

## Methodological note of the Financial Soundness Indicators

The Financial Soundness Indicators (FSIs) of the International Monetary Fund (IMF) provide an assessment of the financial health of a country's financial institutions, as well as their counterparts, which include non-financial corporations, households, and public institutions.

The compilation and publication of these indicators began in the early 2000s in response to the financial crisis of the late 1990s. Their main objective was to obtain consistent and internationally comparable macroprudential indicators.

Following the publication of the IMF's *“2019 Financial Soundness Indicators Compilation Guide”* (hereinafter, the Compilation Guide), which was scheduled for implementation in 2022, the informational requirements were expanded. This revision involved extending the coverage of financial sector indicators to include money market funds, insurance companies, and pension funds. Additionally, the number of existing indicators related to deposit-taking institutions, non-financial corporations, and households was increased. Furthermore, new metrics for capital, liquidity, and asset quality, as well as measures of concentration and distribution, were incorporated.

The methodology used to compile these indicators is detailed in the Compilation Guide, available on the IMF website ([link](#)). Additionally, the compilation of indicators corresponding to the sections “Core set” and “Additional Set (I)” follows the guidelines of the European Banking Authority ([link](#)).

The FSIs for all reporting countries (including Spain) can be consulted on the IMF data portal ([link](#)).

## CORE SET

### DEPOSIT TAKERS

#### Capital Adequacy

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Regulatory capital to risk-weighted assets	BdE	Q	Regulatory capital refers to the Basel Committee on Banking Supervision (BCBS) definition of capital. Risk-weighted assets arise from the application of risk weights to all on- and off-balance sheet assets.	5.75 - 5.81 / 5.82
Tier 1 capital to risk-weighted assets	BdE	Q	Tier 1 capital is divided into two components: ordinary Tier 1 capital and additional Tier 1 capital. The former mainly includes issued ordinary shares, surplus shares, retained earnings, accumulated other comprehensive income and available reserves. The second component consists of subordinated instruments without maturity and not guaranteed or covered by a guarantee from the issuer.	5.76 - 5.77 / 5.82
Nonperforming loans net of provisions to capital	BdE	Q	Value of nonperforming loans ( <i>NPLs</i> ) minus the value of specific provisions for credit losses on nonperforming loans ( <i>NPLs</i> ) divided by total regulatory capital.	5.94 / 5.75 - 5.81
Common Equity Tier 1 capital to risk-weighted assets	BdE	Q	Common equity Tier 1 capital is primarily composed of issued common shares, excess shares, retained earnings, accumulated other comprehensive income and available reserves.	3.27 / 5.82
Tier 1 capital to assets	BdE	Q	Provides an indication of financial leverage that is, the extent to which assets are funded by other than own funds.	5.76 - 5.77 / 5.33 - 5.35

### Asset Quality

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Nonperforming loans to total gross loans	BdE	Q	Value of nonperforming loans (NPLs) divided by the total value of the loan portfolio (including nonperforming loans (NPLs) and before deduction of specific provisions for bad debts). Additionally, and as noted in section 7.29 of the Compilation Guide, the denominator must exclude loans between deposit institutions of the reporting population that are part of the same group.	5.94 - 5.96 / 5.41 - 5.43
Loan concentration by economic activity	BdE	Q	Loans to the three most important economic activities over total gross loans to nonfinancial corporations. The economic activity credit is based on the United Nations International Standard Industrial Classification (ISIC), Rev. 4 (ISIC Rev.4) at its highest level.	
Provisions to nonperforming loans	BdE	Q	Value of specific provisions for nonperforming loans (NPLs) divided by nonperforming loans (NPLs). It provides a measure of the amount of future losses that would be incurred if all NPLs were written-off.	5.48 / 5.94 - 5.96

### Earnings and Profitability

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Return on assets	BdE	Q	Annualized net result before taxes on average total assets. Indicator that measures the profitability of the entity's total assets. It expresses the economic profitability of the entity, regardless of the way in which the asset is financed.	5.13 - 5.31 / 5.33 - 5.35
Return on equity	BdE	Q	Annualized net result after taxes on the average of total capital and reserves. Indicator that measures the return on capital invested by shareholders. Specifically, it measures the profitability obtained by the entity on its own funds.	5.13 - 5.31 / 5.70 - 5.72
Interest margin to gross income	BdE	Q	Measures the relative share of net interest income within gross income. This ratio is a gauge of the relative importance of the income generated by the intermediation business of DTs.	5.13 - 5.15 / 5.16
Noninterest expenses to gross income	BdE	Q	Measures the relation between non-intermediation expenses and gross income. This indicator, often called the efficiency ratio, provides insights into the portion of gross revenues required to cover operating expenses.	5.25 / 5.16

### Liquidity

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Liquid assets to total assets	BdE	Q	Provides an indication of the liquidity available to meet expected and unexpected cash outflows.	5.90 - 5.92 / 5.33 - 5.35
Liquid assets to short term liabilities	BdE	Q	This indicator is intended to capture the liquidity mismatch of assets and liabilities and provides an indication of the extent to which short-term withdrawal of funds could be met without facing liquidity problems.	5.90 - 5.92 / 5.93
Liquidity Coverage Ratio	BdE	Q	Liquidity buffer on net liquidity outflow. Indicator of banks' ability to survive a 30-day liquidity stress scenario. The numerator is High Quality Liquid Assets (HQLA), defined as assets that would be liquid in times of stress and ideally would be eligible collateral for the central bank's liquidity facilities. The denominator is the net cash outflows arising from the application of haircuts prescribed by the supervisor to different categories of financing and the assumptions specified by the supervisor regarding the availability of financing sources in a stress scenario.	5.85 / 5.86
Net Stable Funding Ratio	BdE	Q	Amount of stable financing available over the amount of stable financing required. It is an indicator of banks' ability to withstand market disruption over a one-year-time horizon.	5.87

### REAL ESTATE MARKETS

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Residential real estate prices (Percentage change/last 12 months)	INE	Q	Chain-linked Laspeyres index, calculated on the purchase and sale prices of new and second-hand housing and excluding protected dwellings. A dwelling is deemed to be new when it is the first transfer on the deed of sale. More information <a href="#">here</a> .	10.74 - 10.78

## ADDITIONAL SET (I)

### DEPOSIT TAKERS

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Large exposures to capital	BdE	Q	It is intended to identify vulnerabilities arising from the concentration of credit risk. Large exposures refer to one or more credit exposures to the same counterparty or group of related counterparties that exceed a specific percentage of capital. The calculation is carried out in accordance with Regulation (EU) No. 575/2013.	
Geographical distribution of loans	BdE	Q	Indicator that provides information on the geographical distribution of gross loans, by regional grouping of countries. It allows the monitoring of credit risk arising from exposures to a group of countries.	5.41 - 5.43
<i>Breakdown of the geographical distribution of loans</i>				
<i>Domestic economy</i>	BdE	Q	Loans to counterparties resident in Spain over total gross loans.	
<i>Advanced economies</i>	BdE	Q	Loans to counterparties located in advanced economies over total gross loans.	
<i>Emerging market and developing economies</i>	BdE	Q	Loans to counterparties located in emerging economies over total gross loans.	
<i>Emerging and developing Asia</i>	BdE	Q	Loans to counterparties located in emerging and developing economies (Asia) over total gross loans.	
<i>Emerging and developing Europe</i>	BdE	Q	Loans to counterparties located in emerging and developing economies (Europe) over total gross loans.	
<i>Latin America and the Caribbean</i>	BdE	Q	Loans to counterparties located in Latin America and the Caribbean over total gross loans.	
<i>Middle East and Central Asia</i>	BdE	Q	Loans to counterparties located in the Middle East and Central Asia over total gross loans.	
<i>Sub-Saharan Africa</i>	BdE	Q	Loans to counterparties located in Sub-Saharan Africa over total gross loans.	

Gross asset position in financial derivatives to capital	BdE	Q	Market value of active financial derivatives over total regulatory capital.	5.55 - 5.65 / 5.75 - 5.81
Gross liability position in financial derivatives to capital	BdE	Q	Market value of passive financial derivatives over total regulatory capital.	5.55 - 5.65 / 5.75 - 5.81
Trading income to total income	BdE	Q	Gains or losses on financial instruments over gross income.	5.19 - 5.21 / 5.16
Personnel expenses to non-interest expenses	BdE	Q	Personnel expenses over gross non-interest expenses.	5.25 / 5.26
Customer deposits to total (noninterbank) loans	BdE	Q	Measures the share of gross loans (excluding interbank activity) funded through customer deposits.	5.40 / 5.41 - 5.43
Credit growth to private sector	BdE	Q	Interannual growth rate of total credit to the nonfinancial private sector. Credit to the nonfinancial private sector includes loans granted by credit institutions to the non-financial private sector, plus debt securities issued by nonfinancial corporations in the hands of credit institutions.	5.103

## ADDITIONAL SET (II)

### OTHER FINANCIAL CORPORATIONS

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
OFCs' assets to total financial system assets	BdE, CNMV, DGSFP	A	Balance sheet information, which includes non-financial assets. Central bank assets are excluded from the total financial system assets figure. The Other Financial Corporations aggregate includes all financial institutions except the Central Bank and deposit takers. The sectorisation of entities is done according to the European System of Accounts (ESA2010). More information <a href="#">here</a> .	9.12 - 9.18
<i>Money Market Funds</i>	BdE, CNMV	A	Funds that issue shares which are close substitutes for deposits. These funds invest, on their own account, on shares issued by other Money Market Funds, short-term debt securities and/or deposits.	
<i>Insurance Corporations</i>	BdE, DGSFP	A	Financial corporation or quasi-corporation that is principally engaged in financial intermediation as a consequence of the pooling of risks mainly in the form of direct insurance or reinsurance.	
<i>Pension Funds</i>	BdE, DGSFP, GV	A	Financial corporation or quasi-corporation that is principally engaged in financial intermediation as the consequence of the pooling of social risks and needs of the insured persons (social insurance). A pension fund as a social insurance scheme provides income in retirement and may provide benefits for death and disability	
OFC's assets to gross domestic product	BdE, CNMV, DGSFP, INE, IMF	A	The denominator of the ratio is the Gross Domestic Product (GDP) at current prices. For periods where the final national accounting data is not available, the estimate provided by the IMF in the World Economic Outlook (WEO) is used	9.19 - 9.23
<i>Money Market Funds</i>	BdE, CNMV	Q	See " <i>Money Market Funds</i> " under the indicator " <i>OFC assets to total financial system assets</i> "	
<i>Insurance Corporations</i>	BdE, DGSFP	A	See " <i>Insurance Corporations</i> " under the indicator " <i>OFC assets to total financial system assets</i> "	
<i>Pension Funds</i>	BdE, DGSFP	A	See " <i>Pension Funds</i> " under the indicator " <i>OFC assets to total financial system assets</i> "	

## ADDITIONAL SET (II)

### MONEY MARKET FUNDS

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Sectoral distribution of investments	BdE, CNMV	Q	Sectors which are object of investment by Money Market Funds. More information on the sectorisation of entities <a href="#">here</a> .	9.28 - 9.32
<i>Breakdown of the sectoral distribution of investments</i>				
<i>Residents</i>	BdE, CNMV	Q	Entities that have their predominant centre of economic interest in Spain, i.e. they carry out their economic activities in the national territory for an extended period of time (one year or more).	
<i>Central bank</i>	BdE, CNMV	Q	Bank of Spain. The Central Bank is a financial institution whose main function is to issue currency, maintain its domestic and foreign value, and manage all or part of the country's international reserves.	
<i>Deposit takers</i>	BdE, CNMV	Q	Entities that are mainly engaged in the collection of deposits from other institutional units and in granting loans and/or investing in securities on their own account.	
<i>Other financial corporations</i>	BdE, CNMV	Q	The Other Financial Corporations aggregate includes all financial institutions except the Central Bank and deposit takers.	
<i>Central government</i>	BdE, CNMV	Q	Administrative bodies of the State and other central bodies whose competence normally extends to the entire economic territory, with the exception of the Social Security Funds of the central administration.	
<i>Other general government</i>	BdE, CNMV	Q	Public administrations that are not part of the Central Administration. It includes the regional Governments, Local Governments and Social Security Funds.	
<i>Nonfinancial corporations</i>	BdE, CNMV	Q	Institutional units with legal personality that are market producers and whose main activity is the production of non-financial goods and services.	
<i>Nonresidents</i>	BdE, CNMV	Q	Residents in other economies	



Maturity distribution of investments	BdE, CNMV	Q	Distribution by remaining time to maturity of financial instruments held by money market funds.	9.33 - 9.39
<i>Breakdown of the maturity distribution of investments</i>				
1–30 days	BdE, CNMV	Q		
31–90 days	BdE, CNMV	Q		
> 90 days	BdE, CNMV	Q		

## ADDITIONAL SET (II)

### INSURANCE CORPORATIONS AND PENSION FUNDS

#### Insurance Corporations

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Shareholder equity to total invested assets	BdE, DGSFP	A	Calculated as ratio between capital and reserves and holdings of currency and deposit, loans, debt securities, equity and investment fund shares, other financial assets, and financial derivatives plus their nonfinancial assets held for investment purposes	9.47 – 9.53
<i>Life insurance</i> <sup>1</sup>	BdE, DGSFP	A	Financial corporation or quasi-corporation that provides life insurance services, where policyholders make regular or one-off payments to the insurer in return for which the insurer guarantees to provide the policyholders with an agreed sum, or an annuity, at a given date or earlier	
<i>Nonlife insurance</i> <sup>2</sup>	BdE, DGSFP	A	Financial corporation or quasi-corporation that provides non-life insurance services to cover risks such as, for example, risks of accidents, sickness, fire or credit default.	
<i>Life and nonlife insurance</i>	BdE, DGSFP	A	Sum of life and nonlife insurance	
Combined ratio (nonlife insurance only)	BdE, DGSFP	A	Calculated as the sum of net incurred losses and underwriting expenses divided by net earned premiums.	9.54 – 9.57
Return on assets (life insurance only)	BdE, DGSFP	A	Ratio where the numerator is defined as net income and the denominator is total assets.	9.58 – 9.63
Return on equity	BdE, DGSFP	A	Ratio where the numerator is defined as net income and the denominator is total capital.	9.64 – 9.68
<i>Life insurance</i> <sup>1</sup>	BdE, DGSFP	A	See detail “Life insurance” in indicator “Shareholder equity to total invested assets”	
<i>Nonlife insurance</i> <sup>2</sup>	BdE, DGSFP	A	See detail “Nonlife insurance” in indicator “Shareholder equity to total invested assets”	
<i>Life and nonlife insurance</i>	BdE, DGSFP	A	See detail “Life and Nonlife insurance” in indicator “Shareholder equity to total invested assets”	

<sup>1</sup> and <sup>2</sup> For the purposes of these indicators, composite insurance corporations (authorized to carry on both life and non-life insurance activities), have been included in life or non-life business based on their accounting technical provisions. That is, composite insurance corporations, have been included in or the other according to the weight of their provisions.

**Pension Funds**

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Return on assets	BdE, DGSFP, GV	A	Ratio where the numerator is defined as net income and the denominator is total assets.	9.75 – 9.80

## ADDITIONAL SET (III)

### NONFINANCIAL CORPORATIONS, HOUSEHOLDS AND REAL ESTATE MARKETS

#### Nonfinancial Corporations

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Total debt to equity	BdE	Q	Nonfinancial corporations' debt includes loans, debt securities, trade credit and other liabilities. The accounting concept of capital involves listed and unlisted shares and other equity	10.9 - 10.12
External debt to equity	BdE	Q	Gross external debt includes financial liabilities to non-resident creditors considered non-contingent and that imply the commitment of future payments. Therefore, equity, financial derivatives and monetary gold bullion are not included. The accounting concept of capital involves listed and unlisted shares and other equity	10.13 - 10.16
Total debt to GDP	BdE, INE, IMF	Q	Nonfinancial corporations' debt includes loans, debt securities, trade credit and other liabilities. The denominator of the ratio is the Gross Domestic Product (GDP) at current prices. For periods where the final national accounting data is not available, the estimate provided by the IMF in the World Economic Outlook (WEO) is used.	10.22 - 10.25
Return on equity	BdE, INE	Q	ROE is calculated using quarterly net income after taxes and the average value of capital of the last quarters. The accounting concept of capital involves listed and unlisted shares and other equity	10.26 - 10.30
Earnings to interest expenses	INE	Q	This FSI is calculated by dividing net income after taxes by interest expenses over the same period. Both magnitudes should be annualized.	10.36 - 10.41

### Households

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Debt to Gross Domestic Product	BdE, INE, IMF	Q	This FSI is calculated by using household debt which includes consumer loans, mortgages and other purpose loans. The denominator of the ratio is the Gross Domestic Product (GDP) at current prices. For periods where the final national accounting data is not available, the estimate provided by the IMF in the World Economic Outlook (WEO) is used.	10.45 – 10.48
Debt to household disposable income	BdE, INE	Q	Household debt includes consumer loans, mortgages, and other purpose loans. Gross disposable income includes wages and salaries, property income receivable, current transfers and others, minus taxes (including social security contributions and other current transfers).	10.53 – 10.57

### Real Estate Markets

INDICATOR	SOURCE(S)	PERIODICITY	OBSERVATIONS	COMPILATION GUIDE SECTION
Commercial real estate prices (percentage change/last 12 months)	BdE	Q	Hedonic price, calculated on the sales and purchases of properties in which some type of commercial activity is carried out. More information <a href="#">here</a> .	10.79 - 10.83
Residential real estate loans to total gross loans	BdE	Q	It provides a metric to gauge the exposure of DTs to the residential real estate market.	5.97 / 5.41 - 5.43
Commercial real estate loans to total gross loans	BdE	Q	It provides a metric to gauge the exposure of DTs to the commercial real estate market.	5.98 / 5.41 - 5.43

## Annex I: Acronyms and abbreviations used in the note

### Source

Acronym	Institution
BdE	Banco de España (Bank of Spain)
INE	Instituto Nacional de Estadística (National Statistics Institute)
CNMV	Comisión Nacional del Mercado de Valores (National Securities Market Commission)
DGSFP	Dirección General de Seguros y Fondos de Pensiones (Directorate-General for Insurance and Pension Funds)
GV	Gobierno Vasco (Basque Government)
IMF	International Monetary Fund

### Periodicity

Abbreviation	Frequency
Q	Quarterly
A	Annual