

# Unconventional monetary policy

- Several central banks in industrialised countries have broadened their assortment of monetary policy instruments over the past few years.
- These so-called unconventional monetary policy measures were taken as more conventional measures had (largely) lost their potency.
- the distinguishing feature of these measures is that the central bank actively uses its balance sheet to affect market prices and conditions beyond a short-term interest rate

- For instance, after the Federal Open Market Committee (FOMC) had lowered the target for the federal funds rate to a range of 0 to 25 basis points in December 2008, US policymakers faced the challenge of how to further ease the stance of monetary policy as the economic outlook deteriorated.
- The Federal Reserve decided to purchase substantial quantities of assets with medium and long maturities in an effort to drive down private (long-term) borrowing rates.

- Other central banks took similar and other measures. For instance, recently the European Central Bank (ECB) announced a new program of outright monetary transactions (OMTs).
- The program involves discretionary purchases of short-term sovereign bonds under certain conditions and is subject to a prior request by the respective country's government for international assistance via the European Financial Stability Facility/European Stability Mechanism (EFSF/ESM).
- Instead of explicitly driving down longer term borrowing rates, OMTs aim to restore a proper transmission of monetary policy throughout the euro in case of severe market disruptions.

- Unconventional monetary policy frameworks may comprise three elements:
  - (i) largescale liquidity support to banks;
  - (ii) forward guidance of ultra-low policy rates over extended policy horizons; and
  - (iii) large-scale financial market interventions, in particular huge asset purchases.

- According to Hanoun (2012), “Large-scale interventions in financial markets aimed at reviving dysfunctional market segments or providing additional monetary stimulus have become routine. We should not underestimate the welcome role such policy actions played in the darkest days of the crisis. They were critical in preventing unfettered financial instability and a potential deflationary spiral. Extraordinary times call for extraordinary measures.”

- However, he also warns that these measures “while justified and understandable as an exceptional response to the crisis, if prolonged, have adverse side effects that are likely to become more harmful the longer the ‘medicine’ is applied.
- Negative side effects mentioned by Hanoun (2012) include:
  - delaying balance sheet adjustments in the economy;
  - the risk of encouraging a new round of risk-taking and leveraging in the financial system;
  - concern that financial markets lose their capacity to discover prices;
  - too dominant a role on the part of central banks in market-making could contribute to an atrophy of markets; and
  - the longer the policies are in place, the harder the exit is likely to be.

## *ECB instruments*

- The ECB provides two *standing facilities*, i.e. the marginal lending facility and the deposit facility. Banks can use these facilities if they need liquidity or if they want to stall liquidity.
- Both facilities have an overnight maturity and are available to banks on their own initiative.
- The deposit facility is used for mopping up liquidity from the banks at rates which normally are substantially below market rates.
- The marginal lending facility provides liquidity to the banks at rates that are usually substantially above market rates.

- As the interest rates on the standing facilities are normally substantially higher (for borrowing) or lower (for depositing) than the corresponding money market rate, banks normally only use the standing facilities in the absence of other alternatives.
- As there are no limits on access to these facilities (except for the collateral requirements of the marginal lending facility), the rate on the marginal lending facility and the rate on the deposit facility normally provide a ceiling and a floor, respectively, for the overnight rate in the inter-bank money market.
- The standing facilities thus constitute a corridor for the inter-bank money market rate.

- The ECB affects money market interest rates by providing more (or less) liquidity to banks if it wants to decrease (increase) interest rates.
- It allocates an amount of liquidity that allows banks to fulfil their liquidity needs at a price that is in line with the ECB policy intentions.
- To manage liquidity in the money market and steer short-term interest rates, it uses *open market operations*, i.e. it buys (or sells) financial assets. If assets are bought from (sold to) a bank, the reserves of that bank at the central bank increase (decrease).
- These operations are carried out by the National Central Banks (NCBs) in the euro area.

- The most important open market operations of the ECB are the main refinancing operations (MROs) and longer-term refinancing operations (LTROs).
- Lending through open market operations normally takes place in the form of reverse transactions.
- In these reverse transactions, the central bank buys assets from a bank under a repurchase agreement (i.e. the bank buys the asset back) or grants a loan against assets pledged as collateral.
- Reverse transactions are therefore temporary open market operations which provide funds for a limited, pre-specified period only.
- The ECB accepts instruments issued by both private and public debtors as collateral.

- In addition to the weekly MROs, the ECB also executes regular monthly LTROs with various maturities (e.g. six months or twelve months).
- These operations are aimed at providing longer-term liquidity to the banking system.
- After October 2008, the weight of the refinancing operations shifted towards LTROs.

- The final instrument that we discuss is the *minimum reserve requirements* imposed on banks.
- Under the minimum reserve system banks are required to hold compulsory deposits with NCBs.
- The amount of the required reserves is determined by the size and composition of the liabilities on the balance sheet of the bank concerned.
- For most liabilities included in the reserve base the reserve ratio is 2 per cent.

- before the financial crisis, monetary policy in most countries was defined exclusively in terms of a short-term interest rate.
- Under this framework, policymakers announce a desired level of the interest rate, while liquidity management operations ensure that a market “reference rate”, typically an overnight rate, tracks the desired interest rate level closely.
- As the central bank has a monopoly over bank reserves, it can set the quantity and the terms on which reserves are supplied at the margin.
- Therefore, the central bank is able to set the opportunity cost (“price”) of reserves, the overnight rate, to any desired level.
- Consequently, monetary policy can be implemented without large changes in the size of the central bank’s balance sheet, which will be primarily driven by exogenous (autonomous) factors, such as the demand for cash by the public, government deposits, and reserve requirements

- When this conventional policy had (largely) lost its potency, central banks started affecting broader financial conditions more directly, actively using its balance sheet to that effect.
- These operations generally result in substantial changes in the size and composition of the central bank's balance sheet.

- theoretically a distinction can be made between **quantitative** and **qualitative easing**.
- The first entails an **expansion of the central bank balance sheet, while it does not alter the composition of the asset side of the balance sheet**. So the portfolio of assets held by the central bank is not changed: the share of each asset category in total holdings does not alter substantially and no new asset classes are added to the portfolio. The increase in the monetary base is reflected in an accumulation of central bank reserves.
- **Under qualitative easing, the overall size of the central bank balance sheet is left untouched, but the composition of asset holdings is changed.**
- nonconventional policies consisted mainly of qualitative easing until the failure of Lehman, while thereafter central bank balance sheets expanded strongly (even as the composition of the asset side continued to evolve), implying a combination of both quantitative and qualitative easing.

# Recent research on the ECB's unconventional policies: A survey

- In the beginning of the financial crisis, the ECB did not reduce its policy rates. But after the demise of Lehman Brothers it reduced its key interest rates to historically low levels.
- The main refinancing rate was cut by a total of 325 basis points to 1 per cent between October 2008 and May 2009.
- In addition, the Governing Council adopted a number of temporary nonstandard measures, subsequently referred to as the Enhanced Credit Support, focusing primarily on banks.
- Due to uncertainty about the creditworthiness of other banks, the interbank market did not function properly
- After the failure of Lehman Brothers in September 2008 the inter-bank market effectively shut down.
- Amid significantly impaired markets and elevated counterparty credit concerns, demand for liquidity rose sharply while interbank lending declined rapidly

# There are five main building blocks of the Enhanced Credit Support

- (i) Unlimited provision of liquidity through “fixed rate tenders with full allotment” in both the main refinancing operations (MROs) and the long-term refinancing operations (LTROs). Thus, contrary to normal practice, banks had unlimited access to central bank liquidity at the main refinancing rate, subject to adequate collateral.
- (ii) Extension of the (already long) list of collateral assets, so that the share of private sector assets increased to 56 per cent of the nominal value of securities on the list.
- (iii) Extension of the maturity of LTROs, initially to six months, and then, in late June 2009, to twelve months, aiming to decrease uncertainty in commercial banks’ liquidity planning.

- (iv) Liquidity provision in foreign currencies, particularly U.S. dollars, through swap lines with the Federal Reserve. This measure supported banks which otherwise faced a massive shortfall in US dollar funding during the financial crisis.
- (v) Covered Bonds Purchase Programmes (CBPPs). The covered bonds market had virtually dried up in terms of liquidity, issuance and spreads. The aim of the programme was to revive the covered bond market, which is a very important financial market in Europe and a primary source of financing for banks. At the end of 2012 the amount outstanding amounted to 68.4 billion euro

- On 10 May 2010 the ECB launched the Securities Market Programme (SMP) “to address the severe tensions in certain market segments”. The ECB started to intervene in the secondary market of some euro area government bonds in order “to ensure depth and liquidity” and “restore an appropriate monetary policy transmission mechanism”.
- After a first wave of interventions, the programme was re-activated in August 2011, in response to renewed tensions.
- The primary goal of the SMP was to address a malfunctioning of certain market segments by ensuring sufficient depth and liquidity. It was believed that these severe market tensions, if left untreated, would create unacceptable downside risks to price stability
- The SMP was terminated with the introduction of OMTs. The existing securities in the SMP portfolio will be held to maturity. At the end of 2012 the amount of government securities at the ECB balance sheet due to the SMP was 208.3 billion

- In November and December 2011, the ECB Governing Council reduced interest rates in two steps of 25 basis points. The refinancing interest rate came down from 1.50 to 1.00 per cent. These rate cuts were deemed necessary in view of the worsened economic forecasts which indicated increased recession risk.
- The ECB in addition introduced liquidity-enhancing measures in order to strengthen the liquidity position of European banks. It introduced two LTROs with a maturity of 36 months and the option of early repayment after one year.
- In December 2011, the ECB lent almost €490 billion to banks. In February 2012, the ECB lent almost €530 billion.
- Whereas the number of banks participating in the first LTRO was 523, in the second LTRO 800 banks asked for and received three-years loans. Banks considered three-years central bank funding at favourable rates as a very attractive way of funding current and new business.
- In addition to introducing these LTROs, the Governing Council in its December 2011 meeting decided to extend the list of eligible collateral and to temporary reduce the reserve ratio from 2 to 1 per cent.

- Finally, on 2 August 2012, the Governing Council of the ECB announced its intention to perform Outright Monetary Transactions (OMTs) in secondary sovereign bond markets that aim at safeguarding an appropriate monetary policy transmission and the singleness of the monetary policy.
- A necessary condition for OMTs is strict and effective conditionality attached to an appropriate European Financial Stability Facility/European Stability Mechanism (EFSF/ESM) programme.
- Such programmes can take the form of a full EFSF/ESM macroeconomic adjustment programme or a precautionary programme (Enhanced Conditions Credit Line), provided that they include the possibility of EFSF/ESM primary market purchases.
- Transactions will be focused on the shorter end of the yield curve, and in particular on sovereign bonds with a maturity of between one and three years.

# Several transmission mechanisms of unconventional policies can be identified

- First is the **signalling channel**. Similar to conventional monetary policy the communication of unconventional policies is an integral part of their transmission mechanism
- Communication about operations undertaken by the central bank **influence public expectations** about key factors that underpin an asset's market valuation, such as expectations regarding the future course of policy, relative scarcities of different assets, or their risk and liquidity profiles.
- Communication may manage expectations of the path of future monetary policy decisions and thus affect the slope of the money market yield curve.
- Also the announcement that the central bank will engage in operations involving illiquid assets may in itself **boost investor confidence in those assets, thereby reducing liquidity premia**.
- Likewise, in the case of the euro area, communications by the ECB may affect market perceptions of tail risks, as exemplified by market reactions to the announcement of the OMTs.
- If particular measures are anticipated, investors will price them in even before the specifics are announced.
- As a result, policy announcements will affect yields only if they deliver a surprise to the market.

- Second, liquidity provision to banks may influence the level of very short-term interest rates through **liquidity effects** in the interbank money market.
- To the extent that such measures result in excess central bank liquidity accumulating in the market, unconventional policies can cause a spread between the key policy rate (i.e. the MRO rate in the ECB context) and the overnight market rate (EONIA).
- Also the pricing of financial instruments of more relevance for macroeconomic developments may be affected.
- For instance, spreads on important market interest rates (such as EURIBOR or LIBOR, which form the basis for many private credit contracts) can be reduced for a given level of the key policy rates, thereby stimulating private spending.

- Finally, central bank asset purchases may **impact the composition of private sector portfolios**.
- this can be referred to as broad portfolio balance channel.
- Under the expectations hypothesis and canonical arbitrage-free models of the term structure, asset purchases by the central bank will not affect yields.
- But in models that account for imperfect asset substitutability or preferred-habitat investors, changes in relative supplies brought about by central bank operations may affect the composition of portfolios and alter behaviour