

The Banco de España's
analysis and research
priorities for 2020-2024.
2022 update



Summary

In 2020, the Banco de España defined the strategic framework for its **medium-term analysis and research priorities**, which were grouped under five main headings: central bank policies and their interactions; the main long-term trends in the Spanish economy; risks and opportunities arising from the international environment; the aggregate consequences of household and firm heterogeneity; and the challenges posed by new technologies.

Various work streams were established in 2020 within each of these analysis and research priorities. In view of the changing economic environment, these work streams were **updated in 2021**, when many were preserved, others were reoriented and some new ones were included.

In 2022, as part of the annual exercise to monitor and update the Banco de España's analysis and research priorities, these work streams have again been reviewed. In particular, in the coming quarters, our analysis will concentrate mainly on five key work streams:

- The present inflationary episode and its implications for the main macroeconomic aggregates, the monetary policy stance and implementation, financial stability and macroprudential policies.
- The unequal impact that the rise in inflation, the change in the monetary policy stance and the energy crisis are having on certain groups of households and firms, and on the financial system.
- The risks of global financial and trade fragmentation and the European response to the current difficult environment, focusing in particular on the measures envisaged in the area of energy policy and open strategic autonomy, and in the framework of the review of the European fiscal rules.
- The structural reforms recently approved – or currently under debate – in Spain and NGEU implementation, and their capacity to boost the potential medium and long-term growth of the Spanish economy.
- The risks and opportunities – for financial institutions, consumers and the stability of the financial system as a whole – posed by various technological innovations currently being developed, such as the digital euro, or gradually being introduced into financial operations.

As part of the internal transformation exercise that was launched in January 2020 with the approval of the **Strategic Plan 2024**, the Banco de España is seeking to strengthen its analytical work. The aim is to address the challenges that the various transformations of the economic and social environment pose for the performance of its functions as a national central bank and member of the European System of Central Banks.

To this end, having identified the most relevant issues that may affect the economic welfare of Spanish society at different time horizons, in October 2020 the Banco de España published its **analysis and research priorities for the period 2020-2024**, organised under five main headings:

- 1 Central bank policies and their interactions.
- 2 Long-term trends in the Spanish economy.
- 3 Risks and opportunities arising from the international environment.
- 4 The aggregate consequences of household and firm heterogeneity.
- 5 New technologies and information sources: challenges for a central bank.

Since then, these five areas of analysis have crystallised into various work streams, whose focus and priority has been adjusted over time to adapt to a changing economic and geopolitical environment. In 2020, for instance, major efforts were made to study the impact of the economic measures adopted in response to the COVID-19 crisis, the challenges posed by negative interest rates, the factors behind low trend inflation, the development of sustainable finance, and the implications of the digital transformation of the banking business. By contrast, **in 2021, analysis was concentrated**, inter alia, on the medium and long-term implications of the pandemic crisis, the unequal impact it has had on households and firms and the role of economic policy, the possible impact of the NGEU programme in Spain, the economic and financial consequences of climate change, and the implications of the development and introduction of the digital euro.

In view of the most recent economic and geopolitical developments, and the new challenges and issues arising as a result, a new update of the priority work streams for the coming quarters is in order, in all cases in the framework of the five main areas of analysis defined in 2020.

First, as regards central bank policies and their interactions, the emphasis will be placed on:

- the current **inflationary episode** and its macroeconomic implications: the feedback loop between prices and wages, changes in consumer and saving patterns, pass-through of higher costs -especially gas and electricity costs- to prices and corporate earnings, relationship between financial stability and inflation, etc.;
- the impact of the **change in the monetary policy stance** – in light of the inflationary episode – on the key financial markets, in terms of its transmission, its pass-through to bank rates, the financial position of Spanish households and firms and bank solvency; interaction between the different instruments (interest rate hikes and reduction in central

banks' balance sheets) along the optimal monetary policy normalisation path in a high inflation setting;

- **interaction between fiscal and monetary policy:** effects of broad-based fiscal support measures compared with measures targeting inflation; fiscal conditionality and instrumentation of the ECB's new mechanism to protect monetary policy transmission (TPI); risks of financial fragmentation in the euro area;
- **interconnections** between the main components of the financial system and their role in the transmission of financial risk, with particular emphasis on the activity of non-bank financial institutions and the structural changes in financial markets of interest to central banks;
- the costs and benefits of applying **macroprudential tools** to the banking sector and their effectiveness in mitigating systemic risk; the usability of capital buffers;
- analysis of a potential **simplification of the solvency and resolution arrangements** for credit institutions compared with the current prudential requirements.

Second, in relation to the long-term trends in the Spanish economy, greater priority will be given to the study of:

- changes in **energy dependence** patterns, in the configuration of the electricity market in Spain and, in the course of the **energy transition:** implications for the Spanish economy and its growth capacity, for the different sectors of activity –which interact through their input-output linkages—and for the inflation dynamics;
- the **implications of climate change for monetary policy and central bank activity:** conceptual development of the prudential framework to enable banks to mitigate both the transition and the physical risks of climate change; assessment of the effects of climate change on the long-term growth of the Spanish economy and by economic sector; assessment of the investment made and measures taken; analysis of the barriers to implementation of some **sustainable finance** solutions provided by new technologies; study of the sustainability information content of corporate annual reports; inclusion of sustainability factors in government debt markets, portfolio management and monetary policy conduct;
- **debt sustainability:** the respective roles of fiscal consolidation and potential growth;
- factors that explain the **growth in inequality** (in terms of employment, gender, health, etc.) in recent crises;
- the impetus that automation and digitalisation are giving to **Spanish economic productivity** and changes in the labour market; the capacity of **NGEU and the structural reforms** to lift

the potential medium and long-term growth of the Spanish economy;

- the consequences of **population ageing** on economic activity and employment, and the effectiveness of the public policies aimed at enhancing the work-life balance.

Third, in the area of risks and opportunities arising from the international environment, analysis of the following issues will be strengthened:

- the **risks of global financial and trade fragmentation** and their implications for global value chains, global financial stability and the role of multilateralism;
- the **European response to the current complex energy and geopolitical juncture**, with measures such as the “**Open Strategic Autonomy**” policies, the REPowerEU Plan, the implementation and financing of the **NGEU** recovery plan, and progress in the strengthening of the euro area, with institutional changes such as the review of the **fiscal rules**;
- **assessment of the structural reforms** recently approved – or under discussion – in Spain, and the NGEU-related reforms (labour market reform, tax system reform, pension system reform, etc.);
- the impact of the recent crises on the economies of **Latin America** and their interaction with the Spanish economy.

Fourth, as regards the aggregate consequences of household and firm heterogeneity, greater priority will be given to the study of:

- the **unequal impact that the rise in inflation, the change in the monetary policy stance and the energy crisis** are having on the different types of households and their saving, spending and house purchase decisions, on the different types of firms, and on financial markets;
- the development of methods to **identify the most vulnerable groups in a crisis situation**, with particular emphasis on: measuring households’ financial position, **the role of financial literacy and financial education**, assessment of measures to encourage **inclusion**, and the identification of best international practice in terms of labour market institutions and employment policies;
- the **risk of financial exclusion** and **access to cash**: geographical distribution of the demand for and access to cash, heterogeneity across households, the use of means of payment and assessment of measures;

- the **geographical dimension** of heterogeneity (regional, provincial or local) in several dimensions, for instance, the economic impact of regulation in Spain.

Lastly, in the area of the challenges that new technologies and information sources pose for a central bank, the study of the following aspects will be strengthened:

- the **digital euro** and the implications of the **introduction of a central bank digital currency** for the financial system and the economy as a whole: international alternatives and their limitations, possibilities and impact of solutions for the wholesale market, integrated digital identity management, privacy management, programmability, impact on the use of cash and aspects relating to the coexistence of digital and non-digital central bank currency;
- new technologies and **financial innovation**: international alternatives and ways to stimulate innovation that may supplement Sandbox developments; **FinTech** developments, existing **cryptocurrencies** and crypto-asset options, such as **decentralised finance** (DeFi), non-fungible tokens (NFTs) or various financial sector distributed ledger technology (DLT) applications; risks and opportunities of the use of artificial intelligence and machine learning techniques in **financial services**; identification of risks and good practice in the **digital transformation of the banking sector** and establishment of the main lines of regulation for appropriate supervision and mitigation of the risks to financial stability linked to new technologies, including crypto-assets;
- the effects of **innovation in retail payments** for central banks' oversight functions and on analysis of the possibilities for reform of public cash management;
- the use of **advanced data analytics techniques** (artificial intelligence, machine learning, text mining, big data) to: develop **risk prediction models** for bank portfolios; create **analyst sentiment** indicators; identify and quantify the **key themes** of central bank decisions, banks' earnings releases or financial stability reports; construct indicators of the **Banco de España's presence and relevance** in economic debates in Spain and in other institutions; indicators of **geopolitical risk**, social unrest or economic policy uncertainty; construct a **sustainability indicator** database of Spanish firms drawing on their annual reports; widen the sample of valid Central Balance Sheet Data Office (CBSO) firms; analyse banknote data using serial number readings and image analysis for **quality control of banknotes** in circulation; develop a neurometric kit applied to the **most appropriate design of banknotes** and their security features.

By publishing this updated focus of its analysis and research priorities, the Banco de España underlines its commitment to transparency in its research activity, while at the same aspiring to foster collaboration in these areas with both the academic and economic research community.