



DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT
ECONOMIC AND SCIENTIFIC POLICY **A**

Economic and Monetary Affairs

Employment and Social Affairs

Environment, Public Health and Food Safety

Industry, Research and Energy

Internal Market and Consumer Protection



**The single monetary policy and its
decentralised implementation:
An assessment
- Bruegel -
MONETARY DIALOGUE
September 2017**

In-depth analysis for the ECON Committee

The single monetary policy and its decentralised implementation: An assessment MONETARY DIALOGUE September 2017



DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

The single monetary policy and its decentralised implementation: An assessment

IN-DEPTH ANALYSIS

Abstract

While the Eurosystem has considerably improved its operational transparency in the last few years, it is still lagging the Federal Reserve System (Fed), especially in terms of the information it provides on operating costs and staff numbers, for which it provides very scarce data. In addition, the available information is scattered throughout different publications, rather than being presented in a user-friendly fashion. Compared to the Fed, the Eurosystem seems to have higher staff numbers and operational costs for similar tasks. Also because of the Treaty requirement to implement monetary policy in a decentralised way, the Eurosystem's implementation of monetary policy is fairly complex.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

AUTHOR(S)

Francesco PAPADIA, Bruegel
Alexander ROTH, Bruegel

The authors thank Nicholas Branigan for excellent research assistance and helpful remarks, and Maria Demertzis and Gregory Claeys for their useful feedback.

RESPONSIBLE ADMINISTRATOR

Dario PATERNOSTER

EDITORIAL ASSISTANT

Janetta Cujkova

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

Policy departments provide in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact Policy Department A or to subscribe to its newsletter please write to:

Policy Department A: Economic and Scientific Policy
European Parliament
B-1047 Brussels
E-mail: Poldep-Economy-Science@ep.europa.eu

Manuscript completed in September 2017

© European Union, 2017

This document is available on the Internet at:

<http://www.europarl.europa.eu/committees/en/econ/monetary-dialogue.html>

DISCLAIMER

The opinions expressed in this document are the sole responsibility of the author and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the publisher is given prior notice and sent a copy.

CONTENTS

LIST OF FIGURES	4
LIST OF TABLES	4
EXECUTIVE SUMMARY	5
1. INTRODUCTION	6
2. TRANSPARENCY	7
2.1. Recent improvements	7
2.2. Varying levels of transparency	8
2.3. The transparency of the Fed	10
2.4. The reasons for (lack of) transparency	11
2.5. Transparency of costs and staff	11
3. EFFICIENCY	12
3.1. The total operational cost of the Eurosystem	12
3.2. Staff size of the Eurosystem	12
3.3. Monetary policy: staffing and costs	14
4. SIMPLICITY	16
4.1. Liquidity management	16
4.2. Quantitative Easing	16
5. RECOMMENDATIONS AND CONCLUSIONS	19
REFERENCES	20

LIST OF FIGURES

Figure 1: Population and NCB headcounts (2016)	13
Figure 2: Implementation of liquidity providing operations by the ECB	16
Figure 3: Comparison of asset purchase programme implementation	17

LIST OF TABLES

Table 1: Monetary policy implementation: selected transparency enhancements	8
Table 2: Information provided by the ECB and the Fed for different types of operations	9
Table 3: Staff headcounts and operating costs of the Eurosystem and the Fed	12
Table 4: Eurosystem monetary policy costs	14
Table 5: APP implementation in the Eurosystem	18

EXECUTIVE SUMMARY

This paper assesses the decentralised implementation of monetary policy by the Eurosystem in terms of its transparency, efficiency and simplicity.

We assume that the efficacy of the Eurosystem is independent of the analysed characteristics.

On operational transparency:

- Transparency is a core issue for independent central banks.
- The European Central Bank has become considerably more transparent in the last few years.
- Information is often provided in user-unfriendly ways.
- The Fed is generally more transparent than the Eurosystem.
- The reasons behind different levels of transparency in different operations are not clear.

On efficiency:

- Efficiency is measured in operational costs. We assume no connection between the efficiency and efficacy of the Eurosystem.
- The Eurosystem has aggregate operational costs close to €10 billion, of which close to €1 billion is for the ECB (in 2016).
- The total staff size of the Eurosystem and the ECB amounts to over 48,000 and 3,100 units respectively.
- The Fed employs around half this number of persons.
- Rough estimates of the cost of the monetary policy function are also higher for the Eurosystem than for the Fed.

On simplicity:

- The Eurosystem implements its main monetary policies – liquidity management and quantitative easing – in a decentralised way, which is intrinsically complex.
- For the asset purchases, the Eurosystem does not disclose the criteria behind the different implementation modalities of the different programmes.

Our paper concludes with a number of recommendations.

Regarding transparency, we suggest that the Eurosystem/ECB should:

- Disclose more information on monetary operations. If this contains sensitive material, a delay would be appropriate.
- Disclose more information on operational costs and staff headcounts.
- Publish annual reports on costs in a standardised form.
- Collect data about its own operations at a single point (preferably the ECB).

Regarding efficiency, we suggest that the Eurosystem should:

- Continue to reduce costs, which implies that the reduction of staff numbers that it has pursued over the last few years should continue.

Regarding simplicity, we suggest that the Eurosystem/ECB should:

- Disclose information on how decisions on implementation are made.

1. INTRODUCTION

This paper answers a request by the Services of the European Parliament to assess the *decentralised implementation* of monetary policy by the Eurosystem, which is composed of the European Central Bank (ECB) and the national central banks (NCBs) of the euro area, with particular regard to:

- Transparency
- Efficiency
- Simplicity.

This paper does not address the issue of the *efficacy* of the Eurosystem, i.e. its ability to achieve its target. Two assumptions underlie this paper: first, efficacy can be achieved with different levels of efficiency, i.e. with the use of different amounts of resources; second, the efficacy in achieving statutory objectives is comparable between the ECB and the Fed.

As requested, this paper concentrates on the monetary policy function of the Eurosystem and excludes its supervisory role. However, because of data limitations, strong and inevitably rough, assumptions are needed to separate the monetary policy function from the supervisory function. When appropriate, this paper will compare the experience of the Eurosystem with that of the Fed, even if we are aware of the limits of this comparison, because the two central banks do not have exactly the same tasks.

2. TRANSPARENCY

The combination of central bank independence and accountability is a delicate issue and transparency plays a crucial role in achieving the appropriate design. Transparency is the tool through which the central bank opens its books to public opinion and to the different institutions to which it is accountable but on which it is not dependent. The issue is even more complex in a multi-jurisdictional set-up like the euro area.

The concept of transparency used in this paper is different from that used by Geraats (2001) and Eijffinger and Geraats (2006). We analyse the “...*kind of operational transparency*” consisting of “*the publication of money market interventions that are made to implement policy decisions.*” rather than the “...*transparency ... included in our transparency index which focuses more on macroeconomic aspects.*”¹.

The importance of transparency has become more relevant because the ECB had to take on additional responsibilities during the Great Recession. Three issues are particularly relevant in this respect:

1. The objective of financial stability, which was implicitly included in that of price stability until the beginning of the Great Recession, started to vie for the first position in the hierarchy of objectives of the central bank, potentially creating dilemmas for monetary policy;
2. The borders between fiscal and monetary policies were blurred because the ECB was forced to embark, like other central banks in advanced economies, on forceful QE to regain price stability;
3. The ECB had to take on the responsibility of assuring the survival of the euro, given the late and insufficient actions of euro-area governments.

When assessing the transparency of the Eurosystem’s monetary policy, we can make some general remarks:

1. Considerable progress has been made over the recent past.
2. The level of transparency of different types of monetary operations is very different.
3. Overall, the transparency of the Eurosystem is lower than that of the Fed, although there are areas over which the ECB is more transparent.
4. Although there are good reasons for different levels of transparency for different operations, the specific reasons behind the actual levels of transparency characterising different operations are not always clear.
5. Reporting on efficiency issues is very limited in the Eurosystem.

The above-mentioned points are illustrated in turn.

2.1. Recent improvements

Considerable progress has been made over the recent past on transparency.

The most important step towards greater transparency has been the publication of the so-called Monetary Policy Account since February 2015, though, as Table 1 shows, there have also been other steps.

¹ Eijffinger and Geraats (2006) make this point in footnote 4 of their paper.

Table 1: Monetary policy implementation: selected transparency enhancements

Measure	Information provided	Since
TARGET2 ¹ balances	Outstanding amounts per NCB	11/2011*
ELA ²	ELA procedures	11/2013**
Monetary Policy Account	Governing Council's monetary policy discussions	02/2015
Board member diaries	Meetings	11/2015
ANFA ³	FAQ on ANFA	02/2016
ANFA amounts	Eurosystem disaggregated balance sheet data	07/2016
ELA	ELA Agreement	06/2017

Source: ECB Website.

Notes: 1: TARGET2 (Trans-European Automated Real-time Gross Settlement Express Transfer system) is the real-time gross settlement (RTGS) system owned and operated by the Eurosystem; 2: Emergency Liquidity Assistance; 3: Agreement on Net Financial Assets; * Some NCBs already published TARGET2 balances in their balance sheets before the indicated date, but this information was not disclosed in a clear manner; ** The ECB had already published some procedural information in its Monthly Bulletin.

2.2. Varying levels of transparency

The level of transparency of the different types of monetary operations is very different.

Table 2 summarises the information disclosed about various monetary instruments and shows, for most items, the comparable situation for the Fed.

As Table 2 suggests, for certain operations, such as liquidity management, the ECB provides a good level of transparency, but transparency is limited when reporting on other operations (e.g. management of foreign reserves and own funds).

Table 2: Information provided by the ECB and the Fed for different types of operations

	Operation name		Current aggregate holdings	List of assets held	Amount per asset	C.p. named	
Quantitative Easing	ECB (APP ^a)	CBPP3 ^{a1}					
		ABSPP ^{a2}					
		PSPP ^{a3}		3			
		CSPP ^{a4}		2			
	Fed (LSAP ^b)	Agency MBS		1	1	1	1
		Treasuries		1	1	1	1
	Operation name		Total amount per operation	Total amount per jurisdiction	Total number of c.p.	C.p. named	Amount per c.p.
Liquidity Management	ECB	MRO ^c		3			
		LTRO ^d		3			
		TLTRO ^e		3			
	Fed	REPO ^f					
	Operation name		Current outstanding amounts	Total amount per operation	Total number of c.p.	C.p. named	Amount per c.p.
Lending of Last Resort	ECB	ELA	4				
	Fed	Discount Window		1	1	1	1
		Full list of eligible assets	Eligible marketable assets total amount	Use of collateral	Average outstanding credit Peak outstanding credit		
Collateral	ECB		per type of asset				
		Total amount		... per type of asset		... per country	
Foreign Exchange Reserves	ECB						
Own Funds	ECB			5			
ANFA	ECB						

Source: Websites of the ECB, the euro area NCBs, the FOMC, and the Fed New York; own illustration.

Notes: The colours of the cells indicate the level of information from full to no disclosure: green - yellow - orange - red.

c.p. Counterparty

a Asset Purchase Programme

a1 Covered bond purchase programme 3

a2 Asset-Backed Securities Purchase Programme

a3 Public Sector Purchase Programme

a4 Corporate Sector Purchase Programme

b Large Securities Asset Purchases

c Main refinancing operations

d Longer-term refinancing operations

e Targeted longer-term refinancing operations

f Repurchase and Reverse Repurchase Agreements

1 Complete Transaction log is disclosed per quarter two years after operation.

2 Information provided by the ECB.

3 Information provided decentralised by the NCBs.

4 The NCBs that have provided ELA in the past have usually disclosed such information with a lag, e.g. in their annual reports. No reporting from the ECB.

5 Only three broad types of assets are provided

Quantitative Easing

For all programmes, total purchased amounts are provided. For the CSPP, the ECB publishes the list of the specific bonds (ISIN) purchased; for the PSPP this information is given by the NCBs and the ECB. In both cases, the Eurosystem does not disclose the amount invested in a specific asset, but only the name of the asset. By contrast, the Fed discloses a complete log of its operations after a two-year interval, revealing the amounts of individual assets purchased, as well as current holdings on asset level via the System Open Market Account Holding (SOMA).

Liquidity Management

Aggregate amounts and the number of counterparties are published by the ECB for liquidity management operations (MRO, LTRO, TLTRO). However, exhaustive information about the operations per jurisdiction is not provided by the ECB but only by the NCBs, making it quite user-unfriendly. In the ECB *Financial Integration Report* statistical annex, a breakdown between 'Group A' and 'Group B' countries is provided per operation but only for current accounts and the deposit facility. The new monthly disaggregated NCB balance sheet provides snapshot data for MRO, LTRO and TLTRO. Information about the banks involved is not provided.

Lending of Last Resort

The ECB does not disclose any information on ELA amounts. As seen in Table 1, the ECB has published the 'Agreement on emergency liquidity assistance (June 2017)', which states that NCBs have the option but not the obligation to disclose information about ELA operations. NCBs usually give information on ELA amounts in their annual reports, but this is not easy to aggregate at euro-area level. The Fed discloses current and past aggregate amounts of discount window lending, while detailed, disaggregated information (including amounts, conditions, name of the bank) is disclosed after a delay of two years.

Collateral

The ECB publishes quite extensive information on the collateral that can be used (full list of eligible marketable assets) for refinancing operations and the rules for its use. In terms of the actual use of collateral, the ECB publishes quarterly amounts per type of asset.

Foreign Exchange Reserves and Own Funds

On a monthly basis, the ECB publishes on its website a breakdown of its foreign reserves, in particular the split between securities and deposits, but no further details. In the annual report there is a breakdown per currency and information about off-balance sheet instruments. The ECB also provides on some occasions more information about the investment process. However, while the ECB states in its annual report that *"this portfolio is invested in euro-denominated assets with the objective of maximising returns, subject to the limits imposed in terms of risk,"* no information on either return or risk is provided.

ANFA (Agreement on Net Financial Assets)

The ECB discloses the total amount subject to ANFA and a breakdown into countries, but no information about the purchased assets nor about risk and return results.

2.3. The transparency of the Fed

Overall, the Eurosystem is less transparent than the Fed.

Table 2 shows that, as a consequence of the Dodd-Frank Act, overall the Fed publishes, albeit with a delay, more information about its operations than the Eurosystem, though for some operations the ECB publishes more information.

2.4. The reasons for (lack of) transparency

While there are good reasons for different operations to have different levels of transparency, the specific reasons behind the actual levels of transparency maintained by the Eurosystem are not always clear.

Quantitative Easing

As we have noted, the ECB's reporting on its Asset Purchase Programme is quite extensive. However, it is not clear why the level of transparency differs between the programmes and why not all information could be disclosed by the ECB after some time interval, as the Fed does.

Liquidity management

As mentioned, information about liquidity management operations is quite detailed, but is not easily available per jurisdiction and per bank because country-level data is only provided by the NCBs. Not giving information per bank is justified, because it could stigmatise individual banks (see below). However, the justification for not giving systematic information for jurisdictions is no longer valid because of the diversified situation in different countries after the beginning of the Great Recession.

Emergency Liquidity Assistance (ELA)

Limiting information on Lending of Last Resort is justified, as the negative experience of the Fed shows. The discount window was for many years considered as a last-resort source of central bank liquidity and borrowing from this facility was seen as a sign of financial weakness. This created a persistent 'stigma' problem, which the Fed's repeated efforts could not eliminate. The fact that banks even paid higher rates than those applied to the discount window in order to not borrow under this facility caused problems for the orderly functioning of the money market. The stigma problem has been much less pervasive in the euro area, but extensive and timely information on ELA borrowing could aggravate it. Nevertheless, the ECB could disclose information after a delay.

Foreign reserves, own funds, ANFA

It is not clear why the ECB does not provide more information about its foreign exchange reserves and how it invests its own funds. It is also not clear why so little information is given about NCBs' ANFA investments. The limited amount of information that was eventually provided (see Table 2) was only issued after the quasi-secret nature of the purchases gave rise to dangerous confusion between monetary policy and investment operations².

2.5. Transparency of costs and staff

Reporting on efficiency issues is very limited in the Eurosystem.

The last point about transparency is a bridge to the issue of efficiency. The Eurosystem is not transparent about its use of resources. The Fed publishes in its nearly 500-page annual report very detailed information about the cost of central banking and about staff headcounts. By contrast, because of the limited information provided by the Eurosystem, external observers have to use unavoidably rough estimates to get a sense of the efficiency of the Eurosystem, as section 3 shows.

² For further details on that debate see Papadia (2015).

3. EFFICIENCY

This section, in effect, tries to answer the question of how much the euro area pays for the monetary policy services provided by the Eurosystem. When discussing the cost of central banking and of public services in general, the emphasis is on staff numbers and operational expenses, which define the predominant part of central bank costs.

3.1. The total operational cost of the Eurosystem

The total functioning cost of the ECB, covering all its functions, amounted to €953.8 million in 2016³, out of which €466.5 million, i.e. close to 50 percent, is related to staff costs.⁴ The total functioning costs of the Eurosystem (ECB and 19 NCBs) add up to €9,932.6 million, out of which €6,254.9 million (63 percent) is for personnel. The remaining expenses are administrative, depreciation, banknote production and other operating costs.

3.2. Staff size of the Eurosystem

The ECB employed 3,171 people in 2016⁵ (plus 250 seconded employees), while the entire Eurosystem employed 48,557 persons⁶. The NCBs with the largest headcounts are the Banque de France (11,690), the Deutsche Bundesbank (9,775) and the Banca d'Italia (6,885). Table 3 provides an overview of the cost and staff size of the Eurosystem. The table also shows that the Eurosystem's staff headcount is twice that of the Fed. As staff costs make up a substantial part of total costs, the Eurosystem's total costs are also more than twice those of the Fed.

Table 3: Staff headcounts and operating costs of the Eurosystem and the Fed

Eurosystem	Staff	Total operating costs (in € millions)
ECB	3,171	953.8
Austria	1,092	425.1
Belgium	2,197	413.4
Cyprus	n/a	43.4
Estonia	231	17.7
Finland	376	99.7
France	11,690	2,192.0
Germany	9,775	1,811.0
Greece	1,854	331.7
Ireland	1,599	233.4
Italy	6,885	2,042.2
Latvia	539	39.4
Lithuania	588	36.3
Luxembourg	346	81.3
Malta	326	18.1
Netherlands	1,703	389.0
Portugal	1,797	198.3
Slovakia	1,075	82.2
Slovenia	448	33.1
Spain	2,865	491.4
<i>Total euro area</i>	<i>48,557</i>	<i>9,932.6</i>

³ Comprises staff costs (including pension plans), administrative expenses, depreciations, and banknote production services.

⁴ Including pensions plans, other post-employment benefits, and other long-term benefits.

⁵ Measured in full-time equivalent units.

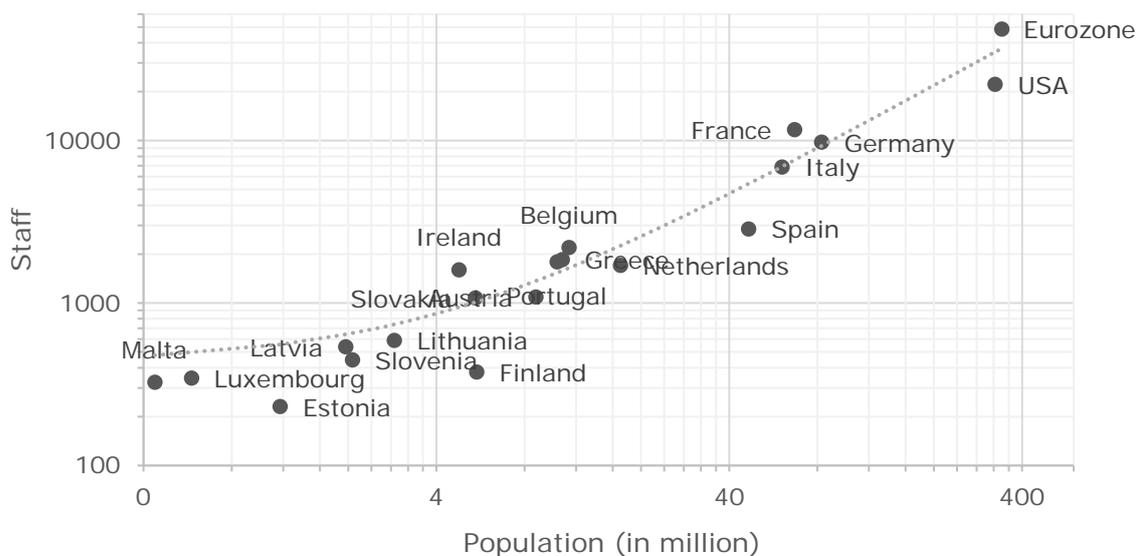
⁶ No employment figures of the Central Bank of Cyprus were found and the last available ones for the Central Bank of Greece are from 2014.

Federal Reserve System	Staff	Total operating costs (in € millions of 2016 ⁷)
Board of Governors (including Office of Inspector General)	2,919	650.4 (\$719.8 million)
Reserve Banks (including currency)	19,330	4,277.1 (\$4,732.8 million)
<i>Total USA</i>	<i>22,249</i>	<i>4,927.9 (\$ 5,452.6 million)</i>

Source: ECB Annual report, NCBs' Annual reports, Fed Annual Report (all of 2016).

Table 3 shows a clear correlation between staff size and country populations (see also Figure 1). This suggests that the large staff size of the Eurosystem (compared to the Fed) is not primarily driven by certain outlying, relatively larger NCBs. However, Figure 1 shows that there are some NCBs (e.g. in France, Ireland and Belgium), which are relatively larger and some (e.g. Estonia and Spain) which are relatively smaller, compared to their populations. Figure 1 also shows that the Eurosystem has a greater headcount than the Fed, given similar populations of the euro area and the US. The results largely hold true also using GDP per country instead of population, or total operating expenses instead of staff size.

Figure 1: Population and NCB headcounts (2016)



Source: ECB and NCBs' websites; Fed Annual Report (2016); World Bank.

Notes: Both axes are shown in a logarithmic scale.

Table 3 shows that the ECB has a staff size very close to that of the Board of the Fed and, in the Eurosystem, to that of the Banco de España. However, the total costs of the ECB are higher than those of the Board of the Fed or Spain's central bank, but less than half of those of the NCBs of Germany, France and Italy.

The total size of the Eurosystem has come down substantially since its founding in 1998. In that year the ECB employed 2,637 persons fewer than in 2016 but the Banque de France, the Bundesbank, the Banca d'Italia and the Banco de España⁸ employed respectively 2,578, 4,683, 2,030 and 283 more employees than in 2017.⁹ Using these banks as an imperfect proxy, the entire Eurosystem's headcount has been reduced by 16.8 percent (6,937 units) since 1998.

⁷ Taking an average 2016 conversion rate of 0.90372 €/.\$.

⁸ Figures of 1999.

⁹ If available, numbers are presented in full-time equivalent employees.

3.3. Monetary policy: staffing and costs

The figures reported above are for total central banking costs, including those of supervision. Unfortunately, neither the ECB nor the NCBs publish breakdowns of costs and staff per function. To shed some light on the specific question on the monetary policy function addressed by this paper, one is therefore forced to use unavoidably rough methods.

The first method, which can define the upper range of the estimates, starts from three strong assumptions: first, central bank staff are dedicated, directly or indirectly, either to supervision or to monetary policy; second, the share of costs deriving from monetary policy is the same as the share of the staff dedicated to this function; third, the split between the costs and staff dedicated to monetary policy and supervision is the same at the ECB and at the NCBs. Since the ECB reports operational costs for supervision, we can obtain those deriving from monetary policy as a residual (€572.3 million), corresponding to 60 percent of the total, which is taken as an, upward biased, indicator of the share of the cost of monetary policy and of the staff dedicated to monetary policy at the ECB. Applying this same percentage to the entire Eurosystem, we end up with estimates of close to €6 billion spent by the Eurosystem on monetary policy (Table 4) and of more than 29,000 employees working on monetary policy in the entire Eurosystem.

The second method, which can define the lower range of the estimates, assumes that the split between monetary policy and other functions in the Eurosystem is the same as for the Fed. The very fine organisational details about the ‘costs’ of central banking given in the Fed’s *Annual Report* state that 12.7 percent¹⁰ of the Fed’s operating costs pertain to monetary policy (which clearly covers a much narrower definition than the residual one implicit in the first method), while supervision accounted for 24 percent. Using this much lower percentage than the one used in the first method, we get an estimate of €1,261.4 million in costs and 6,167 employees dedicated to monetary policy at the Eurosystem. This is also, obviously given that the total operational costs of the Eurosystem are considerably higher than those of the Fed, much higher than the figures reported by the Fed for its monetary policy staff and costs (€625.6 million)¹⁰. Thus, both the upper and the lower range of the estimates of the Eurosystem costs for the monetary policy function are higher than those of the Fed. Table 4 reports the relevant estimates.

Table 4: Eurosystem monetary policy costs

	Staff headcount	Operational costs [in € millions]	... in basis points ¹¹
ECB total	3,171 (100%)	953.8 (100%)	
... supervision	<i>1268 (40%)</i>	<i>382.1 (40%)</i>	
... monetary policy (method 1)	<i>1902 (60%)</i>	<i>572.3 (60%)</i>	<i>0.53</i>
... monetary policy (method 2)	<i>403 (12.7%)</i>	<i>121.1 (12.7%)</i>	<i>0.11</i>
Eurosystem total	48,557 (100%)	9,932.6 (100%)	
... monetary policy (method 1)	<i>29,134 (60%)</i>	<i>5,959.6 (60%)</i>	<i>5.55</i>
... monetary policy (method 2)	<i>6,167 (12.7%)</i>	<i>1,261.4 (12.7%)</i>	<i>1.18</i>

Source: ECB Annual Report; Fed Annual Report (all of 2016).

Notes: Figures in italics are estimates.

In order to have a sense of the figures in Table 4, it is useful to report them in a measurement unit different from the euro. In terms of total GDP of the euro area, the cost of the monetary policy function at the ECB and at the Eurosystem is 0.53 BPS (basis points) and 5.55 BPS respectively for method 1, and 0.11 BPS and 1.18 BPS respectively for method 2.

¹⁰ Entails €592 million (\$655.1 million) by the Federal Reserve Banks (“monetary and economic policy”) and €33.6 million (\$37.2 million) by the Board of Governors (“monetary affairs”).

¹¹ GDP of euro area in 2016: €10,730,473 million.

In terms of the operating costs of a commercial bank, the costs of the ECB for monetary policy (method 1) are comparable to the operating expenses of a medium sized bank such as the Hamburger Sparkasse AG. The costs of the Eurosystem are comparable to the operating expenses of a large bank like UniCredit.

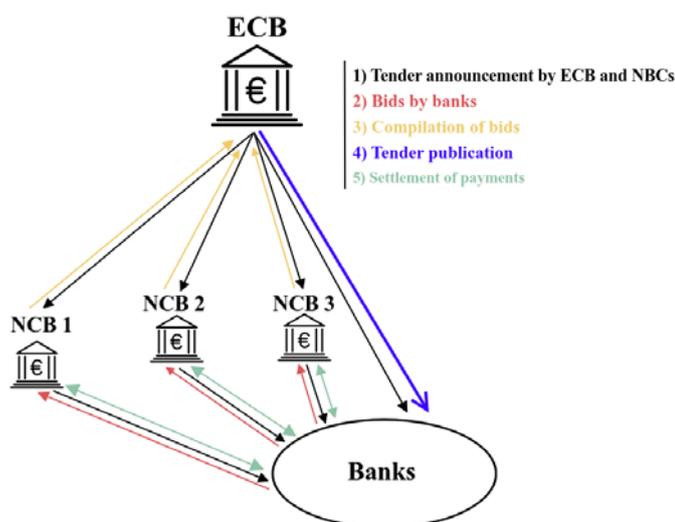
4. SIMPLICITY

The ECB states that “simplicity [...] ensure[s] that the intentions behind monetary policy operations are correctly understood” (ECB, 2017b), but the decentralised structure of the Eurosystem inevitably complicates its operations. In this section, we illustrate this point with two examples.

4.1. Liquidity management

Figure 2 depicts the information and operational flows between the ECB and the NCBs in the implementation of the liquidity providing operations. The ECB makes the announcement and the relevant information is spread by the ECB and the NCBs to banks and the public. After that, the NCBs collect the bids from the banks and pass them on to the ECB. The decision about the allotment is then taken and made public by the ECB. The settlement of payments is done between the private banks and the NCBs using the TARGET2 system.

Figure 2: Implementation of liquidity providing operations by the ECB



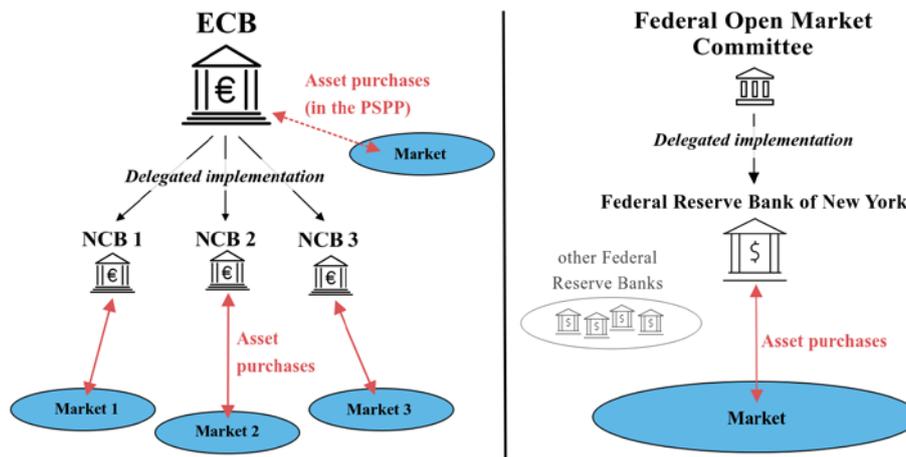
Source: ECB Guidelines on the implementation of monetary policy; own illustration.

4.2. Quantitative Easing

The implementation of Quantitative Easing is more complex at the Eurosystem than at the Fed (Figure 3)¹². Within the Fed, the Federal Open Market Committee (FOMC) makes the decisions and the Federal Reserve Bank of New York conducts all operations.

¹² See for a more complete description of the ECB's quantitative easing in Claeys, Leandro and Mandra (2015).

Figure 3: Comparison of asset purchase programme implementation



Source: ECB (2014); Website of the ECB; Board of Governors of the Federal Reserve System (2016); own illustration.

In the Eurosystem, the Governing Council of the ECB takes the decisions and the ECB coordinates the actions, but operations are mostly implemented by NCBs. The implementation of asset purchases even differs between different programmes within the asset purchase programme. As described in Table 5, purchases are either delegated to a selected number of NCBs and to the ECB, or shared based on capital subscriptions. Regarding the CSPP and the ABSPP, it is not entirely clear which criteria are used to choose the implementing NCBs and their geographical coverage.

Overall, it can be concluded that monetary policy is implemented in a decentralised way in the Eurosystem at the expense of simplicity.

However, in reaching this conclusion, three factors must be taken into account:

1. The decentralised approach is required by the Treaty (Article 12.1 of the Statute of the European System of Central Banks and of the European Central Bank);
2. The extensive use of information technology reduces the problems of a decentralised approach;
3. NCBs have certain advantages in dealing with local counterparties, e.g. in terms of language and local market knowledge. Nevertheless, some simplification could be achieved, in particular in the area of asset purchases, where clearer criteria of specialisation could be used.

Table 5: APP implementation in the Eurosystem

Program	Implementing Institution	Geographical Coverage
CSPP	Nationale Bank van België/Banque Nationale de Belgique	BE, CY, GR, LU, MT, PT, NL****, SI and SK
	Deutsche Bundesbank	DE and NL*
	Banco de España	ES and NL**
	Suomen Pankki/Finlands Bank	AT, EE, FI, IE, LT, LV
	Banque de France	FR
	Banca d'Italia	IT and NL***
PSPP	All Eurosystem NCBs and ECB based on the capital key	NCB's home market
ABSPP *	Nationale Bank van België/Banque Nationale de Belgique	BE
	Deutsche Bundesbank	DE
	Banco de España	ES
	Banque de France	FI, FR, IE, LU, and PT
	Banca d'Italia	IT
	De Nederlandsche Bank	NL
CBPP3	Purchases by the ECB and the NCBs ⁰	n/a

Sources: ECB (2014); Website of the ECB.

Notes:

- * Includes bonds of issuers with NL as residence country and DE as country of risk.
- ** Includes bonds of issuers with NL as residence country and ES as country of risk.
- *** Includes bonds of issuers with NL as residence country and IT as country of risk.
- **** Includes bonds of issuers with NL as residence country and a country of risk other than DE, ES and IT.
- x Other markets will only be explicitly allocated in case of eligible issuance.
- ⁰ No further information on implementation is provided by the ECB or the NCBs.

5. RECOMMENDATIONS AND CONCLUSIONS

On transparency:

1. The ECB has considerably increased the transparency of its implementation of monetary policy over the last few years;
2. The information is often published in unsystematic and user-unfriendly ways;
3. Overall, the ECB is less transparent than the Fed;
4. More information should be provided on so called ANFA operations as well as on the investment of foreign reserves and the ECB own funds;
5. The ECB should have more recourse to the practice of publishing information after an appropriate delay; this should particularly apply to information about Emergency Liquidity Assistance and possibly to asset purchases;
6. The ECB should provide exhaustive information on the country breakdown of its liquidity management operations;
7. The Eurosystem should be much more open and precise about its costs and the staff employed to carry out its different functions. In particular the Eurosystem could implement a data collection system similar to that of Eurostat, where NCBs would report to the ECB data on monetary policy and their own operations (costs and staff) in a standardised manner.

On efficiency:

1. Any assessment of the efficiency of the system is severely impaired by the lack of information provided by the Eurosystem on its costs and staffing levels;
2. The Eurosystem has made progress towards efficiency by reducing its total headcount by an estimate of around 17 percent since its creation;
3. Still, the Eurosystem is much larger than the Fed and more progress seems possible in terms of reducing costs and staff numbers dedicated to implementation of monetary policy;
4. While there is no evidence of overstaffing at the ECB, some NCBs have higher staff numbers than the size of their jurisdiction would imply.

On simplicity:

1. The implementation modalities of the Eurosystem are intrinsically complex, because of its decentralised set-up, as required by the EU Treaty;
2. However, a simplification of asset purchase operations could be achieved. For instance:
 - i. Basing the sharing of purchases between NCBs on objective and functional criteria,
 - ii. Achieving further specialisation in the purchase operations.
 - iii. Giving a greater role to the ECB.

REFERENCES

- Annual reports of all euro area's national central banks.
- Annual reports of the European Central Bank.
- Board of Governors of the Federal Reserve System (2016), The Federal Reserve System - Purposes & Functions, Federal Reserve System Publication.
- Claey's, Leandro and Mandra (2015), European Central Bank Quantitative Easing: The Detailed Manual, Bruegel Policy Contribution, Issue 2015/02 March 2015.
- Dincer and Eichengreen (2007), Central Bank Transparency: where, why, and with what effects?, NBER Working Paper, No. 13003.
- ECB (2014), Guideline (EU) 2015/510 of the European Central Bank.
- ECB (2017a), More details on the public sector purchase programme (PSPP) - Questions & answers, <https://www.ecb.europa.eu/mopo/implement/omt/html/pspp-qa.en.html>, accessed August 2017.
- ECB (2017b), Monetary policy instruments, <https://www.ecb.europa.eu/mopo/intro/operational/html/index.en.html>, accessed August 2017.
- Eijffinger and Geraats (2006), How transparent are central banks?, European Journal of Political Economy, Volume 22, Issue 1.
- Financial Times (2016), [Bank chief executives' pay 2016](https://ig.ft.com/bank-ceo-pay/2017/?mhq5j=e4), <https://ig.ft.com/bank-ceo-pay/2017/?mhq5j=e4>, accessed August 2017.
- Geraats (2001), Why adopt transparency? The publication of central bank forecasts, CEPR Discussion Paper 2582.
- Papadia (2015), ANFA or a perfect storm in a cup of tea, <http://moneymatters-monetarypolicy.eu/anfa-or-a-perfect-storm-in-a-cup-of-tea/>, accessed August 2017
- Website of the ECB.

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT ECONOMIC AND SCIENTIFIC POLICY **A**

Role

Policy departments are research units that provide specialised advice to committees, inter-parliamentary delegations and other parliamentary bodies.

Policy Areas

- Economic and Monetary Affairs
- Employment and Social Affairs
- Environment, Public Health and Food Safety
- Industry, Research and Energy
- Internal Market and Consumer Protection

Documents

Visit the European Parliament website:
<http://www.europarl.europa.eu/supporting-analyses>



ISBN 978-92-846-1629-9 (paper)
ISBN 978-92-846-1630-5 (pdf)

doi: 10.2861/868792 (paper)
doi: 10.2861/451122 (pdf)

