

## Preview of the results of the Spanish Quarterly National Accounts: main aggregates for the first quarter of 2020 amid the COVID-19 crisis

### Technical note on sources and methods

The economic effects of the COVID-19 pandemic will be revealed in the aggregates of the Spanish National Accounts from the first quarter of 2020. The restrictions imposed on the free movement of people and on some economic activities during the second half of March have had diverse implications on statistical activity and on the economic situation, along with presenting unprecedented challenges.

Amid these exceptional circumstances, the INE has held firm to its commitment to provide society with a precise measurement of the current economic evolution within the framework of the Spanish National Accounts, and to be transparent regarding the sources and methods used to elaborate it.

### Information Sources

The preview of results for the *Quarterly National Accounts of Spain: main aggregates* for the 1st quarter of 2020 is prepared with the information available on the date of its publication regarding the economic evolution during said period. Most of the statistical indicators on recent economic developments offer, up until that moment, results through the second month of this quarter (February). Furthermore, the situation caused by COVID-19 in Spain, and the impact of the measures adopted since March to protect the population's health, create an additional level of difficulty in measuring economic evolution for the entire quarter.

The INE has addressed this challenge by adapting the methods for estimating the quarterly economic aggregates, with the incorporation of additional sources available for each month of the quarter and advanced estimates of indicators based on administrative data. This is in line with the recommendations issued by Eurostat and other international statistical agencies.

Among the incorporated sources available for the quarter as a whole are the monthly information on credit card transactions provided by the Card and Payment System, the foreign trade statistics from the AEAT Customs and Excise Department, and the advance information from the Public Administrations provided by the Comptroller General of the State Administration.

These sources have complemented those normally used, which offer results related the last month of the quarter (March) or to the entire quarter. All of these are listed in the following table.

### Information sources on economic evolution for the month of March or for the whole of the 1st quarter of 2020

Fuente <sup>3</sup>	Información estadística	Referencia
AEAT	VESGEP. Ventas totales e interiores de grandes empresas y pymes (avance)	1T-2020 <sup>1</sup>
	VESGE. Tasas de variación de ventas interiores de grandes empresas (avance)	03-2020 <sup>2</sup>
AENA	Tráfico de Pasajeros, Operaciones y Carga. Pasajeros.	03-2020
	Tráfico de Pasajeros, Operaciones y Carga. Mercancías.	03-2020
ANFAC	Matriculación de vehículos por canales	03-2020
BDE	Tipos de cambio	03-2020
BLS	CPI. Consumer Price Index	03-2020
Departament D'estadística Govern d'Andorra		
INEGI		
SFSO		
Canal de Isabel II	Consumo facturado en los hogares (metros cúbicos)	03-2020
DGT	Matriculación de turismos	03-2020
	Matriculación de motocicletas	03-2020
	Matriculación de vehículos de carga	03-2020
	Matriculación de autobuses	03-2020
EUROSTAT	HICP. Harmonized Indices of Consumer Prices (Bélgica, Francia, Alemania, Irlanda, Italia, Países Bajos, Reino Unido y Portugal)	03-2020
	HICP. Harmonized Indices of Consumer Prices (European Union)	03-2020
IGAE	Gastos e ingresos de las Administraciones Públicas (Estado y avance de CCAA)	1T-2020
INE	EOH. Pernoctaciones hoteleras	03-2020
	IPRI. Índices de precios industriales	03-2020
	IPH. Índice de precios hoteleros	03-2020
	IPC. Índice de precios de consumo	03-2020
	ICM. Índices de comercio al por menor	03-2020
	EPA. Encuesta de Población Activa	1T-2020
MAPA	Análisis de consumo en el hogar. Volumen de compra de alimentos	03-2020
MITRAMISS	Afiliados medios en construcción de edificios	03-2020
	Afiliados medios en ingeniería civil	03-2020
	Trabajadores en alta laboral, construcción (media mensual)	03-2020
	Trabajadores en alta laboral, construcción (media mensual, CVE)	03-2020
OMIE	Precio medio aritmético de la casación del mercado diario de la electricidad	03-2020
ONCE	Ventas y premios del conjunto de Juegos	1T-2020
REE	Sistema Eléctrico Nacional. Generación de energía eléctrica (Gwh).	03-2020
SELAE	Ventas y premios del conjunto de Juegos	1T-2020
STMP	Transacciones con tarjetas adheridas al sistema español unificado de medios de pago	03-2020

<sup>1</sup> 1Q-2020: 1st Quarter of 2020

<sup>2</sup> 03-2020: March 2020

<sup>3</sup> AEAT: Tax Agency

AENA: Spanish Airports and Air Navigation

ANFAC: Spanish Association of Automobile and Truck Manufacturers

BDE: Bank of Spain

BLS: U.S. Bureau of Labor Statistics

IGAE: Comptroller General of the State Administration

INEGI: National Institute of Statistics, Geography and Informatics (Mexico)

MAPA: Ministry of Agriculture, Fisheries and Food

MITRAMISS: Ministry of Labour, Migration and Social Security

MSCBS: Ministry of Health, Consumer Affairs and Social Welfare

ONCE: Spanish National Organization for the Blind

REE: Red Eléctrica de España

SELAE: State Lottery and Gambling Company

SFSO: Swiss Federal Statistical Office

In any case, it is necessary to note that the various implications that the limitations on people's movement and on some economic activities during the second half of March may have had on the quality and availability of many data sources and the difficulty inherent in the statistical measurement of a this sudden change in the situation, suggest that future revisions of the results published today may be of a greater magnitude than usual.

### **Seasonal and calendar adjustment**

The review policy for the statistical operations that make up the Quarterly National Accounts of Spain provides for the revision of the seasonal and calendar adjustment models for each series in the publication of results referring to the 2nd quarter of each year  $t$ , in the month of September, coinciding with their revision from the first quarter of year  $t-3$ .

Exceptionally on this occasion, and following Eurostat recommendations and the practice followed in all the INE short-term statistics, an atypical type of impulse (AO) has been introduced into the series whose importance has been verified in the data referring to the first quarter of 2020, in order to model the effect of COVID-19 on the series.

When the data for subsequent quarters is available, we will analyse whether this impulse should be modified by another type of intervention. This initial approach is consistent since, in the modelling of disturbances that occur in the last observation in a series, there is no difference in the adjusted seasonal and calendar series if this modelling is performed using an impulse, a step, a temporary change or a ramp. The difference between these types of interventions is reduced to assigning the effect to the cycle-trend component in some cases, or to the irregular one in others, but the adjusted series for seasonal and calendar effect includes both components and, therefore, it will not be affected by the type of initial intervention