### CROSS-BORDER TRANSMISSION OF UNCONVENTIONAL MONETARY POLICY

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Abstract: To counter the intensifying financial crisis, monetary policy has increasingly used unconventional measures, because conventional measures have become less effective. Several central banks have developed and implemented an unconventional monetary policy set, to boost market liquidity and to stimulate economic growth. Although in the literature there is not a unanimous approach related to unconventional monetary policy measures, we considered the following classification: forward guidance, guantitative easing and credit easing. Neighter in the case of central banks, there is no standardization of unconventional policy measures, approaches are different, being adapted to the respective economies and structures. The type of unconventional measures is significantly different in the two sides of the Atlantic, because the economy financing is structurally different. However, it is unanimous that the volume of these unconventional measures is significant in all developed economies. International contagion of domestic monetary policy is felt worldwide, but its intensity varies from country to country, depending on cross-border transmission channels. In this paper we have tried to identify and analyze the transmission channels of unconventional measures: portfolio rebalancing channel, signalling channel, exchange rate channel, global financial markets, trade channel, international lending channel, confidence channel. This paper sets out a framework for unconvetional monetary policies, highlighting the channels of international spillovers. This analysis is very important because it shows which are the effects of unconventional monetary policy measures on the economies. Although unconventional policy actions have stimulated economic growth, it is clear that there is still a great uncertainty about the long-term effects of these policies. Given the uniqueness of the measures used, there are not known all the consequences. Therefore, knowledge and a better understanding of unconventional measures is nesessary, in order to ensure systemic stability. It is desirable for the future to limit massive unconventional actions, that appeared to be necessary during the crisis.

Keywords: Unconventional monetary policy, International spillover, Central banks.

JEL classification: E03, E52, E58.

### 1. Measures of unconventional monetary policy

In response to an increase in financial crisis, many central banks have developed and implemented a set of unconventional monetary policy, to boost market liquidity and to stimulate economic growth.

There are many differences regarding unconventional measures implemented worldwide, particularly on conceptual approaches to monetary policy, unconventional decisions on interest rates, the use of different channels of transmission and also different exit strategies of unconventional policy. Despite these differences, it is unanimous that the volume of these unconventional measures is significant in all developed economies.

In the multitude of conceptual approaches from the economic literature, we identified the following classification of unconventional monetary policy measures (Bernanke and Reinhart, 2004; Cerna, 2014):

- Forward guidance. Measures aimed at guidance of the economic agents expectations, regarding the future evolution of interest.
- Quantitative easing. Measures aimed at increasing the value of central bank liabilities and therefore increasing the monetary base, ie increasing the size of central bank balance sheet over the required level. Under this policy, central bank set and announce its quantitative target on commercial banks' excess reserves.
- Credit easing. Measures which aim to change the structure of assets (claims) of the central bank. These unconventional monetary policy measures consist in the purchase of securities, to influence the relative prices of these securities in relation to currency or to each other. The side effect of these measures is the central bank's asset quality degradation.

To central banks, there was no standardization of the unconventional measures; approaches were different, being adapted to economies and to those structures. Some of them have reduced the nominal interest rates at zero level or close to zero. Others have maintained the main refinancing rate at a certain distance from the zero bound. Also, they applied various unconventional measures: some have made substantial purchases of private securities; others focused on large amounts of treasuries purchases, combined or not with private titles; and another category was very much focused on providing liquidity to commercial banks.

The type of unconventional measures were significantly different in the two sides of the Atlantic. The main reason is that the economy financing is structurally different: banks play a key role in financing Europe and financial markets dominate US finance.

### 2.Channels of international spillovers

The international spillover of the domestic monetary policy is felt worldwide, but its intensity varies from country to country, depending on cross-border transmission channels. The main channels of transmission of unconvetional monetary policy, listed below, are as follows: portfolio rebalancing channel, signalling channel, exchange rate channel, global financial markets, trade channel, international lending channel and confidence channel. *Portfolio rebalancing channel* 

One of the most significant transmission channel of unconventional monetary policy measures is the portfolio rebalancing channel. The importance of this channel is given by the fact that the measures are designed to act via changes in the prices and yields of financial assets. At European level, when the European Central Bank buys short and long term government bonds from the eurozone, cause a decrease of yield of these securities, compared to the obligations from the Central and Eastern European countries. In this case, investors can turn to assets from Central and Eastern European countries, which have higher returns, and thus they diversify their portfolio, to include both low risk and low yield bonds and high risk and high yield bonds. In this way, they balance the portfolio that has been disrupted by the European Central Bank's accommodative measures (Cerna, 2016). According to some studies, the reaction of investors to change yields and prices of the state bond is the main channel for the effects of unconventional monetary policy measures taken by the European Central Bank (Falagiarda et al., 2015). At United States level, the treasury securities from here have an important role in the global economy, because the US dollar is the main reserve currency. If purchases of US assets diminishes long-term bond yields in the US, investors may turn to emerging market assets with similar maturities, to adjust their profit at a higher risk (Chen et al., 2014). Signalling channel

The signalling channel allows central bank to communicate, in order to restore market confidence and to affect the private expectations regarding the future policy decisions. Usually, this channel is helpful when official interest rates are at the zero level and the central bank wants to give a boost to the economy (Coroiu, 2015). The signalling channel is closely related to portfolio rebalancing channel, because both acts through changes in the prices and yields of financial assets. However, what is specific to signalling channel is that it affects expectations about the future short-term interest rates. This influence is manifested when a central bank engages in public to maintain reduced levels of future interest rate, policy called forward guidance. The influence consists in (i) reducing the long-term interest, due to changes in interest rates forecasts, according to maturity structure criterion and also in (ii) changing in interest rates differentials between countries, similar to those in the case of portfolio rebalancing channel (Cerna, 2016).

### Exchange rate channel

Another channel of transmission for external monetary measures is the exchange rate. Through this channel, the national currency may depreciate against other currencies. Also, if there is a depreciation of a major international reserve currency, the impact on emerging economies may be particularly high. Currency speculation may increase the size and the volatility of capital flows. In some emerging economies, where currencies are relative to the US dollar, foreign exchange interventions could lead to significant accumulation of foreign reserves, which if not fully sterilized, could increase domestic money supply and credit (Chen et al., 2014).

#### Global financial markets channel

Another channel operates through global financial markets and is a combination of liquidity, asset prices and risk-taking channels. In a highly integrated global market, a policy of quantitative easing considerably increases the level of global liquidity. When it is expected that, in the near future, interest rates remain very low in the main developed economies, is estimated to persist higher interest rate differential, relative to emerging economies with potential macroeconomic fundamentals and with high growth prospects. Quantitative easing could boost transactions and capital flows into emerging economies with higher rates of return, which in turn, will lead to higher consumer prices and asset. In addition, an environment of low interest rates for a longer time and of liquidity abundant create incentives for financial institutions to seek higher returns, both in developed economies and in emerging markets. A prolonged period of low interest rates could make the banks to estimate wrong risks (Chen et al., 2014).

### Trade channel

Another one is the trade channel, through which the real effects of quantitative easing in developed economies could spread directly through external demand. Quantitative easing can stimulate demand for goods and services in emerging economies, through trade credit and may increase spending in developed economies. But such effects depend on the degree of elasticity of imports in developed economies and must be balanced with the likely impact of emerging currency appreciation, caused by quantitative easing. Finally, quantitative easing monetary policy may require endogenous responses in other economies. For example, many central banks in emerging economies have kept accommodative monetary conditions, despite the economic recovery, higher inflation and higher asset prices. This would create fears that a widening of the interest rate would increase exchange rates and cause capital inflows, with disruptive effect.

# International lending channel

International lending channel consists of the effects that global financial integration has on domestic credit conditions. These effects can cause the breakdown of the transmission mechanism of conventional monetary policy effects, being a major challenge for central banks from Central and Eastern European countries, which continue to apply traditional policy (inflation targeting). For example, opening financial systems and enhancing international financial flows can influence domestic credit conditions, via an easier access of the banks to interbank markets and issuance of bonds and shares. In particular, the growth of liquidity in the euro area, as a result of unconvetional monetary policy taken by the European Central Bank, has direct, relatively strong consequences on the countries from Central and Eastern Europe, due to the presence of foreign banks, controlled by the parent-banks reside almost exclusively in euro area countries, in local banking systems. In other words, lowering the interest rate on interbank markets from the euro area countries, in which they are located parent-banks, causes a similar reduction in the cost of refinancing for subsidiaries. Thus, banks operating in Central and Eastern European countries can get cheap liquidity from parent-banks, which use them in place of more expensive liquidity, attracted from the local interbank market. In turn, this cause the reduction of the demand for loans in local currency and the decrease of interest rates on the local interbank market (Cerna, 2016). The increase in bank lending coincides with a loosening of lending standards, and not so much with an increase in loan demand (Boeckx et al., 2014).

## Confidence channel

The confidence channel lies in the impact that monetary policy announcements, made by the European Central Bank leadership, have on the uncertainty from the markets of euro area countries and outside them. Usually, the "trust" effect is manifested through the developments of the financial asset prices. For example, increased confidence in the euro area as a result of monetary policy decisions determine, by expectations, capital flows which are reflected both in (i) commercial strategies (that assets issued in the Central and Eastern European countries are more sought after by investors because have a higher yield) and as well in (ii) more stable capital flows to these countries, as a result of a closer trade ties. However, restoring trust may cause the risk reassessment and the capital outflows from Central and Eastern European countries, especially if they were seen as safe places in times of high uncertainty. Via the confidence channel, the European Central Bank transmits the international announcements related to purchases of titles, through the Outright Monetary Transactions (OMT). To the extent that the OMT succeed in reducing risk related to public securities, issued by those eurozone countries that face a crisis of external debt, these operations increases capital inflows into those countries (Cerna, 2016).

### 3. In conclusion

Although unconventional policy actions have stimulated economic growth, it is clear that there is still a great uncertainty about the long-term effects of these policies. Given the uniqueness of the measures used, are not known all the consequences. These policies can contribute to excessive risk-taking in financial markets, as investors are looking for higher yields under conditions of low interest rates. In addition, there are potential negative side effects of prolonged monetary easing policy, as happened in expanded central bank balance sheets, combined with the low policy rates. These include delaying the recovery of public and private sector balance sheet economies affected by the crisis. They also include longer-term risks related to credibility and to operational autonomy of the central banks. Although unconventional monetary policy actions were required during the crisis, it is important to limit their volume.

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