



Advancing Financial Inclusion

Means to an end: A conceptual framework for outcomes of financial service usage

July 2018

Established by



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About insight2impact

Insight2impact | i2i is a resource centre that aims to catalyse the provision and use of data by private and public-sector actors to improve financial inclusion through evidence-based, data-driven policies and client-centric product design.

i2i is funded by the Bill & Melinda Gates Foundation in partnership with The MasterCard Foundation.

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1 Introduction:

Why focus on outcomes of use?

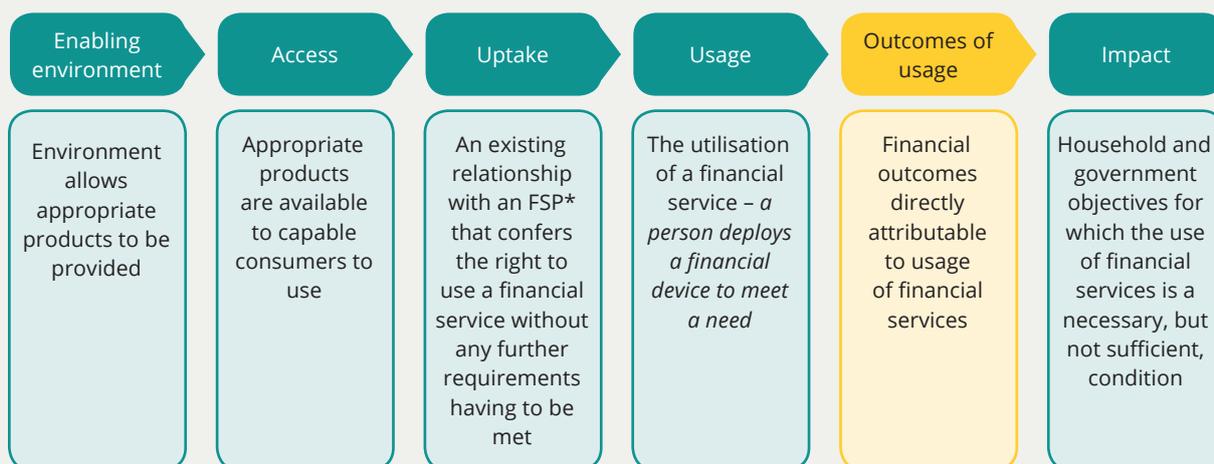
The drive for greater financial inclusion is based on the understanding that financial inclusion has impacts on public policy goals such as socioeconomic development, poverty alleviation and growth. Financial sector policymakers set financial inclusion targets and design interventions towards these ultimate impacts, and development partners aim to support them in this mission. But how do they know whether financial inclusion is rendering impact; and, if not, what needs to change?

The mandate of i2i's measurement team is to evolve the way in which financial inclusion is measured to inform market players and policymakers in their quest for impact. Initially, our focus was on better understanding and measuring the use of financial inclusion, on the assumption that the more people use financial products – as

opposed to mere uptake of financial services – the greater the impact on national policy objectives.

Thus, in the financial inclusion chain (depicted in Figure 1), our focus in the first round of i2i's measurement framework development was on the usage link, to gauge how individuals interact with financial services. In this note, we focus on the next step in the chain, namely the outcomes¹ of usage: *How does a person's usage of various financial services make a difference in their financial life?* That is an important link to, ultimately, understand the impact of financial inclusion at the public policy objective level². However, we do not yet tackle the question of impact directly in this note.

Figure 1. Financial inclusion chain



Source: Authors' own
* Financial service provider

1 We recognise that the term "outcomes" has a specific connotation in the monitoring, evaluation and learning (MEL) sphere. As applied in this note, it denotes the results of financial service usage. In the rest of this note, we explain our intended focus and develop a working definition of what we deem to be "outcomes of use".

2 An additional, equally important, focus is on better understanding the "why" of usage by exploring the major drivers of financial services usage. This is the topic of the i2i Measurement note *Why are financial services not used more?*

2 A needs-based approach

Needs as rationale for usage. As explained in our first round of measurement notes³, we contend that customers do not think in terms of using savings or credit or payments or insurance, but in terms of the underlying needs for financial services that they want to meet. For example, they want to fund their children’s education, meet their day-to-day expenses or deal with medical emergencies – and they will use financial services to help them do so. This view is confirmed in the financial diaries and several other qualitative studies⁴.

Four universal financial needs are identified in the i2i measurement framework context, in line with the financial inclusion literature⁵: the need to transfer *value*, the need to maintain *liquidity* in managing one’s day-to-day finances, the need to stay *resilient* in the face of financial shocks and the need to meet *goals*, be they consumptive or productive.

Usage outcomes evaluated against needs.

Our first step under the needs-based approach was to unpack needs and apply the needs lens to our consideration of usage. We thus view usage as usage-patterns-towards-needs⁶. According to this line of reasoning, each of the financial needs represents a market with market participants and behaviours⁷. The emphasis is on measuring uptake and use of financial services towards each need and to consider the relative contribution of different types of financial services and formal and informal service providers in this “need market”, rather than to measure uptake and usage according to traditional product delineations (savings, credit, insurance, payments).

If we say that needs are the rationale or starting point towards measuring usage, it’s also the natural end point or outcome. In our outcomes-of-use work, we want to understand in what way the mix of financial devices⁸ that people have, as well as the way in which they engage with their financial devices (usage patterns), help them to meet their financial needs.

3 i2i measurement note 3 *Financial service usage: A conceptual model*

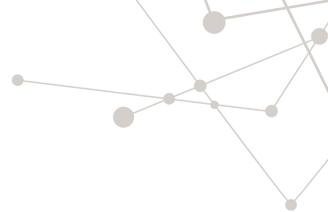
4 See the qualitative research conducted as part of the Cenfri Making Access Possible (MAP) studies (<https://cenfri.org/map/>) and various Financial Diaries studies (<http://financialdiaries.com/>)

5 Such as the various Financial Diaries, the work of the Helix Institute and the Center for Financial Services Innovation (CSFI), among others.

6 i2i measurement note 4 *Catering to every need*

7 When viewed this way, savings, insurance, payments and credit are not four separate markets operating in silos, but are substitute or complementary products in the market for meeting the underlying need, as are formal and informal products, each with distinct advantages and disadvantages.

8 We define financial devices as any physical, social or electronic mechanism that stores, accumulates, distributes or transfers value, and can be used to meet a financial need. People use a portfolio of financial devices – from the proverbial mattress for saving at home, to turning to community members for assistance, to using an informal money transfer service, to mobile banking, to formal insurance, to a loan from a money lender, to a bank account, to an MFI loan – to meet their financial needs.



Based on the reasoning above, we put forth the following definition of a financial usage outcome:

Definition: The extent to which a person's financial needs are met (or undermined) as a result of their engagement with financial services

Needs and outcomes are built on use cases.

Use cases are the discrete purposes for which financial devices are used. Each financial need has a set of use cases that underlie it. For example: Sending money to a relative in another part of the country would be one transfer-of-value use case. Another would be making an in-person merchant payment. The four financial needs tend to apply to most adults in any given society. However, specific use cases will differ from person to person. The outcomes of use for a specific person will therefore be the sum of the outcomes for each use case that the individual has.

Outcomes not necessarily positive. It is important to note that the outcome of usage can also be negative or detrimental to the meeting of financial needs. At an individual level, manifold examples illustrate that the use of financial services can reduce, rather than improve, people's welfare. A credible measure of the outcomes of financial service use is important to guide development policies and interventions, be the outcomes positive or negative.

“ A credible measure of the outcomes of financial service use is important to guide development policies and interventions, be the outcomes positive or negative. ”



3 Building an outcomes-of-use measurement framework

In line with our working definition of usage outcomes, our measurement focus in this domain is to capture whether (and how well) individuals are meeting their financial needs through usage of financial services.

What is a measurement framework?

As explained in the note titled *Introduction to measurement frameworks*⁹, a measurement framework consists of an objective, condition, theory, indicator(s) and data. The objective explains what the measurement framework seeks to achieve, the desired end-goal. The condition is the physical state, set of circumstances, behaviour or process that is necessary to achieve the objective. Thus, the *condition* is what the measurement framework seeks to measure. Because it can most often not be observed directly, the condition is measured via proxy indicators. The

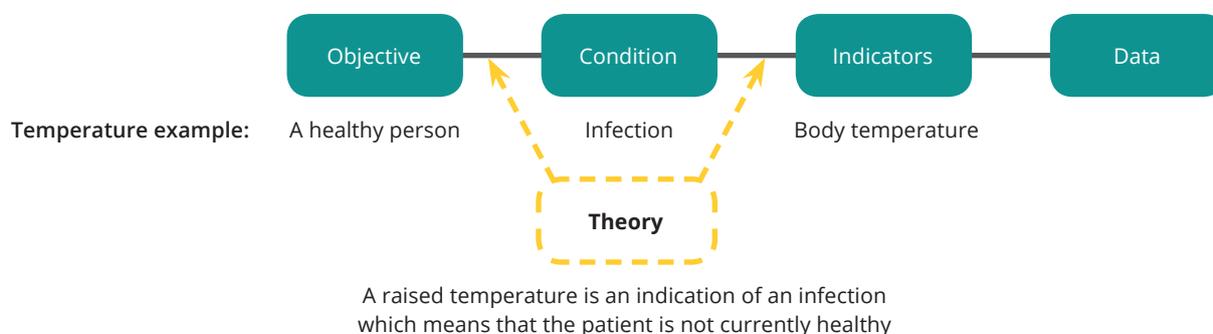
theory explains why the condition is important to understand the objective and why specific indicators are valid proxies to measure the condition. Data is used to populate the indicators. The example below, drawn from the health field, illustrates the component parts of a measurement framework.

Objective and condition for outcomes of use.

The overall objective of an outcomes-of-use measurement framework is to understand how financial services meet the primary financial needs that can be met by financial service usage, in order to inform policies and business models aimed at improved service provisioning. The condition to be measured is the extent to which each financial need is currently met by financial devices across a population or target market segment.

Underlying theory. The outcomes-of-use measurement framework builds on the theoretical framework developed within the first six measurement notes, particularly the needs¹⁰ and usage¹¹ measurement frameworks, as recapped in Section 2.

Figure 2: Example – A measurement framework for health



Source: Authors' own

9 i2i measurement note 1 *Intro to measurement frameworks*

10 i2i measurement note 4 *Catering to every need*

11 i2i measurement note 6 *Making good use*



Outcomes in general vs outcomes of usage.

A primary challenge of this measurement framework is to isolate the particular contribution that financial service usage makes towards financial need outcomes, versus other factors that could influence outcomes. For example, a person who budgets well, or who has a higher income, will likely experience better outcomes than a person who budgets poorly or has low income. What part of the outcome is then attributable to financial service usage? Our chosen approach to understand the role of financial services in outcomes is to first measure the attainment of an outcome in general. Is a person resilient, able to maintain liquidity, able to transfer value or to meet their stated goals? Once these “outcome states” have been defined and indicators have been created to measure them, the usage and needs measurement frameworks can be applied to investigate the relationship between financial device choice, usage patterns and outcomes. So, for example, one could distinguish analytically between different groups of people based on their outcome status. One can then analyse the financial device portfolio and usage patterns of these different groups to infer insights on what, if any, link there is between their choice of financial services and the outcomes that they achieve.

A tool for policymakers and regulators.

The outcomes-of-use measurement framework acknowledges that, for financial needs to be met and a positive outcome to be achieved, appropriate financial devices need to be available in the market. An outcomes-of-use measure will provide policymakers and regulators with an indication of the ways and extent to which the existing financial sector is meeting the financial needs of their population. Thus, it can help to inform (a) whether the financial sector is effectively achieving its objective at a retail level and, if not, (b) where the primary challenges exist and what can be done to change the situation.

Measuring outcomes from each need.

To understand outcomes at an overarching level, separate measurement frameworks must be created for each respective need. This is largely due to the different characteristics associated with the outcomes of each need. For example, measuring whether one is resilient (is able to recover from unexpected financial shocks in a timely manner) is different in scope from measuring whether a person is able to meet his or her goals (is able to accrue a large amount of money to pay for an expected expense).

“ Our chosen approach to understand the role of financial services in outcomes is to first measure the attainment of an outcome in general. Is a person resilient, able to maintain liquidity, able to transfer value or to meet their stated goals? ”



Transfer of value outcome measured via usage.

The Liquidity, Resilience and Meeting Goals needs have clear associated outcomes – a person can be resilient, liquid and can meet stated goals. For transfer of value, however, the act of transferring value, as such, is the outcome. If the objective is for transfer of value to take place, the condition to be measured is whether such transfer is taking place. Thus, if a person has a specific transfer-of-value use case (for example, to send a remittance to family) and uses a financial device towards this use case (for example, mobile money), the need to transfer value has been met.

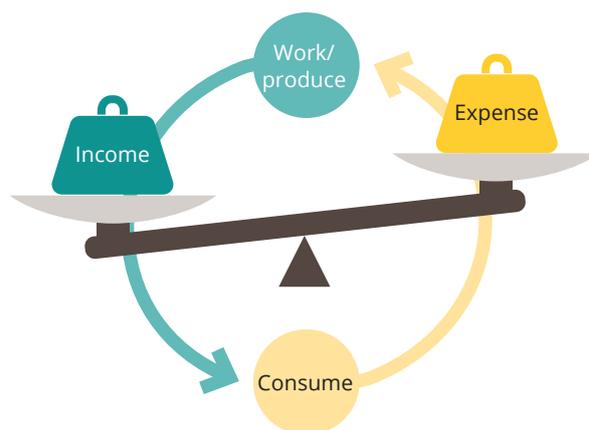
Many people still meet their value transfer needs through cash transactions. Hence, there is often a stated policy objective to migrate towards digital transactions. From a policymaker’s perspective, it is then relevant to track whether people are transacting electronically or in cash as an outcome of the success of financial-sector policies and strategies aimed at increasing the penetration of digital financial services. Thus outcomes insights on transfer of value are derived by tracking usage indicators as outlined in Measurement note 6¹² – Making good use. For this reason, we do not develop a dedicated measurement framework for transfer of value as an outcome. This does not mean that (digital) transfer of value is not an important usage outcome.

The next sub-sections develop a measurement framework for Liquidity, Resilience and Meeting Goals, respectively, by outlining the objective, condition, indicators and data sources for measuring the outcomes towards each need.

3.1 Liquidity

Liquidity refers to people’s ability to meet expenses in each income and expenditure cycle. It is essential for survival and to maintain productive capacity. Figure 3, below, shows the cyclical nature of liquidity. We must work and produce to generate an income; and we consume (which generates expenses) so we can work, produce and live.

Figure 3. Income and expense dynamic diagram



Source: Authors' own

“Liquidity is essential for survival and to maintain productive capacity.”

12 i2i measurement note 6 *Making good use*



Below, we set out the four components of the liquidity measurement framework:

Objective: The financial sector to help people to manage their day-to-day lives

Maintaining liquidity is a dynamic process that requires a constant balancing act of income and expenses over time. This measurement framework explores how financial services aid consumers to achieve this balance. Therefore, the objective to be met is for financial services to help people manage their day-to-day lives.

It follows from the objective that the condition would be the ability of people to achieve this balancing act:

Condition: The ability of people to balance day-to-day expenses and income in successive cycles

We find it useful to draw on the concept of funding liquidity, which is used by governments, banks and corporates, to explain the condition. Funding liquidity is a flow concept and can be understood in terms of a budget constraint. An entity (person, in this context) is liquid as long as inflows (income) are bigger or at least equal to outflows (expenses) (Nikolau, 2009). If not, then a person has to dip into savings or other liquid assets, take out a loan, ask for assistance or find some way to (temporarily) reduce expenses in order to regain the balance. We term such a situation as “liquidity distress”.

As liquidity is a flow concept, it is necessary to evaluate this balancing act over time, not just at a certain point in time. As people have different income and expense cycles, it would make sense not to measure liquidity over a standard cycle such as weekly or monthly, but across a long enough timeframe to allow for seasonal cycles¹³.

The simplest way to measure liquidity is to focus on *liquidity distress*:

Indicators:

- Percentage of population who ran out of money (illiquid) in the past 12 months due to general living experiences
- For those indicating that they have experienced illiquidity, number of times illiquidity occurred in the past 12 months

Asking individuals to recall whether they ran out of money to pay for living expenses over the past year is less open to interpretation than asking individuals whether they have been able to maintain liquidity on average. The *number of times illiquidity occurred in the past 12 months* will then show the frequency of illiquidity episodes.

¹³ For example, many farmers may have infrequent incomes at harvest time against which expenses are offset for the remainder of the year. For such a farmer, maintaining liquidity will have a different meaning than for a market vendor whose turnover is determined on a daily basis.



The liquidity indicators can be measured in two ways: (i) through demand-side questions (qualitative and quantitative) and (ii) via financial service provider (FSP) data (if possible to obtain)¹⁴:

Data: Demand-side survey and/or financial service provider data on account balances and draw-downs

Qualitative techniques are well suited to probe outcomes but cannot render representative findings. Financial Diaries studies are particularly well suited to identify liquidity and other outcomes, as they track actual money in and out of the household budget on an ongoing basis, but once again do not render findings that are representative of the total population. Thus, to render generalisable findings and quantifiable results, a demand-side survey is needed.

An example of a survey question set could be:

- *Everyone has daily household and personal needs that they have to pay for. Sometimes you are unable to balance what you need to spend with the money that you get. Has this happened to you in the past 12 months?*¹⁵
- *If so, how many times?* (Answer options could, for example, be: “only now and then”; “quite a few times” or “all the time”.)

If FSP data is available, it can be linked to individual respondents’ answers in the survey to provide an

extra layer of depth and accuracy, for example, by tracking account balances over time. FSP data cannot be viewed in isolation, however, as it only shows one aspect of an individual’s financial life and, hence, may lead to inaccurate conclusions. For example, an individual could take out an informal loan to keep a formal financial account balance positive – from the account side, it appears the individual has not experienced liquidity distress, but a wider view may prove otherwise.

Deriving policy insights

After data is gathered through one, or a combination, of the methods listed above, it can be aggregated to a population or segment level to deduce insights, provided that the appropriate sampling was conducted.

Together, the two indicators can then be used as a basis for classifying people according to different liquidity categories. So, for example, the population or target market could be categorised into those who experience frequent, sporadic or no liquidity distress, with the definition for each category to be determined in the local context.

When overlaid with the previous measurement frameworks on needs and usage, this measurement framework will help policymakers and regulators to identify whether the financial sector is contributing to the liquidity of individuals and, in particular, which types of financial device usage is most consistently correlated with either good or bad outcomes. This

¹⁴ Annex 1 explores the differences between, and relative attractiveness of, objective data (such as FSP-sourced data) and subjective indicators as rendered through self-reported demand-side techniques, respectively.

¹⁵ See the Center for Financial Inclusion (CFI) report *Toward a Financial Health Tool for Consumers – Test Results from Eastern Europe and Central Asia* (<https://www.centerforfinancialinclusion.org/publications-a-resources/browse-publications/986-toward-a-financial-health-tool-for-consumers>) for additional examples of survey questions aimed at measuring individuals’ ability to balance income and expenses.



is done by considering how the device uptake and usage profiles (as well as the demographic and socio-economic profile) for those in each of the liquidity categories compare to those in the other categories. A relevant policy angle to explore could, for example, be whether transacting through digital financial services (versus in cash) has any correlation to liquidity.

“ In the context of financial inclusion, where many individuals do not have any form of formal financial account, obtaining subjective data may – despite its limitations – be the only way to ensure that individuals from all backgrounds be included in the research. ”

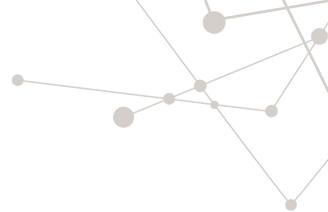
Box 1. Note on objective vs subjective data sources

Objective data (for example a person’s credit score) and subjective data (for example whether a person considers himself/herself to be financially liquid or not) each has its own advantages. Indicators derived from objective data, typically produced by supply-side sources, are usually accurate as they clearly reflect the history of actions people have taken and do not lend themselves to human error such as bad memory or bias. For example, a ledger of an individual’s bank account (objective data) will clearly show each inflow of income and outflow of expenses. Subjective data, in contrast, will have less accuracy. For example, when asking someone what their income and expenses were over the last month (subjective data), they may forget, exaggerate or choose not to report some inflows or outflows.

In the context of financial inclusion, where many individuals do not have any form of formal financial account, obtaining subjective data may – despite its limitations – be the only way to ensure that individuals from all backgrounds be included in the research. Moreover, FSP data does not show the account holder’s full financial life beyond the particular account.

Where possible, a combination of subjective and objective data is preferable. However, if objective data is not available, asking questions to respondents in the most objective manner possible is crucial for data quality. This would entail asking questions that are direct and avoiding socially desirable prompting. For more information on the various techniques of implementing a demand-side survey, see our Demand-Side Survey Implementation Guide¹⁶.

16 http://access.i2ifacility.org/Community/Implementation_Guide/



3.2 Resilience

The concept of resilience is found in various other fields, including early childhood development, food security and socio-ecological systems. Resilience was first used in ecological literature where two dimensions were explored (CSI, 2016): (i) the magnitude of a disturbance that a system can take before redefining its structure and (ii) the ability of a system to return to stability after a shock (Alinovi, Mane and Romano, N.D.).

The policy objective for resilience is that financial services should enable the population to weather financial shocks:

Objective: Financial services to help people prepare for, manage, and recover from, unexpected financial shocks

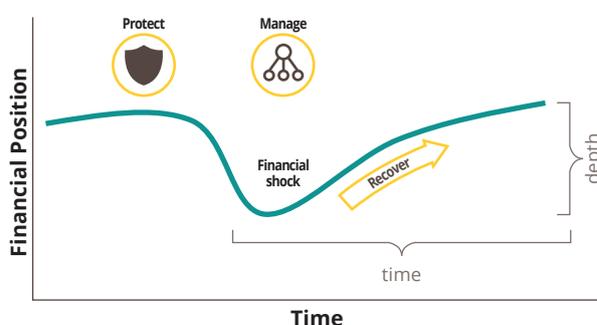
If the objective is that people would be resilient to financial shocks, the condition to be measured would be people's ability to recover from such shocks:

Condition: The ability to recover from a financial shock flowing from an unexpected event

The diagram below visually explains the nature of the condition. Time is on the x-axis, while the y-axis portrays the negative impact of a financial shock relative to an individual's financial position. When a financial shock is experienced, a person's financial position deteriorates. Financial resilience is measured as the extent to which a person is able to return their financial position to the pre-shock level and how long it takes to do so.

Financial services can help people to build resilience by enabling them to build up a buffer, to navigate their way through the shock and to rebuild their finances back to pre-shock levels after the occurrence of a shock.

Figure 4. Resilience conceptual diagram



Source: Authors' own, based on CSI (2016)

As the diagram indicates, the condition manifests across two dimensions, which then form the indicators to measure resilience: (i) the extent to which one is able to recover from a stated financial shock and (ii) the time it would take to regain the pre-shock financial standing.

Indicators:

- The percentage of the population able to recover from a financial shock that occurred within the last 12 months;
- The number of months it took – or is expected to take – to recover from the financial shock



Together these two indicators can be used to understand how well and how quickly people are able to recover from the financial shocks that they have experienced. It can also be disaggregated by use case: How resilient are people to shocks stemming from different causes, e.g. health shocks, death-related shocks or asset-related shocks? As with liquidity, the resilience indicators can be measured via two data sources: (i) demand-side questions (quantitative or qualitative) and (ii) FSP data (if possible to obtain).

Data: Needs-based demand-side survey data coupled with FSP data

An example set of survey questions would be to ask respondents whether they experienced any of a defined list of resilience use cases over the past year (such as death of a family member, loss of income, damage to property, etc.). If yes, the question would then be; “how long ago”? Next, the person would be asked whether they have regained the same financial position they had before the shock happened and, if so, how long it took to regain. Those who have not yet recovered can be asked how long the recovery is expected to take.

Such questions are retrospective in nature, so the answers do not give a prospective indication of whether a person would be able to weather a shock in the future. Prospective resilience questions tend to focus on whether a person has access to a financial buffer, for example: “Would you be able to raise the equivalent of one month’s income if an emergency happened right now?”¹⁷ Such questions can be used to amplify the retrospective indicators set out here¹⁸.

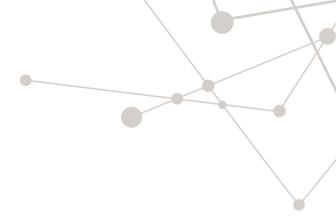
Where possible, FSP data can be used to amplify demand-side data. For example, shocks reported in a demand-side survey could be related to observable account activity, e.g. draw-downs and rebuilding of account balances over time. FSP data cannot be used in isolation, as it would not be possible to link changes in account balances to the incidence of risk events. For example, a person may draw down their savings in response to a financial shock, but also to meet a goal.

Deriving policy insights

As with liquidity, the purpose of the resilience survey questions would be to be able to group respondents according to their resilience status, for example by classifying people as “moderately resilient”, “strongly resilient” or “vulnerable”. The number of categories and criteria for inclusion in each category can be set in the local context, and

17 See the CFI report *Toward a Financial Health Tool for Consumers – Test Results from Eastern Europe and Central Asia* (<https://www.centerforfinancialinclusion.org/publications-a-resources/browse-publications/986-toward-a-financial-health-tool-for-consumers>) for examples of survey questions aimed at gauging in-principle, prospective resilience.

18 It is worthwhile to consider the advantages and disadvantages of prospective versus retrospective indicators. Measuring resilience prospectively would not only be limited to financial shocks that have actually happened to a person, but also explore the eventualities that might happen and how prepared a person is to withstand the financial consequences of such eventualities. As the objective is for people to be resilient to shocks as they arise, a forward-looking perspective is attractive. However, it’s very difficult to verify reported future resilience based on hypothetical scenarios without some objective measure of financial standing. Retrospective questions, in contrast, ask a person about an actual experience, the impact thereof and how they coped with it, and may therefore lead to more accurate responses. However, the retrospective approach is limited to events that happened over a defined period, so cannot give an overarching view of resilience beyond actual events experienced.



different category scenarios can be used to explore the insights rendered. For example, one could define everybody that was able to recover their financial standing within three months as strongly resilient, those who were able to do so within six months as moderately resilient, and the rest as vulnerable.

Thereafter, the profiles, device portfolio and usage behaviour of the different categories can be compared to see what insights are rendered regarding the role of (particular) financial device usage in resilience. For example: Does the data show that those who use insurance are more likely to be resilient than those who use their own savings or who take up a loan when a financial shock occurs? Or does it show that having insurance is indeed not a significant predictor of whether a person will be resilient? Such a finding could render powerful policy insights on the failure of the insurance market to meet financial needs, which in turn can be used to design appropriate regulatory or market interventions.

3.3 Meeting Goals

An important indication of a thriving society is when citizens can aspire to, pursue and achieve personal and productive goals. Given that money is a necessary resource for individuals to pursue most goals, the financial services sector plays a vital role in helping people achieve these goals. Thus, the objective is for financial services to help people meet their stated goals, which are defined to be irregular, large and planned expenses.

Objective: Financial services to help people achieve stated goals

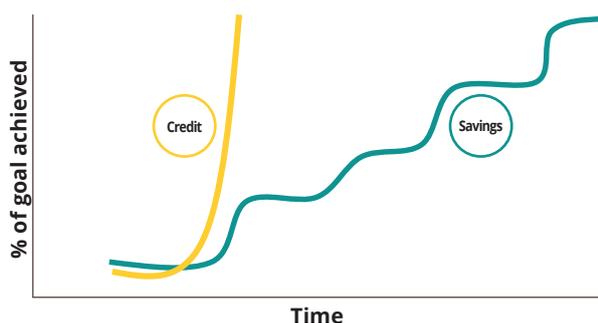
How do you measure whether people are indeed meeting their goals? The condition to be measured is phrased to consider the progress towards a stated goal:

Condition: The extent to which the stated goal has been met and the rate of progress towards the goal

The condition of meeting a goal can be measured in terms of the degree or extent to which the stated goal(s) has/have been met, as well as the time it has taken to make such progress. In Figure 5, on the right, these two dimensions are represented on the y-axis and x-axis, respectively. While income will be a major determinant of progress towards goals, the financial devices people use, and the way in which they use financial devices, will also have an impact. For illustrative purposes, the figure shows how savings and credit, respectively, can be used to achieve a goal.



Figure 5. Meeting goals conceptual diagram



Source: Authors' own

The following two indicators can be used to measure the two dimensions of the condition as outlined above:

Indicators:

- Percentage of population that have met their stated goal or feel satisfied that they will be able to meet such goal
- Timeframe for achieving the stated goal

It is important to note that this measurement framework does not pronounce on whether the means of meeting a goal is beneficial or harmful to one's financial position. If an individual is using credit to meet a goal, for example, it is up to policymakers and/or regulators to decide whether it is the appropriate means in the particular context and for the specific use case. Additionally, the measurement framework does not pronounce on whether the pursuit of any particular goal is

appropriate. Rather, the focus is on assessing the progress made towards any stated goal.

Goal outcomes are best measured via demand-side questions (quantitative or qualitative):

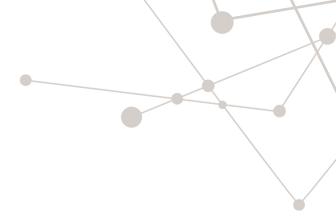
Data: Needs-based demand-side data

When designing a survey module to gauge the meeting of goals, the first step is to identify the most relevant goal categories in the country or social context, noting that goals can differ greatly across cultural contexts¹⁹. Generally, goals can be classified as either productive, consumptive or life-stage-related²⁰. This is used to define the use cases included in the goals module of the demand-side survey.

Respondents would then be asked to select goal use cases that apply to them, followed by questions to gauge progress towards the stated goals. An example could be to ask respondents whether they have already attained the goal, e.g. whether they own a home or regard themselves as "well on track" to meet the stated goal, on the one hand, or feel that it is "slow going", on the other hand. For some use cases, it may be possible to gauge progress objectively, for example by asking people whether they belong to a pension fund as an indicator of being "on track" towards retirement. A follow-up question would be to ask how long it took them to meet the goal or, if the goal has not

19 Financial needs and goals manifest differently in different geographical and cultural contexts. For example, qualitative research conducted in Myanmar suggested that respondents emphasise positive reincarnation after death as a goal and would make financial contributions to a monastery as a means of achieving that goal (Chamberlain et al., 2014). In contrast, qualitative research in South Africa has shown that the primary goal for many South Africans is to ensure that they have a dignified and well-attended funeral, prompting them to prioritise funeral insurance as a budget item (Hougaard & Chamberlain, 2011).

20 For a generic taxonomy of goals, see *Measurement note 4: Catering to every need*.



yet been attained, for how long the person has been working towards the goal and how imminent they regard the achievement of the goal to be. In each instance, relevant response categories would be identified (such as “less than a year”, “between one and five years” and “more than five years”) – once again depending on the context and the specific use case²¹.

Unlike liquidity and resilience, most FSP data would not be well suited to complement a demand-side survey. A loan, investment or savings account could be used for many purposes other than meeting a goal. This makes it difficult to attribute the building-up of funds in an account to a goal, unless the financial device itself gives an indication of the goal (e.g. earmarked savings, mortgages, vehicle financing and pension accounts).

Deriving policy insights

For Meeting Goals, even more so than for resilience, the policy insights are likely to be derived at the use case level. The needs measurement framework renders insights on questions such as: What is the spread (as a percentage of the population) of productive, consumptive and life-stage-related goals, respectively? And what are the core use cases in each? When we also know people’s views on their progress towards their goals, or can find some objective way to measure goal attainment, additional insights can be derived that can have important implications for policy and market strategy interventions.

For example: What is the proportion of adults who own a home or who are able to make progress towards it? How significant is having a mortgage in ensuring that people are meeting this goal? For those without a mortgage: What other financial strategies are followed, and what is the time implications of different strategies?²² Or for a life stage goal such as sending one’s child to university: Are those that feel that the goal is within their reach exhibiting a different financial service usage profile from those who are frustrated in their progress towards this goal?

What does this tell the policymaker about the appropriateness and accessibility of existing financial services to meet these needs? Can more be done to design and market products that are earmarked for specific goals? It is in defining and unpacking such questions that the overlay of

21 The CFI report *Toward a Financial Health Tool for Consumers – Test Results from Eastern Europe and Central Asia* (<https://www.centerforfinancialinclusion.org/publications-a-resources/browse-publications/986-toward-a-financial-health-tool-for-consumers>) presents questions on “long-term perspective”, which complement this use-case-specific measurement by gauging individuals’ savings time horizon, savings/investment behaviour, current asset ownership and credit standing.

22 The time dimension can be considered by comparing the usage profile for those under, say, 35 who already own a home to the usage profile of those who bought a house after 50 (after controlling for the effect of variables such as income, education or gender).



the outcomes, needs and usage measurement frameworks can render the most valuable policy insights.

To answer these questions, it is important to have an appreciation of people's financial standing (income levels; net wealth position) and to control for financial standing in interpreting outcome results. Equally important is to understand the adequacy of supply, as gauged from supply-side data. For example, if there are no endowment products on the market, or the pensions or mortgage market is underdeveloped and serves only the elite, then the scope for the formal financial sector to help people meet their retirement needs or their need to own a house is limited. Thus, in deriving policy insights on meeting goal outcomes, it is also important to appreciate the landscape and challenges of financial services provisioning in the particular context.

“ Overall, by populating the outcomes-of-use indicators for each need, an understanding should be sought not only of each individual need but also of how outcomes of use result across needs. ”

3.5 Interlinking of the needs and outcomes

While the four core financial outcomes should each be measured independently given the different nature of each, it is undeniable that an individual will face trade-offs and complementarities in addressing their different needs. A single financial device, for example a savings account, can be used to transfer value, to deal with a risk event (resilience) or to meet a goal. The implication is that in some cases there will be a trade-off between different needs when using a device: A person can use their mix of financial devices to prioritise different needs over others at different times. The meeting of needs can also be complementary. For example, ongoing liquidity management enables individuals to become more resilient and puts them in a better position to exploit economic opportunities as they arise. This links liquidity to one's resilience and the ability to meet goals.

These trade-offs and complementarities between financial needs and their outcomes can be related to the interplay between broader human needs. See the Annex for an explanation.

Overall, by populating the outcomes-of-use indicators for each need, an understanding should be sought not only of each individual need but also of how outcomes of use result across needs. For example, how do lower-income individuals trade-off the other financial needs they have when a financial shock occurs in comparison to wealthier individuals, and how does this affect their respective outcomes? In what way do liquidity and resilience needs detract from people's ability to meet their goals?

4 Conclusion

Table 1, below, summarises the three measurement frameworks developed in Section 3:

Table 1. Summary of outcomes measurement frameworks

	Objective	Condition	Indicators	Data	Practical applicability: example policy questions to be informed
Liquidity	The financial sector helps people to manage their day-to-day lives	The ability of people to balance day-to-day expenses and income in successive cycles	<ul style="list-style-type: none"> Percentage of population who ran out of money (illiquid) in the past 12 months due to general living expenses Number of times illiquidity occurred in the past 12 months 	Demand-side survey and/or FSP data on account balances and draw-downs	<p>What devices and usage patterns matter most to ensure liquidity?</p> <p>For example: Are people with multiple financial devices more likely to maintain liquidity?</p>
Resilience	Financial services help people prepare for, manage and recover from unexpected financial shocks	The ability to recover from a financial shock	<ul style="list-style-type: none"> Percentage of the population able to recover from a financial shock that occurred within the last 12 months Number of months it took to recover from financial shock 	Needs-based demand-side survey coupled with FSP data	<ul style="list-style-type: none"> Are those with insurance more likely to be resilient than those without? Is credit, savings or insurance most effective to assist individuals to be resilient?
Meeting Goals	Financial services help people pay for stated goals	The extent to which the stated goal has been met and the rate of progress towards the goal.	<ul style="list-style-type: none"> Percentage of population that have met their stated goal or are on track to meet such goal Number of months needed to achieve the stated goal 	Needs-based demand-side survey data	<p>What financial devices and usage patterns matter most for meeting defined goals?</p> <p>For example: Explore usage profiles of those who are able to own a home (or any other defined goal use case) versus those who think it's outside of their reach.</p>

Source: Authors' own



These measurement frameworks provide a structure for thinking about the outcomes of financial service usage in a meaningful and measurable way. A mix of data sources will be needed to populate the indicators identified, but demand-side survey questions would be the core data collection method. It is essential to view the outcomes measurement frameworks in conjunction with indicators set out in the needs²³ and usage²⁴ measurement frameworks. Doing so will provide insights into how usage of financial services correlates with different outcomes.

Together, these measurement frameworks aim to inform policymakers, regulators and market players by:

- 1 Determining which financial devices are more frequently used to successfully meet these needs in a society
- 2 Identifying gaps where the formal financial sector is not enabling individuals to meet their financial needs.

“ It is essential to view the outcomes measurement frameworks in conjunction with indicators set out in the needs and usage measurement frameworks. Doing so will provide insights into how usage of financial services correlates with different outcomes.”

23 i2i measurement note 4 *Catering to every need*

24 i2i measurement note 6 *Making good use*



Annex:

Human needs and financial needs

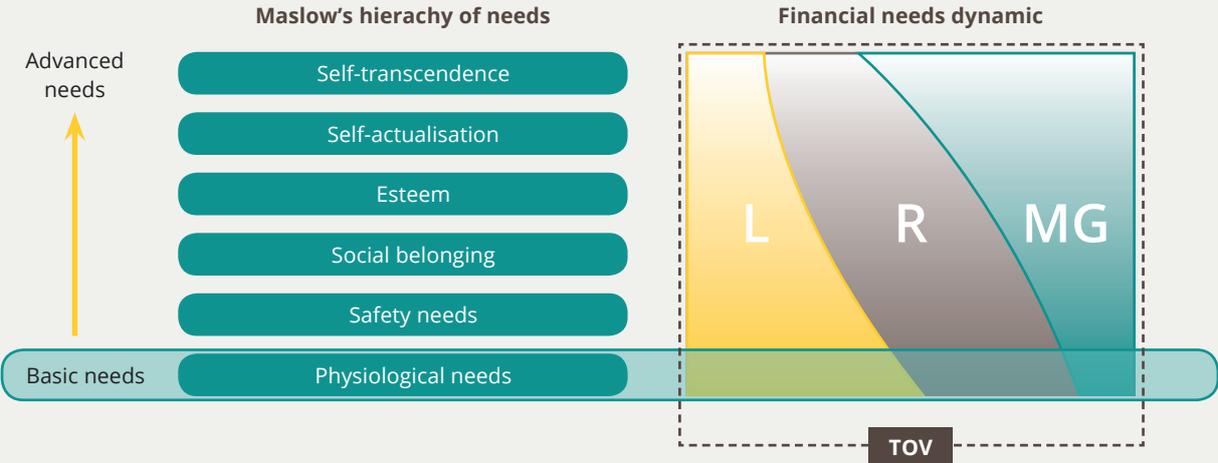
As Maslow has illustrated, human needs follow a hierarchy (Maslow, 1954). Financial needs are ultimately derived from human needs. The implication is that financial needs may also follow some form of hierarchy. Short-term financial needs that deal with the most urgent human needs like food purchases, i.e. liquidity, as well as the need to cope with shocks (resilience), would therefore be more basic financial needs, while meeting goals may be at a higher level. The implication would be that an individual may prioritise an urgent liquidity need at the expense of a long-term goal and may reprioritise between goals in a dynamic process²⁵. It could be theorised from this that socioeconomic status would then influence the needs expressed by individuals, with those with low incomes prioritising liquidity needs and those with high incomes prioritising their goals. However, while such a hierarchy may offer a useful framework to understand the general prioritisation applied to financial needs, evidence suggests that it is not so clear cut. Financial diaries, for instance, frequently show examples of individuals willing to forego more immediate needs, like skipping a meal, in order to save towards a goal (Collins, Morduch, Rutherford, Ruthven, 2009). It is also conventional wisdom that people may prioritise consumptive expenses on addictive substances, alcohol or leisure expenses over more urgent needs, implying that the trade-off between needs is not always done in a rational or beneficial way.

Figure 6, on the next page, visualises the theoretical relationship between Maslow's hierarchy of needs and the interlinking and prioritisation of financial needs. Highlighted in the red-shaded area, those that need to satisfy the most basic physiological needs (food, shelter and water) would likely have a larger relative need for Liquidity (L) than for Resilience (R) and Meeting Goals (MG) while the need to transfer value (TOV) facilitates the other three needs. However, as basic needs are met and individuals move up towards achieving more advanced human needs, the financial needs expressed by individuals are likely to follow suit, with greater emphasis on the need to meet goals.

²⁵ For example, see the discussion in the recent report by the Helix institute on the need for lower-income people to rebalance their finances on an ongoing basis to maintain financial stability. Drawing on the US Financial Diaries findings, they state that "... in comparison to high-income people, low-income people spend more time managing short-term liquidity and trying to build resilience against unforeseen expenses than high-income people" (McCaffrey & Schiff, 2017).



Figure 6. Human needs and financial needs



Source: Authors' own

Bibliography

- Alinovi, L, Mane, E and Romano, D. Measuring household resilience to food insecurity: application to Palestinian households. Available at: http://www.fsnnetwork.org/sites/default/files/measuring_household_resilience_to_food_insecurity.pdf
- Anderson, J. & Ahmed, W. (2016). Smallholder Diaries – Building the Evidence Base with Farming Families in Mozambique, Tanzania and Pakistan. Washington, D.C.: CGAP.
- Babin, B. J., Darden, W. R. & Griffin, M., 1994. Work and/or fun: measuring hedonic and utilitarian shopping value. *Journal of consumer research*, 20(4), pp. 644–656.
- Bankable Frontier Associates (2013). Rwanda Financial Diaries: Understanding the Financial Lives and Product Needs of Rwanda’s Underserved Consumers. Boston, USA.
- BIS (2008), Basel Committee on Banking Supervision Liquidity Risk: Management and Supervisory Challenges.
- Board of Governors of the Federal Reserve System, 2017. Report on the Economic Well-Being of U.S. Households in 2016. Available at: <https://www.federalreserve.gov/publications/files/2016-report-economic-well-being-us-households-201705.pdf>
- Canova, L., Ratazzi, A. & Webley, P., 2005. The hierarchical structure of saving motives. *Journal of Economic Psychology*, 26(1), pp. 21–34.
- Centre for Social Innovation (2016). Financial Resilience: Re-thinking financial vulnerability. Available at: http://www.financialliteracy.gov.au/media/560011/september_cop.pdf
- CENFRI, 2018. Making Access to Financial Services Possible (MAP). Available at: <https://cenfri.org/programme/making-access-to-financial-services-possible-map/>
- Chamberlain, D., et al, 2014. Making Access Possible: Myanmar diagnostic report. Cenfri. Available at: <https://cenfri.org/map/myanmar/>
- Chamberlain, D. & Hougaard, C., 2011. Funeral insurance. ILO Microinsurance Innovation Facility Microinsurance Paper no. 10. Available at: <http://www.impactinsurance.org/sites/default/files/mpaper10.pdf>
- Collins, D. & Morduch, J. (2008). Banking Low-Income Populations: Perspectives from South Africa. New York, USA: New York University.
- Collins, D., Morduch, J., Rutherford, S. & Ruthven, O., 2009. Portfolios of the poor: How the world’s poor live on \$2 day. Princeton: Princeton University Press.
- Demirguc-Kunt, A., Klapper, L., Singer, D., and Van Oudheusden, P., 2015. “The Global Findex Database 2014: Measuring Financial Inclusion around the World. Available at: https://data.worldbank.org/data-catalog/financial_inclusion
- Financial Diaries – Multiple Countries, 2012–15. i2i resources. 2017. Available at: <http://i2ifacility.org/insights/publications> [2017, September 15].
- Maslow, A. H., 1954. Motivation and personality. New York: Harper and Brothers.



McCaffrey, M. & Schiff, A., 2017. Finclusion to Fintech. Fintech product development for low-income markets. Helix Institute of Digital Finance. Available at: <http://www.helix-institute.com/sites/default/files/Publications/Finclusion%20to%20Fintech.pdf>

Nikolaou, (2009). Liquidity (risk): Concepts, Definitions and Interactions European Central Bank. Available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1008.pdf?e87aba3a52137adea91048bf54801968>

Nyabwanga, R, Ojera, P & Simeyo, O & Nyakundi, F. (2013). An Empirical Analysis of the Liquidity, Solvency and Financial Health of Small and Medium Sized Enterprises in Kisii Municipality. Journal of business market management. Available at: https://www.researchgate.net/publication/281974503_An_Empirical_Analysis_of_the_Liquidity_Solvency_and_Financial_Health_of_Small_and_Medium_Sized_Enterprises_in_Kisii_Municipality

Parker, S., Castillo, N., Garon, T. & Levy, R., 2016. Eight Ways to Measure Financial Health, Chicago: Center for Financial Services Innovation.

Rhyne, E., 2018. Toward a Financial Health Tool for Consumers: Test Results from Eastern Europe and Central Asia. Center for Financial Inclusion at Accion. Available at: https://www.centerforfinancialinclusion.org/storage/CFI_Brief_FinHealth_Tools_Final_2018.04.18.pdf

Sanford, C. (2016). Estirando el Gasto – Findings from the Mexico Financial Diaries. Boston, USA: Bankable Frontier Associates.

Woodruff, R. B. & Gardial, S., 1996. Know your customer: New approaches to understanding customer value and satisfaction.. s.l.:Wiley.

Wydik, B (2011) Social Networks, Neighborhood Effects, and Credit Access: Evidence from Rural Guatemala. JEL. Available at: <http://repository.usfca.edu/cgi/viewcontent.cgi?article=1013&context=econ>

Zollmann, J., 2015. Kenya financial diaries: Shilingi Kwa Shilingi – The financial lives of the poor., s.l.: FSD Kenya.

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