



Measuring financial health: What policymakers need to know

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About insight2impact

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Executive summary

Financial health is a potentially powerful concept that is attracting interest around the world. The citizen, the politician and the policymaker know that effectively managing one's financial resources – being financially healthy – is central to the success of both individuals and broad populations. While financial health, and the slightly broader term, financial well-being, have been topics of investigation for a decade or more, particularly in the U.S. and U.K., more recently attempts have begun to apply them in low-income and middle-income countries.

Many of those working with the concept of financial health see it as a way to gauge the outcome of consumers' use of financial services and the success of the financial sector in meeting a population's financial needs. They also seek to situate financial services among broader concerns, such as income, employment, and social safety nets. Another set of proponents use it to examine financial capability and the success of financial education. And financial service providers are developing financial products aimed to assist people to improve their financial health.

If financial health is to be a useful construct, it is important to be clear about what it means, how it is measured, and how it can be applied – hence this report. The report was commissioned by insight2impact to determine whether financial health can serve as a useful measurement of consumer status or outcomes, as an addition to insight2impact's existing financial needs framework.

What is financial health?

Some of the most prominent researchers and proponents define financial health around these key elements:

- Smooth short-term finances, including the ability to meet ongoing financial obligations and consumption needs
- Preparedness to meet and recover from financial shocks
- A longer-term perspective that involves meeting goals and maintaining or improving well-being
- A level of achievement beyond the bare minimum that implies feelings of confidence and well-being (used in many but not all frameworks)

These elements form the basis for the measurement indicators of financial health. The first three elements mirror the core functions of finance to move resources across time, space and users, and to reduce risk. The last element acknowledges that finances are a source of serious stress for many individuals and that this has consequences and importance for policymakers.

In all these definitions, the concept refers to a state of being and not to the behaviors that lead to it. Sarah Parker, from the Financial Health Network, put it simply, "Financial literacy is what you know, financial capability is what you do, and financial health is what you achieve." The concept of financial health is agnostic with respect to financial goals, strategies and product use, recognizing that people set their own goals, whether to educate children, start businesses, or just live comfortably. This agnosticism helps to ensure the universal relevance of the concept, while still offering insights relevant for service providers.

Perspectives vary on the extent to which the concept of financial health encompasses subjective elements like feelings of confidence or solely focuses on objective financial conditions. Some proponents note that financially induced stress is in itself a real outcome, one that anyone aiming to foster public welfare should track – and possibly alleviate. In practice, the definitional dispute may be moot, given that most surveys introduce subjective elements by asking for recall of past practices, response to hypothetical situations, or judgment of the adequacy of a person’s practices. The U.S. Consumer Finance Protection Bureau (CFPB) found that financial condition explained two-thirds of the variation in their perception-centered index and therefore concluded that the index provides a strong basis for predicting objective financial condition. Other studies have shown similar correspondence.

A person’s financial health is the result of the interaction of a wide range of factors, including their own endowments and choices as well as their economic status – especially income – and numerous contextual factors, such as access to financial services and social safety nets. Some research has sought to determine the role of these various factors, but to date, few studies allow causal inferences.

Findings about financial health and actions in response

High-income countries. Studies in the U.S., U.K., and other high-income countries have demonstrated serious and widespread gaps in financial well-being. The CFPB’s 2016 survey found one-third of the U.S. population with a high probability of struggling financially. The Financial Health Network’s Pulse Survey estimated that 17% of Americans are struggling with most or all elements of their financial lives and another 54% are having difficulty with at least one major element. Only 29% are considered healthy.

Results such as this have spurred numerous policy actions. An example is the creation of the U.K. Money and Pensions Service, a new government agency whose mission and strategy follow directly from the findings of financial well-being research, in areas such as no-frills bank accounts, emergency savings and avoidance of borrowing for daily needs.

Financial service providers, too, including banks, fintechs and financial educators, are using financial health as a way to interact with clients. Many of these efforts work with behavioral economists to apply theories about how nudges and choice architecture can motivate positive behavior.

Large employers are another group influenced by financial health concepts. While many employers have long provided support and advice around pensions, financial wellness programs are also starting to address pre-retirement financial health.

Finally, major banks are taking note of the concept and seeking to study the financial well-being of their customers, including ING, Barclays, Commonwealth Bank, ANZ Bank, BBVA and JP Morgan Chase.

Developing countries. Studies suggest that financial stress is a constant companion in the lives of many or most families in the global South. About half of all people are not able to use financial or other tools to fully smooth out the vicissitudes of their economic lives, and a significant minority are extremely vulnerable. The World Bank’s Global Findex found that, whereas in high-income countries 73% of people said they could access a lump sum in an emergency, in the developing world only 50% said it would be possible, even though the sum was scaled to the country’s per capita GNI.

In BBVA's research on financial vulnerability in five South American countries (with CAF), 20% of the population were found to have resources would last a week or less if income were stopped, with 60% having resources lasting between one week and three months. Only 20% were considered "safe", with resources lasting over three months. Kantar's data from Africa and Asia also showed that the bulk of the population is not financially healthy, and a significant proportion is severely unhealthy. In Uganda, where the distribution of results was especially skewed, 19% of respondents received a zero score. Gallup's 10-country survey found much the same.

Despite the increasing number of studies, the concept of financial health has not yet influenced financial sector policy dialogue in a big way, though this is beginning to change in countries including Brazil, Kenya (see Box 3), Mexico, Peru and the Philippines.

The future of financial health. Financial health as a concept and measurement device, if no longer in its infancy, is perhaps in its adolescence. As it deepens, researchers dedicated to financial health are breaking new ground with investigations ranging from exploring connections between physical health and financial health to searching for ways to bolster short-term financial stability. They are also deepening the empirical base through incorporating financial health questions into panel data and randomized control trials to see how financial health varies over time and to begin to make causal inferences. Several organizations are connecting financial health data with hard data about customer accounts and transactions; however, results are not yet available.

Key questions

Does financial health measure more than income? Cross-country studies tend to find a strong correlation between financial health and higher incomes – and inversely, with higher income volatility. The question arises whether financial health information adds significant value after income is known. There are still too few studies for definite conclusions, but results so far suggest that while incomes play an important role, measuring financial health offers more insights than just measuring income.

In the U.S., the Financial Health Network found many people with poor financial health at medium and higher-income levels and, possibly more surprising, many people at lower-income levels with good financial health. In the developing world, surveys have found that although financial health varies with income, income does not fully explain the variation at either national or individual levels. As an extreme example, Innovations for Poverty Action (IPA) found meaningful differences even among the very poor people they surveyed in and near refugee camps in Uganda.

Does financial inclusion support financial health? The data on whether financial inclusion leads to greater financial health remains inconclusive and in some cases counterintuitive. In the Findex studies from 2014 to 2017, although financial inclusion (account ownership) rose across the world, resilience decreased slightly in all regions, excluding high-income countries. In Kenya's FinAccess surveys, the number of financially healthy adults dropped between 2016 and 2019, even as access and usage of financial services increased.

In more specific studies, some positive relationships appear, although the signals are generally moderate rather than strong and the directions of causality are unknown. Studies by Kempson, Kantar, CAF/BBVA and IPA all reported that financial health is somewhat

associated with engagement with the financial system, e.g. having a bank account or access to loans. On the other hand, Gallup found no obvious relationship between their measure of financial security and account ownership.

Given the state of information available, a central caveat is that while financial health measurement can inform policymakers about the status of users (and non-users) of the financial system, one cannot conclude that observed financial health is directly caused by financial inclusion.

Recommendations for measuring financial health

We recommend that financial sector policymakers include financial health and well-being among their policy objectives, for example, in their national financial inclusion strategies. Financial health focuses attention where more focus is needed: on how well people are managing with the endowments and tools available to them. Affirmation that financial health is an aim of financial sector policy would direct both regulators and providers to consider it as they craft policies and products.

As a first step, we recommend that policymakers begin routinely measuring the financial health of their population. In an admittedly crowded measurement landscape, financial health offers different insights than socioeconomic variables, and these insights are more directly relevant to the financial sector and for financial system stability. Large gaps in financial health can signal areas in the financial system where people are turning to sub-optimal solutions that undermine financial security. It can also illustrate the interconnections among policies such as employment, healthcare, pensions and social welfare.

When combined with data on access and usage, financial health measurement indicates whether broad trends in inclusion are correlated with improvements in financial health. However, rather than treating financial health as a direct indicator of outcomes, policymakers should look to it as a signal that points toward areas where more policy attention and rigorous research are needed.

Recommendations on measurement methods. Policymakers may wish to adopt one or more of three main strategies for measuring financial health, depending on their purpose and resources: development of an index of financial health, use of the resilience question as a single proxy measure, and detailed, comprehensive financial health surveys. The first two provide simple status readings, while the third is necessary for further diagnosis and crafting policy responses.

1. **Financial health indexes.** A financial health index that consists of a short list of questions can function like tools such as the Net Promoter Score or the Poverty Probability Index (PPI), which capture major socioeconomic signals, communicate results readily and serve as regular monitoring devices. Like a thermometer, a financial health index indicates the presence or absence of a problem, along with its severity, but it does not diagnose the problem or propose a solution. Thermometers are excellent devices for enabling non-specialists, such as parents, to tell whether to take their child to the doctor for deeper diagnosis. Similarly, a financial health index that is easy to use and interpret can shine a spotlight on problem areas.

Combined with other data, indexes can also show the status of population segments and the relationships between financial health and contributing factors such as income or financial access. Indexes can be made available to organizations like financial

service providers that lack in-depth research capabilities but wish to assess the financial health of their clients. Indexes are also used to motivate individuals to improve their own financial health, when combined with financial capability tools or coaching. Finally, indexes communicate forcefully to non-specialist influencers – legislators, media, policymakers in other sectors, and the general public.

In the U.S., the Financial Health Network and the CFPB have developed indexes and are applying them in annual surveys to track changes over time. Given the extensive testing and validation work behind their indexes, organizations in the U.S. can confidently apply these indexes, while researchers in other countries will need to do validating empirical work before adopting an index. However, existing indexes can provide a useful starting point.

This paper details principles for constructing a sound financial health index based on a review of the methodological practices in current efforts.

2. ***The resilience question.*** As the simplest possible approach, the resilience question captures an important signal succinctly and in ways everyone can understand. The U.S. Federal Reserve's 2013 finding that only 48% of the U.S. population could readily meet a hypothetical emergency expense of USD400 shocked policymakers and media and entered the conventional understanding about the economic struggles of low-income and moderate-income Americans. It thereby had a significant impact on policymakers.

The resilience question was included in the 2014 and 2017 Findex surveys across 150 countries, providing an important reference point. Recently, IPA decided to make the resilience question its lead indicator. The conceptual basis for the choice is the contention (not yet empirically tested) that if a person has the financial means to recover from a financial shock, they are also likely to be doing other aspects of financial health well. The question's simplicity is also its limitation, however. We recommend using an index, saving the resilience-only approach for policymakers who want the leanest possible inquiry.

3. ***Detailed surveys.*** Detailed surveys are needed not only to derive relevant and robust indexes; they are also essential for delving into the diagnosis behind responses to any of the questions in a given index. Accordingly, any organization that expects to make policy decisions based on financial health will need to deploy detailed diagnostic consumer research.

Part I: The concept of financial health

Why financial health matters

The citizen, the politician and the policymaker know that effectively managing one's financial resources is central to the success of both individuals and broad populations. When this concept is described as financial health (or financial well-being), it is readily understandable, emotionally resonant and important to just about anyone who encounters it, from ordinary people to influential decision-makers. If you ask someone in virtually any country about his family's financial health, his face will light up because he is proud that he saves a little each month, or cloud over with worry about a big debt he owes. If you tell a politician or opinion leader in the same country that two-thirds of the population are not financially healthy, they will intuitively grasp the analogy to physical health and will have a valuable new insight about their constituents. Financial health is a potentially powerful and influential concept that can deepen understanding and motivate action.

If financial health is to be a useful construct, however, it is important to be clear about what it means, how it is measured, and how it can be applied.

While financial health, and the slightly broader term, financial well-being, have been around for some time, the active use of the concept among financial sector analysts and policymakers emerged fairly recently. Financial well-being has been a topic of investigation for a decade or more, particularly in the U.S. and U.K. Recently attempts have begun to apply it beyond high-income countries.

Here are four reasons why financial sector policymakers and analysts around the globe are beginning to measure financial health:

1. ***To gauge the outcome of consumers' use of financial services and the success of the financial sector as a whole in meeting a population's financial needs.*** This is the purpose most directly associated with financial inclusion. As access and usage of financial services increases, inquiry shifts to whether people who use these new financial services are indeed meeting their needs and improving their financial lives. The World Bank's Global Findex database offers the broadest of such research to date. Consumer protection concerns also enter here for financial policymakers seeking to know whether financial services actually support financial health.
2. ***To connect financial services to broader social and economic concerns, such as income, employment, and social safety nets.*** Research on financial health offers new insights into the effectiveness of the private sector and government programs to support individuals and their families. The Financial Health Network, for example, is working with employers and benefit providers in the U.S. to find ways to better support the financial health of employees and with health policy organizations on the links between financial and physical health.
3. ***To examine the financial capability of a population, and as such, to measure the success of financial education.*** Much initial research on financial health sprang from a desire to identify ways to improve people's ability to manage their financial lives, particularly in light of disappointing findings on the effectiveness of traditional financial

education. This approach is a cornerstone of the strategy of the U.K.'s new Money and Pensions Service.

4. ***To spark the development of financial tools that increase financial health.*** The concept of financial health is leading to a host of new financial products designed specifically with financial health as an objective. J.P. Morgan Chase and MetLife Foundation, for example, each have major philanthropic programs on financial health which support organizations that offer financial coaching, savings promotion, debt reduction, etc. Also in development are assessment tools to enable individuals to score themselves and improve their own financial health.

Guide to this report. This report seeks to clarify the concept of financial health and its value. It offers suggestions to policymakers on how to work with the concept. It is based on interviews with proponents and others who have been engaged in measuring financial health (See Annex: Interview list), together with a review of the literature and available data. (See Bibliography). The report was commissioned by insight2impact as part of its work on measurement of financial inclusion. insight2impact developed a measurement framework based on the concept of financial needs (insight2impact, 2017). It has proposed an outcomes framework that addresses some of the same elements commonly associated with financial health (Makuvaza et al, 2018) and that focuses on whether customers are benefitting from financial inclusion. The initial question is whether financial health can serve as a useful outcome measurement for assessing consumer benefit. The report goes beyond this specific question to consider a wider range of reasons for policymakers to engage with financial health. It also provides analysis and advice on the measurement issues that surround the concept.

In Part I, we discuss how financial health is conceived by its various proponents, and we provide a conceptual model of the drivers of financial health. In Part II we examine methodology issues involved in measuring financial health. This section is aimed at policymakers who are considering the use of financial health and want to avoid pitfalls but are not necessarily experts in survey research. Part III reviews the findings that have been obtained from measurement of financial health and discusses how they have shaped thinking and action. Part IV provides recommendations on how policymakers can begin to engage with the concept and incorporate financial health into financial inclusion measurement frameworks.

Defining financial health

Financial health and financial well-being are the two main terms used to designate the concept of achieved success in managing one's financial life. While selection of one term over the other at times reflects an important nuance in perspective (which we will explore in Part II: Measurement methods), strong similarities allow us to use the two terms interchangeably in most contexts.

Some of the most prominent researchers and proponents define financial health in these words:

- The U.S. Consumer Financial Protection Bureau (CFPB), one of the most influential sources of research and resources on the topic:

A state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow them to enjoy life.

CFPB 2017, America, p. 13

- Elaine Kempson of the Personal Finance Research Centre, University of Bristol in the U.K., one of the earliest and most frequently referenced researchers, and her colleagues:

The extent to which someone is able to meet all their current commitments and needs comfortably, and has the financial resilience to maintain this in the future.

Kempson et al, 2017, p. 19

- The Financial Health Network (formerly the Center for Financial Services Innovation), a non-profit that has promoted the focus on financial health across the U.S.:

Financial health comes about when your daily financial systems allow you to be resilient and pursue opportunities over time.

Financial Health Network 2019, p. 12

We will return frequently to these three sources: Kempson and her work with governments in the U.K., Norway and elsewhere, and in the U.S., the Consumer Financial Protection Bureau and the Financial Health Network. These three sets of researchers have been among the most important developers, testers and promoters of the financial health/well-being concept. They are among the few researchers to have carried out the full gamut of activities. They developed their frameworks through extensive study, published them and applied them in multiple large surveys, and worked with policymakers and/or providers to craft policy and product responses. CFPB and Financial Health Network have also provided toolkits for other organizations to use. Kempson's work underpins much of the strategy of the UK Money and Pensions Service, a new government agency. Many other researchers and policymakers who are now working on financial health are using one or more of these three sources as their foundation.

The definitions have several things in common, allowing us to confirm the key elements of consensus around the concept of financial health:

1. Smooth short-term finances (*daily systems*), including the ability to meet ongoing financial obligations and consumption needs
2. Preparedness to meet and recover from financial shocks (*resilience, secure*)
3. A longer-term perspective that involves maintaining or improving well-being (*pursue opportunities, make choices*)
4. A level of achievement beyond the bare minimum that implies feelings of confidence and well-being (*comfortably, enjoy life*)
(This element is only included in the CFPB and Kempson frameworks, but it is implied in that of the Financial Health Network.)

These elements form the basis for the development of measurement indicators of financial health. The first three elements track the core functions of finance: to move resources across time, space and users, which enables their effective use and reduces risk. The three elements are highly compatible with insight2impact's own "financial needs" approach to measuring outcomes, which refers to *liquidity*, *resilience* and *meeting goals* as the organizing principles for assessing outcomes (Makuvaza et al, 2018, p.18). The last element acknowledges that finances are a source of serious stress for many individuals, affecting their overall well-being, and that this is a matter with consequences and intrinsic importance to policymakers.

Further clarifications. To fully understand what is captured in these brief statements of definition, we consider some of the implicit features of the concept.

- **A state of being, not a set of behaviors.** In all these definitions, the concept refers to a state of being and not to the behaviors or other factors that lead to that state. While intimately connected with behavior, the definitions refer only to the end state and the ability to maintain it over time. Sarah Parker, from the Financial Health Network, put it simply, "Financial literacy is what you know, financial capability is what you do, and financial health is what you achieve." (interview, 2017). While models of financial health, such as the one discussed later in this section, place financial health as the outcome of a set of drivers, it is equally useful to examine financial health simply to understand the current financial management reality of a person or group. As we will discuss, although the definitions clearly point to a state of being or outcome, not all the indexes used to measure financial health have cleanly separated outcomes and behaviors, and this makes interpretation of results more difficult. In a related example, primarily a terminology issue, Arellano uses the term financial health explicitly to denote behaviors (Arellano et al., 2019). Such differences in word choice need resolution if the concept is to become widely used.
- **Goal agnostic.** The definitions recognize that people define their own goals, whether to educate children, to start businesses, or just to live comfortably. This goal-agnosticism goes a long way toward ensuring the universal relevance of the concept.
- **Product agnostic.** The definitions of financial health do not specify the strategy someone should pursue to become financially healthy nor the financial instruments they should use. A person could become financially healthy using formal services (a savings account) or informal ones (membership in a savings group) or both. Activities that are not even strictly financial, such as working more or engaging in reciprocal support with family, can be part of a strategy for achieving financial health. For example, the ability to meet emergency needs is a key element of financial health, whether a person does so by using a bank account, cash held at home, or a loan from a friend. Although the concept does not point directly toward specific product-based solutions, it does offer insights relevant for service providers, who can shape and market their products in ways that assist people to achieve financial health.
- **Combines both objective financial situation and perceptions.** Perspectives vary on the extent to which financial health measurement should encompass subjective elements like feelings of confidence, in contrast to solely focusing on objective financial conditions. Broadly speaking, researchers interested in the overall performance of the financial system or influencing service providers to improve their products lean toward objective measures, while those measuring financial well-being in the context of financial education, such as CFPB, tend to be more explicitly interested in measuring perceptions.

The conceptual differences tend to recede in practice, however, because many measurement instruments rely on respondent recall or hypotheticals and thereby introduce subjective elements. In line with insight2impact's focus on financial sector policymaking, our approach will focus on objective indicators of financial condition, recognizing that it will be necessary to get at those indicators through questions with subjective aspects.

The conceptual differences also recede due to research that demonstrates strong associations between a person's objective financial situation and perception of financial well-being. In regressions carried out by Abt Associates for CFPB, after controlling for income, two-thirds of the remaining variation in perceived well-being was explained by objective financial condition (Walker, J., et al. 2018). This result implies that people are reliable judges of their financial situation and suggests that a blend of objective and subjective indicators should track well with either wholly objective or wholly subjective indicators. This result may not hold for cross-country comparisons due to cultural differences.

Alternate concepts: financial stress and financial control. The focus of financial health and well-being on positive outcomes contrasts with concepts such as financial stress or security that address only potential downsides. Gallup, for example, put forward the concept of financial security (defined by having adequate readily available savings together with a manageable debt load), and BBVA examined financial vulnerability. (Arellano et al., 2019). Such measures tend to be narrower than financial health, often focusing mainly on debt; and thus, they may overlook categories of insights for improving financial health other than those associated with debt management. If financial health is to be a measure of success for financial and economic systems, there is a strong argument that achievement of positive outcomes, not just avoidance of crises, should be a goal.

Gallup also developed a concept they termed financial control, which combines mainly perception-based measures with a few measures of financial condition. It is defined as "the extent to which people perceive they are in control of and can influence their financial situation." (Gallup, 2018)

Validity of the definitions. Is financial health universal? Some of the definitions of financial health that are in use today reflect *a priori* expert views, while others are derived from consumer research. In the expert cases, a definition of financial health is simply asserted, based on the judgment of the researcher or organization on what constitutes success in money management. They are normative. Kempson argues instead for a consumer-derived definition, based on extensive and in-depth conversations with consumers. CFPB and Kempson each used such processes to generate their definitions. It may be surprising that the normative and consumer-derived definitions are very similar. Possibly, in the countries where the concepts were developed, experts and consumers share cultural attitudes about money and therefore arrive at similar definitions; or possibly, the definitions simply reflect common sense.

It may be more surprising if similar definitions emerge from consumer research in lower-income countries, but so far there appears to be a strong degree of universality in the concept. While there is as yet little hard data on consumer-held definitions, anecdotal evidence, such as that found by Dalberg in client interviews in Kenya and India for the Center for Financial Services Innovation (now the Financial Health Network), supports the possibility that the concept resonates widely (Ladha, T., et al, 2017). Kempson also found

this to be the case in her analysis of World Bank focus groups in several low-income and middle-income countries.

One might argue that the idea of achieving a comfortable financial state is too ambitious for population segments near or below the poverty line. Ladha posited a threshold of absolute poverty at which people lack the ability to use financial strategies to improve their situation. Data from Kenya (FinAccess, 2019) and Tanzania (Kantar, 2019) suggests that very few extremely poor people are financially healthy. A number of surveys have found, however, that many people at surprisingly low-income levels find ways to use financial strategies to improve their situations. IPA surveyed refugees in camps in Uganda as well as their non-refugee neighbors, finding significant variation in financial health even among these very low-income groups (interview). Even if few respondents of very low income are fully financially healthy, measuring their financial health can show differences.

Drivers of financial health and a conceptual model

The financial well-being that any individual experiences results from many factors, both within and beyond that person's control. We can think of financial health as the result of a set of inputs – endowments and preparations – which are applied as life goes on, resulting in a given state. A conceptual model that accounts for how the factors work together can be seen as a repeating game in which people make choices and experience events. As the game is played, feedback from each interaction influences the starting point in the next, and thus, the state of a person's financial health is always varying.

Below, we introduce a conceptual model, which is based on a framework set out by Kempson with a few modifications (Figure 1). One purpose of such a model is to hypothesize about the relative importance of various elements in determining the end state. The elements of the model are susceptible to policy intervention to greater or lesser degrees; and, when backed by empirical data, a model can help to set expectations around the impact of various interventions.

Kempson's model, which is more fully developed than that of other researchers, considers socio-economic factors, financial literacy, psychological factors and behaviors as drivers of financial health (Kempson et al, 2017. p. 25). In our model, we call out access and use of financial services, since this is often the input of greatest interest to financial sector policy makers. In addition, we add chance, or the random processes of life as it unfolds, which emphasizes that financial health as measured at any given moment will reflect a person's recent history of positive and negative shocks. Finally, this model separates socioeconomic background as a preparatory input from current economic factors such as income. Along with Kempson, we recognize that socioeconomic background is part of the endowment that influences how an individual behaves. However, in the action stage of the model, we emphasize that current economic circumstances, especially income, determine the available choices.

This paper is not an examination of research on the individual elements in this model, which have been extensively studied on their own. The psychology of money management, financial literacy, and financial capability each has an extensive and complex behavioral economics literature well beyond the scope of this paper. Our purpose, instead, is to consider how the elements work together to create a person’s level of financial well-being. We now take up the elements of the model in turn.

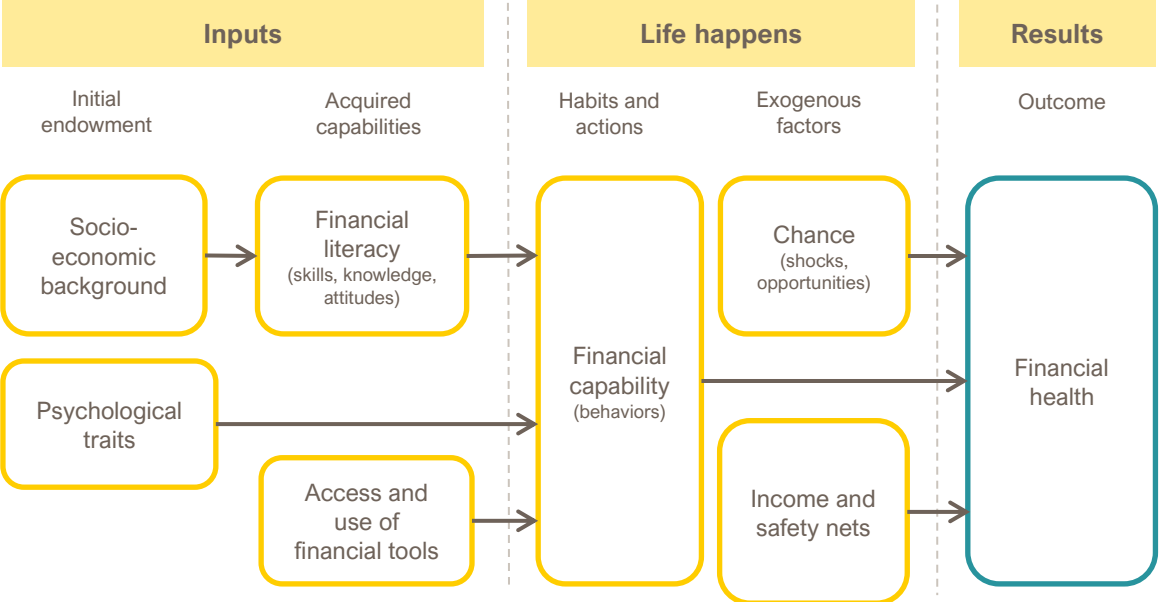


Figure 1: A conceptual model of financial health

Initial endowment: Socioeconomic background and psychological traits. People absorb much of their understanding of money management from their parents and from prevailing cultural norms, bringing an intergenerational element into the picture. Attitudes differ by individual family, by social stratum, and by nation. Research has shown that education is correlated with financial health, even holding income constant.

Individuals have psychological or temperamental propensities that influence their financial health. Behavioral economists have extensively studied impulsivity, risk aversion, confirmation bias and future orientation in the context of financial behavior. It may not be possible to separate psychological traits fully from learned social norms. However, it is clear that people who have similar backgrounds – even siblings – can approach financial management differently; so in our model, both culture and psychology form the starting endowment that leads to the next step: financial literacy and capability.

Acquired capabilities: Financial literacy and access/use of financial tools. Financial literacy (defined as knowledge, skills, and attitudes about money management) results from the prior inputs just described – social norms and personal psychology – as well as learning experiences, such as opening a bank account and exposure to specific information on financial strategies and tools.

Access and use of financial tools have not been considered as distinct drivers of financial health in most models, probably because the models have been developed in high-income countries where access is very widespread and thus is not an obvious differentiator. However, in developing countries, the spectrum of engagement with financial services is very wide, and so may be more revealing. Moreover, if financial health is to be measured as

an outcome of financial inclusion, it must be considered in the model. We will return to this question in Part III: Findings and applications: What have we learned?

These acquired capabilities equip individual for managing their financial lives. The game is about to begin as we move to the active portion of the model.

Financial capability has been defined as the addition of behavior to the knowledge, skills and attitudes that make up financial literacy. We can regard financial capability as the step in which prior endowments and preparations lead to the strategies and actions people actually carry out – in short, financial behaviors. The relationship between behaviors and financial health has been studied extensively and shown to be strong. In some cases, specific behaviors have been used as part of indexes of financial health (for example, planning); but for clarity of inference, it is recommended to omit behavior variables when using financial health as an outcome measure. Nevertheless, research on behaviors offers valuable insights for policymakers and financial service providers on which behaviors to encourage in order to improve financial health. For example, Kempson and her colleagues showed that in the countries they studied, borrowing for everyday expenses was one of the behaviors most associated with poor financial health.

Box 1: Behaviors associated with financial health

In an analysis of focus groups and survey research by the World Bank in 15 countries of varying income levels, Kempson et al, 2017 found the following behaviors to be important predictors of financial health (p. 23). Most of these were reconfirmed in Norway through additional surveys:

- Planning expenditure against income
- Prioritizing spending on essentials
- Disciplined spending
- Living within your means; not borrowing for essentials
- Keeping track of spending and money available for spending
- Active saving
- Planning for unexpected expenses or an income fall
- Planning for old age
- Proactively seeking information and checking product features before choosing a product to buy
- Gathering information before making a financial decision

In testing behaviors in several high-income countries, Kempson found two behaviors very strongly associated with financial health:

- Not using borrowing to meet daily expenses
- A habit of active savings

She recommended that these become areas of policy focus in those countries. For another example, see the Financial Capability Scale developed at the University of Madison, Wisconsin (Collins and O'Rourke, 2013).

Income, safety nets and other economic factors. This box in the model includes both an individual's specific economic situation and the overall country context, both of which play enormous roles in determining financial health. In most studies, individuals' financial health is strongly correlated both with their income and with the volatility of that income. At a global level, cross-country studies also show a link between a nation's per capita income and the average financial health of its population (for example, Kantar, 2019). And based on

the Global Findex data, there appears to be a link between a nation's financial health score and its level of income equality (Matthew Soursourian and Paul Gubbins, unpublished analyses). Income connects the financial health debate to broader issues of employment policy.

The big question here is whether income is just part of the story or is in fact the main story. If income were the only important driver, there would be little scope for financial sector interventions to improve financial health. We will look at this question in Part III: Findings and applications: What have we learned?

The economic context is also strongly influenced by the safety nets that change the exposure of people in a society to major categories of risk. Differences in safety nets must be considered when comparing financial health results across countries. In Canada, for example, the availability of free universal healthcare dramatically reduces health crisis as a source of financial risk, while in the U.S., health problems are among the most important triggers of financial crisis. The variations are similar for countries with or without extensive insurance or pension systems.

Chance, shocks and opportunity. As life proceeds, individuals are exposed to occurrences that affect their ability to remain financially healthy. Illness, accidents, job changes, life events, and other external factors can support or stress the systems people set up to manage their financial lives. While preparedness to withstand shocks is a component of financial health, shocks are also directly included in the model because they change the level of financial health as measured at any point in time. A previously financially healthy person who has experienced a recent shock will be less financially healthy than before the shock depleted their reserves. This observation emphasizes the fact that financial health is an ever-changing state, measured only at specific moments.

Given the relatively recent development of financial health survey methods, little longitudinal data is available, but the available data suggests that chance plays a significant role. Many (24%) of the two-time respondents in the Financial Health Network's 2018 Pulse Survey (Brockland et al., 2019) moved from one of the three financial health tiers in 2018 to another in 2019, even as the overall health of the surveyed population changed little. Similar movements were also seen in Kenya. (FinAccess, 2019)

Testing the drivers of financial health. The model suggests the potential policy levers for influencing financial health and shapes hypotheses for research on financial health. It highlights the following drivers: access to financial services, specific financial behaviors, income, country context and chance. But which factors matters most? And where can interventions make the most difference?

The Financial Health Network found that in the U.S., although higher income is clearly associated with better financial health, there are many people with poor financial health at all income levels and, possibly more surprising, many people at lower-income levels with good financial health. The Financial Consumer Agency of Canada went even farther to state that in its survey: 23% of the variability was due to behavior, 19% to economic factors, 12% each to psychological and social factors and only 4% to knowledge and experience (FCAC, 2019. p. 9). (Use of financial services was not part of their model.) However, it is important to know whether this result holds in lower-income countries where a large share of the population is living at or near basic survival levels. Studies of developing countries tend to find that income explains a relatively larger share of the variation in financial health, but still far from all.

Although there is some important research, the picture is far from complete. In particular, the role of income versus individual behavior remains strongly contested. And most of what we know about the role of access and usage of financial services comes from analysis of existing data sets rather than research designed for that purpose. Furthermore, as Paul Gubbins points out, the specific factors that most heavily influence financial health in one context may not prevail in another, and the relationships among the drivers – whether they work in synergy or not – may also be important (Gubbins, interview). Thus, research to test models of financial health is still needed.

Critiques of financial health

Financial health and well-being have not been universally embraced by everyone who has engaged with the concepts. A variety of critiques have surfaced, from widely differing perspectives. We summarize several main critiques here, together with counter-arguments.

Clarity of definition and measurement. Perhaps the most important critiques come from academics who find the concepts lacking in rigor. The variation among concepts makes it difficult to learn about financial health by comparing findings from one study to another. Witness that in one study cited here (BBVA, 2019) the indicators labeled financial health primarily describe behaviors, while in another they mainly describe perceptions (CFPB, 2017). And when each study proposes to measure a slightly different concept: health, well-being, security, vulnerability, etc., with slightly different takes on the elements of that concept, the confusion increases. The variation stems in part from the use of valid analytic techniques, such as principal component analysis, to distill the most relevant indicators empirically from detailed surveys. As a result, each survey analysis process yields a slightly different concept.

Promoters of financial health may respond to these critiques by observing that it is still early days for the concept, and in this exploratory stage it is constructive to allow a range of approaches. Moreover, there is no ultimate need for a global agreement. Consider, for example, the decades-long debates on how to measure poverty, where multiple approaches are still in use.

Level of detail. Another critique is that financial health is an oversimplified concept that does not provide enough insight to inform action. This critique tends to be focused on indexes of financial health, which indeed provide only a sketch of a complex reality. Promoters respond that indexes are simply signaling devices. Like a thermometer, a financial health index indicates the presence or absence of a problem, along with some measure of its severity, but it does not diagnose the problem, much less propose a solution.

Real versus financial outcomes. The increasing focus on the Sustainable Development Goals (SDGs) suggests another critique, namely that financial health does not test the real outcomes we care most about – like physical health, shelter, or education. This critique often comes from observers who are not primarily concerned with financial sector development and are perhaps impatient to get to what matters to them.

While we should and do care about real sector outcomes, the financial inclusion sector has been bedeviled for years in attempts to demonstrate a direct impact path from financial services to ultimate outcomes. With so many intervening factors, and with financial services playing only a facilitating role, that path has never been clear. For those in financial sector development, financial health brings assessment somewhat closer to the point at which interventions and outcomes may intersect. But even beyond that, financial health surveys

have served to spotlight how greatly financial stress figures in the daily lives of many people. This stress is in itself a real outcome that anyone involved with fostering public welfare should seek to understand – and possibly alleviate. And finally, many of the longer financial health surveys do inquire about shelter, food security, and access to medical care, and explore the links between financial strategies and such outcomes, and this is an area for further investigation.

Correlation with income. Possibly the most frequent critique of the application of financial well-being concepts in the developing world is that the indexes track so strongly with income that they contain little additional information. As discussed in more detail below, most surveys have found income to be very important, but far from definitive.

Financial literacy or capability vs. financial health. A critique from some financial education proponents is that financial health and well-being are the result of good financial habits, and therefore it is more useful to focus on behaviors by measuring financial literacy and capability. Evidence cited above describes what is known about behavior as a determinant of financial health. If financially capable behavior is indeed an important factor, it is important to measure the result of that behavior, that is, financial health, not just the behavior itself.

Policy and action relevance. One of the most challenging and important critiques is the difficulty in moving from observed levels of financial well-being to policy and action solutions. Many of the finance-related action items that have emerged from financial health work are relatively narrow. Emergency savings is a big focus, from apps designed to make savings easier to matched savings accounts. This focus may be an obvious one; however, by documenting the pervasive gap in the amounts of emergency savings people have available, and by illustrating how disruptive this gap can be for families, measurement of financial health may have helped to move emergency savings into the spotlight. Kempson notes that financial health investigations documented how standard bank accounts, with their minimum balances and overdraft penalties, undermined smooth day-to-day financial management for many people. This documentation led financial authorities in the U.K. into dialogue with banks about offering no-frills accounts (interview). While both emergency savings and no-frills accounts have been topics for many years, financial health measurement has helped to prioritize them in the minds of policymakers and providers.

While not a direct critique of financial health, it can also be noted that many of the financial solutions raised most often, like no-frills bank accounts, better savings instruments, and limits on debt, are not the most profitable services for providers. An exception is insurance, as financial health's focus on preparation for contingencies emphasizes the value of insurance that can mitigate shocks. Measurement of financial health may, therefore, motivate policymakers to encourage products or services that providers may otherwise be reluctant to offer.

At the same time, some of the policy-relevant findings are broad and self-evident, well beyond the scope of financial sector policy, such as the need to reduce income volatility or shore up gaps in safety nets. Financial health measurement is serving as a way to tie financial sector actors into these broader policy debates. For example, the Financial Health Network is increasingly working with employers to evaluate the financial health of their employees and offer financial wellness supports.

Part II: Measurement methods

A major challenge in data collection on financial health is developing a survey instrument and ultimately an index likely to result in accurate and unbiased results. Not only the choice of questions but also the way they are worded, weighted and scored are at issue. Anyone wishing to begin measuring financial health must first sort through a methodological thicket. While the subject can become quite technical, this section is meant to assist non-technical observers to understand what is at stake when technical choices are made.

Box 2: Two indexes: Financial Health Network and CFPB

Financial Health Network

(<https://finhealthnetwork.org/research/financial-health-measurement/>)

1. Pay bills on time
2. Spend less than income
3. Have sufficient liquid savings
4. Have sufficient long-term savings
5. Have manageable debt
6. Have a prime credit score
7. Have appropriate insurance
8. Plan ahead financially

Consumer Financial Protection Bureau

<https://www.consumerfinance.gov/consumer-tools/financial-well-being/>

1. I could handle a major unexpected expense.
2. I am securing my financial future.
3. Because of my money situation, I feel like I will never have the things I want in life.
4. I can enjoy life because of the way I'm managing my money.
5. I am just getting by financially.
6. I am concerned that the money I have or save won't last.
7. Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month.
8. I have money left over at the end of the month.
9. I am behind with my finances.
10. My finances control my life.

The Financial Health Network and the CFPB developed their indexes to be easy to use, both by organizations and by individuals. The Financial Health Network, which works closely with financial service providers, focuses on actual financial condition. It ultimately aims to obtain some of the relevant data from a person's financial account and transaction data. CFPB developed its index in the context of financial literacy and capability programming, and accordingly, it focuses more on perceptions. In both cases, the validity of each question as contributing to the overall result has been extensively tested.

Question design. Most researchers seek an index that accurately reflects a person's objective financial condition, and in the absence of hard data, to formulate questions that generate responses corresponding closely to that condition. For the many researchers who are also interested in measures of a person's satisfaction or stress over finances, direct

questions about perceptions and feelings can be taken more readily at face value, but still must be carefully worded and calibrated.

Feelings and confidence. Many indexes include concepts related to how people feel about their financial lives. The CFPB index uses words with high emotional content, like *feel*, *enjoy*, *concern* and *control*. In part, this occurs when perception is part of the researcher's definition of financial well-being. However, such phrasing occurs for other reasons, too. The Financial Health Network, for example, which is more oriented toward objective financial condition, has found it necessary to use terms like "I am confident that" because a more objective question would require deeper exploration, as in the case of confidence in insurance adequacy, or would require calibration that would be difficult across the full population spectrum – for example, in a question on whether one has adequate savings (Thea Gadron, interview). An alternative way to meet this latter difficulty is to frame questions around the person's own needs, such as asking how many months she could live from her own savings, or calibrating the resilience question to monthly income rather than to a fixed amount.

As noted in Part I: The concept of financial health, CFPB's research indicates that financial condition explains two-thirds of the variation they found in their perception-centered index of financial well-being, and therefore they conclude that the index provides a strong basis for predicting objective financial condition (Walker, J., et al. 2018). Gallup's study of 10 countries (including high-, medium- and low-income countries) confirmed that, using their terms, perception of financial control was highly predictive of actual financial security (Gallup, 2018). Studies in the U.S. and Brazil also indicate significant correlations between perceptions of financial well-being and credit scores (Nagypal & Tobacman, 2019 and SPC et al, 2017). These findings open the way to creation of an index with a judicious mix of questions that range from the more objective to the more subjective.

Behavior versus outcomes. If financial well-being is to be a measure of achievement, success, or outcome, the questions asked should address the current state a person is experiencing, rather than habits or behavior. It is not always easy to distinguish clearly, for example, is it the habit of savings or the amount saved that signifies financial health? Not all indexes have made this distinction, particularly when analysis has shown that a behavior is strongly associated with overall financial health. For example, planning behavior appears in some indexes, although the results can be counter-intuitive. (While planning behavior is thought to be associated with positive financial health, some studies have found that people in financial straits plan carefully while people with financial slack skip planning.) Our recommendation, when measuring financial health, is to avoid questions that query behaviors. If behaviors are of interest, alternative indexes of financial behavior or capability are available.

Timeframe. Many financial health questions refer to a generalized present, with phrasing like, "I pay my bills on time and in full." (Kantar). The timeframe is open-ended. Others pose a hypothetical: "If you had a financial emergency today, do you think you would be able to pay for it?" (Gallup). Still others refer to the past, "In the past 12 months, have you..." Although the questions that refer to the past may sound more objective, their reliance on recall does introduce some subjectivity. Researchers have for the most part used the generalized present as the basis for financial health questions. If a short index uses generalized present questions, a longer-form survey may test the validity of those questions by asking about the past. In some indexes, a few questions refer to the future, primarily because ability to maintain financial well-being in the future is a core part of the definition.

However, some future-oriented questions, such as the resilience question, are framed as hypotheticals, that is, “If you had an emergency, what would you do?” In that regard, it is important to note that the gap between what people say and what they actually do is often quite large. Accordingly, responses to hypothetical questions must be recognized as indicating a person’s perceptions about their objective condition.

Box 3: Anatomy of a question

To examine question design, we compare how various financial health surveys ask about a single concept, in this case, having enough money to last each month for everyday needs, or “making ends meet.” The questions shown here move from more to less objective, but all rely on interpretation or recall.

<i>Statements about general practice</i>	<i>Frequency or difficulty</i>	<i>Specifics based on recall</i>
<p>Respondents evaluate their typical current situation in the present.</p>	<p>Slightly more objective, these questions still ask about typical situations.</p>	<p>More specific questions query specific events and are past-focused. With some exceptions, they are more often used when drilling down than in short indexes.</p>
<ul style="list-style-type: none"> • <i>I have money left over at the end of the month.</i> (CFPB) • <i>I do not often have trouble making money last between times money is received.</i> (FSD Kenya) • <i>I have enough money to pay for my living expenses.</i> (Kantar) • <i>I spend less money than I make each month.</i> 	<ul style="list-style-type: none"> • <i>How often do you run short of money for food or other regular expenses?</i> (Kempson et al 2017) • <i>How often do you have money left over after you have paid for food or other regular expenses?</i> (Kempson et al 2017) • <i>In a typical month, how difficult is it for you to cover your expenses and pay all your bills?</i> (Abt Associates) 	<ul style="list-style-type: none"> • <i>In the last year, I never went without food to eat.</i> (FSDK) • <i>In the last year, I never went without medicine.</i> (FSDK) • <i>In the past 12 months, the food that I bought just didn't last and I didn't have money to get more.</i> (Abt Associates, for CFPB) • Abt asked a series of questions about difficulties in the past year with housing, utilities, doctor visits and medicine.

Question relevance and sensitivity by segment. CFPB’s index asks a unique question that has proven useful in the U.S., “Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month.” This question is clearly aimed at enabling researchers to make distinctions among people at the middle to lower end of the income spectrum. Similarly, questions used in Kenya regarding going without food or medicine are designed to differentiate among lower income segments. Thea Gadron of the Financial Health Network confirmed that their questions are designed to ensure relevance and measurement sensitivity for lower income segments, so that more distinctions can be drawn at that end of the scale than among the wealthy.

Individual versus household. Most surveys are directed at individuals, especially those that query feelings of confidence or stress, which can only be answered individually. It is expected that answers will reflect household status in those families that pool finances and financial decisions. At the same time, it is also well recognized that roles within the household can affect responses, and accordingly, a few surveys ask about them. Gallup, for

instance, asked about satisfaction with one's role in household financial decisions (Gallup, 2018, slide 4). Intra-household differences in financial health is an important topic for further investigation.

Bias in collection. Inevitably, bias will creep into responses, especially if data is collected by a person seen as directly representing a financial institution or government. Many people do not want to admit having problems, or they may be swayed by the questions themselves, if it is easy to infer what the "right" answer is. If saving money is a recognized positive behavior, people may be more likely to say that they save. While some bias is unavoidable, the steps that can be taken to minimize bias include using enumerators unconnected with a financial institution, ensuring respondent anonymity, and surveying by phone or internet. Some claim that people are most likely to give honest answers to fully automated surveys, such as those using chatbots or interactive voice response (IVR); however, this has not been tested in terms of financial health surveys. Some also claim that people will give more honest answers about their perceptions and feelings than about their objective financial condition.

Cross-country adaptation. Questions must be adapted to fit local circumstances and cultures. Studies in several countries in Latin America (CAF in Colombia, Peru, etc.; others in Brazil) have directly applied the CFPB questions but have found it necessary to supplement the index with questions that apply more directly to objective financial condition. In its surveys, Gallup found that people in different cultures responded to perception questions very differently. In its measure of financial control, a perception measure, 31% of respondents in both Bangladesh and Japan reported feeling in control. However, on the more objective measure of financial security, only 7% of Bangladeshis appeared to be secure versus 41% of Japanese (Gallup, 2018, p. 6).

We have not identified any examples from middle- or low-income countries where detailed consumer research and testing have been done to develop an index specific to that country. This would be a next step for many of the countries that have begun including financial health questions in their surveys.

Scoring and interpreting results. The value of an index of financial health is the ability to summarize the overall result in a single number. This number can then be used to characterize population segments or monitor changes over time – and as a powerful communications device.

The organizations that have developed indexes have put significant time and sophisticated analysis into selecting the questions to include. When constructing scores, however, they have taken a relatively simple route. In scoring individual questions, financial health researchers often use a Likert scale, a frequent tool of psychometric and consumer research that queries the strength of agreement or disagreement with the given statement, using a five-point scale. Kempson, although she also uses a five-point scale, notes that when surveying people of low literacy, yes/no questions may be more readily understood (interview).

For each question, the possible responses are given numeric scores. To construct the overall index, each question is given equal weighting and scaled to result in a score from 1 to 100. In general, survey results have been normally distributed with the bulk in the mid-range. For example, CFPB reports that the lowest average score for a population segment (aged 18 to 29; income below USD30,000) is 45, while the highest group (over 72; income over USD100,000) averages 72. The great majority of all responses fall within this range.

Researchers must interpret the scores they see, defining what score constitutes financial health. This process, while essential for effective communication of results, is difficult to provide with an empirical underpinning other than the researcher's or organization's own interpretation. As an example, the Financial Health Network classifies respondents into three groups: financially vulnerable (17% of the population), coping (54%) and healthy (29%). The analysis behind the decision to cut the population into these segments, while it is based on scores, is only explained by noting that the vulnerable are struggling in nearly all areas while the coping are struggling in only some. The choice of this characterization, which places the majority of the population in the "coping" category, highlights the pervasiveness of gaps in the financial health of the population and acts as a call to action that the Financial Health Network uses to motivate the partners and policymakers it seeks to influence. It emphasizes that most people, not only the poorest, have financial health gaps.

CFPB, as a government agency, is necessarily more cautious in phrasing its results, which are roughly similar in distribution to those found by the Financial Health Network. It uses neutral language, simply reporting low, medium or high scores, then reports on some of the likely characteristics of people in each category, such as the amount they are likely to have saved.

One value of rolling up responses into a single financial well-being score is that it makes it easy for organizations such as financial educators to use the scores with consumers. People like to take quizzes and find out how their responses compare to others. A financial health quiz based on an index provides an organization with a quick diagnostic, at the same time motivating people to improve their financial health and opening the way for a dialogue with financial educators or coaches, as explained in CFPB's toolkit for financial educators (CFPB, 2019).

Use of transaction and account data. Those who define financial health primarily in terms of objective financial condition may be interested in measuring it with actual financial data about customers: their accounts and transactions. It is only recently, however, that attempts have been made to use transaction data, and only as a supplement to survey questions. In 2019, in a pilot project with data aggregator Plaid, the Financial Health Network began to combine financial health survey data with participants' actual account information (subject to agreement by participants to link their accounts). The results from this exercise, which are expected toward the end of 2020, will for the first time provide a link between a customer's objective data and that customer's responses to financial health questions. Similarly, in its FinnSalud project in Mexico, Bankable Frontier Associates is connecting financial health questions with transaction and account data from their partner financial cooperatives. They will seek to identify transaction patterns linked with various financial health outcomes, segmenting customers based on their financial strategies. JPMorgan Chase is also conducting research to connect financial health results with transaction data, based on its vast store of credit card and banking data.

Part III: Findings and applications: What have we learned?

To demonstrate the impact financial health research can have on policy and understanding, we will first examine the major findings to come out of the high-income country research, where financial health frameworks have been applied to real populations in multiple surveys. Then we will turn to findings to date in middle- and lower-income countries, where research and applications are still at an early stage.

How financially healthy are people around the world?

High-income countries. Financial health and well-being have become widely used concepts in part because early studies, such as those in the U.S. and U.K., demonstrated the serious and surprisingly prevalent gaps between even a modest conception of financial health and survey responses.

By far the most important finding, particularly in the U.S., has been the degree of poor financial health among population segments expected to be relatively financially healthy. CFPB's 2016 survey found that one-third of the U.S. population scored at a level that indicated a high probability of struggling financially (CFPB 2017, p. 28). The Financial Health Network's Pulse Survey estimated that 17% of Americans are struggling with most or all elements of their financial lives, and another 54% have difficulty with at least one major element (FHN 2019, p. 3). The findings alerted policymakers and financial service providers that an enormous share of their constituents or customers are not experiencing financial well-being.

Possibly the most powerful single finding has come from the Federal Reserve Board's annual Survey of Household Economics and Decisionmaking. Since 2013, the survey has asked about people's ability to come up with USD400 to meet an emergency. When the question was first asked, fully half of the respondents said they would not be able to meet the emergency from liquid sources – i.e., they would have to borrow or sell something. And 12% said they would not be able to come up with the money at all. This finding has become so well known that one is likely to hear it quoted in the media or by political speakers.

It is not easy to trace specific policy decisions based on such findings. However, it is the author's observation that the findings on raising a moderate-sized lump sum have entered the conventional understanding about the economic struggles of low- and moderate-income Americans and thereby had a significant impact on policymakers. Financial health has blossomed into a new way to understand the status of people who are not making it in the U.S., replacing an earlier focus on whether individuals were “banked” or “underbanked”. Accordingly, attention has shifted from product access by the lower-income segment toward problematic outcomes across the whole population.

Financial well-being work has certainly influenced the CFPB itself. As one example, thanks to the findings on lack of ability to access a lump sum, CFPB has launched a multifaceted campaign to promote liquid savings. Previously, emergency savings were largely ignored as a consumer protection concern.

Very wide-reaching initiatives have come out of financial health work in the U.K., reflecting a broad consensus across financial sector regulators of the importance of improving consumer financial health. A flagship of this consensus is the U.K. Strategy for Financial Wellbeing (Money and Pensions Service, 2020), which forms the core strategy of the

Money and Pensions Service, a new government agency aimed at promoting financial capability. The priorities in the strategy follow directly from many of the findings of financial well-being research conducted by Kempson and others. For example, one pillar focuses on reducing the prevalence of borrowing for routine needs, which Kempson found to be a particular concern. As a government agency, the Money and Pensions Service is well placed to work with financial regulators such as the Financial Conduct Authority as well as with financial service providers and employers. The work is funded through a tax on financial institutions.

With financial health and well-being in mind, financial service providers as well as financial educators and coaches are using financial health as a way to interact with consumers. Both CFPB and the Financial Health Network have developed toolkits that make it easy to assess financial health and process the results; the Financial Health Network's toolkit is oriented toward financial institutions while the CFPB's framework is more general. Nerdwallet, for example (an advice website for personal finance) offered CFPB's 10-question index online, with immediate feedback to users, together with links to resources on guides to various aspects of financial health. And an enormous number of fintechs aim to support financial health, such as Digit and Even, both of which focus on automating frequent small savings. Many of these start-ups work with behavioral economists to apply theories about nudges, default options and other ways to motivate positive behavior.

Large employers are another group influenced by financial health concepts. While many employers have long provided pension support and advice, financial wellness programs have begun appearing that address pre-retirement financial health.

Finally, major banks are taking note of the concept and seeking to study the financial well-being of their customers, including ING, Barclays, Commonwealth Bank, ANZ Bank, BBVA and JP Morgan Chase. Their responses in terms of policies and product innovations are less clear at this stage.

Results from middle- and low-income countries. Policymakers and financial sector development professionals in developing countries have begun to take interest in the concept of financial health, primarily as a way to understand whether financial inclusion contributes to financial well-being. However, as this interest is still recent, there are relatively few completed studies. Many more are underway.

Most early efforts to apply the financial health concept to the developing world involve cross-country comparisons rather than in-depth explorations in a single country. In 2013 and 2017, the Findex (the World Bank's 150-country data collection project on financial inclusion) asked questions about resilience. These results represent the only global results on financial health available, although they only touch on one of the several main elements of financial health. Most other available studies depict only a handful of countries.

Some studies have re-assessed existing data sets to apply financial health concepts. In one such example, Kempson analyzed World Bank qualitative research in eight middle- and low-income countries to help derive her definition of financial well-being, and this work led to the important conclusion that the concepts were relevant across the world.¹ (Kempson, et al, 2017, p. 17) Kantar added six financial health questions to its 2017 financial studies on financial access and usage in seven countries.² CAF conducted financial capability studies

1 The World Bank studies analyzed by Kempson were from Colombia, Malawi, Mexico, Namibia, Papua New Guinea, Tanzania, Uruguay, and Zambia.

2 The Kantar studies were done in Bangladesh, India, Kenya, Nigeria, Pakistan, Tanzania, and Uganda.

in several countries in South America and later examined them again from a financial vulnerability perspective together with BBVA and a Colombian university³ (Arellano et al., 2019). Gallup conducted a survey of financial security and financial control in 10 countries, five high-income and five low- or middle-income.⁴

In these studies, the first striking finding is how pervasively weak financial health is in middle- and low-income countries. These findings dispel any notion that most people can effectively adjust their financial lives and expectations to their incomes. Instead, these findings suggest that financial stress is a constant companion in the lives of most families in the global South. Financial and other tools are insufficient to fully smooth out the vicissitudes of economic lives, and a significant minority of the population are extremely vulnerable. While we have long had exhaustive documentation on poverty in the developing world, these studies bring greater understanding of economic lives, with substantially new information on resilience and financial security.

The Findex, which focused on resilience, found that whereas in high-income countries 73% of people said they could access a lump sum in an emergency (equivalent of 1/20 of GNI), in the developing world only 50% said it would be possible, even though the sum in question was scaled to the country's GNI. Moreover, in developing countries, people tended to rely first on family/friends and working, then on savings, often informal, to obtain the funds, while people in high-income countries mainly relied on savings in formal accounts, further revealing just how different financial strategies are in the global South and North (Demirguc-Kunt et al, 2018).

In BBVA's research on financial vulnerability in five South American countries, 20% of the population were found to be extremely vulnerable (defined as having resources that would last a week or less if income were stopped), with 60% having resources lasting between one week and three months. Only 20% of the population were considered "safe", with resources that would last more than three months.

Kantar's analysis of data from Africa and Asia also found that the bulk of the population is not financially healthy, and a significant proportion are severely unhealthy. In Uganda, where the distribution of results was especially skewed, 19% of respondents received a zero score.

In the low- and middle-income countries it surveyed, Gallup found only 7% to 11% of the population to be fully secure (defined as having resources to live for six months if income were stopped *and* having manageable debt service), while between 41% and 60% were fully insecure (resources adequate for less than one month *or* unmanageable debt service).

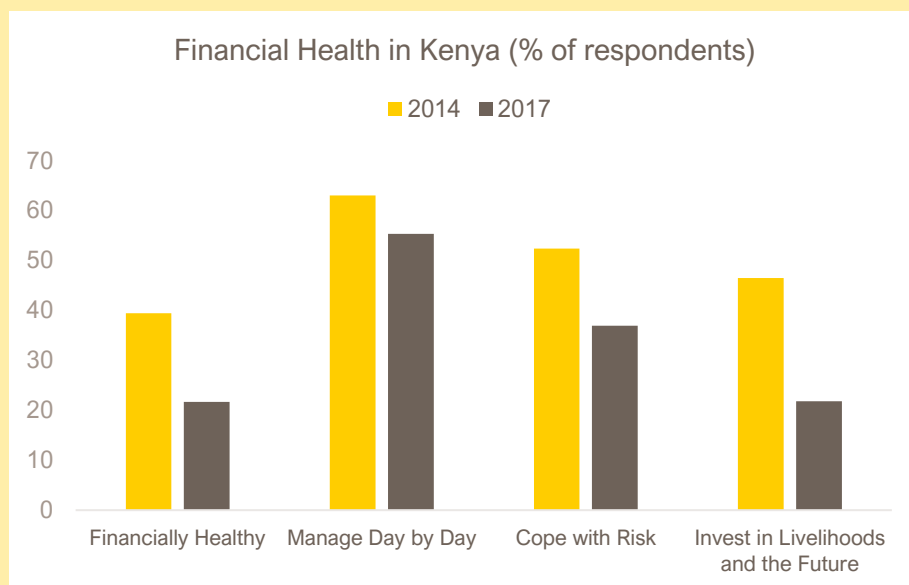
Despite the increasing number of studies, the concept of financial health has not yet influenced financial sector policy dialogue in a big way, though this is beginning to change in countries, including Brazil, Kenya (see Box 3), Mexico, Peru and the Philippines.

3 The CAF/BBVA studies were done in Bolivia, Chile, Colombia, Ecuador, and Peru.

4 The low- and middle-income countries studied by Gallup were Bangladesh, Chile, Colombia, Kenya, and Vietnam.

Box 3: Measuring financial health in Kenya

The Central Bank of Kenya, Kenya National Bureau of Statistics and FSD Kenya have been collaborating on comprehensive financial inclusion surveys, and in 2016 and 2019 they included questions on financial health. They used a 9-item index, based on the three categories of day-by-day management, ability to cope with risk, and ability to invest in livelihoods and the future. As expected, better-off segments of the population scored higher than poorer segments on these measures.



The surprising finding in 2017 was the drop in the percentage of people who were financially healthy from 39% in 2014 to 22% in 2017, despite an increase in financial inclusion during a period when the percentage using formal financial services actually rose, from 75% to 83%. Explanations for this decrease are not clear, but, according to Paul Gubbins of FSD Kenya, it coincides with slower economic growth and drought during the intervening years.

The findings illustrate a tendency found as well in other research: people are best prepared to manage daily finances, then cope with risk, while investing in the future is the weakest element. This pattern indicates that people tend to be able to make investments in their future only after their present is secure.

The findings on financial health, while taken up by the press, have not yet resulted in direct policy changes. However, interest in understanding financial health is growing, as attention turns not just to the usage of financial services but to the well-being of those who use them.

Source: FinAccess, 2019

Findings on two key questions

Two questions must be answered if financial health is to be accepted as a relevant concept: first, whether it adds important information beyond income, and second, whether it is useful as an outcome measure for financial inclusion. (A third important question – on the relationship between financial health and poverty alleviation – has not yet been examined in depth.)

Does financial health measure more than income? Analysts in high-income countries emphasize that while financial health tends to vary with income, at every income level there

are many financially healthy and unhealthy people. This finding is important for legitimizing financial health as a concept that adds value beyond traditional socioeconomic variables. For the developing world, however, one hypothesis is that where incomes are much lower and especially when many people live in absolute poverty, strained economic circumstances simply overwhelm attempts to manage money through financial strategies, making financial health impossible and hence not very relevant (Ladha, et al, 2017). There is also the question that in those countries, income, rather than factors such as behavior or financial service use, may explain most of the variation in financial health responses.

Broad comparisons across countries, starting with the Findex results cited above, suggest that, as expected, financial health does vary with income. However, some of the Findex results indicate that more information is being revealed than the information provided by income alone. For example, the gap between the average percentage of resilient people in low-income countries and the upper-middle-income countries (47% and 51%, respectively) was not great, despite a tenfold difference in average incomes. The region that scored lowest on resilience, Latin America and the Caribbean (41%), is far from the lowest-income region. This suggests a need to understand whether important facets of financial lives in Latin America differ from those in other regions (such as reluctance to save in monetary form, following decades of high inflation). One observation, which becomes evident when Findex results at the national level are crossed with GINI coefficients, is that countries with greater income equality tend to have better financial health (Paul Gubbins and Matthew Soursourian, unpublished analysis).

Strong correlations between financial health and income also appear when examining data within individual countries. In most countries in the Findex, the lower two-fifths of the population by income scored much lower on resilience than the upper three-fifths (averaging around a 25 percentage point difference). Kantar's analyses also confirm this strong association between financial health and income.

At the same time, the surveys confirm that there are financially healthy and unhealthy people among all income segments. IPA's research with several different types of populations found some correlations between resilience and income, but a stronger correlation between resilience and the predictability or volatility of income (interview). In national data, the exception to this is the very poor in low-income countries, where the probability of being financially healthy falls toward zero for the very poorest (Kantar, 2019, FinAccess, 2019). However, IPA found meaningful differences even among the very poor people they surveyed in and near refugee camps in Uganda.

There are still too few studies for definite conclusions, but results so far suggest that, with the possible exception of the poorest of the poor, measuring financial health provides insights beyond just measuring income.

Relationship between financial inclusion and financial health. The data on whether financial inclusion leads to greater financial health is at this stage contradictory and inconclusive. Across the world, the Findex surveys asked the resilience question in both 2014 and 2017. Although financial inclusion (defined by account ownership) rose across the world, resilience was slightly lower in 2017 than in 2014 in all regions, excluding high-income countries (Rhyne & Kelly, 2018, p. 23). In Kenya's FinAccess surveys, the number of financially healthy adults dropped during the period from 2016 to 2019, even though access and usage of financial services increased (FinAccess, 2019). These findings are perhaps disappointing to financial inclusion promoters, who will need to look more closely to identify determinants of well-being and to evaluate how greater contact with the formal financial system affects the newly included.

In more specific studies, relationships do appear, although the directions of causality are unknown. Kempson reported that engagement with the financial system is a predictor of financial health in high-income countries, for example Norway and Ireland (interview). Kantar also assessed the relationship between financial health and inclusion, finding a positive association, specifically with formal savings and the use of mobile money.

Results from CAF from studies in South America (analyzed by BBVA Research) showed a strong relationship between formal inclusion and lower financial vulnerability: Financially included people said they could make ends meet for a longer time if income were to stop. However, the authors found that the relationship of lower vulnerability to financially capable behavior had a stronger association (Arellano et al., 2019). Again, causal inferences cannot be drawn, but the authors conclude that the important question is not whether one owns an account, but how financial services are used.

On the other hand, Gallup found no obvious relationship between their measure of financial security and ownership of a formal account. For example, in Kenya, mobile money has made account ownership very widespread, but financial security remains quite low.

IPA, too, found relatively weak correlations between access and resilience, though some of the stronger signals related to having a bank account and having access to loans.

Policymakers may well conclude that broad measures are insufficient to reveal the connections between financial inclusion and financial health, and that close analysis is necessary to understand the circumstances in which inclusion contributes to financial well-being.

The future of financial health

Financial health as a concept and measurement device, if no longer in its infancy, is still perhaps in its adolescence, and it remains to be seen whether it will be taken up energetically around the world. Even while many conceptual and methodological questions remain to be settled, however, the concept is spreading, as more organizations in more countries are measuring financial health. At the same time, researchers dedicated to financial health are moving forward with new groundbreaking work to deepen and extend knowledge and applications.

Among the new areas of exploration for financial health are the following:

- Several organizations, including the Financial Health Network in the U.S. and Bankable Frontier Associates in Mexico, are seeking to link transaction and account data to responses on financial health. Results should become available in late 2020 or early 2021. This work will lead to valuable new insights on behavior patterns associated with financial health such as specific transaction or account patterns that could be predictors or proxies for financial health.
- In the U.S. (Nagypal and Tobacman, 2019) and Brazil (SPC et al., 2017), joint studies between government and credit-reporting organizations have tested the relationship between a perception-based financial health score and credit scores, finding strong correlations.
- Over the next two years, the Center for Financial Inclusion at Accion is surveying customers of up to 10 financial institutions around the world with a specific focus on the financial health of small businesses, looking especially at the interactions between small

business financial health and the personal financial health of proprietors and their families.

- The Aspen Institute is examining short-term financial stability as a gateway to longer-term financial health and seeking to identify specific behaviors and support mechanisms that enhance short-term stability (Aspen Institute, 2019).
- The Financial Health Network is working with health policy organizations to explore the linkages between financial and physical health, in recognition of the effect of financial health on physical health (both due to stress and to the effect of poor financial health on access to medical services) and, conversely, because of the importance of health crises in determining financial well-being. The Network is also exploring specialized topics such as the financial health of older people. It is becoming increasingly apparent that the need for a health finance safety net is one of the most important policy implications associated with financial health studies.
- An increasing number of researchers, such as IPA, will be incorporating financial health questions into panel data and randomized control trials, in the former case to see how financial health varies over time and in the latter to begin to make causal inferences.

Part IV: Recommendations on getting started with financial health

In this section, we make recommendations to policymakers and to insight2impact about moving forward with financial health, with a focus on measurement approaches.

Embrace financial health and well-being as a policy objective. From its limited focus on financial system stability, financial sector policymaking has been on a gradual trajectory for decades toward greater explicit concern with citizens' financial well-being, most notably with the rise of consumer protection after the 2008 financial crisis. It is self-evident that a financially healthy citizenry is of social and economic value, and there are arguments that link financial health to financial system stability. Financial health focuses attention where more focus is needed: on how people are managing with the endowments and tools available to them.

However, the question remains whether financial health should be a stated objective in financial policymaking. Our answer is affirmative, simply because affirmation of financial health as an aim of financial sector policy would direct regulators and providers to consider it as they craft policies and products. We recommend that financial sector policymakers include financial health and well-being among their policy objectives, for example, in their national financial inclusion strategies (as in Peru, among others).

Measure the financial health and well-being of the population. As a first step, we recommend that policymakers begin routinely measuring financial health. In an admittedly crowded measurement landscape, it offers different insights than socioeconomic variables, and these insights are more directly relevant to the financial sector. Even if financial health is not made an explicit objective, it is hard to conceive of a financial inclusion policy that would not be better informed by an understanding of the financial well-being of the excluded and included.

Financial health measurement can reveal whether and how people are benefitting from their relationship to the financial system; and for this purpose, it provides insights beyond traditional socioeconomic indicators and completes the picture begun by data on access and usage of financial services. The information gleaned from documenting financial health can offer insights into aspects of financial lives that need support or offer opportunities for financial services.

This information is also relevant for financial system stability. Large gaps in financial health can signal problem areas in the financial system where people are likely to turn to sub-optimal solutions that undermine financial security. Consider, for example, whether close monitoring of consumer financial health in the U.S. before 2009 might have led to restraint of some of the lending practices that brought down the mortgage market and triggered the global financial crisis.

When combined with data on access and usage, financial health measures indicate whether broad trends in financial inclusion are correlated with improvements in financial health. They can also lead to dialogues among policymakers across the range of welfare concerns, because they reveal the interconnections of the wide range of policies that create the environment in which people conduct their financial lives, such as employment, healthcare, pensions and social welfare.

A central caveat to the endorsement of financial health as an objective is that while it can broadly indicate the status of users (and non-users) of the financial system, one cannot conclude that observed financial health, or its lack, is directly caused by financial inclusion. The importance of economic circumstances, life events and consumer behaviors in combining with financial tools to produce financial health, together with current measurement limitations, prevent causal inferences. Therefore, rather than treating financial health as a direct indicator of outcomes, policymakers should look to it as a signal pointing toward areas where more attention and rigorous research is needed.

Three approaches to measurement

Policymakers may wish to adopt one of three main strategies for measuring financial health, depending on the purpose of their work and available resources. One approach is a brief index of financial health: a handful of questions that generate a financial health score. An even simpler approach is to focus on one key indicator as a proxy for overall financial well-being: the resilience question, or ability to access a lump sum quickly. The third approach is to conduct detailed surveys to obtain a comprehensive picture of financial health. The first two provide simple status readings, while the third is necessary for further diagnosis and crafting policy responses. All three approaches lend themselves to combination with other data, ranging from demographics to financial service usage to financial literacy, in order to generate important insights.

1. Financial health indexes

An index consisting of a short list of questions that combine into a single financial health or well-being score is an easy-to-use assessment tool and powerful communications device. An index can be used:

- As a screening device to provide a snapshot on consumer outcomes and to indicate segments of the population or elements of financial health that need attention
- As a set of questions to drop into existing surveys so that the relationships between financial health and other things – such as financial service access and use – can be readily analyzed
- To provide a tool for organizations that lack in-depth research capabilities, such as financial service providers, to easily assess the financial health of their customers or beneficiaries
- To support and motivate individuals to improve their financial health, when combined with financial education, financial capability tools or financial coaching (Consumers are often keen to take a quiz and receive a result that validates how they are doing.)
- To communicate forcefully to non-specialist influencers – legislators, media, policymakers in other sectors, and the general public (An index can be leveraged to create consensus on the need for action.)

When rolled into a single score, a financial health index can function much like tools such as the Net Promoter Score, the Food Security Questions, or the Poverty Probability Index (PPI), each of which captures a major socioeconomic signal, communicates it readily and is used as a monitoring device. As a thermometer enables non-specialists, such as parents, to tell whether to take their child to the doctor for deeper diagnosis, so a

financial health index could help inform and motivate political actors, the general public and financial service providers, among others. To be useful, both the thermometer and the financial health index must be very easy to use and interpret.

Note, however, that further surveys will be needed to move from the high-level “temperature” that an index provides to the deeper, diagnostic understanding that would allow policymakers to craft responses.

In the U.S., the Financial Health Network and the CFPB developed such indexes and are applying them in annual surveys. They have also published toolkits to enable other organizations or researchers to use the indexes with their own populations. These indexes have been developed through detailed survey research, typically involving dozens of questions. Analytic techniques such as principal component analysis and item response theory help to select the questions with greatest relevance to the overall results (for example, CFPB, 2017 Financial Well-Being Scale: Scale development technical report).

Given the extensive testing and validation that has gone into these two indexes, organizations in the U.S. can confidently apply either. They can readily compare the results obtained for their target populations with benchmarks from nationally representative surveys. Researchers in countries without this empirical base will need to perform development work before adopting an index. Even in other countries, however, existing indexes provide a useful reference point, making it faster and easier to get started. For example, researchers in Brazil adapted the CFPB index only slightly when applying it in Brazil, with useful results (SPC Brasil, 2017).

A pre-tested index can easily be dropped into an ongoing survey, after quick verification that local respondents understand the questions as intended. Because the currently available indexes were developed in high-income countries, if an organization decides to make a long-term commitment to measuring financial health, it will need to develop an index that is relevant in its own country or context.

Box 4: Principles for developing a financial health index

1. Use the four widely accepted elements of the definition of financial health: day-to-day, resilience, future goals and perception of well-being.
2. Construct most questions with a focus on objective financial condition, with one or two questions specifically on perception or feelings about one’s finances.
3. Ask about outcomes, not behavior: “I have money put aside for emergencies” not “I put money aside every month”.
4. Be product-agnostic. Do not mix inputs and outcomes by asking about use of specific financial services. Questions on financial services may be included in a longer survey, but not in the index itself.
5. Do not ask about specific goals. Drill-down questions (not scored in the index) can query specifics, such as saving for old age, starting a business or buying a house. Such questions could provide relevant insights when examining specific market segments in more depth.
6. Use both present and recent past questions. Limit the use of hypotheticals (exception: the resilience question).
7. Include the resilience question based on Findex language for international comparability.

8. Mix questions that have a positive slant (use of words like adequate and confident) with questions that have a negative slant (unmanageable, run short, stress).
9. A Likert-type five-point scale is a useful way to construct responses and assign scoring values.
10. In scoring, weight questions equally, in the absence of a theoretical or empirical basis for other weighting.
11. Keep the index and scoring as simple as possible to reduce barriers to adoption. In the range of 5 to 12 questions. "Drill-down" questions could provide additional insight but would not be scored as part of the index (see sample).
12. Pitfall questions: Some items may be asked for further information but have not been effective when incorporated into a score. These include questions about insurance, planning, role in the household (potentially important area for drilling down), and sources of advice (while predictive in some surveys, not an outcome).

These principles would be applied through detailed consumer research and testing to arrive at a locally or nationally relevant index. Table 1 provides an illustrative index that policymakers could use as a starting point. This table represents the author's judgment, based on review of the indexes and surveys carried out to date and application of the principles described above. While the index as such has not been tested, all the individual indicators and specific questions have been used in multiple surveys.

Sample Financial Health Index		
Indicator	Sample question(s)	Comments
Day to day		
1. Ability to balance income and spending	<i>I can usually make my money last until the next time I receive income.</i> OR <i>How often do you run short of money for food or other regular expenses?</i>	To drill down, in low-income settings, consider asking about frequency of skipping meals, such as: <i>At any time in the past 12 months, my food ran out and I did not have money to buy more.</i>
2. Ability to meet obligations in full and on time	I pay all my bills on time and in full.	Where informality is common, ask in a more general way.
3. Manageable debt service	Does paying back the money you owe (to an individual or institution) make it difficult for you to pay for the other things you need?	
Resilience		
4. Ability to obtain a lump sum for emergency	Imagine that you have an emergency and you need to pay (1/20th of GNI). Is it possible or not possible that you could come up with that amount within the next month?	Use Findex question for international comparison. Could consider drilling down on specific type of emergency, such as: In the past 12 months, someone in my household needed to see a doctor or go to a hospital, but did not go because we couldn't afford it.
5. Adequacy of liquid savings	Number of weeks or months that liquid savings would last if income stopped OR Thinking about the total income of your household; How many months' income do you have in savings?	Suggested possible answers: up to one week, one month, three months, six months or more
Secure future		
6. Saving toward long-term goals	I am confident that I am on track to meet my long-term savings goals.	As a drill-down question, consider also asking about preparation for old age.
7. Ability to access resources	I am confident that I can obtain the resources I need to secure my future.	In middle- to high-income countries, could ask about credit score instead.
Perception		
8. Feeling in control	My finances control my life. OR I am in control of my finances.	

Table 1: Sample financial health index

2. The resilience question

The question that first galvanized interest in financial health is the resilience question. It asks whether a person would be able to come up with a lump sum within a short time to meet an unexpected expense. This single question captures an important part of the financial health challenge succinctly and in ways everyone can understand. If one were limited to a single question, this would provide the simplest possible measure of financial health.

The U.S. Federal Reserve's Survey of Household Economics and Decisionmaking 2013 found that only 48% of the U.S. population could meet a hypothetical emergency expense of USD400 "without selling something or borrowing money" (U.S. Federal Reserve, 2014, p.3). This finding shocked policymakers and media across the nation and raised the profile of financial health as a topic of concern.

In slightly different form, the resilience question was the only inquiry on financial well-being included in the World Bank's 2014 and 2017 Global Findex, and given that this has yielded results in two (soon to be three) periods and across 150 countries, the results provide a global snapshot that can serve as a starting point for any policymaker that wishes to consider financial health in a global context.

These experiences help to justify why a policymaker might reasonably decide to focus on the resilience question: because it offers a global benchmark and because it is so readily grasped, having proved to be a powerful tool for raising awareness about the prevalence of financial health challenges.

Recently, IPA decided to make the resilience question its lead indicator, as a comprehensive proxy for the broader concept of financial health. According to principal investigator Lasse Brune, the conceptual basis for IPA's choice is the observation that the three standard elements of financial health (smooth day-to-day finances, ability to weather shocks, and ability to pursue goals) are interlocked, such that if a person has the financial means to recover from a financial shock, a researcher can be confident that he is also doing well in smoothing day-to-day finances and the pursuit of goals (interview, 2020). "It's the ultimate expression of the financial situation", according to Brune. "If you answer this question well, the rest of your financial life must be okay, too."

Kempson disagrees with this, arguing that all three elements of financial health reveal different challenges. In her testing, the three elements worked together to create a complete picture of financial health. She observed that being able to meet a shock does not guarantee success in areas like day-to-day management or goal achievement (interview).

Arellano, in studying a concept he termed financial vulnerability (length of time one's resources would hold out if income stopped, which is a variation on the resilience question), posited a Maslow-type hierarchy among these elements, starting with ability to cover daily expenses and moving toward ability to deliberately pursue goals (Arellano et al, 2019, pp. 20–21). While IPA's theory has appeal, there is as yet little data on how well the resilience question performs as an overall proxy for financial health. Hopefully, researchers can remedy this gap.

In considering whether to use this approach, we note that the question's simplicity is also its limitation. It may be telling us something important, but it is a rather blunt signal.

And there are some measurement issues surrounding the question. The value of using the question across countries and segments depends on asking it in the same way everywhere. Unfortunately, studies have cast the question in different ways. The Global Findex scales the question by national per capita income (ability to come up with one 20th of per capita GNI), while the U.S. Federal Reserve asks about a flat USD400, and some others ask about the equivalent of the respondent's monthly income. Timeframes also differ (week or month), as do statements about where the money can come from. The Federal Reserve's phrasing asks about own savings while the Findex asks an open-ended question about how a person could obtain the money. These differences mean that the questions actually relate to somewhat different concepts (current liquidity versus overall ability to access resources). IPA suggests asking clarifying questions, including two different timeframes and amounts and a more open-ended question about how the money would be obtained.

Taking these considerations together, the index approach is preferred, but the resilience-only approach is a valid alternative for policymakers that want the leanest possible approach. (Note, also, that the index approach includes the resilience question.)

In using the resilience question approach, the following principles should apply:

1. If there is any intent to compare results with other countries, use the Global Findex questions with few, if any, changes.
2. It may be revealing to ask about more than one timeframe, specifically one week and one month, as these timeframes reveal somewhat different abilities to respond.
3. In the core question, do not specify how someone would access the lump sum. (The U.S. Federal Reserve asks about obtaining it without borrowing or selling something, while the Findex is silent about methods.) Instead, ask a follow-up question on the methods for coming up with the lump sum. This can help interpret results and provide clues for further investigation.
4. Consider asking a reinforcing question that has been used in some surveys – how long a person could live on current savings if income were interrupted.

Sample resilience questions		
Indicator	Sample question(s)	Comments
1. Ability to obtain a lump sum for emergency	<i>Imagine that you have an emergency and you need to pay (one 20th of GNI). Is it possible or not possible that you could come up with that amount within the next month?</i>	Use Findex question for international comparison. Could also ask about a one-week timeframe. Could consider drilling down on the specific type of emergency, such as: <i>In the past 12 months, someone in my household needed to see a doctor or go to a hospital but did not go because we couldn't afford it.</i>
2. Method for obtaining lump sum	<i>What would be the main source of money that you would use to come up with the sum?</i>	Where informality is common, ask in a more general way.
3. Adequacy of liquid savings	Number of weeks or months' liquid savings would last if income stopped OR <i>Thinking about the total income of your household, how many months' income do you have in savings?</i>	Optional. Suggested possible answers: up to one week, one month, three months, six months or more.

Table 2: Sample resilience questions

3. Detailed surveys

Detailed surveys are needed not only to derive relevant and robust indexes; they are also essential for delving into the diagnosis behind responses to any of the questions in a given index. Accordingly, any national policy organization that makes a commitment to measuring financial health will need to deploy detailed consumer research to develop a reliable measurement framework and to deepen the understanding of specific results. These should be conducted by researchers with relevant expertise, such as in psychometric testing.

Recommendations to insight2impact

A financial health index such as the sample in this section would be a useful addition to insight2impact's financial needs framework. While insight2impact's outcomes framework already includes specific indicators that, taken together, address the main elements of financial health (liquidity, resilience, and meeting goals), applications of the outcomes framework refer mainly to the results of using a specific financial service. An index of financial health would provide a more holistic picture, beyond the effectiveness in meeting needs of any specific financial service. As such, financial health measurement is better regarded as a way to understand the status of consumers rather than as a direct outcome measurement.

insight2impact can also be helpful in sorting out the confusion that currently surrounds terminology and frameworks in the dialogue on financial health. It can help to clarify practices, terms and measurement standards, based on the findings described here. Given that there are others working toward clarity as well, coordination and sharing of findings are essential.

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Annex: Interview list

Organization	Name
Alliance for Financial Inclusion	Luis Trevino
Aspen Institute	Genevieve Melford
Bankable Frontier Associates	Ashrul Amin
Bankable Frontier Associates	David del Ser
CAF, Development Bank of Latin America Colombia	Diana Mejia
Center for Financial Inclusion	Eric Noggle
Center for Financial Inclusion	Mayada El Zoghbi
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