Benchmarking financial inclusion in Fiji, Samoa, and Solomon Islands: Findings from the first national demand side surveys

RESERVE BANK OF FIJI
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PIRI Pacific Islands Regional Initiative

Fiji Bureau of Statistics

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Preface

In 2013 members of the Pacific Islands Regional Initiative (PIRI), formerly known as the Pacific Islands Working Group (PIWG), a grouping under the Alliance for Financial Inclusion (AFI), jointly undertook a review of available data and measurement exercises with which they could design and evaluate their national financial inclusion strategies and their Maya Declaration commitments. As part of this exercise, PIRI members agreed to adopt not only the core set of AFI financial inclusion indicators, but to expand that set too. The members committed to carrying out demand side surveys to capture those indicators. In early 2015, demand side surveys were held in Fiji, Samoa and Solomon Islands. These surveys were jointly supported by AFI and the Pacific Financial Inclusion Programme (PFIP). This report presents a synthesis and comparison across the three surveys.

Alliance for Financial Inclusion

The Alliance for Financial Inclusion (AFI) is the world's leading organization on financial inclusion policy and regulation. A member owned network, AFI promotes and develops evidence-based policy solutions that help to improve the lives of the poor. Together, AFI members from more than 120 financial inclusion policymaking institutions are working to unlock the potential of the world's 2 billion unbanked through the power of financial inclusion.

Pacific Financial Inclusion Programme

PFIP is a Pacific-wide programme helping low-income households gain access to quality and affordable financial services and financial education. It is jointly managed by the UN Capital Development Fund (UNCDF) and the United Nations Development Programme (UNDP) and receives funding from the Australian Government, the European Union and the New Zealand Government.

PFIP aims to add one million Pacific Islanders to the formal financial sector by 2019 by spearheading policy and regulatory initiatives, facilitating access to appropriate financial services and delivery channels and by strengthening financial competencies and consumer empowerment.

Acknowledgements

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Acronyms and abbreviations

AFI	Alliance for Financial Inclusion
CBS	Central Bank of Samoa
CBSI	Central Bank of Solomon Islands
DSS	Financial inclusion demand side survey
FAS	IMF Financial Access Survey
FBOS	Fiji Bureau of Statistics
FIDWG	Financial Inclusion Data Working Group
FNPF	Fiji National Provident Fund
Global Findex	World Bank Global Financial Inclusion Indicators
GPFI	Global Partnership for Financial Inclusion
PFIP	Pacific Financial Inclusion Programme
PIRI	Pacific Islands Regional Initiative
RBF	Reserve Bank of Fiji
SINSO	Solomon Islands National Statistics Office
SBS	Samoa Bureau of Statistics
UNCDF	United Nations Capital Development Fund

Introduction

Policymakers and regulators worldwide face a common challenge when encouraging and monitoring the growth of financial inclusion: good data is hard to come by. This is especially true in the Pacific region, where gathering data in areas with low population density spread over large distances is physically challenging and costly. While the World Bank Global Financial Inclusion (Global Findex) surveys have established a uniform measure of financial access globally, the Pacific region has not yet been included. Until now, policymakers were limited to supply-side data to assess progress making it impossible to determine the number of banked (and unbanked) individuals, and their attributes in terms of gender, age, location, income or other demographic characteristics. Despite passionate and goal-oriented central banks with mandates for financial inclusion, policymakers were operating largely in a data vacuum when making big policy decisions. Indeed, indicators from national surveys paint a different picture than supply side data alone in some countries. The DSS initiative is an important first step in the journey to incorporate data into policymaking and evaluation, by providing evidence-based color and depth to the understanding of financial access and usage in the Pacific.

The first round of DSS surveys reveal that Fijians, Solomon Islanders and Samoans have rich, varied, and active financial lives. Savings culture is strong, with 61% of Samoan adults to 87% of Solomon Islander adults having saved in the past year. While a large proportion of Fijian and Samoans savers are formally banked, Solomon Islanders save informally due to low access to formal financial services (only 26% of adults are banked). These adults save at home, or by giving money to others, either to safeguard for them or as loans that they intend to recover. We observe that remittances account for important financial flows in the region, especially in Samoa, and opportunities remain to capitalize on remittance transactions to offer innovative and appropriate financial services.

And despite stark differences in bank account access among men and women in Fiji and the Solomon Islands, these differences melt away when we consider formal and informal financial services—men and women are equals when we include use of informal financial services. How, then, can women and other financially excluded adults—who appear to be active money managers in other respects—be brought into the fold of formal financial services? This report outlines the barriers to formal financial access, as unearthed by the DSS surveys, along with questions for further research. The synthesis report and comprehensive country reports point to puzzles which still require answers and innovation solutions, but they also unveil areas of new opportunities for growth. This is an exciting time for financial inclusion in the Pacific, with policymakers, financial service providers, and other interested stakeholders making concerted efforts to ensure appropriate and relevant products for Pacific Islanders. We hope that the DSS results will help to further this momentum.

Methodology

In Fiji, Samoa and Solomon Islands, National Statistics Bureaus designed sampling strategies to ensure nationally representative results among adults aged 15 years and older.[1] The first stage of sampling occurred at the enumeration area (EA)[2] level, stratified by administrative area,[3] while the second stage of sampling took place at the household level. In Fiji and Samoa, households were randomly selected from a national sampling frame. In Solomon Islands, a current sampling frame was not available, therefore, enumeration teams first mapped households in each EA to provide an updated population estimate. Then, households were randomly selected from this updated list. Respondents in all countries were randomly selected using a Kish grid.[4] Weights, constructed by the Statistics Bureaus, were applied during analysis to get nationally representative results.

All interviews were collected using computer-assisted personal-interview (CAPI) software in vernacular. Survey instruments were tested and refined during extensive piloting and with input from each respective Reserve Bank, Statistics Bureau, and PFIP. In addition to capturing the PIRI Core Plus Set of indicators, each survey also captures key indicators from the 2011 Global Findex survey as well as from the Global Partnership for Financial Inclusion (GPFI) indicators.

1287 households were interviewed in Fiji, 977 in Solomon Islands, and 963 in Samoa. Detailed information about each sample can be found in Annex A.

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1   In Solomon Islands, some enumeration areas which are particularly difficult to reach were excluded from selection. However, weights were used to account for this.
2   The enumeration area is typically the smallest administrative unit into which countries are divided for census or survey enumeration purposes. In Samoa and Solomon Islands, these areas are known as eares.
3   Division level in Fiji, region in Samoa, and province in Solomon Islands.
4   A Kish grid is a method of randomly selecting a respondent within a household when 2 or more household members are eligible. In the case of the DSS, the Kish grid was used to randomly select one adult (aged 15+) member to interview and reduce selection bias.

Financial inclusion and access in Fiji, Samoa, and the Solomon Islands

Prior to the completion of the national financial inclusion DSS surveys, Fiji, Samoa, and the Solomon Islands lacked consumer data to ascertain a reliable estimate of financial inclusion in each country. The completed surveys provide the first national benchmarks of inclusion in the Pacific and highlight the need for continued prioritization of financial inclusion regionally. Table 1 defines the segments used to measure inclusion, while Figure 1 below illustrates each country's respective financial inclusion strand.

Table 1: Financial Inclusion Strand Definitions

Banked	The respondent currently has an account with a commercial bank.
Other formal	During the 12 months prior to the survey, the respondent used services of a credit union, microfinance institution or other private finance company, national provident fund or other superannuation fund, made investments (stocks, bonds, unit trust, or others) or held an insurance policy, but does not have a bank account.
Informal	During the 12 months prior to the survey, the respondent used savings clubs, moneylenders, credit from a shop, hire purchases, etc. but did not use other formal services and does not have a bank account.
Excluded	Over the past 12 months, the respondent has not used any of the above services, but may have borrowed from or lent to friends and family, saved money in the house, pawned goods, borrowed from an employer, etc.

Figure 1: Financial inclusion strands
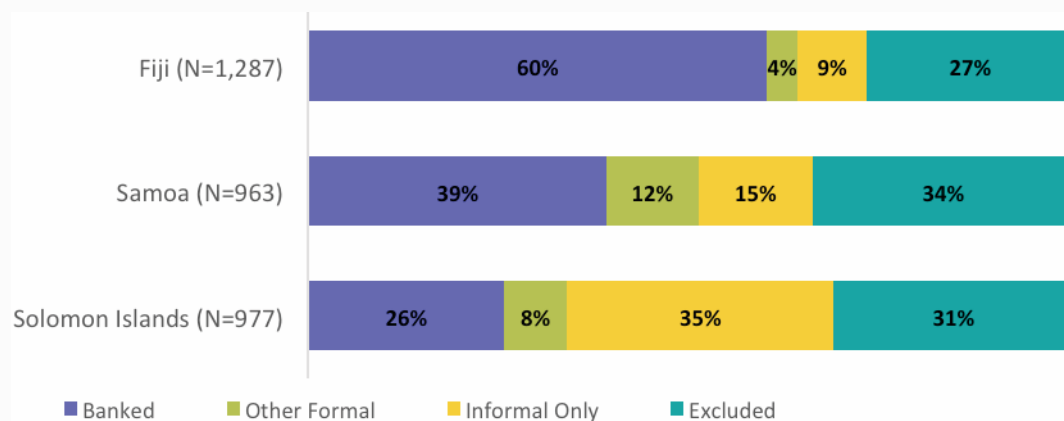
As indicated by the financial inclusion strands, inclusion levels vary widely, with Fiji having the highest proportion of banked adults and Solomon Islander adults relying largely on informal financial alternatives, such as localized savings groups, shop credit, or moneylenders.

Service points and varying levels in financial access

The disparity in inclusion levels across each country fits with data and information on the extent to which providers have (or have not) expanded access points for formal financial services, respectively (Figure 2).

Figure 2: Financial service points per 10,000 adults (as of June 2015)[5]

Number of service points per 10,000 adults	Fiji	Samoa	Solomon Islands
ATMs	4.64	3.51	1.27
Bank branches	1.17	1.92	.46

In Samoa, bricks-and-mortar bank branches are relatively more accessible, while in Fiji, ATM access is more plentiful (Figure 2). Solomon Islands has the least number of access points per adults, helping to partially explain the lower level of overall access compared with Samoa and Fiji. However, in recent years, the Solomon Islands has expanded the reach of bank agents, accompanied by an agreement from CBSI allowing bank agents to open accounts.[6] According to the DSS, 16.6% of bank accounts in Solomon Islands were opened through bank agents, underlying the important role that alternative channels might play in expanding access in Solomon Islands in particular and in the region more generally, given the challenge of low population density combined with expansive geographies.

Distances and costs of reaching service points

Understandably, the cost and distance of reaching access points are important determinants of inclusion.

While average distances (measured in minutes to reach)[7] to bank branches in Fiji and Samoa are fairly similar, at 46 and 45 minutes to reach the nearest bank branch respectively, average distances to all service points in the Solomon Islands exceed 1 hour in travel time (Figure 3). While the median travel times fall to 60 and 45 minutes, this still presents a challenge to individuals wishing to access formal financial services. Again, this can be explained by the fact that bank branches are limited to provincial headquarters of 3 provinces. Thus, many adults must travel for several hours (and sometimes days) to reach a service point location. More than 14% of Solomon Islander adults reported that traveling to a bank would take 1 day or longer to reach.

Figure 3: Average and median time (in minutes) to reach nearest access point, one-way (of respondents that are aware of said access point)[8],[9]

5   Solomon Islands National Financial Inclusion Unit. "Solomon Islands Financial Inclusion Data Report – Q2, 2015." 2015. Samoa and Fiji figures provided directly by RBF and CBS.
6   CBSI has allowed bank agents to open accounts, however, agency banking guidelines are to follow.
7   Given the difficulty for clients to estimate kilometers to such access point (especially if they do not commonly use kilometers to estimate distances), respondents were rather asked to name the time that it would take them to reach said point.
8   Respondents were asked to name the closest access point locations (bank branches, ATMs, post offices, and mobile money or bank agents or merchants depending on the channels available in each country) regardless of whether the respondent uses the specific service point or whether a respondent is banked or not.
9   Given particularly high travel distances recorded in the Solomon Islands, outliers 2 standard deviations or more above the mean were removed for the purposes of analysis in this synthesis report.

Of the three countries, Solomon Islands' geography is the most challenging, comprising hundreds of islands spanning approximately 1,500 kilometers at its widest distance. Thus, travel between provinces is both time-consuming but also costly, requiring the use of ships, outboard motor engines, or even planes. As illustrated in Figure 4, the corresponding cost to reach a bank branch in Solomon Islands is US $8.67, one way—almost twice the annual GNI per capita per day, approximately US $4.4.[10] This implies that traditional models of accessing banks to transact in person are unlikely to succeed in driving financial inclusion in the Solomon Islands.

Figure 4: Average cost to nearest access point in USD, one-way (of respondents that are aware of said access point)[11]
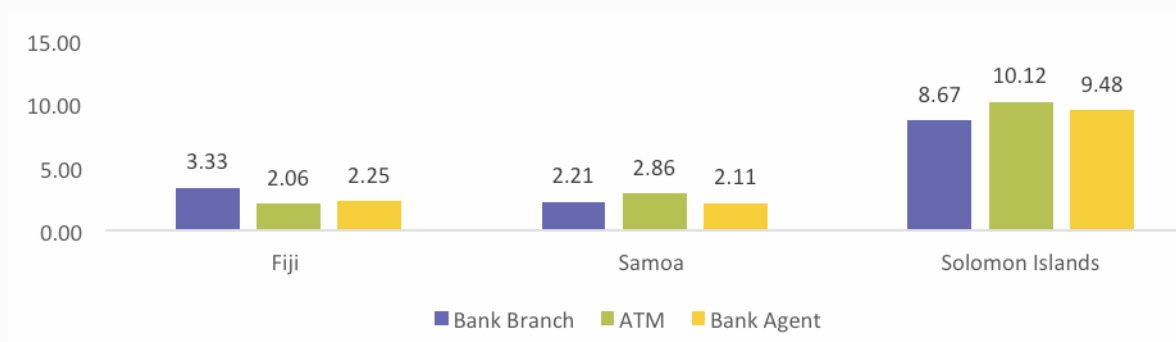
While travel times are considerably shorter in Fiji and Samoa, travel times and distances do increase for rural respondents. Travel times for Fijian rural adults are much higher compared with their urban counterparts (Figure 5). Rural Fijian adults spend an average 77 minutes traveling to the nearest bank branch compared with 17 minutes for urban Fijians. Distances are considerably longer as well. Rural Fijian adults must travel an average 27 kilometers (km) to reach the nearest bank branch, compared with 3.3 km for urban Fijian adults, and Samoan rural adults must travel an average 9.1 km to the nearest bank branch compared with 1.6 km for urban adults.

Figure 5: Average travel time to nearest access point for urban and rural respondents, one way (among respondents that are aware of said access point)[12],[13]

Understandably, distance is considered prohibitive by unbanked adults in all countries: a fifth of Fijian adults cite distance as a reason for not having a bank account (Figure 7), nearly hal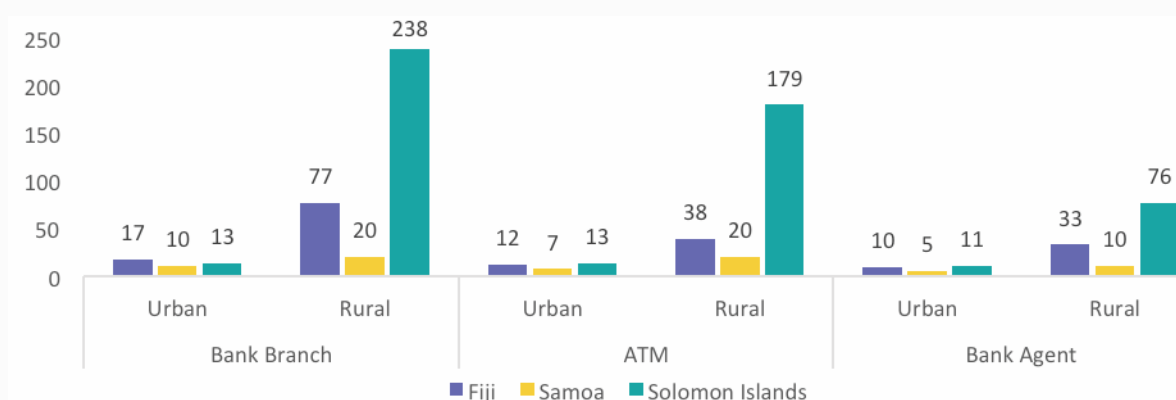f of unbanked Solomon Islander adults (43%), and 9% of unbanked Samoan adults. In Fiji, for example, unbanked adults travel an average of 1 hour to bank branch locations compared with 30 minutes for banked adults.

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10   World Bank. "World Development Indicators Database: GNI per capita, Atlas Method." Accessed 25 August, 2015.
11   Again, given particularly high costs reported for travel to access points in the Solomon Islands, outliers two standard deviations above the mean and above were dropped for analysis in the Solomon Islands.
12   Given the particularly high travel times reported in the Solomon Islands, outliers two standard deviations above the mean and above were dropped for analysis.
13   In the Solomon Islands, only residents of Honiara province are considered urban, while in Samoa, residents of Apia Urban Area are considered urban.

Thus, expanded access points through alternative delivery channels should be one priority for expanding financial access, particularly in rural areas but also in areas with a high proportion of unbanked adults.

Other barriers to inclusion

While access points are necessary to increase inclusion, they are by no means sufficient. Universally, unbanked adults in each country cited not having enough money as the primary reason for not having a bank account (Figure 6), over and above distance and cost alone. This is not surprising. Across Global Findex countries, not having enough money emerges as the number one reason for not using banks.[14]

Figure 6: Self-reported reasons for not having a bank account (of unbanked respondents)
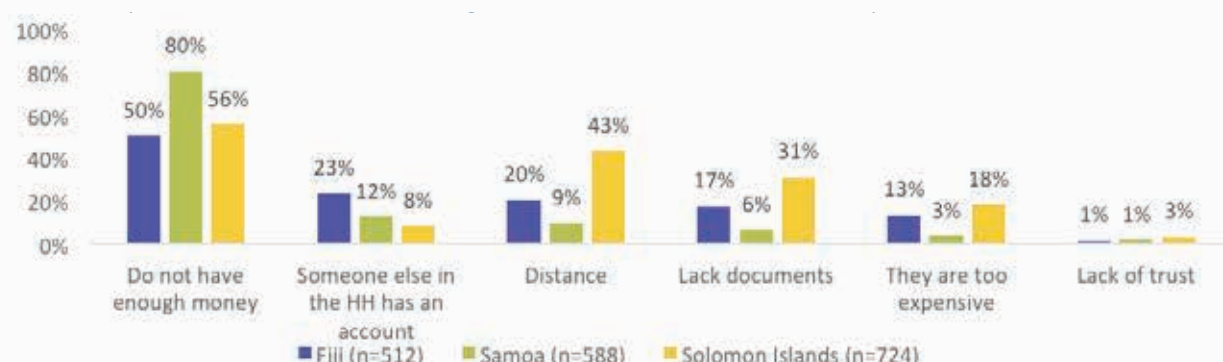
However, this response likely masks a host of related issues, including a perception that banks may only be appropriate for adults with regular income streams or "adequate" funds to deposit or reservations related to the associated costs with traveling to, opening and operating a bank account, which, as demonstrated above, can be significant for low-income earners. In Fiji, respondents clarified their response to this question with a follow-up answer (Figure 7).

Figure 7: You said that you don't have a bank account, because you don't have enough money. What does that mean? (% of adults that cited not having enough money as a reason for not having a bank account)[15]

Many unbanked Fijian respondents (66%) confuse spending money quickly with having little money, which are distinct. This also suggests that unbanked Fijians might not have a good understanding of bank products beyond longer-term savings products. Banks and policymakers might explore marketing or designing transactional products which allow clients to deposit and spend quickly without imposing high fees. Such product features could meet the immediate needs of the unbanked better than traditional deposit accounts in which frequent transactions are expensive.

Other responses include ease of access of money (11%), costs associated with banking (10%), minimum balance requirements (8%), and travel times (6%), among others. Similar responses may apply to unbanked Samoans and Solomon Islander adults that provided the same answer.

14   Demirguc-Kunt, Asli, et. al. "The Global Findex Database 2014: Measuring Financial Inclusion around the World." World Bank Policy Research Working Paper 7255, April 2015.
15   Multiple responses allowed

It is interesting to note that when asked which savings method would be most important, or preferred, if they were to save, 68% of unbanked Samoan adults named bank accounts, as opposed to 24% that responded with saving at home. They overwhelmingly chose the bank account as the safest and most secure savings option, indicating that Samoan unbanked adults are aware of the benefits of bank accounts even if they do not yet use them.

On the positive side, lack of trust in banks is cited by minimal respondents in each country, suggesting that culturally, adults in these Pacific countries do not view banks negatively nor associate them with uncertainty or loss of funds as is the case in certain regions.[16] This provides optimism that banks *can* increase usage of bank services if other barriers identified in the DSS are tackled.

Documentation as a perceived barrier to financial inclusion

Similarly to perceptions that low income earners are not bankable, 17% and 31% of adults in Fiji and the Solomon Islands and 6% of Samoan adults cite lack of documentation as a reason for not having a bank account (Figure 6). There is reason to believe that this is a perceived, rather than actual barrier to formal financial services. In both the Solomon Islands and Fiji, for example, Know Your Customer / Anti-Money Laundering (KYC/ALM) regulations have been relaxed to allow for easier processing of bank accounts.

In the Solomon Islands, for example, banks now only require one form of identification, including a letter from a village representative if no photo identification is available. Similarly, RBF requires banks to confirm minimal information[17] for low-risk customers. The DSS surveys find that 97% of Fijian adults have a birth certificate, and 95% have a valid photo ID. And while 13.7% of Solomon Islanders have neither a birth certificate nor a valid form of ID, this is far lower than the 31% of unbanked adults citing lack of documentation as a barrier. Further, even these adults may open an account with a letter of reference. Despite these light requirements, DSS results show that individuals still think many documents are required to open a bank account.

Figure 8: Adults without at least one form of primary identification to open a bank account (population level)
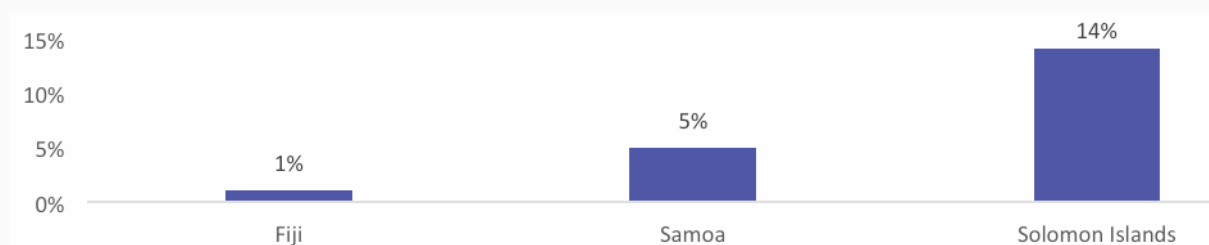
Regulators in Fiji and Solomon Islands, especially, may wish to create simple information campaigns to notify unbanked adults of the relaxed processes for opening basic deposit or transactional accounts.

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16   17% of adults in Europe and Central Asian countries surveyed in the Global Findex survey, for example, cited lack of trust as a reason for not having a bank account, likely the result of past economic or banking crises. See: Demirguc-Kunt, Asli, et. al. "The Global Findex Database 2014: Measuring Financial Inclusion around the World." World Bank Policy Research Working Paper 7255, April 2015.
17   Commercial banks must verify a customer's 1) name, 2) occupation, and 3) address to open an account for a low risk applicant. Photo identification is not required.

Knowledge of financial service points

In the Pacific, knowledge of access points is a necessary prerequisite to increasing access, yet it remains far from universal as evidenced by Figure 9.

Figure 9: Respondent does not know location of nearest service point (population-level)[18]
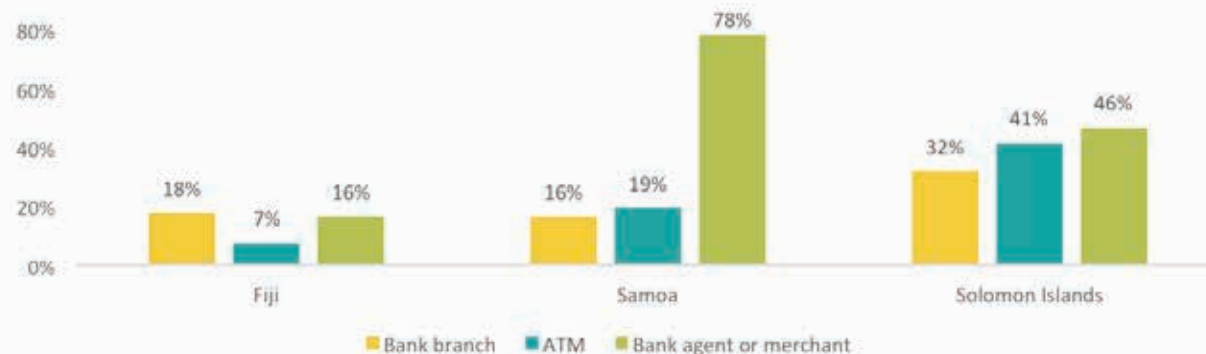
In the Solomon Islands, knowledge of access points is lowest, compared with Fiji and Samoa. Nearly a third of adults could not identify the nearest bank branch, and over 40% of adults did not know where an agent or ATM is located or what these service points are. This can be partly explained by the fact that the country's 14 branches are located in 3 of its 10 provinces and by the lower level of access points per 100,000 adults as demonstrated in Figure 3, and that agent banking has not yet penetrated all provinces.[19] While knowledge of bank agents, which are likely to play an important role in increasing access remains limited, information campaigns may help to increase knowledge of these service points, particularly if providers continue to expand agent outreach in the near future.

In Samoa, while knowledge of bank branch and ATM locations is fairly widespread, knowledge of bank agents, known in Samoa as bank merchants,[20] is low; 78% of adults did not know what or where an agent is located. In Fiji, knowledge of access points, including bank agents, was higher across the board.

Providers must work to ensure that their locations and services are known and understood by potential customers if they wish to see increased uptake of services.

Agricultural and casual income earners

Finally, in all three countries, formal wage earners are most likely to have bank accounts compared with those receiving other forms of income,[21] while those earning casual or agricultural income are least likely to be formally included.

In Fiji, nearly half of adults earning casual[22] or agricultural income have access to formal banking services, while only a quarter do in Samoa and Solomon Islands (Figure 10). In Samoa and Solomon Islands, casual and agricultural income earners are more likely to rely on other formal and informal financial services. In Samoa, 40% and 39% of casual and agricultural income earners are entirely excluded; in Solomon Islands, informal financial services appear to be more accessible for these adults. These individuals, who are likely to have low and irregular income streams, may not see banks as welcoming given their income streams.

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18   Includes respondents that did not know what a particular service point is.
19   Honiara City, which is home to 8 branches, is considered a separate province in the DSS survey and in this report. The remaining branches are located in Western and Malaita provinces.
20   In Samoa, bank agents are referred to as bank merchants or merchant stores. Thus, we asked about these agents as such in the Samoa survey. The term 'agent' is associated with insurance salespersons in Samoa. We refer to bank merchants as bank agents in this synthesis report to indicate that these individuals serve the same role in Fiji, Solomon Islands and Samoa despite different terminology.
21   We largely classified income in the following categories: agricultural income, casual income, pension income, remittance income, formal or wage income, self-employment income, investment income, rental income, and other income.
22   Casual income is defined as income which is not earned on a regular or expected basis. Individuals may work for various employers as needed, and minimal expenses are associated with this work. Casual income earners are typically providing labor. Examples include working on a neighboring farm to help harvest vegetables or working for a construction contractor as and when work is available.

Figure 10: Financial inclusion by income source (population level)
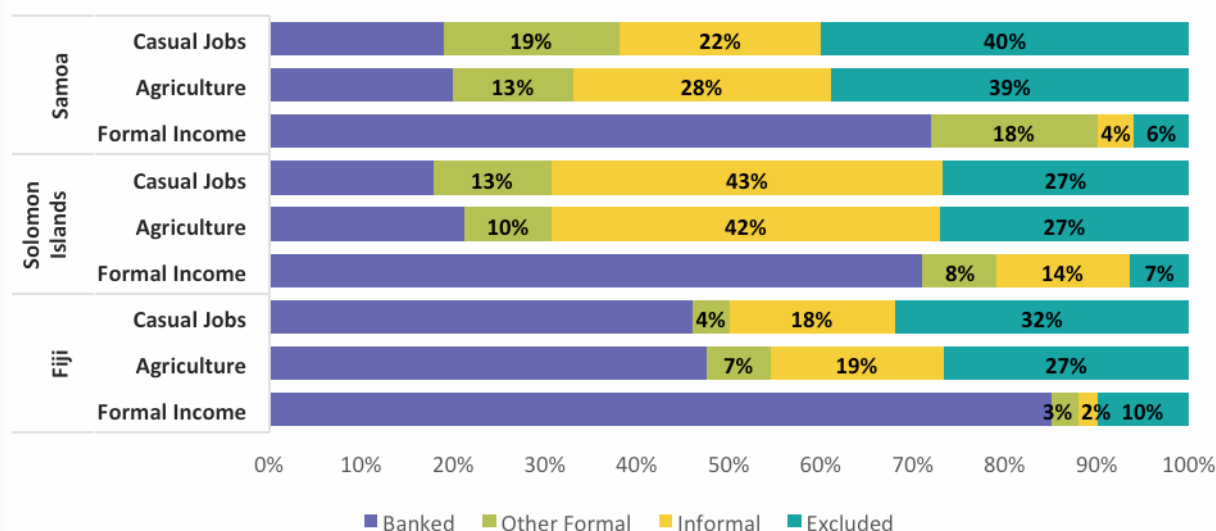
However, agricultural and casual income earners do appear to have a demand for safe places to save, as nearly half of banked adults earning agricultural or casual income in Fiji opened their accounts specifically to save (49% of agricultural earners and 47% of casual laborers). On the other hand, 81% of formal wage earning adults opened accounts primarily to receive a payment (most likely their salary). We see similar responses in Samoa and Solomon Islands. This indicates that products that offer savings solutions to individuals earning low-income, irregular incomes, which allow for flexible, affordable deposits and allow for withdrawals at times of need would solve a problem for clients. Provider incentives may be necessary to address this important need.

The poorest are more likely to be financially excluded

Financially excluded adults appear to be more vulnerable than other adults. Regression analysis on the determinants of whether or not an adult is likely to be financially excluded find statistically significant relationships between financial exclusion and income, type of income earned, education, and age in all three countries. This means that there is a correlation between lack of access to financial services and poverty. Having less education and being younger is also associated with financial exclusion. Table 2 provides summarized regression results, while Annex D contains detailed outputs.

Table 2: Probit regression results on the likelihood of an adult being excluded or not [23],[24]

	Income	Income squared	Education	Gender (male=1)	Receives remittances	Age	Age squared	Formal income	Casual income	Agricultural income	Self-employment	Pension income	Urban
Fiji	-.257 ***	.010	-.120 ***	.379 ***	-.306 ***	-.048 ***	.000 ***	-.000	.231 **	-.023	-.098	-.464 **	-.270 ***
Samoa	-.401 ***	.030	-.015 **	-.235 **	-.136	-.079 ***	.001 ***	-.282 ***	-.006	.233 **	-.010	-.212 *	.191
Solomon Islands	-.320 ***	.000 ***	-.056 ***	.147	.058	-.060 ***	.001 ***	-.451 ***	-.329 ***	-.160	-.016	.120	.389 **

Indicators with a p-value of less than 0.1 (indicated as follows) are considered statistically significant:
*** p<0.01, ** p<.05, * p<0.1

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23   Extreme income observations were winsorized, i.e. high income observations were replaced with the 98th percentile value.
24   Income was divided by 1,000 to simplify interpretation. Households that did not know or refused to answer were excluded.

Table 2 provides a summary of the regression outputs, examining the relationship between the variables listed and the likelihood of being excluded if all other variables are held constant. A household is 26 (Fiji) to 40 percentage points (Samoa) less likely to be excluded with every increase in income of 1,000 units of local currency. Further, with every year of additional completed education, adults in Solomon Islands and Samoa are 2 to 6 percentage points less likely to be excluded. The Fiji survey asked about completed levels of education, thus, for every increase in level of education,[25] Fijian adults are 12 percentage points less likely to be financially excluded. Age is also significantly related to the probability of being financially excluded as well; with every additional year of age above 15, adults are 5 (Fiji) to 8 (Samoa) percentage points less likely to be excluded. This suggests that there may be scope to identify financial services which meet the needs of younger adults.

As discussed above, income type matters. With the exception of Fiji, adults in households with any formal income are 28 percentage points (Samoa) and 45 percentage points (Solomon Islands) more likely to be financially included than those with none. Those with casual income appear significantly more likely to be excluded in Fiji and Solomon Islands, while those earning agricultural income are significantly more likely to be excluded in Samoa. These households are likely to have more volatile income streams and thus, may not have products which they feel are appropriate for their distinct financial needs. More research with these individuals can identify their current constraints to using financial services as well as identify solutions which might bridge their financial gaps.

Figure 11: Financial inclusion strand for the bottom 40% of income earners[26]

The financially excluded segment, which comprises nearly a third of adults in each country and higher proportions among adults in the bottom two income quintiles (Figure 11), requires particular attention. Informal and other formal financial services may be good onramps to formal financial services for excluded adults, who are more likely to be poorer, younger, to earn agricultural or casual income, and to have less education.

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25   Levels of education were defined as follows: adults that had no education or had not completed primary school, adults that had completed primary to secondary level or schooling, and adults with university education or higher.
26   While in the Solomon Islands, respondents were asked to estimate household and individual income, in Samoa and Fiji respondents were asked to name only their individual or household income, respectively. Thus, combined household income was used for the distributions in Solomon Islands and Fiji, while only respondent income was used in Samoa.

Formal financial inclusion and gender disparities

In Samoa, it appears that slightly more female adults are banked than males.[27] This is a striking finding and one which is not observed commonly around the world nor in the other Pacific Countries undertaking DSS surveys. The Global Findex, for example, has found a persistent gender gap in access to formal financial services worldwide; in 2014, 58% were banked compared to 65% of men. According to this data, in developing countries, the average gender gap is 9 percentage points.[28] While Samoan policymakers and providers have not yet made any dedicated efforts to include women, a 2012 study on financial competency found Samoan women to be better financial managers than Samoan men.[29]

Figure 12: Gender gap in bank account ownership in Fiji, Solomon Islands, and Samoa

In Fiji and the Solomon Islands, the gender gap well exceeds the average gap seen in other developing countries. In Fiji, women are 16 percentage-points less likely to have a bank account than men, and in the Solomon Islands, this comes to 12 percentage-points, both of which are significant (Figure 12).[30],[31]

On the other hand, saving and borrowing behavior generally (across both formal and informal financial behaviors) does *not* differ significantly by gender in any country (Figure 13). This suggests that disparities in formal financial access are not due to a lack of demand but due to other barriers which require further investigation, particularly for savings. It is interesting to note that while Solomon Islands is the least formally included of the three countries, it exhibits the highest rates of saving and borrowing via informal financial sources compared with Fiji and Samoa.

Figure 13: Share of population with any savings or credit in the past year, by gender (population level)
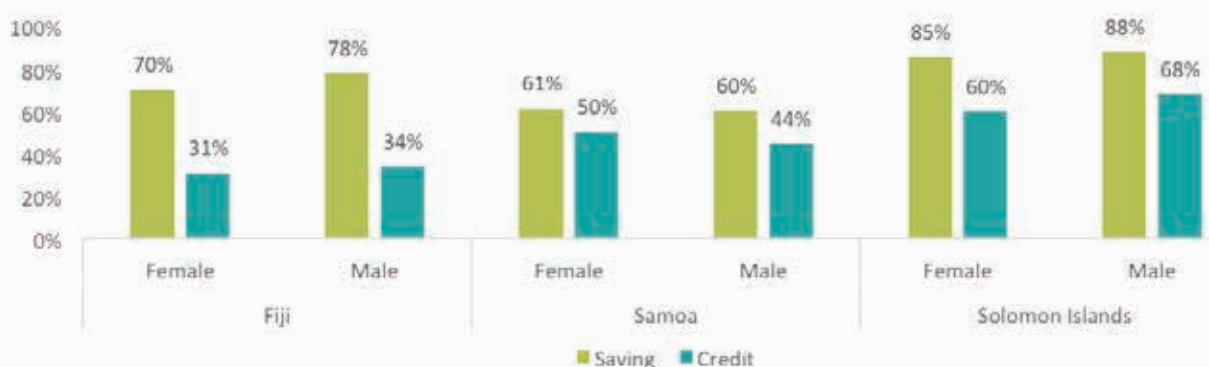
Policymakers in the Pacific should prioritize understanding which features of informal financial management tools or techniques are most appealing to unbanked adults and why, as a means of mirroring these features in formal or semi-formal financial solutions.

Interestingly, the gender equity in bank account ownership which is observed in Samoa has emerged despite no dedicated efforts to extend financial services to women. More research should explore the reasons for how and why this has come about as a means to encourage more concerted bank account take-up among women in Samoa, to design products which are more appropriate to their specific financial needs, and to inform product development in other Pacific countries.

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27   While this finding is not statistically significant, it is still telling and defies the common global trend observed in all regions of the world.
28   Demirguc-Kunt, Asli, et. al. "The Global Findex Database 2014: Measuring Financial Inclusion around the World." World Bank Policy Research Working Paper 7255, April 2015.
29   Sibley, Jonathan. "The Financial Competency of Low-Income Households in Samoa." Pacific Financial Inclusion Programme, UNDP Pacific Centre, 2012.
30   T-test results for bank account ownership by gender in Fiji: t= 5.6244, degrees of freedom=1277, p< 0.000001
31   T-test results for bank account ownership by gender in Solomon Islands: t = 4.6409, degrees of freedom = 977, p< 0.000001

Remittance patterns in each market

Remittances play an important role in the Pacific, and the DSS findings highlight that these patterns are highly distinctive in each market. According to the DSS, 56% of Samoan adults received some form of remittance income in the past year, while 23% of Fijian adults received remittances (Figure 14). Correspondingly, World Bank data indicates that international remittances account for approximately 20% of Samoa's GDP, one of the highest rates in the world, and 5.3% of total GDP in Fiji.[32]

Figure 14: Percent of adults that sent or received remittances in past one year (population level)
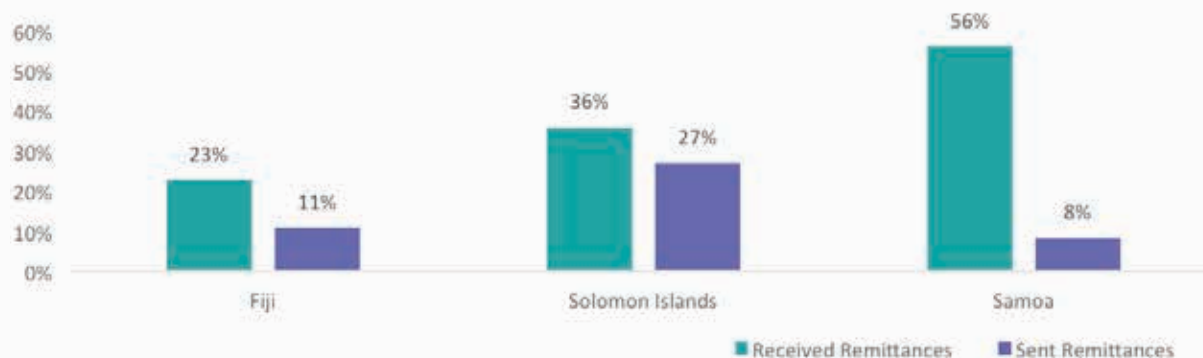
Domestic remittances dominate in Solomon Islands, while remittances are almost entirely international in Samoa

While the remittance to GDP ratio is much lower in the Solomon Islands, at approximately 1.3% of total GDP, over a third (36%) of Solomon Islander adults received remittances from any source in the past year. This disparity can be partly explained by the fact that remittances in Solomon Islands are largely domestic rather than international, which is not captured in the aforementioned World Bank remittance to GDP ratio (Figure 15).

Figure 15: Source of remittances among those receiving remittances (% of total remittances received)
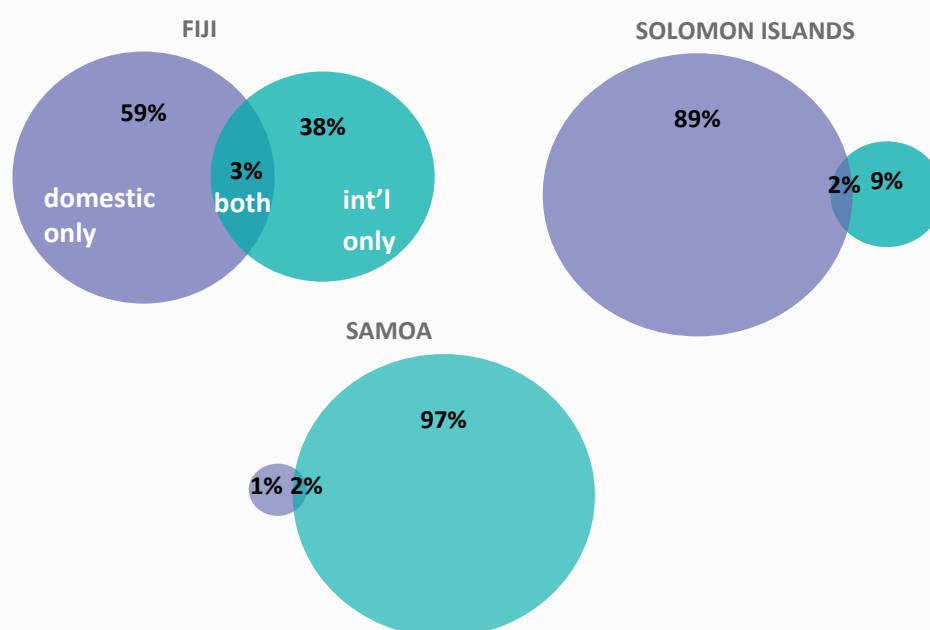
32   World Bank. "World Development Indicators: Personal remittances, received." Accessed September 1, 2015. See: http://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS

While international remittances are sent from multiple sources in Fiji, Samoan remittances are heavily dominated by those from New Zealand and Australia

In Fiji and Samoa, international remittances are unique in other ways, including the location from and the channel by which they are sent. In Fiji, remittances are fairly equally sent from Australia, New Zealand, and the U.S. (ranging from 22-39% for each), while in Samoa, the majority of adults (70%) receive remittances from New Zealand, followed by another half (48%) that receive remittances from Australia as well (Figure 16).

Figure 16: Country from which international remittances are received in Fiji and Samoa
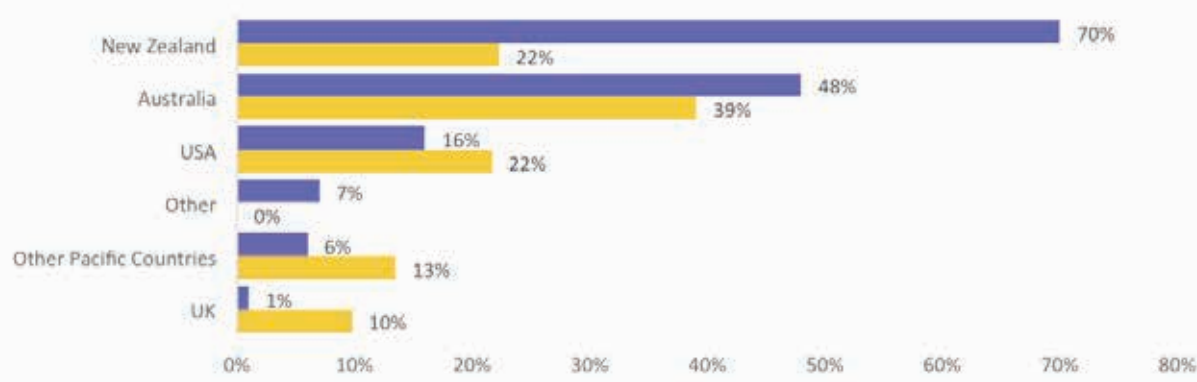
Note: Multiple responses allowed

Money transfer services are the primary means of receiving international remittances in Fiji and Samoa

Additionally, the channel by which remittances are sent differs as well. In both Fiji and Samoa, international remittances are largely sent by remittance transfer services. However, in Fiji, more remittances are sent directly to an individual's own bank account (14%) or to a relative's or friend's bank account (3%), options which are still rarely used in Samoa (Figure 17), even though 39% of adults there have a bank account. The reasons for this preference could be illuminated through client research with remittance receivers. In Samoa, there may also be opportunity to explore bank partnerships which might increase the usage of bank channels to remit funds, particularly with banks located in New Zealand and Australia.

Figure 17: Remittance channel, international transfers (Fiji and Samoa)
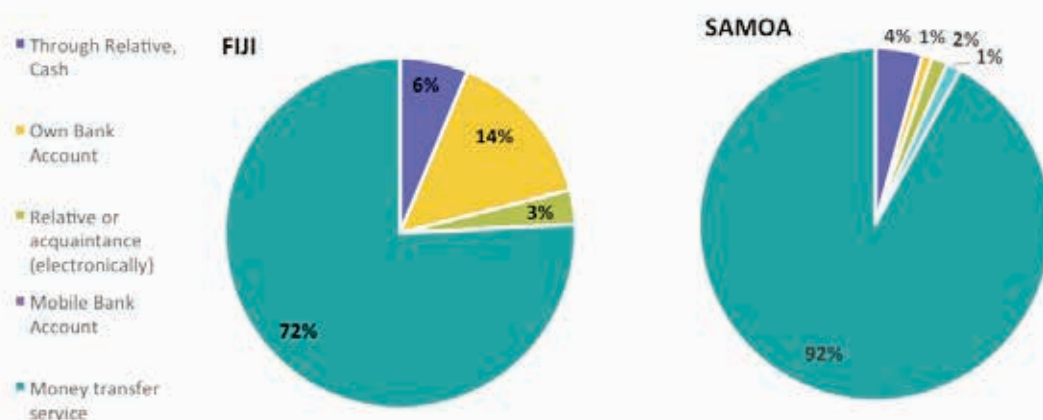
In the Solomon Islands, physical cash transfers remain the dominant means of transferring cash locally, compared with Post Office transfers in Fiji

With respect to domestic remittances, 51% of domestic transfers are sent via the Post Office in Fiji, while in Solomon Islands, nearly three-quarters (72%) of domestic remittances are physically transported in cash (Figure 18). This suggests that the Solomon Islands currently lacks a convenient and affordable solution for domestic remittances. The Solomon Post has begun offering domestic money transfer services from 6 out of 10 of its outlets, which may help to bridge the need for safe, fast, and secure remittance services. Policymakers should monitor whether adults adopt these services in the coming years. It is encouraging to see that the remaining quarter (28%) of domestic remittances in the Solomon Islands are sent via electronic banking channels, including mobile banking services, an individual's own account or that of a friend or relative.

Figure 18: Remittance channel, domestic transfers (of adults sending domestic remittances, Fiji and Solomon Islands)
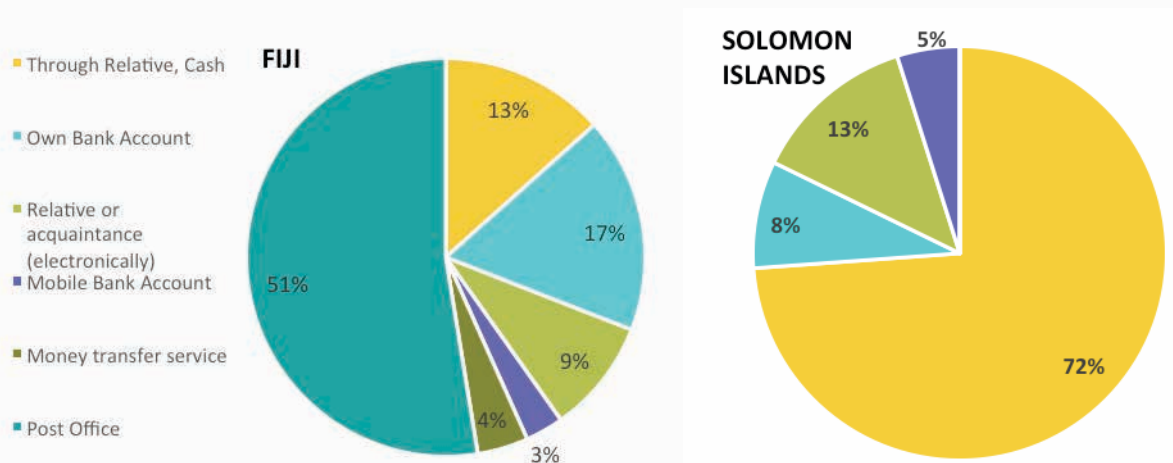
Cash remains key

Finally, while in recent years, much excitement has been raised about the role that mobile financial services (MFS, see text box), and particularly mobile money, can play in the Pacific, thanks to the collaborative efforts of multiple stakeholders to launch and promote mobile money services in several Pacific Island countries, the DSS finds little that mobile money services are *not* yet widely used. Upon the launch of mobile money in Fiji in 2010,[33] the advent of competing providers led to hopes for rapid take-off of these services. This hype was not unfounded; after four months in operation, close to one-quarter of Fijians were reported to have a mobile wallet.[34] Supply-side data in Samoa also indicated relatively high levels of account ownership.

Despite these numbers, the DSS surveys find that mobile wallet ownership is much lower than anticipated in Fiji and Samoa, as illustrated in Figure 17. In both countries, the levels of active usage, defined as having made a transaction within the 12 months preceding the survey is negligible. Thus, it appears that while supply-side data may point to high levels of wallet ownership, the majority of these wallets are not in use or may never have been used.

Mobile financial services (MFS) refers to either of the following:

1) Mobile money (mobile wallets): Mobile money allows the storage of e-money in a mobile account, rather than a bank account. These balances usually do not earn interest and there is usually a limit for the value of transactions to and from the account.

2) Mobile banking: A mobile phone can be used to access a bank account and execute financial transactions like checking balances, making transfers, or even topping up airtime. The store of value is the bank account.

Figure 19: Mobile wallet ownership (population level)[35]
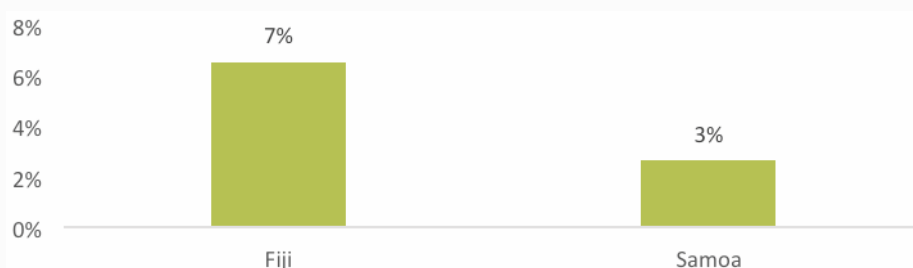
In Solomon Islands, mobile money services are not yet available. Surprisingly, the use of mobile *banking* services among banked adults, which provides an interface to a bank account, in Solomon Islands is higher than the use of mobile banking in both Fiji and Samoa, combined.[36] However, it is important to keep in mind that these services are used only by banked adults; among unbanked adults, alternative delivery channels are still essential to driving access and usage.

Figure 20: Bank account linked to mobile banking services (among banked adults)

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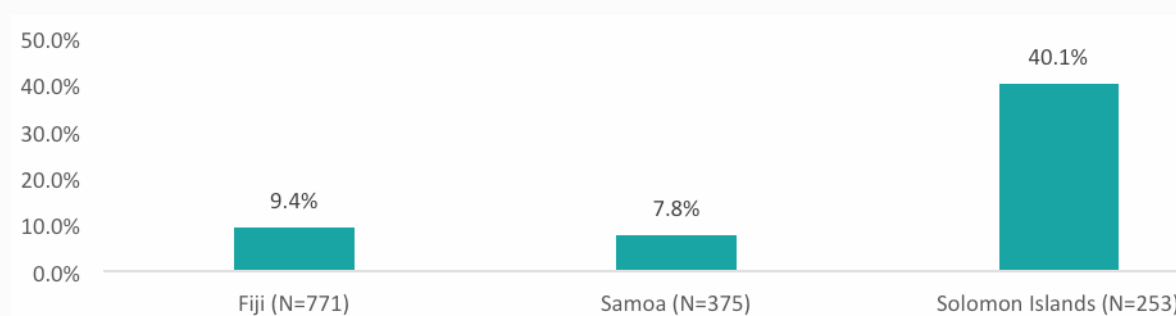
33   In Fiji, two mobile money services are widely available: Vodacom M-Pesa and Digicel Mobile Money.
34   Bruett, Till. "Good Things Come in Small Packages: Mobile Money in Fiji." CGAP Blog, 2 December 2010. See: http://www.cgap.org/blog/good-things-come-small-packages-mobile-money-fiji
35   Asked of respondents that had heard of mobile money and have a SIM card in Fiji.
36   The DSS surveys did not collect further data to ascertain the last time that mobile banking services were used, thus it is not possible to assess what percentage of these respondents are active users of these services.

Among clients with access to electronic banking products (credit or debit cards, mobile banking services, etc.), the majority of respondents in Fiji and Samoa (88% in both) prefer to use cash for all payments. In both countries, cash is preferred for its convenience, to avoid fees associated with electronic banking products, and to assist with budgeting.

In Samoa, respondents that do not have mobile money wallets (but have heard of mobile money) were asked why. More than a third of respondents reported that they don't know how to use it (36%), followed by nearly 23% who indicated that they don't have enough money to use mobile money services. During qualitative research conducted in Samoa as part of Phase 1 of the this project, respondents mentioned other concerns, such as losing one's phone and distrust of agents:

> **Moderator:** *"Those of you who never ever heard of Digicel mobile money or have never ever used it, would you like to try it?"*
>
> **Respondent 1: "***I say no to it because I don't think it's safe. If I lose my phone, it's like losing my bank book. The money will be lost."*
>
> **Respondent 2:** *"If I lose my phone, I'll lose the money as well that's being sent over. It's common here to leave your phone on the bus. You will never find it again."*
>
> **Respondent 3:** *"My concern is the dishonesty of people or agents to whom the money is sent to."*

To increase access to financial services among the un- and under-banked, policymakers must continue to focus on why *mobile money* services (as opposed to mobile banking services) are yet to take off. Financial education regarding the benefits, usage, and concerns related to these products will be a starting point to increasing usage, although analysis of other barriers, such as distance to access points, network coverage, and cost of transactions will be important as well.

Conclusion

The DSS initiative comes at an exciting time for financial inclusion in the Pacific. PIRI member countries are making concerted strides to create enabling conditions for expanded financial services, by collaborating with stakeholders throughout the region, removing policy barriers to access, and collecting data to measure and guide policymaking. While the DSS, an important step in this journey, unveils important insights into financial access in Fiji, Samoa, and Solomon Islands (Text Box 1), it also raises important questions for further monitoring and research.

For example, we know that adults in all three countries—whether banked or not—are saving and borrowing extensively. 60% of adults in Fiji, 39% of adults in Samoa, and 26% of adults in the Solomon Islands had saved during the previous year. What, then, are the barriers preventing them from accessing *formal* financial services?

Text Box 1
Key findings:
1) Distance and cost to financial access points is prohibitive, particularly for rural and unbanked individuals;
2) Other barriers, such as lack of knowledge of access points or requirements of usage, are likely suppressing uptake as well;
3) Agricultural and casual income earners, along with younger adults, are more likely to be financially excluded;
4) Reducing the gap in formal financial services for women must be a policy priority;
5) Remittances provide opportunities to extend financial services; and
6) Further research must uncover the barriers to uptake and usage of mobile money in the region.

We know that distance to reach access points is one such constraint. And though the expansion of alternative delivery channels is necessary to expand financial access in the Solomon Islands, especially, and for rural and unbanked Samoan and Fijian adults, we still do not understand which factors are suppressing mobile money uptake in the region and how these can be overcome. While a recent study on digital financial services in Fiji identified a number of supply-side challenges,[37] no research has yet explored this question from the angle of the clients themselves.

Further, the outsized gap in usage of financial services between men and women in Fiji and Solomon Islands raises questions as to the barriers contributing to this. And in Samoa, where women have bucked a global trend and outbanked men, this has happened without concerted policy or programmatic interventions. How has this come to be? These are critical questions which must be understood in order to ensure that women are finally included—and intentionally so.

Importantly, after collecting this first round of nationally representative surveys policymakers and financial service providers now have baseline demand-side information to use in decision making. While these first DSS surveys provide rich insight into the current state of financial access in Fiji, Samoa and the Solomon Islands, follow-up surveys are necessary to ensure that the data 'lives' and serves its role as a benchmark by which to measure progress—on these questions and more. *Vinaka, Shukriya, Faafetai, Tank iu—Thank you.*

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37   Garg, Nitin. "PFIP Study on Digital Financial Services in Fiji: Major Findings and the way ahead." February 2015.

Annex A: Description of methodology

In Fiji, Samoa and Solomon Islands, National Statistics Bureaus designed sampling strategies to ensure nationally representative results among adults aged 15 years and older.[38] The first stage of sampling occurred at the enumeration area (EA)[39] level, stratified by administrative area,[40] while the second stage of sampling took place at the household level. In Fiji and Samoa, households were randomly selected from a national sampling frame. In Solomon Islands, a current sampling frame was not available, therefore, enumeration teams first mapped households in each EA to provide an updated population estimate. Then, households were randomly selected from this updated list. Respondents in all countries were randomly selected using a Kish grid.[41] Weights, constructed by the Statistics Bureaus, were applied during analysis to get nationally representative results.

All interviews were collected using computer-assisted personal-interview (CAPI) software. Survey instruments were tested and refined during extensive piloting and with input from each respective Reserve Bank, Statistics Bureau, and PFIP. Training on the survey instrument was conducted by BFA and FBOS in Fiji, by BFA and CBSI in the Solomon Islands, and by BFA and SBS in Samoa, followed by piloting to allow enumerators to become comfortable with the survey instrument and procedures. Enumerators in Fiji and Solomon Islands translated questions to vernacular from English during interviews, while in Samoa, interview questions were translated to Samoa beforehand.

In addition to capturing the PIRI Core Plus Set of indicators, each survey also captures key indicators from the 2011 Global Findex survey as well as from the Global Partnership for Financial Inclusion (GPFI) indicators.

1,287 households were interviewed in Fiji, 977 in Solomon Islands, and 963 in Samoa. Surveys were conducted between October and December, 2014 in Fiji and between February and April, 2015 in Samoa and Solomon Islands.

Description of Fiji sample

The Fiji DSS covered a nationally representative sample of 1,287 respondents throughout Fiji. The sample was selected from the national census household sample frame using stratified, 2-stage systematic sampling. The first stage of sampling was at the division level, and the 2nd stage was at the enumeration area (EA) level proportional to population size. 10 households, along with 3 extra, were randomly selected in each of 100 EAs. Enumerators then used a kish grid to randomly select one adult respondent (15 years or older) per household. Statistical weights were constructed following completion of data collection by FBOS.

Figure 19: Breakdown of sample by division in Fiji

- Central (n=511)
- Eastern (n=61)
- Northern (n=208)
- Western (n=507)
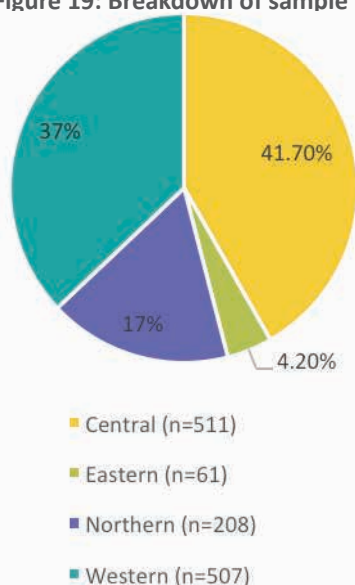
Table 3: Distribution of Fiji sample by province

Province	%
Ba (n=364)	26.8%
Bua (n=26)	2.6%
Cakaudrove (n=78)	6.7%
Kadavu (n=22)	1.6%
Lau (n=13)	0.9%
Lomaiviti (n=13)	1%
Macuata (n=104)	7.7%
Nadroga/Navosa (n=91)	6.3%
Naitasiri (n=257)	22.4%
Namosi (n=13)	1.1%
Ra (n=52)	4%
Rewa (n=150)	10.7%
Rotuma (n=13)	0.8%
Serua (n=26)	2.4%
Tailevu (n=65)	5.1%
N=1,287	

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38   In Solomon Islands, some enumeration areas which are particularly difficult to reach were excluded from selection. However, weights were used to account for this.
39   The enumeration area is typically the smallest administrative unit into which countries are divided for census or survey enumeration purposes. In Samoa and Solomon Islands, these areas are known as eares.
40   Division level in Fiji, region in Samoa, and province in Solomon Islands.
41   A Kish grid is a method of randomly selecting a respondent within a household when 2 or more household members are eligible. In the case of the DSS, the Kish grid was used to randomly select one adult (aged 15+) member to interview and reduce selection bias.

Figure 20: Demographic breakdown of Fiji sample

Location

- Urban (n=637) — 50.3%
- Rural (n=650) — 49.7%

Gender

- Male (n=640) — 49.9%
- Female (n=639) — 50.1%

Ethnicity

- iTaukei (n=754) — 57.8%
- Fijian of Indian origin (n=478) — 38.1%
- Other (n=52) — 4.1%

Native language

- Fijian (n=758) — 58.2%
- Hindi (n=468) — 37.3%
- Rotuma (n=24) — 1.8%
- English (n=16) — 1.3%
- Other (n=17) — 1.4%

Education level

Education level	Percentage
None (n=18)	1.4%
Primary school incomplete (n=179)	13.8%
Primary complete (n=128)	10.4%
Secondary incomplete (n=487)	37.4%
Secondary complete (n=184)	14.4%
University incomplete (n=103)	8.1%
University complete (n=167)	13.0%
Masters or doctorate (n=11)	0.9%
Other (n=7)	0.6%

Description of Samoa sample

The Samoa DSS covered a nationally representative sample of 963 respondents selected from the national census household sample using 2-stage systematic random sampling. The first stage was selected at the EAs level, stratified by region. A total of 135 primary sampling units or clusters were selected in which 46 were from urban and 89 from the rural.

The second stage was at the household level. A total of 5 households were selected from each cluster in the urban and 10 households from each cluster of the rural Samoa. Enumerators used a Kish grid to randomly select one adult respondent (age 15 and above) from each sampled household.

Figure 21: Breakdown of sample by division in Samoa
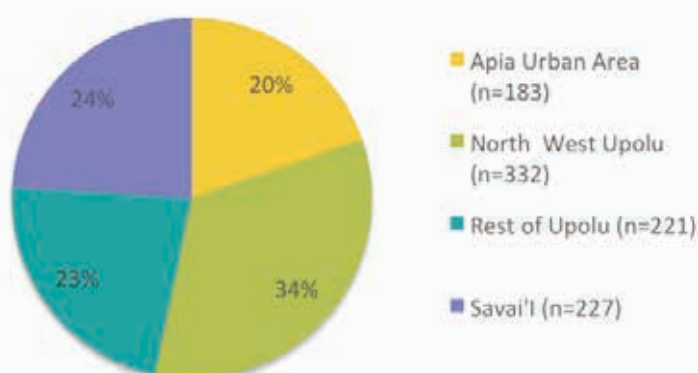
Figure 22: Demographic breakdown of Samoa sample
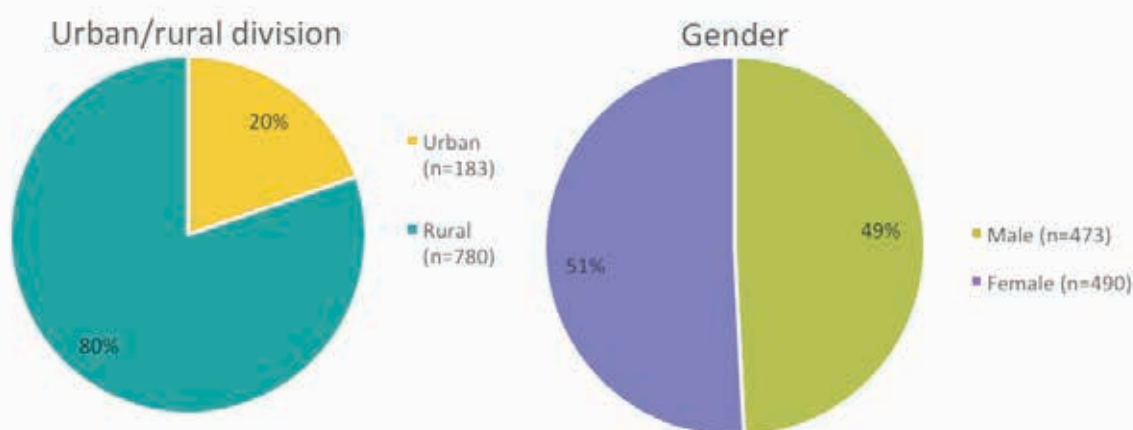
Description of Solomon Islands sample

The Solomon Islands National Statistics Office designed the DSS sample to be nationally representative, using 2-stage, systematic random sampling. Stage 1 was selected at the eare[42] level, stratified by province, while Stage 2 was at the household level. Due to the absence of a current household list, enumeration teams mapped each selected eare to provide an updated population estimate. Each team then randomly selected 25 households, from which the first 16 were selected for interviews. Enumerators then used a Kish grid to randomly select one adult respondent (age 15 and above) from each sampled household. Thus, all findings apply to Solomon Islander adults (15+).

In total 62 eares were included containing 16 household each, for a total sample of 992. The final sample comprised of 977 respondents, accounting for non-response.

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42   An eare is the term of the primary enumeration area used for sampling purposes by the Solomon Islands National Statistics Office.

Table 4: Representation of Solomon Islands sample by province

Province	% of total respondents	Estimated [43]population
Choiseul	4.49%	5.86%
Western	15.97%	15.45%
Isabel	5.69%	4.43%
Central	6.41%	4.59%
Guadalcanal	16.05%	15.82%
Malaita	24.04%	26.34%
Makira-ulawa	6.76%	9.37%
Temotu	6.41%	4.46%
Honiara	14.18%	12.96%

* For the purposes of analysis, respondents of Renbell province were combined with Central province, due to the small proportion of respondents from this province.

Figure 23: Demographics of Solomon Islands sample

Age distribution of sample

16 - 20: 12.2%
21 - 25: 10.9%
26 - 30: 16.0%
31 - 40: 28.5%
41 - 50: 16.4%
51 +: 16.1%

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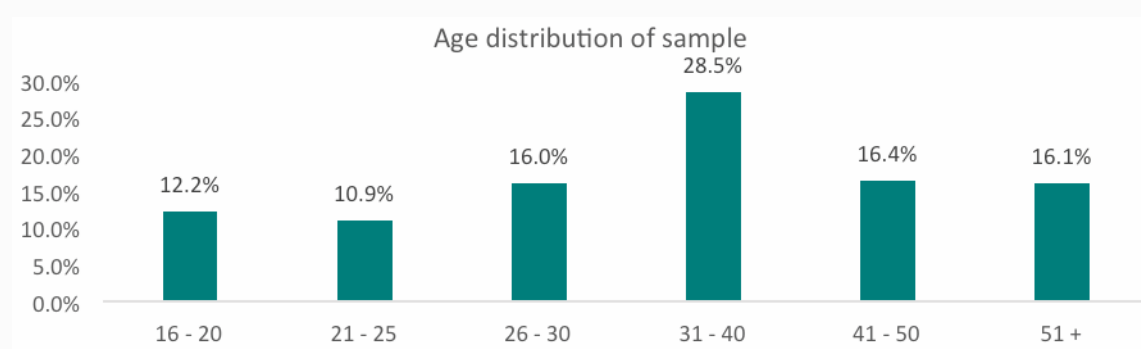
43   Solomon Islands Statistics Office. "Housing Income and Expenditure Survey, 2005-06." Honiara, September 2006.

Gender

47.2%
52.8%

■ Male ■ Female

Housing Type

32.6%
17.5%
49.9%

■ Permanent ■ Semi-permanent ■ Temporary
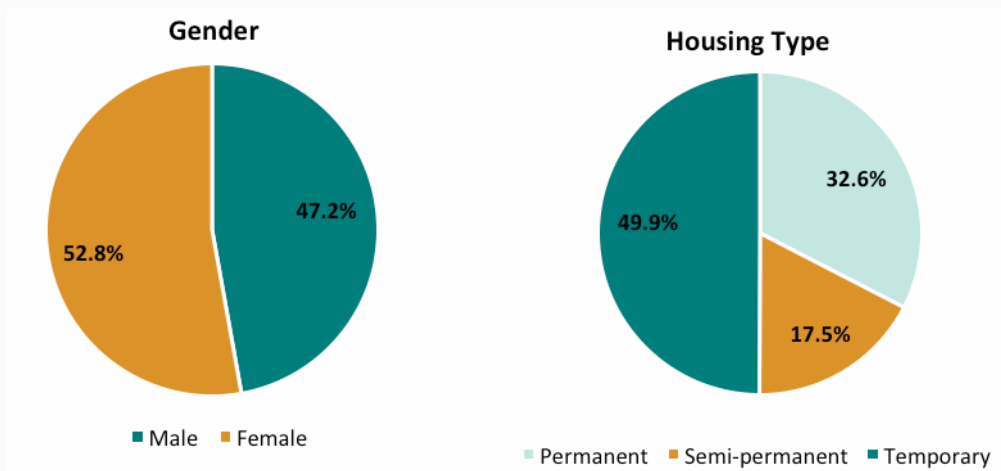
Years of completed schooling

35.0%		
30.0%	30.3%	
25.0%		
20.0%	21.0%	21.2%
15.0%		19.0%
10.0%		
8.6%		
5.0%		
0.0%		

0   1 to 5 years   6 to 7 years   8 to 10 years   11+
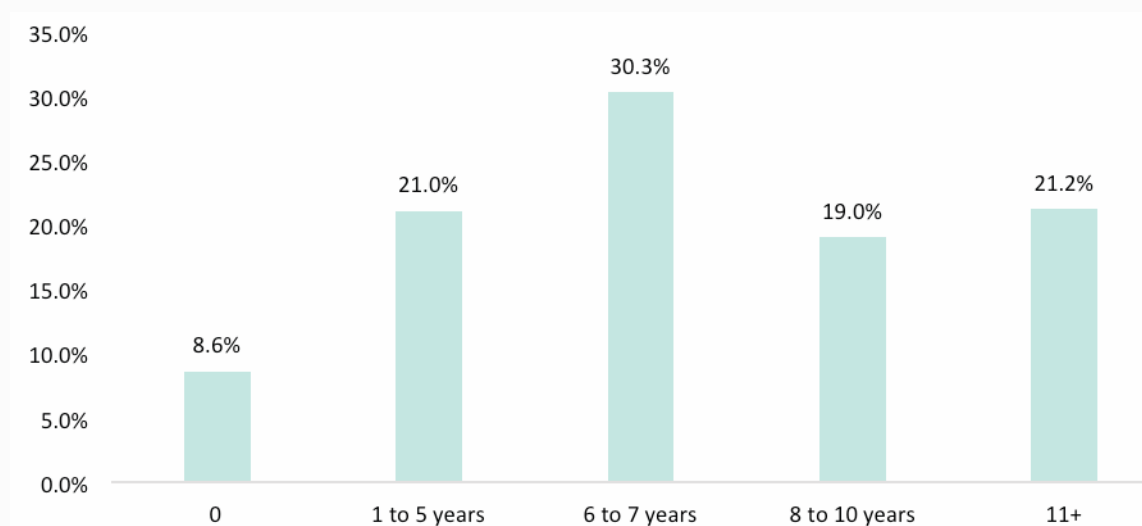
Annex B: PIRI Core Plus Indicators

ACCESS INDICATORS				
		Fiji	Samoa	Solomon Islands
3.4 % of adults with a mobile phone subscription		74.9%	70.7%	61.68%
4.3. Average cost of traveling to the nearest access point (public transit fee or gas costs), converted to USD	Bank branch	$3.33 USD (FJD6.8)	$2.2 USD (WST 5.0)	$19.08 USD (SBD 147.5)
	ATM	$2.06 (FJD 4.2)	$2.9 (WST 6.5)	$13.15 USD (SBD 103.02)
	Bank agent	$2.25 (FJD 4.6)	$2.1 (WST 4.8)	$15.03 USD (SBD 116.16)
	Post office	$1.52 (FJD 3.1)	$2.5 (WST 5.7)	$13.34 USD (SBD 103.11)
4.4. Average time of traveling to the nearest access point in minutes	Bank branch	46.2 min	44.8 min	291.6 min
	ATM	22.8 min	23.7 min	237.7 min
	Bank agent	21.9 min	14 min	91.1 min
	Post office	23.8 min	24.6 min	159.6 min
4.5. Average time waiting to be served when opening a deposit account		54 min	156 min	242 min
4.7. Percentage of adults reporting that they do not have all identification documents required to open a basic account		0.5%	5%	13.7%
Usage Indicators				
5.3. Percent of adults with at least one type of regulated deposit accounts		60.2%	39%	27.26%
5.4. Percent of adults with at least one type of regulated credit account		9.4%	13.4%	3.87%
5.5. Percent of Adults with at least one regulated financial product		64.2%	39%	27.26%
5.6. Percent of people with an active deposit account– have had any deposit or withdrawal in the last 90 days		51.9%	34.9%	20.46%
5.7. Percentage of adults earning below US $2 per day who have a deposit account		39%	25.6%	11.66%
6.1. Percentage of adults with at least one active mobile financial services product		-	-	3.66%
6.2. Percentage of adults who have sent money through mobile financial services in the last 12 months for person to person transfers and bill pay		1.4%	0.7%	4.32%
6.3. Percent of adults who have received money (including e-money) through mobile money in the last 12 months		2.1%	2.71%	3.25%
7.1. Percent of adult women with an active deposit account OR percent of deposit accounts held by women		43.7%	35.1%	16.6%

Annex C: Global Findex Indicators

	Fiji (2013)	Solomon Islands (2014)	Samoa (2014)
Benchmarking against the Global Findex Indicators (2011)			
0 deposits in a typical month (% with account)	7.5%	23.5%	16.8%
0 deposits/withdrawals in a typical month (% with account)	13.7%	9.9%	10.3%
0 withdrawals in a typical month (% with account)	12.8%	21.6%	15.2%
1-2 deposits in a typical month (% with account)	63.9%[2]	61.6%	56.8%
1-2 withdrawals in a typical month (% with account)	56.3%[3]	55.6%	50.9%
3+ deposits in a typical month (% with account)	27.3%	13.7%	26.3%
3+ withdrawals in a typical month (% with account)	29.9%	21.8%	34%
ATM is main mode of withdrawal (% with account)	80.7%	58.4%	47.0%
Account at a formal financial institution (bank or credit union)	60.2%	26.2%	38.94%
Account used for business purposes (total population)*	3%	5%	4.2%
Account used to receive payments from government (total population)	7.3%	8.4%	9.55%
Account used to receive remittances (total population)*	4.8%	6.9%	7.37%
Account used to send remittances (total population)*	0.6%	5.7%	0.93%
Account used to receive salary or wages (total population)	5.6%	29.1%	7.4%
Bank teller is main mode of deposit (% with account)*	3.48%	80%	64.1%
Bank teller is main mode of withdrawal (% with account)	45.8%	10.6%	16.4%
Cheques used to make payments (total population)*	4.84%	1.5%	1.2%
Credit cards (total population)	3.7%	3%	0%
Debit cards (total population)	21.2%	47.2%	20.8%
Retail store or agent is main mode of deposit (% with account)	1.7%	4.9%	16.7%
Retail store or agent is main mode of withdrawal (% with account)	1.92%,	4%	16%
Mobile phone used to pay bills (total population)*	1.89%	0.0%	1.3%
Mobile phone used to receive money (total population)*	3.57%	2.3%	3.2%
Mobile phone used to send money (total population)*	2.27%	1.4%	3.6%
Saved any money in the past year	45.6%	71.2%	86.5%
Saved at a financial institution in the past year (bank, credit union, or MFI)	14.8%	37.9%	17.1%
Saved for emergencies in the past year (total population)*	22.08%	31.2%	21.1%
Saved for future expenses in the past year (total population)*	19.81%	9.2%	11.2%
Saved using a savings club in the past year	12.4%	9.0%	1.48%
Loan in the past year (from any source)	47.4%	32.0%	63.45%

	Fiji (2013)	Solomon Islands (2014)	Samoa (2014)
Loan from a financial institution in the past year	7.5%	6.9%	2.7%
Loan from a private lender in the past year	8.5%	2.7%	9.9%
Loan from an employer in the past year*	4.88%	1%	7%
Loan from family or friends in past year	33.1%	8%	20%
Loan through store credit in the past year*	8.18%	10.4%	51.62%
Personally paid for health insurance (all respondents)*	5.15%*	1.2%	0.14%
Received domestic remittances last year	17.8%	9.6%	35.9%

Indicator included in 2011 Global Findex only.

Annex D: Regression analysis

Probit regression analysis on whether an adult is financially excluded

	Fiji	Samoa	Solomon Islands
Income (in increments of 1,000)	-.2568246*** (.0786023)	-.4011821*** (.1182993)	-.3201272*** (.0781932)
Income increment squared	.0099466 (.0076394)	.0302502 (.0211547)	2.80e-08*** (8.89e-09)
Years of education	-.119799*** (.02936)	-.0149715** (.0069713)	-.0563279 *** (.0135909)
Gender	.3789731*** (.0811274)	-.2349884 *** (.0895525)	.1473538 (.0973551)
Receives remittances	-.3058471*** (.0987754)	-.1363993 (.0937391)	.0582392 (.0972703)
Age	-.0479768 *** (.0119829)	-.0794413 *** (.0129827)	-.0596865 *** (.0145771)
Age squared	.0004847*** (.0001364)	.0007428 *** (.000148)	.0005704 *** (.0001665)
Receives formal income	-.0000717 (.1014619)	-.2815002 *** .0951395	-.4511532 *** (.1059533)
Receives casual income	.2308879** (.102471)	-.0062916 .0997927	-.329237 *** (.0988707)
Receives agricultural income	-.0231613 (.1038604)	.2334913 ** .098948	-.1604054 (.1025098)
Receives self-employment income	-.0981662 (.0974505)	-.0095113 .1189846	-.0163414 (.0980774)
Receives pension income	-.4637312** (.1916914)	-.2116343 * .1079885	.1203507 (.190591)
Urban	-.2697962*** (.0927859)	.191322 .1309048	.3893573 ** (.1676391)
Constant	.9990898*** (.3356076)	2.321079 *** .3216798	1.485433 *** (.3525377)
Observations	1,245	957	911

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1