IMPACT ANALYSIS OF THE ANNOUNCEMENT OF THE PANDEMIC EMERGENCY PURCHASE PROGRAMME (PEPP)

As discussed in the main text of this chapter, an essential part of the ECB's response to the COVID-19 crisis consisted of the implementation of large-scale financial asset purchases. Thus, in addition to increasing the volume of net purchases by €120 billion within the asset purchase programme (APP), the ECB will purchase €1,350 billion of public and private-sector securities under the new Pandemic Emergency Purchase Programme (PEPP) – the sum of the €750 billion committed when the PEPP was initially announced on 18 March and the €600 billion added at the recalibration adopted by the Governing Council of the ECB on 4 June. This box analyses the impact of both announcements on financial conditions in the euro area.

The event-study methodology, which uses the intraday data of several financial market indicators, is applied for this purpose. This technique identifies the immediate impact of the announcements of asset purchase programmes by central banks on financial asset prices. This impact is one of the main transmission channels of these programmes and is called the "stock effect" in the economic literature since it includes investors' expectations of future developments in the stock of financial assets held by the central bank. Event studies are usual in the assessment of the main central banks' asset purchase programmes.¹ As a note of caution,

this methodology only partially assesses this type of programme's effects on financial markets given that it does not capture other effects of asset purchases, such as those produced by the flow of purchases when the latter take place ("flow effects"). Consequently, in principle, this approach undervalues the total impact of these programmes.

Event studies are based on the calculation of the variation in the financial indicators of interest in a narrow window of time around the event in question. This isolates the variation in such indicators that is attributable solely to the event analysed, and not to other factors (such as different economic or, in the current context, epidemiological news). Specifically, the ECB announced the PEPP in a press release published at 23:45 on 18 March after European capital markets had closed. Consequently, the variation is calculated in each indicator between the closing value on 18 March (for example, 17:30 in the case of stock market indices) and the first 30 minutes of the session on 19 March (09:30 for the stock markets).2 On 4 June the increase in the PEPP was announced in the usual fashion, through a press release published at 13:45 and, therefore, the window between 13:30 and 14:15 is used so that it ends, once more, 30 minutes after the event.

Chart 1 STOCK MARKETS AND EXCHANGE RATES

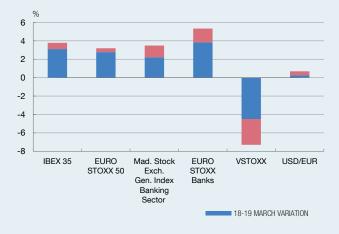
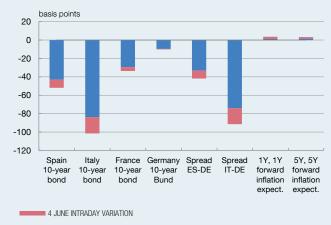


Chart 2 SOVEREIGN BONDS AND INFLATION EXPECTATIONS



SOURCE: Thomson Reuters.

¹ For the case of the United States, see for example Gagnon, J., M. Raski, J. Remache and B. Sack (2011). "The Financial Market Effects of the Federal Reserve's Large-Scale Asset Purchases", *International Journal of Central Banking*, Vol. 7(1), pp. 3-43. For the case of the euro area, see Altavilla, C., G. Carboni, or R. Motto (2015). "Asset purchase programmes and financial markets: lessons from the euro area", *ECB Working Paper Series* No 1864. See also Banco de España (2016) "The effect of the ECB's monetary policies in the recent period", Chapter 3, *2015 Annual Report*.

² The exception is the foreign exchange market which operates via a computerised trading system. In this case the exchange rate variation is calculated between 30 minutes before and after the announcement is made, namely between 23:15 on 18 March and 00:15 on 19 March.

IMPACT ANALYSIS OF THE ANNOUNCEMENT OF THE PANDEMIC EMERGENCY PURCHASE PROGRAMME (PEPP) (cont'd.)

Charts 1 and 2 show the effect of the announcements of 18 March (blue bars) and of 4 June (red bars) on various stock market indicators, the euro/dollar exchange rate and ten-year sovereign bond yields and spreads, as well as on inflation expectations obtained from inflation swaps. The results indicate that the announcement of the PEPP and, to a lesser degree, of an increase in the programme, had a positive effect on the main stock market indices in the euro area (Eurostoxx 50) and in Spain (Ibex 35), as well as on the banking sector indices, and they also decreased stock market volatility (see Chart 1). Additionally, both announcements prompted sharp falls in sovereign debt yields, especially those of Italy and Spain, and in their spreads over the German Bund (see Chart 2). For example, as a result of the initial announcement of the PEPP, Italian and Spanish bond yields decreased by 84 bp and 43 bp, respectively. The announcement of 4 June had a more

limited effect with Italian and Spanish sovereign debt yields falling by 18 bp and 9 bp, respectively. The two announcements had a very limited impact on the euro exchange rate and inflation expectations.

As shown in the charts, in general, the increase in the PEPP on 4 June had a smaller impact than that triggered when this programme was initially announced. This may be due to several factors. On the one hand, unlike the initial announcement, which was largely unexpected, the increase announced on 4 June was discounted by investors, although the additional volume finally approved was higher than expected.3 On the other, the PEPP was increased against a background of lower financial market tension than that observed in mid-March, prior to the initial announcement, which could also mean a lower impact on financial markets.

³ For example, a survey by Reuters between 11 and 14 May showed that almost half of the respondents expected an increase in the PEPP in June, with the median increase being €375 billion, lower than the €600 billion which were finally announced.