# Metodologia

## Methodological Framework

The information published on the institutional site of Associação Angolana de Bancos (ABANC – Angolan Banks Association) on the banking sector has an annual basis, with reference dates to December 31 of each year.

The information contained in the section “Studies and Statistics” of this site allows comparison by time series of the performance of the bank operations and an economical and financial analysis of the sector, in global terms, with the objective of improving the knowledge of the banking activity.

The information on this site was collected by ABANC directly from the financial institutions, the BNA and other relevant sources. The priority when developing this section of statistics is to use official sources to publish reliable information on developments in the sector, in its various aspects.

The data entered in the ABANC’s database, maintaining keeping whenever possible, the similarity with the original source. These values correspond to the best value obtained for each period, where all data has been carefully compiled and verified.

It should be noted that the aggregated balance sheet of the commercial banks presented here results from the simple sum of their individual balance sheets.

In the aggregated analysis by size, the focus in centered on the financial institutions in activity for each period, which are grouped according to their market share of assets[[1]](#footnote-1). To ensure comparability of data and best evolutionary analysis in the period, the segments have the same constitution for all years in the analyzed period, i.e., the grouping of institutions on various size segments for the period 2009-2013 was made according to the distribution of assets in 2013, so that the constitution of the segments were uniform for the entire period.

The Chart 1 shows the distribution of asset by size of financial institution in 2013, when only six institutions have an asset higher than the average of 315 billion Kwanzas in 2013.

Graphic 1 – Distribution pf Assets by Size of Financial Institutions in 2013[[2]](#footnote-2)

Source: IFs; Annual Reports

Arranging the sample segment according to their asset share, the banking system consists of:

* Five large institutions, representing 71,8% of total aggregate assets, equivalent to 4.754 billion Kwanzas;
* Nine medium-sized institutions, representing 26,0% of total aggregate assets, equivalent of 1.720 billion Kwanzas;
* Seven small institutions, representing 2,2% of total aggregate assets, equivalent of 146 billion Kwanzas.

## Limitations

**Acess to Information**

As there is no uniform structure, which defines the degree of detail and breakdown of the data published by financial institutions, ABANC created files that detail the level of disaggregation required in order to maintain comparability between data supplied by its members. One of the biggest challenges has been the collection of this data and obtaining all required elements, since not all members respond timely to information request.

The second limitation is related with the availability of disaggregated information for a more detailed study of the sector and from different perspectives. As noted in the report, there is still lack of information about loans (due and overdue) and deposits (current and term) broken down by instruments, sectors (public sector, corporate and private), currency and by province.

**Loans by Currency**

This breakdown was based on the indicator Loans in Foreign Currency / Total Loans calculated by BNA, presented as part of the Angolan financial system indicators, to infer the proportion of loans by currency. There is no information on the basis for calculating this indicator.

**Decomposition of Loans**

 This breakdown was calculated based on the indicator Overdue Loans / Total Loans presented by DSI (formerly DSB) of the BNA in the financial system indicators to infer the proportion of outstanding loans and due loans over the gross loans. Since not all the banks provided the information regarding the amount of provisions for doubtful loans, this caption was calculated from the ration Provisions for Loans / Total Loans, using the sample with the banks that provided this information.

**Deposits by Currency**

This breakdown was inferred based on the information on deposits presented by DES of BNA in the consolidated balance sheet of commercial banks.

**Decomposition of Deposits**

 This breakdown was calculated by using the situation of deposits in banks presented by DES of BNA to infer the proportion of demand deposits and term deposits, excluding the deposits of Central Government and Autonomous Public Funds and Social Security.

**Distribution of Banking Network by Province**

 The information for mapping the banking network by province was obtained from the data reported by ABANC’s members, and when missing, it was used the data on the annual reports and institutional websites. According to available data, it was not always possible to distinguish the opening date for the agencies, making it difficult to organize the data by periods of time

To calculate the banking indicators for the period 2012-2013, it was used the number of active customers. For the period 2010-2011, it was used the number of depositors that have a Multicaixa card.

## Methodology for Calculations, Ratios and Indicators

Quadro 1 – Calculations, Ratios and Indicators

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| **Active Cards** | Total cards with at least one movement in the month |
| **Activity Index of ATMs** | This is equivalent to the ratio of active ATMs over the registered ATMs$$ Activity Index of ATMS=\frac{Active ATMs}{Registered ATMs}$$ |
| **Activity Index of Multicaixa Payment Cards** | This is the equivalent to the ratio of live payment cards over valid payment cards$$Activity Index of Payment Cards=\frac{Live Cards}{Valid Cards}$$ |
| **Activity Index of POS** | This is the equivalent to the ratio of active POS over registered POS$$Index Activity of POS =\frac{Active POS}{Registered POS}$$ |
| **Classification of the Segments by Nature of the Majority Shareholding** | In accordance with Law no. 13/05, a natural or legal person has relationship of dominion over a society when some of the following situations occur:* The person in question holds the majority of voting rights;
* The person in question is a member of the society and have the right to appoint or dismiss more than half the members of the management board or supervisory board;
* The person can exercise a dominant influence on a society by virtue of a contract or by the clauses of the Statute;
* The person is a shareholder of the society and by virtue of an agreement with the other members, controls by itself the majority of the voting rights;
* The person has a holding equal or superior to 20% of the capital of the society, as long as it practices effectively a dominant influence or is both placed under single management.

The holding is considered to be a majority when the natural or legal person who directly or indirectly holds the qualified holding of the society has a relationship of dominion over the society. It is classified as “Public Bank” the bank institutions whose major shareholder is of public capital (public enterprises, state-owned companies, societies whose major shareholder is of public capital, as well as concessionary companies of public domain goods); “National Private Bank” whose major shareholder is of private Angolan capital; “Foreign Bank Subsidiary” whose major shareholder is a foreign bank institution, or the parent company is a foreign bank institution, and by nature of the holding, it makes the bank established in Angola a subsidiary of the foreign bank institution. |
| **Classification of Segments by Dimension** | It is classified as “Large” the institutions that represent 10% inclusive or more of the aggregate assets; “Medium-sized” the institutions that represent between 1% and 10%; “Small” the institutions that represent 1% inclusive or less of the aggregated assets. |
| **Composed Annual Growth Rate (CAGR)** | $$CAGR=\left(\left(\frac{Value in the End of the Period}{Value in the Beginning of the Period}\right)^{\frac{1}{Number of Years}}\right)-1$$ |
| **Cost-to-Income** | $$Cost-to-Income = \frac{Operating Expenses}{Operating Income}$$ |
| **Degree of Openness of the Economy** | $$Degree of Openness of the Economy= \frac{\left(Exports+Imports\right)}{Nominal GDP}$$According to World Bank, a country is considered commercially open when it reaches a degree of openness of 30%. |
| **Deposits to Loan** | $$Deposits to Loan =\frac{Total Loans}{Total Deposits}$$ |
| **Economy** | Science that deals with the production and consumption of goods and services, the circulation of wealth and income redistribution. |
| **Finance of Financial Assets** | $$Finance of Financial Assets = \frac{Financial Liabilities}{Total Assets} $$ |
| **Financial Liabilities** | $$Financial Liabilities= Total Liabilities – (Advances from Customers + Other Liabilities + Provisions for Probable Liabilities)$$ |
| **Foreign Exchange Non-Resident** | According to Exchange Law, Law no. 5/97 of June 27, a person is considered a foreign exchange non-resident in the following conditions:* Natural persons with usual residence outside Angola;
* Legal persons established outside Angola;
* Emigrants
* The branches offices, subsidiaries, agencies or any form of representation[[3]](#footnote-3) abroad of legal persons established in Angola;
* Funds, institutes, public bodies with administrative and financial autonomy, established in national territory;
* National diplomats, consular representatives or similar and respective relatives, carrying out duties in Angola;
* National citizens who are absent from Angola for more than 1 year.
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| **Foreign Exchange Resident** | According to Exchange Law, Law no. 5/97 of June 27, a person is considered a foreign exchange resident in the following conditions:* Natural persons with usual residence in Angola;
* Legal persons established in Angola;
* The branches offices, subsidiaries, agencies or any form of representation[[4]](#footnote-4) in the country of legal persons established abroad;
* Funds, institutes, public bodies with administrative and financial autonomy, established in national territory;
* National diplomats, consular representatives or similar and respective relatives, carrying out duties abroad;
* National citizens who are absent from Angola for more than 90 days and less than 1 year, for academic, health or public and private office reasons that involve living abroad;
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| **Foreign Exchange Position** | $$Foreign Exchange Position =Total Assets in Foreign Currency-Total Liabilities in Foreign Curreny$$The foreign Exchange position is long (short) when the total assets (liabilities) exceed the total liabilities (assets). |
| **Global Coverage Rate** | $$Global Coverage Rate= \frac{Exports}{Imports}$$A coverage rate superior to 1 (when expressed as a percentage) means that the country has a strong commercial position (commercial competitiveness) while a rate lower than 1 indicates a weak position or commercial dependency (negative trade balance). |
| **Gross Solvency**  | $$Gross Solvency = \frac{Total Equity}{Total Assets} $$ |
| **Gross Value Added (GVA)** | GVA was estimated using the financial statements of banks, applying the following formula:$$GVA=Staff Expenses+Social Benefits + Rents and Leases + Financial Costs + Direct and Indirect Taxes + Profits$$* Staff Expenses – include salaries and other paid remunerations, liquid of taxes deducted at the source and social benefits (such as contributions to social security and pension funds). Whenever possible, the expenses with acquisition of goods and services were excluded.
* Social Benefits – measure the income transferred to the families, in the form of contributions to social security, for pension funds and insurances, among other social expenses.
* Financial Costs – include financial costs and commissions paid. Whenever possible, the commissions paid that represent compensation for services received were excluded.
* Taxes – include direct and indirect taxes, such as income transferred to the State. It is considered that the State is not an entity generating income.
* Profits – include the net income before taxes to neutralize the effect of the different fiscal policies adopted.
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| **Herfindahl Hirschman Index** | The Herfindahl Hirschman Index (HHI) measures the degree of concentration in the relevant markets, calculating by summing the squares of the individual market shares of the banks. This índex was used to measure market shares of assets, loans, deposits, number of branches and number of automatic terminals. The Federal Trade Commission of the United States of America [3] considers that a HHI<1500 indicates low concentration, 1500<HHI<2500 indicates moderate concentration and HHI> 2500 indicates high concentration. |
| **Liquidity Ratio in Foreign Currency** | $$Liquidity Ratio in Foreign Currency = \frac{Cash and Cash Equivalents \left(in BNA+Abroad\right)}{Deposits in Foreign Currency}$$ |
| **Live Cards** | Total valid cards used on the network until the last day of the month |
| **Other Costs and Losses** | $$Other Costs and Losses = Taxes + Penalties + Other Administrative Costs +Cost Recovery + Provisions for Losses$$ |
| **Other Not-Remunerated Assets** | $$Other Not-Remunerated Assets =$$$$Other Values + Commercial and Industrial Customers +Fixed Assets$$ |
| **Other Remunerated Assets** | $$Other Remunerated Assets= Cash and Cash Equivalents+Loans in the Payment System + Derivative Financial Instruments + Foreign Exchange Transactions$$ |
| **Population Density**  | $$Population Density = \frac{Population}{Area}$$Measure that relates the number of individuals with the area they occupy, expressed in number of inhabitants per Km2, indicating the average existing inhabitants per square kilometer. |
| **Quick Ratio** | $$Quick Ratio = \frac{Cash and Cahs Equivalents}{Fiancial Liabilities}$$ |
| **Regulatory Solvency Ratio (RSR)** | $$RSR= \frac{Regulatory Equity}{Loans Risk +\frac{Gold and Foreign Exchange Risk}{10\%}} \geq 10\%$$ |
| **Relevance of Subordinated Debt** | $$Relevance of Subordinated Debt = \frac{Deposits}{Financial Liabilities} $$ |
| **Return on Average Assets (ROAA) and Return on Average Equity (ROAE)** | $$Leverage Ratio = \frac{ Average Total Assets}{Average Total Equity}$$$$ROAA = \frac{Net Income}{ Average Total Assets}$$$$ROAE = ROAA x Leverage Ratio$$ |
| **Short Term Assets to Total Assets** | $$Short Term Assets to Total Assets =\frac{\left(Short Term Investments+Securities\right)}{Total Assets}$$ |
| ***Spread*** | Difference between the interest rates of loans granted and interest paid for these in funding received$$Spread = \frac{Interest Rates of Loans}{Interest Rates for Term Deposits} $$ |
| **Total Reserves in Months of Imports** | $$Total Reserves in Months of Imports = \frac{Gross Reserves}{Months of Imports }$$ |
| **Valid Cards** | Total cards registered on the network that has a valid expiration date on the last day of the month |

1. The instances where the sample was adjusted for lack of data are mentioned in a footnote. [↑](#footnote-ref-1)
2. The sample in 2013 consists of 21 institutions, for the BKI bank has not been included for lack of data. [↑](#footnote-ref-2)
3. The BNA defines the concept of stable establishment according to the Law of Commercial Societies (Law no. 4/2004) [↑](#footnote-ref-3)
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