EFInA - Agent Banking Innovation Forum

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EFInA Access to Financial Services in Nigeria (A2F) 2008 Survey – Analysis and Business Case

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Enhancing Financial Innovation & Access

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Roland Berger analysed the data from the EFInA A2F 2008 survey to develop a business case for expanding access to low income segments

Two step approach to the analysis

1   **ANALYSIS OF SURVEY RESULTS**

- Analysis of mass market trends and consumer patterns towards formal and informal financial products
- Detailed analysis of financial services and penetration, taking into account any income, sector (urban versus rural) and regional biases
- Analysis of the market potential of the low income segment
- Assessment what implications the findings may have for strategic entry into the Nigerian mass market

2   **DEVELOPMENT OF BUSINESS CASE**

- Development of a preliminary business case for Nigerian and international financial institutions, outlining the investment opportunity in the Nigerian mass market
- Profitability assessment of the provision of deposits, loans and remittance services to low income groups (those earning < USD 10 per day)
- Consideration of two business models – expansion of the branch network versus an agent-based strategy

Analysis of three income groups

Analysis assumptions

1 **THREE INCOME GROUPS**

- Daily income of under USD 2 per day (the very low income or "poor" according to the international poverty line) – 57% of the adult population (equivalent to 49 mn adults)

- Daily income of between USD 2-10 per day (low income) – This group is 37% of the adult population (equivalent to 32 mn adults)

- Daily income of over USD 10 per day – 6% of the adult population (equivalent to 5 mn adults)

2 **ACCOUNTING FOR THOSE WHO DID NOT PROVIDE INCOME DETAILS**

- 35% of the respondents (equivalent to 30 mn adults) did not disclose their income

- The income distribution of the whole adult population is assumed to be the same as that of the adults who did provide income details

UBA is the most popular "main bank" amongst all income groups

Main bank

Main bank, by income group

Main bank, population with daily income <USD 2

Rank	Bank	Population ['000]	Rural/ urban
1	UBA	1,028	52% / 48%
2	First Bank	520	49% / 51%
3	Intercontinental	310	59% / 41%
4	Union Bank	196	48% / 52%
5	Oceanic Bank	180	56% / 44%
6	Guaranty Trust	167	16% / 84%
7	Wema Bank	129	11% / 89%
8	Diamond Bank	114	29% / 70%
9	Skye Bank	97	18% / 82%
10	MFBs	95	59% / 41%

Main bank, population with daily income USD 2-10

Rank	Bank	Population ['000]	Rural/ urban
1	UBA	2,304	56% / 44%
2	First Bank	1,177	51% / 43%
3	Union Bank	813	56% / 44%
4	Intercontinental	630	44% / 56%
5	Oceanic Bank	462	58% / 42%
6	Skye Bank	303	38% / 62%
7	Guaranty Trust	268	36% / 64%
8	MFBs	258	56% / 44%
9	Wema Bank	238	26% / 14%
10	Unity Bank	184	61% / 33%

Main bank, population with daily income >USD 10

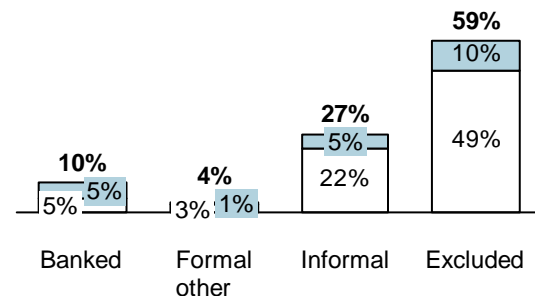| Rank	Bank	Population ['000]	Rural/ urban
1	UBA	551	59% / 41%
2	First Bank	407	61% / 39%
3	Intercontinental	295	35% / 65%
4	Oceanic Bank	240	40% / 60%
5	Union Bank	215	44% / 56%
6	Zenith Bank	107	40% / 60%
7	Bank PHB	90	23% / 77%
8	Diamond Bank	89	49% / 51%
9	Guaranty Trust	88	41% / 59%
14	MFBs	40	46% / 54%

KEY COMMENTS

- 3.9 million adult Nigerians use UBA as their main bank making it the most patronized bank in Nigeria across all income groups

- The highest ranking banks amongst the poor generally have a higher rural branch presence which is where most of the poor live

- Despite the considerable number of MFBs in Nigeria in 2008, a relatively low number of the low income population use MFBs as their main bank
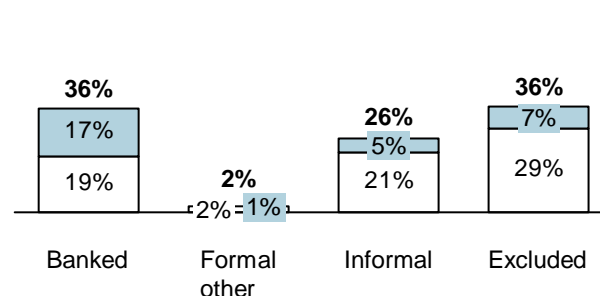
59% of the poor are financially excluded – Financial exclusion is more prevalent in rural areas

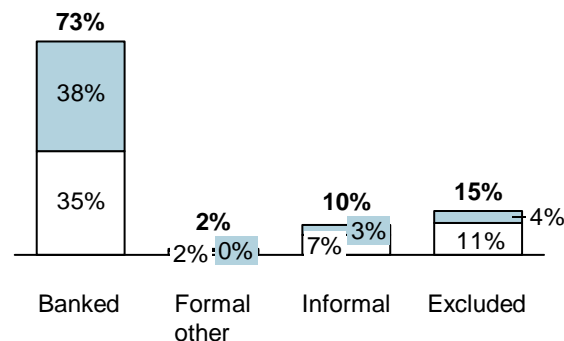## Financial access by income group [% of income group]
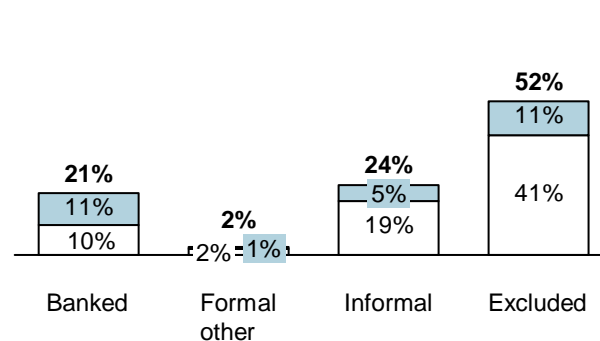
Daily income < USD 2

- Banked: 10% (Urban 5%, Rural 5%)
- Formal other: 4% (Urban 1%, Rural 3%)
- Informal: 27% (Urban 5%, Rural 22%)
- Excluded: 59% (Urban 10%, Rural 49%)

Daily income USD 2-10

- Banked: 36% (Urban 17%, Rural 19%)
- Formal other: 2% (Urban 1%, Rural 2%)
- Informal: 26% (Urban 5%, Rural 21%)
- Excluded: 36% (Urban 7%, Rural 29%)

Daily income > USD 10

- Banked: 73% (Urban 38%, Rural 35%)
- Formal other: 2% (Urban 0%, Rural 2%)
- Informal: 10% (Urban 3%, Rural 7%)
- Excluded: 15% (Urban 4%, Rural 11%)

Total population

- Banked: 21% (Urban 11%, Rural 10%)
- Formal other: 2% (Urban 1%, Rural 2%)
- Informal: 24% (Urban 5%, Rural 19%)
- Excluded: 52% (Urban 11%, Rural 41%)

Legend: Urban / Rural

1) Microfinance bank

KEY COMMENTS

- Financial exclusion is highest amongst the poor (59% are financially excluded)
- Financial exclusion is more prevalent in rural areas
- Banking status is mutually exclusive, and defined as follows:
  – "Banked": access to deposit money banks
  – "Formal other": access to other formal financial institutions such as an insurance company or microfinance bank, or to products inc. pensions or equities
  – "Informal": access to savings clubs, pools, esusu, ajo and money lenders
  – "Excluded": no access to any financial services

Total monthly income in Nigeria is approx. USD 7.1 bn, of which approx. USD 3.6 bn comes from the unbanked

Financial access and monthly income

Financial Access

Bank Status	Population		Monthly Income	
	mn	%	USD (mn)	%
Banked	18.3	21%	3,497	49%
Formal Other	2.2	2%	181	3%
Informal	20.7	24%	1,342	19%
Excluded	45.4	52%	2,118	30%
Total	86.6	100%	7,137	100%

Total unbanked population
68.3 mn

Total monthly income of unbanked
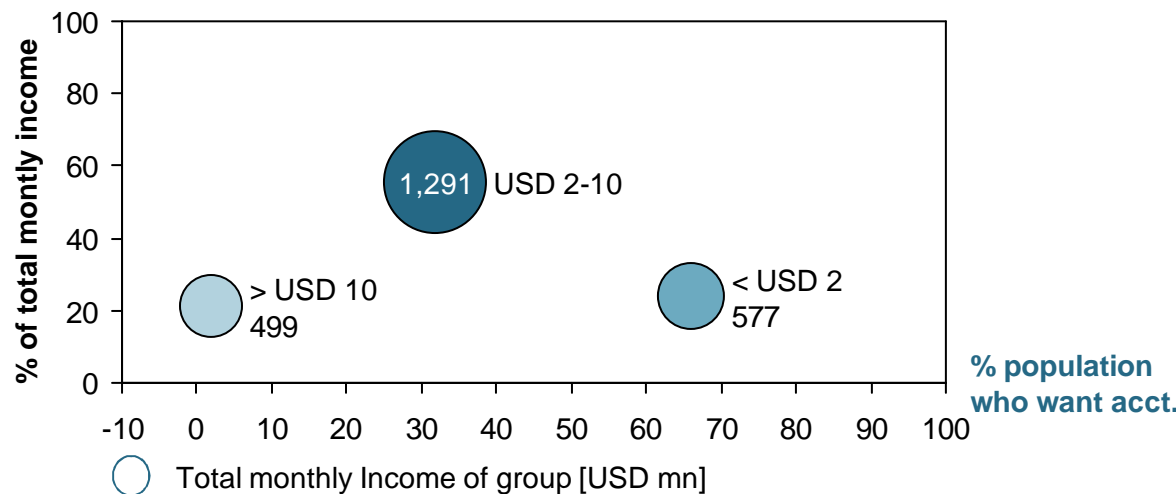 USD 3.6 bn

KEY COMMENTS

- The total monthly income of the unbanked is approx. USD 3.6 bn, slightly more than the total monthly income of the banked which is USD 3.5 bn, which represents a significant opportunity for banks

- A total of 68.3 mn adults (79% of the adult population) are unbanked

The total monthly income of those who want an account in the USD 2-10 income bracket is USD 1.3 bn

Market size for the unbanked who want an account

Monthly income of unbanked who want an account by income group

Income Group	Population		Monthly Income	
	mn	%	USD (mn)	%
< USD 2	27.7	66%	577	24%
USD 2 - 10	13.2	32%	1,291	55%
> USD 10	0.8	2%	499	21%
Total	41.7	100%	2,347	100%

% of total montly income

100
80
60   1,291 USD 2-10
40
20   > USD 10   < USD 2
      499   577
0
-10 0 10 20 30 40 50 60 70 80 90 100

% population who want acct.

○ Total monthly Income of group [USD mn]

KEY COMMENTS

- 61% of the unbanked population - 41.7 mn adults indicated that they would like an account

- The total monthly income of those who indicated they would like an account is USD 2.3 bn

Customers spend a significant amount of their money to get to the bank

Average cost of travelling to a bank when public transport is used

Average one-way trip to a bank [% of income group]

Daily Income < USD 2

Daily Income USD 2-10

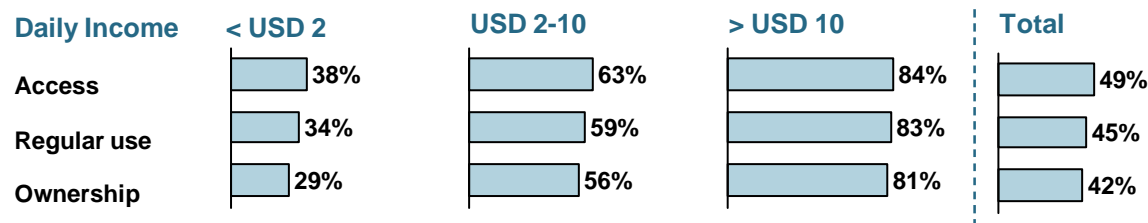Daily Income > USD 10

Fare [NGN]
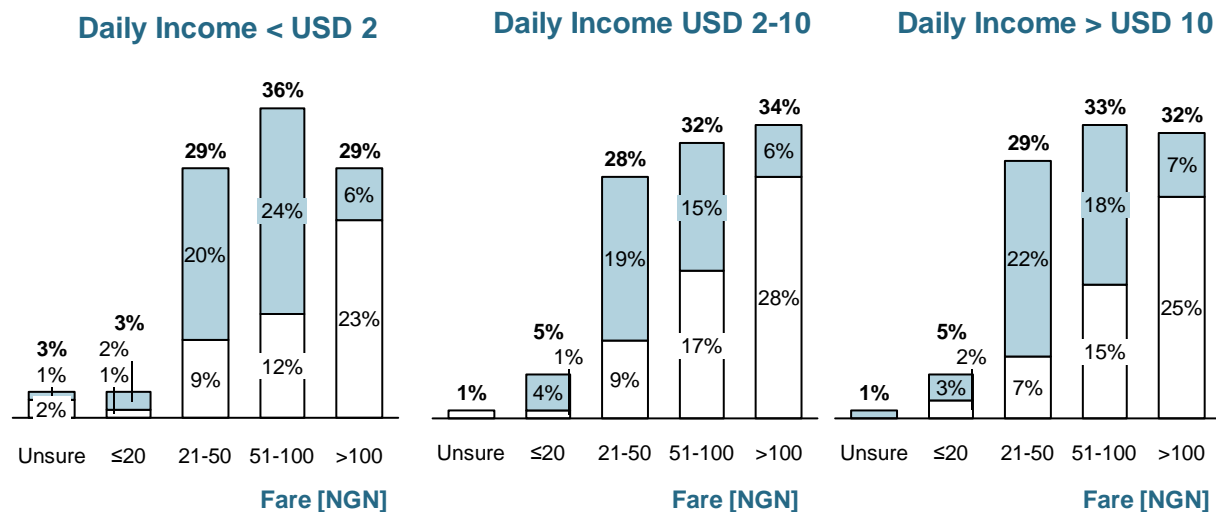
Urban   Rural

KEY COMMENTS

- 80% of the banked population use public transportation to get to the bank

- For a significant percentage of the population who use public transport, the average cost of a one way trip to get to the bank is over NGN 100

- For a poor person, with a daily income of USD 2, a one-way trip of NGN 100 (USD 0.67) may deter him/her from going to the bank, as this is equivalent to one third of their daily income

In 2008, 49% of the population had access to a prepaid mobile – 75% would like information on using technology to manage finances

## Use of mobile phones and for information on using technology for managing finances

Prepaid mobile phone access/usage/ownership

Daily Income	< USD 2	USD 2-10	> USD 10	Total
Access	38%	63%	84%	49%
Regular use	34%	59%	83%	45%
Ownership	29%	56%	81%	42%

Population who want information on using technology to manage finances

Daily Income	< USD 2	USD 2-10	> USD 10	Total
	77%	74%	66%	75%

KEY COMMENTS

- As of 2008, 38% of the poor had access to a prepaid mobile phone compared with only **10%** that are banked

- 75% of the adult population would like information on how to use technology (e.g. ATMs and mobile phones) to better manage their finances
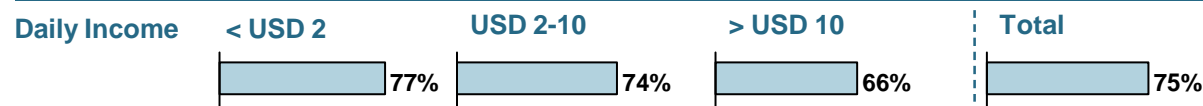
We assessed the profitability of expanding access to deposits, loans and remittances to low income, unbanked people

Creating a profitability assessment for financial access to the low income segment

RESOURCES FOR ANALYSIS

- EFInA Access to financial services in Nigeria 2008 results

- Market research: World Bank, Economist Intelligence Unit, Euromonitor, CBN

- Expert interviews

- EFInA/Roland Berger analysis

- Roland Berger recent experience in West Africa, working with a local bank to launch a mass savings/ loans project
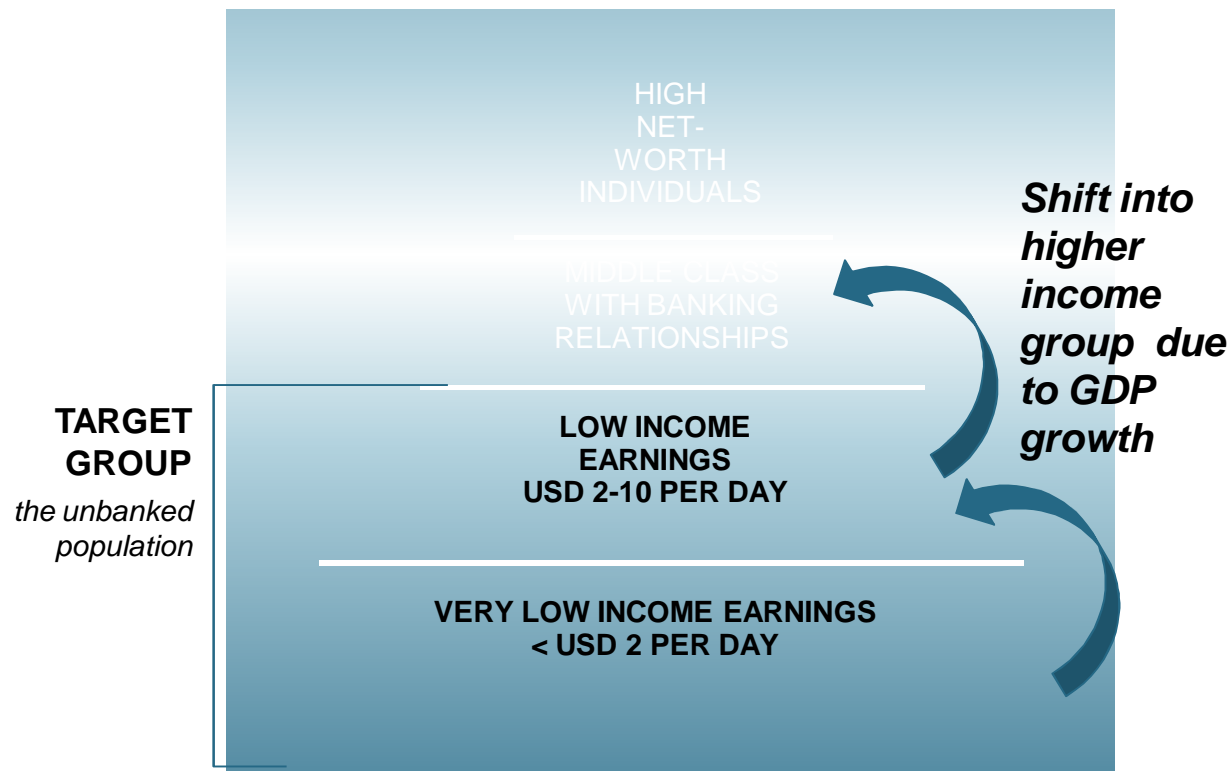
METHODOLOGY AND ASSUMPTIONS

- Target market: Two income groups
  - The adults with an income of < USD 2 per day
  - Adults with income between USD 2 and USD 10 per day
- Products: deposits, loans and remittances
  - Integrated savings/loans model
- Base, best and worst case: Only the base case is shown in this report (for more information, please contact EFInA/Roland Berger)
- Business models: Two different business models
  - Expansion of the branch network
  - Introduction of an agent-based, branchless banking network using POS devices
- Timing: Business case commences in Jan-08, makes assumptions for 2008-10 growth, and forecasts the business opportunity to 2015

☐ **Profitability assessment of savings, loans and remittances to those earning < USD 10 per day**

GDP growth is assumed to affect the income development of the target segments positively

Interdependencies between low income segments and GDP growth

HIGH
NET-
WORTH
INDIVIDUALS

MIDDLE CLASS
WITH BANKING
RELATIONSHIPS

LOW INCOME
EARNINGS
USD 2-10 PER DAY

VERY LOW INCOME EARNINGS
< USD 2 PER DAY

**TARGET
GROUP**

*the unbanked
population*

*Shift into
higher
income
group due
to GDP
growth*

Target group

- Less than USD 2 per day – population below the poverty line (very low income)

- Between USD 2 and 10 per day – population above the poverty line

GDP growth is assumed to cause shifts in income groups

- Target clients with < USD 2 per day will move up to the next income level of USD 2-10 per day

- Target clients with USD 2-10 per day will also move up to the next income group

Differences between the branch and branchless (agent-based) banking model

Overview of analysed banking models

a BRANCH BANKING MODEL	b AGENT-BASED BANKING MODEL
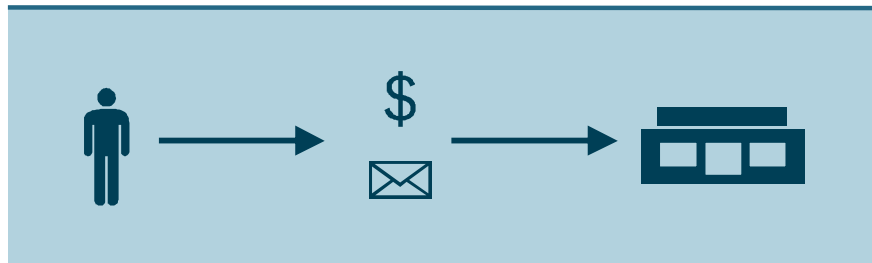
- Client comes to bank (opening hours and distance as hurdles)

- Branches mainly in the urban areas

- Mostly middle to high income customers
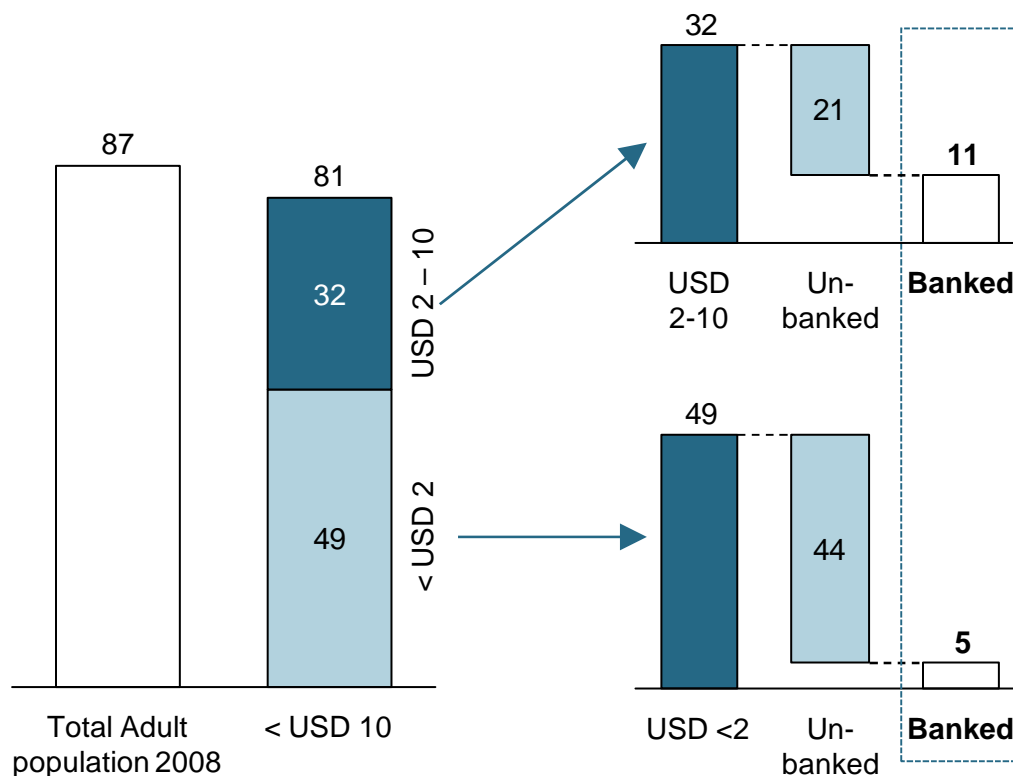
- High fixed cost

- Bank goes to client to mobilise deposits and drive sales

- Possibly also fixed locations with high customer frequency (e.g. at a market)

- Agents trained by bank and paid commission

- Facilitated by handheld devices/mobile phones linked to the Bank's IT system

CONVENTIONAL DISTRIBUTION MODEL   **INNOVATIVE DISTRIBUTION MODEL**

Deposits of USD 14.2 bn can be mobilised annually from the low income segment

"Back of the envelope" calculation – Deposits mobilisation full market potential

Adult population in 2008 (mn)	Adult population in income brackets (mn)	Daily savings (USD mn)	Yearly savings[1] (USD bn)	Yearly deposits (USD bn)

86.7

37% → USD 2-10: **32.0** → 1 $ → USD 2-10: **32.0** → USD 2-10: **8.0**

57% → < USD 2: **49.4** → 0.5 $ → < USD 2: **24.7** → < USD 2: **6.2**

14.2

30% → **4.3 retained deposits**

70% → **9.9 volatile[2] deposits**
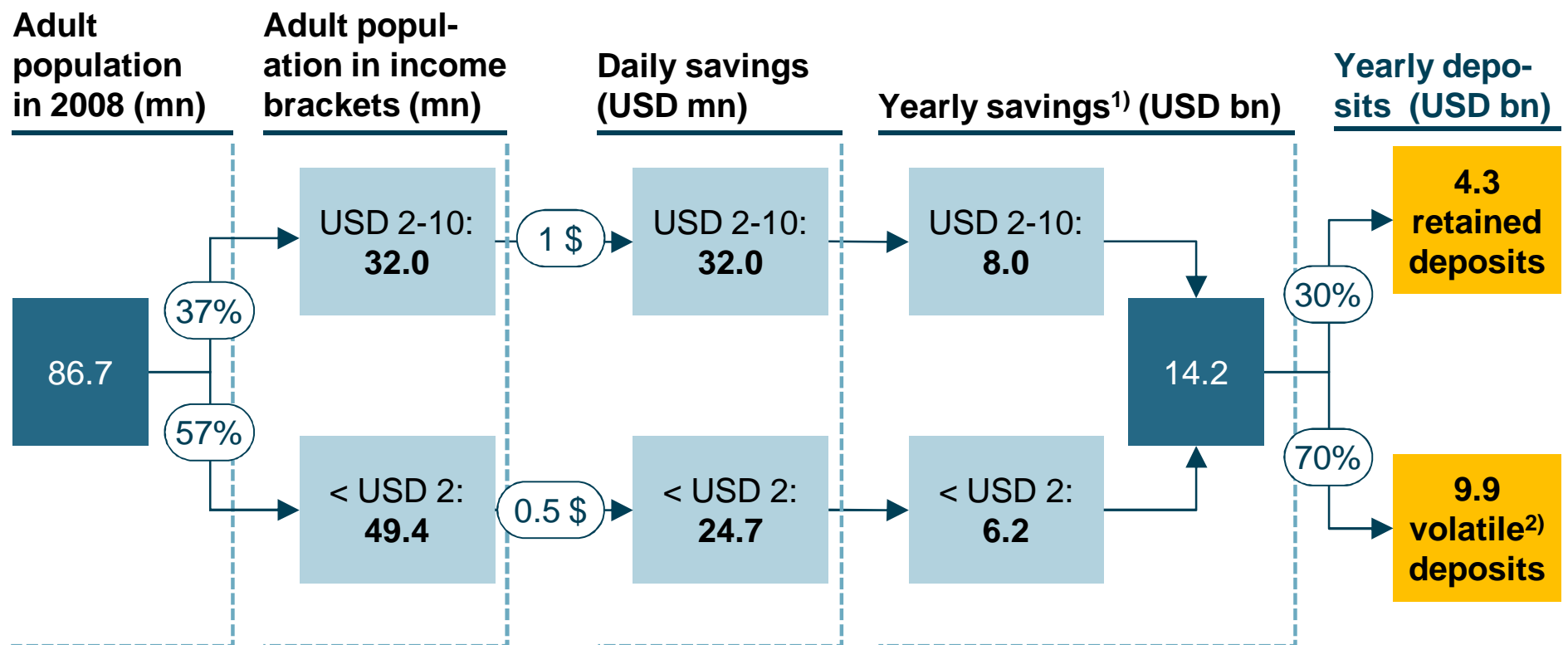
1) 250 business days are assumed 2) Deposits that are going in and out of the accounts during the course of a year

Overview of the components of the business case

Elements of business case – Revenues and costs side

REVENUE ELEMENTS

I Interests revenues from Deposits

II Revenues from ATM cards distribution

III Revenues from withdrawals

IV Revenues from loans

V Revenues from remittances

COST ELEMENTS

VI Operational costs

VII Risk costs

VIII Capital costs

With an agent-based banking model, break even can be reached in 2011 – Branch model is too expensive for target segment

Profits overview, 2008-15 [USD mn]

BRANCH MODEL

		2008	2009	2010	2011	2012	2013	2014	2015
I-V	Total revenues	248	249	345	452	580	726	896	1,084
VI	Operational Costs	1,423	1,536	1,629	1,725	1,824	1,935	2,041	2,160
	Net revenues	-1,176	-1,287	-1,284	-1,273	-1,245	-1,209	-1,145	-1,075
VII	Risk costs	7	8	19	33	49	67	89	114
VIII	Capital costs	4	4	10	17	26	36	48	61
	Total profts	**-1,186**	**-1,298**	**-1,313**	**-1,323**	**-1,319**	**-1,312**	**-1,283**	**-1,250**

AGENT-BASED BANKING MODEL

		2008	2009	2010	2011	2012	2013	2014	2015
I-V	Total revenues	247	248	482	736	1,040	1,387	1,789	2,236
VI	Operational Costs	528	329	488	589	692	797	903	1,012
	Net revenues	-281	-81	-6	148	348	589	886	1,224
VII	Risk costs	6	6	24	44	69	98	131	169
VIII	Capital costs	4	4.7	19	35	55	78	105	135
	Total profts	**-291**	**-92**	**-49**	**68**	**224**	**414**	**649**	**919**

KEY COMMENTS

- Total revenues in branch model are only half of revenues in the agent-based model (USD 1,084 mn vs. USD 2,236 mn in 2015), as the customer base in the conventional branch model is much lower than in the agent-based model

- Higher operational costs at USD 2,160 mn in 2015 in a branch banking model makes access to finance to the poor very unprofitable