# LEADING ISSUES OF THE ECONOMIC RESEARCH CONDUCTED AT THE ECB: THE INFLATION INSTANCE

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Abstract: The European Central Bank relays new insights received from the research groups which operate on its ground. These innovative findings represent output of the research activities conducted by particular teams. The areas of the investigation cover various complicated and sensitive tasks. The paper deals with economic research of the European Central Bank, especially with key issues. Inflation as one of the current research priorities is analyzed in more detail. Inflation rate movements are discussed for selected period as well as present situation in this field. Moreover, expectations considering next few years are stated. The examination involves the European Union as well as the euro area.

Keywords: Inflation, Economic Research, European Central Bank, European Union, Euro Area.

#### 1 Introduction

The primary aim of economic research (Goodfriend et al., 2004) realized at the European Central Bank (ECB) is to offer a base consisting of empirical as well as conceptual grounding on the one hand for policy making and on the other hand for improvement in the policy communication field.

The crucial function (Freedman et al., 2011) in the context of research at the ECB is carried out by the Research Coordination Committee. Its tasks are, inter alia, determination of preferential research matters, management of cooperation among directorates with regards on accomplishment the set goals and prevention from undesirable repetition in issues solving. The own justification lies within the Research Coordination Committee on Directorate General Research, especially in the form of the Research Priorities Report that annually submits.

In the following section, the economic research activities at the ECB are discussed in further detail supplemented with research organization.

## 2 The economic research activities of the European Central Bank

Economic research realized by the ECB includes a wide scope of financial and economic themes. Resulting findings represent the core for fulfillment the ECB's main objectives and the basis for dealing with constantly changing priorities. Moreover, they give assistance to set the stable fundamentals for the ECB's policy analysis. Activities in the economic research field are becoming increasingly intense what is related to a large number of emerging major challenges.

The organization of the ECB's economic research is depicted in Figure 1. Selected period responds to the last five years. The most recent available data correspond to 2016.



Figure 1 Organization of the ECB's economic research Source: own adaptation, ECB (2013 - 2017a)

Scientific research concerning economic tasks covered by the ECB is executed by established research groups. Their number is changing and adapting to current needs over the years (see Figure 1). One from the capital purposes of these research teams is to support the coordination of the bank's research activities allocated to individual specialized business areas. Mentioned matter is advantageous from the structural point of view as well as vocational one. The teams collaborate to each other, solve the topics of similar orientation and thus increase the ECB's research potential.

Discussing the current needs, they are reflected in yearly defined research priorities which are shown in Figure 1, as well. Presented data signify the quantity of research teams or research priorities appertaining to particular year.

Most of the research activities conducted at the ECB lead to publishing scientific papers. Publications elaborated by the ECB scientists themselves or in partnership with colleagues outside the ECB are summarized in Figure 2.



Figure 2 The ECB's research activities indicated over publications Source: own adaptation, ECB (2013 - 2017a)

In Figure 2 above, the first number represents papers issued in the ECB's Working Paper Series (WPS) within respective year. It should be noted that there are counted also papers generated by external cooperating participants from the workshops and the

conferences. The ECB staff is thus not necessarily authors or members of the authors' team. Second figure states the quantity of papers published in refereed journals where ECB personnel are certainly authors or co-authors, at least.

### 3 Leading tasks of the economic research at the ECB

According to the European Central Bank (2017a), following list yields the principal fields of economic research interest:

- a) non-standard monetary policy
  - asset purchases and refinancing operations,
  - effective lower bound on interest rates,
  - sustained adjustment of inflation,

- b) inflation in a changing environment
  - risk of unanchoring inflation expectations,
  - domestic and global drivers of low inflation,
- c) new macroprudential framework
  - effectiveness of alternative policies,
  - capital and liquidity regulation,
- d) deepening Economic and Monetary Union and convergence
  - Economic and Monetary Union governance and fiscal policy,
  - competitiveness and convergence.

Naturally, stated four economic research objectives are not the only ones in the spotlight. They are, however, currently top priority.

The research at the ECB (Directorate General Research, 2017) is presently carried out through seven research groups which are:

Fiscal policy and Economic and Monetary Union governance,

- Monetary policy, strategy and implementation,
- International macro and finance,
- Macro-finance, systemic risk and macroprudential policy,
- Real sector and microeconomic analysis,
- Forecasting and business cycle analysis,
- Financial institutions, microprudential policy, financial markets and payments.

#### 4 Inflation as the ECB's current research priority

Looking at the stated leading questions constituting subjects of the economic research at the ECB, it is undisputed that inflation is emerging as one from the actual priorities. Nowadays (European Central Bank, 2017b), there is noticed the global headline inflation increase. The development of this macroeconomic indicator in the European Union as well as in the euro area in recent months is listed in Figure 3.

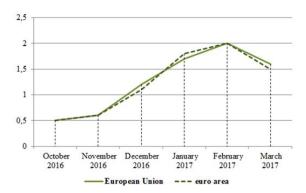


Figure 3 Annual inflation rates in the European Union and the euro area given in % Source: own adaptation, OECD (2017a)

Inflation specified in Figure 3 is measured by the Harmonised Index of Consumer Prices. The differences in values achieved within the European Union and the euro area have not been remarked or were only minimal. Identical figures fit for October 2016 (0.5%), November 2016 (0.6%) and February 2017 (2.0%). The other surveyed months are characterized by difference of 0.1% each. Moreover, mentioned small difference is reflected in higher annual inflation once for the European Union data and another time for the euro area data. Specifically, for the European Union apply 1.2% level of inflation in December 2016, 1.7% in January 2017 and 1.6% in March 2017. For the euro area are valid 1.1% in December 2016, 1.8% in January 2017 and 1.5% in March 2017. These findings thus do not point out remarkable variation of inflation development in the states that have adopted the euro and in the member states of the European Union but outside the euro area.

The other fact can be further observed from the Figure 3. It is already said the general inflation increase. This certainty is obvious over figures at the beginning of the period under review and at the end of it. The gap in annual inflation reached entire 1% in the euro area case and even 1.1% in the European Union case, both upwards.

The comparison of the rates in the last examined month with the same month of the previous year has a confirmatory character considering inflation rising. In March 2017 the annual inflation was 1.6% respectively 1.5% and in March 2016, a year earlier, the value level 0.0% was recorded in the European Union as well as in the euro area. The inflation rate increase is therefore evident.

It should be noted that the growth rate of inflation is currently slowed. This is possible to see through collation taking into account last two months of the studied interval. Growth slowdown was 0.4% in the European Union and 0.5% in the euro area. Nevertheless, the annual rate increase is notable.

Growing trend of the global headline inflation rate (National Bank of Slovakia, 2017) is primary consequence of the renewed increase in oil prices. Development of the annual inflation measured by the Harmonised Index of Consumer Prices is conditional upon a rapid enhancement in annual energy and unprocessed food price inflation at the first place (in detail see Table 1).

Table 1 Annual inflation of the chosen units for the euro area given in %

	October 2016	November 2016	December 2016	January 2017	February 2017	March 2017
Energy	-0.9	-1.1	2.6	8.1	9.3	7.4
Non-energy industrial goods	0.3	0.3	0.3	0.5	0.2	0.3
Services	1.1	1.1	1.3	1.2	1.3	1.0
All-items except: energy	0.7	0.8	1.0	1.1	1.2	0.9
<ul><li>energy and</li></ul>	0.7	0.8	0.9	0.9	0.9	0.8

unprocessed food						
<ul> <li>energy, food, alcohol and tobacco</li> </ul>	0.8	0.8	0.9	0.9	0.9	0.7
<ul><li>energy and seasonal food</li></ul>	0.7	0.8	0.9	0.9	0.9	0.7
■ tobacco	0.5	0.5	1.1	1.7	2.0	1.5
Food, alcohol and tobacco	0.4	0.7	1.2	1.8	2.5	1.8
<ul> <li>unprocessed food</li> </ul>	0.2	0.7	2.1	3.5	5.3	3.1
<ul><li>processed food, alcohol and tobacco</li></ul>	0.5	0.7	0.7	0.7	0.8	1.0

Source: own adaptation, Eurostat (2017) and OECD (2017b)

The prospects indicate that headline inflation is supposedly to persist close to 2% in the next months. Such a prediction predominantly reflects development of the annual growth rate of energy prices.

Despite of headline inflation upturn the essential inflation pressures preserve attenuated. The Governing Council thus decided that for the purposes of intensifying essential inflation pressures and facilitating headline inflation in the medium term it is necessary to continue with a very significant degree of monetary accommodation at present. There exists the effort leading to ensure permanent inflation rate return on level that is lower, but near to, 2% immediately.

Looking at the up to date non-standard monetary policy actions they will be in force until, at least, a lasting change in inflation development with respect to its inflation target will occur. For more about inflation targeting, see Drabiková (2012).

The annual inflation rate for the euro area calculated under the Harmonised Index of Consumer Prices should reach 1.7% in year 2017 taking into account macroeconomic prognosis of the specialists operate at the European Central Bank. The forecast indicating development in the next two years suggests inflation level equal to 1.6% in 2018 and 1.7% in 2019, the same figure as applies for current year.

However, prospect of the headline inflation measured by the Harmonised Index of Consumer Prices remarked editing when regarding on predictions realized by Eurosystem experts at the end of last year. The numbers were considerably modified upwards for year 2017. Selfsame direction of the revision was notified for 2018 but more moderate. The estimate for the last mentioned year stayed without a change. Admittedly, the forecasts are based on the assumption of complete execution of all measures resulting from the ECB's monetary policy.

For more information about some other indicators concerning the European Union check e.g. Štofa (2015). In this context the own justification has mathematical modeling (e.g. Schreyer - Fecková Škrabuľáková, 2015).

### 5 Discussion and conclusions

Scientific research conducted at the European Central Bank in the economic area is representative by topics variety. Manifold economic and financial tasks are resolved each year. Naturally, there exist subjects which are more urgent than some others in the given period. Research priorities are thus stated and they form the main work fulfillment for research teams operate on the bank's ground. The number of teams was standardly floating but

it has stabilized in the past few years. Currently the seven of them function.

Discussing the economic research key issues solved by European Central Bank staff the inflation question arises. It belongs to the group of leading themes nowadays. From the overall point of view, inflation has an increasing character. However, the increase noticed slowdown.

Looking at the annual inflation rates measured by the Harmonised Index of Consumer Prices the statements mentioned

above are confirmed. They are valid for the European Union Member States same as for the euro area countries. Moreover, analyzed period indicates a very small divergence or even none in the European Union data and the euro area data. It can be generally concluded that the inflation development is similar.

Considering the global headline inflation the growing trend is a consequence particularly of the renewed upturn in oil prices. Situation of the annual inflation measured by the Harmonised Index of Consumer Prices is mostly conditional upon a rapid rise in annual energy and unprocessed food price inflation. The predictions suggest that headline inflation is supposedly to persist close to 2% in the following months. This estimation mainly reflects development of the annual rate of energy prices.

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#### Primary Paper Section: A

Secondary Paper Section: AH