p. 286). This is in a country where about half the population lives below the international poverty line and even those above the line "are vulnerable to shocks such as food price increases, environmental hazards and ill health, which can easily drive them into poverty" (ibid, p. 280). If food prices, environmental hazards, and ill health are driving people into poverty, financial literacy is not going to keep or pull them out.

Thus, not only is financial literacy as panacea implausible on its face, but it is likely an ineffective policy instrument for addressing any of the ills at which it is aimed. Further, it perpetuates the neoliberal myths that the marketplace is sacrosanct, the individual is inevitably responsible for her financial plight, and the current economic order's distribution of resources is alterable only by individual action and not by political change.

* * * * *

Financial literacy as money management ability is not terribly useful for securing the individual and collective financial well-being with which it is charged. Adding financial socialization is not enough; confidence and trust can be affirmatively harmful. Being able to read a map combined with confidence in one's navigational skills and

trust that the map is accurate are insufficient when you lack fuel or an effective means of conveyance and the distances are too great, the mountains too high, and the rivers too wide to traverse on foot. And it is even worse if the map suggests routes are accessible when they are blocked.

3 Broader conceptions of financial literacy

Most of the contributors to the International Handbook of Financial Literacy demonstrate a broader and more thoughtful approach to the topic of financial literacy than the traditional approaches described above. Collectively, the chapters contain abundant insights about problems with the dominant conception and the type of financial education that flows from and feeds that conception. However, many reforms suggested by the contributors hew too closely to the neoliberal paradigm to result in much improvement. Some of the others take the form of general attacks on that paradigm, without presenting a credible actionable alternative. Neither approach is sufficient to move us forward. The following discusses some of the insights contained in the anthology and analyzes the limitations of each.

3.1 Abandoning the rational wealth-maximizing actor assumption

The first expansion from traditional conceptions of "financial literacy" is a realization common among the Handbook's authors that people's financial actions are shaped by more than their money management abilities, confidence, self-control, and trust; actions are influenced by biases, modes of thinking, culture, and values. These contributors generally propose adding something to existing financial education approaches to respond to these influences.

Loerwald and Stemmann, for example, describe ways in which financial choices are influenced by decision-making biases (2016, pp. 25-38). They advocate adding behavioral economics to the content of financial pedagogy, on the claim that understanding decision-making biases will help people avoid them. Similarly, the chapter by Antonietti, Borsetto and Iannello suggests that the use of different modes of thinking—deliberation, intuition, or heuristics—might have a greater impact on financial actions than knowledge of financial information or the possession of money management skills (2016, pp. 57-68). They recommend metacognitive training, teaching students to first identify which decision-making system ought to be employed in a situation, and then employ that system to make the required decision.

Unfortunately, there is no evidence that metacognitive training will lead to better financial decisions. Even as a theoretical manner, it is difficult to see how someone can consciously choose to use an unconscious decision-making process. Worse, there is evidence that teaching people about their decision-making biases has little to no effect on the quality of their decisions (see Willis, 2011, surveying evidence).

Koh argues that imparting the right cultural values of thrift, self-restraint, and sharing (charity) is foundational to educating students to put financial information to good use (pp. 501-508). Marchetti, Castelli, Massaro and Valle also suggest that social norms should be incorporated into financial education (2016, p. 78). Koh goes so far as to claim that if students are taught that they should stay within their means, they will not overspend (p. 504). In contrast, empirical work suggests that while teaching students to live within their means is likely to increase self-reports of living within their means, it will not necessarily reduce actual debt (see Willis, 2009, pp. 427-429, surveying evidence).

Budd hypothesizes that personal morality and personal finance are entwined (pp. 621-638). He submits that if students are taught the theory and practice of double-entry bookkeeping, they will be financially literate and guided to honest living and dealing. However, accountants knowledgeable about the theory and practice of and engaged in all kinds of bookkeeping have been implicated in dishonesty and malfeasance in recent financial scandals (see, e.g., Toffler & Reingold, 2004).

Yeo emphasizes that financial pedagogy should teach students to not only maximize their own wealth, but also to share that wealth with those who are less fortunate (2016, p. 60-67). It is true that charity in everyday life often increases the happiness of both parties. On the other hand, charity alone cannot create genuine and sustainable individual and collective well-being. Charity as a source of material well-being keeps the poor powerless, as they are subject to the charitable whims of the well-off.

But the deeper issue is that all of these prescriptions remain rooted in the idea that the problem and solution to financial distress lie within the individual. As I have explained elsewhere, changing individuals so that they can and do successfully navigate today's financial marketplace is not realistically possible. Even apart from the overwhelming influence of existing resource distributions on financial outcomes, the speed of financial innovation is too swift for education to keep up, the complexity of financial products too great for non-specialists to master, the frequency of big financial decisions (e.g., retirement savings and home mortgage choices) too low for consumers to learn from experience, and the marketing power of financial institutions too strong for education to override (Willis, 2008).

The Handbook itself provides some interesting evidence in this regard. In chapter after chapter, authors from around the world bemoan the poor state of financial literacy among their country's populace. In Romania (Lacatus, p. 327), South Africa (Wentzel, pp. 332-333), Mexico (Ruiz-Durán, p. 302), and New Zealand (Cameron & Wood, p. 189), financial literacy levels are low. In the U.S., "Americans' borrowing habits are risky, and their knowledge of basic financial literacy concepts low," although most are nonetheless self-confident in their financial understanding (Heath, p. 373; see also Frühauf & Retzmann, p. 269, reporting similar over-confidence among German youth). Even in Austria, a

country with one of the lowest poverty rates in the world, "there is an urgent need to improve the understanding of money and financial matters" (Greimel-Fuhrmann, Silgoner, Weber, and Taborsky, p. 260).

Perhaps literacy levels are not too low. Perhaps it is the demands society places on individuals to achieve their own material well-being in the current economic system that are too high.

Or perhaps financial literacy is simply irrelevant in most people's lived experience, giving them scant reason to pursue it. Multiple chapters in the Handbook report findings that financial literacy has little effect on financial behavior (e.g., van der Schors and Simonse, p. 318; Greimel-Fuhrmann, Silgoner, Weber, and Taborsky, p. 260), although the validity of most measurements of financial literacy has been called into question (Schuhen & Schürkmann, pp. 384-388).

For some, financial literacy is unnecessary, and therefore irrelevant. The well-off do not need to be particularly financially literate to achieve material well-being. As Sherraden and Ansong insightfully note, the employers and social systems of the well-off steer them to healthy financial "behaviors" regardless of their literacy levels (2016, p. 87; see also Aprea & Wuttke, 2016, p. 402, making a similar observation).

In contrast, as the contribution from Henchoz elucidates, for those with few financial resources and unpredictable income and expenses, many money management practices promoted by financial literacy initiatives, including saving, investing, budgeting, and planning, are impossible (pp. 100-105; see also Wentzel, p. 337). This makes financial literacy, conventionally-defined, irrelevant for them too.

Evidence from Indonesia is instructive. Farmers given financial literacy training and a sum of money in a bank account were made better off than a control group given no treatment, but were no better off than farmers given just the money and the bank account (see Amidjono, Brock, & Junaidi, p. 89, citing study). It was not the financial training that mattered, it was the cold hard cash.

3.2 Financial opportunity and inclusion

The next level of insight comes from those contributors who re-locate the problem of financial well-being from within the individual to the opportunities presented to individuals, and in particular the lack of high-quality financial product offerings in the existing marketplace for those who are not wealthy. Sherraden and Ansong, for example, stress the need to consider an individual's access to beneficial financial products, such as low-cost bank accounts, which are not yet widely available in the U.S. (pp. 83-96). Knoote, Partington, and Penner likewise emphasize the need for access to "established" financial services and describe efforts, primarily by international organizations and non-governmental organizations, to provide such access in Sub-Saharan Africa (pp. 193-197). Ruiz-Durán focuses on financial inclusion and discusses the various ways in which the Mexican government has made it easier for financial institutions to offer low-cost accounts and for consumers to use these accounts (pp. 293-296).

The movement to bring the "unbanked" into the financial mainstream, pressing them to use savings accounts and credit products sold by banks rather than "fringe" credit providers such as moneylenders, appears to have support world-wide. However, without price regulation, mainstream banks will not necessarily offer low-cost products to the poor. Experience in the U.S. with mainstream bank account overdraft fees, which can produce an effective interest rate of over 7,000%, provides a cautionary tale (see Willis, 2013, p. 1176).

Mobile phone and electronic/debit card banking are energetically promoted by many financial inclusion programs as being more affordable and practical than brick-and-mortar banking (Ruiz-Durán, p. 296). However, the immediate and constant availability of funds in an account may well deprive those having trouble making ends meet of a useful budgeting tool. As Henchoz's work reveals, optimal behavior for some could be physical budgeting by disbursing cash to themselves weekly and not allowing themselves to spend any more each week (p. 105). For others, she explains, failing to save might maximize personal welfare; to save and budget as financial educators advise demands of the poor a degree of sacrifice and self-denial that is unknown to the well-off (p. 106).

Moreover, high-quality financial products and services are only relevant to those who have the money to use them. If carefully regulated, these products can help preserve what little surplus most people have, but unless the person is already wealthy, these products cannot ever generate much of a return.

The wealth-creation myth upon which many financial education programs are sold (see Pinto, p. 137) is a ruse, notwithstanding the oft-mentioned "magic" of compounding. The financial inclusion approach may be little more. The inclusion approach brings more citizens into the existing financial order, perhaps legitimating that order, but only barely changing it.

On the other hand, the financial opportunity and inclusion discourse does admit that the "free" marketplace is not currently serving society well and is not entirely beyond political or social control. Making good products and services available to the unbanked requires intervention in the market, either by the government or by charitable organizations not driven by profit. The government of South Africa has already intervened to create the Mzansi bank account, "customized to the needs of low-income earners" (Wentzel, p. 334).

Thus, the contributors to the Handbook who advocate for financial inclusion have taken two important steps beyond conventional narrow constructs of financial literacy, admitting both that financial well-being is not entirely within the control of individuals and that the "free" market is not sacrosanct.

3.3 Financial literacy nihilism

Perhaps the most interesting chapter in the Handbook comes from Remmele, who contends that the

conventional financial literacy project must fail because finance is incomprehensible (2016, pp. 39-56). He asserts that the market and the economic order of which it is a part are unintelling in a variety of respects: money itself is so abstracted as to be not fully graspable, the immense power of the market puts it beyond ordinary meaning, and the injustice produced by the system renders any explanation of it absurd. Further, the market's workings are too complex to be fully understood, feedback loops that operate within the market are too counterintuitive to accept, and deceptive practices change too quickly to master.

As Nobel Laureates Akerlof and Shiller (2009) have suggested, that even those with advanced degrees in finance cannot predict market crashes creates the impression that animal spirits are in control. Further, the destruction that crashes leave in their wake solidifies a sense that these animal spirits have a vicious disposition.

Remmele's aim in positing the market as incomeprehensible is to make the case for financial education to be a rallying point for political action. He writes, "comprehensibility is not what it is all about, but rather democracy" (p. 40).

However, constructing a sphere as "incomprehensible" risks naturalizing and mythologizing it, rendering it unquestionable and unchangeable. We might not understand all the dynamics of the market, but the "incomprehensibility" trope is both false and counterproductive. We create the market, we are responsible for it, and we cannot wash our hands of it. Budd provides a pithy response, critiquing those who would analogize financial events to storms at sea "as if they were natural events before which we are helpless, when they are of course of our own making" (p. 624 n.13).

4 Routes forward

At the end of his contribution, Remmele explains that financial education must foster students' abilities on the one hand to undertake concrete personal economic actions and on the other hand to perceive and judge abstract economic processes as a basis for political actions. He further asserts that there is no bridge between these two functions (p. 50). The following attempts to harness the collective wisdom of the Handbook's contributors to suggest promising routes forward and even some bridges between the individual and the political.

4.1 Citizen-informed finance

If we were discussing people's ability to navigate the physical environment we would not start from the assumption that topography is fixed and we must teach individuals to find their own resources, build their own paths, and change their own physical abilities. Instead, we see the relationship between people and their environment as one in which the environment should be adapted to people's physical capacities.

It is strange that we see the concrete physical world as more adaptable than the intangible, unstable financial world. The dominant financial literacy discourse attempts to change people, to train them how to interact well with whatever the market is offering up today. Financial literacy is thus a peculiar, if not perverse, concept. And it is one that probably must be abandoned, laden as it is with the belief that the individual can and should be changed to meet the needs of the market.

As Sherraden and Ansong, drawing on the work of Amartya Sen and Martha Nussbaum, perceptively recognize, what we really care about, or ought to care about, is not a capability that resides within individuals (pp. 83-96). Rather, it is the interaction between people and their economic world that determines people's financial well-being. To improve that will require some mix of changing the financial terrain that individuals must traverse and giving individuals the means of transportation to traverse it, not just handing people a map.

"The" market cannot be treated as a natural given in this approach. To say that policy choices ought not to "interfere" with the market must sound to our ears as odd as to say that policy choices ought not to "interfere" with the national highway system. Just as physical infrastructure—roads, tunnels, and bridges—is a public good, so too financial infrastructure—economic policies and financial regulation—is a public good. We have built our financial infrastructure just as we have built the highways, and we must take responsibility for how it has been built, for who it helps and hurts, and for improving it.

Changing the financial landscape is not a technical regulatory project, it is deeply political. Citizens must decide how that landscape should change and must make that change happen. The value-laden tradeoffs required in this process demand democratic, not technocratic, judgments. How should income and expense shock risks be reduced, at what costs should they be reduced, and how should residual risk be distributed? How much inequality should society accept? How much wealth should be transferred from the affluent to the poor?

As Arthur demonstrates, conventional financial literacy discourse accepts and normalizes the individualization of economic insecurity (pp. 116-117). In addition, with its studious avoidance of discussions about inequality, the discourse allows us to imagine that no tradeoffs are needed, that financial literacy itself will generate wealth for the bottom 90% of the wealth distribution, without taking anything from the wealthiest 10%. The paradigm paints any other choices about economic risk as inconceivable and any tradeoffs to address inequality as unnecessary.

But decisions about the distribution of risk in society can be revised, and all economic systems involve tradeoffs. What is important is for choices to be made knowingly, based on accurate information and considered judgment, by all who will be affected. This calls for finance-informed citizens, who can create a citizen-informed financial order.

4.2 Finance-informed citizens

To understand the tradeoffs at stake and make the political judgments that democratic control of the economy requires, people must understand how the economy and marketplace really work. It must go beyond the neoliberal story that conceives of market failures as bugs rather than features of the current order. Financial education must convey how government policies allow and even drive the economy and marketplace to operate in these ways. And, as Arthur reminds us, we must be mindful of the pain this system inflicts along with its benefits (p. 114).

But understanding how the system works and its current effects is not enough. Financial education "that explains but does not question finance," as Budd puts it, will not result in widespread individual and social financial well-being (p. 622).

Key to critique of the current order is an ability to see not only *how* it is constructed, but *that* it has been constructed by society in the first place. An understanding of different economic orders and financial systems that currently exist and that have existed through history reveals that constructedness (Budd, p. 628; Arthur, p. 121). Here, Berti in her superb chapter presents an anthropological, scientific approach to teaching:

> Economic theories should be discussed both diachro-nically, as answers to the problems arising in differrent historical periods, and synchronically, as different, com-peting perspectives on the workings of economic systems, the role of the state, and solutions to the main economic problems occurring in a certain period (2016, p. 521).

Such an approach to creating financially-informed citizens will no doubt be decried as ideologically-biased. Neoliberalism tolerates no criticism. One of the chapters in the anthology even notes that some financial textbooks used in Germany have been criticized because they "allegedly promoted an anti-capitalistic attitude by, for example, conveying a negative image of entrepreneurs and market economies" (Frühauf & Retzmann, p. 267).

Yet, as Lucey's thoughtful contribution to the anthology observes, conventional financial education with its focus on wealth accumulation promotes the ideological view that individuals ought to compete against others for scarce resources within the current market structure, rather than the view that individuals ought to cooperate with others to produce equitable financial conditions for all (2016, p. 659). Beyond the resources required to meet basic needs, individual material wealth is not a universal goal or transcendent value.

Tellingly, Lucey measured attitudes before and after receipt by social studies teacher trainees of traditional instruction in financial education pedagogy and of social-justice-oriented instruction that related traditional financial concepts to broader economic and political concerns (p. 667). Some of the trainees in the latter group changed their views of the role of social studies teachers, expanding from an initial view of that role as being only to prepare students to be participatory citizens, to a view of that role as also including training students to seek justice and help the less fortunate.

But some of the trainees who received traditional instruction in financial education pedagogy also changed their views. They began with the same initial view of the role of the social studies teacher as being to prepare students to be participatory citizens. After traditional financial education teacher training, they shifted to a more conservative view that the teacher should develop responsible citizens, who pay bills on time and earn, save, and invest well within the current system, rather than participate as citizens to improve the system.

Neoliberalism masquerades as positive description rather than normative prescription. But ideology is inherent in approaches that train people to take particular financial, social, or political actions. Although no pedagogy is neutral, the more anthropological and historical approach suggested by Berti 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 pedagogy should not only admit that values are implicated in financial policy choices, it should expose how values are implicated in those choices. That is, one purpose of financial education is to help people understand which values are supported by particular policy choices, so they can take political action consonant with their own values.

4.3 The bridge between personal finances and political action

The most advanced analyses of the financial literacy project agree that civic education must be part of financial education and civic engagement with political decisions about finance must be part of our conception of financial literacy. Berti, for example, points out that teaching children about money management is insufficient because adult citizens must understand and participate in social decisions about, e.g., the "regulation of financial markets, individual [and] collective risk management solutions, tax policy, [and] how to deal with financial crises" (p. 520).

But there is an apparent tension between teaching people how to manage their personal finances today—how to increase wealth or reduce financial uncertainty within the current economic order—and teaching them how to change the world to improve the financial well-being of all tomorrow.

On the surface, the tension has the shape of a question frequently posed in social justice lawyering: Should one engage in direct services, helping the disadvantaged one-by-one to immediately obtain remedies available through current law that will help them lead better lives? Or should one engage in impact litigation, long-term litigation that aims at structural changes in society and in the law itself that, it is hoped, will help large numbers of people over time? The answer in that context must be both; only through direct services can lawyers come to

know the true nature of individuals' needs and the obstacles that stand in the way of meeting those needs, and this knowledge is necessary for developing successful impact litigation.

Note that no one suggests that society should resolve the legal problems of the disadvantaged by training every poor person to be his or her own lawyer.

In the financial context as well, we need both to help people live their everyday financial lives *and* to empower them become part of the process of making social change. Financial well-being supports "the freedom and independence necessary" for individuals to actively engage as citizens (Farsagli, Filotto, & Traclò, p. 537). But conventional financial literacy education is unlikely to be useful in this regard, given that this education appears to have very little effect on financial well-being (Fernandes, Lynch, & Netermeyer, 2014). "Give a man a fish and he will eat today; teach a man to fish and he will eat tomorrow," is sometimes a useful aphorism. However, teaching a man to fish when his lake contains no fish is foolish or even cruel.

Instead, as Retzmann and Seeber explain, "it is important to switch from the agent's perspective, which is adequate for individual money management and financial transaction processes, to that of an observer on rules, markets, order and system to enable the individual to make sound political judgements..., participate in society, and contribute to political affairs" (p. 21). Teach individuals to drive on the financial highways is part of this project, not only so they can drive successfully, but also so they can see how the highways are currently built.

Stimulating a critical observation of the individual's role within neoliberalism's financial order is also key. This is sound pedagogy—abstract concepts are better understood when their effects can be observed in personal experience. It is also politically galvanizing, as seeing how government policies ultimately affect individual lived experience can motivate action.

Here again, the conventional conception of financial literacy as money management ability and the educational interventions flowing from that conception are counterproductive. The Handbook's chapter on Switzerland explains that the country's "baccalaureate" schools, for the approximately 20% of the population who aim to attend university, teach about finance with a broad "general economic-financial perspective" aimed at the students' future roles as citizens; the "vocational" schools, for the 75% of students who complete their education at the secondary level, teach about the topic with a personal finance focus (Holtsch & Eberle, 2016, pp. 699-700). In some sense, this is backward. The highly educated are already satisfied with the current economic order, whereas the rest of the population needs to understand how that order operates in order to change it.

Relatedly, O'Neill and Hensley bemoan that the very schoolteachers who are expected to teach students to be financially literate live paycheck-to-paycheck rather than engaging in the "proper" behaviors of saving and investing (p. 643). Yet, it may be that the experiences of these teachers make them more qualified, not less, to teach about financial matters.

The bridge between the personal and the political is shrouded by neoliberal ideology, but is revealed when that ideology is no longer the operative lens for seeing the world. Teaching people money management skills, when done within a context of understanding that these skills are required only because some societies today have adopted social and regulatory policies that in turn make these skills necessary, can illuminate the fairness or unfairness, efficiency or inefficiency, and wisdom or absurdity of those policies.

The student who plows through a realistic simulated exercise on buying and financing a car, for example, might not quite grasp the algebra behind adjusting car and loan prices in tandem to ensure that the financing seller earns the same amount no matter how successfully the student bargains over car price. But she will likely learn that car and loan prices are not set by an invisible hand, that sellers sometimes charge vulnerable buyers more, and that the law constrains this in several respects but facilitates it in others.

Although her eyes might glaze over when told what retirement savings and investing decisions she should make, if she then tries to make those decisions in a realistic pedagogical simulation exercise, she is likely to discover the enormity of the task. If she is also taught how various societies at various times have employed diverse approaches to the support of people past working age, she will have the opportunity to appreciate the tradeoffs among different policy choices.

Finally, civics education and financial education must be recognized as interdependent. Many of the most important political choices people make pertain to financial affairs, and many of the most important financial actions people take are in the civic arena. Civics education, like financial education, must bridge the personal and the political, teaching both about the system and the individual's role within the system. Financial education must impress upon students their responsibility and their power to affect, through political actions, society's financial order.

* * * * *

The ends that all contributors to the Handbook seek, at least at an abstract level, are uncontroversial—increased individual and societal well-being. Unfortunately, financial literacy as conventionally understood does not equip people to achieve these ends. We must rebuild the financial terrain itself and ensure that all people have effective means of conveyance. Therefore, the role of financial education in increasing well-being must be to enable, empower, and inspire ordinary people to knowledgably participate in political decisions about finance and the economy. We must develop finance-informed citizens, who can build citizen-informed finance.

References

Ackermann, Nicole, and Eberle, Franz. (2016). Financial Literacy in Switzerland. In Aprea et al., 341-356.

Akerlof, George A., and Shiller, Robert J. (2009). *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*. United States: Princeton University Press.

Amidjono, Dwi Sulistyorini, Brock, John, and Junaidi, Ebi. (2016). Financial Literacy in Indonesia. In Aprea et al., 277-290.

Antonietti, Alessandro, Borsetto, Andrea, and Iannello, Paola. (2016). A Metacognitive Approach to Financial Literacy. In Aprea et al., 57-68.

Aprea, Carmela. (2016). Conceptions of Financial Literacy. In Aprea et al., 1-8.

Aprea, Carmela, and Wuttke, Eveline. (2016). Financial Literacy of Adolescents and Young Adults: Setting the Course for a Competence-Oriented Assessment Instrument. In Aprea et al., 397-414.

Aprea, Carmela, Wuttke, Eveline, Bruer, Klaus, Koh, Noi Keng, Davies, Pete, Greimel-Fuhrmann, Bettina, and Lopus, Jane S. (Eds.) (2016). *International Handbook of Financial Literacy*. Singapore: Springer.

Arthur, Chris. (2016). Financial Literacy Education as a Public Pedagogy: Consumerizing Economic Insecurity, Ethics and Democracy. In Aprea et al., 113-130.

Barry, Daniela. (2016). Measurement of Young Adults' Attitudes Towards Money. In Aprea et al., 449-464.

Berti, Anna Emilia. (2016). Sketching a Possible Learning Progression for the Cognitive Component of Financial Education in the Broader Context of Economic Education. In Aprea et al., 515-530.

Bertrand, Marianne, and Mullainathan, Sendhil. (2004). Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination. *The American Economic Review*, 94(4), 991-1013.

Bosshardt, William. (2016). The Development and Promotion of Financial Literacy Standards: Establishing Standards in the United States. In Aprea et al., 163-178.

Budd, Christopher Houghton. (2016). In the Shoes of Luca Pacioli – Double Entry Bookkeeping and Financial Literacy. In Aprea et al., 621-638.

Cameron, Michael P., and Wood, Pushpa. (2016). The Policy Context for Financial Education in New Zealand. In Aprea et al., 179-192.

Danes, Sharon M., Deenanath, Veronica, and Yang, Yunxi. (2016). Evaluation of Financial Literacy Development of High School Students: A Longitudinal Mixed Methods Study. In Aprea et al., 425-448.

Earnix. (n.d.) *Insurance Pricing and Customer Value Optimization*, //earnix.com/download/General_Insurance_screen.pdf.

Experian. (2013). *Price optimization in retail consumer lending*, //www.experian.com/assets/decision-analytics/white-papers/regionalization-of-price-optimization-white-paper.pdf.

Farnsworth, Valerie. (2016). Following the Trail from Political Discourse to Curriculum Reform: Reflecting on the Shape of Financial Capability Education in England. In Aprea et al., 147-162.

Farsagli, Stefania, Filotto, Umberto, and Traclò, Francesca. (2016). Educating People About Finance and Economics. Approaching Curriculum Design: An Italian Experience. In Aprea et al., 531-544.

Fernandes, Daniel, Lynch, John G., and Netermeyer, Richard G. (2014). Financial Literacy, Financial Education and Downstream Financial Behaviors. *Management Science*, 60(8), 1861–1883.

Financial Literacy and Education Commission. (2016). *Promoting Financial Success in the United States: National Strategy for Financial Literacy 2016 Update*, www.treasury.gov/resource-center/financial-education/Documents/National%20Strategy%202016%20Update.pdf.

Frühauf, Felix, and Retzmann, Thomas. (2016). Financial Literacy in Germancy. In Aprea et al., 263-276.

Greimel-Fuhrmann, Bettina, Silgoner, Maria, Weber, Rosa, and Taborsky, Martin. Financial Literacy in Austria. In Aprea et al., 251-262.

Gutter, Michael S., Copur, Zeynep, and Garrison, Selena. (2016). Do the Financial Behaviours of College Students Vary by Their State's Financial Education Policies? In Aprea et al., 213-250.

Hašek, Roman, and Petrášková, Vladimira. (2016). Financial Education in Teacher Training with Technological Support. In Aprea et al., 675-696.

Heath, Julia A. (2016). Youth Financial Literacy in the United States: A Patchwork Approach. In Aprea et al., 369-382.

Henchoz, Caroline. (2016). Sociological Perspective on Financial Literacy. In Aprea et al., 97-112.

Holtsch, Doreen, and Eberle, Franz. (2016). Teachers' Financial Literacy from a Swiss Perspective. In Aprea et al., 697-713.

Hill, Andrew T., and Asarta, Carlos J. (2016). Gender and Student Achievement in Personal Finance: Evidence from Keys to Financial Success. In Aprea et al., 545-568

Knoote, Floor Elize, Partington, Genevieve, and Penner, Jared. (2016). Children and Youth as Economic Citizens: Working Towards an Integrated Financial Education Approach. In Aprea et al., 193-212.

Koh, Noi Keng. (2016). Approaches to Teaching Financial Literacy: Evidence-Based Practices in Singapore Schools. In Aprea et al., 499-514.

Lacatus, Maria Liana. (2016). Financial Education in Romania. In Aprea et al., 321-328.

Lee, Chwee Beng, and Koh, Noi Keng. (2016). Children's Monetary Decision Making: The Role of Metacognition in Everyday Problem Solving. In Aprea et al., 415-424.

Loerwald, Dirk, and Stemmann, Arne. (2016). Behavioral Finance and Financial Literacy: Educational Implications of Biases in Financial Decision Making. In Aprea et al., 25-38.

Lucey, Thomas A. (2016). Preparing Preservice Elementary Teachers to Teach About Financial Literacy: Towards a Broader Conception. In Aprea et al., 655-674.

Marchetti, Antonella, Castelli, Ilaria, Massaro, Davide, and Valle, Annalisa. (2016). Combining Development and Education: Why Do Decision-Making and Social Norms Matter for Financial Education? In Aprea et al., 69-82.

Neumann, Richard. (2017). American Democracy in Distress: The Failure of Social Education. *Journal of Social Science Education*, 16(1), 5-16.

O'Neill, Barbara M., and Hensley, Billy J. (2016). Building the Financial Education Capacity of Teachers: Does It Make a Difference? In Aprea et al., 639-654.

Organization for Economic Cooperation and Development [OECD]. (2012). *OECD/INFE High-level Principles on National Strategies for Financial Education*, www.oecd.org/daf/fin/financial-education/OECD-INFE-Principles-National-Strategies-Financial-Education.pdf.

Pang, Ming Fai. (2016). Enhancing the Financial Literacy of Young People: A Conceptual Approach Based on the Variation Theory of Learning. In Aprea et al., 587-602.

Peña, Pablo A. (2016). Personality and Financial Culture: A Study of Mexican Youths. In Aprea et al., 465-498.

Pinto, Laura Elizabeth. (2016). Politics and Argumentation in Financial Literacy Education Policy. In Aprea et al., 131-146.

Remmele, Bernd. (2016). Financial Literacy and Financial Incomprehensibility. In Aprea et al., 39-56.

Retzmann, Thomas, and Seeber, Günther. (2016). Financial Education in General Education Schools: A Competence Model. In Aprea et al., 9-24.

Ruiz-Durán, Clemente. (2016). Mexico: Financial Inclusion and Literacy Outlook. In Aprea et al., 291-304.

Schuhen, Michael, and Schürkmann, Susanne. (2016). Construct Validity with Structural Equation Modeling. In Aprea et al., 383-396.

Sherraden, Margaret S., and Ansong, David. (2016). Financial Literacy to Financial Capability: Building Financial Stability and Security. In Aprea et al., 83-96.

Stillwell, Steve. (2016). Financial Education in the UK: A Case Study of Practice. In Aprea et al., 357-368.

Siu, Ella Y.N., and Koh, Noi Keng. (2016). A Design-Based Intervention Approach to the Development of a Financial Literacy Interactive Learning Journey for Youths in Singapore. In Aprea et al., 569-586.

Toffler, Barbara Ley, and Reingold, Jennifer. (2004). *Final Accounting: Ambition, Greed, and the Fall of Arthur Andersen*. United States: Broadway Books.

van der Schors, Anna, and Simonse, Olaf. (2016). Financial Literacy in the Netherlands. In Aprea et al., 305-320.

Wentzel, Arnold. (2016). Financial Literacy in South Africa. In Aprea et al., 329-340.

Williams, Toni. 2007. Empowerment of Whom and for What? Financial Literacy Education and the New Regulation of Consumer Financial Services. *Law and Policy*, 29(2), 226-256.

Willis, Lauren E. (2008). Against Financial Literacy Education. *Iowa Law Review*, 94(1), 197-285.

Willis. Lauren E. (2009). Evidence and Ideology in Assessing the Effectiveness of Financial Literacy Education. *San Diego Law Review*, 46 (2009), 415-458.

Willis, Lauren E. (2011). The Financial Education Fallacy. *American Economic Review (Papers & Proceedings)*, 101(3), 429-434.

Willis, Lauren E. (2013). When Nudges Fail: Slippery Defaults. *University of Chicago Law Review*, 80(3), 1155-1229.

Yeo, Joseph Kai Kow. (2016). Infusing Financial Literacy in Primary Mathematics: A Proposed Framework for Instruction. In Aprea et al., 603-620.

Endnote:

* The author thanks Mariam Sarwar for her fine assistance.