Towards Women's Financial Inclusion: A Gender Data Diagnostic of Pakistan

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ACKNOWLEDGEMENTS

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A2FS	Access to Finance Survey
BOE	Banking on Equality policy
CCX	ConsumerCentriX
DFI	Development finance institutions
EMIs	Electronic Money Institutions
FSP	Financial service provider
GDP	Gross domestic product
GEM	Global Entrepreneurship Monitor
HBL	Habib Bank Limited
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IMF	International Monetary Fund
KPI	Key performance indicator
MFB	Microfinance bank
MFI	Microfinance institution / non-bank microfinance companies
MSME	Micro-, small-, and medium-sized enterprises
NPL	Non-performing loan
OECD	Organisation for Economic Cooperation and Development
POS	Point of sale
SBP	State Bank of Pakistan
SECP	Securities and Exchange Commission of Pakistan
UNCDF	United Nations Capital Development Fund
WFI	Women's financial inclusion
WFID	Women's financial inclusion data
WSME	Women-owned and women-led small and medium-sized enterprises

ABOUT WOMEN'S FINANCIAL INCLUSION AND THE WFID PARTNERSHIP

Global awareness and political will around women's financial inclusion (WFI) are at an all-time high, yet the gender gap in financial inclusion persists. Women remain both unserved and underserved compared to men in all segments, from bottom-of-the-pyramid to high-net-worth. These gaps continue because of a widespread lack of awareness of the multi-trillion-dollar opportunity to serve the women's market. Gaps in the collection, quality, and usage of gender data pose a major barrier to growing awareness and developing strategies that tap into it.

Gender data is key for financial service providers (FSPs) to understand the nature of the gender financial inclusion gap and the women's market opportunity and to create tailored solutions for women. It is also a critical input for policymakers to design and monitor policy interventions that increase women's financial inclusion.

In 2014, against this backdrop, leading proponents of women's financial inclusion formed a coalition to increase the availability and use of sex-disaggregated financial data. The Women's Financial Inclusion Data (WFID) Partnership includes the Alliance for Financial Inclusion (AFI), Data2X, the European Bank for Reconstruction and Development (EBRD), the Financial Alliance for Women, the Inter- American Development Bank (IDB), IDB Invest, the International Finance Corporation (IFC), the International Monetary Fund (IMF), the World Bank Group (WBG), the Organisation for Economic Cooperation and Development (OECD), and the United Nations Capital Development Fund (UNCDF).

The WFID Partnership is coordinated by Data2X, a United Nations Foundation initiative. The Financial Alliance for Women is its technical lead.

THE WFID PARTNERSHIP'S THEORY OF CHANGE

In 2017, the WFID Partnership developed a global gender data strategy with the support of McKinsey & Company. The strategy included the WFID Partnership's theory of change. This theory of change holds that the production, availability, and use of sex-disaggregated data on the demand for and supply of financial services will enable FSPs and policymakers to take action toward closing the financial inclusion gender gap.

Data helps actors move through the WFI pathway by increasing awareness, catalyzing action, and ultimately leading to the development of WFI champions—stakeholders who have had an impact on WFI through either policy action or serving the market.

These WFI champions are the final stage of the funnel framework shown in Figure 1 on the next page. FSPs and policymakers move through a WFI pathway[1] with five stages: from being simply unaware of the relevance of WFI; to becoming aware of the gaps; to considering action in response to the knowledge they have attained; to implementing strategies to close gaps; and finally, to demonstrating impact and becoming champions of WFI.

Figure 1. Stakeholder Pathway to Champion Women's Financial Inclusion
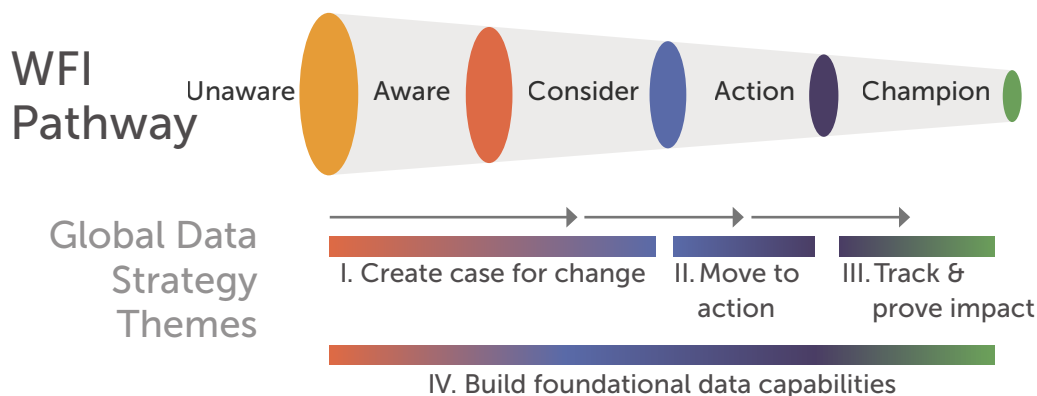
The WFID Partnership's theory of change is based on the significant role that data can play in moving actors and organizations along this pathway. **With more and improved sex-disaggregated financial data, policymakers can design and monitor WFI interventions, and FSPs can both see the market opportunity and build a business case for targeting women as clients.**

The strategy also found that many of the global and national-level data gaps are on the supply-side versus the demand-side. In addition, the strategy stressed that the development of gender data is most effective in improving WFI if efforts are at the national level versus the international level; as the process of creating awareness encourages local players to act and move through the pathway.

From 2020–2022, WFID is working in six countries (Bangladesh, Honduras, Kenya, Nigeria, Pakistan, and Turkey) to test its theory of change and develop gender data supply-side interventions to increase women's financial inclusion in partnership with the public and private sectors.

ABOUT THE GENDER DATA DIAGNOSTIC

Before designing interventions, the WFID partnership undertook diagnostics of each of the six pilot countries to understand the state of gender data at the national level. This diagnostic includes mapping the data value chain, understanding what is being tracked and by whom, identifying gaps and opportunities in gender data collection, and developing recommendations for areas of intervention. This entailed the following activities:

- Reviewing existing literature;
- Conducting a survey of a majority of FSPs in each nation's financial sector;
- Interviewing public, private, and non-governmental stakeholders;
- Conducting comprehensive modeling to estimate the women's market opportunity in each country (see Appendix A); and
- Conducting predictive modeling to estimate the WFI gap in the future (see Appendix B).

Although the diagnostics were developed as part of the WFID Partnership's intervention plans, they can also become a blueprint for governments, FSPs, and other stakeholders who are interested in improving their own gender data ecosystems.

EXECUTIVE SUMMARY: PAKISTAN

In a nation that had one of the world's lowest levels of financial access just over a decade ago, there is now strong political will and momentum for change. As part of a broader push for economic development and growth, the government has prioritized increased women's financial inclusion (WFI). It has done so by reforming policies and implementing initiatives such as branchless banking and digitized government subsidy programs. The numbers show that the gender focus is making a difference. **Women's account ownership has more than quadrupled since 2008, when the first inclusion policies were put in place: from 4 percent in 2008 to 18 percent in 2020.**

Despite this progress, 82 percent of Pakistani women remain unbanked and the gender gap in access that had started to shrink is expanding.[2] Policies that increase WFI would foster greater stability in the banking system and enhance economic growth. This would translate into more effective monetary and fiscal policies.[3]

For Pakistan's FSPs, expanding financial services offerings to women customers would mean a market opportunity of more than $650 million (101 billion Pakistani rupees (PKR)) (Figure 2).

The government's commitment to action on WFI continues to grow, along with a heightened focus on data. A regulatory mandate in place since 2017 requiring sex-disaggregated reporting has significantly increased the availability and quality of supply-side sex-disaggregated data. It should support evidence-based decision making, driving further progressive policy actions.

> **By the numbers:**
> **The scope of the untapped opportunity in women's financial services in Pakistan**
>
> **82%**
> Of Pakistani women remain unbanked or underserved by financial services
>
> **More than $650 M (PKR 101 B)**
> Potential annual banking revenue from expanding financial services offerings for women customers across segments

Figure 2 - Modeling women's market opportunity in Pakistan

Segments and average monthly income in USD

Segment	Income	%	Description of women's segment	Unbanked / underserved women	Annual revenue opportunity (total unbanked and underserved)
A	US$ 97+ / PKR 15,000+	5%	• 12% women (within segm) • 43% employed, 10% self-employed • Education: 27% less than primary, 44% primary/secondary, 29% diploma	1.7 / 0.35 Mn	$124Mn PKR 19.2Bn
B	US$ 65-97 / PKR 10,000-15,000	4%	• 10% women (within segm) • 42% employed, 16% self-employed • Education: 38% less than primary, 56% primary/secondary, 6% diploma	2.4 / 0.23 Mn	$106Mn PKR 16.3Bn
C	US$ 32-65 / PKR 5,000-10,000	9%	• 14% women (within segm) • 25% employed, 9% self-employed • Education: 51% less than primary, 39% primary/secondary, 10% diploma	5 / 0.74 Mn	$101Mn PKR 15.7Bn
D	< US$ 32 / < PKR 5,000	82%	• 78% women (within segm) • 2% employed, 2% self-employed • Education: 49% less than primary, 46% primary/secondary, 5% diploma	49.5 / 5.3 Mn	$320Mn PKR 49.5Bn

Socioeconomic segments based on monthly income

Source: CCX calculations based on A2FS 2015 data

In another sign of Pakistan's growing commitment to WFI, the State Bank of Pakistan (SBP), the nation's regulator, recently launched its Banking on Equality (BOE) policy. The policy aims to reduce the gender gap in financial inclusion by promoting inclusive business practices in the financial sector. With a focus on gender- and transgender-sensitivity, the policy sets out short-, medium-, and long-term targets for financial institutions. The initiative includes establishing a forum on gender and finance, with the goal of reviewing and improving the existing policy framework. It also places an emphasis on SBP's collection and analysis of more robust and detailed sex-disaggregated data.

This will be aided by a recent shift in core banking systems to cloud-based platforms, which has enhanced the quality and reliability of data being produced. Today, most Pakistani FSPs can generate good quality sex-disaggregated data for retail customers, sole proprietorships, and—to an extent—women-led small and medium companies (WSMEs).

Despite the availability of good quality sex-disaggregated data, required reporting, and the market opportunity, **many FSPs do not include sex-disaggregated data in their own reporting to management or in their decision making processes on the types of offerings to provide to clients.** While some FSPs have launched women-centered offerings, data did not seem to play a significant role when doing so. Among FSPs interviewed, many indicated an interest in learning more about how to best leverage sex-disaggregated data to inform decisions. Many Pakistani FSPs also stated that **they would welcome data-driven, quantitative evidence of the value of women's market.**

SBP also has an opportunity to build on the momentum to further optimize the use of available data. For example, additional data analysis could yield market-level insights that FSPs could use to gain a deeper understanding of the market opportunity. This also would enhance the business case for WFI.

Interviews with SBP and other data-aggregating institutions revealed a strong appetite for strengthening the quality of supply-side data and understanding more about how to generate actionable insights. They expressed interest in using this data to underpin policy design and drive additional progress on women's financial inclusion. With SBP's clear commitment to WFI, as evidenced by the new BOE policy, and FSPs appetite for data-driven insights, Pakistan is well-positioned to strengthen its supply-side gender data. In turn, this will enable the creation of banking products and services that meet the needs of women and further women's financial inclusion.

To drive action and move more banks and the regulator further along the WFI pathway, priority efforts should focus on several recommendations already identified in the new BOE policy, including:

- Enabling easier access to SBP supply-side data for commercial FSPs through regularly published reports so it can be used to its full potential, including for competitor benchmarking.
- Proposing robust sex-disaggregated data collection.
- Incentivizing efforts to serve the female customer base, for example by building gender targets into management key performance indicators (KPIs).

Additional recommendations drawn from our diagnostic include:

- Building stronger industry alignment on WFI through sharing use-cases or developing industry code.
- Pursuing other interventions to move FSPs and SBP forward along the WFI pathway proposed in Table 3, page 25.
- Building data analysis capacity for industry players and regulators, promoting incorporation of data into FSP management reports, and encouraging data analysis for business development.
- Providing technical support to upgrade system capabilities.
- Leveraging available data to build capacity on scaling value propositions to individual women customers and female business owners.

OVERVIEW: WOMEN'S FINANCIAL INCLUSION IN PAKISTAN

Pakistan, a lower-middle income South Asian nation, has succeeded in more than tripling its overall financial inclusion in recent years. From a mere 10 percent of the population in 2008, formal account ownership stood at 35 percent as of 2020.[4] Women's account ownership more than quadrupled during this same period, from 4 percent in 2008 to 18 percent in 2020.

The introduction and expansion of branchless banking, the digitization of government subsidy programs, and the government's strong focus on financial inclusion have all contributed significantly to the WFI progress made thus far.

Box 1. PAKISTAN AT A GLANCE[23]

ECONOMY
- Textiles is a key industry sector: more than 420 textile companies, representing nearly half of all manufacturers and providing half of all export earnings
- Remittances accounted for almost 10% of 2020 GDP
- Negative GDP growth in 2020/21 due to COVID-19

SOCIOECONOMIC STATUS
- Among most populous countries in the world; growing youth population
- 5% of residents live on $1.90/day or less
- Economic impact of COVID-19 may push 2 million more Pakistanis into poverty
- 47% overall literacy rate for women; 71% for men
- 21.3% of women are in the labor force[22]
- 34% of Pakistani girls attend high school; only 8% enrolled in post-secondary courses
- World Economic Forum gender gap rank: 153 out of 156 countries in the world

WOMEN IN BUSINESS
- 1% of Pakistani women are entrepreneurs, the world's lowest rate
- Pakistani women earn 26% less than men
- Women represent only 5% of managers in Pakistani firms

FINANCIAL INCLUSION
- 35% of Pakistanis hold formal bank accounts
- 18% of Pakistani women hold formal bank accounts
- 32% gender gap in active account ownership
- 2% of women have mobile money accounts (as of 2014)
- 6% of Pakistanis have saved and 2% have borrowed from financial institutions
- 2% of Pakistani women have saved and 1.5% have borrowed from financial institutions
- 70% of surveyed commercial banks reported having women-focused products and services

WOMEN'S VOICE & PARTICIPATION
- Pakistan has had one female head of state
- 20% of Pakistan's parliamentarians are women
- 11% of government ministers are women

Despite the WFI progress that has been made, a substantial majority of Pakistani women—82 percent—remain unbanked or financially underserved.

What the data reveals about closing the gender gap in access to finance

Calculations using supply-side data revealed that while women's access to banking services increased by nearly 14 percentage points in the period 2008–2020, **the gender gap has more than doubled during the same period.**[5] (See Figure 3.)

Looking ahead, calculations using demand-side data show that WFI growth will flatten in the next decade if key actions are not taken, as shown in Figure 4. Figure 5 presents a more realistic scenario, in which WFI could significantly improve if average levels of access are matched by improvements in the predictive model's key financial inclusion drivers: access to education, income from farming, salary or business, ownership of a mobile phone, and proximity to a mobile money agent.[6] However, **if women are not targeted specifically, the gender gap in access to finance will not close in the next decade.**

KEY TAKEAWAYS

- Pakistan is making headway on WFI; however, a large majority of women remain unbanked.

- Government emphasis on WFI has contributed significantly to its progress, including policy mandates and actions, requiring monthly sex-disaggregated reporting since 2017, which has vastly increased the availability of good quality data.

- The digitization of government subsidies to low-income women has contributed to the expansion of Pakistan's branchless banking industry and increased WFI.

- Some FSPs acknowledge the importance of serving women and have launched women's market offerings with positive results.

- FSPs do not yet use available data to yield insights into women customer behaviors or market trends.

- Increased use of supply-side data could accelerate FSP and regulator advancement along the WFI pathway by quantifying the business case and yielding market-level insights.

- Local and international institutions have played an important role in advancing the WFI agenda and improving the gender data landscape.

- Data insights have informed additional policy enhancements, validating the WFID theory of change.

Figure 3. WFI progress in Pakistan and the gender gap in access to finance, 2008–2020

A2FS bank acc't ownership | **SBP Unique number of active account holders (18+)**

Men — Women — Gender gap
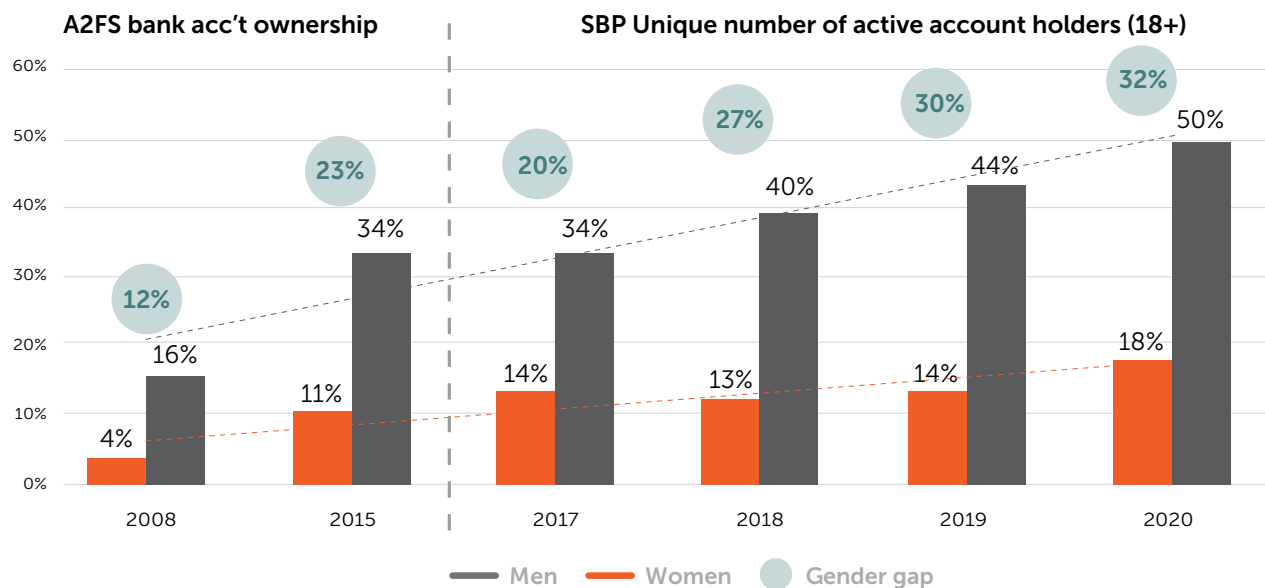
Data sources: 2008–2016: FinMarkTrust/Access to Finance Survey; 2017–2020: State Bank of Pakistan

Figure 4. Modeling of future gender gap in access to finance in Pakistan, if no other factors change

Men — Women

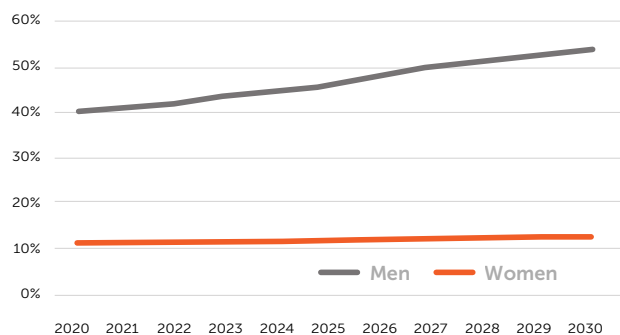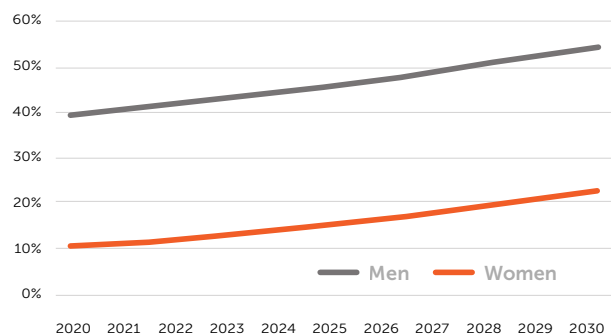**Figure 5. Modeling of future gender gap in access to finance in Pakistan, accounting for actions being taken and changing conditions**

Men — Women

BARRIERS TO WOMEN'S ACCESS TO FINANCIAL SERVICES

Women in Pakistan face several barriers in accessing financial services: gender biases among FSP staff and management, low labor force participation of women, a lack of geographic proximity to banks, and limited education and financial skills.

For example, research conducted in 2017 by IFC and Habib Bank Limited (HBL)—Pakistan's largest commercial bank—found that many women were reluctant to access financial services at bank branches because male bank staff did not treat them with respect.[7]

> "Women's equal access to financial services is a key priority for a country like Pakistan whose female population of more than 100 million significantly lags behind men in terms of financial inclusion and contribution to economic activity."
>
> – Dr. Reza Baqir, Governor, SBP, as quoted in TheNews.pk, March 9, 2021

In addition, just 23 percent of Pakistani women participate in the labor force, with most of these workers in the low-paying agricultural sector.[8] The nation also has a 1 percent rate of women's entrepreneurship which is one of the lowest rates in the world— far lower than the 21 percent rate of entrepreneurial activity among Pakistani men. **Women's low level of economic participation is a major reason for the large numbers of unbanked women.**[9]

Another barrier is lack of geographic proximity to a bank. In a country where more than 60 percent of the population live in rural areas—and where road and transport networks are unreliable—many women cannot access a bank branch.[10]

Lack of education represents another significant barrier. As in many countries, Pakistani women with limited access to education are less likely to have basic financial skills and far more likely to be financially excluded than educated women.[11]

All these issues are either caused or compounded by social norms around appropriate roles and behaviors of women and men in society. In many parts of the country, women cannot interact in a bank branch or agent without being accompanied by another adult. In many communities, girls are more likely to be taken out of school than boys before finishing their second level, and getting more women to work in FSP customer-facing roles is challenging. The financial sector can play a significant role in changing social norms by instituting progressive gender diversity and inclusion strategies in their own organizations. In doing so, they will not only lead by example but also become more effective at reaching and impacting the women's market.

THE ROLE OF BRANCHLESS BANKING

In tandem with the policy interventions that have prioritized gender, **the entry of branchless banking and digital payments into the financial services ecosystem has been instrumental in expanding women's access to formal financial services in Pakistan.**

Branchless banking offers more flexibility for account holders who cannot access a brick-and-mortar location, and digital payment systems—originally intended as a way of improving security and reducing fraud, waste, and abuse—have had the added benefit of increasing WFI. For example, the government is in the process of automating and digitizing the social safety net program known as the Benazir Income Support Program, which provides subsidies for low-income women. As part of this effort, beneficiaries will receive smart cards linked to simple bank accounts, moving millions of previously unbanked women into the ranks of the banked.

Although many women still receive their government subsidies by way of a money order delivered in the mail each month, **some six million Pakistani women have already started receiving benefits electronically and have set up basic accounts at participating banks HBL and Bank Alfalah.** In turn, this has expanded these banks' footprint in the women's market. Once complete, the digitization initiative will require all beneficiaries to open a full-fledged account at the bank of their choice.

A second related initiative, enabled by the 2008 branchless banking policy, facilitates the electronic payment of wages and salaries. Pre-COVID, the government had set a target of digitizing 100 percent of all government payments and receipts (Government to Person, Person to Government, Government to Business, Business to Government) by 2023. While it may not meet 100 percent of the target, it is well on its way to doing so. As of March 2021, branchless bank operators held 66.5 million accounts, of which 25 percent are owned by women, almost half of them subsidy recipients.[12]

> *"I want to remind our banker friends that this [new Banking on Equality] policy is not only the right thing to do, but it's an area where...there are financial interests for you as well."*
>
> – Dr. Raza Baqir, Governor, SBP, at press conference launching the new policy

The shift to digital platforms has also made a profound difference in the availability of sex-disaggregated data. Electronic systems make it easier to generate and collect anonymized, individual account-level gender data, enabling more visibility into the behavior of women customer segments.

ENABLING POLICY ENVIRONMENT ON WFI

By enacting progressive laws and policies, Pakistan's government and SBP have driven tangible progress on WFI and increased the availability of gender data. In 2008, the banking regulator SBP introduced a sweeping change: a branchless banking policy that enabled banks to offer services through a network of agents, making it easy for customers to open and manage simple accounts without setting foot in a bank branch. This action catalyzed initial momentum on inclusion, sparking a marked increase in the overall number of Pakistani citizens with accounts. Subsequently, in 2015, the government collaborated with SBP to introduce the National Financial Inclusion Strategy, with women's financial inclusion designated as a specific priority. The initial strategy envisioned that at least 25 percent of adult women would hold a formal financial account by 2020. Government officials updated the strategy in 2018, adjusting the targets with a goal of 65 million total active digital transaction accounts, with 20 million accounts by women (about 29 percent of the female population, ages 14 and up), including digital accounts, by 2023.[13]

In 2017, SBP began mandating six-monthly sex-disaggregated data reporting of unique account holder data from regulated FSPs. This requirement has transformed the sex-disaggregated data landscape in Pakistan. **The availability of quality data has allowed for more accurate measuring of progress on WFI, benchmarking against government inclusion targets, and evidence-based identification of areas where improvement is needed.** It has enabled the reliable sizing of the women's market opportunity and has helped inform decisions on future policies. One of the major initiatives under NFIS was the launch of National Financial Literacy Program that imparts basic financial literacy to unbanked/underserved population. The program has a mandate to cover 50% of women to be financially literate under this program.

A new Banking on Equality policy, launched in September 2021, continues this progress (see timeline on Figure 6 below). It weaves a gender perspective into the policy's five-pillar strategy, as shown in Table 1. Designed to catalyze market and societal change, it features a strong push for FSPs to:

- Build a gender-diverse employee base and in all touch points with customers;
- Integrate women-centric products and implement strategies to target women customers;
- Collect and analyze sex-disaggregated data;
- Establish KPIs and targets; and
- Set up a policy forum to encourage more effective policy design.

This multi-faced approach validates the WFID Partnership's theory of change and demonstrates the importance of sex-disaggregated data for regulators, from raising awareness to driving policy decisions aimed at increasing WFI.

Table 1: The five pillars of SBP's Banking on Equality policy[14]

GENDER DIVERSITY IN FINANCIAL INSTITUTIONS AND THEIR ACCESS POINTS	WOMEN CENTRIC PRODUCTS & TARGET OUTREACH	WOMEN CHAMPIONS AT ALL TOUCH POINTS	ROBUST SEX-DISAGGREGATED DATA COLLECTION AND TARGET SETTING	POLICY FORUM ON GENDER & FINANCE

Figure 6 - Timeline of Pakistan's NFIS efforts

		Updated NFIS as part of the GoP's 100-days agenda with targets for 2023		Launch of BOE policy	
		2018		**2021**	
2015		**2017**		**2020**	
Launch of NFIS in collaboration with the World Bank		Launch of National Financial Literacy Program (NFLP) and collection of disaggregated data of bank accounts		Draft BOE policy	
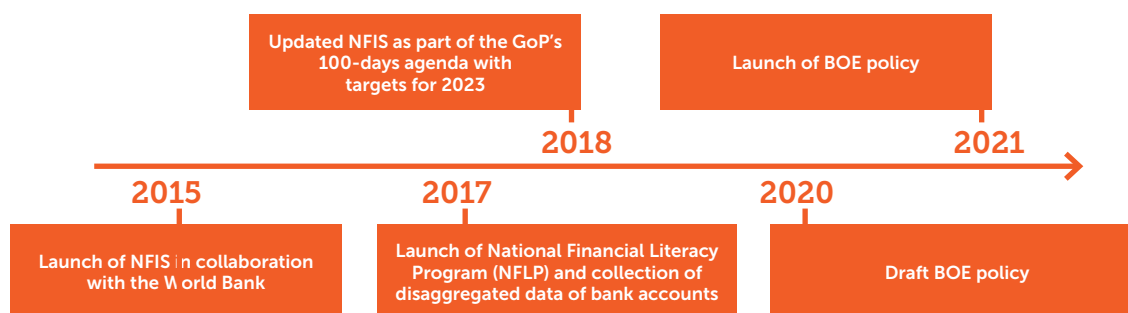
SIZE OF THE MARKET OPPORTUNITY

The market sizing undertaken for this diagnostic estimated an annual USD $650 million (PKR 101 billion) revenue opportunity for Pakistani FSPs if they effectively target the women's market. There is plenty of opportunity in all women segments, including from the 5 percent of the female population earning more than $97 per month. This segment alone represents a $124 million opportunity. At the other end of the spectrum, the 82 percent of the female population earning less than $32 per month (including those in the informal and formal economies) represents a $320 million opportunity. (See Figure 2). In addition, all government subsidy beneficiaries will soon be required to open full bank accounts, into which subsidy payments will flow, enabling more access for women and an additional FSP opportunity.

PAKISTAN'S BANKS AND WFI

Pakistan's banks are beginning to recognize the strategic importance of serving the women's market. To an extent, FSPs recognize that it makes good business sense to address the women's market. After all, women represent nearly 50 percent of the adult Pakistani population, and the government is clearly prioritizing inclusion through its policy actions.

Seven out of nine commercial banks surveyed for this diagnostic cited growth in their customer base as a key reason for wanting to target a new or underserved segment (Figure 8). Half of the banks interviewed saw women as a core element of their growth strategy, as either new or existing customers.

Box 2. HBL's Holistic Women-Centered Strategy[19]

HBL launched its women-centered initiative in 2016 to better serve women's financial needs. Through the Nisa program, HBL offers a complete suite of financial services for women, along with value-added services such as insurance, credit guarantees, and a financial literacy toolkit. Internally, the bank focused on creating an inclusive workplace culture and hiring a more gender-diverse staff, particularly at branches, which has put female customers at ease. HBL also strengthened its internal female leadership pipeline, to enable gender-diverse perspectives in decision making.

Results:

- **3.3 million** women customers, 650,000 of whom participate in the Nisa program
- **1.8 times** more female employees in 2020 than in 2010
- **2 times** more women in management since 2010

Availability of women-focused offerings

While 75 percent of the surveyed banks stated that they have launched women-focused offerings, most are standalone products and not part of a broader strategic effort to target the women's market (Figure 7). However, **some FSPs are embracing the value of a holistic women-centered strategy across segments and business lines—with good business results**. For example, HBL, a member of the Financial Alliance for Women, launched Nisa, a comprehensive women's banking program more than five years ago—the only such initiative in Pakistan to date. At the same time, it looked inward, to enhance diversity and inclusion in its own operations. The bank is experiencing tangible gains from these efforts. (See Box 2.)

For microfinance banks, women customers remain a core component of their strategy: non-bank microfinance companies (microfinance institutions, or MFIs) have more than 50 percent female borrowers, while women represent 25 percent of microfinance bank (MFB) customers. However, among the 40-plus non-bank MFIs and 11 MFBs that operate in Pakistan, most have not developed solutions specifically tailored to meet the needs of women. Exceptions include MFIs such as the Kashf Foundation, with a mission specifically focused on WFI.

Among the branchless banking operators, some have launched women-focused propositions, also with strong results. For example, JazzCash's strategic approach includes women-friendly products such as community savings, maternity and tele-health insurance, quick loans, women-oriented communications and outreach, a more user-friendly app, and financial literacy tutorials. The result was a 55 percent increase in the number of women clients since the launch of the initiative in 2016.
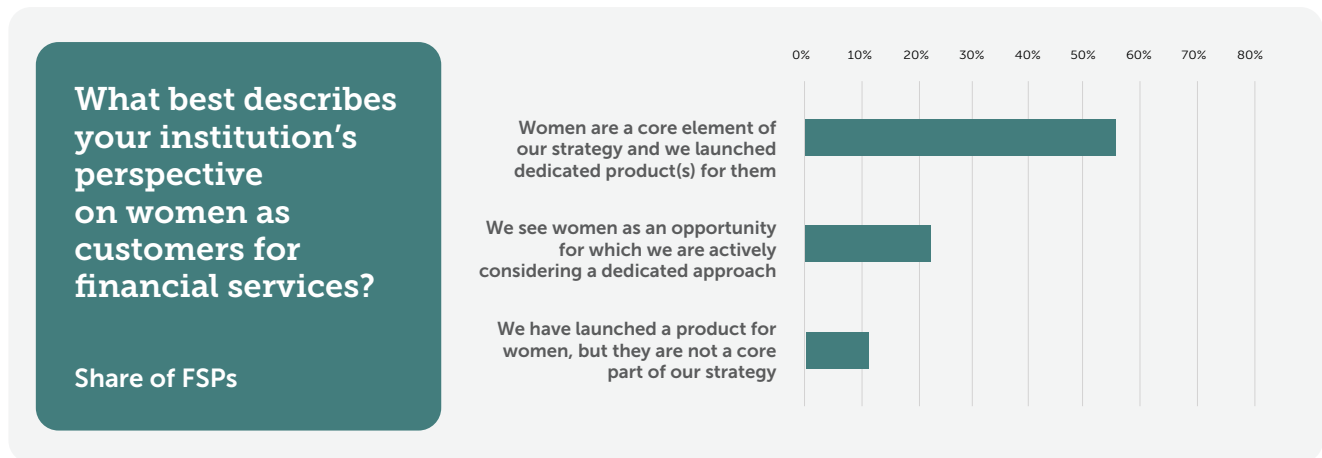
Still, concerns about scaling and mainstreaming women's market offerings remain. **When questioned on the reasons why they haven't progressed further in their WFI pathway, most FSP respondents said that they needed more evidence of the business case.**

> **"We have launched some products, but making the business case for serving the women's market across various segments remains a tough sell."**
>
> – FSP survey respondent

Providing guidance on how to use the data already available to FSPs to quantify the business case for serving women could play an important role here. So, too, could encouraging the collection and analysis of timely and granular data on the transactional behavior of women customers by segment. The insights generated from such analysis could give FSPs the evidence they need to move from small, siloed offerings to scalable and profitable comprehensive women's market solutions that include both financial and nonfinancial services that women need to succeed—access to finance, financial and business education, networking, and recognition.

Figure 7. How Pakistani commercial banks perceive the women's market opportunity

What best describes your institution's perspective on women as customers for financial services?

Share of FSPs

Women are a core element of our strategy and we launched dedicated product(s) for them	~57%
We see women as an opportunity for which we are actively considering a dedicated approach	~23%
We have launched a product for women, but they are not a core part of our strategy	~12%

Chart axis: 0% 10% 20% 30% 40% 50% 60% 70% 80%

Figure 8. Reasons cited by FSPs for targeting women

Why did your institution choose to target women as a business priority?

(multiple selection) Share of FSPs

To grow our customer base by targeting a new or unserved segment	~82%
To increase our engagement of existing customers / expand cross-sell opportunities	~80%
Corporate social responsibility initiative	~45%
To differentiate ourselves from the competition	~23%
To improve profitability	~23%
Other (please specify)	~11%

Chart axis: 0% 10% 20% 30% 40% 50% 60% 70% 80%

ROLE OF RESEARCH INSTITUTES, DONORS, AND DEVELOPMENT FINANCE INSTITUTIONS

Local and international organizations, donors, and development finance institutions are playing an important role in advancing women's financial inclusion and increasing sex-disaggregated data collection in Pakistan. They are providing significant levels of funding and expertise. And they are supporting FSPs in developing women-centered financial solutions. Among the activities making a difference:

- **Research and data generation:** The World Bank is conducting an analysis of the government subsidy beneficiary base for insights into their needs and behaviors. Other institutions such as IFC are undertaking research as well, aimed at building the business case for increased industry focus on the female economy. Efforts also include a quantitative study on the WSME market from Karandaaz and Microfinance Strategy, and InterMedia's Financial Inclusion Insights.

- **Support for regulatory changes:** The World Bank, the Alliance for Financial Inclusion, and the Bill & Melinda Gates Foundation, among others, provide guidance and support on policy interventions to boost WFI.

- **Capacity building for FSPs:** IFC, Financial Alliance for Women, Women's World Banking, the Asia Development Bank, the Pakistan Microfinance Network, and the United Kingdom's Foreign, Commonwealth & Development Office, among others, provide advice and guidance to Pakistani Banks. HBL is a member of the Financial Alliance for Women.

- **Financial literacy training:** Institutions are partnering with the Pakistan Microfinance Network to develop training modules for subsidy beneficiaries on financial literacy. These training resources will be helpful to FSPs as they seek to provide additional services beyond the payment delivery itself.

- **Funding to support increased WFI:** Several institutions have provided grant funding and mechanisms such as credit guarantees to increase the availability of financial services for women, including by expanding the branchless banking industry.

MAPPING PAKISTAN'S SUPPLY-SIDE DATA ECOSYSTEM

The primary stakeholders in Pakistan's financial services sector include:

Data producers/financial service providers

- Commercial banks
- Development finance institutions
- Exchange companies
- Microfinance banks (MFBs) and their branchless banking affiliates
- Fintechs/mobile money operators (MMOs)/non-bank finance companies (NBFCs)
- Insurance companies
- Modarabas (specialty Islamic finance companies)

Data users/aggregators

- SBP: Regulates commercial banks, development finance institutions, exchange companies, and microfinance banks/branchless banking operators
- Securities and Exchange Commission of Pakistan (SECP): Regulates non-bank finance companies, insurance companies, and modarabas

There is little detail available about the informal financial services sector in Pakistan.

Figure 9 provides an overview of the data flow between the stakeholders in Pakistan's formal supply-side data ecosystem. The blue arrows indicate where the data reported is disaggregated by sex.

Figure 9. Pakistan's formal supply-side data ecosystem
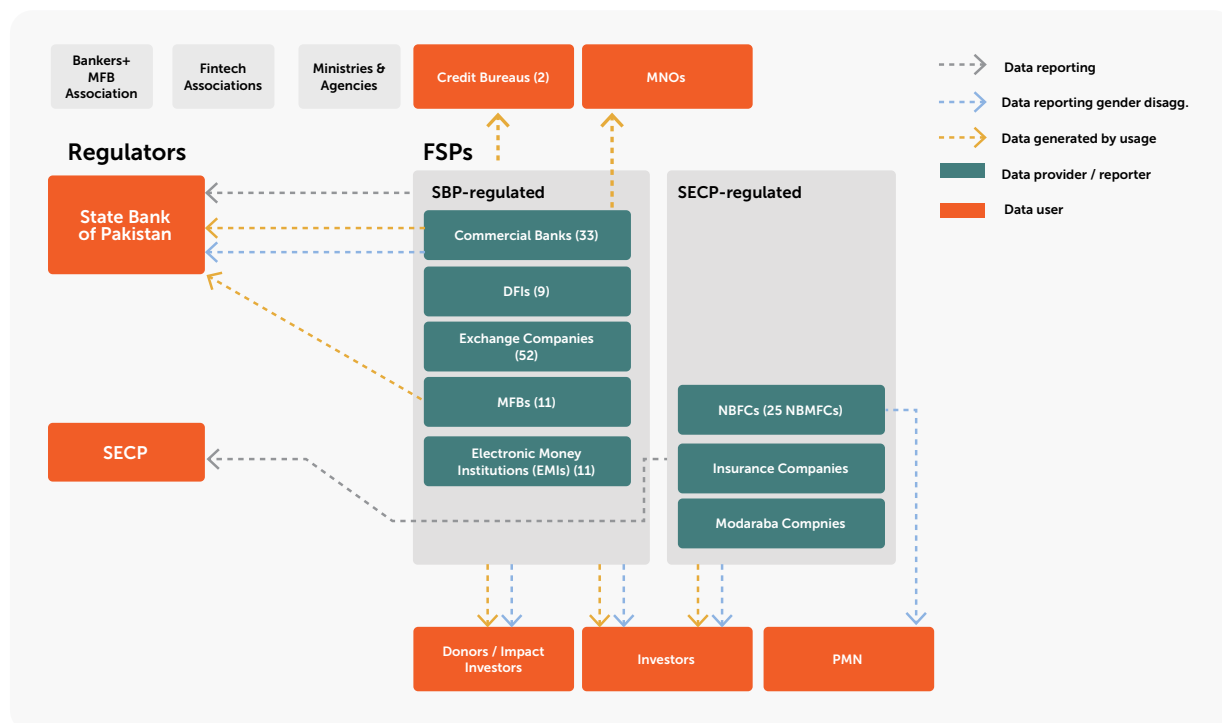
DIGGING DEEPER: GAPS AND OPPORTUNITIES IN SUPPLY-SIDE DATA COLLECTION AND USE

This section details the state of supply-side data collection and use in Pakistan. It highlights gaps and uncovers opportunities to optimize the potential of the data to provide insights on female customer behavior.

DATA PRODUCERS

Combined, banks and MFIs have the largest share of women customers among the financially included segment in Pakistan (Figure 10). However, in the coming years fintechs are expected to play an increasingly important role.

Banks and MFIs

Virtually all banks and MFIs generate sex-disaggregated account ownership data on retail clients and sole proprietors, as mandated by SBP. Nearly 80 percent of commercial banks track sex for all products offered, while 60 percent of MFIs do so. A minority of the interviewed banks and MFIs—about 22 percent—track data on WSMEs. This represents a significant gap, given the growing donor focus on women's entrepreneurship, and expectations that WSME demand will increase in the coming years.

KEY TAKEAWAYS

- All FSPs regulated by SBP generate account-level sex-disaggregated data on retail customers and most on sole proprietors but only a few track WSMEs.

- SBP collects banks' account ownership data but does not gather performance metrics such as non-performing loans.

- SBP's gender data is reported internally although it is not part of mainstream reporting; new Banking on Equality policy paves the way for increased use of data insights to inform policy.

- Real-time transactional data can be sex-disaggregated but remains untracked.

- There are significant opportunities to make better use of existing data to yield actionable insights and validate the theory of change.

Figure 10. Share of women clients among Pakistani FSPs (%)

Category	Value
Branchless Banking accounts	25%
Depositors with commercial banks	31%
Loan accounts with Microfinance banks	37%
Non-bank microfinance companies	50%

Many FSPs have the capacity to run sex-disaggregated reports at a somewhat granular level, including loans by number and value, and deposits/savings accounts by value. Seventy-one percent can generate sex-disaggregated loan loss statistics, while 43 percent can generate sex-disaggregated revenue data (Figure 11). Most FSPs also have the ability to generate real-time transactional data; however, among those interviewed, it appeared that they are not making use of it. Doing so would provide even greater insight into the ways in which women customers use their accounts and could contribute to more evidence-based decision making on the types of products to offer.

Those interviewed did not report data quality as a major issue, since widespread adoption of electronic platforms and automated data collection has enhanced reliability and reduced the risk of recording errors. However, issues do remain, particularly around proxy use—in which men applying for loans put down a woman's name as the applicant—and the lack of data on WSMEs.

Figure 11. Types of sex-disaggregated data reported by Pakistani FSPs

What types of reports does your institution have available split by women and men?

Share of respondents of those that have sex-disaggregated customer reports

Legend: Retail clients | Retail and business clients | Neither | NA

Disconnect between data availability and usage

Despite decent data capabilities, less than 40 percent of FSPs include sex-disaggregated data in their regular, automated management reporting, while 50 percent report the data to management only on occasion. Because senior decision makers may not see the data or any insights derived—for example, on product uptake by women customers—they might not realize the strength of the business case in support of investing in new women-focused offerings or in the value women customers bring.

Fintechs, mobile money, and non-bank financial companies

In interviews, representatives from these FSPs indicated that they do not have a sense of the size of the market opportunity. They typically target those who are already banked, rather than focusing on attracting the unbanked, where most women are.

While institutions currently produce sex-disaggregated data on retail and business customers, they are not required to report it to SECP, their regulator. Although the data is available, only about 33 percent include it as part of regular or occasional reporting to management. These include institutions such as Tez, Oraan, and Finca that have WFI embedded in their missions. These institutions collect and analyze their sex-disaggregated data to support the business case for serving the women's market.

> "We have the capacity to generate all of this information and we are obligated to report it to SBP. But we are not obligated to report it to management. And we definitely do not run analytics on it."
>
> – Bank representative

DATA AGGREGATORS AND USERS

State Bank of Pakistan

Various SBP departments collect sex-disaggregated data on account ownership. With the exception of the unique depositor's report, most data is collected at the aggregate level. For example, FSPs report the overall number of accounts, as opposed to detailed, customer-level data, risking double-counting individuals with multiple accounts. Each SBP department sets its own collection schedule, so some data streams are reported annually while others are semi-annual, quarterly, or monthly. SBP makes use of the data collected in its own internal reporting, although not all of it is available publicly, not providing the FSPs access to the industry-level data.

While the regulator demonstrates a strong commitment to sex-disaggregated data collection and use, there are areas where changes could further enhance the value of the data. For example:

- SBP does not currently require reporting of sex-disaggregated transactional data, which could provide stronger evidence of the value of women customers.
- Aggregate-level reporting increases the risk of inclusion numbers not being accurate, since some women hold more than one account.
- Differing data collection schedules set by various SBP departments makes it harder to consolidate data to produce comprehensive and timely overviews of women customer segments.
- SBP does not publish data insights, so FSPs do not have access to market-level sex-disaggregated data that could be used to benchmark performance or provide intelligence on women customer behaviors and performance.

The regulator is aware of these shortcomings and has taken steps to address them. The new Banking on Equality policy emphasizes collecting sex-disaggregated data in more granular detail, standardized frequency in reporting, and increased use of sex-disaggregated data for insights that will inform future policies and initiatives. Plans also include publishing annual data insights and analysis, such as a sex-disaggregated overview of the unique number of depositors.

Box 3. SBP contributes to global knowledge base on WFI[20]

SBP has provided sex-disaggregated data for the International Monetary Fund's highly respected annual Financial Access Survey (FAS) since 2015. Through the years, it has increased the extent of detail it has reported in a sex-disaggregated way:

- Since 2015: commercial bank depositors, deposit accounts and borrowers
- Since 2017: commercial bank loan accounts, outstanding loans, and outstanding deposits
- Since 2018: depositors, deposit accounts, loan accounts, outstanding deposits, and outstanding loans from deposit-taking microfinance institutions; borrowers and outstanding loans from non-bank microfinance companies

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Securities and Exchange Commission of Pakistan

SECP does not gather sex-disaggregated data from the institutions it regulates, and SBP's new Banking on Equality policy prescriptions will not apply to SECP-regulated FSPs. However, SECP has indicated plans to adopt a similar gender policy for the non-banking financial sector that will mandate sex-disaggregated data reporting. A donor-supported digital transformation initiative currently under way will enable more extensive data analysis in the next few years. This will contribute to a more comprehensive understanding of the state of WFI in Pakistan.

OPPORTUNITIES: WHY A BETTER UNDERSTANDING OF HOW TO USE EXISTING DATA COULD ADVANCE THE CASE

There is an immediate opportunity to make better use of current available data. For FSPs, the examination and analysis of firm-level customer data as well as aggregate FSP data will produce insights that support the business case for providing more women's market offerings, moving more FSPs along the WFI pathway from the "consider" stage to the "action" stage. Running more detailed data analyses would also help FSPs refine and expand on the women's market offerings they currently provide, moving these FSPs along the WFI pathway from the "action" stage to "champion." For the regulator, optimizing data already being generated through deeper analysis and more routine reporting could help inform future policy interventions and optimize positive impact. Table 2 presents an overview of these opportunities.

Table 2. Opportunities to be leveraged

	OPPORTUNITIES TO BE LEVERAGED
COMMERCIAL BANKS DATA PRODUCERS	• Enhanced reporting requirements and upcoming publication of data insights to heighten awareness of the business potential in the women's market • Widespread availability of high-quality data on some women customer segments • Emerging evidence of successful women's market programs
FINTECHS DATA PRODUCERS	• Availability of high-quality sex-disaggregated data
MFIS DATA PRODUCERS	• Mission-central commitment to women • Widespread availability of high-quality data on some women customer segments
SBP DATA AGGREGATOR & USER	• Political will and commitment • Mandated sex-disaggregated data reporting • Development of financial inclusion policies
SECP AGGREGATOR & USERS	• Political will • Digital transformation • Commitment to development of financial inclusion policies

LESSONS LEARNED FROM PAKISTAN'S EXPERIENCE

The diagnostic offers lessons for Pakistan—as well as for other countries. These include:

- **Political will and regulatory involvement incentivize the push for more supply-side sex-disaggregated data**. SBP's mandate to report sex-disaggregated data triggered the widespread availability of high-quality sex-disaggregated data.
- **However, just because the data is available doesn't mean it's being used.** Most FSPs do not incorporate sex-disaggregated data into their routine management reporting or use available data to develop of their women's market offerings. Although SBP uses the data in its own reporting and policymaking, it does not publish insights based on this data. This leaves FSPs without access to data-driven market perspectives or intelligence on women customer behaviors and performance.
- **The lack of focus on women SMEs impedes a holistic understanding of the female economy.** Women's entrepreneurship in Pakistan is expected to gain traction in the coming years, as the government and the international donor community place increased emphasis on encouraging the development of women's businesses. Without data analysis on the WSME segment, FSPs will have a harder time identifying products and services that meet the segment's needs and tap into the growing revenue opportunity.
- **Sex-disaggregated data collection and reporting alone are not enough to advance banks' WFI pathway.** Stakeholders need use cases and guidance on how to visualize, communicate, and understand the data in informing their business case for scaling up their women's market propositions.

RECOMMENDATIONS

The recommendations that follow are aimed at increasing the collection, quality, and use of supply-side sex-disaggregated financial data in Pakistan. For a summary connecting the diagnostic's findings to the challenges identified and recommended interventions, see Table 3.

Table 3. Connecting the findings from the Pakistan Gender Data Diagnostic to data gaps and interventions

| | DATA GAPS | | | | POTENTIAL INTERVENTIONS |
	AWARENESS	AVAILABILITY	QUALITY	USAGE	
COMMER-CIAL BANKS / Data Producers	**Lack of bank management buy-in** about the business case for serving the women's market, however this is changing[16]	**No granular detail** available	Limitations include: • no segmentation • not structured for customer-centric analysis	**Limited use of sex-disaggregated reports:** • not part of regular automated management reporting • mainly generated on an ad hoc basis	**Industry workshops and trainings** with global case studies on how to build scalable and profitable women's proposition
	Limited awareness of data's importance or the full data value chain	**No standard WSME definition**	WSME data collection limitations include: • manual data entry • **no standard WSME definition** • leads to questions about quality	**Inadequate internal capacity** for data analysis: • limits data usage to inform design of financial solutions for women	**Data analysis capacity building** on how to use and interpret data to generate actionable business insights
				• **Lack of incentives to leverage data** in designing solutions for women/WSMEs • Limited reporting	Guidance on **developing WSME market proposition** Work with stakeholders on a **standardized WSME definition**
MFIs / Data Producers	**Limited financial solutions** targeting women customers	No gaps identified	**Women may be used as proxies** for loans going to men	**Lack of incentives to leverage data** in designing solutions for women	**Training on women's market modeling** and business case analysis **Data analysis capacity building**: how to use and interpret data to produce actionable insights **Enhanced KYC** to reduce risk of women being used as proxies
Fintechs & MFBs / Data Producers	**Limited awareness** of women's market Business **focus on the banked** segment	**Women may be used as proxies** for loans going to men	No gaps identified	**Majority do not include sex-disaggregated data in reporting** **Sex-disaggregated data not used** to advise product development	**Awareness building** on the business case for serving the women's market **Industry roundtable** to share best practices in sex-disaggregated data analysis and usage Including global examples **Enhanced KYC** to reduce the risk of women being used as proxies
Data users / SBP	No data gaps identified	**Marginalized gender data collection** **Limited data availability**	WSME / enterprise data is collected, however Limitations include: • manual data entry • **no standard WSME definition** • **Issues with reporting template** lead to double counting	**Data not aggregated or leveraged to inform market on state of WFI**	**Mainstreaming of gender data collection across all SBP departments** Knowledge sharing with other national regulators on sex-disaggregated data collection, use, analysis, and data sharing best practices **Development of centralized WFI dashboard** to increase gender data usage, to include key data points, KPIs, trends on verticals/segments/geographies, and reports on public consultations **Addition of WFI-related reports in the micropayment platform**, highlighting insights derived from transactional data **Development of standard WSME definition** and promote better data collection and usage **Inclusion of unique customer level data collection in monthly reporting** for all departments
Data users / SECP	No data gaps identified	**No sex-disaggregated data collection at present**	No gaps identified	**No available data** to produce market-level insights	Incorporation of **sex-disaggregated data collection** and analysis into SECP's WFI strategy, currently in development **Knowledge sharing with other regulators** on sex-disaggregated data collection (templates), and analysis (KPIs) **Collaboration with SBP** to consolidate insights from sex-disaggregated data analysis, creating a holistic, national-level WFI picture **Technical assistance** to develop data warehouse capacity for automated collection and analysis of the data

Ecosystem recommendations

With the upcoming implementation of the Banking on Equality policy and a national-level action plan for full WFI, it will be important to maximize the use of gender data as a way of measuring progress. In addition, ensuring that the short- and long-term policy recommendations are implemented in the market requires making them tangible and action-oriented. For example:

- Replace "Simplify loan applications for women who are applying for financing;" with concrete steps and processes banks need to take to do so.
- Replace "Provide non-financial advisory services for WSME loan customers" with "Offer trainings, networking opportunities, and other non-financial services to a specific proportion of the female customer base."

Such efforts will contribute to mobilizing the entire financial sector toward greater financial inclusion.

Box 4. A Promising Model: The UK's Investing in Women Code[21]

In 2018, the United Kingdom Treasury commissioned Alison Rose, CEO of NatWest and long-standing member of the Financial Alliance for Women, to lead an independent review of women's entrepreneurship in the UK to tap the unrealized economic potential of women entrepreneurs by making the UK a global destination for women to start and grow a new business. The approach of the report itself and many of the initiatives proposed could be adapted for application in other countries.

In particular, the first of eight initiatives included in the report was to **promote greater transparency in UK funding allocation through a new Investing in Women Code,** and as part of this, to report a commonly agreed set of data on all-female-led businesses, mixed-gender-led businesses, and all-male-led businesses. The Code has already been signed by over 100 institutions, including the UK's major banks, and released its first report in April 2021. Signatories provide their results to relevant industry associations, which review and collate the data and pass it on to UK Treasury, which produces the annual report. This constitutes the first time most of these organizations provided a public accounting of the extent of their financing for women entrepreneurs.

The UK's Investing in Women Code has shown remarkable success in the speed at which signatories were willing to sign on, assign a leadership champion in their own institutions, begin reporting sex-disaggregated data, and take action to better meet the needs of women's entrepreneurs.

Industry recommendations

Most of Pakistan's commercial banks are in the "consider" to "action" stage of the WFI journey. The diagnostic uncovered several key challenges that could impede progress, including limited analysis of available data and lack of use in management reporting. These factors could contribute to decision makers' hesitancy to move forward with a broader set of women's market offerings, since they may not see an evidence-based business case.

Recommendations that encourage FSP engagement include:

- Raise awareness of the value of data for informing business case for women-centered solutions.
- Build capacity on how to use, analyze, and interpret sex-disaggregated data and produce actionable insights, including women's market modeling, and business case analysis.
- Provide technical advice on how to gather more detailed, anonymized, customer-level gender data.
- Share best practice approaches and commercially viable business models for serving the women's market through trainings such as Financial Alliance for Women's All-Stars Academies.
- Leverage the Banking on Equality policy for new business opportunities: For example, by increasing the customer base through participating in government-to-person (G2P) transfer programs.

Regulatory recommendations

SBP has clear political will to enhance the collection and use of disaggregated data by providers and government. This is evident in the progression of changes implemented, beginning with the sex-disaggregated data reporting mandate in 2017,[17] and continuing with the recent launch of the Banking on Equality policy. Here are some recommendations for actions that SBP itself can take to build on the progress already happening:

- Include unique customer-level data in monthly reporting.
- Cross-check anonymized customer-level data to ensure proper aggregation.
- Define women-centric products clearly for easier reporting.
- Ensure clear definitions for women accounts, women customers, and women SMEs.
- Collect all customer indicator reports monthly instead of twice-yearly, for more timely analysis.
- Disaggregate credit product data, including loan size, NPL, and interest rate.
- Revise data collection templates to enable monthly data gathering for more timeliness and to ensure collection at the unique customer level.
- Share user-friendly aggregate analyses so FSPs have access to actionable insights, with the goal of spurring action to close WFI gaps.
- Adapt Know-Your-Customer (KYC) requirements to ensure women are using the loans, not male family members.

Suggested interventions to support SBP's efforts include:
- Align the implementation phase of Data2X-WFID Gender Data Ecosystem project with AFI's ongoing SBP advisory project in the rollout of the Banking on Equality policy[18].
- Develop a WFI performance dashboard, including types of reports to generate and encourage dashboard usage.
- Interact and share knowledge with regulatory counterparts in other countries on best practices in sex-disaggregated data collection, use, analysis, and publication of insights for industry.

SECP is following SBP's lead, with its plan to implement gender policies that will further increase the availability of sex-disaggregated data. Suggested interventions to support SECP's efforts include:
- Incorporate sex-disaggregated data collection in the WFI strategy.
- Interact and share knowledge with regulatory counterparts in other countries on best practices in sex-disaggregated data collection, use, analysis, and publication of insights for industry.
- Build data warehouse capacity for automated data collection and analysis.

Through 2022, WFID will be working on prioritizing and piloting interventions. We welcome input from and collaboration with partners from stakeholder groups. Please feel free to contact us at info@data2x.org.

APPENDIX A. FORECASTING MODEL DESCRIPTION

The logistic regression assumes a linear relationship between a set of explanatory variables and the log-odds of a given event:

$$\ln\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1 x_1 + \cdots + \beta_n x_n$$

The probability of the event (e.g., the likelihood of an individual being banked), is therefore given by the non-linear relationship:

$$P = \frac{\exp(\beta_0 + \beta_1 x_1 + \cdots + \beta_n x_n)}{1 + \exp(\beta_0 + \beta_1 x_1 + \cdots + \beta_n x_n)}$$

The mean value of the event for a group within the dataset (for example the average probability of an individual being banked, or the average probability of females being banked) is the average of the individual probabilities for each individual, weighted by the survey probability weights. This sum can differ from the probability assessed at the average value for each of the explanatory variables, assessed at the mean, due to the functional form. Thus, for *N* households, with average values of explanatory values given by ***x***:

$$\frac{1}{N}\sum_{i=1}^{N} \frac{\exp(\beta_0 + \beta_1 x_{i1} + \cdots + \beta_n x_{in})}{1 + \exp(\beta_0 + \beta_1 x_{i1} + \cdots + \beta_n x_{in})} \neq \frac{\exp(\beta_0 + \beta_1 \bar{x}_1 + \cdots + \beta_n \bar{x}_n)}{1 + \exp(\beta_0 + \beta_1 \bar{x}_1 + \cdots + \beta_n \bar{x}_n)}$$

This differs from a linear model, where:

$$\frac{1}{N}\sum_{i=1}^{N} \beta_0 + \beta_1 x_{i1} + \cdots + \beta_n x_{in} = \beta_0 + \beta_1 \bar{x}_1 + \cdots + \beta_n \bar{x}_n$$

Model projections are made at the mean value for each variable, instead of simulations for every household. Simulations would be challenging and somewhat ad-hoc for variables such as increase in school completion rates or mobile phone ownership, where ownership status would have to change for individual households to match the projected growth rate. Consequently, the non-linear nature of the model implies that the model evaluated at the mean value for each variable will be different from the average of the values for each individual.

Data

- Baseline microdata is from the Financial Inclusion Insights (FII) program, collected by the Bill & Melinda Gates Foundation, in partnership with Kantar. The sixth survey (Wave 6) was conducted from February 18 to March 22, 2020, targeting individuals aged 15 years and above.
- The sixth survey (Wave 6) was conducted from February 18 to March 22, 2020, targeting individuals aged 15 years and above. Data was stratified by rural and urban areas, and also by province, covering Punjab and Islamabad, KP, Sindh, and Baluchistan. Probability proportionate to size (PPS) sampling was the basis of the sample design, with a targeted sample of 6,000 individuals targeted before the COVID-19 pandemic and subsequent restrictions. The final survey data collected comprised of 3,567 observations.
- A follow-up survey was conducted in November to December 2020, with 3,144 of the same households in the first survey. A subset of the variables collected in the first survey were collected in the follow-up survey, including mobile phone ownership, mobile money usage, and bank account ownership and use.
- Data collected within the survey included access and usage of banking services, including payments, savings, credit, and transfers. In addition, data on household and individual characteristics were collected.
- For the purposes of analysis, 'Banked' is defined as account ownership with a full-service financial institution, which is an institution that offers loans to its customers and at least one of the following additional services: savings, money transfers, insurance or investments. The institutions covered are banks, MFIs, co-operatives, and post office banks.

Model estimates by gender

- The February–March 2020 sample indicates that 21.8 percent of the adult population had
- individual accounts with full-service financial institutions. Access to finance statistics
- indicated significant gender disparities, with 36.5 percent of male adults banked relative to 7.3 percent of female adults, corresponding to a 29.2 percentage point difference.
- The November–December 2020 sample indicates 25.1 percent of the adult population had individual accounts with full service financial institutions, with 40.1 percent of males banked relative to 10.5 percent of females (a 29.6 percentage point difference).
- Overall estimates show similar patterns between men and women, with the most important determinant of access to finance for both men and women including completing tertiary education, age, income from salary or wage, and owning a mobile phone.
- The follow-up survey did not capture 11.8 percent of the original individuals (423 observations). The dropped individuals were less likely to be banked than those that were covered in both rounds of the survey. Of the individuals not covered in the follow up survey, 21.0 percent were banked, with 34.1 percent of males banked relative to 5.7 percent of females.
- Proximity to a mobile money agent is a significant determinant of access only for women, while asset ownership is a significant determinant of access only for men.
- Estimates show that neither household proximity to banking sector infrastructure nor income by sector have a statistically significant impact on the likelihood of being banked. However, estimates by rural/urban areas show that income from salary or wage is an important determinant of access to banking for urban areas, while income from farming has higher statistical significance in rural areas.

Variables	Male		Female	
Asset score	0.2222	***	0.5484	
Completed primary	0.3410		0.1061	
Completed secondary	0.5724	***	1.0782	***
Completed tertiary	1.3853	***	1.4644	***
Age	0.0231	***	0.0139	
Household size	0.0836		(0.1621)	
Urban	0.0780		(0.0876)	
Married	0.0062		(0.0322)	
Income from salary or wage	0.0698		0.3998	
Income from farming	0.1361		0.3536	
Income from business	0.2299		(01363)	
Owns mobile phone	2.1347	***	2.3086	***
Close to a bank branch	0.2428		(0.1545)	
Close to a bank ATM	0.2547		0.1955	
Close to a banking agent	(0.3346)	*	(0.4230)	
Close to a mobile money agent	0.0206		0.6485	**
Close to MFI	0.1266		0.2727	
constant	(4.6272)	***	(6.4937)	***
Number of observations	1,549		1,595	
Pseudo R-squared	0.1960		0.3007	

Access to finance projections

- The modeling of access to finance indicators is dependent on modeling of underlying changes in the key explanatory variables. Model forecasts of key variables are dependent on projections obtained from reputable and widely cited sources, including the World Bank, IMF, and Shared Socio-Economic Pathways (SSP) data, in addition to trend projections from time-series data.
- Currently, Pakistan has the second highest number of out of school children in the world, with sharp disparities in level of education by gender, where boys outnumber girl at every stage of education. Growth rates in education completion suggest an increase in equity, but large gaps by gender remain.
- Mobile cellular subscriptions have increased rapidly over the last 15 years, rising from 8 percent in 2005 to over 76 percent in 2019. The growth rate has slowed down to 4 percent per annum between 2014 and 2019.

Access to finance by gender (2020 - 2030)
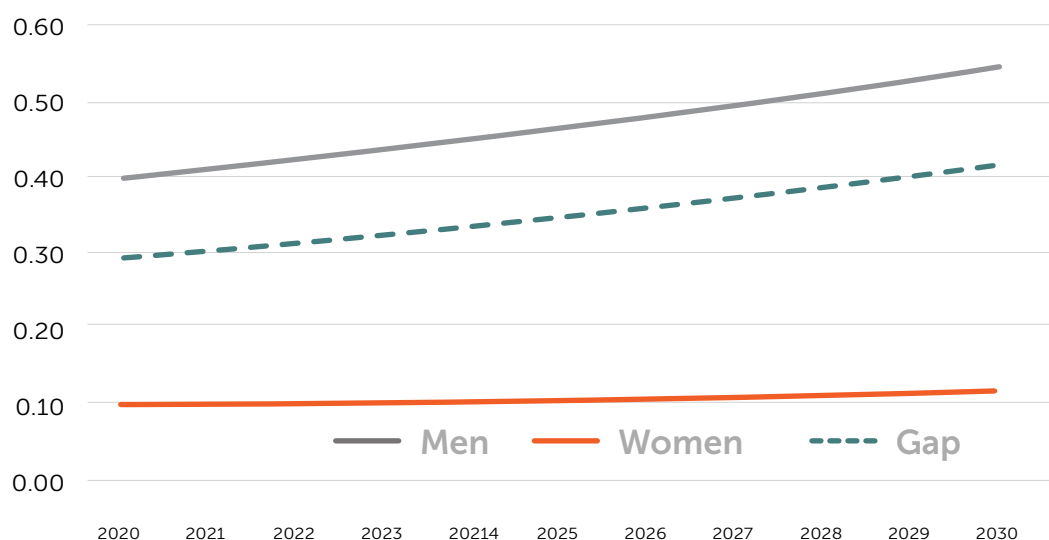
- Projections indicate an increasing gap in access to finance by gender, rising by 12.5 percentage points over 10 years.
- Access to finance for women shows virtually no improvement over the projection period, with all gains in access to finance accrued by men. Access to finance increases by 14.5 percentage points for men relative to 2.0 percentage points for women.
- The projections are made based on a marginal analysis at mean values, due to the non-linear nature of the logit model. The graph is rebased from mean values to actual values in 2020.

Access to finance simulation

- The evolution of the access to finance trajectory is simulated under scenarios that consider different assumptions of the initial levels of key explanatory variables. Considering levels of education, income from farming, salary or business, ownership of a mobile phone, and proximity to a mobile money agent, the simulations assume that the initial levels of these factors are at the same level for women as they are for men.
- The combination of these factors increases access for women in 2020 by almost 10 percentage points. Over the forecast horizon, access for women increases by 12 percentage points. The gap between men and women does not increase over the forecast horizon.

Access to finance by gender (2020 - 2030)
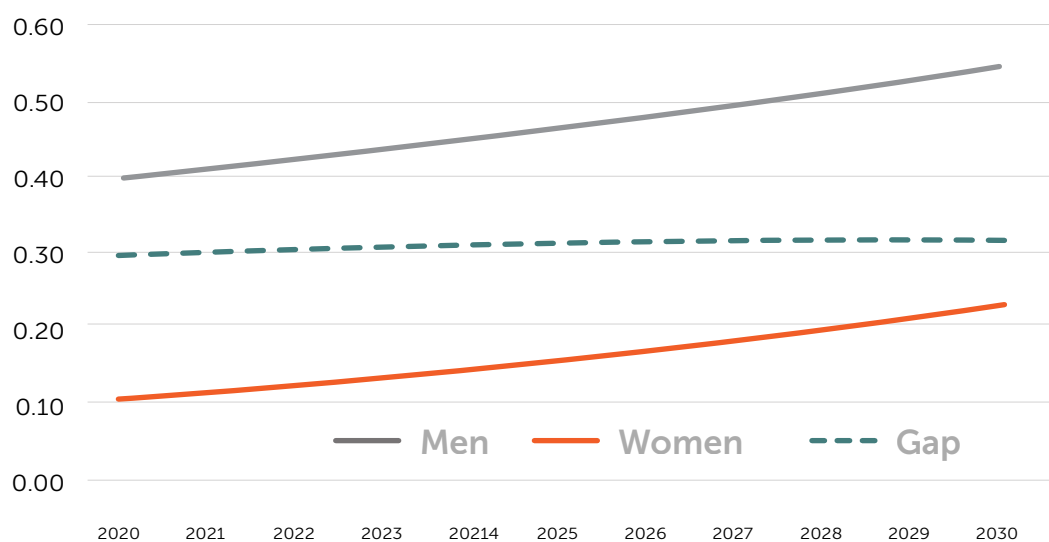
APPENDIX B. WOMEN'S MARKET OPPORTUNITY CALCULATIONS

The high-level logic of the model can be described through the following key steps:

1. **Determining socioeconomic segments** (on the base of monthly income, occupation, and by gender)

2. **Determining % of unbanked**

3. **Determining % of underbanked***

4. **Assumptions on potential revenue per segment** (net interest income and fee & commission income)

The assumptions used for the model were based on the following data sources:

Area	Assumption	Source(s)
Population	Sociodemographic / economic	Global Findex 2017 Survey, A2FS 2015 Survey data
	Economic activity	
	Access to finance / banked	
	Usage/degree of being underserved	CCX assumptions based on past experience
Products	Deposits/savings	Banks' and MFIs' terms and conditions sheets
	Loans	
	Payments	

*Underbanked: Customers who may have access to a basic transaction account offered by a formal financial institution, but still have financial needs that are unmet or not appropriately met.

Revenue source assumptions used for the modelling
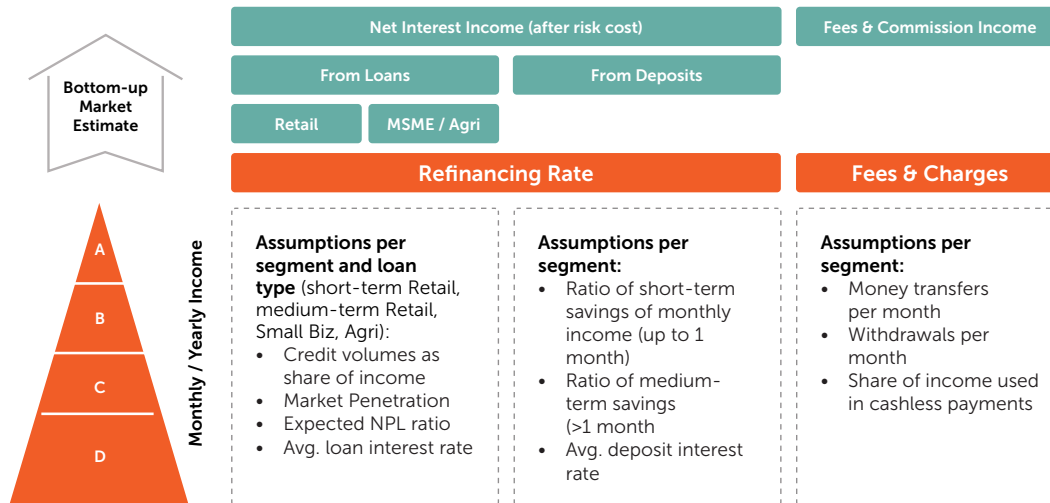
The untapped potential banking revenues of women and men in Pakistan (in $ millions and by %)
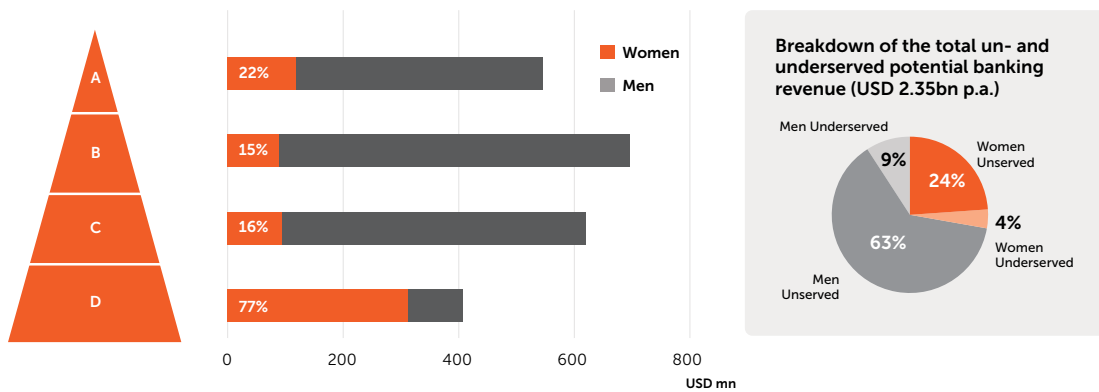
An overview of the assumptions deployed in the model can be found below:

	D ($16 avg. monthly income)		C ($49 avg. monthly income)		B ($81 avg. monthly income)		A ($194/+ avg. monthly income)	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Deposits and Savings								
Short term savings (…)	35%	35%	35%	35%	40%	40%	40%	40%
Long term savings (…)	8%	8%	10%	10%	12%	12%	15%	15%
Transactions and Payments								
Money transfers per month	0.5	0.25	0.5	0.25	2	2	2	2
Withdrawals per month	1	1	1	1	3	3	4	4
% of income used in cash-less payments	10%	5%	15%	10%	25%	25%	35%	35%
Loans Retail, (very) short-term liquidity mgmt								
Credit Volume (% of MONTHLY income)	100%	100%	100%	100%	150%	150%	200%	200%
Credit Penetration (% of client)	10%	10%	10%	10%	10%	10%	10%	10%
Expected Loan Losses (net of recovery)	3.0%	2.0%	2.5%	1.5%	2.0%	1.0%	1.0%	0.8%
Loans Retail, medium-term								
Credit Volume (% of ANNUAL income)	40%	40%	60%	60%	80%	80%	100%	100%
Credit Penetration (% of clients)	10%	10%	15%	15%	20%	20%	30%	30%
Expected Loan Losses (net of recovery)	4.0%	2.0%	3.5%	1.5%	3.0%	1.0%	3.0%	1.0%
Loans Small Business, e.g., inventory finance								
Credit Volume (% of MONTHLY income)	40%	40%	35%	35%	30%	30%	20%	20%
% of Segment small business owners	9%	2%	31%	9%	40%	16%	50%	10%
Credit Penetration (% of clients)	90%	90%	80%	80%	70%	70%	50%	50%
Expected Loan Losses (net of recovery)	3.0%	2.0%	2.5%	1.5%	2.0%	1.0%	1.0%	0.8%
Loans Agri-Finance								
Credit Volume (% of ANNUAL income)	40%	40%	40%	40%	30%	30%	20%	20%
Share of Segment active in agriculture	22%	2%	17%	5%	26%	12%	37%	2%
Credit Penetration (% of clients)	60%	60%	80%	80%	60%	60%	30%	30%
Expected Loan Losses (net of recovery)	3.0%	2.0%	2.5%	1.5%	2.0%	1.0%	1.0%	0.8%
RATES								
Borrowing rate	36.0%	36.0%	27.9%	27.9%	19.7%	19.7%	11.6%	11.6%
Deposit rate	3.7%	3.7%	4.4%	4.4%	5.0%	5.0%	6.0%	6.0%
Refinancing rate	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%
Money transfer fee, US$	0.28	0.28	0.29	0.29	0.30	0.30	0.32	0.32
Withdrawal fee, US$	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12
Fee for cashless payments (% of value of transactions, banks' share)	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

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END NOTES

1. WFID Partnership. 2018.

2. Women's access to banking services increased by 14 percent from 2008 to 2020; however, the gender gap has more than doubled during the same period.

3. Čihák and Sahay. IMF Blog. 2018.

4. Derived from Unique number of active deposit accounts as presented in the Banking on Equality Policy Paper. 2022.

5. Before 2017, the most robust data available to assess the women's market in Pakistan came from FinMarkTrust's Access to Finance surveys. Commissioned by SBP and first conducted in 2008, followed by a second round in 2015, these surveys looked at the demand-side of the market, using a sample size of 10,000 people. This changed in 2017, with the State Bank of Pakistan's mandated sex-disaggregated reporting of unique account holder data from regulated FSPs, providing an exact overview of the men and women with an account at a formal FSPs. To calculate WFI progress and the gender gap in the years 2008–2016, we used the Access to Finance survey data to draw the baseline for overall financial inclusion. To calculate WFI progress and the gender gap from 2017–2020, we used SBP's number of active account holders.

6. Important sources of demand-side data include Kantar's Financial Inclusion Insights (FII) studies, the World Bank Global Findex studies, and the State Bank of Pakistan's Access to Finance studies; most recent data available from 2020; very limited WSME demand-side research is available. The second model simulates how the access to finance trajectory for women would evolve if the initial levels of access for certain key explanatory variables (levels of education, income from ownership of farming, salary, or business, ownership of mobile phone and proximity to mobile money agent) were the same for both men and women.

7. Financial Alliance for Women. HBL Case study.

8. World Bank Database, 2019

9. Financial Inclusion Insights. 2021.

10. World Bank Database, 2020.

11. See e.g., Ali and Hilali. 2021.

12. SBP. Branchless Banking Statistics April–June 2021.

13. SBP, 2018

14. For more information on SBP's Banking on Equality policy please see: https://www.sbp.org.pk/boe/index.html

15. USD/PKR conversation rate as of December 31, 2019, from SBP. https://www.sbp.org.pk/ecodata/crates/2019/Dec/31-Dec-19.pdf

16. Prior to the enactment of the Banking on Equality Policy, there were no gender targets in management KPIs or incentives for action. Under the BOE, managers have outreach targets for increasing the number of women account holders and staff gender diversity, along with a host of other measures. These KPIs will be built into performance of C-suite executives.

17. See SBP's Banking on Equality policy

18. Note that the Alliance for Financial Inclusion already has an ongoing project supporting SBP on implementation of the new policy.

19. Source: Financial Alliance for Women.2021. "HBL Pakistan: The path to inclusion from the inside out.".

20. Source: IMF. https://data.imf.org/fas

21. Source: Financial Alliance for Women. "The UK's Investing in Women Code." Case study.

22. Labor Force Survey of Pakistan, 2020-2021

23. Sources for statistics: CIA World Factbook 2021, Invest Pakistan, WEF Global Gender Gap Report 2021, Global Findex 2017, World Bank Enterprise Survey 2017

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