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Crossed perspectives on a natural catastrophe

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Extreme rainfall can have devastating social and economic effects and take a heavy toll in human terms. This was the case on 29 October 2024, when Spain was hit by severe flash floods, particularly in Valencia province. This event had tragic consequences in terms of human lives (close to 230 deaths). In addition to this, the disaster has also had a profound and long-lasting economic impact on the region.

In this keynote I will explain the consequences of natural disasters in the economy as well as the role of a Central Bank in managing these situations.

Extreme events like the Valencia floods bring economic activity to a standstill. On one hand, heavy losses in the stock of wealth and capital could have a lasting negative effect on GDP growth in the region. On the other hand, the reconstruction effort is helping GDP recover and replacing damaged assets with more productive capital may boost growth.

I will start this keynote by explaining the different impacts of an extraordinary climate event in the economy through the different channels following our experience in Valencia.

When a natural disaster occurs, the economy suffers with a negative impact on the economic flows and the stock of wealth. To properly understand the impact of the floods, it is important to understand the **difference between flow and stock variables**.

Moreover, I will distinguish between immediate impact, short term and long term.

The immediate impact

The immediate impact is highly negative both on production flows and on the assets:

1. **Disruption of economic activity:** the standstill in sectors such as the trade, transportation, tourism and construction in the weeks following the flash floods triggered a temporary drop in GDP. These are some examples of the disruption we observed:

- **Commuter difficulties** as a result of the mobility restrictions.
- Problems in **accessing** banking services and **means of payment** (including damaged banknotes) hampered activity. The Banco de España monitored these problems closely and helped mitigate them.
- Damage to roads and railways led to disruptions in the **transportation of goods**. For example, the diversion of traffic due to motorway closures led to supply delays and higher production costs.
- Damage to infrastructures and tourist establishments and beaches **led to a decline in hotel and restaurant reservations** in the region.

Overall, the evidence available suggests that the negative impact of the flash floods on GDP growth in Spain in Q4 2024 was relatively contained (between 0.1 pp and 0.2 pp).

2. **Destruction of capital stock and wealth:** a wide range of physical assets were damaged or destroyed, affecting the wealth of households, firms and public infrastructure (for example: homes, vehicles, factories and roads)

It is important to note that GDP does not account for this loss of capital and assets. In fact, the hit to wealth is much greater than the impact of the flash floods as reflected in the GDP. Some estimates point to the wealth lost in Valencia province amounting to more than €17 billion – more than 20% of its GDP in 2023.

Short term

In the short term, the replacement of damaged capital and State aid for reconstruction jump-starts economic activity. **This positive flow effect could cause GDP to rebound**, as explored below.

1. **Increased spending to replace damaged durable goods**: firms and households increase spending to repair or replace damaged goods. Victims of the flash floods have been forced to repair and rebuild homes and commercial premises, driving demand for construction and professional services. Likewise, replacing household appliances, furniture and cars has caused private spending to spike, reviving the local economy.
2. **Reconstruction aid** backed by public support measures. In the case of the flash floods, extraordinary resources have been mobilised, including direct aid, compensation from the Insurance Compensation Consortium, state guarantees for firms and payment moratoria for loans. These measures amount to significant fiscal transfers and the evidence from similar situations suggests that they are key to economic recovery after a disaster.

In this point I want to shortly explain the particularities of Spanish Insurance Compensation Consortium: “Consorcio”. It is an instrument that services the Spanish insurance sector. Consorcio compensates the damages produced by some natural and human-made hazards on insured properties and individuals in the Spanish market. It is primarily funded through surcharges on standard insurance premiums (such as home or car insurance). A small portion of the premium goes to the *Consorcio* to cover extraordinary risks such as floods, taking into account a risk factor.

As of January 2026, the Consorcio filed more than 250.000 claims with a total refunded amount of 4.1 billion euro related to the this particular event.

Thanks to all the public measures implemented, the financial sector was not adversely affected. According to our analysis, the catastrophe affected €27 billion in bank credit, of which €17 billion corresponded to households and €10 billion to non-financial corporations. Combined, the affected credit accounted for 2.1% of total national credit to households and companies. A few months after the flash floods a statistically significant increase in the stock of loans to households and non-financial corporations was observed. Non-performing loans saw a moderate increase from December 2024. Nevertheless, according to our analysis, these effects are local and have a limited impact on lending at national level. Therefore, no signs of systemic risk for the banking sector were identified.

Although the overall national impact was negligible, it is important to note that smaller institutions and those with a stronger local presence in the flood-affected area experienced a greater impact, as might be expected. These entities warrant ongoing monitoring; however, none have suffered consequences severe enough to trigger exceptional measures.

In conclusion, in the short term, the aid for reconstruction and spending on replacing damaged goods and capital may cause GDP to rebound in the following quarters.

Medium/long term

The loss of resources and assets can negatively impact on economic activity, but renewing capital can stimulate it.

1. On one hand, **a loss of productive capacity and wealth limits activity**. Damage to the assets of firms and families can negatively affect their financial soundness and even lead to business closures. This also results in greater difficulties in accessing external financing. The outcome is a diminished capacity not only for production, but also for spending and consumption. All these factors can have a lasting negative impact on GDP.
2. On the other hand, **a replacement with more productive capital** could have a positive impact on productivity as surviving firms replace old capital with more modern and efficient alternatives. For instance, a factory might replace damaged production lines with new automated robots and begin to leverage artificial intelligence to optimise production.

From the perspective of a Central Bank, it is crucial to take immediate action:

First, to **monitor the situation**. The Banco de España monitored financial and economic activity in the area affected, to gain a real understanding of the scale of the disaster. For this reason, it is necessary to have frequent high-quality data to assess risks before and after a catastrophic event. In this regard, it is essential to exchange information between different institutions on a recurring basis. The analyses carried out by the Banco de España after the disaster were extremely valuable thanks to the collaboration of various agencies and institutions that shared their data sources to ensure an efficient response and preserve the stability of the financial system.

We also followed the mitigation measures implemented, to assess how – and how effectively – they were used. For example, we compared the volume and quality of lending extended to households and businesses in the areas affected since the flash floods with that granted in other areas¹.

Second, given that promoting the **smooth functioning of payment systems** is one of the Banco de España's functions, we took urgent measures to keep the payment system up and running and ensure that people had access to cash. We set a special procedure to exchange damaged cash. For instance, an agreement was signed with banks in the area to allow damaged cash to be exchanged at their branches and mobile outlets.

Third, as one of the Banco de España's responsibilities is **ensuring the stability of the Spanish financial system** we must promote that the **economy adapts to climate change**

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https://www.bde.es/f/webbe/GAP/Secciones/Publicaciones/InformesBoletinesRevistas/RevistaEstabilidadFinanciera/2/5/1_FSR48_DANA.pdf

in order to be prepared for extreme weather events. Such adaptation not only safeguards the resilience of financial institutions and markets but also mitigates risks that can arise from sudden disruptions, such as damage to infrastructure, supply chains, and livelihoods. By proactively addressing climate-related vulnerabilities, the financial system can better absorb shocks, maintain confidence, and support sustainable economic growth, ensuring that both households and businesses are less exposed to unexpected climate impacts.

In this sense, I would also like to highlight the importance of mechanisms such as our Insurance Compensation Consortium which **mitigate** the economic consequences of disasters on insured goods.

Finally, I would like to bring to light the importance of **climate risk stress tests**. Nevertheless, accurately defining sector-specific damage functions at the national level for each type of risk presents significant challenges. This complexity arises from the diverse nature of economic activities, varying regional vulnerabilities, and the lack of granular historical data on climate-related losses. As a result, conducting reliable stress tests to assess the impact of extreme weather events on different sectors becomes more difficult, potentially limiting the effectiveness of risk management strategies and policy responses.

In conclusion, natural disasters like the flash floods significantly damage the assets and wealth of households, firms and the public sector, with an immediate negative impact on activity. This downturn can be corrected in the following months by a rebound effect: GDP often falls for a time before picking up. This rebound effect is highly dependent on the public measures deployed. However, analysing the long-term impact on the activity of the affected area is far more complex, as the potential loss of productive capacity may be offset by replacement with more productive capital.

Extreme events remind us of the urgent need to care for and protect our natural environment. Preserving ecosystems and investing in resilience is essential. Nature is not only a source of life and wellbeing, but also a critical ally in reducing the impact of future catastrophes. **Consequently, adaptation is key** — we must proactively adjust our systems, infrastructure, and policies to better withstand and respond to the changing climate.