Government Plenipotentiary for Euro Adoption in Poland

Strategic Guidelines for the National Euro Changeover Plan

Warsaw, 26 October 2010

Strategic Guidelines for the National Euro Changeover Plan were reviewed by the members of the Coordinating Council, established by Regulation of the Council of Ministers of 3 November 2009 on establishing the National Euro Coordination Committee, the Coordinating Council and Interinstitutional Working Committees for Euro Changeover Preparations in the Republic of Poland (Journal of Laws No. 195, item 1505). The Coordinating Council is responsible for the implementation of measures put forward in the Strategic Guidelines for the National Euro Changeover Plan, including the coordination of drafting, updating and implementing the National Euro Changeover Plan.

Summary

1. Adopting the euro and benefiting from full membership of the Economic and Monetary Union is among top priorities of the Polish government's economic policy. The government aims at achieving this goal as soon as possible, however taking into account the necessary conditions of a secure euro area membership, as specified in the document *Prerequisites for Implementation of the Next Stages of the Road Map for Euro Adoption in Poland*. The government's determination to achieve this goal results from the expected substantial economic benefits of the euro area membership. These include a reduction in transaction costs in international trade, elimination of the PLN/EUR exchange rate risk, a drop in market interest rates and increased stability and credibility of the government's macroeconomic policy. There are also significant political benefits that cannot be measured directly but should nevertheless be taken into account, such as participation in the decision process by the European Central Bank and the activities of the Eurogroup. These benefits, accumulated over time, will stimulate trade between Poland and the rest of the world, increase investments, substantially reduce debt servicing costs, thus generating public finance savings, and strengthen Poland's competitive position. As a result, euro adoption should ensure solid foundations for sustainable economic development as well as an increase in consumption and welfare. However, the final long-term effects of euro adoption will be largely determined by Poland's economic policy.

2. Euro adoption involves also certain costs. In the short run they result from the organisational and technical adjustments, such as adaptation of IT systems, acquisition and distribution of euro banknotes and coins, and information activities. The changeover also involves the risk of temporary atypical price developments. Moreover, the nominal convergence of the Polish economy towards the euro area induced by lower interest rates may result in a credit boom. Long-term costs, on the other hand, involve abandoning of the independent monetary policy, including using the nominal exchange rate as a tool to ease macroeconomic shocks. The scale of these costs depends, however, on the extent of similarity between the Polish economy and the euro area (real convergence) as well as the flexibility of the Polish economy.

3. The cost - benefit analysis of euro adoption indicates that the Polish economy and Polish consumers should expect immediate substantial benefits from currency changeover. Estimates range between 0.9% of GDP (the pessimistic scenario) and 1.9% of GDP (the optimistic scenario) or – in other terms – 0.3% and 0.9% of private consumption. The long-term net benefits are estimated at 2.5%-7.5% of GDP (0.9%-3.6% of private consumption). The cost-benefit analysis clearly shows that the

benefits dominate over the costs of euro adoption, both in the short and long term.

4. The final effects of euro adoption and how fast they materialise will depend on Poland's preparation for the changeover. Developing policy measures towards maximization of benefits and opportunities while minimising costs and threats is the task of the organisational structure, appointed by the Polish government on 3rd November 2009. The solutions include in particular actions preventing an excessive credit growth and unjustified price increases, raising flexibility of the Polish economy, improving the institutional setting for businesses and ensuring appropriate organisational and technical preparations for the changeover process.

5. The organisational structure is also responsible for monitoring the extent of and the prospects for fulfilling the Maastricht criteria on price and exchange-rate stability, as well as fiscal, long-term interest rates and legal convergence. Sustainable fulfilment of these criteria, which is a formal condition for accepting a Member State with a derogation into the euro area, is regularly assessed by the European Commission and the European Central Bank in Convergence Reports.

6. The Ecofin Council decides on abrogating the derogation based on the Convergence Reports' assessment and taking into account the opinion of the European Parliament and the European Council, as well as a recommendation of the Eurogroup. As a consequence of the convergence criteria requirements and the formal procedures, there is approximately a 3-year time span between joining the ERM II and the euro adoption. This period can be longer, however, should the Eurogroup issue its recommendation no sooner than after 6 months, the maximum possible period.

7. The fulfilment of the exchange-rate criterion requires at least two-year membership in the ERM II, during which the exchange rate shall remain close to the central parity or on its strong side without severe tensions or devaluation against the euro on the country's own initiative. For this reason, the most vital tasks for the fulfilment of the exchange-rate criterion include: choosing the right moment for the accession to the ERM II, setting the central parity at the optimal level and monitoring whether it remains in line with the economic situation and, if required, taking necessary steps to restore stability in the FX market. Moreover, the exchange-rate criterion may only be met if the candidate country has the ability to fulfil all the remaining convergence criteria. Therefore, the ERM II accession should only take place when within two years there is a high probability of a sustainable fulfilment of the remaining Maastricht criteria and meeting all the formal conditions of euro area membership.

8. Integration with the euro area involves not only fulfilment of the convergence criteria and strengthening the flexibility of the economy but also complex adjustments in areas such as public administration, financial and non-financial sectors. Euro adoption in Poland will be a major large-scale organisational challenge that requires every institution, organisation, business entity and every citizen to take action and prepare accordingly.

9. Completion of these preparation processes will require comprehensive legal adjustments associated with the currency changeover. Moreover, to limit the inconvenience and costs to the citizens, proper actions aimed at protecting consumer rights during the changeover process should be taken. In addition, a large-scale information campaign should take place in order to facilitate the citizens' changeover preparations. The most time-consuming and at the same time the most vital tasks in the process include: cash changeover, adaptation of IT and equipment used for cash and non-cash transactions (e.g. cash registers, vending machines, POS terminals), conversion of monetary amounts (e.g. prices, salaries, bank deposits) from the zloty to the euro, and historical data conversion. Completion of these tasks will require an engagement of the public administration, the National Bank of Poland, businesses and all citizens.

10. The sort and intensity of preparatory actions will vary depending on the stage of the changeover process. Certain preparations depend on the euro adoption date, while others can, and should, start immediately. Early planning and commencement of preparations will reduce the risk of any delays in the process, and as a result, will prevent disturbances in the daily activities within public institutions, businesses and other organisations.

11. To facilitate effective, smooth and timely preparations, Polish government has appointed an organisational structure, chaired by the Government Plenipotentiary for euro adoption in Poland and co-chaired by the Plenipotentiary of the National Bank of Poland's Management Board. The organisational structure comprises the National Coordination Committee for Euro Changeover, the Coordinating Council, eight Working Committees and Task Groups. The main responsibility of these entities is to cooperate with the Government Plenipotentiary in order to support his tasks of planning and coordinating changeover preparations in Poland. Moreover, within the Ministry of Finance, the Bureau of Government Plenipotentiary for Euro Adoption in Poland has been set up. Its task is to prepare analyses related to the euro adoption in Poland as well as to provide organisational and secretarial support to the Plenipotentiary.

12. The first stage of the preparations for the currency changeover, currently carried out by the organisational structure in Poland, is analytical. It aims at defining the scope of necessary adjustments for the euro adoption, and in particular assessing its impact on the public administration, the financial and non-financial sectors and citizens' everyday lives. During this stage the required legal adjustments will be identified and the framework for the information campaign will be provided. Furthermore, the conditions and prerequisites for the fulfilment of individual preparatory tasks will be specified. An important factor influencing further actions within the euro changeover preparations are decisions taken by the Polish government and the National Bank of Poland with respect to the changeover scenario, duration of the dual circulation and dual price display periods and, most importantly, the final euro adoption date.

13. The first stage of the euro changeover preparations determines actions which will be taken in further stages. A detailed schedule will be provided in the *National Euro Changeover Plan* (NECP) – a document that will summarise the analytical stage of the currency changeover preparations in Poland. NECP will be a joint publication of the Polish government, the National Bank of Poland and other institutions involved in the organisational structure for the euro adoption in Poland. It will have been prepared by the end of September 2011.

Contents

List of symbols

BEER	Behavioural Equilibrium Exchange Rate
EC	European Commission
ECB	European Central Bank
Ecofin	Economic and Financial Affairs Council
EDP	Excessive Deficit Procedure
EFC	Economic and Financial Committee
EMU	Economic and Monetary Union
ERM	Exchange Rate Mechanism
ERV	Exchange Rate Volatility
ESBC	European System of Central Banks
EU	European Union
EUR	euro
FEER	Fundamental Equilibrium Exchange Rate
GDP	Gross Domestic Product
MPC	Monetary Policy Council, pol. *Rada Polityki Pieniężnej*
NBP	National Bank of Poland
NBS	National Bank of Slovakia
NFA	net foreign assets
PLN	Polish zloty
TFEU	Treaty on the Functioning of the European Union
TL	Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community

1 Introduction

Since the accession to the European Union (EU), Poland has been participating in the third stage of the Economic and Monetary Union (EMU) with the status of a country with a derogation[1]. This means that **at the moment of entry into the EU, Poland has committed itself to adopting the euro in the future, and by voting in favour of the accession to the European Union in a referendum, the Polish society supported the future replacement of the zloty by the euro**.

Poland's accession to the EU as a Member State with a derogation resulted from a general consensus view that entry into the euro area would benefit Poland both in the short and long term. Being part of the common currency area should create favourable conditions for sustainable and balanced economic growth and reduce differences in the level of economic development between Poland and other members of the euro area. Euro area membership will also entail a deeper integration of Poland into the decision-making process of the European Union. At the same time one should be aware that economic and monetary integration is not risk-free. This risk may, however, be reduced through appropriate policy measures.

In order to maximize benefits and opportunities and minimize the costs and risks associated with the euro area membership, it is necessary that Poland be adequately prepared to function in the common currency area economically, legally, institutionally as well as organizationally. It is also important to ensure a relatively high level of social approval for Poland's full participation in the euro area, which will require an information campaign suited to the needs of the Polish society and business entities. In addition, due to the fact that entry into the euro area is an organizationally complex endeavour, it is necessary that the tasks related to achieving full EMU membership are implemented smoothly by an organizational structure for the euro adoption in Poland, established by the Council of Ministers.

This document, the *Strategic Framework for the National Euro Changeover Plan*, is an attempt at responding to the abovementioned challenges and marks the next step on the path to solid preparation for the adoption of the common currency. The document looks synthetically at the currency integration process. The *Strategic Framework* presents in particular the net balance of costs and benefits of Poland's entry into the euro area and discusses the effects of euro adoption that will be especially relevant from the citizens' point of view. Furthermore, it systematizes the core issues related to Poland's integration with the euro area. These issues concern simultaneous fulfilment of formal conditions for

[1] Derogation is a temporary exemption of Poland, as a EU Member State, from some obligations under the Community law, i.e. the euro adoption.

the adoption of the common currency (convergence criteria), procedures related to their fulfilment and abrogation of the derogation. The *Strategic Framework* looks at the scope of preparations necessary to adopt the euro in Poland in as efficient manner as possible. It defines in particular the measures which are necessary in this process, the schedule for their implementation as well as the relevant responsible entities.

This document is also a part of the commitments made by the Government in the *Prerequisites for Implementation of the Next Stages of the Road Map for Euro Adoption in Poland* (hereinafter: *Prerequisites for the Road Map*). It should also be stressed that the 2005 report by the Ministry of Finance *Poland's integration with the euro area: prerequisites for membership and the strategy for managing the process* already indicated the need for drafting such a document to ensure Poland's smooth integration with the euro area.

As emphasised in previous documents, in the *Roadmap for Poland's Euro Changeover* (hereinafter referred to as the *Roadmap*), and the *Prerequisites for the Road Map*, the intention of the of the Government of the Republic of Poland is that Poland meet the nominal convergence criteria and other formal conditions for joining the euro area as early as possible.

The *Road Map* assumed fulfilment of all the nominal convergence criteria and other formal conditions related to the entry into the euro area by 2011, which would allow Poland to adopt the common European currency on 1 January 2012. Although at the moment of drafting the document (in October 2008) this schedule was feasible, the shocks in financial markets observed subsequently and the sharp slowdown in world economy, unprecedented since the Great Depression, rendered its implementation impossible. External factors beyond the control of the national economic policy contributed to destabilisation of the zloty's exchange rate, and through a weaker external demand, to a slower economic growth in Poland. Economic slowdown resulted in deterioration of the public finance in majority of the European Union countries, including Poland. Consequently, the general government deficit exceeded the reference value and the Excessive Deficit Procedure was opened for these countries.

Financial turmoil, the resulting excessive volatility of the zloty's exchange rate, delay in the fulfilment of the fiscal criterion and lack of political consensus on implementing legal adjustments necessary for the adoption of the common currency – all these factors imply that the conditions for secure zloty's entry into the ERM II, as defined in the *Prerequisites for the Road Map,* have not been met so far. This amounts to delaying the moment of fulfilling the exchange rate criterion and, consequently, it is necessary to revise the schedule of Poland's euro adoption set in 2008.

For this reason, this document discusses in more detail the formal conditions for Poland's accession to the euro area, indicated in the *Prerequisites for the Road Map*, and an attempt was made at presenting possible scenarios of Poland's fulfilment of the exchange rate criterion. Also, bearing in mind the high level of uncertainty as to the evolution of the future economic situation, **setting, at present, a precise date for euro adoption in Poland would be associated with considerable risk**. Failure to meet a clear deadline would, on the other hand, result in a lower credibility of the strategy for the Republic of Poland's integration with the euro area and the related unfavourable economic effects.

The Polish government will, however, continue to take all the necessary measures aimed at **adopting the euro as soon as possible. The schedule for preparatory measures for Poland's full integration with the euro area in Chapter 4 shows the determination to achieve this goal.** Continuing preparatory measures in the climate of uncertainty as to the final date of euro adoption in Poland is aimed at ensuring organisational preparedness for the adoption of the common currency when all the conditions specified in Chapter 3 of the Strategic Framework will have been met.

In other words, this document does not focus on dates but on defining the necessary preparatory measures and their optimum sequence. As a consequence, the Strategic Framework is universal and independent from the final date of euro adoption in Poland. Nevertheless, in order to maximize the efficiency of the euro adoption preparation process, this document already presents a calendar of measures for the coming months, during which it is necessary to identify the scope of essential preparations for adopting the common currency and to define their timeframe. The results of this stage will determine the actions to be taken in the subsequent stages of monetary integration. **A detailed schedule for those measures will be published in an update to the present document, prepared, as in other EU countries, in the form of the National Euro Changeover Plan (NECP) to be drafted by the interinstitutional organizational structure in the third quarter of 2011.** NECP will be updated if necessary.

2 Balance of costs and benefits of euro adoption in Poland

The government's determination to integrate Poland with the euro area as soon as possible (taking into account the necessary security conditions, as specified in the *Prerequisites for the Road Map*) is based on the conviction that this will be beneficial for the Polish economy. This view was also frequently expressed by the Monetary Policy Council (MPC), which pointed out the need to adopt the common currency as soon as possible, after meeting the conditions related to legal changes, structural reforms and sustainable fulfilment of the nominal convergence criteria. **The balance of costs and benefits of euro adoption in Poland presented below confirms that such approach is justified. It has been demonstrated that the benefits outweigh the costs both in the short term and in the long term.**

This document is merely a synthetic discussion of different categories of benefits and opportunities as well as costs and threats related to euro adoption as these have already been described in detail in earlier publications, including NBP (2004; 2009b), IMF (2005) and EC (2008c). The value added of the *Strategic Framework* consists, however, in presenting a net balance of the adoption of the common currency in Poland, taking into account the latest research on the effects of Poland's integration with the euro area. A set of analyses used for this aim is discussed in a publication of the Ministry of Finance entitled *Balance of Costs and Benefits of Euro Adoption in Poland in the light of the latest research*, a document which supplements the *Strategic Framework*.[2]

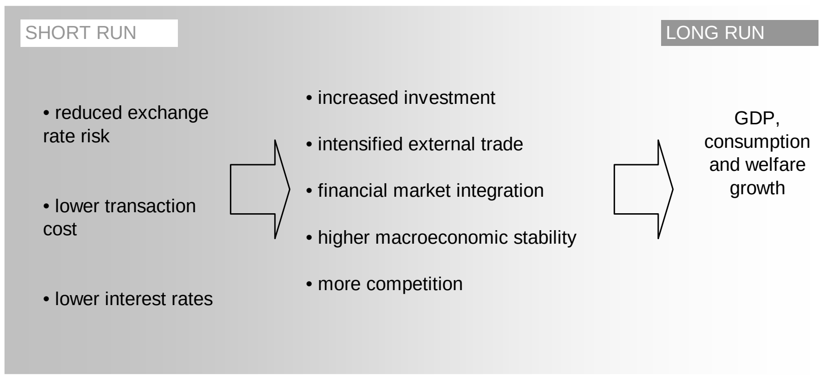
The balance presented is only an approximation as some costs and benefits cannot be quantified. In addition, many of these are conditional upon other factors. The results of different analyses do not lend themselves easily to comparison due to contrasting assumptions and the use of various methods. Taking into consideration the abovementioned limitations, this documents attempts to gather the costs and benefits of the currency integration with the use of qualitative approach in some areas. Also, while drafting the balance, the effort was made to ensure that the estimates were conservative, i.e. the upper limit of costs and the lower limit of benefits of euro area membership were adopted under uncertainty.

It should also be emphasised that the estimates of the balance correspond to a "regular" economic situation, i.e. they do not take into account transitory extreme situations, such as the recent global deep economic and financial crisis. Specific circumstances in a given moment may impact the balance of euro adoption effects, in particular in the short-term. However, these are impossible to anticipate and taken into account *ex ante* in the research.

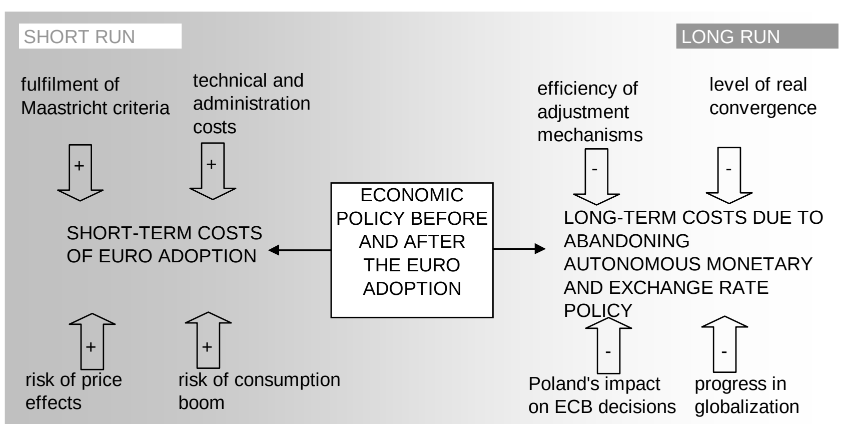
[2]This accompanying publication is available in Polish at `http://euro.mf.gov.pl`.

Chart 1. Short and long-term costs and benefits of the euro adoption

(a) benefits and opportunities



(b) costs and threats



The “+" symbol means that a given category entails costs or could pose a threat. The "-" symbol means that the category contributes to the reduction of the scale of costs. The costs also depend on factors controlled by Polish economic policy. Its positive or negative impact will depend on the manner in which this policy is implemented.

It is only after a sufficiently long period of time after the crisis, long enough to enable a reliable and comprehensive assessment of its short and perhaps mid-term impact on the economic situation, that it will be possible to consider an update on the estimates of costs and benefits of the euro adoption specified below.

The balance distinguishes between short-term and long-term effects. Short-term effects include benefits and one-off costs or costs which have an impact directly after the adoption of the common currency. Permanent effects of the euro adoption are considered to be long-term effects. Long-term effects are to be understood as risks and opportunities as their materialization will depend on the evolution of the economic policy throughout many years. Core categories of costs and benefits understood in this manner are presented in Chart 1 and discussed step-by-step in the subsequent parts of this Chapter. This chart is simplified and classifies costs and benefits as either short- or long-run according to the time horizon in which they play a dominant role. Part (a) presents opportunities and benefits which are categorised according to their expected sequence in terms of economic causality. Part (b) presents short-term costs and threats as well as core factors which have an impact on the scale of the long-term costs.

2.1 Short-term costs and benefits of euro adoption

The following changes will affect consumers and enterprises[3] at the moment of Poland's entry into the euro area:

1. **cash changeover** – previously used banknotes and coins shall be replaced by their euro equivalents;
2. all the values denominated in zloty (prices, remuneration, loans, deposits, liabilities and other) shall be **converted into euro** according to a single and irrevocable exchange rate which will be set by the Ecofin Council at the moment of abrogating the derogation (see Appendix A for details);
3. **the level of interest rates** will be equal or close to the one prevailing in the euro area[4].

Those changes will entail a number of benefits for Poland (see: Box 1).

[3]Provided that the *big bang* scenario is used (see Box 11).

[4]In some market segments, interest rates levels may vary due to local conditions, including market liquidity or the related risk premium. The experience shows, however, that this variation is considerably lower as compared to the situation before the euro adoption, and in case of short-term money market rates, these levels have become almost identical.

Box 1. The conviction that we do not lose anything if we retain the zloty

At present Poland has its own currency and pursues an autonomous monetary policy. Whenever the consequences of euro adoption and abandoning the zloty are discussed, the current and future situation are compared. Maintaining the current system always seems to be the safest solution. This is particularly true in situations when economic change has a great scope and affects every citizen. It is natural that the society fears such changes.

It would, however, be false to claim that Poland would not lose anything by postponing the entry into the euro area. Such a decision might be associated with an opportunity cost of missed potential benefits. The reason for using the "we-have-nothing-to-lose" argument in the debates may be twofold. On the one hand, the cost of missed opportunities is perhaps not taken into account. The other reason might be lacking knowledge about the size of costs and benefits of Poland's entry into the euro area. Examples of the "old" EU states, which did not enter the euro area (such as Denmark, Sweden or the United Kingdom) belong to the most frequently used arguments in favour of retaining the zloty. However, this argument does not take into consideration the differences in legal and economic situation of Poland and the abovementioned countries.

By delaying its entry into the euro area, Poland would miss many benefits such as reduction of transaction costs in international trade, elimination of the PLN/EUR exchange rate risk, a drop in market interest rates and increased stability and credibility of the government's macroeconomic policy. These benefits, accumulated over time, will stimulate trade between Poland and the rest of the world, increase investment, substantially reduce debt servicing costs of the general government and strengthen Poland's competitive position, thereby creating solid fundamentals for economic growth, higher consumption and welfare. There are also significant political benefits that cannot be measured directly but should nevertheless be taken into account, such as participation in the decision process of the European Central Bank and the activities of the Eurogroup (a group consisting of Ministers of Finance from the euro area), a body with increasing impact on the shape of European Union's economic policy. As a member of the latter, Poland could influence the EU policies towards the global challenges in a more efficient manner.

These benefits are particularly valuable for a country like Poland, catching up with high-income economies in terms of labour productivity, *per capita* income and wealth. Owing to the above mentioned effects, membership in the monetary union may accelerate the real converngence process. For this reason, one cannot say that Poland will not lose anything if it decides against a prompt integration with the euro area, using the Danish, British and Swedish experience as a benchmark. It is impossible to evaluate the balance of costs and benefits in Poland by following the same pattern that has been used for wealthier states with a long tradition of market economy and macroeconomic stability. For Poland, the key difference would be missing the development opportunities that currency integration creates for a catching-up economy, as confirmed i.a. by the experience of Ireland. In high-income economies, lower interest rates and broader access to the foreign savings for financing the development would probably not be a strong stimulus for growth. In addition, their risk premium (comprised in local interest rates) is probably lower so their entry into the euro area would not change this premium to any considerable extent.

Although retaining the zloty would allow Poland to preserve the tools of autonomous exchange rate and monetary policies, these might in the long run appear to be increasingly less efficient in the context of progressing economic globalisation. Increasingly closer connections with the abroad mean that it becomes more difficult to control inflation, as domestic monetary policy does not exert any significant impact on the global phenomena.

2.1.1 Short-term benefits

Adopting the common currency will eliminate transaction costs related to conversion and exchange of the zloty into euro and *vice versa*. This will affect e.g. Polish citizens travelling to the euro area countries, who shall not have to incur any costs or suffer any inconveniences related to the currency exchange. However, the Polish exporters and importers should be the biggest beneficiaries. The report by NBP (2009) states that already in 2005, most trade transactions in Poland were settled in euro, i.e. 70% of export and 60% of import transactions. Since then, the participation of euro area partners in trade has increased, which suggests that these fractions could be higher at present. Transaction costs in Polish foreign trade (with respect to the fraction that is settled in euro) are estimated at 1.0-1.5% of the GDP. The benefits related to their elimination shall not only manifest themselves at the moment of adopting the common currency, but they will be permanent.

Exchange rate risk in trading with the euro area will be completely eliminated. A high percentage of Polish enterprises (mainly small and medium-sized) declare that exchange rate fluctuations are the main barrier of entry into the foreign markets. On the other hand, adoption of the common currency is associated with disappearance of uncertainty about the stream of future revenues related to exchange rate fluctuations (against the euro), along with the need for hedging against such risk. Enterprises will be able to trade with partners from the euro area without any fear that the transaction values expressed in zlotys would unexpectedly change because of exchange rate fluctuations of the euro against the zloty. This facility will affect most of the external trade in Poland. In January – December 2009, trade with the euro area constituted approximately 56% of Polish exports and 49% of Polish imports.[5] The increased importance of euro area partners in Poland's trade has been growing in the recent years, both in line with an increasing level of trade integration and due to euro area enlargements.

Adopting an international currency may also contribute to a **reduction of the exchange rate related risk incurred by enterprises in trading with partners from outside the euro area**. Even though Polish companies' counterparts do not usually accept invoicing in the zloty, they could be willing to accept the euro. This is for instance confirmed by the experience of Spain, where the euro was adopted 1999 and exports invoiced in this currency have increased from 50 to 62% over the period 1999-2005 (for imports this figure increased from 41% to 47%).

Eliminating transaction costs and exchange rate risk should therefore simplify the process of foreign trading. **In the early years after the entry into the euro area, we may expect a noticeable increase in Polish external trade.** This is confirmed by the experience of the euro area countries, as well as by extensive empirical research. The results of a survey conducted by NBP in December 2007 indicate that 56% of small and medium enterprises in Poland intend to export more after the euro changeover. It is also expected that the enterprises which so far have not been involved in exports will have a stronger incentive to sell their goods in the foreign markets.

Decrease in market interest rates also belongs to key benefits of the euro adoption. The common monetary policy equalizes the short-term interest rates between the countries of the euro area. It should also equalize their expected future levels and therefore contribute to the reduction of the differences in long-term interest rates. In addition, the decrease in interest rates should result from a drop in risk premium, which is currently incorporated into the interest rates. This drop should be due to a higher macroeconomic stability and credibility of the country, as well as reduced currency risk. The decrease in risk premium and the impact of the expectations channel (term structure of the interest rates) should give rise to convergence of long-term interest rates, although it might not be complete due to differences between some components of the risk premium, including the liquidity risk. Long-term interest rates can gradually converge before the adoption of the common currency, as the market – while pricing financial instruments – is aware that Poland does not avail of the opt-out clause[6] and it will eventually become a euro area member.

Lower interest rates and the resulting decrease in borrowing cost will immediately become

[5] Preliminary data by GUS (Central Statistical Office) for January-December 2009.

[6] A country which avails of the opt-out clause does not participate in the third stage of Economic and Monetary Union. This means that the country may choose to either adopt the euro or retain its own currency.

noticeable for all debt servicing entities, including households, enterprises, as well as the general government sector. This factor shall i.a. allow to benefit from a considerable reduction in the cost of servicing the public debt. In 2008, the Ministry of Finance estimated that the euro adoption could bring annual savings of PLN 6.1 billion for Poland's state budget. Increased creditworthiness alone could result in a reduction of debt servicing costs by PLN 1 billion per year. It should be emphasised here that these estimates are based on assumptions reflecting the economic situation before the recent crisis, i.e. when money markets were much more stable. In the current context, under higher differentials in long-term interest rates between the euro area countries, these benefits are now more difficult to estimate.

When business is conducted in a macroeconomically stable environment where the capital cost is lower, the business-related risk is decreasing and additional resources are released, it is more likely that the economic activity grows and investment accelerates. These benefits shall fully materialize only in the long-term. However, the research conducted to date shows that a significant part of them should already be visible in the first years after the euro adoption.[7] In the first year following the adoption of the common currency, investment might grow by 1% to about 19% while private consumption might rise by approximately 2% compared to the scenario of remaining outside the euro area. An increase in investment should support the convergence of Poland to high-income economies by building up the economic potential and laying solid foundations for long-term economic growth (see: Box 2).

[7] It should be noted here that a change based on the elimination of euro changeover costs might benefit enterprises and consumers and be at the same time costly to banks which will lose some of their revenues generated from such operations. The resources used for the management of currency risk and FX transactions can be more efficiently reallocated into other parts of the sector and the economy.

Box 2. The fear that euro adoption will not be beneficial before achieving the Western European level of development

Full real convergence (i.e. achieving a similar level of economic development and economic structure as compared to other Western European countries) is not a prerequisite for entry into the euro area. The necessary conditions for euro adoption involve the nominal convergence criteria (see Appendix B) and it was decided at the stage of designing the euro area that their fulfilment is a sufficient test of a candidate country's preparedness for the monetary integration.

Nevertheless, a high level of real convergence has a positive impact on the balance of costs and benefits regarding Poland's entry into the euro area as it reduces the risk that a common monetary policy might not be suitable for the Polish economy. Macroeconomic theory holds that entry into the euro area should, however, accelerate the process of convergence (expected acceleration of economic growth due to intensified trade, investment growth and lower interest rates). The literature of the subject refers to this phenomenon as endogeneity of optimum currency area criteria. For that reason – subject to the condition specified below – a catching-up country would benefit more when it enters a monetary union established by highly developed countries at the stage before it achieves full real convergence. This requires, however, effective functioning of alternative adjustment mechanisms which allow to absorb shocks affecting the economy. The most important adjustment mechanisms include: wage and price flexibility, integrated and developed financial markets and a flexible fiscal policy. Importantly, the functioning of some mechanisms may be improved through the right actions taken by the government, including a more flexible labour and product market as well as reducing the rigidity of fiscal expenditures.

2.1.2 Short-term costs

Euro adoption and materialization of the above mentioned benefits require to take thorough preparations for Poland's full participation in the euro area (see Chapters 3 and 4 for details). These preparations shall take a timespan of several years before euro adoption and might sometimes entail costs.

The currency changeover will be an organisationally and technically complex project due to a multitude of necessary adjustments to be made in the economy. These would in particular involve adapting IT systems, obtaining and distributing banknotes or organizing an information campaign. The costs would be shared by the government, the financial sector and non-financial enterprises (see Chapter 4). **In 12 euro area states, the costs of euro adoption in 2002 were estimated *ex ante* at approximately 0.5-0.6% of GDP.** However, now that the euro is already available in cash, the cost of the changeover would definitely be lower. Broad awareness of euro banknotes and coins, possible application of the *big bang* scenario (see Box 11) and the possibility to learn from the experience of other states should facilitate a smooth introduction of the euro (cash and non-cash) and, at the same time, reduce the cost of this operation. This is proved by the experience of Slovakia. The amount of the costs shall eventually depend on the decisions on the cash changeover scenario (see Box 11), the scope of the information campaign and the logistic solutions used.

In addition to the above mentioned short-term costs, the currency integration process may entail some transitional risks. These may in particular concern the fulfilment of the convergence criteria and potential short-term price increases in the aftermath of the cash changeover. Whether or not these will materialize will depend on the circumstances of the euro adoption in Poland. An appropriate economic policy is able to minimize their impact.

Poland's entry into the euro area and the resulting benefits of euro adoption are conditional upon the fulfilment of the convergence criteria (see annex B). Although their fulfilment is beneficial regardless of the plans of euro adoption (the benefits include increased stability of economic environment, in particular through reducing fiscal imbalance), they may be interpreted as a constraint imposed on the manner in which macroeconomic policy is implemented. Consequently, the fulfilment of the criteria may be to some extent inconvenient for the society, e.g. because of the necessity to tighten the fiscal or monetary policy. However, the research shows that this inconvenience would be negligibly small – it would amount to a long-term decline in private consumption by 0.0156% or, equivalently, a one-off reduction by approximately 1.5% – and at the same time it would be accompanied by a considerably larger benefits of euro area membership. In addition, the emergence of the abovementioned costs depends on whether the limitations imposed by the implemented policy prove binding, i.e. whether future shocks in the Polish economy and its environment will actually give rise to the necessity of taking additional measures in order to fulfil the convergence criteria.

Within several months from the euro cash changeover, there is a risk of the emergence of some "untypical" price effects due to nominal rigidity[8], the effect of rounding off to attractive prices[9] or exploiting the consumers' confusion

[8]Nominal rigidity means that price adjustments are relatively infrequent due to the cost of such operations. A currency changeover entails for instance necessary replacements of price lists. Therefore enterprises find it more effective to delay any price adjustments to the period around the cash changeover. This phenomenon affects in particular the sectors with considerable nominal rigidity, e.g. restaurants, and its impact affects the distribution of the adjustments over time rather than their overall size.

[9]Attractive prices are mainly those that facilitate transactions (i.e. round prices) and prices which

to increase prices in an economically unjustified manner. Some of these effects are natural and lead to only slight and short-term price increases (rounding the prices, mass replacement of pricelists typical of currency changeovers). As it has already been confirmed by the experience of the new euro area members, price malpractices may be efficiently prevented through appropriate institutional solutions such as mandatory dual display of prices[10], encouraging enterprises to conclude agreements with the government on fair price conversion, accepting codes of best practice, increasing citizens' awareness through information campaigns, monitoring prices by consumer organisations etc.

The estimates of the euro adoption's impact on the price level in Poland range from -0.18% to 0.48% (with the median of 0.04%), provided that enterprises round attractive prices (up or down) to the nearest attractive price and – in the case of normal prices – to the nearest eurocent. Even in the worst-case scenario, i.e. if all prices were rounded up (the attractive ones to the nearest attractive ones and the normal ones to one eurocent), this impact would amount to 1.75% on average (see Box 3). Research findings indicate that this might l**ower private consumption in the short term by 0.08-0.16%**. What is important is that **the price effects of euro adoption are virtually the same for different social groups in Poland**, be it entrepreneurs, employees, farmers or pensioners; people living in large cities or small towns; single households or those comprising many family members; poor or wealthy.

Consequently, the government should focus first and foremost on preventing potential price malpractices commited by enterprises. It should also fight against the conviction that the new currency entails inflation. This phenomenon, referred to as the "euro illusion", was a serious social problem in the old euro area Member States. The discrepancy between the perceived and actual inflation is undesirable. The general feeling in the society that prices are increasing reduces the perceived purchasing power and might lead to a drop in consumption. The main threat is, however, that an increase in perceived inflation frequently leads to an increase in inflationary expectations, which might in turn result in higher wage pressure and the resulting actual price growth.

Given the number and complexity of factors explaining the "euro illusion", we should not be surprised that a majority of the society feels that there has been a sharp price increase following the euro cash changeover in 2002. The reasons for the "euro illusion" include: a relatively high price growth of the most frequently purchased goods and services[11], difficulty in becoming accustomed to new prices, distortion of the reference price remembered for

influence consumers' perception in such a way that they believe that goods and services appear less expensive (i.e. "psychological prices", usually ending with 9, for instance: PLN 9.99).

[10] Dual display of prices consists in quoting prices in the euro and domestic currency simultaneously.

[11] This increase may be partially attributed to the adoption of the common currency in the first 12 euro area member states. However, in late 2001 and early 2002, we experienced numerous supply shocks that gave rise to the increased prices of food which represents a large category of most frequently purchased

price comparisons or the use of approximate conversion rate rather than the official one by consumers (see Appendix D for details).

As a result of a greater awareness of the risks related to "euro illusion", new Member States of the EU implemented adequate measures, including information campaigns preceding the euro adoption. What seems to confirm the efficiency of these measures is the fact that the intensity of euro illusion in these countries was lower than in the first 12 states or the effect was not noted at all. Conclusions from the international experience will be drawn when devising appropriate solutions for Poland and these will be developed by the organizational structure established to prepare our country to adopt the common currency smoothly (see Chapter 4).

Box 3. Fears that the euro changeover will lead to a considerable price increase

The risk of the short-term price effects (several months around the cash changeover) is only potential. Whether or not it will materialize will to a large extent depend on the attitudes of the society, consumers and enterprises.

Currency changeover may be compared to conversion of miles into kilometers when measuring distance. Changing the unit has no impact on the distance and similarly the domestic currency changeover should have no effect on the general price level in the short run. Adoption of a new currency may, however, contribute to a change in the distribution of price adjustments over time. Due to high costs of price lists' replacement in some sectors, we may expect that enterprises will postpone any potential price adjustments from the period of several months around euro adoption to that particular moment. This should not change the actual prices and will only mean that the price changes will be spread differently over time.

Any significant inflationary effects related to the euro adoption would mean that enterprises are using unfair pricing practices. In the first 12 Member States, it cannot be ruled out that there were abuses in some groups of goods and services, because some price increases at that time cannot be explained by the evolution of other determinants of inflation. However, these effects were insignificant. Eurostat estimates that in 2002, general price increase due to euro changeover amounted to 0.1-0.3 p.p. on average.

Price increases after the euro adoption mainly affected the most frequently purchased goods and services and this had a disproportionate impact on the social perception of inflation

goods and services. In this category price movements have a disproportionate impact on perceived dynamics of general price levels because of purchase frequency and payment type (cash mainly).

as compared to the share of this category in average consumption spendings. For that reason, although these increases exerted only a minor impact on general price levels, they contributed to the so called "euro illusion", i.e. perceived inflation rate in considerable excess of the actual price dynamics. In euro area member states, the euro illusion gave rise to a popular conviction that the common currency had inflationary consequences, which also translated into a "price myth" in the Polish society.

The "euro illusion" may have a negative social and economic impact, i.e. potentially lower consumption demand and actual price increase through a wage-price spiral. However, the experience of the new Member States (Slovenia, Cyprus, Malta and Slovakia) suggests that the extent of this phenomenon may be reduced through an appropriately structured institutional system, i.e. consumer-targeted information campaigns and a system of punishments and rewards to reduce malpractices among enterprises.

For more see Appendix D.

2.1.3 Short-term balance

A balance of estimated, short-term effects of euro adoption in Poland reveals that despite the costs discussed above, the Polish economy and consumers may expect substantial benefits already in the early stages of the euro area membership. Short-term net benefits are estimated at 1.9% of GDP or 0.9% of private consumption (see Figure 1)[12] in the best-case scenario (cf. Table 1) and 0.9% of GDP and 0.3% of private consumption in the worst-case scenario respectively.

2.2 Long-term opportunities and threats related to euro adoption

The euro-related benefits for Poland discussed in the previous Chapter shall have significant implications for Polish economy in the long term. After transition to the new equilibrium point of the economy, the long-term production, consumption and capital should reach a higher level than if Poland remained outside the euro area. Various factors, including economic policy and Polish economy's preparation for the new currency, shall determine

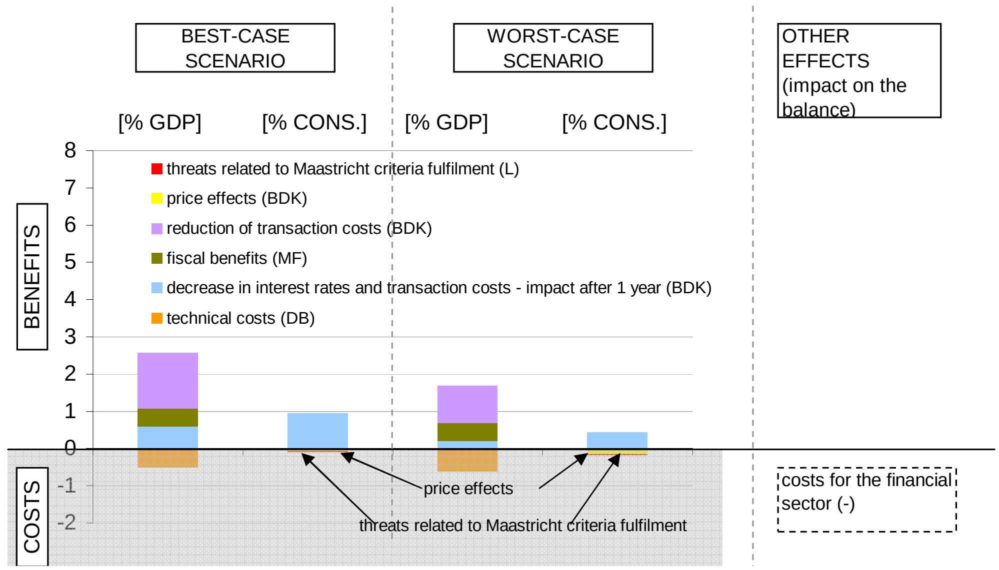
[12] Costs and benefits are expressed as % of GDP and % of private consumption depending on their economic meaning. It should at the same time be emphasised that the two forms of presentation are not independent, i.e. some effects are simultaneously comprised in both categories whenever it is possible and economically justified to describe them in this manner.

Table 1: Sources of differences between best-case and worst-case estimates

category	best-case scenario	worst-case scenario
lower interest rates	1 p.p. (DH)	0.7 p.p. (BDK)
eliminating transaction costs – the specification of the impulse	approximately 2% of Polish foreign trade and additionally 1% due to increased transparency and the elimination of exchange rate risk (DH)	approximately 2% of Polish foreign trade, relates to 80% of Polish trade (BDK)
eliminating transaction costs – short-term benefits	approximately 1.5% of GDP (BDK – maximum scenario)	approximately 1% of GDP (BDK – minimum scenario)
increased number of entities able to change their prices during the euro changeover	25% (BDK – minimum scenario)	50% (BDK – maximum scenario)
total size of price effects	0.5% (RKJ) the lower limit of the most likely interval	1.7% (RKJ) the upper limit of the most likely interval
fiscal benefits in 2009-2017	PLN 57.6 billion (MF) – realistic estimates	PLN 24.1 billion (MF) – conservative estimates
the end of the real convergence process	2035 (K)	2050 (K)

Source: prepared by MoF based on the articles cited (for explanation of the symbols, see Charts 1 and 3).

Figure 1: Approximate balance of short-term costs and benefits of the integration with the euro area



Source: MoF, based on Deutsche Bank (2001) – **DB**, Lipińska (2009) – **L**, Szczerbak et al. (2009) – **MF**, Bukowski et al. (2008) – **BDK**. For more technical discussion of the research findings, see the supplementary document.

when the abovementioned effects fully materialize. For that reason, estimating the size of long-term net benefits of Poland's integration with the euro area is more difficult. Also, a relatively short history of the euro area does not allow us to give a definite answer to the question of what will be the long-term costs and benefits of euro adoption. Regardless of the limitations discussed above and assumptions made (see Table 1), **the findings of research and analyses clearly indicate that the benefits of euro adoption will definitely outweigh its costs.**

2.2.1 Long-term benefits

The group of stimuli including decrease in interest rates, transaction costs and exchange rate risk should contribute in the long run to an upswing in investment and foreign trade, financial market development, higher macroeconomic stability and competition and, consequently, growth in output, consumption and welfare.

Euro adoption should result in an increase in domestic investment (owing to lower interest rates, the release of new resources and reduced cost of foreign financing) **as well as in foreign investment** (owing to elimination of exchange rate risk and increased macroeconomic stability and price transparency). The new currency should also encourage the transfer of new technologies and increased labour productivity. It is estimated that capital accumulation as a result of the euro adoption can be 12.6% higher in the long run compared to the scenario without the euro[13]. Many factors will have an impact on **whether or not investment grows in the context of an increased access to foreign savings and lower interest rates.** The main part shall, however, be played by the **institutional environment**. It is only when the quality of the institutional environment is not an obstacle to implement investment projects that it will be possible to achieve the expected, substantial benefits.

Reduced transaction costs and lower exchange rate risk, which are both related to the euro adoption, will contribute to an increase in trade when the competition is stronger and prices are more transparent. It is estimated that **increased foreign trade in Poland as a result of the euro adoption may in the long run stand at 12.9% for exports and 9.2% for imports** (compared to the scenario without the euro). The expected scale of this effect is similar to that in states which are already euro area members, where the **increase in the trade between euro area states was estimated at approximately 13%**. Also, this increase was accompanied by growth in trade volumes within the euro area (trade creation effect) rather than a shift in trade flows from other currency areas. Nevertheless, the impact of euro adoption on intensifying trade between euro area countries was weaker than that of such factors as: intracorporate trade, delocalisations of production and the inclusion of Asian states in the globalisation process.

In addition, eliminating transaction costs and a decrease in risk premium may contribute to further acceleration in financial market development in Poland. A higher number of products and competing entities would facilitate the access of consumers and enterprises to a wider range of less expensive financial products and goods of higher quality, as well as to the European financial market (e.g. the possibility of financing in the deeper European capital market). This access is now limited, especially for small and medium enterprizes, due to exchange rate risk and relatively high prices. It should, however, be emphasized that the majority of benefits of financial market integration have already materialized as a result of the EU accession. The euro's impact in terms of local financing will therefore not be immediate.

Research findings show that in the long run these changes should lead to a 2.5-7.5% increase of the GDP compared to the scenario without the euro (see also: Box 4 and Figure 2), **sustainable growth of private consumption by 1.1-3.7% and of public consumption by 7.5%.** The scale of this effect depends both on the method of analysis

[13]Estimates are based on a decrease in interest rates by 1%. The scale of the decrease was based on an analysis of the difference between Poland's government bond interest rates and that of euro area members up to 2008. The subsequent parts of the sub-chapter present estimates related to export, import, GDP (by 7.5%) as well as private and public consumption (3.7%) which rely on the same assumptions.

applied as well as on the estimates of initial effects of the euro adoption on the decrease in interest rates and transaction costs (cf. Table 1).

Box 4. The fear that by joining the monetary union whose economic growth is slower, we will "slow down" as well

In 1999-2009, the average GDP growth rate in Poland and other countries of Central and Eastern Europe was considerably larger than the GDP growth rate in Western Europe which for the main part are euro area members. The average annual real GDP growth rate in our region ranged from 2.7% in Hungary to 4% in Poland and even up to about 4.2-4.6% in the Baltic economies. In the same period, the euro area's economy grew annually by 1.5%. In this context, there is an argument in the public debate that Poland should not join the monetary union whose growth is slower. The popularity of this argument relies on superficial analysis of statistical data and the wrong assumption that monetary union membership is the main factor determining the growth rate of any economy.

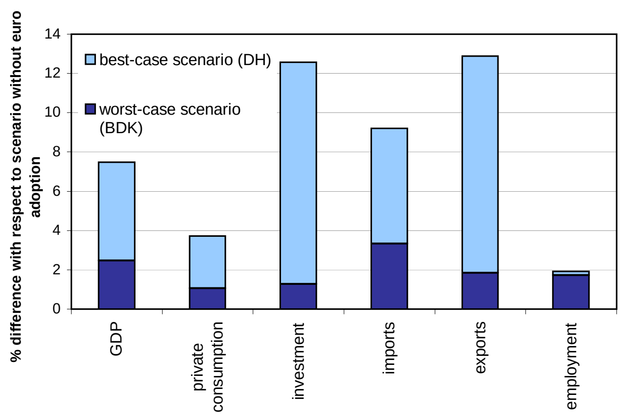
For a catching-up economy, fast GDP growth is normal. Poland and new EU Member States are catching up with wealthier states of the "old" Europe in terms of labour productivity and *per capita* income. For that reason, wealthy Western European economies, which by definition account for the euro area statistics to the largest extent, do not achieve as high rates of economic growth as Poland. Italian and German economics in the last decade grew respectively by 0.7 and 0.9% annually.

This concerns equally the "old" Europe countries which decided against the entry into the euro area. Danish, Swedish and British economies also grow slower than Central European economies. In Denmark, the GDP growth rate amonuted to 1.0% annually (less than in the euro area), and in Sweden and the United Kingdom it amounted to 2% annually (more than in the euro area).

On the other hand, less developed economies within the euro area also achieved a relatively high growth rate. Although in the monetary union as a whole GDP grew by approximately 1.5% annually, in Ireland, Greece and Spain it amounted to 4.4%, 3.5% and 2.8% respectively, which is comparable with Eastern European economies. The diversity within the euro area contradicts the opinion that monetary union membership slows down the growth rate of catching up economies.

Portugal is an entirely different case as its GDP in 1999-2009 grew on average by a mere 1.1% annually although this economy is less developed than the euro area on average. The experience of this country shows that – in the long run – it is the development of economic

Figure 2: Main categories of long-term benefits of the integration with the euro area



Source: prepared by MoF based on Bukowski et al. (2008), Daras and Hagemejer (2009).

potential that is a key element for economic growth rather than such factors as the monetary policy or exchange rates. This potential is in turn affected by supply-side factors, including labour productivity, investment, innovation, research and development, workers' education and institutional stability.

The euro encourages more effective allocation of resources and creates favourable conditions for the growth of economic potential. Whether or not these opportunities are used depends on the right preparation of the economy, a fact confirmed by the Portuguese experience. Research made by the National Bank of Poland shows that Poland may expect a sustainable GDP growth by 7.5% owing to benefits related to the euro adoption. Taking full advantage of those benefits depends on adequate preparation of the Polish economy for monetary union membership.

2.2.2 Long-term costs

Abandoning the possibility to lead an independent monetary and exchange rate policy will be the key long-term cost that Poland will have to incur in order to achieve the benefits described above.

After Poland's integration with the euro area, the interest rates in the Polish money market shall depend on the decisions made by the European Central Bank (ECB) rather than by the National Bank of Poland (NBP). The main objective of ECB's monetary policy is, however, to ensure price stability in the monetary union as a whole. Each state entering the euro area faces the risk that the decisions which seem to be optimum from the whole euro area's point of view might not be optimum for its own economy. **However, NBP estimates that the cost of abandoning the independent monetary policy will not be high** (see also Box 5) and for an average consumer it will be equivalent to a long-term reduction in consumption by a mere fraction of a percent (approximately 0.05%).

It should be noticed that an interest rates decrease related to the euro changeover, in addition to the previously listed numerous benefits, can lead to some adverse processes. It particularly concerns the situation in which an unfavorable institutional environment and related expected low benefits from the implementation of new investment projects would constitute a primary investment barrier. In this case, the main consequence of the interest rates decrease could be an excessive growth of consumption. **A possible "boom" in consumption could lead to an excessively rapid growth of wages and salaries, as well as prices** (see also Box 6), **thereby reducing the foreign competitiveness of the producers in the country** (see Appendix D). However, the cost of the transitory consumption "boom" and resulting increase in volatility of production and consumption would not probably be significant and is estimated at around 1.0-1.4% of long-term benefits from the introduction of the euro. This cost is conditional upon, among others, the pace of catching-up process by Poland with the more developed economies (see Table 1). The higher the rate, the more significant the aforementioned increase in investment will be, building the future potential of the economy.

Regardless of the results of research, indicating a limited cost of the potential consumption "boom" as a result of the euro adoption, some policy measures should be applied in order to reduce the risk and magnitude of the excessive growth in the volume of consumer loans after the introduction of the single currency. This risk concerns in particular the countries with a lower level of economic development (as measured by e.g. GDP *per capita*). In this context, the experience of the euro area countries should be particularly valuable (e.g. Greece, Ireland, Portugal, Spain). Those states strengthened their financial supervision and prudential standards for granting credits. An important role should also be played by adequate tightening of fiscal policy stance. Proposals of solutions will be developed also in Poland, within the aforementioned interinstitutional organizational structure (see Chapter 4).

Apart from the permanent decrease in nominal interest rates and the related scenario of structural inadequacy of the single monetary policy, the risk of "booms" may equally follow the procyclical character of the real interest rates at the national level. The growing inflation expectations are reducing the real interest rate, which can further boost the economic activity, and – as a result – lead to boom-bust cycles. If the recovery process of the external competitiveness after such a "boom" was prolonged, it could affect the outlook for the economic growth in the medium term.

Box 5. Concerns of losing sovereignty in the conduct of macroeconomic policy

Poland's accession to the euro area is associated with renunciation of independence in the application of selected macroeconomic policy tools. There are two essential elements of this policy: monetary policy (along with the related exchange rate policy) and fiscal policy. The adoption of the euro signifies a resignation from an independent monetary and exchange rate policy.

In practice, this implies that the decisions on the interest rate level in our country shall no longer be taken by the National Bank of Poland, but by the European Central Bank. Representatives of various countries jointly decide in the ECB on the common level of the interest rates for all euro area states. Furthermore, the exchange rate of the national currency will no longer be fluctuating in relation to other currencies: its relation to the euro will be irrevocably stable, and the quotations of the euro on the international financial markets will define its relationship with other currencies. The fiscal policy in the euro area remains entirely on the national level.

While adopting the literal meaning of "sovereignty" – as independence from other states and from foreign sovereign power – the idea of its loss seems entirely illegitimate. Poland has voluntarily decided to transfer its selected competences of the economic policy to the international level. Pursuant to the Polish and European law, this transfer does not limit the sovereignty of Poland or any other EU member state, as it is in fact at all times under the control of individual states.

However, it is the common understanding of "sovereignty" as the actual freedom in applying selected tools of macroeconomic policy that is more significant from the economic point of view. In this sense, the transfer of competencies can be regarded as a restriction on Poland's freedom in pursuing the monetary and exchange rate policy, since when deciding on interest rates, the ECB is guided by the situation of the euro area as a whole. Thus, there is a risk that in the future the ECB's interest rate may differ from the rates that would be set by the National Bank of Poland. However, it is not a foregone conclusion that a potential inadequacy of the ECB interest rates for the needs of the Polish economy will be at a high expense.

First, the ECB and the NBP interest rates would significantly differ only if an economic slowdown in Poland was accompanied by a recovery in the euro area (or *vice versa*), or if there were significant differences in the level of natural interest rates in both economies (i.e. the interest rate that ensures economic growth at the level of the economy's potential, while maintaining a stable inflation). Such a risk exists, although it seems to be moderate, especially in the long run, with stronger integration of both economies.

Secondly, the cost also depends on other factors, such as flexibility of the product and labour markets, which, after adoption of the euro, will remain under the control of the Polish economic policy.

Thirdly, the progressive globalization processes in the long term are likely to reduce the effectiveness of monetary and exchange rate policy as a device to stabilize economies. This is due to the increasing impact of international factors on domestic inflation.

Fourthly, the studies of NBP indicate that the cost of abandoning the monetary autonomy would be low, compared to the benefits that we can receive from the integration with the euro area.

Fifthly, by joining the euro area and in exchange for its own monetary policy, Poland would obtain the right to take part in shaping the ECB's monetary policy, which plays a globally significant role. Although the Polish influence on the decisions of the ECB shall be minor from the formal point of view, informal benefits are difficult to measure. This concerns also the participation of the Polish representative in the sessions of the Eurogroup, comprising the Finance Ministers of the euro area states. With the ability to participate in its decisions, Poland will be able to exert stronger influence on the main directions of economic policy of the European Union.

Additionally, it should also be borne in mind that the monetary and exchange rate policy is only part of the macroeconomic policy. The Polish government shall maintain its own fiscal policy, in accordance with the needs of the national economy. The integration with the euro area should promote the effectiveness of this policy, due to the increase in stability and macroeconomic credibility of Poland. The state budget will in fact incur lower costs of foreign debt service. The fiscal policy is at the same time of incomparably higher importance for the pace of the economic growth in the long term than the monetary policy.

Resignation from free determination of monetary and exchange rate policy must therefore be assessed in a broader perspective, as a voluntary resignation of Poland from the usage of certain instruments of macroeconomic policy in the name of other opportunities or benefits.

The elimination of the fluctuations of the nominal PLN/EUR exchange rate fluctuations, which on one hand will contribute to deriving the aforementioned benefits, may on the other hand involve certain costs. Exchange rate volatility may in fact generate shocks to the economy, as a result of e.g. turmoil in the financial markets, but also may contribute to absorbing the asymmetric shocks, i.e. shocks that affect Poland and the euro area in dissimilar degrees. This raises the question whether the benefits of the resignation from the floating exchange rate of the zloty in relation to the euro outweigh the costs. The studies show that in recent years about 50-70% of the nominal EUR/PLN exchange rate volatility has been associated with absorbing real shocks, especially demand shocks, while about 30-50% of the volatility was due to nominal shocks. The latter effect indicates that the **floating exchange rate of the zloty not only reduces the effects of the asymmetric shocks, but is also an important source of disturbances for the economy, to be excluded after the euro adoption.**

While analyzing the costs of resignation from an autonomous monetary and exchange rate policy in Poland, it should be kept in mind that their final magnitude will depend on the following circumstances:

1. **Symmetry of future shocks and reactions of economies to these shocks.** If the demand shocks (e.g. decrease in the demand for exports) and supply shocks (e.g. increase in prices of food and commodities) affecting Poland and the rest of the euro area had a similar direction, scale and time of occurrence, and the economies reacted to them in a similar manner, the degree of business cycle synchronization would be high and the autonomous monetary policy (responsive primarily to demand shocks) would not differ from the decisions of the ECB, common for the euro area.
   The current degree of synchronization of the business cycles of Poland and the euro area is moderate. Until now, the amplitudes of the Polish cycle exceeded those of the euro area as a whole. Moreover, there has been a shift of the recession and expansion phases, which resulted from a stronger interconnection of the Polish economy with its Eastern trade partners, while the euro area economy has been closely connected to the United States. However, there are reasons to suppose that the degree of synchronization will rise in the future. Firstly, the single currency should lead to a closer integration of economies in the long term, and hence to a stronger synchronization of business cycles. Secondly, the likelihood of asymmetric shock occurence will diminish with the advancing real convergence and assimilation of economic structures. As a result, sectoral shocks will have a similar impact in Poland as in more developed economies. Thirdly, the current degree of cyclical convergence between the Polish economy and the euro area was moderate mainly because they were subjected to certain asymmetric shocks, and not because the economies responded to these shocks in a different manner. The latter conclusion is essential, as the preparatory period and the fact of joining the monetary union are associated with integration of some shocks, for example those resulting from the common monetary policy.

2. **Effectiveness of other stabilization instruments than the monetary policy or the exchange rate policy**, which include:

   1) **Competitiveness channel**, the effectiveness of which will depend primarily on the flexibility of the product and labour markets in Poland, mechanisms of forming expectations (mostly inflation expectations) and openness of the economy and the trade flows. This mechanism of stabilization works more effectively when wages and prices respond more flexibly to the economic situation. It is also more efficient if an economy is more open and has a larger share of partners from the rest of the monetary union in its foreign trade.
      The flexibility of the Polish labour market is relatively high in comparison with the euro area states, despite the low effective labour supply, i.e. a relatively low share of working people in the entire population, is a negative aspect. The flexibility of the goods market is unfortunately smaller. Significant impediments to the business concern in particular starting a business, restrictions on the freedom of activity in certain areas requiring a license and the tax system that generates, in comparison with the other countries of the region, a relatively high cost of meeting the fiscal obligations. Market flexibility is related to the institutional circumstances, which – both before and after the Polish accession to the euro area – will remain under the control of Polish economic policy. The competitiveness channel is a mechanism of a prominent role in the long term. Other channels of adjustments, i.e. fiscal policy and international risk sharing, can at most contribute to smooth the shocks more effectively in the short term.

   2) **Fiscal policy**, which can absorb asymmetric shocks owing to (i) the operation of automatic stabilizers of the economy and (ii) discretionary decisions in the field of financial policy of the state.
      Fiscal policy can effectively smooth business cycle fluctuations as a substitute of the monetary policy, transferred to the ECB. For example, if the demand in Poland decreases and a similar shock does not affect the rest of the euro area states, the ECB would not absorb the shock by lowering its interest rates. In this situation, the Polish fiscal policy will be helpful, temporarily increasing the expenditures. This is, however, conditional upon maintaining a low level of structural deficit (i.e. long-term component of the deficit, independent of business cycle fluctuations). In Poland, the structural deficit is now estimated well above the medium-term objective (MTO), equal to -1.0% GDP. This means that integration with the euro area must be accompanied by a sustainable consolidation of the public finance.
      Operation of the automatic stabilizers is considered to be more effective than

discretionary fiscal policy, mainly because of time lags in decision making. In Poland, the effectiveness of automatic stabilizers is relatively low as compared to other similar economies, which is primarily due to institutional circumstances. At the same time, the space for an active fiscal policy is limited by a high share of fixed expenditure in the total government expenditure.

3) **International risk sharing** in the financial markets, namely the possibility of taking out loans in other countries in order to smooth the consumption after a transitory asymmetric shock, as well as international dispersion of the ownership of enterprises operating in the domestic economy.
The results of empirical studies regarding the current effectiveness of this mechanism in the euro area are not optimistic. The more developed the capital market is, the higher the effectiveness of this mechanism becomes, as it is in the case of the United States. This efficiency may therefore increase over time, along with the progressing integration of international financial markets and the development of European capital markets.

3. **Globalization.**
The globalization process, and intensive international exchange of goods along with free flows of production factors in particular, pose an increasing difficulty for the monetary authority of a single country in controlling price stability, especially in a small open economy. Therefore, Poland's autonomy in the conduct of its monetary policy may be decreasing even when remaining outside the euro area (see Box 5). As a result, the cost of abandoning the autonomous monetary policy may be lower than it would appear in the quantitative analyses.

When analyzing the costs of renunciation of the possibility to lead an autonomous monetary policy, it should be also taken into account that after the euro adoption, Poland shall be influencing the ECB's decision-making process. The research suggest that this effect will be overproportionate in comparison with the share of Polish GDP in the euro area GDP. The Governor of the NBP will be able to influence the course of any discussion in the ECB Governing Council and to participate in taking majority of the decisions. A Polish representative could also possibly be appointed as member of the ECB Executive Board. In turn, the Polish Finance Minister will gain the opportunity to take part in the sessions of the Eurogroup – a body playing an increasing role in shaping the economic policy of the European Union, strengthened significantly by the Lisbon Treaty.[14] **The benefits from the participation in the ECB decisions and in the sessions of the Eurogroup are**

[14] Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community.

difficult to measure and incorporate directly in the long-term balance. However, they should be considered while evaluating the final net benefits of the euro area membership.

Box 6. Concerns that after the euro changeover, the price level will be comparable to those in other member states, while the wage and salary level will remain much lower

The process of convergence, i.e. assimilation of economies, including the income and price levels between developing and developed countries, is a phenomenon commonly found in the global economy. This phenomenon occurs also in the case of Poland, since the beginning of the economic system transformation.

The membership in the euro area should theoretically accelerate this process. As a result of monetary integration, the pace of the price level convergence should be increased because of a greater international transparency, which allows for easier comparisons, and thus facilitates the choice of the most profitable offer (price arbitrage). In turn, a faster convergence of the income level should result from the acceleration of the economic growth, as an outcome of the euro adoption (due to decline of the interest rates, intensification of trade and growth of investment).

The risk that price levels will converge more rapidly than of the income levels after Poland joins the euro area is low. The research indicates that the price convergence within the euro area has so far been found to be very limited, so it may be assumed that after the accession of Poland, there will not be any marked acceleration. What is more, the acceleration of the price convergence as an effect of increasing trade flows concerns almost exclusively tradable goods and – in the case of Poland – the level of prices in this category is already comparable to the euro area average (estimated at about 80% of the latter). In addition, for certain groups of goods it can be assumed that the price level will decrease after the euro adoption , as the current prices contain a component related to the cost of exchanging currency or hedging from the exchange rate risk incurred by entrepreneurs.

The differences between Poland and the euro area in the general price level are mainly due to relatively low prices of services – the price level if this category in Poland equals about 44% of the euro area average. In case of services, the mechanism of the price level convergence is though strongly connected to the income level convergence. Two mechanisms are responsible for the convergence of service prices in Poland. The first one is associated with faster growth of efficiency in the developing countries in comparison to the developed countries, which results in an increase in wages and salaries. Due to the fact that the increase of wages and salaries (i.e. costs for entrepreneurs) in the service sector is not compensated by the productivity growth, it is followed by an increase in service prices. This effect does not pose a threat of a decrease in real incomes, and therefore a decline in the purchasing power of Poles, as the price growth is preceded by and results from an increase in wages and salaries in the economy.

The second factors contributing to the nominal convergence is a low level of prices of some kinds of services in Poland, coupled with a high degree of regulation in some sectors, which in turn results from the circumstances determined prior to the economic system transformation. In these cases, the convergence is due to a release of prices, or market liberalization. However, the deregulation of markets is in the competence of the government. Therefore, the dynamics of wages and salaries in the economy is taken into account in this process. A relatively low level of wages and salaries and its consequence – the necessity to protect the consumers – have their origin in the fact that these markets have not been fully liberalized by now. Both mechanisms, contributing to the convergence of the service price level, are in major part independent from the process of monetary integration of the Polish economy with the euro area.

Apart from the objective economic aspects analyzed in this section of the document, the balance should be completed with the non-economic factors, related to e.g. the fact that Poles might prefer to use their own, distinct currency. This aspect is difficult to quantify. Furthermore, the Eurobarometer survey (European Commission, 2010) suggests that Poles would not regard the withdrawal of the zloty as an additional cost of the euro changeover to be included in this balance (see Box 7).

Box 7. Concerns that the replacement of the zloty by the euro could result in a loss of the national identity

The national identity is a sense of distinction from other nations, influenced by such factors as national symbols, language, awareness of the origin, tradition, culture or history of the nation. The replacement of the zloty with the euro would therefore affect the sense of national identity in the event of perceiving the zloty as a national symbol. In Poland, the symbolic links with the currency are, however, weakened due to historical reasons. This results in particular from frequent exchanges of the currency, episodes of substitute currency in the history, and therefore the lack of a long-lasting attachment to the money, and a low international role of the zloty. As a result, the Polish Constitution states that the national symbols include the emblem, colors and national anthem, further emphasizing the role of territory, culture, religion and language in the construction of national identity, while not referring in this regard to the currency.

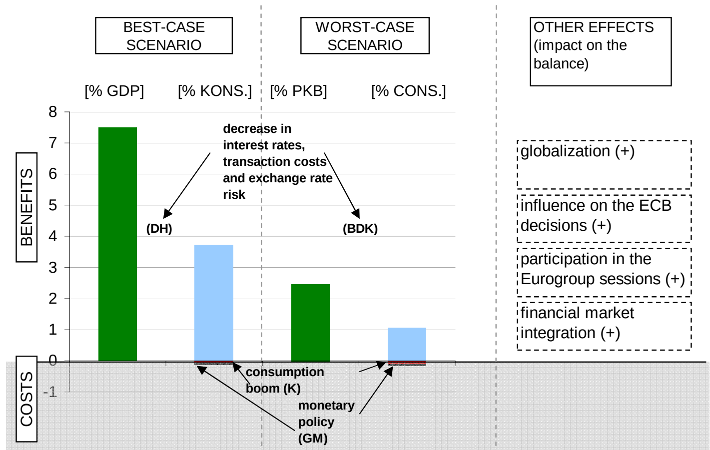
Therefore, the renunciation from the zloty should not be detrimental to the sense of the Polish identity, especially given the fact that the euro coins will have one Polish national side. However, it may help in developing the European identity of Poles. Such conclusions are confirmed by the opinion polls which show that the majority (60%) of Poles believe the euro changeover will be an event without adverse consequences for the national identity, encouraging the growth of the sense of being European (European Commission, 2010).

2.2.3 Long-term balance

The balance of costs and benefits costs indicates the superiority of the former in the short term and a definite domination of the opportunities over the threats in the long term, regardless of whether we adopt a more optimistic or pessimistic assumptions about the scale of individual effects, associated with the adoption of the common currency (see Figure 3 and Table 1). Long-term net benefits are estimated in the optimistic scenario at 7.5% GDP or 3.6% of private consumption, and in the pessimistic scenario – 2.5% and 0.9% respectively[15]. The ultimate balance, as well as the time of materialization of long-term benefits, is strongly influenced by many factors governed by the economic policy. For this reason, it is necessary to develop an optimum strategy of fulfilling the convergence criteria (see Chapter 3) and the implementation of other activities, connected to the process of the euro changeover in Poland. For this purpose, appropriate proposals will be prepared within an institutional structure, whose plan of works was outlined in Chapter 4.

[15] Due to differences in the expression of the individual categories, as in Figure 1, the values expressed as % of GDP and % of private consumption are presented separately.

Figure 3: Estimated balance of long-term opportunities and threats of the integration with the euro area



Source: MoF, based on Daras and Hagemejer (2009) – **DH**, Gradzewicz and Makarski (2009) – **GM**, Koloch (2009) – **K**, Bukowski *et al.* (2008) – **BDK**. A detailed discussion of research in the accompanying document.

3 Formal prerequisites for Poland's accession to the euro area

3.1 The status of an EU Member State with a derogation and its consequences

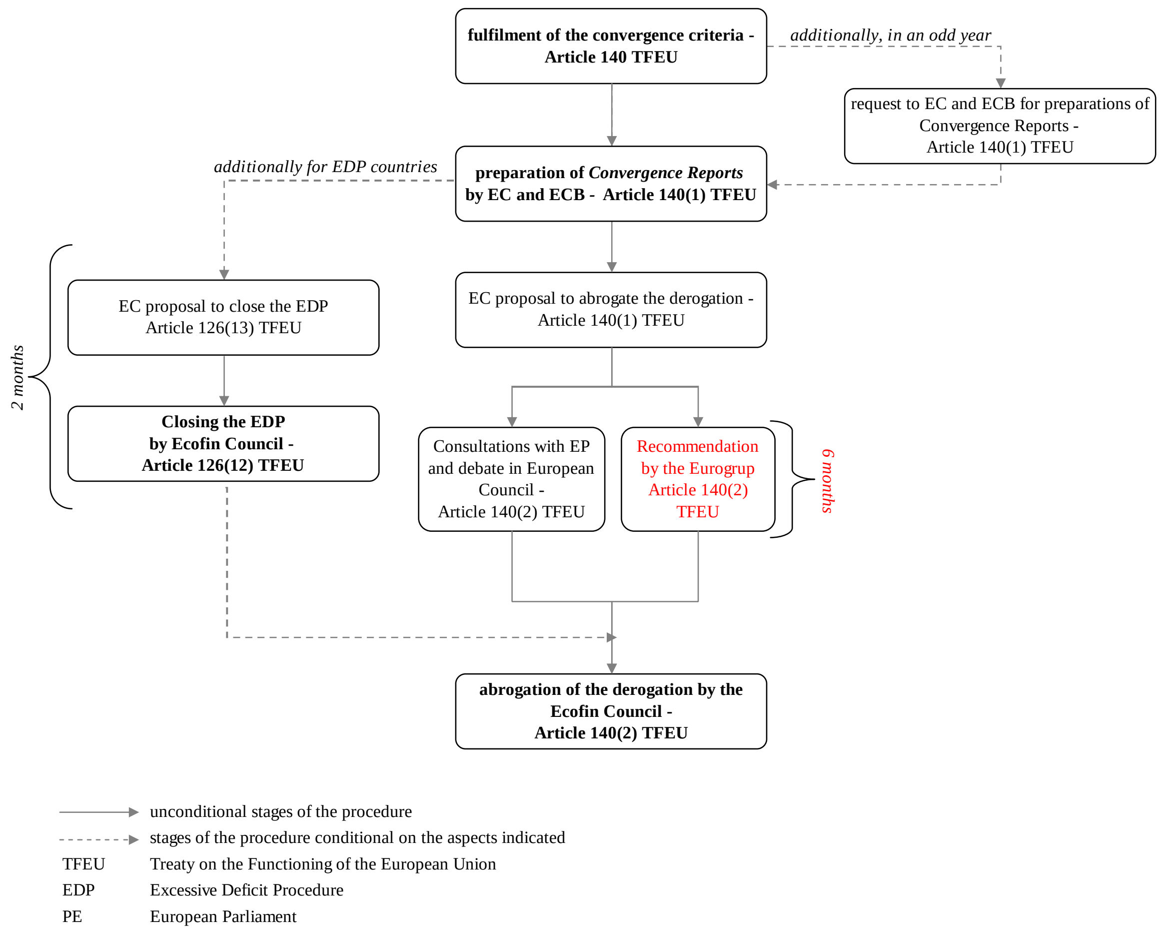
In the course of the European Union membership negotiations Poland never proposed any transition periods in the area of Economic and Monetary Union (EMU, cf. Sekretariat Europejski, 2003). This reflected the view that entry into the euro area would be beneficial for Poland. As a result, since its EU accession, Poland has been participating in the third stage of EMU as a state with a derogation. Consequently, Poland is obliged to meet the necessary criteria (convergence criteria) and adopt the euro in the future.

Each Member State intending to adopt the common European currency is formally obliged to achieve sustainable nominal and legal convergence. Assessment of the state of convergence by the European Commission (EC) and the European Central Bank (ECB) is presented in Convergence Reports and based on the criteria provided for in the Treaty on the Functioning of the European Union (). These include: fiscal position, price stability, long-term interest rate, exchange rate and legal compatibility (cf. discussion of convergence criteria in Appendix B). The reports by the EC and ECB also take into account market integration performance, the situation and development of the current account balance, an assessment of unit labour costs developments and other price indices.

If the fulfilment of the above euro adoption criteria is assessed as satisfactory, the Economic and Financial Affairs Council (Ecofin) decides to abrogate the derogation. Chart 2 presents the procedure of abrogating the derogation (cf. discussion of this procedure in Appendix A).

As a consequence of the convergence criteria, in particular exchange rate stability, as well as the existing procedures, **there is a three-year time span between the decision by domestic authorities to join the European Exchange Rate Mechanism (ERM II) and the adoption of the single currency** (see Ministry of Finance, 2005). It should also be borne in mind that the ***Treaty of Lisbon*** *amending the Treaty on European Union and the Treaty establishing the European Community* (TL), which entered into force on 1 December 2009, introduced an additional element to the procedure of abrogating the derogation, which is the issuance of a recommendation by Council members representing Member States whose currency is the euro (Eurogroup) (cf. Appendix A). This might mean that **the procedure of abrogating the derogation shall last longer**. It should also be emphasised that **being subject to the Excessive Deficit Procedure** (EDP) **is not an obstacle to initiating the procedure of abrogating the derogation**, as Ecofin may simultaenously decide to abrogate the EDP and the derogation.

Chart 2. Procedure of abrogating the derogation



Source: MoF.

The above prerequisites suggest that the euro adoption date directly depends on Poland's ability to fulfil the convergence criteria. In practice, the first potential date of the euro area entry shall be determined by the date on which the domestic currency joins the ERM II, which is essential for fulfillling the criterion on exchange rate stability. **Fulfilling the exchange-rate criterion, in turn, requires meeting the remaining convergence criteria in a sustainable manner.** For reasons mentioned above, this chapter will subsequently discuss the details of how the exchange-rate criterion can be fulfilled, focussing in particular on key decisions in relation to it, i.e. the selection of the right moment to join the ERM II and establishing a central rate in this mechanism. It should be stressed here that **all the elements of the procedure of the domestic currency's entry to the ERM II are strictly treated as secret information** (cf. Appendix A).

3.2 Prerequisites for the selection of the right moment to join the ERM II

ERM II is a system with a predetermined central parity and limited margins of acceptable fluctuations (cf. 8) that the central bank is obliged to defend. This implies that there might be market pressure on changing the central rate and tensions in the foreign exchange market. The *Prerequisites for Implementation of the Next Stages of the Road Map* define the criteria to minimise the above threats. These relate to choosing the right moment for the accession to the ERM II, ensuring high credibility of the integration process and establishing central parity in line with the macroeconomic situation.

Box 8. Exchange rate stability criterion

To fulfil the exchange-rate criterion, zloty will be required to enter the Exchange Rate Mechanism (ERM II) and participate for at least two years without devaluations on its own initiative or "severe tensions".
ERM II is a multilateral system of fixed and adjustable exchange rates with an established central rate and a standard fluctuation band of +/- 15%. ECB recommends that the central rate in the ERM II should reflect as closely as possible the estimates of equilibrium exchange rate at the moment of entry into the mechanism (European Central Bank, 2003b). W trakcie uczestnictwa w mechanizmie ERM II możliwa jest jednak korekta kursu centralnego.
However, it is possible to adjust the central rate in the course of the ERM II membership. Assessing exchange rate stability involves an analysis of whether or not the market rate remained close to the central rate, taking account of the factors that might have led to its appreciation, such as Balassa-Samuelson effect, capital inflows or price liberalisation. Absence of "severe tensions" is determined by means of : i) investigating deviations of market exchange rate from the central rate; ii) using such indicators as level and trend of exchange rate volatility against the euro, as well as short-term interest rate differentials vis-à-vis the euro area and their evolution and iii) consideration of the role of foreign exchange interventions. However, interventions at the margins of the band in ERM II are in principle automatic and unlimited unless they conflict with the primary aim of price stability in the Member State or the euro area. To support an intervention of this kind, it is possible to access the Very Short-Term Financing Facility - VSTF.

To minimise the risk related to the ERM II membership, the zloty should join the mechanism when there is high probability that within 2 years all the convergence criteria will be met and all the policy commitments declared at ERM II accession will be fulfilled. This is due to the fact that if, during the ERM II membership, there is increased uncertainty around meeting the euro adoption criteria in the timeframe determined by the date of ERM II entry, this could give rise to reservations as to the date of euro adoption in Poland. As a consequence of tensions in the foreign exchange market, extension of ERM II membership might be required and this could be prolonged beyond the initially declared two years. This could delay the prospect of euro adoption, even if eventually the remaining criteria have been fully met in the envisaged period. **The country's ability to meet the exchange rate criterion is therefore conditional upon fulfilling the remaining criteria:**

- **price stability criterion** – a stable perspective of fulfilling the inflation criterion lessens the risk of interest rate hikes by the central bank and thus reduces the scale of short-term capital flows;

  During the period of ERM II membership, it is desirable to avoid a situation in which interest rate hikes would be necessary to meet the price stability criterion. A larger disparity between interest rates would lead to capital inflow, thus contributing to appreciation of the domestic currency (in an extreme scenario even to pressure on the margin of acceptable fluctuation band). As a result, it might prove essential to reduce interest rates, which would challenge the price stability as monetary policy's primary objective. This would give rise to the so-called impossible trinity which refers to impossibility to implement the exchange rate and inflation objectives simultaneously under free capital flows. This problem is particularly relevant for the Polish foreign exchange market, relatively shallow compared to highly developed countries, although its liquidity is much better than in other countries in the region. When the exchange market is shallow, relatively small outflow (inflow) of capital may cause volatility of the zloty.

- **fiscal criterion** – fiscal policy focused on fulfilling the fiscal convergence criterion implies a decrease in the country-related risk premium thus making potential pressure to weaken the zloty less likely;

  A more restrictive fiscal policy aimed at maintaining fiscal discipline in the country should ensure the best policy mix during the ERM II membership, i.e. a restrictive fiscal policy alongside a more relaxed monetary policy (based on adjusting interest rates to the ECB level), thus eliminating (or at least reducing) potential pressure on zloty depreciation due to reduced disparity between interest rates and enabling the fulfillment of the exchange rate criterion.

- **interest-rate criterion** – a decrease in disparity between long-term interest rates helps to limit exchange rate volatility by reducing the scale of speculative capital inflows;

  Long-term interest rates are to a large extent determined by the country's fiscal position and in the case of a Member State with a derogation, by the country's ability to fulfil the fiscal criterion. A credible fiscal consolidation strategy, by reducing long-term interest rates disparity, will therefore contribute to restraining the excessive inflow of speculative capital and exchange rate volatility.

- **legal convergence criterion** – reaching a political consensus on legislative alignment before entry into the ERM II reduces the risk of severe tensions in the FX market;

  When no consensus has been reached as to necessary legal adjustments enabling the adoption of the single currency (in particular amendments to the Constitution of the Republic of Poland) or there are doubts as to credibility of the commitments taken, there is a risk of reservations regarding the date of Poland's euro area accession. Such a situation increases the risk of exchange rate depreciation during the ERM II membership and if there are severe tensions in the FX market, fulfilling the exchange rate convergence criterion could prove impossible.

3.3 Prerequisites for the credibility of central parity in the ERM II

The central parity in ERM II should be set at such a level as to enable the fulfilment of the convergence criterion during the envisaged period of ERM II participation. *Prerequisites for Implementation of the Next Stages of the Road Map* indicate that **central parity may effectively reduce the fluctuations of the exchange rate, provided that the following conditions are met:**

- **the pre-established level of parity is close to that of the equilibrium rate;**

  ECB recommends that the central rate under ERM II should reflect as closely as possible the equilibrium exchange rate at the accession (European Central Bank, 2003b; cf. discussion of ways to establish the central rate in Appendix C). The central rate needs to be set at an appropriate level for the economy for the following reasons.

  Firstly, setting the central rate at a level inconsistent with the equilibrium exchange rate may be conducive to pressure to change it and may hinder the fulfillment of the other criteria, in particular the price stability criterion. Secondly, interventions at the margins in ERM II are automatic and unlimited. The central bank should not, however, defend the level of the exchange rate when it does not correspond with the equilibrium exchange rate. Thirdly, if the central parity is set at a level which the market perceives as a credible point of reference for the irrevocably fixed conversion rate, it may play the role of a magnet for the market rate (the so-called magnet effect), ensuring stability on the foreign exchange market.

- **the period of ERM II participation should be as short as possible;**

  According to ECB (cf. European Central Bank, 2003b), it should not be assumed that the initial central rate in ERM II will become the irrevocably fixed conversion rate upon adoption of the euro. This is due to the fact that the equilibrium exchange rate may change as the real convergence progresses or such factors as increased factor productivity or structural reforms may have an impact on the economy. As the date of setting the irrevocable conversion rate and the adoption of the single currency approaches, the credibility of the contemporaneous parity level as a point of reference for the irrevocably fixed conversion rate of the zloty to the euro will be enhancing, thus reducing the necessity to correct it when the decision to abrogate the derogation is made (or earlier).

- **the fulfilment strategy for the convergence criteria should be credible;**

  The perspective of a positive assessment of the country's preparedness to adopt the euro, based on establishing a credible path for nominal convergence upon the entry into ERM II, should – as has been demonstrated above – contribute to a decrease in the risk premium thus reducing tensions in the FX market.

3.4 Scenarios of the fulfilment of exchange rate criterion

The above definition of the exchange rate criterion suggests that the following is required in practice:

- the market rate needs to be close to the parity level or on its strong side and consequently depreciation pressure should be absent in the ERM II;
- there should be no severe tensions in the exchange market, and in particular no significant exchange rate volatility;
- the country should not devalue its currency on its own initiative.

As a consequence of the above, and taking account of the analysis of prerequisites for fulfilling the exchange rate criterion, **the following scenarios of fulfilling this convergence criterion are likely**:

1. in relation to setting the central parity in ERM II:

    1) if upon entry into ERM II, the market rate is consistent with the equilibrium exchange rate – central rate set at the market rate level (e.g. Slovakia, cf. Figure4c),
    2) if, upon entry into ERM II, the market rate is over- or undervalued compared to the current equilibrium rate:

        a) but consistent with the equilibrium rate in the future – setting the central rate at the market level,
        b) b) and considerably different from the forecast equilibrium rate – **negotiation aimed at setting the central rate at a level that is (considerably) different from the market rate or postponing the entry into the ERM II until equilibrium is reached in the FX market**[16];

2. in relation to the evolution of the exchange rate in the ERM II (cf. Figure 5):

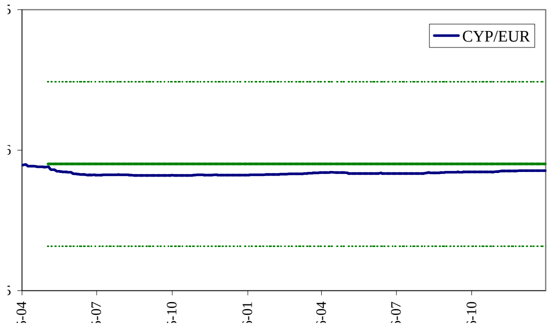
    1) if the rate tended to remain close to parity (there were no severe tensions, and foreign currency interventions and changes in short-term interest rates did not play any significant role in the period of ERM II membership) – fulfilment of the exchange rate convergence criterion (e.g.: Cyprus, cf. Figure 4a),
    2) if there was **appreciation pressure**:

        a) but no severe tensions, and foreign exchange interventions and changes in short-term interest rates did not play any significant role in the period of ERM II membership and appreciation is perceived as an equilibrium phenomenon, i.e. was due to e.g. real convergence of the domestic economy with the euro area – **revaluation of central parity**, fulfilment of the exchange rate convergence criterion (e.g. Slovakia, cf. Figure 4c),
        b) perceived as excessive appreciation, i.e. not due to fundamentals – **foreign exchange interventions** (these are automatic at the margins of the band unless they conflict with the primary goal of the monetary policy), aimed at weakening the domestic currency; the fulfilment of the exchange

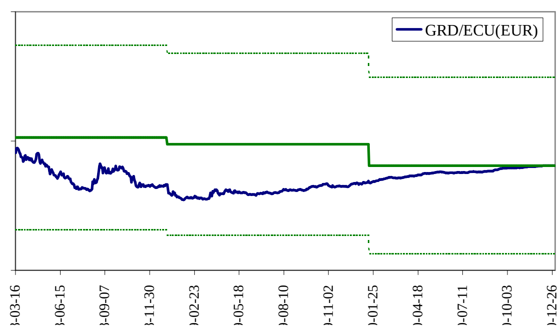
[16] 1The example of Greece should be quoted here, as the country considerably devalued the drachma's exchange rate (by 12.3% against ECU) before entry into the ERM.

Figure 4: ERM/ERM II experience of EU Member States

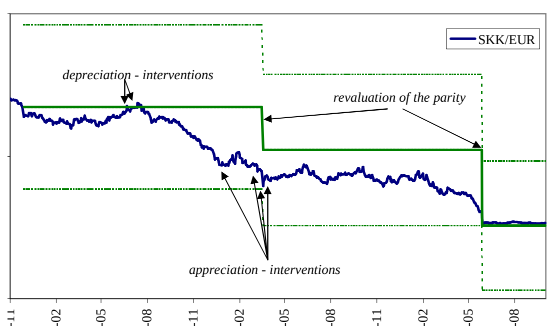
(a) Cyprus



(b) Greece



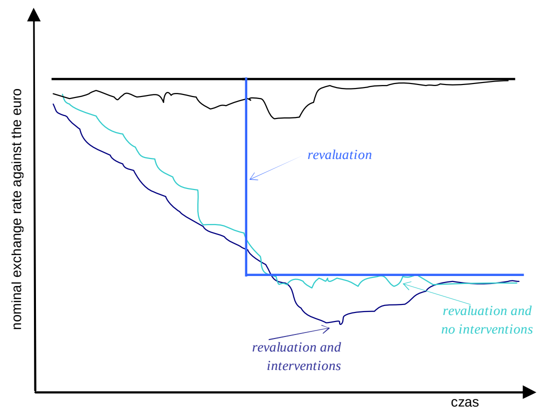
(c) Slovakia



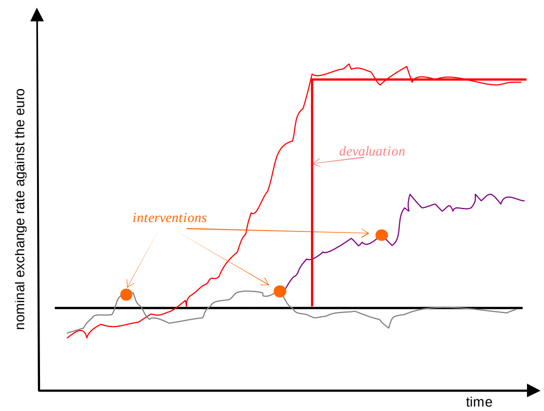
Źródło danych: Eurostat, EBC.

Figure 5: Scenarios of the evolution of exchange rate in the ERM II

(a) consistent with the convergence criterion



(b) inconsistent with the convergence criterion



rate convergence criterion depends on the assessment of the intervention's rationale and scale by EBC and EC (e.g.: Slovakia, cf. Figure 4c and Box 9);

3) if there was **depreciation pressure**:

a) but the tensions were only temporary – foreign exchange interventions aimed at strengthening the domestic currency, **the fulfilment of the exchange rate criterion which is conditional upon interpretation of the reasons for depreciation** (example: Slovakia, cf. Figure 4c and Box 9, also: France, Ireland),

b) permanent but unrelated to fundamentals – foreign exchange interventions (which are automatic at the margins of the band), aimed at strengthening the domestic currency, **non-fulfilment of the exchange rate criterion**,

c) permanent and due to fundamentals – devaluation of the domestic currency exchange rate, **non-fulfilment of the exchange rate criterion**;

3. in relation to the conversion rate:

1) 1) if the central rate played the role of a magnet for the market rate – conversion rate set at a level close to the central rate (e.g.: Cyprus, cf. Figure 4a);

2) 2) if the market rate was subject to appreciation pressure due to fundamentals in the period of ERM II membership – the necessity to revalue the central rate (once or several times), the conversion rate set at a level similar to a level which

is close to the new (last) central rate (e.g.: Greece, cf. Figure 4b, Slovakia, cf. Figure 4c).

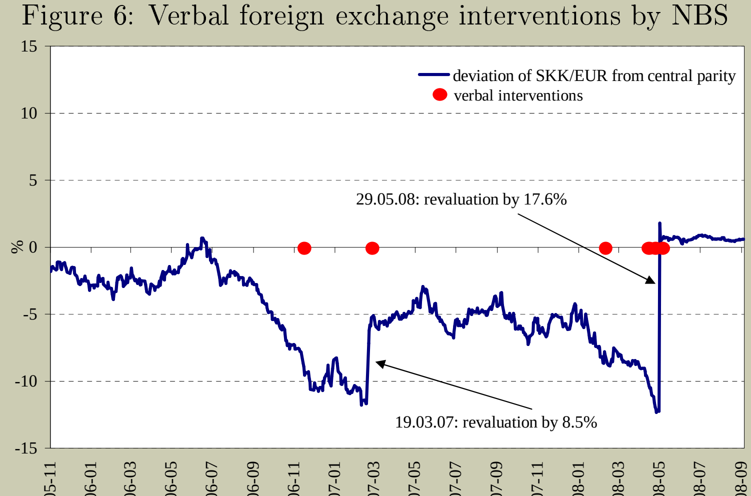
Box 9. Examples of foreign exchange interventions in the ERM/ERM II

Foreign exchange interventions in ERM II were only intramarginal and occasional. Slovakia's ERM II experience is an interesting example illustrating the diversity of interventions carried out by a central bank, whereas the Greek drachma's ERM/ERM II membership is an interesting example illustrating the frequency of a central bank's interventions.

Slovakia participated in the ERM II between 28 November 2005 and 31 December 2008. In 2006-2007, the National Bank of Slovakia (NBS) intervention activity was particularly intensive and included: hidden interventions (whose scale and objectives were revealed to market players ex post), counter-trend interventions and those intended to hamper a trend, as well as verbal intervention, both as a tool to support foreign currency interventions in the strict sense and as an independent instrument to impact the exchange rate.

In the period of its ERM II membership, the Slovak koruna was temporarily subject to depreciation, deviating by 0.2% on the weak side of the parity in June 2006. Despite the small scale of the deviation from the central parity towards depreciation, NBS carried out foreign exchange intervention activities (in the strict sense), aimed at the reversal of the depreciation trend, which proved effective (cf. Figure 6).[a].

Figure 6: Verbal foreign exchange interventions by NBS



Source: Eurostat, EBC, NBP.

However, in the period of the Slovak koruna's ERM II membership, the dominant tendency was appreciation pressure, which was perceived by NBS as excessive, i.e. unjustified by the equilibrium exchange rate development. For this reason, the central bank had, on several occasions, undertaken measures to reduce it (interventions aimed at hampering a trend). In particular, on 8 March 2007, when the EUR/SKK exchange rate deviated from the central parity by 12%, which was nearly a record in the history NBS of ERM[b], NBS resorted to foreign exchange intervention, upon which the exchange rate stabilised. The effects of the intervention were, however, only short-lived and on 19 March 2007, NBS had agreed with other parties to the ERM II to revalue the central parity in the ERM II by 8.5%, which was a record at the time (cf. Figure 6).

It should be stressed here that direct foreign exchange interventions in Slovakia were supported by verbal interventions by NBS, ECB and the EC. For instance, on 13 December 2006, the President of the NBS stated that the current exchange rate of SKK was overvalued in relation to the level of the equilibrium exchange rate. NBS took efforts to avoid foreign exchange interventions in the strict sense, resorting to verbal interventions only. This can be illustrated by a statement made by the President of NBS in March 2008, when he claimed that permanent appreciation is not a positive phenomenon for an open economy (cf. Figure 6).

Interventions by NBS during ERM II membership were, however, rather infrequent and small-scale. An intervention which was largest in volume was carried out on 12 July 2006 and amounted to 1750 million EUR, which was about 65% of the average daily foreign exchange trading volume (Bank for International Settlements) and approximately 17% of the official foreign exchange reserves in Slovakia (Eurostat).

Attention should therefore be drawn to the Greek experience of its ERM/ERM II membership, during which the Greek Bank's foreign exchange interventions were intensive. Foreign exchange interventions were carried out on 42% of total number of working days during Greece's ERM/ERM II membership (cf. Rozkrut and Woreta, 2005), They were, however, small-scale. An intervention which was largest in volume was carried out on 7 May 1999 and amounted to 859 million euro, which was about 10% of average daily foreign exchange trading volume in Greece (Bank for International Settlements) and approximately 8% of the Greece's official reserves (Eurostat). The aim of the intervention was primarily to reduce drachma's excessive appreciation pressure in order to to keep its exchange rate within acceptable fluctuation ranges. The measures undertaken by the Greek Bank on the exchange rate market can be considered effective (cf. Figure 4b).

[a]Attention should be drawn here to the Irish pound experience in the ERM. In the period of its ERM membership, the currency was subject to considerable fluctuations (also in the reference period for the assessment of exchange rate stability) and the largest deviation from the parity towards depreciation was 4.8% (against the Spanish peseta). Despite this, Ireland was considered to have achieved a sufficient level of the exchange rate stability.

[b]Ireland broke a record as its exchange rate deviated by 12.5% maximum (against the French franc) on the strong side of the central parity (cf. European Monetary Institute, 1998).

3.5 Necessary measures to fulfil the exchange rate stability criterion

The analysis presented in this chapter indicates that the most important tasks related to fulfilling the exchange rate criterion include:

1. establishing the optimum moment for the zloty's entry into the ERM II;
2. establishing the optimal conditions for the zloty's entry into the ERM II, i.e. the central parity and fluctuations band[17];
3. undertaking measures to ensure the fulfilment of the other convergence criteria in a sustainable way;
4. monitoring the adequacy of the central rate in the context of the economic situation (analyses of the equilibrium exchange rate development);
5. establishing the optimal conversion rate.

The following Chapter discusses a framework schedule for the above measures as well as the institutions responsible for their implementation or preparation.

[17]Na własny wniosek państwa członkowskiego możliwe jest oficjalne uzgodnienie pasma wahań węższego niż standardowe. Tego rodzaju decyzje są podejmowane indywidualnie, w drodze wyjątku, jako że pasmo standardowe jest uznawane za właściwe dla państw członkowskich podążających ścieżką konwergencji. Zastosowanie wielostronnie uzgodnionego węższego pasma można rozważać jedynie w odniesieniu do krajów znajdujących się na bardzo zaawansowanym etapie konwergencji.

4 Practical aspects of preparations for euro adoption in Poland

4.1 The organizational framework of euro changeover preparations in Poland

The introduction of the euro in Poland is a a large-scale organizational undertaking, involving comprehensive preparations, which will concern any institution, organization, enterprise and all citizens. Due to the fact that the process of euro changeover is complex and multifaceted, it is extremely important to create an appropriate organizational framework to ensure its effective and smooth implementation. For this reason, the Government of the Republic of Poland, having regard to the recommendations of the EC (European Commission, 2008a), decided to establish an interinstitutional organizational structure, responsible for drafting the *National Euro Changeover Plan* in Poland, and also for overseeing its execution, as well as monitoring of potential threats to the entire process.

The preparations for the euro changeover in Poland gained momentum with the adoption by the Council of Ministers – on 28 October 2008 – of the *Roadmap for Euro Adoption in Poland*. Under the regulation of the Council of Ministers of **13 January 2009**[18], **the Government Plenipotentiary for Euro Adoption in Poland (hereinafter referred to as the Government Plenipotentiary), responsible for coordinating and monitoring the euro changeover in Poland by the public administration, has been appointed**. The Bureau of the Government Plenipotentiary has been set up as well. It is responsible in particular for conducting analyses related to the integration of Poland with the European single currency area, as well as for providing organizational and secretarial support to the Government Plenipotentiary. The National Bank of Poland's Management Board Plenipotentiary for euro changeover, appointed by the Management Board of NBP under the Resolution of 1 December 2008, is responsible for coordinating and monitoring activities on the side of the central bank.[19]

In accordance with the declaration made in the document *Prerequisites for Implementation of the Next Stages of the Road Map for Euro Adoption in Poland*, under the regulation of the Council of Ministers of **3 November 2009**[20], **a dedicated interinstitutional**

[18]Regulation of the Council of Ministers of 13 January 2009 r. on establishment of the Government Plenipotentiary for Euro Adoption in Poland (Journal of Laws No. 11, item 60).

[19]Resolution no. 19/65/GP/2008 of the Management Board of the Polish National Bank of 1 December 2008 on the appointment of the NBP Management Board Plenipotentiary for Euro Adoption.

[20]Regulation of the Council of Ministers of 3 November 2009 on the appointment of the National Euro Coordination Committee, Coordination Council and the Inter-institutional Working Groups for

organizational structure for the introduction of the euro in Poland has been set up. It is chaired by the Government Plenipotentiary, co-chaired by the NBP's Management Board Plenipotentiary for Euro Adoption (hereinafter referred to as the NBP's Management Board Plenipotentiary) and cooperates with the Government Plenipotentiary in the implementation of his tasks, related to planning and coordinating the preparation process for the adoption of the euro in Poland. Entities established under the regulation, **namely the National Coordination Committee for Euro Changeover and the Coordinating Council started working in the fourth quarter of 2009, and the Interinstitutional Working Committees for Preparations for Euro Changeover by the Republic of Poland - in the first quarter of 2010** (cf. Chart 3).

In the process of integration with the euro area, Poland has the opportunity to learn from the experiences of countries that have introduced the euro in the previous years. For this reason, and through the cooperation with European institutions and countries of the euro area, it will be possible for Poland to build on the best practices, developed in the previous stages of the enlargement of the monetary union, however taking into account the Polish specificities. The shape, outline of the tasks and composition of each entity of the organizational structure discussed below (see also Appendix E), take into account the experience of countries that have already adopted the euro and of those that intend to adopt the single currency in the coming years, and have already made certain preparations. In addition, the opinions of the European Commission and other institutions on the efficiency of the existing solutions in the field of organizational framework for the process of monetary integration were taken into account.

The interinstitutional organizational structure for euro adoption by the Republic of Poland comprises (see Chart3):

- Government Plenipotentiary for Euro Adoption in Poland (Government Plenipotentiary),
- National Coordination Committee for Euro Changeover (Committee),
- Coordinating Council (Council),
- Interinstitutional Working Committees for Preparations for Euro Changeover by the Republic of Poland (Working Committees),
- Task Groups,

Preparations for Euro Adoption by the Republic of Poland (Journal of Laws No. 195, item 1505) entered into force on December 1, 2009.

➢ Bureau of the Government Plenipotentiary for Euro Adoption in Poland (Bureau of the Government Plenipotentiary).

The Government Plenipotentiary for Euro Adoption in Poland is responsible for coordinating and monitoring the process of monetary integration of the Republic of Poland. Pursuant to the Regulation of the Council of Ministers of 13 January 2009[21], the tasks of the Government Plenipotentiary include in particular:

➢ initiation, coordination and monitoring of the activities of government administration bodies in the area of preparations for the introduction of the euro in Poland, as well as coordination and monitoring of the execution of tasks by the interinstitutional Working Committees;

➢ making recommendations to the government administration bodies and passing requests and opinions to the state institutions and entities involved in preparations for the introduction of the euro in Poland in the area of the implementations of these activities,

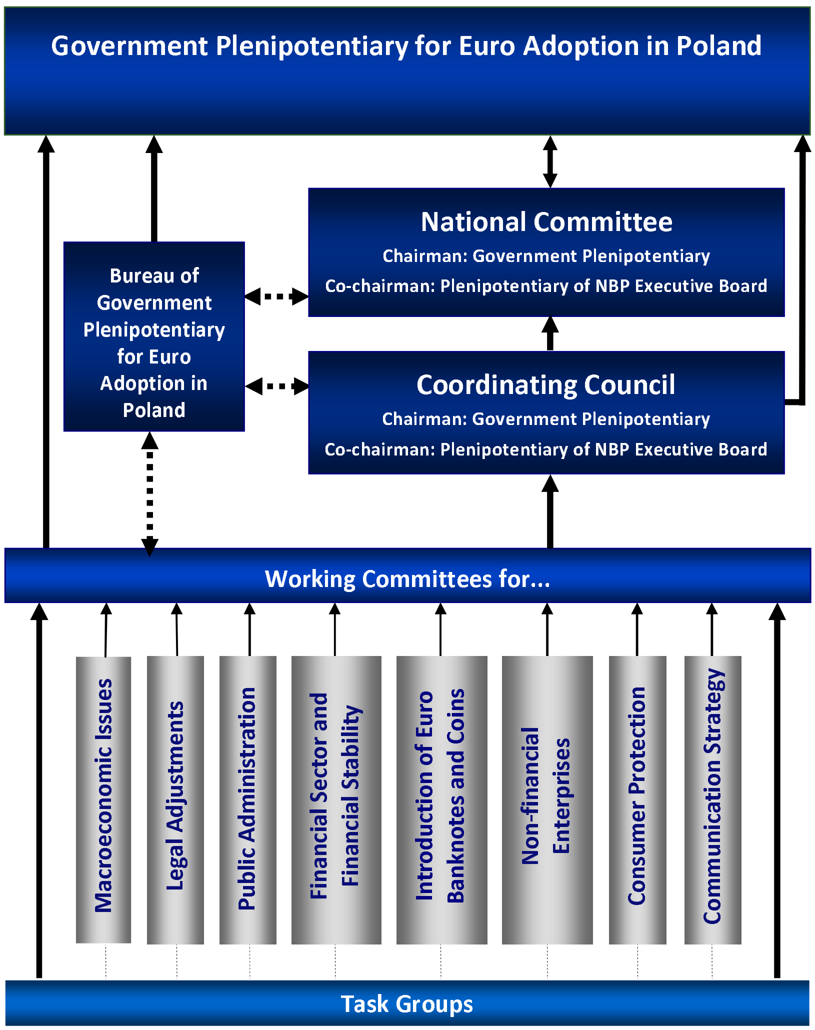
➢ informing the Prime Minister immediately on possible problems, threats and delays in the execution of tasks related to preparations for the introduction of the euro in the Republic of Poland and presenting proposals for corrective action, if necessary.

The Bureau of Government Plenipotentiary for Euro Adoption in Poland, operating within the Ministry of Finance, is the unit assisting the Government Plenipotentiary in the substantive and analytical matters, as well as providing organizational and secretarial support (see Appendix E for more information).

The National Coordination Committee for Euro Adoption is an entity authorized to prepare and submit to the Council of Ministers proposals for actions aimed at preparation of Poland for the introduction of the euro. The Committee is also responsible for the co-operation with the Government Plenipotentiary in initiation and monitoring of the preparatory actions of government administration bodies. It is composed of the Government Plenipotentiary as the chairperson, NBP's Management Board Plenipotentiary for the euro changeover as co-chairperson, Minister – Member of the Council of Ministers in charge of the works of the Standing Committee of the Council of Ministers and members of the management of the offices, the representatives of which are acting as chairpersons and vice-chairpersons of the Working Committees (see AppendixE).

[21] Regulation of the Council of Ministers of 13 January 2009 r. on establishment of the Government Plenipotentiary for Euro Adoption in Poland (Journal of Laws No. 11, item 60).

Chart 3. Organizational framework for the process of integration of Poland with the euro area



When necessary, upon a request of the Committee members, representatives of other than the above institutions will be included in the works of the Committee, e.g. representatives of employers, employees, financial sector etc. Large-scale cooperation between representatives of all sectors of the economy and institutions will enable an efficient flow of information and will allow for early identification of potential problems that may occur in the preparation process for the introduction of the euro in Poland.

The Coordinating Council is responsible for developing and introducing the National Euro Changeover Plan in Poland (NECP), and especially for coordinating the works of Working Committees and Task Groups. The Council consists of: The Government Plenipotentiary as chairperson, NBP's Management Board Plenipotentiary as co-chairperson and the chairpersons of all Working Committees. Upon a request of a member of the Council, **its meetings may be attended by representatives of other public administration bodies and entities, social partners** and the heads of Task Groups (see the next part of this Chapter).

The meetings of the Council are designed to enable exchange of information and to coordinate the works of Working Committees and Task Groups. During the meetings, information on the results of the works of individual Working Committees and Task Groups will be collected, and its members will determine further actions, including a timetable for their implementation.

The Interinstitutional Working Committees are expert bodies, mainly in charge of developing recommendations, expertises and opinions in the substantial matters (see Appendix E). Their tasks include in particular the preparation of input to the NECP and developing partial information to the reports on NECP implementation. Individual Working Committees include representatives of substantively competent ministries, agencies and institutions, as well as NGOs.

The Task Groups will be appointed, as required, by the Coordinating Council in order to develop solutions within specific issues, relevant for one or more Working Committees.

4.2 Preparatory measures in particular areas

The euro adoption is a complex process, requiring careful preparation in various fields, such as economic policy, public administration, financial sector and non-financial enterprises sector. Implementation of these preparations will also require extensive legal adjustments, accompanying the replacement of the currency. Simultaneously, in order to minimize inconvenience and costs for the citizens and businesses, appropriate actions should be undertaken to protect consumers in the period of currency changeover and to prepare a wide-ranging information campaign, which would facilitate the society's preparations for the introduction of the common currency.

The introduction of the euro will take place in accordance with strictly designed rules, which are supposed to ensure a smooth conversion from the zloty to the single currency and limit the inconvenience associated with this operation. Detailed guidelines for the corporate sector, public sector and citizens will be prepared by the Working Committees. Adopted solutions must be consistent with **the fundamental principles governing the process of conversion from the national currency to the euro:**

➢ **All amounts in the economy subject to settlement (prices, wages and salaries, pensions and social benefits, loan amounts, securities, etc.) will be converted to the euro in accordance with the same conversion rate** comprising six significant digits, which will be set by the Ecofin Council on the day it issues its decision to abrogate the derogation. The resulting amount will be respectively rounded to the nearest eurocent[22](Council of the European Communities, 1997a).

➢ **The principle of continuity of contracts will be applied during the process of the euro introduction.** This means that all contracts concluded prior to the introduction of the euro will remain valid after the replacement of the zloty by the single currency. The introduction of the euro may not constitute a cause for unilateral termination of a contract (unless all contracting parties agree otherwise). Any claims under the contract, denominated in the zloty, will be automatically converted to the euro (Council of the European Communities, 1997a).

➢ **During several months prior to and after the introduction of the euro, a dual display of prices and other monetary amounts to be paid, credited or debited, in the zloty and in euro will be into force.** It is destined to facilitate consumers' adaptation to amounts denominated in the new currency. According to the recommendation of the EC (European Commission, 2008a), the compulsory quoting of prices in two currencies shall be commenced as soon as possible, after the formal establishment of an irrevocable conversion rate from the national currency to the euro by the Council.

➢ All institutions, enterprises, organizations, as well as citizens will be responsible for their own preparation for the introduction of the euro in Poland. They will thus bear the costs of their preparations.

[22]The amounts converted from national currencies to the euro should be rounded to the nearest entire eurocent (in case of half of eurocent, the amount is rounded up). In some cases, the member states particularized the regulations regarding the rounding method in their national law(Council of the European Communities, 1997a).

4.2.1 Economic policy

The introduction of the euro in Poland requires prior fulfillment of the convergence criteria, including the exchange rate criterion. As a result, one of the main challenges that the Polish monetary policy has to face on its path to the euro changeover is to include the zloty in the ERM II and to create the conditions for safe participation in this mechanism. In particular – as outlined in Chapter 3 and in the *Prerequisites for the Road Map* – the strategy of participation in ERM II is requires decisions regarding: the duration of the ERM II participation, optimal timing of the inclusion of the zloty in this mechanism and the optimal – from the point of view of the Polish economy – determination of the central rate for the EUR/PLN.

In the period of participation in ERM II, it will be necessary to monitor the degree and prospects of fulfillment of the convergence criteria and to identify any factors that may result in a failure to comply with these criteria. In order to reduce the potential costs of nominal convergence and to ensure macroeconomic stability, it is necessary to determine the optimal policy mix. The Working Committee for the Macroeconomic Issues is responsible for conducting analyses in this area. The Government and the Monetary Policy Council are responsible for establishment of a strategy for fulfillment of the nominal convergence criteria, and the NBP's Board - for undertaking actions needed to fulfill these criteria, under the provisions of the Constitution of the Republic of Poland and other legislation, including the Act on the National Bank of Poland.

Simultaneously, as the experience of the euro area countries suggests, the single currency promotes a rapid pace of economic growth in those countries in which the economic policy was aimed not only at fulfillment of the nominal convergence criteria, but also at making appropriate adjustments in the real economy before joining the euro area. The renunciation from the autonomy in the monetary and exchange rate policy after entering the euro area will requite - as indicated in the Chapter 2 - an increase in effectiveness of alternative adjustment mechanisms in the event of asymmetric shocks. To maximize the benefits from the membership in the euro area, it will thus be indispensable to ensure an adequate degree of flexibility in the economy (especially in the labour and product markets) and in the fiscal policy. Therefore, the Working Committee for Macroeconomic Issues will conduct analyses, aimed at drawing up proposals for policies aimed at maximizing benefits and opportunities and at minimizing the costs and threats of the membership of Poland in the euro area.

4.2.2 Introduction of euro banknotes and coins

The Polish central bank is directly responsible for the introduction of euro banknotes and coins in the circulation(National Bank of Poland, 2009b). Similarly, in countries that have already introduced the euro, the central bank played a key role in the replacement of banknotes and coins denominated in national currencies by the euro. The role of the government in the process of the cash changeover will be to assist the central bank in all aspects that require interinstitutional cooperation at the national level.

The most important tasks of the central bank, related to the introduction of euro banknotes and coins, will be to ensure a sufficient amount of banknotes and coins for the cash changeover and the withdrawal of the zloty from the circulation, together with the coordination of logistic aspects of this project.

Box 10. Dual circulation period

The dual circulation period is the period during which both euro banknotes and coins, as well as banknotes and coins denominated in the national currency stay in circulation. In practice, this means that during this period it is permitted to carry out cash transactions in both currencies, which allows for a smooth transition from national currencies to the euro. Both business and consumers have thus more time to exchange cash. In accordance with the regulation of the Council of 3 May 1998 on the introduction of the euro (Council of the European Communities, 1998), the maximum duration of the dual circulation period is six months.

In the European Union Member States that have introduced the single currency into circulation on 1 January 2002, the dual circulation period lasted from one to two months: in Austria, Belgium, Finland, Greece, Luxembourg, Portugal, Spain and Italy – up to 28 February 2002, in France – up to 17 February, in Ireland – up to 9 February, and in the Netherlands – up to 27 January 2002.

In the new Member States, the dual circulation period was already much shorter. This is due to the fact that the states introducing the euro after 2002 could benefit from the experience of their predecessors in the organization of the changeover process.

In Slovenia, the national currency lost its legal tender status on 14 January 2007, in Malta and Cyprus – on 31 January 2008, and in Slovakia – on 16 January 2009. In the Czech Republic, it is planned to introduce a two-week dual circulation period.

In Poland, the decision regarding the length of the dual circulation period has not been taken yet. It will be subject to analyses and works of the Working Committee for the Introduction of Euro Banknotes and Coins.

Central banks in the states introducing the euro are responsible for frontloading .[23] i.e for arranging the supply of euro banknotes and coins for the banking sector before the single currency becomes the legal tender. This is aimed at preparation of commercial banks for further distribution of euro cash within the economy. Commercial banks may then provide, well before the euro becomes a legal tender, euro banknotes and coins to the retail sector within the subfrontloading process[24], and to citizens, e.g. by maintaining cash withdrawals only in the euro from the date of its introduction into circulation, or exchange of national currency into euro at cash-desks[25]. The rules regarding the cash changeover, including frontloading and subfrontloading, are determined in the guidelines of the European Central Bank (European Central Bank, 2006b, 2008c).

Due to the volume of the project of the currency changeover in Poland, it is necessary to elaborate an appropriate logistic plan of the introduction of euro banknotes and coins into circulation. This plan must take in the account the fact that in Poland the decision regarding the duration of the dual circulation period (see Box 10) and the scenario of the introduction of euro banknotes and coins (see Box 11) has not been made yet. For this reason, until the appropriate resolution is adopted, the abovementioned plan should include variants, assuming the appropriate application of the Madrid scenario or the *big bang* scenario.

The selection of the scenario will be preceded by an analysis of the optimal introduction of the euro in Poland, taking into consideration the specific circumstances in our country, such as the volume of cash circulation and the size of the territory. The purpose of the analysis will be to identify the best scenario for the introduction of the euro in Poland, the duration of the likely transition period and of the dual circulation period, as well as the exchange of banknotes and coins by the central bank and commercial banks.

Moreover, it is essential to elaborate a plan of withdrawal and destruction of banknotes and coins denominated in the zloty, as well as making the necessary changes in organization of cash circulation and adaptation of the statistical data base regarding banknotes and coins to the requirements of the ECB. The Working Committee for the Introduction of the Euro Banknotes and Coins is responsible for elaboration of the above mentioned plans, coordination and monitoring preparatory activities related to the introduction of the euro to cash circulation.

[23]Frontloading is a process of supplying financial institutions with euro banknotes and coins by the central bank, before the introduction of the euro cash. Frontloading may begin no earlier than four months before the cash changeover date.

[24]Secondary supply is a process of supplying the retail sector in euro banknotes and coins by the financial institutions before the day of the introduction of euro in cash.

[25]As regards supply of citizens in the new currency before its introduction, the preparation and sale of the so-called starter kits, i.e. small packets of euro coins, should be considered. A decision in this matter will be taken at a later stage of the preparations for monetary integration.

Box 11. Scenarios of the euro introduction

In the New Member States, it is possible to introduce the euro according to one of the following scenarios:

1. **Madrid scenario** in which during the transition period, the euro would circulate only in the non-cash form, and the national banknotes and coins would remain in circulation. The national currency units would become 'sub-units' of the euro. The transition period would be followed by a dual circulation period of the national currency and the euro. after the end of which the euro would be the sole legal tender in Poland.

The advantage of the transition period is that it allows all entities a relatively long period of time to prepare for the new circumstances. The disadvantages of this solution consist in possible additional costs to be borne by some entities, as well as – especially if the period is too long – a loss of the dynamics of the entire process.

2. ***Big bang* scenario**, namely the simultaneous introduction of the euro to cash and non-cash circulation, replacing the national currency without any transition period, including only a dual circulation period of the national currency and the euro. After the dual circulation period, the euro would remain the sole legal tender. This scenario however, may prove difficult to implement in Poland for logistical reasons related to the large scale of the cash changeover process.

In case of choosing the big bang scenario, it would be possible to apply its special variant, which allows for reducing the complications associated with the time frame of the conversion of the national currency to the euro, namely the ***big bang* scenario with a phasing-out period**. This option enables the use of references to national currencies for a period of time time (up to 1 year) after the introduction of the euro, and thus also after the dual circulation period of the national currency and the euro, when the currency looses the status of the national legal tender. Under this scenario, after the introduction of the euro, in principle the widespread use of the euro in non-cash and cash settlements would be in force, but it would be still possible to use references to the national currency in certain legal instruments (e.g. issuing invoices, financial statements elaboration), while such activities would have to be of "expiring" character and they would be allowed only in certain justified cases, such as the need to complete the conversion of the entity's accounting or administrative systems to the euro.

Whichever scenario will be selected, the process of the introduction of the euro may be divided into two key periods: a dual circulation period and a final period. The **dual**

circulation period will be a stage of a gradual withdrawal of banknotes and coins denominated in the Polish currency and of simultaneous introduction of the euro to replace them. In this phase, the zloty as well as the euro will have the status of legal tender in Poland. The **final period** will begin immediately after the dual circulation period. In this phase, the zloty will be replaced by the euro as a legal tender in Poland. Banknotes and coins denominated in the zloty will still be exchanged, for a specified time, by the commercial banks, and then only by the central bank, unless the provisions of the national law state otherwise. The national regulations will also specify for how long the above mentioned entities will exchange cash.

4.2.3 Legal adjustments

One of the most important tasks that the public administration must complete in connection with the introduction of the euro in Poland is to carry out the appropriate legislative adjustments. In addition to adjustments arising from legal convergence criterion (see Appendix B), changes in other regulations, which will be directly affected by the currency changeover, should also be conducted.

After preliminary analyses of the regulations that require adjustment have been completed, the model of introduction of these modifications should be determined. The adjustments may be implemented either by means of umbrella law, gathering all necessary legislative changes in one legal act, or introduction of appropriate changes in each regulation referring to the national currency. The Working Committee for Legal Adjustments is responsible for preparations in this area, i.e. drawing up draft regulations and developing a detailed schedule of legislative changes.

4.2.4 Public administration

The central administration plays a leading role in the preparation for euro changeover. The task of the authorities is not only to develop solutions allowing for smooth adjustment to the new currency by the administration, but also to support changeover preparations in all sectors of the economy. Moreover, the public administration is supposed to should take measures that will help the citizens to get accustomed to the new currency.

The introduction of the euro will have a profound impact on the functioning of the public administration. The replacement of the zloty by the single European currency will involve elaborating financial plans, prepared by the public administration in euro. Taxes, social contributions and other benefits to the state will have to be converted to the new currency, which will require setting of detailed rules for the operation. They include in particular the detailed method for rounding the converted monetary amounts. Those rules should ensure that the conversion will be as simple as possible and beneficial, or at least neutral to the citizens(European Commission, 2008d). Relevant decisions in this regard will be taken at a later stage of preparations for the monetary integration.

After the introduction of the euro in Poland (assuming that it will be completed according to the *big bang* scenario), payments to the citizens - pensions, tax refunds, allowances etc. will be settled in euro. Accordingly, the same rule should be applied as in the case of converting fees for the benefit of the state, i.e. converting and rounding amounts from the zloty to the euro should not result in any harm to the citizens. In addition, the EC recommends that soon after setting the irrevocable conversion rate, the monetary amounts should be displayed both in the national currency as well as in euro (European Commission, 2008a). This should facilitate citizen's adaptation to the amounts denominated in the new currency. The parameters applied in calculation of all kinds of fees and allowances (tax thresholds, minimum and maximum amounts etc.) will also require conversion. The modifications will be also necessary in the case of numerous forms, brochures and price lists, for use in public administration and containing amounts denominated in the zloty.

From the day of introduction of the new currency, assuming that the big bang scenario is selected, accounting and financial operations will have to be executed in the euro. For this reason, adapting the IT, financial, accounting, human resources and payroll systems, as well as all legal instruments to the euro, will be an important step on the path towards the introduction of the single currency in Poland[26]. These changes will involve the necessity to train those public administration employees who use these systems.

In addition, financial data may also require conversion. Then, it will be necessary to establish detailed rules for performing such operations, as well as the principles of archiving the original data.

State agencies which carry out cash transactions (e.g. collecting fees, payment of benefits) will have to obtain euro banknotes and coins within the subfrontloading process, as well as ensure the timely training of their tellers. The EC recommends that, during the dual circulation period, the national law imposes on retail outlets the obligation to give change exclusively in the euro(European Commission, 2008a)[27]. The possible introduction of the abovementioned provision and extending its scope to the state agencies may also contribute

[26]In case of applying the big bang scenario with the phasing-out period, for some time since the introduction of the euro, it would be acceptable to use references to the national currency in legislative instruments (see Box 11).

[27]The obligation to give change exclusively in the euro is a method recommended by the EC for faster dissemination of the new currency and efficient withdrawal of the national currency(European Commission, 2008a).

to a growth in demand for banknotes and coins at the cash-desks of those agencies.

Detailed guidance on the principles and schedules for implementing of the above tasks will be developed by the Working Committee for Public Administration.

4.2.5 Financial sector

The preparation of the financial sector entities to the introduction of the euro, due to their specificity, is a particularly complex and complicated process. Changing the currency has a particularly far-reaching impact on the functioning of these institutions.

The banking sector will play a special role in the introduction of euro banknotes and coins, in which it will be the intermediary between the central bank, introducing the new money to the circulation, and other sectors of the economy (see Chapter 4.2.2). In particular, the commercial banks will be responsible for the subfrontloading of the retail sector with euro cash and for the physical replacement of the banknotes and coins denominated in the national currency by the euro. As demonstrated by the experiences of other countries, these tasks are an important logistical challenge for the banking sector. In addition, appropriate training of the staff, performing cash transaction, in relation to the design and security features of the new banknotes and coins constitutes a very important aspect of the preparations.

The introduction of the euro to the non-cash circulation will necessitate conversion of bank accounts, credit cards, other payment instruments and banking products. Simultaneously, it will be necessary to adapt the systems and equipment used to handling these products, especially the payment systems, terminals, and electronic banking systems. Securities and market indices, along with the clearing systems used by the entities operating on the capital market, will also require conversion from the zloty to the euro.

In addition to the preparations for the introduction of the single currency to the cash and non-cash circulation in Poland, all financial institutions will have to undertake their internal preparations, i.e. adaptation of IT, accounting, human resources and payroll systems, training the employees in handling transactions in the new currency, etc.

Detailed rules regarding the conversion of the financial products, as well as selected aspects of organizing the exchange of banknotes and coins will be established by the Working Committee for Financial Sector and Financial Stability.

4.2.6 Non-financial enterprises

The introduction of the euro in Poland requires extensive preparations in non-financial enterprises. Their aim is to ensure a smooth transition to the euro in each enterprise, so that the currency changeover does not have a disruptive impact on its activities. From the day of the introduction of the single currency, it will be necessary to i.e. conduct the accounting and reporting, submit financial plans, tax returns and other documents in the new currency. The adoption of the euro in Poland will thus require internal adjustments of the accounting, financial, human resources and payroll systems, as well as IT systems in the enterprises.

For retail and services enterprises, the introduction of the euro will be a particularly difficult organizational effort, due to a large volume of cash transactions. What is more, these enterprises represent, next to the commercial banks, a significant channel of distribution for euro banknotes and coins among the citizens. For this reason, it is important that the largest possible number of outlets provide themselves in a timely manner with euro banknotes and coins, e.g. within the subfrontloading. The experience of the euro area states show that during the currency changeover the demand for euro banknotes and coins in the retail sector is increasing. This phenomenon stems from the fact that during the dual circulation period customers use cash for transactions more often in order to dispose of the stocks of the national currency that they possess. The demand for euro banknotes and coins may additionally increase as a result of imposing by the national authorities of the obligation to give change exclusively in euro during the dual circulation period (European Commission, 2008a).

The introduction of the euro into cash circulation will involve training staff executing cash operations, in both design and security features against counterfeiting of euro banknotes and coins. More efficient use of the new currency will allow smooth handling of cash transactions, and also correct identification of the authenticity of banknotes and coins. Earlier supplies of the retail and service outlets with euro banknotes and coins may significantly facilitate training of the personnel in this field.

The Working Committee for the Non-financial Enterprises is responsible for the establishment of detailed rules governing the transition form the zloty to the euro in the non-financial enterprises sector (with the exception of aspects relating to consumer protection), providing the access to relevant information at each stage of preparations and monitoring the progress of the preparatory activities to the introduction of the single currency.

4.2.7 Consumer protection

The introduction of the euro will involve conversion of prices from zloty to the euro. This change may cause confusion for some consumers. Although the value of goods and services will not change after the conversion to the new currency, however, due to its expression in another monetary unit, the order of magnitude will be modified, and that will require the consumers to get used to the prices quoted in euro.

According to the Eurobarometer surveys (European Commission, 2010), as much as 78% of Poles are afraid of abuse in the conversion of prices from the zloty to the single currency. Recent experiences of Malta, as well as those of other countries, have shown that owing to the appropriately targeted actions, it is possible to prevent unfair pricing practices among businesses and erroneous perception of price dynamics among the consumers (see Chapter 2 and Appendix D). To accelerate and facilitate the process of becoming accustomed to the prices quoted in euro, it is necessary to impose the obligation to display prices and other amounts to be paid, credited or debited, in two currencies. This obligation should apply to both the retail and service sector, as well as to the financial (e.g. bank statements) and public sector (e.g. information on the amounts of pensions and tax liabilities). Following the recommendations of the EC (European Commission, 2008a), the compulsory display of prices in two currencies should begin as soon as possible, after the formal establishment of the irrevocable conversion rate between the national currency and the euro by the Council. The dual display of prices should be in force for a minimum period of six months and a maximum of one year after the introduction of the euro. After this date, the dual display period should be terminated, to allow citizens to get used to the single currency.

The EC recommends also entering into agreements with retailers and service providers in order to ensure a neutral impact of the euro introduction on prices, and in particular to prevent price increases during the changeover to the euro. It is also recommended to regularly monitor prices, from the date of fixing the irrevocable conversion rate of the national currency to the euro, until the end of the dual display. The results of the monitoring should be made available to citizens on a regular basis (European Commission, 2008a).

Detailed rules of the dual display of prices and monitoring price developments during the introduction of the euro, as well as other solutions designed to facilitate the use the new currency among the consumers, will be developed by the Working Committee for Consumer Protection.

4.2.8 Information campaign

Information campaign is an essential element of a successful changeover from the national currency to the euro. Providing relevant information and delivering it in a timely manner and in an adequate form to the general public, taking into special account selected target groups (e.g. the elderly, the disabled, national minorities), is the only way to strengthen confidence and ensure smooth introduction of the new currency. Otherwise, lack of information may lead to increased anxiety and misunderstanding. An increase in awareness on the single currency among the society and in preparedness to the changeover are the expected results of an effective information campaign.

The starting point for the preparation of information campaign on the single currency should be carrying out social research, which will provide information on awareness, knowledge, attitudes and market behaviour of Polish consumers and entrepreneurs. It is equally important to identify and diagnose various groups of information campaign recipients and a proper diversification of the communication, addressed to each of these groups. This is the only way to meet the information needs of all recipients of the information campaign.

As noted by the EC (European Commission, 2008d), due to a large amount of the information that should be transferred to many social groups, the whole campaign cannot cover the period shorter than one year. The main part of the information campaign usually covers the period of the participation of the national currency in the ERM II. A good criterion for determining the moment when a state should begin the communication activities related to the euro is the level of awareness of the euro in the society. According to the Eurobarometer survey (European Commission, 2010), at present just over a third of the population in Poland feels well informed about the single currency, while nearly two-thirds declare insufficient information level or its complete absence. It thus seems that the information campaign (of limited intensity) should begin in Poland even before the accession of the zloty to the ERM II.

The information campaign in Poland should, in accordance with general recommendations of the EC (European Commission, 2008d) and based on the experience of other Member States, provide information on:

- the euro, monetary union and the European System of Central Banks,
- convergence criteria,
- reasons for the euro introduction in Poland,
- costs and benefits of the euro changeover,
- practical aspects of the monetary integration process, with particular emphasis on the date of the euro introduction, conversion rate, dual display of prices, dual circulation period, methods of exchange of banknotes and coins,
- design of euro banknotes and coins and their security measures.

The campaign must cover all social groups and the business sector. In the preparatory phase of the campaign, it is important to identify vulnerable target groups (the elderly, visually impaired or people with limited access to information, such as migrants, the homeless, prisoners and people who do not speak Polish at all, or speak it very little). It should also be specified which social groups may serve as intermediaries of information (called multipliers), i.e. contribute to augment the scope of the campaign (e.g. school-age children, social workers, teachers).

The initial phase of the campaign should have a general character. At this stage, information should focus on the euro area, the single currency and the ECB's role in conducting the monetary policy, and also other aspects, depending on the specificity of the country. Information on different phases of the introduction of the euro should not appear until later stages of the campaign. The full-scale campaign should be launched about a year before the adoption of the euro, and its intensity should gradually increase, reaching the culminating phase at the determination of the irrevocable conversion rate of the national currency to the euro. This period of the information campaign is crucial for the success of the smooth replacement of the currency. However, the information activities should not end on the day of the euro introduction. On the contrary, from this moment the last phase of the campaign should begin.

At all stages of the campaign, it is important to maintain its educational and informative character. The campaign on the euro should not be persuasive. Communication activities should be regularly confronted with the actual results of the opinion polls (European Commission, 2008d). This approach allows for rendering the strategy more flexibly and adaptable to the changing circumstances. For example, a rise in commodity prices during the euro introduction period in Cyprus and Malta made it necessary to inform the public that the price increase at that time did not result from the adoption of the euro. In Slovakia, the period of introduction of the euro coincided with the decrease of the GDP, which had no connection with the adoption of the single currency, but stemmed from the global financial crisis.

The formulation of the national information strategy on the euro is the responsibility of the national authorities. A close cooperation of all stakeholders, including the social partners, is essential. Before the development of the communication strategy, it is necessary to conduct extensive research on the specificity of the country, which may influence the effectiveness of the communication processes. The EC recommends carrying out a standard SWOT analysis of the proposed communication strategy at the initial stage (European Commission, 2008d). It is also important to draw from the experience of the current euro area members - twinning agreements are often established during the elaboration of the communication strategy. It is also possible to obtain support from the EC and the ECB, which have made a significant contribution to the information campaigns of the states that have already introduced the euro. Cooperation with the EC is conducted in the form of a partnership agreement, on the basis of which the Commission supports the activities of the national authorities, such as: media campaign, development and distribution of publications and promotional materials, organization of conferences and seminars, conducting opinion polls etc. The ECB supports the national central banks in developing and implementing their communication strategy, providing e.g. materials on the design and security features of the euro banknotes and coins.

A special role in the process of the euro introduction is attributed to the local government. Local authorities should be involved in informing groups which will be more difficult to be reached with the nationwide information campaign (e.g. national minorities, the homeless, the disabled).

In Poland, the Working Committee for Communication Strategy is responsible for establishing the guidelines for the information strategy. Nevertheless, at each stage of the preparation process for the euro changeover, cooperation with other Working Committees and Task Groups will be vital. Their task will be to deliver substantive input in the relevant field of expertise. It will allow for constructing the information transmission in a way that will clearly notify all market participants of the causes and consequences of the changes and actions undertaken in connection with the introduction of euro in Poland.

4.3 Timetable

The preparations for the euro changeover should begin as soon as possible. Early planning and commencing the preparations reduce the risk of delay in its implementation, and thus disturbance of the functioning of agencies, enterprises and other organizations. What is more, commencement of the preparations in advance may allow for combining the adjustments to the future currency changeover with the modernization of IT systems by individual entities or introduction of organizational improvements, and thereby **contribute to reducing the costs of the entire project**. For entities using the services of external firms, the beginning of the preparations in advance will allow for avoiding any bottlenecks related to limited access to these services due to increased demand in the period of euro changeover preparations.

Preparatory activities for the euro introduction in Poland will differ in nature and intensity at each stage of the process. As some of them are independent of the euro adoption date, they can and should begin as soon as possible. In particular, **it is necessary to immediately determine the extent of the necessary preparations for the euro changeover in Poland**. Therefore, the first stage of preparations for the the euro changeover in Poland will be of analytical and reconnaissance character. It will focus on assessing the impact of the introduction of the new currency on the functioning of the public administration, financial sector, non-financial enterprises as well as on the everyday life of the citizens. In the first phase of the preparations, the necessary adjustments of the Polish law will also be identified, together with the framework of the information campaign on the introduction of the single currency in Poland. The results of this phase will condition the activities undertaken in the subsequent stages.

The detailed schedule of the analytical phase of the preparations for the introduction of the single currency is presented below (see Tables 2 and 3). The schedule displays a list of the most vital tasks whose implementation has already started or should start in the coming months in the key substantive areas, i.e. the preparations of the public administration, of the non-financial enterprises sector, as well as efforts to adapt the Polish regulations to the new currency, customer protection during the conversion of the zloty to the euro and information campaign. The time frame for the implementation of individual tasks as well as the Working Committees responsible for the planning, coordination and monitoring of their introduction, drafting the final report, which is supposed to summarize the results of the reconnaissance and analytical phase of the preparations in the relevant substantive areas, were also identified. The short planning horizon at the present stage of preparations is due to the conditionality of further actions in relation to the identified tasks and problems. Specification and additions to the next steps in the schedule will be prepared by the relevant Working Committees and submitted to the Council in the form of reports from the abovementioned works.

As outlined above, the measures within the subsequent stages of preparation for the euro changeover in Poland will depend on the problems identified at the reconnaissance and analytical stage and on the date of euro adoption. Furthermore, an important factor in further preparations for the introduction of the single currency will be the decisions made in the course of the process by the government and relevant bodies of the National Bank of Poland, for example, on the scenario of the euro introduction in Poland, duration of the dual circulation period, duration of the dual display of prices, and above all the scheduled date of the introduction of the single currency. For this reason, the measures taken in the subsequent stages of the preparation process are presented in the form of a conditional schedule (see Table4). The timeframe is set out in it in such a way that the start (end) of the task is in each case the earliest (the farthest) possible time limit of its start (end). The table contains also the tasks whose completion date will depend on the decisions taken at the earlier stages of preparations by the indicated entities.

Table 2: Timetable of practical preparations for the euro adoption in Poland (1)

Field	Action	Entity responsible for coordination	time limit	
			start	end
Economic policy	Analyses of experiences of the euro area countries in the field of meeting the convergence criteria	Working Committee for Macroeconomic Issues	Q2 2010	Q3 2010
	Monitoring the extent of fulfilling the Maastrich criteria and signaling potential risks for their fulfillment	Working Committee for Macroeconomic Issues	Q1 2010	€-6m*
	Analyses of the volatility of the exchange rate and the equilibrium rate	Working Committee for Macroeconomic Issues	Q1 2010	€-6m*
	Analyses of the optimal policy mix	Working Committee for Macroeconomic Issues	Q1 2010	€-6m*
	Analyses and research on the benefits and opportunities, costs and threats induced by euro adoption in Poland	Working Committee for Macroeconomic Issues	Q1 2010	€+3m
	Research on the optimal policy maximizing the benefits and opportunities, costs and threats balance, associated with the membership of Poland in the euro area	Working Committee for Macroeconomic Issues	Q1 2010	€+3m
	Submission of the contribution to the NECP to the Coordinating Council	Working Committee for Macroeconomic Issues	June 2011	
Cash changeover	Analyses of experiences of the euro area countries in the field of cash changeover	Working Committee for the Introduction of Euro Banknotes and Coins	Q2 2010	Q3 2010
	Preparation of the logistic plan to obtain euro banknotes and coins and distribute them in Poland - separately for the Madrid scenario and for the big bang scenario.	Working Committee for the Introduction of Euro Banknotes and Coins	Q4 2010	€-28m
	Determining the areas that require changes in order to adapt the cash companies to the ECB's requirements	Working Committee for the Introduction of Euro Banknotes and Coins	Q4 2010	€-32m**
	Determining the areas that require changes in order to ensure complience of the statistical data base with the ECB's requirements (Currency Information System 2 - CIS 2)	Working Committee for the Introduction of Euro Banknotes and Coins	Q4 2010	€-32m**
	Preparing the logistic plan of withdrawal of the Polish currency from the circulation	Working Committee for the Introduction of Euro Banknotes and Coins	Q4 2010	€-28m
	Submission of the contribution to the NECP to the Coordinating Council	Working Committee for the Introduction of Euro Banknotes and Coins	June 2011	
Legal adjustments	Analyses of experiences of the euro area countries in the field of legal adjustments	Working Committee for Legal Adjustments	Q1 2010	Q3 2010
	Analysis of the regulations to be amended in connection with the euro adoption	Working Committee for Legal Adjustments	Q1 2010	Q4 2011
	Submission of the contribution to the NECP to the Coordinating Council	Working Committee for Legal Adjustments	June 2011	
Public Administration	Analyses of experiences of the euro area countries in the field of public administration	Working Committee for Public Administration	Q1 2010	Q3 2010
	Review of the processes implemented in the public administration institutions related to the implementation or observation of cash flows	Working Committee for Public Administration	Q1 2010	Q3 2010
	Analysis of the data bases requiring conversion	Working Committee for Public Administration	Q3 2010	Q1 2011
	Preparation of general guidelines for public administration authorities on the practical preparations for the euro adoption	Working Committee for Public Administration	Q2 2011	Q2 2011
	Submission of the contribution to the NECP to the Coordinating Council	Working Committee for Public Administration	June 2011	

* - abrogation of the derogation
** - entry to ERM II
€ - euro adoption date

Table 3: Timetable of practical preparations for the euro adoption in Poland (2)

Field	Action	Entity responsible for coordination	time limit	
			start	end
Non-financial sector	Analyses of experiences of the euro area countries in the field of non-financial sector preparations for the euro adoption	Working Committee for Non-financial Sector	Q1 2010	Q3 2010
	Analysis of the consequences of the euro adoption for the activities of non-financial enterprises and their competitiveness	Working Committee for Non-financial Sector	Q1 2010	€-32m**
	Entrepreneurs' opinion survey on the planned adoption of the euro, including the identification of the state of knowledge, fears, doubts and anticipated time horizon for the necessary adjustments	Working Committee for Non-financial Sector	Q1 2010	€-32m**
	Preparation of general guidelines for the non-financial enterprises on the practical preparations for the euro adoption	Working Committee for Non-financial Sector	Q1 2010	€-32m**
	Elaboration of information for enterprises on the introduction of the euro, in areas such as accounting, legal provisions, dual quoting of prices, IT systems and the need to assess the desired amount of the euro banknotes and coins by the enterprises	Working Committee for Non-financial Sector	Q1 2010	€-32m**
	Submission of the contribution to the NECP to the Coordinating Council	Working Committee for Non-financial Sector	June 2011	
Financial sector	Analyses of experiences of the euro area countries in the field of financial sector preparations for the euro adoption	Working Committee for Financial Sector and Financial Security	Q1 2010	Q3 2010
	Evaluation of the financial sector stability in the context of the inclusion of the zloty into ERM II	Working Committee for Financial Sector and Financial Security	Q3 2010	€-32m**
	Evaluation of the readiness of the sector for the euro adoption	Working Committee for Financial Sector and Financial Security	Continous task	
	Submission of the contribution to the NECP to the Coordinating Council	Working Committee for Financial Sector and Financial Security	June 2011	
Information campaign	Analyses of experiences of the euro area countries in the field of information campaign	Working Committee for Communication Strategy	Q1 2010	Q2 2010
	Preparation of the opinion polls' timetable	Working Committee for Communication Strategy	Q1 2010	Q2 2010
	Elaboration of the national communication strategy for the process of euro introduction in Poland	Working Committee for Communication Strategy	Q3 2010	Q2 2011
	Conducting opinion polls on the informational needs of different groups of interest	Working Committee for Communication Strategy	Continous task	
	Submission of the contribution to the NECP to the Coordinating Council	Working Committee for Communication Strategy	June 2011	
Consumer protection	Analyses of experiences of the euro area countries in the field of consumer protection	Working Committee for Consumer Protection	Q2 2010	Q3 2010
	Developing measures to reduce customers' concerns related to the euro adoption	Working Committee for Consumer Protection	Q2 2010	€-32m**
	Developing principles of the dual display of prices in zloty and in the euro	Working Committee for Consumer Protection	Q3 2010	€-32m**
	Developing the principles of the process of prices' monitoring	Working Committee for Consumer Protection	Q3 2010	€-32m**
	Submission of the contribution to the NECP to the Coordinating Council	Working Committee for Consumer Protection	June 2011	

* - abrogation of the derogation
** - entry to ERM II
€ - euro adoption date

Table 4: Conditional timetable of preparations for the integration with the euro area[a]

Stage	Action	Entity responsible for execution	Time limit: Start[1]	Time limit: End[2]	Practical preparations
I	Preparations for the ERM II entry	The Council of Ministers, the Monetary Policy Council and (as advisor) bodies of the inter-institutional organizational structure	*	€-32m	Identification of the necessary preparatory actions in all sectors of the economy, in the central government and local administration, elaboration of solutions and principles related the euro adoption, particularly in terms of legal adjustments, beginning of the information campaign.
II	Inclusion of the zloty into the ERM II	MF, MPC, relevant EU's and EU member state's institutions[3]	€-36m	€-32m	Intensifying practical preparations, including the information campaign, legal adjustments and IT, monitoring the preparations, training of employees in private and public sector.
	Convergence reports	European Commission and ECB	€-9m	€-8m	
	Council's decision on abrogation of the derogation and determination of the irrevocably fixed exchange rate	Ecofin Council	€-6m		
III	Ensuring an appropriate amount of euro banknotes and coins	NBP	*	*	The most intense phase of preparations, including the information campaign and the final stage of the legal adjustments, monitoring of prices, public opinion polls.
	Frontloading of euro banknotes and coins to banks	NBP	€-4m	€	
	Sub-frontloading	commercial banks	€-4m	€	
	Sale of euro coins starter kits	commercial banks, Poczta Polska	€-1m	€	
	Adjustment of IT systems and devices	banking sector, retail sector, services sector, public administration and agencies	*	€	
III/IV	Obligatory dual display of prices	banking sector, retail sector, services sector, public administration and agencies	€-6m €	€ €+12m	
IV	Euro adoption		€		The final stage of the information campaign - initially intense, gradually expiring.
	Dual circulation period		€	€+6m	
	Cash exchange by credit institutions	commercial banks	€	*	
	Cash exchange by the National Bank of Poland	NBP	€	*	
	Voluntary dual display of prices	banking sector, retail sector, services sector, public administration and agencies	€+6m	€+12m	

* - to be decided
[1] - the earliest possible date
[2] - the latest possible date
[3] - see Annex 1
€ - euro adoption date

[a] Assuming that the euro will be introduced in Poland in accordance with the *big bang* scenario and that the Eurogroup recommendation will be issued within 2 months from the preparation of the EC's proposal to the Council on the abrogation of the derogation.

The success of the integration process of Poland with the euro area depends on the appropriate supportive measures, i.e. informing the society about the important aspects of the single currency introduction in Poland, monitoring the price developments and adequate preparation of the public administration, financial and non-financial sector.

A detailed schedule of the subsequent stages of preparation will be included in the *National Euro Changeover Plan*, the elaboration of which will be the crowning task of the first stage of preparations for the introduction of the single currency. **The *National Euro Changeover Plan* will be a joint document of the Government and the National Bank of Poland. It will be developed by the organizational structure in the third quarter of 2011.**

5 Conclusion

As has already been emphasized many times, **in order to maximize the benefits and chances as well as minimize the costs and dangers related to the membership in the euro area, it is crucial to prepare Poland for functioning in the monetary union economically, institutionally, legally as well as organizationally**. It is also important to ensure a high degree of social acceptance for the euro adoption in Poland, which requires conducting an information campaign properly suited to the needs of the Polish society and business entities.

For the reasons mentioned above, as well as taking into consideration the fact that in the initial stage of the integration it is essential to inform the society about the consequences of replacing the national currency with the euro, the following document attempts to present a net balance of costs and benefits associated with Polish accession to the euro area and to systematize basic problems related to integration of Poland with the euro area, including concurrent meeting the formal requirements for adopting the euro (convergence criteria) as well as procedures related to meeting these requirements and to abrogating the derogation. Furthermore, Chapter 2 of this document attempts to minimize the fears connected with introduction of the euro in Poland in the future through reference to the most commonly expressed fears related to the common currency.

The main aim of Strategic Framework is, however, to indicate the scope of preparations necessary for possibly the most effective introduction of the euro in Poland, in particular: essential actions, schedule of their implementation and the entities in charge of them.

Due to a high level of uncertainty about future economic situation, **it has been decided not to indicate – for the time being – a precise target date of the euro adoption in Poland. Consequently, it was vital to prepare a schedule for activities aimed at the introduction of the euro which would be universal, i.e. which could be implemented almost automatically once the date of Polish accession to the euro area is set**. This schedule does not concentrate on specific dates but on defining essential preparatory actions, their optimal sequence and indicating how time-consuming they can be. The outline of the abovementioned schedule is, at the same time, expression of the Government's determination to achieve the aim, i.e. to adopt the euro as soon as possible.

As has been indicated in this document, **certain preparations for the introduction of the euro in Poland depend upon the euro adoption date, while others can, and should, start immediately**.

Early commencement of the preparations will reduce the risk of any delays in the process and, as a result, will prevent disturbances in the daily activities within public institutions, enterprises and other organizations.

Moreover, initiating the preparations in advance would allow to combine adjustments to the currency changeover with modernization of IT systems and introduction of organizational improvements envisaged by some entities and could also reduce the costs of the whole undertaking.

For this reason, the main part of this document (Chapter 3) presents a detailed calendar of activities within the next three months, i.e. for the period called the analytical stage. This stage will be crucial for the effectiveness of the whole process of preparation for the euro area accession as the results of this stage, in particular identifying the scope of necessary preparations for the introduction of the common currency and their timing, will determine the actions undertaken in subsequent stages.

Therefore, a detailed schedule for the further stage will be provided after completing the analytical stage and it will be an element of the National Euro Changeover Plan which will be a joint publication of the Polish government and the National Bank of Poland. It will have been prepared by the third quarter of 2011.

APPENDICES

A. Procedural conditions

Participation in the third stage of the Economic and Monetary Union (EMU) as a state with a derogation implies that **Polish accession to the euro area will require abrogating the derogation**, which is conditional upon fulfilling the convergence criteria, in particular the exchange-rate criterion (which requires the participation in the European Exchange Rate Mechanism – ERM II) as well as the fiscal criterion requiring (the state not to be subject to an Excessive Deficit Procedure – EDP). **Thus, a member state with derogation is subject to three procedures resulting from the Treaty on the Functioning of the European Union (TFEU): procedure of entry into the ERM II, procedure of closing the EDP and procedure of abrogating the derogation.**

A.1 Procedure of entry into the ERM II

As specified in the Economic and Financial Committee (EFC) guidelines for the new member states, inclusion of the national currency in the ERM II proceeds in the stages described below:

1. A confidential request for entry into the ERM II is sent jointly by the Minister of Finance and the Governor of the central bank of the member state with a derogation to the President of Ecofin Council. The request should contain a suggested central rate as well as an acceptable fluctuation band around the central parity;
2. The ERM II Committee meeting[28] is called by the EFC President in order to discuss the request;
3. A decision is prepared on inclusion of the national currency to the ERM II, specifying the central rate as well as fluctuation band around the central rate;
   1) by the ERM II Committee – if an agreement on the central parity and acceptable fluctuation margins was reached,
   2) by the participants of the ERM II Meeting[29] – if agreement on the central

[28]Participants of the ERM II Committee are: members of the EFC representing the government administration, members of the EFC representing central banks of Member States outside the euro area, two representatives of the ECB, two representatives of the EC, the President of EFC and the President of EFC Alternates. If a member of the EFC cannot participate in the meeting, they can delegate their deputy (EFC Alternate).

[29]The ERM II Meeting is presided by the President of the ECOFIN Council and the list of participants includes Ministers of Finance of the EU Member States, presidents of central banks of Member States outside the euro area, President of the ECB, two members of the European Commission and the President and the Secretary of EFC. The Ministers of Finance and central bank Governors of the EU Member States

rate and acceptable fluctuation margins was not reached during the ERM II Committee meeting;

4. If the abovementioned agreement is reached, the final *Communiqué* is released, including the following information: the parties initiating the procedure and decision making parties, the central rate[30] and the fluctuation band around the central rate as well as obligations related to the economic policy.

It must be noted that **all stages of the procedure, starting with sending the request up to the moment of publishing the Communiqué, are secret.**

A.2 Closing the EDP procedure

Pursuant to Article 126 of the Treaty on the Functioning of the European Union (TFEU) and *The Protocol on the Excessive Deficit Procedure*, termination of the excessive deficit procedure is executed in the stages described below:

1. Submission of fiscal notification by a member state, indicating fulfilment of the fiscal convergence criterion;
2. EC request to the Ecofin Council on closing the EDP;
3. Ecofin Council's decision (made by qualified majority) concerning closing of the EDP.

Pursuant to the *Council Regulation on speeding up and clarifying the implementation of the Excessive Deficit Procedure* (Council of the European Communities, 1997b, as amended), **the Council's decision on abrogating the excessive deficit procedure is taken as soon as possible and not later than two months from the date of submitting fiscal notification by an EU member state.**

A.3 Procedure of abrogating the derogation

Pursuant to Article 140 of the TFEU abrogating the derogation proceeds in the stages described below:

remaining outside the euro area and not participating in ERM II can participate in the above mentioned procedure but have no right to vote, whereas the Ministers of Finance and central bank Governors of Member States remaining outside the euro area but participating in ERM II at the moment of making the abovementioned decision take part in this meeting with the right to vote.

[30] In the number of units of the national currency for one euro with accuracy to six significant figures. If the accepted central parity involves devaluation or revaluation of the rate, the information should be included in the *Communiqué*.

1. Preparation of *Convergence Reports* by the European Commission (EC) and the European Central Bank (ECB):

    1) in even years the ECB and EC prepare the reports on their own initiative (pursuant to TFEU),

    2) in odd years a request for their preparation must be submitted;

2. Proposal prepared by the EC addressed to the Ecofin Council on abrogating the derogation;

3. Consultations with the European Parliament and a discussion in the European Council;

4. **Recommendation by the Eurogroup[31] on abrogating the derogation issued within 6 months from the date of receiving the EC's proposal by the Council;**

5. **Ecofin Council's decision (made by qualified majority) on abrogating the derogation.**

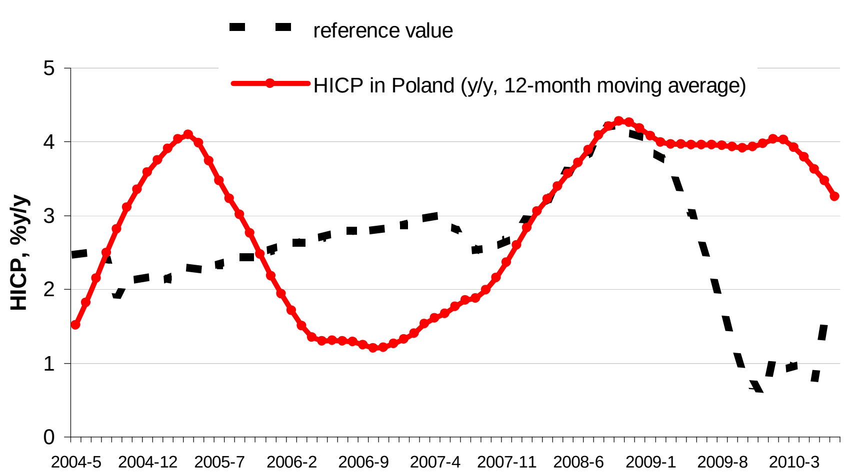
[31] Members of the Ecofin Council representing member states whose currency is the euro.

B. Convergence criteria

Price stability criterion stipulates that the inflation rate in a given Member State observed over a period of one year before the examination shall not exceed by more than 1.5 percentage points that of, at most, three best performing Member States in terms of price stability. Inflation shall be measured as the change in the latest available 12-month average of the HICP over the previous 12-month average.

Since October 2008 Poland has not been fulfilling the price stability criterion. In July 2010 the indicator defined above was 3.3% and, according to the calculations of the Ministry of Finance (Ministry of Finance, 2010), it exceeded the reference value by 1.6 p.p. A relatively high difference between the Polish price dynamics and the reference value (see Figure 7) is related mainly to the fact that during the crisis, Poland invariably observed positive rates of GDP growth which translated into one of the highest inflation rates among the European Union Member States. At the same time, deeper economic downturn observed in the years 2008-2009 in the countries of Western Europe caused a rapid decrease in their inflation rates. It also has to be mentioned that Poland fulfilled the price stability criterion during the periods of May-July 2004 as well as December 2005-September 2008, whereby from March 2006 till April 2007 Poland belonged to the group of three best performing EU Member States in terms of price stability.

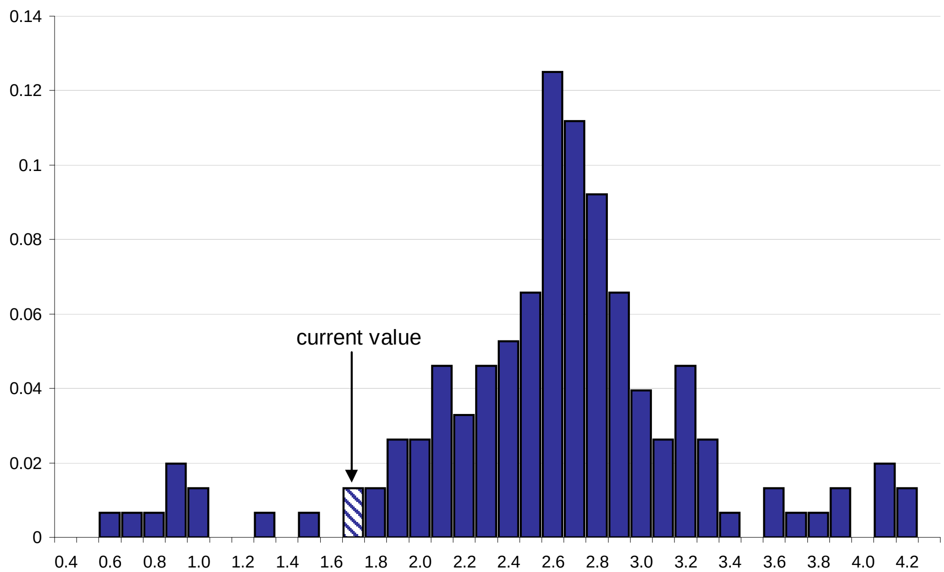
Figure 7: Price stability criterion in Poland, 2004-2010



Source: MoF calculations, Eurostat.

The inflation target pursued by the Monetary Policy Council at the level of

Figure 8: Histogram of reference values for price stability criterion, December 1999-July 2010



Source: MoF calculations, Eurostat.

2.5%, which was achieved in April 2010 for the first time since September 2007, **does not guarantee fulfilling the price stability criterion** (see Figure 8). However, it enables "a relatively quick reduction of the inflation rate at the right moment if it is necessary for meeting the price stability criterion" (National Bank of Poland, 2003, p. 19). **"If a binding decision is made about the envisaged date of accession to the euro area and, correspondingly, of the entry into ERM II, the Monetary Policy Council will make necessary adjustments of monetary policy strategies** (...) to meet the convergence criteria, necessary for adopting the euro" (National Bank of Poland, 2009a). A possibility of making such adjustments is in line with the decisions of the *Monetary Policy Strategy after 2003* (National Bank of Poland, 2003).

Fiscal convergence criterion stipulates that at the moment of assessment, an EU Member State cannot be the subject to Ecofin Council decision under Article 26 of the TFEU stating the existence of an excessive deficit. The analysis of the budgetary position is conducted in order to examine the following:

➢ whether the ratio of the **actual or planned** general government deficit (compare Box 12) to GDP exceeds a reference value (specified in the *Protocol on the Excessive Deficit Procedure* as 3% of GDP). If this is the case, it is then examined whether:

  - the ratio has declined substantially and continuously and reached a level that comes close to the reference value,
  - the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value;

- ➢ whether the ratio of general government debt to GDP exceeds a reference value (specified in the *Protocol on the Excessive Deficit Procedure* as 60% of GDP). If this is the case, it is then examined whether the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace.

The evaluation of the fiscal position of a member state with a derogation is based on convergence programmes and fiscal notifications.

Box 12. The general government sector

The general government sector consists of the following institutional units:

– general government units (excluding public producers organized into corporations or public financial institutions or – by virtue of special legal acts – classified as a corporation unit if they have been included in the enterprise sector or the financial institutions sector) which administer or finance a group of activities involved mainly in providing non-market products and services, intended to satisfy the needs of the society;

– non-commercial institutions recognized as legal entities which are the remaining non-market producers, controlled and financed mainly by general government units;

– autonomous pension funds, if they are obligatory by virtue of law or by an ordinance or if the general government sector is responsible for the management of such institutions within the scope of accounting and confirming contributions and benefits.

In Poland the general government sector comprises the following entities in the national economy:

– functioning in accordance with the rules set by the Public Finance Law;

– entities whose financial system has been specified by separate laws and whose main source of financing are subsidies from the state budget;

– autonomous public health care institutions;

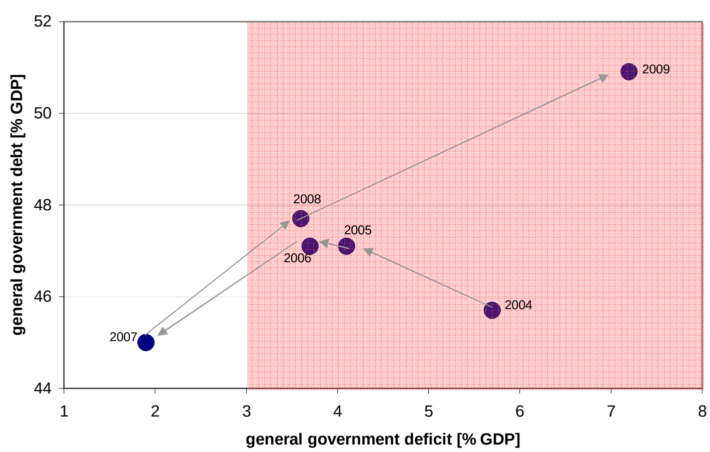
– public cultural institutions;

– funds with legal entity status which are connected with the state budget or budgets of local government units;

– institutions managing the social insurance funds (excluding open pension funds) and the National Health Fund.

Throughout the period of 2004-2009 the debt of the general government sector did not exceed the permissible limit of 60% of GDP (see Figure 9). At the same time, in years 2004-2006 Poland was subject to the excessive deficit procedure (see Figure 9) and did not meet the fiscal criterion. In 2007 the general government deficit was lower than 3% of GDP, and hence the excessive deficit procedure was closed. Nevertheless, due to the general government deficit rise to 3.7% of GDP in 2008, **on 7 July 2009** – pursuant to the Ecofin Council decision – **Poland has been once again considered a member state with an excessive deficit** and has been obliged to reduce the general government deficit to the level below 3% of GDP by 2012. In 2009 the general government deficit in Poland amounted to 7.1% of GDP. Reducing the deficit below the reference value in accordance with the recommendation of the Council would result in terminating the procedure against Poland (and thus meeting the fiscal criterion) in 2013 at the latest. The path for meeting the fiscal criterion is presented annually in the update of the *Convergence Programme*, submitted to the European Commission.

Figure 9: Fiscal criterion in Poland, 2004-2009



Shaded area indicates not fulfilling the fiscal criterion due to the level of general government deficit in a given year. In all the observed years the general government debt did not exceed the limit of 60% of GDP.
Source: Eurostat, prepared by MoF.

The exchange rate stability criterion The exchange rate stability criterion stipulates the observance of the normal fluctuation margins around the central parity, provided for by the Exchange Rate Mechanism (ERM), for at least two years, without severe tensions or devaluation against the euro on the country's own initiative. In the *European Council Resolution on the establishment of an exchange rate mechanism in the third stage of Economic and Monetary Union* (16 June 1997), it was emphasized that the Member States with derogation are expected to join the ERM II.

Due to the fact that the zloty does not participate in ERM II, Poland does not meet the exchange rate stability criterion. The Bureau of Government Plenipotentiary for the Euro Adoption in Poland is monitoring the volatility of zloty on a regular basis by means of indicators which are taken into consideration by the ECB in the assessment of the exchange rate stability.

The Exchange Rate Volatility (ERV) indicator as well as the implied volatility of FX options (see Appendix C) indicate a considerable increase of PLN/EUR rates volatility after October 2008 (see Figure 10). The episodes of the biggest fluctuations of the nominal exchange rate occured at the end of November 2008 and in February 2009 and since that moment, the volatility has been gradually declining. It temporarily rose again, though to lower levels, in the spring of 2010 due to an intensification of crisis in Greece and in August 2010 it considerably exceeded the levels that prevailed before the intensification of the financial crisis in the autumn of 2008. **Current PLN/EUR volatility is also significantly higher than the exchange rate volatility at the moment of ERM/ERM II entry in countries that have already adopted the euro.**

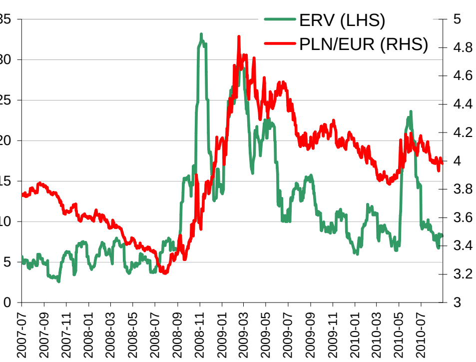
The interest rate criterion stipulates that a Member State shall have an average nominal long-term interest rate, observed over a period of one year before the examination, that does not exceed by more than 2 percentage points that of, at most, the three[32] best performing Member States in terms of price stability. Interest rates shall be measured on the basis of yield on long-term government bonds or comparable securities with ca. 10 years maturity, for which there is sufficient market liquidity.

In July 2010 Poland fulfilled the interest rate criterion. According to the calculations of the Ministry of Finance (see Ministry of Finance, 2010) in that month, the average yield on 10-year government bonds was lower than the reference value. The average long-term interest rate for the preceding 12 months was 6% in June 2010 and it is estimated that it was 0.3 p.p. lower than the reference value.

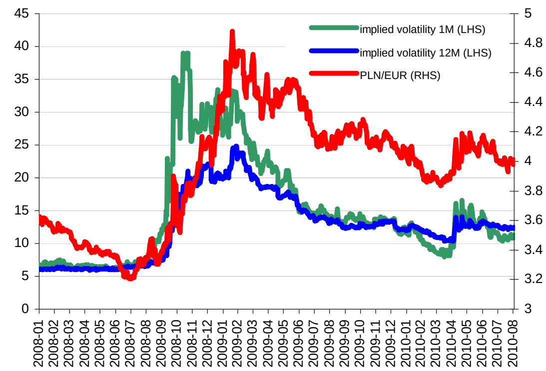
[32]The number of countries can be lower if, for example, in some of the best performing Member States in terms of price stability there are no adequate financial instruments. The above interpretation was used in Convergence Reports 2010, whereby Estonia was recognized as one of the reference countries for the price stability criterion.

Figure 10: PLN/EUR volatility, VII 2007 – VIII 2010

(a) ERV

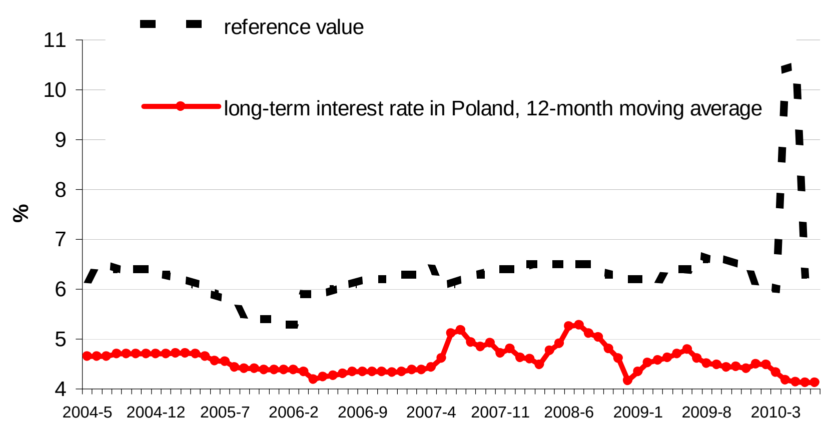


(b) implied from FX options



LHS – left-hand scale, RHS – right-hand scale.
Source: Bloomberg, ECB, MoF calculations.

Figure 11: Interest rate criterion in Poland, 2004-2010



Source: Eurostat, prepared by MoF.

The fulfilment of the interest rate criterion largely depends upon a country's ability to fulfil the price stability criterion (inflation expectations channel) and the fiscal criterion (risk premium channel) as well as the credibility of the currency integration strategy (risk premium channel). For this reason, if Poland develops a credible strategy for a sustainable fulfilment of the remaining convergence criteria, the interest rate criterion should not pose any threat to the euro adoption in Poland.

The legal convergence criterion comprises a compatibility analysis of the national legislation with Article 130 and 131 of the TFEU and with the Statute of the European System of Central Banks (ESCB) and of the European Central Bank.

In practice, there is a slight difference between the analysis of national legislation in *Convergence Reports* by the EC and ECB (see Olszak and Porzycki, 2009).

The EC focuses on three essential areas:

- ➢ compatibility of statutory objectives of the national central banks with the objectives of the ESCB,
- ➢ independence of the national central banks and members of their decision-making bodies, including institutional, financial and personal independence,
- ➢ integration of the national central banks into the ESCB.

Whereas the ECB focuses on the following issues:

- ➢ independence of the national central bank, in particular: functional, institutional, personal and financial independence, as well as confidentiality within the scope of activities subject to confidentiality provisions of the Statute of the ESCB,
- ➢ prohibition of monetary financing and privileged access,
- ➢ single spelling of the euro,
- ➢ legal integration of the national central banks into the Eurosystem, in particular in the following areas: economic policy objectives and tasks of the national central banks, financial provisions, exchange rate policy and international cooperation.

The ECB also emphasizes that the legal convergence assessment is not limited to a formal analysis of legal regulations of an EU member state but can also comprise their execution practice, in particular any symptoms indicating exerting pressure on decision making bodies of the national central banks (see Olszak and Porzycki, 2009).

At the same time, the ECB points to the requirement of compatibility of national legislation with the Treaty and the Statute of the ESCB, as stipulated in Article 131 of the Treaty. This requirement indicates a necessity of adjusting the content of national regulations, independently of the supremacy of the Treaty and the Statute of the ESCB over the national legislation. The obligation of ensuring legal convergence does not, however, imply the obligation of harmonizing the national acts on central banks. The ECB emphasizes that differences between these acts are fully acceptable as long as they do not infringe the EU's exclusive competence in monetary matters (see Olszak and Porzycki, 2009).

At present Poland does not fulfill the legal convergence criterion. Meeting this criterion requires a range of adjustments in Polish legislation (por. Olszak and Porzycki, 2009)**, in particular: significant changes in the *Act on the National Bank of Poland*, some changes in the *Act on the Bank Guarantee Fund* and, above all, the change of the *Constitution of the Republic of Poland*.** For this purpose, it is essential to reach a political agreement on the implementation of indispensable formal adjustments that determine the adoption of the common currency.

It also has to be emphasized that **the assessment of the convergence criteria fulfilment is conducted considering the following rules** (see European Central Bank, 2004a):

- each criterion is interpreted and implemented rigorously in order to guarantee that it will only be the member states with economic conditions favourable for maintaining price stability and ensuring economic cohesion within the monetary union that will enter the euro area,
- the criteria constitute a coherent and integral part and as such, they have to be fulfilled concurrently – they are equally enlisted in the TFEU and the Treaty does not suggest any hierarchy,
- the criteria have to be fulfilled considering actual data,
- the criteria should be implemented in a clear, consistent and simple way,
- the convergence has to be permanent, not temporary.

C. Technical aspects of the exchange rate stability criterion

C.1 Equilibrium exchange rate

Estimating the equilibrium exchange rate for an EU Member State following a path of integration with the euro area plays a major part in this process. In accordance with the position of the European Central Bank (2003b):

- **central parity set in the ERM II should reflect the assessment of the equilibrium exchange rate at the moment of entering the mechanism as accurately as possible.** The assessment should be based upon a broad set of indicators and economic tendencies and it should include the market rate;

- **realignment of the central rate may prove to be necessary in the event of equilibrium exchange rate evolution,** particularly under real convergence.

The ECB also emphasizes that a decision on the central rate involves a multilateral agreement and none of the parties can specify in advance the result of the abovementioned assessment.

Among numerous methods of estimating the equilibrium exchange rate available in the literature, the European Commission (2004) distinguishes two most commonly used approaches: fundamental equilibrium exchange rate and behavioural equilibrium exchange rate.

Fundamental equilibrium exchange rate (FEER) is a real exchange rate consistent with the conditions of external and internal equilibrium (see Williamson, 1994; Rubaszek, 2009). External equilibrium is usually defined as a current account balance equal to some target level (denoted as TCA_t), ensuring a sustainable ratio of net foreign liabilities to GDP in the long run. The condition for internal equilibrium is, in turn, stabilization of national production, denoted as Y_t, at the potential level, denoted as $\bar{Y}_t$, i.e. ensuring the prevalence of non-accelerating inflation rate of unemployment and consequently low inflation rates.

Calculation of FEER requires estimation of exports and imports elasticities with respect to the real exchange rate, denoted as RER_t. Real exchange rate appreciation should lower the competitiveness of Polish exports and increase the competitiveness of Polish imports (and *vice versa* in the event of depreciation). Having estimated the respective elasticites, we can express the current account balance at time t, denoted as CA_t, as a function of i.a. real exchange rate and current output: $CA_t\left(RER_t, Y_t, \cdot\right)$, where $(\cdot)$ represents other factors.

$FEER_t$ is therefore a value of RER_t that ensures the fulfilment of the following relation:

$$CA_t\left(FEER_t, \bar{Y}_t, \cdot\right) = TCA_t \tag{1}$$

i.e. current account deficit to GDP ratio is at the target level and concurrently internal equilibrium condition is fulfilled. FEER is considered to be the appropriate approach to estimating long-term equilibrium exchange rates.

Behavioural Equilibrium Exchange Rate (BEER) is a more empirical approach. It is based upon observation that real exchange rates very slowly revert to the level compatible with the purchasing power parity (see Clark and MacDonald, 1998). This takes place due to the fact that in the short and medium run, the rate (denoted as q_t) is determined by a set of macroeconomic fundamentals:

$$q_t = Z_t\beta + T_t\gamma + \varepsilon_t \tag{2}$$

where Z is a vector of variables having long and medium-run effects on the real exchange rate (that is time horizon of one business cycle), T represents short-run factors, ε – random factors. BEER is defined as the real exchange rate after eliminating short-run and random factors.

In the literature, the following long- and mid-term factors are considered (see Clark and MacDonald, 1998; Égert et al., 2006; Bęza-Bojanowska and MacDonald, 2009):

- the ratio of **net foreign assets** (NFA) to GDP (in a catching-up economy, it reflects financial deepening and capital inflow, which should lead to appreciation; denoted as nfa_t);
- **terms of trade** – the quotient of export price to import price ratio against an analogous value in other currency areas included in the analysis (increase of relative export prices against import prices is connected with appreciation when price elasticities of trade are low or with depreciation when these elasticities are high; denoted as tot_t);
- approximation of the **Balassa-Samuelson effect** in converging economies (e.g. relative dynamics of work productivity in the tradable and nontradable goods sectors against an analogous value abroad; a more rapid increase in work productivity within the country, especially in the tradable sector leads to appreciation; denoted as bs_t);

- **real interest rates disparity** with respect to the foreign economy (higher interest rate in the domestic economy causes appreciation; denoted as r_t);
- proxy variable for the **risk premium** (e.g. general government debt or deficit in ratio to GDP, rise in risk premium leads to depreciation, denoted as λ_t).

Given this, relation (2) can be illustrated in the following way:

$$q_t = f\left(nfa_t, tot_t, bs_t, r_t, \lambda_t\right) \tag{3}$$

and its parameters are estimated. BEER is a predicted value of q_t resulting from equation (3).

According to the European Commission (2004), when estimating the equilibrium exchange rates in new EU Member States, the following issues and potential difficulties shall be taken into consideration and included in the analysis:

- choice, length and quality of the time series;
- stability of the cointegrating relations and of the estimated foreign trade elasticites in the economies under transformation;
- assumed equilibrium levels of selected variables, e.g. long-run ratio of NFA to GDP in the economy and TCA_t as a target path resulting from this ratio;
- the mapping of conclusions from the real equilibrium exchange rate analysis into central parity, which is expressed in nominal terms (in particular the assumptions on the future inflation rate in the period of the exchange rate's reversal to the equilibrium level).

It must be emphasized that the presented approaches are complementary and due to abovementioned difficulties none of them can be a sole premise for conclusions on the optimal central parity and the irrevocable conversion rate. In order to make a possibly comprehensive assessment of the situation in the FX market, the Bureau of the Government Plenipotentiary for the Euro Adoption in Poland has been monitoring various measures of the equilibrium exchange rate on a regular basis.

C.2 Measuring exchange rate volatility

Due to the fact that reliable measurement of the equilibrium exchange rate is particularly difficult when current PLN/EUR market rate is subject to strong fluctuations, it is important to monitor exchange rate volatility on a regular basis. The amplitude of fluctuations in the FX market is a prerequisite for the introduction of the zloty into the ERM II (see *Prerequisites for Implementation of the Next Stages of the Road Map for Euro Adoption in Poland*) and will have a direct impact on the assessment of Poland's fulfilment of the exchange rate criterion.

Measuring exchange rate volatility against the euro by means of common statistics tools (standard deviations, coefficient of variation) requires defining the reference point around which the rate would fluctuate. A natural reference point in the case of currencies participating in the ERM II is the central parity. In the case of remaining currencies, the level can be defined more or less arbitrarily. The methods used for its extraction include mechanical filtering e.g. by means of a moving average over some time window or estimating a level compatible with the equilibrium exchange rate. Other approaches consist in (i) analyzing rates of change instead of deviations from a given level, or (ii) direct interpretation of financial markets data containing information on anticipated future exchange rate volatility.

The **Exchange Rate Volatility (ERV)** measure is an example of the first approach. It was defined and implemented by the European Central Bank for the assessment of the exchange rate stability criterion in the *Convergence Reports*. ERV is calculated on the basis of daily data on nominal exchange rate of a given currency against the euro, expressed in growth rates. The concept consists in approximating an *ex ante* standard deviation of the annual exchange rate change. This is based upon the assumption that changes observed in the coming 12 months will have a similar amplitude to those observed up to date (see also Box 13).

Box 13. Exchange Rate Volatility (ERV)

We denote the exchange rate PLN/EUR on day t as Y_t. Let $y_t = ln\,(Y_t)$, then $100 \cdot \Delta y_t$ denotes approximate daily percentage changes of this rate. We assume that for $s = t, t + 1, \ldots, t + 256$ variables Δy_s are independent and identically distributed. We also assume that one year comprises 256 working days. With the assumptions made above, the annual exchange rate in the coming year equals by definition:

$$r_t = \sum_{s=t+1}^{t+256} 100\Delta y_s \tag{4}$$

The standard deviation r_t equals:

$$\begin{aligned} SD\left(r_t\right) &= \left[Var\left(r_t\right)\right]^{\frac{1}{2}} = \left[Var\left(\sum_{s=t+1}^{t+256} 100\Delta y_s\right)\right]^{\frac{1}{2}} = \\ &= \left[100^2 \cdot 256 \cdot Var\left(\Delta y_t\right)\right]^{\frac{1}{2}} = 100 \cdot 16 \cdot SD\left(\Delta y_t\right) \end{aligned} \tag{5}$$

The ECB estimates $SD\left(\Delta y_t\right)$ as standard deviation in the last 20 working days, t included:

$$SD\left(\Delta y_t\right) = \left[\frac{1}{19}\sum_{s=t}^{t-19}\left(\Delta y_s - \frac{\sum_{u=t}^{t-19}\Delta y_u}{20}\right)^2\right]^{\frac{1}{2}} \tag{6}$$

This leads us to the ERV formula for daily data:

$$ERV_t = SD\left(r_t\right) = 100 \cdot 16 \cdot \left[\frac{1}{19}\sum_{s=t}^{t-19}\left(\Delta y_s - \frac{\sum_{u=t}^{t-19}\Delta y_u}{20}\right)^2\right]^{\frac{1}{2}} \tag{7}$$

The EBC quotes ERV on a quarterly basis. With $ERV(m)_t$ standing for ERV on the last day of the month t, then the quarterly value of ERV is: $ERV(q)_t = \frac{\sum_{s=t-2}^{t} ERV(m)_s}{3}$.

Based on: European Monetary Institute, 1998; National Bank of Poland, 2004.

In the second approach, daily market data on **pricing the FX options** can be used. These instruments are based on a given currency pair and allow for hedging against exchange rate risk at different time horizons. Calculation of the implied PLN/EUR exchange rate volatility expected by the market at a given time horizon involves an implementation of some FX option pricing model. The equation for the price of option is solved- - with a given market price and other assumptions – for the volatility expected by the market (see Box 14).

Box 14. Volatility implied from FX options

A model expresses the current price of a FX option, P_t, as a function of future volatility expected by the market at the moment t, σ_t and other arguments:

$$P_t = f\left(\sigma_t, \cdot\right) \tag{8}$$

Function $f\left(\right)$ should be monotonically increasing in σ_t, therefore there exists an inverse function:

$$\hat{\sigma}_t = f^{-1}(P_t, \cdot) \tag{9}$$

allowing to estimate the volatility implied from foreign exchange options conditional on their current market price.

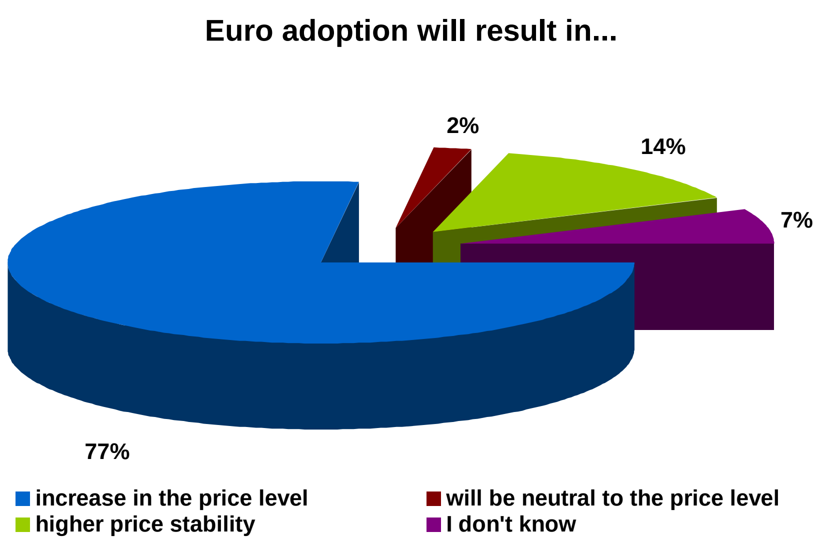
Implied volatility can be interpreted as volatility at a given time horizon in the future, which is expected by the market if the assumed model of option valuation was true. In order to make a comprehensive assessment of the situation in the FX market, the Bureau of the Government Plenipotentiary for the Euro Adoption in Poland monitors various measures of exchange rate volatility on a regular basis and publishes them monthly on the website of the Government Plenipotentiary in the *Nominal Convergence Monitor* (pol. *Monitor Konwergencji Nominalnej*).

D. Impact of euro adoption on price developments

D.1 Introduction

Results of opinion polls suggest that price effects constitute the main source of concern for the Polish society with respect to the euro adoption. Almost 80% of citizens believe that the currency changeover will contribute to an increase of prices (see Figure 12). Anxiety stems from expectations of both short-term effects (price abuse by entrepreneurs) and long-term developments – increase in prices up to the average euro area level, more rapid than income convergence.

Figure 12: Views on the impact of euro adoption on the price level in Poland



Source: European Commission (2010).

Following the euro cash changeover, prices that were previously expressed in the national currency (e.g. the zloty) will be converted into euro at the irrevocably fixed conversion rate. The currency changeover can therefore be compared to converting the distance from miles to kilometers. As much as the change of the unit of measure does not result in any change of a distance, conversion of the national currency into the euro should not influence the level of prices in the short run. In practice however, due to certain factors discussed this document, the currency changeover may not be fully neutral for the price level. This is confirmed by the experience of the other Member States which have already adopted the euro. Nevertheless, these price effects proved to be negligible and led to an increase in the inflation rates by only a few decimals of one percentage point.

A more severe problem, however, was the so called "euro illusion" which consists in the society attributing much higher price effects to the euro introduction than indicated in the statistics. This problem was particularly noticeable in the "old" Member States which introduced the euro cash in 2002.

The experience of the present euro area members indicate, however, that unjustified price increases as well as the euro illusion can be effectively prevented by implementing the appropriate policies and by a properly conducted information campaign. Social and economic costs of price effects related to euro adoption depend mainly on the attitude of the society itself – consumers as well as entrepreneurs. The public administration should, in turn, promote the right social attitudes through providing the necessary information and by introducing the mechanisms promoting fair pricing.

D.2 Price effects accompanying the introduction of the single currency – euro area experience and estimates for Poland

Among factors which could account for price increases resulting from the euro cash changeover, the following should be mentioned: (1) transferring changeover adjustment costs incurred by entrepreneurs upon consumers, (2) the so called "menu costs" hypothesis, (3) rounding to the so called "attractive prices"; (4) abuse of consumers' confusion for economically unjustified price increase.

The literature has come to a consensus view that the first of the abovementioned factors had little influence on price developments. Namely, estimated cost of the currency changeover is relatively low and amounts to less than one percent of the annual turnover of corporations. Moreover, a substantial part of these costs was covered before the changeover.

The so called "menu costs", in turn, explain the increased frequency of price adjustments at the moment of currency changeover. Price adjustments are costly, for instance due to the necessity of changing price lists. As a result, price changes – in particular in such sectors as catering – are rare. Since the currency changeover involves a change of nominal price level, it requires adjustments in price lists. As a result, entrepreneurs tend to shift price adjustments from the period of a few months before or after the currency changeover to the exact moment of the changeover. For example, an entrepreneur planning to change prices in April may bring forward this operation and schedule it for January, i.e. the moment of the cash changeover, since at that point replacing the price lists is necessary anyway.

Consequently, the entrepreneur will not need to change prices in April anymore. At the same time, another entrepreneur – primarily planning to raise the prices for his or her services a few months before the euro introduction – may withhold the decision until the new currency has been put into circulation. The abovementioned examples demonstrate that a higher frequency of price changes in the period of the euro introduction leads solely to changes in the time structure of the adjustments and not their size.

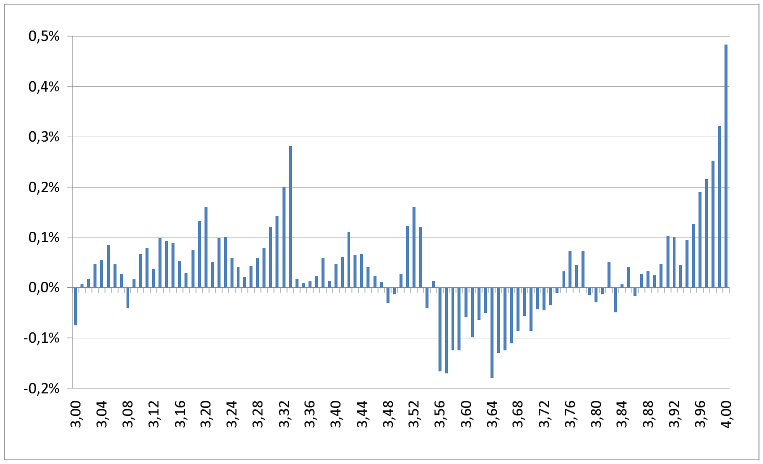
Another factor accounting for a potential increase of prices as a result of the euro changeover is rounding to attractive prices. This kind of prices play an import role in the economy, and they constitute a dominant group in the price structure in the euro area as well as in Poland. Attractive prices are more common than normal prices because of a few reasons. First of all, they are supposed to influence customers' perception of the price in such a way that goods and services will seem to be cheaper than they really are. For example, a price whose last significant digit[33]is 9 – e.g. PLN 9.99 – seems significantly lower than PLN 10 to a lot of people. Such prices are described as psychological ones. Attractive prices are also aimed at facilitating cash transactions, e.g. by allowing the change to be given "easily". This group comprises so called fractional prices, including round prices (e.g. PLN 5).

After the changeover and conversion of prices into the new currency, the role of attractive prices is largely reduced (Deutsche Bundesbank, 2004). Nevertheless, due to their significance in the economy, their share in the price structure should rise again over time. Consequently, new prices should be rounded to attractive prices. This fact, however, does not necessarily imply an increase in prices – they can be rounded up or down to the nearest price. For instance, before the currency changeover in Germany, a "psychological" price of sugar of DM 1.79 was a so called model price (relatively common in the economy). After conversion to the euro, the price should have been EUR 0.92. However, after a few months, the new model price was at the level of EUR 0.89, hence lower than before the changeover.

There are estimates of potential rounding effects on prices after the euro introduction in Poland. The simulations' results indicate that this effect should be negligible (Rozkrut et al., 2009). Its actual value depends upon the assumptions made, as well as the PLN/EUR conversion rate. In a symmetric scenario, according to which attractive prices are rounded up or down to the closest attractive price within the same category, and regular prices to the closest eurocent, the price level may even decrease (see Figure 13). In a pessimistic scenario, in turn, assuming rounding up all the attractive prices to the closest attractive price and, in the case of regular prices, rounding them up to one eurocent, the aggregate price level should change only insignificantly – depending on the conversion rate, it will rise by 0.91% to 2.22% (a median of 1.75% – see Figure 14).

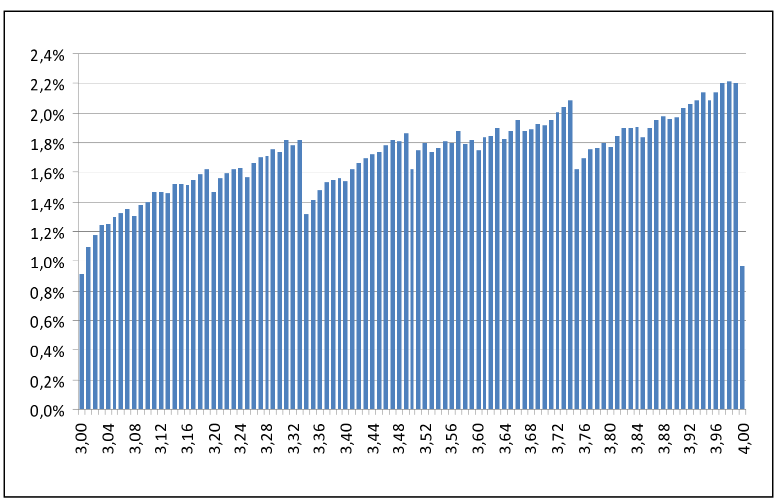
[33] A significant digit is understood here as a digit different from zero.

Figure 13: Influence of rounding on the price level after the euro adoption in Poland – sensitivity to conversion rate, symmetric scenario



Source: Rozkrut et al. (2009)

Figure 14: Influence of rounding on the price level after the euro adoption in Poland – sensitivity to conversion rate, pessimistic scenario



Source: Rozkrut et al. (2009)

In the discussion of price effects related to the euro changeover, it is often emphasized that an average price increase does not accurately reflect how different groups of households are affected. The public debate sometimes indicates the poorest social groups and pensioners

Table 5: Influence of rounding on the price of a representative basket of foods and services for different socio-economic groups after the euro adoption in Poland

	Socio-economics groups					
	employees	farmers	self-employed	pensioners	dependant on non-profit sources	CPI
	Scenario I					
Median	**0,53%**	**0,46%**	**0,51%**	**0,53%**	**0,58%**	**0,53%**
MAX	*0,69%*	*0,60%*	*0,67%*	*0,68%*	*0,74%*	*0,69%*
MIN	*0,30%*	*0,26%*	*0,28%*	*0,31%*	*0,32%*	*0,30%*
	Scenario II					
Median	**1,79%**	**1,60%**	**1,74%**	**1,70%**	**1,93%**	**1,75%**
MAX	*2,22%*	*2,01%*	*2,16%*	*2,21%*	*2,40%*	*2,22%*
MIN	*0,92%*	*0,83%*	*0,88%*	*0,91%*	*1,00%*	*0,91%*
	Scenario III					
Median	**2,57%**	**2,41%**	**2,48%**	**2,51%**	**2,81%**	**2,56%**
MAX	*3,29%*	*3,04%*	*3,19%*	*3,31%*	*3,58%*	*3,29%*
MIN	*1,63%*	*1,53%*	*1,56%*	*1,65%*	*1,80%*	*1,62%*
	Scenario IV					
Median	**0,02%**	**0,05%**	**0,02%**	**0,06%**	**0,03%**	**0,04%**
MAX	*0,49%*	*0,43%*	*0,47%*	*0,47%*	*0,55%*	*0,48%*
MIN	*-0,19%*	*-0,16%*	*-0,20%*	*-0,16%*	*-0,19%*	*-0,18%*

Minimum, maximum and median values were calculated on the basis of results at various conversion rate levels.

Source: Rozkrut et al. (2009)

as those who would suffer most due to excessive price increases after the euro changeover. In order to analyze this issue, potential euro-induced price effects have also been examined for different household groups in Poland. Simulation results indicate that the consequences of rounding prices should be uniform, regardless of the socio-economic group to which a given household belongs (Table 5). The costs of living for pensioners or farmers will not therefore rise to any larger extent than for the remaining households.

The last potential cause of the euro-related price increase involves unfair pricing practices by entrepreneurs. Due to consumers' confusion related to the change in the nominal price level after the euro introduction, price abuses cannot be excluded. This may involve, in particular, goods of a low unit price, purchased mostly in large quantities (mainly food), in which case there is a considerable probability that consumers will not convert the prices into the old currency and thus will not notice the price increase (this relation is compatible with the so called rational inattention theory). However, the experience of some euro area Member States (the "new" ones in particular) indicates that the implementation of relevant policy measures allows to protect consumers from possible abuses effectively.

Box 15. Short-term price effects of euro cash changeover – quantitative analysis

Price effects of euro cash changeover are an important element of public discourse as well as scientific debate on the costs and benefits of Poland's integration with the euro area. In order to estimate their size in the first group of euro area Member States, a panel model has been estimated. Its specification accounted for the fact that the introduction of the euro into circulation in 2002 in twelve out of fifteen EU countries was a natural experiment with a control group. This allows to assess the influence of the currency integration on price dynamics on the basis of differences between the experimental group (i.e. the countries which entered the currency union) and the control group (the countries which remained outside the euro area) before and after the currency changeover(Konopczak and Rozkrut, 2009b).

Potential price effects were examined within an inflation model through considering a set of regressors. Apart from variables accounting for inflation developments suggested by the literature (demand gap, exchange rate dynamics, raw materials and labour costs, cyclically-adjusted general government balance and a relative level of prices in a given country), this set included relevant dummy variables. The examination covered fourteen EU Member States (15 "old" EU states excluding Greece, where not all the necessary data was available) in the years 1995-2006.

According to the estimation results, there was a so called „January effect" when it comes to general price levels in the countries of the euro area, i.e. HICP index in January 2002 was higher by 0.64 percentage point than it resulted from fundamental factors, while in the control group this effect was not observed. Short-term price effects in the euro area also occured in the case of consumption services, mainly in the category of restaurants and hotels. Nonetheless, in the case of consumption goods (including food) an additional increase in prices was observed at the beginning of 2002, equally in the control group, as well as in the experimental one, and therefore their existence cannot be attributed to the introduction of the euro.

In terms of annual data, the influence of the euro introduction on inflation (as measured by HICP) turned out to be statistically insignificant. This confirms that price effects of the currency changeover are only short-term. The results of the research also show that price effects can be effectively limited by the implementation of some relevant administration tools, such as dual display of prices in a national currency and the euro.

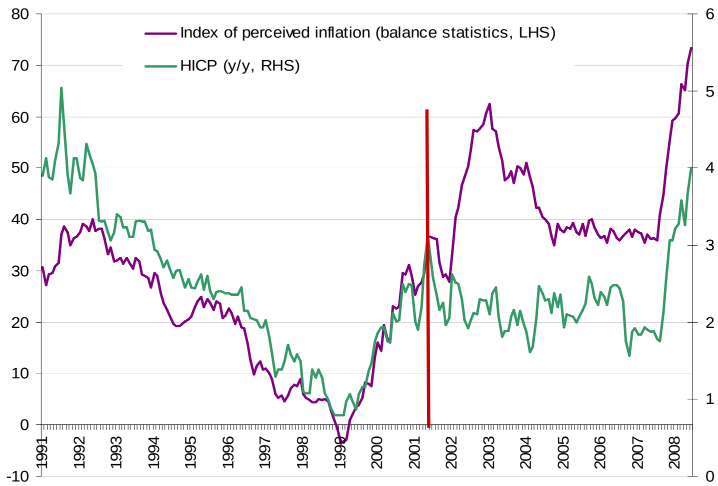
Considering the origin of euro-induced price effects, it can be expected that on the one hand, the process may not be neutral for price level but, on the other hand, the effects should be small and temporary. This pattern seems to be confirmed by the experience of the countries which have already adopted the euro (see Box 15). In the period of the currency changeover, an increase in prices of some goods and services was observed in the group of the first twelve Member States of the euro area which did not result from inflation determinants, whereas in the UE countries which did not join the monetary union (Great Britain, Sweden and Denmark) this effect was less intense. However, this increase had a relatively small magnitude and price effects were the most evident in January 2002 when they contributed to an additional increase in the euro area inflation by a few decimals of a percentage point on average (Konopczak and Rozkrut, 2009b). In annual terms, however, the effect was statistically insignificant, which is in line with the hypothesis that changes in the price level after the introduction of the euro cash are temporary. The low impact of the currency changeover on prices in both “old” and “new” Member States is also confirmed by the Eurostat estimates (Eurostat, 2003), according to which the effect amounted to approximately 0.1-0.3%.

Besides short-term effects, social concerns are also caused by long-term developments, including, above all, the risk of a rapid increase in the price level in Poland up to the level prevailing in the euro area (the so called nominal convergence), preceding the increase in the level of income (the so called real convergence). The convergence process (i.e. the progress of similarity between economies), with drawing income and price levels of developing countries closer to the level of developed countries, is a common phenomenon in the world economy. Membership in the euro area may only accelerate this process. As for the level of prices, the pace of convergence should increase due to enhanced international transparency of prices, which shall facilitate price comparisons. However, what has an important impact on the price equalization is deregulation (liberalization) of markets, whose pace is determined by the government, taking into consideration income dynamics in the economy. A faster convergence of income levels should, in turn, result from an accelerated economic growth related to the euro adoption (see Box 6 in Chapter 2).

D.3 ”Euro illusion”

The above conclusions pointing to negligible and temporary euro-induced price effects, are challenged by the view common in the euro area societies, according to which the new currency adopted in 2002 led to a significant increase in inflation. Five years after the currency changeover, the belief about strong inflationary consequences of the changeover was still held by 90% of citizens of the euro area (European Commission, 2006b). This discrepancy between the inflation perceived by the society and the official statistical data (see Figure 15) is dubbed the "euro illusion".

Figure 15: Perceived and actual inflation in the euro area, 1991-2008



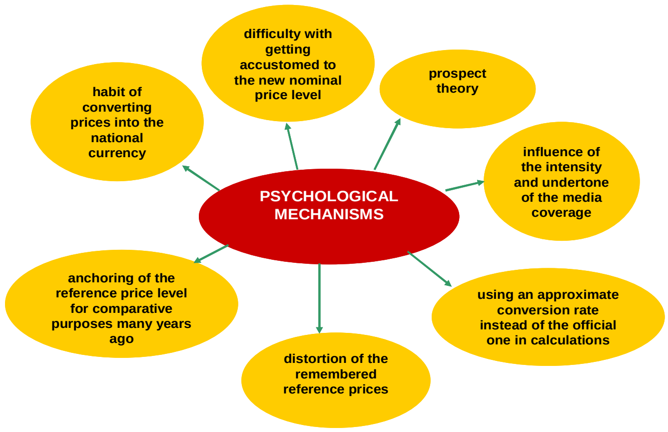
Source: European Commission.

The main causes of the discrepancies between the perceived and actual inflation are the following (see Charts 16-17):

(1) limited capability of consumers to process the available information, including:

- difficulties with getting accustomed to a new nominal level of prices;
- comparing prices to those expressed in national currency even many years after the changeover, consequently anchoring the reference point for price comparisons;
- distortion of the remembered reference price – for instance, results of a survey conducted on a group of Italian cinema-goers over four years after the euro cash changeover indicate a strong negative bias of the remembered ticket price from before the currency changeover – a majority of respondents pointed to prices lower than the minimum ticket price at the end of 2001;
- using approximated conversion rate instead of the official one – for example, using simplified conversion of prices from the euro to the German marks (2 marks for one euro instead on the official rate of 1.95583) results in an overestimation of ca. 2.3% (a similar problem was observed in Italy, the Netherlands and Spain);

Figure 16: Psychological mechanisms contributing the "euro illusion"



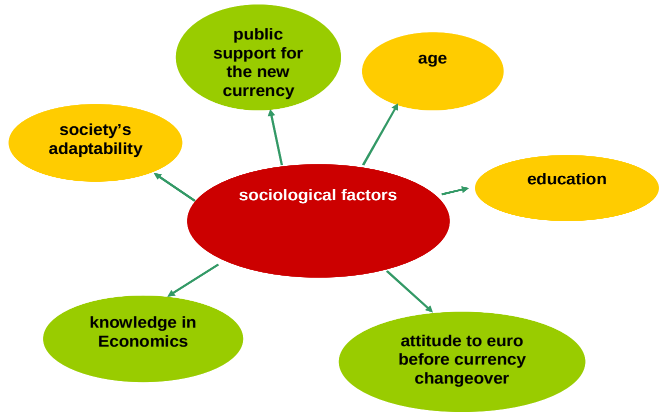
Source: MoF.

- individuals' tendencies to perceive the reality in a way described by the prospect theory (a price increase is noted stronger than a decrease equal in its absolute value);
- the impact of the intensity and undertone of the media coverage on individuals' perception of the reality.

(2) specific price movements which took place in the period of a few months around the currency changeover, i.e.:

- increase in prices of the most frequently purchased goods and services, usually paid for in cash, which additionally intensifies consumers' feeling of price changes in the case of these goods. These changes strongly influence the social perception of price developments in the entire economy. As a result, above-average inflation rate of the most commonly purchased goods leads to a generalization of these relations and also to an overestimation of the rate of price increases by consumers;
- higher frequency of price adjustments resulting in an increase of perceived inflation. According to the prospect theory, price increase is noted by consumers to a greater

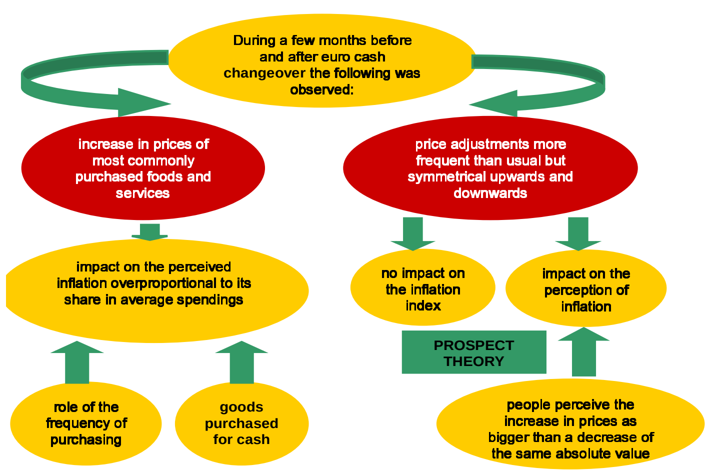
Figure 17: Sociological mechanisms that influence the intensity of the "euro illusion"



Source: MoF.

extent than a decrease. Consequently, even though price adjustments in the period of the currency changeover were symmetric, i.e. they included both upward and downward movements, an increase in their frequency intensified the "euro illusion".

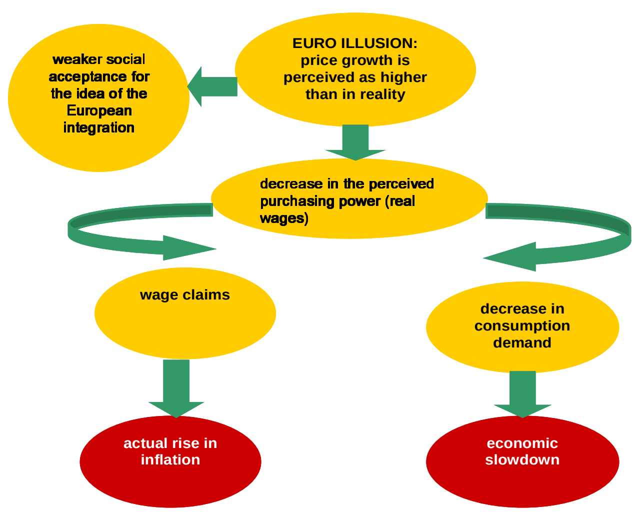
Figure 18: Channels of impact of price effects related to euro cash introduction on the social perception of inflation



Source: MoF.

The discrepancy between the perceived and the actual price dynamics can have serious social (see Chart 18) and economic (see Chart 19) implications. Consumers' underestimation of their own purchasing power caused by the "euro illusion" was reflected in limiting consumption expenditure (European Commission, 2003b) and a decreased demand in some sectors of the economy of the euro area countries (Deutsche Bundesbank, 2004; Eife and Maier, 2007). Moreover, a high perceived inflation rate may contribute to higher wage claims and hence – through a wage-price spiral – may cause an increase in actual prices.

Figure 19: Channels of impact of the "euro illusion" on the economy



Source: MoF.

D.4 Consumer protection

Due to a high social and economic cost of the "euro illusion", an essential element of the *National Euro Changeover Plan* should be a specification of preventive actions in this field. The knowledge of the mechanisms which contributed to the price effects after currency changeover, as well as to the "euro illusion", allows the government institutions, consumer organizations as well as consumers themselves to take relevant actions which would prevent or reduce the intensity of the negative effects.

In order to reduce consumers' confusion related to a change in the nominal price level, a regulation on a dual display of prices (before as well as after the euro changeover) and information campaigns can be used. Experience of the euro area founders that introduced a dual display of prices (Austria, Portugal and Finland) indicate that it is an effective tool for preventing price effects. During the period when the dual display of prices was implemented in those countries, they exhibited general price dynamics lower than the average in the euro area by a few decimals of a percentage point (Konopczak and Rozkrut, 2009b), including the prices of consumer goods and prices in catering and hospitality industry (and taking into account the other determinants of inflation).

As indicated in opinion polls (Fluch et al., 2007), the perceived inflation in the society is determined by such factors as: the social acceptance level of the single currency and the basic knowledge in Economics, including above all inflation mechanisms. For this reason, information and promotion campaigns can be an effective preventive tool against the "euro illusion". A crucial element should also be educational activities helping citizens in using the new currency and special calculators for converting prices according to the official conversion rate, as well as in getting used to the new nominal level of prices. These actions should take into consideration the needs of various types of consumers, including, in particular, sensitive groups (people with sight or hearing disabilities, pensioners, immigrants, etc.).

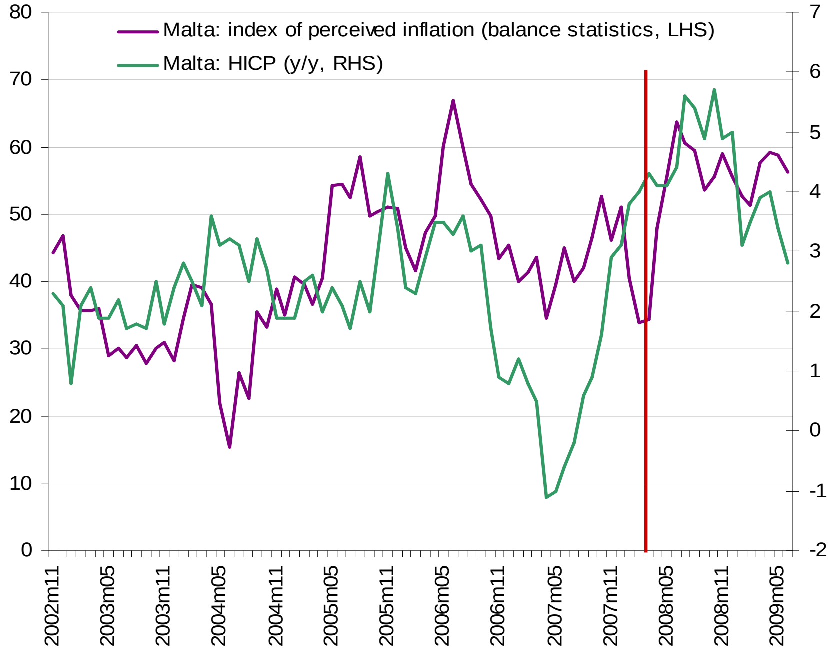
Experiences of the "new" euro area Member States indicate that possible price abuses by entrepreneurs can be eliminated by an appropriately designed system of "rewards and punishments", including such tools as:

- monitoring of enterprises' price policies by the government and consumer organizations,
- providing consumers with a possibility to report any abuse (dedicated telephone lines),
- a law forbidding economically unjustified increase of prices including sanctions for breaking the law in the form of financial penalties,
- publishing "a black list" of entrepreneurs.

What proved to be an effective tool against excessive price increases were agreements concluded between the entrepreneurs and the government, which encouraged the former to use fair pricing practices, introduced for the first time in Malta (*Fair-pricing Agreements In Retailing*, FAIR).

Policies implemented by "new" Member States did alleviate the problem of the "euro illusion" compared to the first twelve countries (Slovenia, Cyprus, Slovakia) or prevented it alltogether (Malta – see Figure 20).

Figure 20: Perceived and actual inflation in Malta, 2004-2009



Source: European Commission.

E. Organizational structure for euro adoption in Poland

The Government Plenipotentiary for Euro Adoption in Poland (Government Plenipotentiary) is responsible for the whole process of euro area integration in the Republic of Poland. In accordance with the resolution of the Council of Ministers of 13 January 2009 on appointing the Government Plenipotentiary for Euro Adoption in Poland (Journal of Laws, No 11, item 60), the Government Plenipotentiary's tasks comprise:

- initiation, coordination and monitoring of the activities of government administration bodies in the area of preparations for the introduction of the euro in Poland as well as coordination and monitoring of tasks implementation by the interinstitutional Working Committees,
- cooperation with other state institutions involved in preparations for the introduction of the euro in Poland,
- making recommendations to the government administration bodies and passing requests and opinions to the state institutions and entities involved in preparations for the introduction of the euro in Poland in the area of the implementations of these activities,
- informing the Prime Minister immediately on possible problems, threats and delays in the execution of tasks related to preparations for the introduction of the euro in the Republic of Poland and presenting proposals for corrective action, if necessary,
- maintaining contacts, exchanging information and experiences with the European Union institutions and institutions of other EU Member States in the area of preparations to the introduction of the euro in the Republic of Poland,
- submitting opinions on draft laws as well as other government documents having impact on the process of implementation of tasks related to preparations for the introduction of the euro in the Republic of Poland.

Moreover, the Government Plenipotentiary can, with the consent of the Prime Minister, submit his own drafts of government documents, including legal acts, resulting from the scope of his activities, for the consideration of the Council of Ministers.

The Bureau of the Government Plenipotentiary for Euro Adoption in Poland (Bureau of Government Plenipotentiary) has been set up within the Ministry of

Finance. The Bureau is an entity supporting The Government Plenipotentiary and is responsible for:

- preparing documents, analyses and other materials related to the activities of the Government Plenipotentiary,
- submitting assessments, recommendations and postulates for the decisions taken in the process aimed at gaining membership in the euro area by the Republic of Poland,
- cooperation with state and international organizations and institutions in the area of Poland's preparation for the membership in the euro area,
- initiating and organizing cooperation with the relevant government administration bodies and institutions in the scope of macroeconomic aspects of the currency integration process,
- conducting analyses with regard to the functioning of the euro area, including examination of the experiences of each Member State,
- identification of policies for maximization of benefits and minimization of costs and threats related to Polish accession to the euro area and assessment of the level of their implementation, among others, in the area of the economy's resistance to asymmetric shocks and the level of their absorption, labour and product markets flexibility, the level of nominal convergence, the strategy for joining the ERM II and estimations of the equilibrium exchange rate,
- monitoring of the current situation and assessing perspectives for meeting the nominal convergence criteria by Poland,
- organizational and secretarial support of the Government Plenipotentiary.

The National Euro Coordination Committee (Committee) is responsible for the preparation and submitting to the Council of Ministers proposals for actions aimed at preparation of Poland for the introduction of the euro. Moreover, the Committee is responsible for cooperation with the Government Plenipotentiary in the area of initiating and monitoring actions of government administration bodies related to the preparations to currency integration.

The Committee consists of:

- chairperson – the Government Plenipotentiary for Euro Adoption in Poland,

- co-chairperson - The Plenipotentiary of the National Bank of Poland's Management Board,
- members:
  - Minister – Member of the Council of Ministers in charge of the works of the Standing Committee of the Council of Ministers,
  - Secretary or Undersecretary of State in the Ministry of Economy,
  - Secretary or Undersecretary of State in the Ministry of the Interior and Administration,
  - Secretary for European Affairs who is the Secretary of State in the Ministry of Foreign Affairs,
  - President of the Office of Competition and Consumer Protection,
  - President of the Government Legislation Centre,
  - President or Vice-president of the Polish Financial Supervision Authority.

In order to ensure an effective process of coordinating the preparations, a representative of the Government Plenipotentiary is allowed to participate in the meetings of the Committee. Upon request of a member of the Committee non-members, including representatives of non-governmental organizations, can also take part in the meetings of the Committee as advisors or social consultants.

The Coordinating Council (Council) cooperates with the Government Plenipotentiary in the area of monitoring of possible threats related to the process of the introduction of the euro in Poland, coordinating the works of the Working Committees and Task Groups as well as other preparatory actions related to the introduction of the euro. What is more, the Council is responsible for coordinating preparations, updating and implementing the National Euro Changeover Plan, appointing Task Groups aimed at preparing solutions in specific problem areas, content-related to one or several Working Committees, arranging the scope and schedule of works for the Working Committees and Tasks Groups as well as analyzing information about the results of works of Working Committees and Tasks Groups, as well as reporting the results of the analyses to the Committee.

The Council consists of:

- chairperson – the Government Plenipotentiary for Euro Adoption in Poland,
- co-chairperson – the Plenipotentiary of the National Bank of Poland's Management Board,

- members – chairpersons of Working Committees.

In order to ensure effectiveness of coordinating the preparations, a representative of the Government Plenipotentiary can take part in the meetings of the Council. Upon request of a member of the Council non-members, including representatives of non-governmental organizations, can also take part in the meetings of the Council as advisors or social consultants.

Interinstitutional Working Committees for Preparation for Euro Adoption by the Republic of Poland (Working Committees) are advisory bodies whose task is, above all, to prepare recommendations, expertise and opinions in their respective problem areas. Among their common tasks there are, in particular, preparing a contribution to the National Euro Changeover Plan as well as reports on the National Euro Changeover Plan's implementation. Apart from these common tasks, each Working Committee carries out tasks in its specific problem area. The scope of tasks of each Working Committee concerns the following matters: macroeconomics, legal adjustments, public administration, financial sector and financial stability, euro banknotes and coins introduction, non-financial sector, consumer protection, communication strategy.

The Working Committee for **Macroeconomic Issues** is responsible, in particular, for the following tasks:

- monitoring the extent of fulfilling the Maastricht criteria and signaling potential risks for their fulfillment,
- conducting analyses related to preparing Poland to the accession and safe membership in the ERM II,
- preparing proposals for policies contributing to the maximisation of benefits and opportunities and the minimisation of costs and threats related to euro introduction in Poland.

The Working Committee for Macroeconomic Issues consists of one representative of each of the following: the Minister for Finance – chairperson of the Working Committee, the National Bank of Poland – vice-chairperson of the Working Group, the Prime Minister, the Ministers for: the Economy, Labour and Social Policy, Regional Development; the President of the Central Statistical Office and the Polish Financial Supervision Authority.

The Working Committee for **Legal Adjustments** is responsible, in particular, for the following tasks:

- analysing the binding regulations in order to indicate the changes necessary for euro adoption in Poland and preparing the schedule for their implementation,

- ➢ presenting proposals for changes in binding regulations in aimed at facilitating the introduction of the euro in Poland,
- ➢ monitoring of the legislation process.

The Working Committee for Legal Adjustments consists of one representative of each of the following: the Government Legislation Centre – chairperson of the Working Commiittee; the Ministers for: National Education, Finance, Economy, Infrastructure, Culture and National Heritage, Science and Higher Education, National Defence, Labour and Social Policy, Agriculture and Rural Development, Regional Development, Treasury, Sport and Tourism, Justice, the Interior and Administration, Foreign Affairs, the Environment, Health; a representative of the National Bank of Poland, the Secretary for European Affairs and the Polish Financial Supervision Authority.

The Working Committee for **Public Administration** is responsible, in particular, for the following tasks:

- ➢ identifying the necessary actions aimed at the preparing the public administration units for the introduction of the euro in Poland,
- ➢ drafting plans for preparing the public administration for the introduction of the euro in Poland, including the schedule of their implementation,
- ➢ monitoring and coordinating plans of preparatory actions in public administration units,
- ➢ identifying and monitoring potential threats related to the timely adjustment of IT systems in the public administration.

The Working Committee for Public Administration consists of one representative of each of the following: the Minister for the Interior and Administration – chairperson of the Working Committee, the Minister for Finance – vice-chairperson of the Working Committee, Ministers for: Economy, Labour and Social Policy, Health; the President of the Central Statistical Office, the President of the Social Insurance Institution, and of local authorities representative of the Joint Commission of Government and Local Authorities.

The Working Committee for the **Financial Sector and Financial Stability** is responsible, in particular, for the following tasks:

- ➢ identifying the necessary actions aimed at preparing the financial sector for the introduction of the euro in Poland,

- ➢ specifying rules and schedule for the implementation of the abovementioned actions, as well as their monitoring.

The Working Committee for the Financial Sector and Financial Stability consists of one representative of each of the following: the Minister for Finance – chairperson of the Working Committee, the Polish Financial Supervision Authority and the National Bank of Poland – vice-chairperson of the Working Committee, the Minister for the Interior and Administration, the Minister for Justice; the Stock Exchange, the Chamber of Fund and Asset Management, the Polish Clearing House (Krajowa Izba Rozliczeniowa S.A.), the Polish Chamber of Insurance and the Polish Bank Association.

The Working Committee for the **Introduction of Euro Banknotes and Coins** is responsible, in particular, for the following tasks:

- ➢ drafting plans for preparatory actions related to the introduction of the euro cash and withdrawal of the zloty,
- ➢ monitoring and coordinating actions related to the introduction of the euro cash into circulation and withdrawal of the zloty.

The Working Committee for the Introduction of Euro Banknotes and Coins consists of one representative of each of the following: the National Bank of Poland – chairperson of the Working Committee, the Minister of Finance – the vice-chairperson of the Working Committee, the Ministers for: Economy, National Defence, the Interior and Administration; and the Polish Bank Association.

The Working Committee for **Non-financial Sector** is responsible, in particular, for the following tasks:

- ➢ supporting non-financial corporations in their preparations for the introduction of the euro in Poland,
- ➢ providing advice and information about theresults of works of other Working Committee in the area significant for businesses.

The Working Committee for Non-financial Sector consists of one representative of each of the following: the Minister for Economy – chairperson of the Working Group, the Ministers for: Finance, Labour and Social Policy, the Interior and Administration; the National Bank of Poland, the President of the Office of Competition and Consumer Protection, the President of the Central Statistical Office, the President of the Social Insurance Institution and the Polish Agency for Enterprise Development.

The Working Committee for **Consumer Protection** is responsible, in particular, for the following tasks:

- ➢ submitting proposals of solutions aimed at ensuring consumer protection against unfair pricing in the period of euro changeover in Poland, including the system of control, warning and sanctions in case of breaching the regulations protecting consumers and in case of unfair pricing,
- ➢ participation in the process of preparin information and education actions directed at consumers in the area of preventing unfair pricing in the period of euro changeover in Poland.

The Working Committee for Consumer Protection consists of one representative of each of the following: the President of the Office of Competition and Consumer Protection - chairperson of the Working Committee, the Minister for Finance, the Minister of Labour and Social Policy; the National Bank of Poland, the Polish Financial Supervision Authority and the National Council of Consumers' Advocates.

The Working Committee for **Communication Strategy** is responsible, in particular, for the following tasks:

- ➢ preparing principles for the information campaign on the introduction of the euro in Poland and the coordination of its implementation,
- ➢ cooperation with European institutions and with other EU Member States in the area of implementation of tasks related to conducting the information campaign,
- ➢ constant monitoring of the public opinion and the society's information needs on the introduction of the euro in Poland.

The WorkingCommittee for Consumer Protection consists of one representative of each of the following: the Secretary for European Affairs – chairman of the Working Group, the Minister for Finance and the National Bank of Poland – the vice-chairpersons of the Working Committee, the Ministers for: National Education, Labour and Social Policy, Treasury, the Interior and Administration, the Chief of the Chancellery of the Prime Minister; the President of the Central Statistical Office, the President of the Office of Competition and Consumer Protection, the Polish Agency for Enterprise Development, the Government Plenipotentiary for the Disabled, the Polish Bank Association, the Public Opinion Research Centre and local authorities representative of the Joint Commission of Government and Local Authorities.

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