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Poland without the euro

A cost benefit analysis

Fundacja Przyjazny Kraj
The Friendly State Foundation

Index

Executive summary

This report deals with the question of adopting the euro in Poland. It differs from previous such works in two respects. First, our question is not "should Poland adopt the euro?" as the EU Treaties oblige all Member States who joined the EU after the Maastricht Treaty came into force to join the eurozone. Hence, we focus on the implications of Poland's decision to delay its adoption of the common currency. Second, in contrast to previous studies we distinguish between different types of costs and benefits – we identify those which are measurable, those which are potential and those which are non-measurable, i.e. are of socio-political nature. In our view such a distinction is required to assess the effects of adopting the euro on the Polish economy in a way which incorporates the possible differences in the preferences of decision-makers and public opinion. Further, we should not treat in the same way those consequences of monetary integration which are certain and easily measurable (e.g. the reduction of transaction costs) and those which are less certain and can only be roughly estimated (e.g. the increase in investment activity or reduction in cost competitiveness of exports).

Our cost and benefit analysis does not yield an unequivocal answer to the question of whether and to what extent the Polish government should forego preparations for monetary integration. Our objective is to provide an overview of the relevant literature and to make the debate more systematic, thus developing a dynamic framework for further research.

While the ratio of measurable costs and benefits suggests that adopting the euro could give Poland an additional growth stimulus, such an effect would be small (0.7 per cent of GDP), i.e. within the margin of growth forecast error. Most significant costs and benefits are the only potential, which are contingent on the institutional framework. Premature and badly prepared monetary integration could result in economic losses significantly exceeding the measurable benefits of early full EMU membership – our estimates suggest that that long-term GDP loss could reach even 7.5 percent. On the other hand, monetary integration preceded by sound institutional preparation would bring Poland an additional growth stimulus for the next decades - GDP could be higher by as much as 7.8 percent. This would be the case in particular with improved regulations of labour and financial markets, a relatively weak conversion rate of złoty to euro, additionally supported by a responsible and non-populist fiscal policy, i.e. budgetary discipline also at the peak of the economic cycle.

Measurable consequences of delayed euro adoption

— higher transaction costs in the economy
— higher interest rates on loans
— higher public debt servicing costs

\+ no one-off costs of currency conversion

Potential consequences of delayed euro adoption

— slower domestic demand growth
— slower export growth
— no share in the ECB profit disbursement

\+ lower probability of a house price bubble
\+ higher cost competitiveness of the economy
\+ lower price level
\+ smaller amplitude of business cycle fluctuations

Non-measurable consequences of delayed euro adoption

— limited influence over political decisions concerning the European Union's future
— higher social and political risk resulting from foreign currency denominated or indexed loans
— higher susceptibility to speculative attacks and risk of crises
— no access to funds from the euro area budget

\+ higher independence of economic policy
\+ lower susceptibility to euro area crises

Fundacja Przyjazny Kraj
The Friendly State Foundation

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1. Poland's integration within the euro area – the context

This section reviews the institutional architecture of the euro area – that is, the set-up within which the decision to delay or speed up integration with the common currency area is made.

Monetary integration within the European Union was foreseen as part of the European integration project since its inception. It was hardly – as is sometimes depicted - the cost borne by Berlin for France not to object to the unification of Germany in 1990s (Mody, 2018). Early reports of the European Commission consider monetary integration as the pinnacle of the internal market project – the final step of removing barriers between Member States. The necessary economic convergence was to be supported by the antecedents of cohesion policies introduced in 1980s by the then President of the European Commission, Jacques Delors. Economic and Monetary Union finally came into being with the 1992 Maastricht Treaty, and the common currency (euro) entered circulation in 12 Member States of the Union on 1 January 2002. These countries were: Belgium, Germany, Spain, France, Greece, Italy, Ireland, Luxembourg, Netherlands, Austria, Portugal and Finland. In 2007 they were joined by Slovenia, followed by Malta and Cyprus in 2008, Slovakia in 2009, Estonia in 2011, Latvia in 2014 and Lithuania in 2015. Currently 19 of the 28 European Union Member States use the euro.

The financial crisis of 2008, which two years later in some of the euro area Member States transformed into a sovereign debt crisis, was the first real test of the EMU. It has brought to the surface the shortcomings of the European Monetary Union construction that contributed to aggravating the economic crisis in some countries. These included the lack of safety mechanisms or common supervision over the banking sector (Padoa-Schioppa, 2005), which led to disintegration of European financial markets (a decrease in cross-border transactions, divergence in risk assessment of different Member States (Draghi, 2018)). Euro area reforms since the crisis had as their objective the reintegration of banking systems of the euro area under single supervision, the introduction of risk-sharing (via financial markets as well as stabilization mechanisms) and greater synchronization of business cycles. New economic governance mechanisms and institutions were introduced (Pisani-Ferry, 2014; Sandbu, 2017), the most significant of which we describe below. These reforms have importantly changed the ratio of costs and benefits of Poland adopting the euro.

How to adopt the common currency?

EU Treaties define the eurozone as an area where a common monetary policy is pursued. A distinct institution was created to this end – the European Central Bank (ECB) – whose objective is to maintain price stability and, without prejudice to this objective – to support economic policies of the Union in accordance with the principle of an open market economy with free competition (Art. 119(2) TFEU and Art. 127 TFEU).

All Member States of the EU, apart from Denmark and – until it leaves the EU – the United Kingdom, are members of the Economic and Monetary Union. Countries which joined the European Union after the Maastricht Treaty was signed in 1992 have the status of "Member States with a derogation." These are (in the order of joining the EU): Sweden, Czechia, Hungary, Bulgaria, Poland, Romania and Croatia. These countries do not participate in the final (third) phase of the EMU, but are part of some of the institutions of monetary integration, such as the European System of Central Banks. In accordance with to the Accession Treaties, Poland should aim to converge with the euro area.

What conditions have to be fulfilled by Poland in order to adopt the euro?

For the derogation from third phase of EMU to be lifted, Poland must fulfil a number of legal conditions and reach a sustainable level of convergence determined by the so-called "Maastricht criteria." These include:

1. a high degree of price stability (rate of inflation close to that of the three best performing Member States in terms of price stability);
2. sustainability of government financial position measured by debt levels (below 60 per cent of GDP) and deficit (below 3 per cent GDP);
3. low currency exchange rate fluctuations against the euro within the European Monetary System for at least two years (the standard bands are +/- 15 percent, but these can be adjusted at the request of the Member State concerned);
4. sustainable convergence reflected in the long-term interest rates (yields of 10 year bonds should be lower than the yields in the three countries exhibiting the lowest inflation rate).

Specific measurement conditions were added after 2010. After it was revealed that Greece had misinformed European authorities about its fiscal deficit and debt, the EU has introduced various measures to ensure the credibility of national and regional statistical accounts, i.e. that they provide high quality data to evaluate the fulfilment of the Maastricht criteria. The European Commission is responsible for monitoring convergence among Member States with a derogation. If the country in question fulfils all the criteria, the European Commission can request for the derogation to be lifted. The decision is taken by the finance ministers of the euro area with a qualified majority, after consulting the

TIMELINE OF POTENTIAL EURO ADOPTION BY POLAND

European Parliament and the European Council. The exchange rate at which the national currency is converted to the euro, as well as any other measures necessary to introduce the new currency in the Member States, is set by a unanimous decision of the euro area Member States and the Member State concerned, following a consultation with the ECB. The decision-making process reflects the fact that the exchange rate is a condition to ensure future (and sustainable) cost competitiveness of the economy concerned and to avoid an economic slowdown after adopting the common currency.

In 2018 Poland fulfilled two of the formal conditions to join the euro area – only its inflation level and public finances complied with the Maastricht criteria. The reference interest rate was too high, and the country did not participate in the ERM II Mechanism, although the exchange rate was stable in the previous two years and the exchange rate criterion could have been fulfilled. In addition, the European Commission and the ECB in their 2018 Convergence Reports point out that Polish law does not comply with the euro area legal framework. According to the European Commission it did not guarantee sufficient independence of the National Bank of Poland (NBP) – the Governor presents the monetary policy framework to the Council of Ministers and the finance minister, which the Commission considers to be incompatible with the independence requirement. From a legal point of view, the provision which allows for the NBP's Governor to be suspended by the State Tribunal is also problematic. The most significant problem, however, is posed by Article 227 of the Polish Constitution, which states that the NBP enjoys the prerogative of issuing the Zloty and conducting monetary policy in Poland – the article would have to be amended for the country to be legally able to join the euro area.

Although the formal treaty criteria for joining the euro area have not changed since the Maastricht Treaty, in practice the reforms introduced in the EU since the 2008 crisis have significantly expanded the range of requirements which must be met by a Member State which seeking to adopt the euro. Members of the euro area have agreed to greater coordination of economic policies through the so-called European Semester, which increases the transparency and mutual accountability of national budgets – these are discussed inter alia in the European Parliament. The reform of EMU's economic governance has also increased the powers of the European Commission and Fiscal

DOES POLAND MEET THE MAASTRICHT CRITERIA?

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Exchange rate criterion	Fulfilled?	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Fiscal criterion	Fulfilled?	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓
	public debt (% GDP)	42	46,9	44,2	46,3	49,4	53,1	54,1	53,7	55,7	50,2	51,1	54,4	50,6	49,6
	public deficit (% GDP)	2,5	3,6	1,9	3,6	7,3	7,3	4,8	3,7	3,7	3,5	2,6	2,4	1,7	1,4
Interest rate criterion	Fulfilled?	✓	✓	✓	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓	✗
	Target	5,4	6,2	6,4	6,2	6	5,3	7,7	3,6	3,6	5,3	4,7	5,1	5,4	3,2
	Level (%)	5,2	5,2	5,5	6,1	6,1	5,8	6	5	5	3,5	2,7	3	3,3	3,3
Inflation criterion	Fulfilled?	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓
	Target	2,5	2,9	2,8	4,1	1,6	2,4	3,1	1,8	1,8	1,3	0,8	0,3	1,1	1,9
	Level (%)	2,2	1,3	2,6	4,2	4	2,7	3,9	3,7	0,8	0,1	-0,7	-0,2	0,5	1,6

✓ yes ✗ no

Source: ECB, European Commission, MF, Dobrowolski.

Councils in preparation of national budgets – Member States which fail to comply with common rules can be subject to sanctions, while the budgetary procedure itself is more reliant on independent expertise.

The new Stability and Growth Pact has additionally introduced a number of new convergence measures as part of the Macroeconomic Imbalances Procedure. The European Commission now analyses those imbalances which have contributed to the crisis since 2008: Member States' balance of payments, private sector indebtedness, house price dynamics. These imbalances are then outlined in a special report concerning the macroeconomic stability of individual Member States. If the European Commission identifies any specific imbalance, this affects the assessment of convergence, though it does not imply that adopting the euro is not possible. Currently Poland does not exhibit any significant imbalances, apart from its excessive net international investment position.

The Stability and Growth Pact has been further strengthened by the Fiscal Compact (De Witte, Héritier and Trechsel, 2013), which obliges the euro area Member States inter alia to introduce constitutional rules establishing a debt brake mechanism above 60 per cent public debt to GDP. This intergovernmental treaty creates a new EU decision-making forum, a new EU decision-making forum: the euro summits, which are headed by the President of the European Council. Poland is a signatory to the Fiscal Compact, although it is not bound by all of its provisions, in particular those relating to the automatic debt reduction procedure. It is worth noting, however, that a backstop mechanism for debt increase above the 60 per cent threshold exists in Polish law, i.a. in the Constitution.

In 2013 the Eurozone Member States have created the European Stability Mechanism (ESM), which allows to provide assistance to Member States experiencing public finance problems. The lending capacity of the mechanism is financed through state contributions of eurozone Member States, in accordance with their GDP. This is regulated by the European Stability Mechanism Treaty, to which all euro area countries are signatories.

These institutional innovations amount to additional criteria to be met by new euro members. Though it is unlikely that further formal criteria will be added in the near future (treaty change would then be necessary), the new European Parliament which has emerged after the elections in May 2019 is likely to favour further far-reaching Eurozone reform. As already indicated in the priorities of the new European Commission, further proposals can be expected inter alia on measures which strengthen the international role of the euro or introduce a common deposit insurance for the Banking Union. Works on introducing solutions to share risk in the euro area will be continued (including proposals to establish a safe asset for the euro area, see:

The changes in the conditions for joining the euro area can be seen in the example of Bulgaria seeking the Eurogroup's approval for the process. In 2018 Bulgaria agreed to close cooperation with the Banking Union after entering the ERM II. It also agreed to introduce an array of macroprudential instruments, to contain the risk of a house price bubble, as well as a number of reforms oriented at strengthening the supervision of the banking sector, such as anti-money laundering legislations, insolvency law, improving the efficiency of the judiciary and state enterprises.

Timetable of euro membership preparation in Poland

2003	
16 April	Poland signs the EU Accession Treaty
2004	
1 May	Poland joins the EU
2008	
28 October	Council of Ministers adopts the Roadmap on introduction of the euro by Poland
2009	
13 January	Office of Government Plenipotentiary for Euro Adoption is created
3 November	National Euro Coordination Committee, Coordination Council and Interinstitutional Working Groups on Preparation for Euro Adoption by Poland are created
2010	
26 October	Government Plenipotentiary presents the Strategic Guidelines for the National Euro Changeover Plan
2014	
November	The National Bank of Poland presents a report on the economic challenges of Poland's integration with the euro area
2015	
28 December	The Office of the Government Plenipotentiary for Euro Adoption is abolished

Bénassy-Quéré et al., 2018). The euro area Member States will continue to strengthen the Banking Union, and the role of the ECB in shaping economic policies of Member States will be sustained.

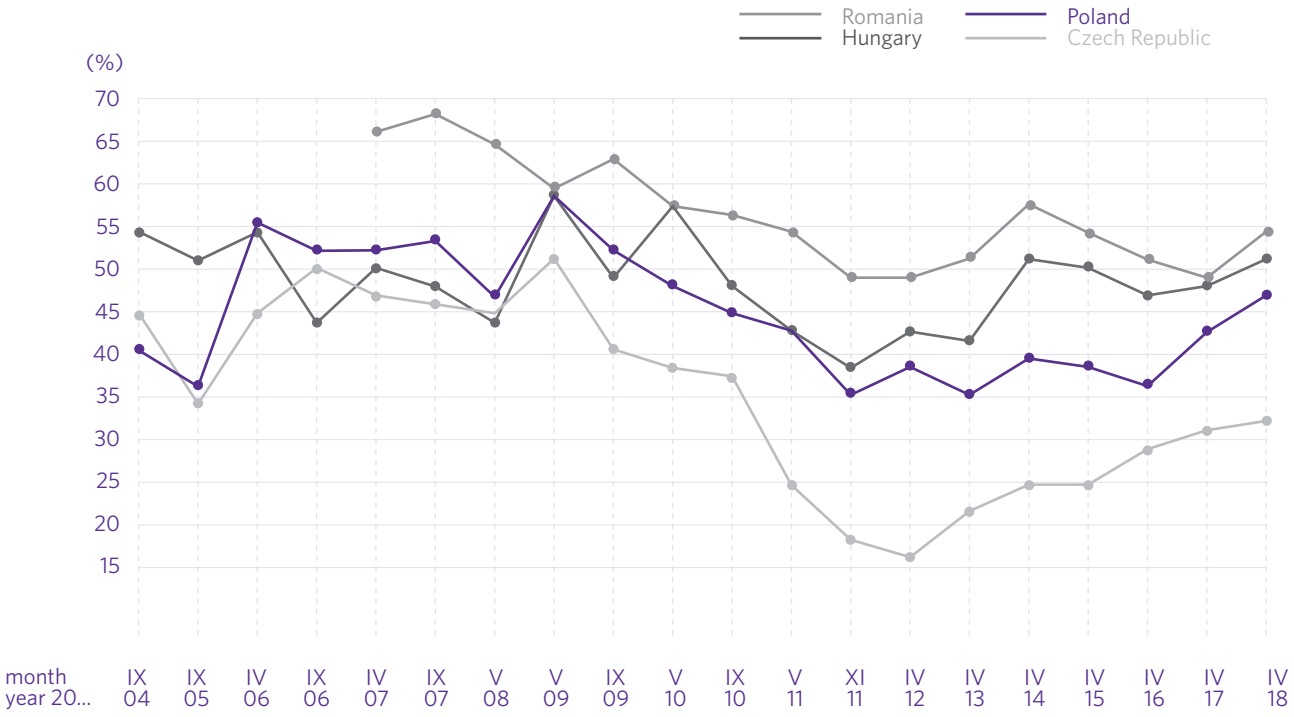
Poland fulfils most of the new, soft criteria for monetary convergence – it has sound oversight over the financial sector and already has deposit and resolution funds in place. Before entering the euro area, however, it would have to fully integrate with the new institutions, including the Banking Union. This would imply new administrative burdens and economic costs. The Polish economy fulfils most of the macroeconomic imbalances criteria and has a debt increase backstop mechanism. The primary obstacle to adopting the euro is changing art. 227 of the Polish Constitution and entering the ERM II for at least two years.

In general economic terms, Poland is slowly converging to the euro area Member States, although the GDP per capita difference is still far from the optimum foreseen in theoretical Optimum Currency Area models. GDP per capita in Purchasing Power Parity in 2017 was EUR 20,900 – that is approx. 66 per cent of the euro area average (in 2009 the respective amount stood at 55 per cent). For GDP non-adjusted for purchasing power the divergence was higher – 38 per cent of EU level in 2018 (37 per cent in 2017). More convergence is observed in terms of business cycle synchronisation in Poland and the 12 Member States which originally adopted the euro – studies show that volatility correlation index increased from 0.48 in 2005 to 0.98 in 2015 (Boratyński et al, 2019b). This effect is facilitated by trade integration (inter- and intrasectoral), inflow of EU funds and integration of the financial markets.

Calendar of euro adoption by Poland

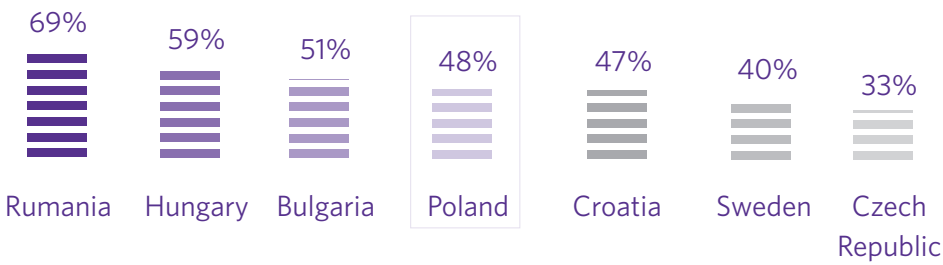
Adoption of the euro by Poland was already assumed in the 2003 Accession Treaty. The first concrete steps were taken, however, after the 2007 parliamentary elections. In October 2008 the government presented the Roadmap for the introduction of the euro, indicating January 2012 as a possible date for the new currency to be introduced. In 2009 the office of Government Plenipotentary for Euro Adoption in Poland was created and one year later the Strategic Guidelines for the National Euro Changeover Plan were outlined (Pełnomocnik Rządu ds. Wprowadzenia Euro przez Rzeczpospolitą Polską, 2010). The financial crisis from 2008 undermined the trust in the common currency which brought the euro adoption preparations in Poland to a halt. Additionally, Poland was subject to the Excessive Deficit Procedure between 2009 and 2015, which was a formal obstacle to adopting the euro. Official preparations for the introduction of the common currency were put to an end in 2015, when the office of the Plenipotentiary was abolished. Since then, the convergence with the euro area is a competence of the Finance Ministry, which publishes an annually updated Convergence Programme.

DO YOU THINK THE INTRODUCTION OF THE EURO WOULD BENEFIT YOU PERSONALLY? (% of answers)



Source: Eurobarometer.

SUPPORT FOR EURO ADOPTION IN SELECTED COUNTRIES (2018)



Source: Eurobarometer.

Survey of social opinions and political positions on euro adoption

Poles' attitudes towards euro adoption have changed significantly over the last years. In the light of the economic crisis in the euro area, they have become more cautious in their thinking about the common currency adoption. Before 2004, 40 percentage points more Poles were in favour of adopting the euro than against it (Osińska, 2013). 2009 was a turning point for the euro support as the Polish economy was doing better than the rest of the EU. Since then, the share of Poles opposing the introduction of the euro is consistently higher than those who are in favour. In 2018, those shares were equal to 50 and 48 per cent respectively (Eurobarometer, 2018).

Attitudes of Poles, however, are not uniform. Though Poles believe that the euro may benefit them personally, they are less convinced that the common currency will benefit the economy as a whole. Significant differences in attitudes concern the date of the desirable adoption of the euro – only 16 per cent of Poles believe that the euro should be adopted as soon as possible. 48 per cent of them would rather postpone the decision. These attitudes are shaped by macroeconomic factors (GDP level, exchange rate policy, unemployment) and individual aspects (political preferences, socio-demographic characteristics). Psychological factors, including identity, play a significant role in determining the attitudes toward euro adoption (Osińska, 2013).

Support for euro adoption is also determined by the level of financial education on the subject of integration. Studies show that those respondents who feel better informed are more likely to be in favour of the full EMU membership. Access to information is not the only important determinant – an important role is played by trust in the EMU institutions, in particular the European Central Bank. (Osińska, 2013).

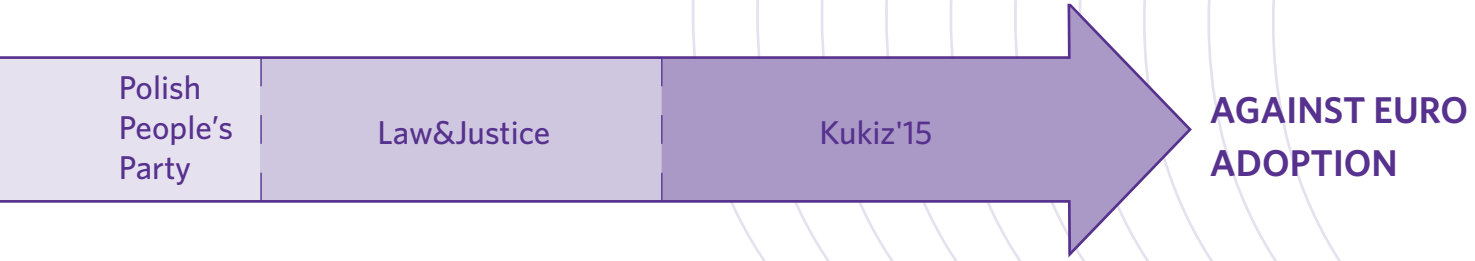
Eurobarometer studies show an increase in support for the euro since 2017: but over 50 per cent of young, uneducated and less informed Poles are against the euro. An evolution in the attitude of the entrepreneurs can also be observed – in 2018, 74 per cent of those managing medium and large enterprises were in favour of the common currency. However, the level of support fluctuated substantially in the

years 2010-2016. In 2010, as much as 85 per cent of businessmen polled supported the euro. Five years later this percentage was only 42 per cent. Most recently the trend reversed again, as a result of a better economic performance in the euro area and the completion of the reform programs in peripheral Member States, namely Ireland and Portugal (Thorton, 2018).

Among the Polish political parties only Nowoczesna is unequivocally in favour of adopting the common currency as soon as possible. The Law and Justice Prime Minister Mateusz Morawiecki has highlighted that in his view adopting the euro is not currently beneficial for Poland – a higher level of convergence needs to be attained first (Forbes, 2019).

Analysis of the probability of the euro being introduced in Poland by 2030

Poland could fulfil all the convergence criteria needed to lift the derogation – both those which arise from the EU Treaties and the soft ones which have been introduced since the financial crisis – within two years after a political decision to adopt euro will be made. The euro adoption requires however an amendment of the Polish Constitution, which requires a 2/3 majority of supporters in the Sejm and an absolute majority in the Senate. Without a commitment to introduce these changes pursuing all the other criteria could be destabilising to the Polish economy. Given the determination of the euro's opponents among the Polish electorate and the parliamentary majority of euro-sceptical parties, such a policy change is highly unlikely. In particular in the foreseen parliamentary elections – 2019, 2023 and 2027 – the share of eurosceptic MPs is unlikely to fall below 33 per cent which effectively would mean the default scenario is that Poland will not pursue full EMU membership in the near future. This scenario could be different if the economic and fiscal position of euro area Member States visibly improves and the EMU reform is convincingly pursued. Changes in the attitudes of citizens vis-à-vis the euro could be spurred by an increase in the costs arising from delaying the decision to integrate with the euro area, as well as a public debate supported by financial education.



2. Costs of delaying euro adoption

Membership of the euro area is associated with a number of costs and benefits which are measurable, i.e. quantifiable in money terms, and non-measurable, influencing Poland's political position in the international arena. Some of these costs are absolute and will materialise in similar magnitude regardless of the degree of integration with the euro area at the moment of adoption of the common currency, the institutional factors, EURPLN conversion rate or the phase of the business cycle. Other costs are strictly determined by such factors, and can be conceived of as risks – events which may, but do not have to materialise. Below we outline the costs that would be incurred by Poland as a result of delaying the decision to introduce the euro – in the first place these are the costs which are certain and measurable, second those which are potential, and finally those which are not measurable, including political in nature.

Measurable costs

Higher transaction costs arising from currency exchange

Most studies point to higher transaction costs of currency exchange incurred by households and enterprises as the most obvious cost resulting from delaying euro adoption (Narodowy Bank Polski, 2009; Rosati, 2013). These would disappear from one day to the next if the złoty was replaced by the common currency. Such costs are of two types.

The first category concerns costs which arise from currency risk, i.e. the risk of exchange rate (FX) fluctuations affecting the value of transaction in national currency. Most of Polish entrepreneurs – especially those which are part of global and European value chains – denominate their transactions in or index their products to the euro. In effect, in 2014 the euro (EUR) and the złoty (PLN) played a similar role in the currency structure of Polish exports – 33.8 per cent transactions were done in PLN, while 33.7 per cent in EUR. Similarly for imports – the euro was used in 31.3 per cent of all transactions, the złoty in 30.4 per cent with the dollar in third place at 16.7 per cent.

NBP's surveys reveal that in 2013 circa 20 per cent of all exporter enterprises did not have a balanced currency transaction account (Puchalska and Tymoczko, 2013). To protect themselves from destabilising fluctuations in revenue arising from FX fluctuations, entrepreneurs have to purchase costly financial instruments, such as forward contracts, swaps and currency options. Already in 2008 such instruments were used by 44 per cent of firms that received payments in euros, while the costs of insurance and currency adjustments accounted for 0.17 per cent of their annual turnover. In the large firms sector the cost amounted to PLN 5.5 bn annually (Puchalska, 2008). It should be noted, however, that the misuse or misselling of financial derivatives can generate additional costs for exporters – this was the case of Polish enterprises buying and issuing currency options in 2009 (Dobrowolski, 2017).

With regard to terms of trade, the effect of adopting the euro would not only mean the immediate use of domestic currency for two thirds of international transactions at current rates. The experience of the euro area Member States shows that after monetary integration also those transactions previously concluded in another global currency such as the dollar, were converted to euro (Ministerstwo Finansów, 2010). This means that in addition to the euro-denominated trade being done in domestic currency after joining the eurozone, a substantial part of trade payments settled in dollars would be converted to euro as well (20 per cent of Polish trade balance). In the EU roughly 50 per cent of trade with third countries is denominated in euro (Draghi, 2019). This may only increase as the eurozone seeks to further strengthen the international role of the euro.

A second type of transaction cost which exists as a result of delaying the decision to adopt the euro arises from banking commissions and fees as well as administrative expenses. These can be categorised further into two groups: the cost of currency exchange and costs arising from transferring funds between countries within and outside the euro area. In recent years the commission for exchanging PLN to EUR charged by banks (i.e. the spread) steadily increased and amounted to over 2.5 per cent of the transaction value (Grudziński, 2017). At the same time, however, with the development of fintech companies and internet currency exchanges, where the margins are much lower than in banks, the average transaction costs of currency

→ AVERAGE BANK SPREADS FOR EURPLN EXCHANGE

Source: Grudziński (2017).

exchange are steadily decreasing. However, at this point there is no reliable data on the market structure of bank and non-bank currency exchange, especially for enterprises.

When it comes to costs of transferring money, in 2018 the average fees for ATM withdrawal from a Polish account inside the euro area ranged between 0.30 and 2.37 euro (per 10 euro withdrawal), while the costs of bank transfer from a Polish to a euro area account were on average 1.19 euro for a 10 euro transfer and 50 euro for sending 10,000 euros (European Commission, 2018). If Poland were to join the euro area, these costs would be immediately eliminated in accordance with EU regulations.

In 2010 the government estimated the costs arising in Polish foreign trade transactions settled in euro at 1-1.5 per cent GDP (Pełnomocnik Rządu ds. Wprowadzenia Euro przez Rzeczpospolitą Polską, 2010). More conservative calculations were presented by Rosati (2013), who estimated the costs at 0.5 per cent GDP in 2011. Taking into account the fact that the daily average of net transaction value for currency exchange between banks and non-financial institutions in 2017 amounted to PLN 2.1 bn, two thirds of which arose in the context of exchanging złoty to the euro (Narodowy Bank Polski, 2018), we can estimate that the cost resulting from FX spreads amounted to no more than 0.4 per cent of GDP. Adding the costs of securitising currency risk and fees imposed on money transfers from and to the euro area, we estimate the transaction costs of delayed euro adoption at circa 0.7 per cent of GDP per annum.

It should be noted, however, that the two categories of transaction costs presented above constitute – at least in part – the income of the domestic financial sector. Adopting the euro by Poland will therefore mean a decrease in income of domestic banks and other financial institutions (e.g. currency exchanges), and therefore accelerate lay-offs in this part of the economy. The remaining decrease in revenue will be incurred by monetary financial institutions outside of Poland. It is impossible to determine the precise distribution of such revenue loss between domestic and foreign institutions, consequently we cannot estimate the decrease in income of the domestic banking sector after monetary integration is concluded.

Higher interest rates for the private sector

From a macroeconomic point of view, the most significant difference between having the euro and using a national currency materialises in the level of market interest rates. As long as they remain outside of the common currency area, the actors in the Polish economy – households, enterprises and the public sector – all incur costs arising from high interest rates, which are currently some of the highest in the EU (European Mortgage Federation, 2018).

Differences in interest rates arise from two factors. First, the NBP maintains higher reference interest rates than the ECB, which decides on the monetary policy for euro area countries. Second, market rates in Poland – as long as the country is not a full member of the EMU – are higher as a result of the risk premium. The risk premium is calculated on the basis of the liquidity of the capital market, currency volatility risk, as well as the predictability of inflation and stability of the domestic financial system (e.g. the currency reserves and banks' own capital). As a result of these factors, the difference in 3 month interbank rates in Poland and the euro area amounted to 2.03 percentage points at the end of 2018. If Poland adopted the euro, this difference would be eliminated.

For existing mortgage and commercial loans this would imply automatic reduction in loan instalments , which are calculated on the basis of interbank market rates (i.e. WIBOR). banks would most likely seize part of this reduction arising from lower interest rates for themselves by increasing their margins. Consequently, we adopt a conservative estimate that only 75 per cent of the reduction of interest rates will be transferred onto customers and we calculate that the cost of delaying the decision to adopt the euro for households amounts to PLN 8.7 bn and for enterprises - PLN 3.7 bn in 2018 (i.e. PLN 12.4 bn altogether). This amounts to 0.6 per cent of GDP.

The benefits for households and companies as a result of reduction in interest rates after joining the euro increase year by year as the Polish financial market develops, more firms are engaged in global trade and the amount of loans (as a ratio to GDP) increases. For comparison, in 2013 Rosati estimated that the benefits for the private sector arising from a reduction in interest rates would amount to at most PLN 10 bn.

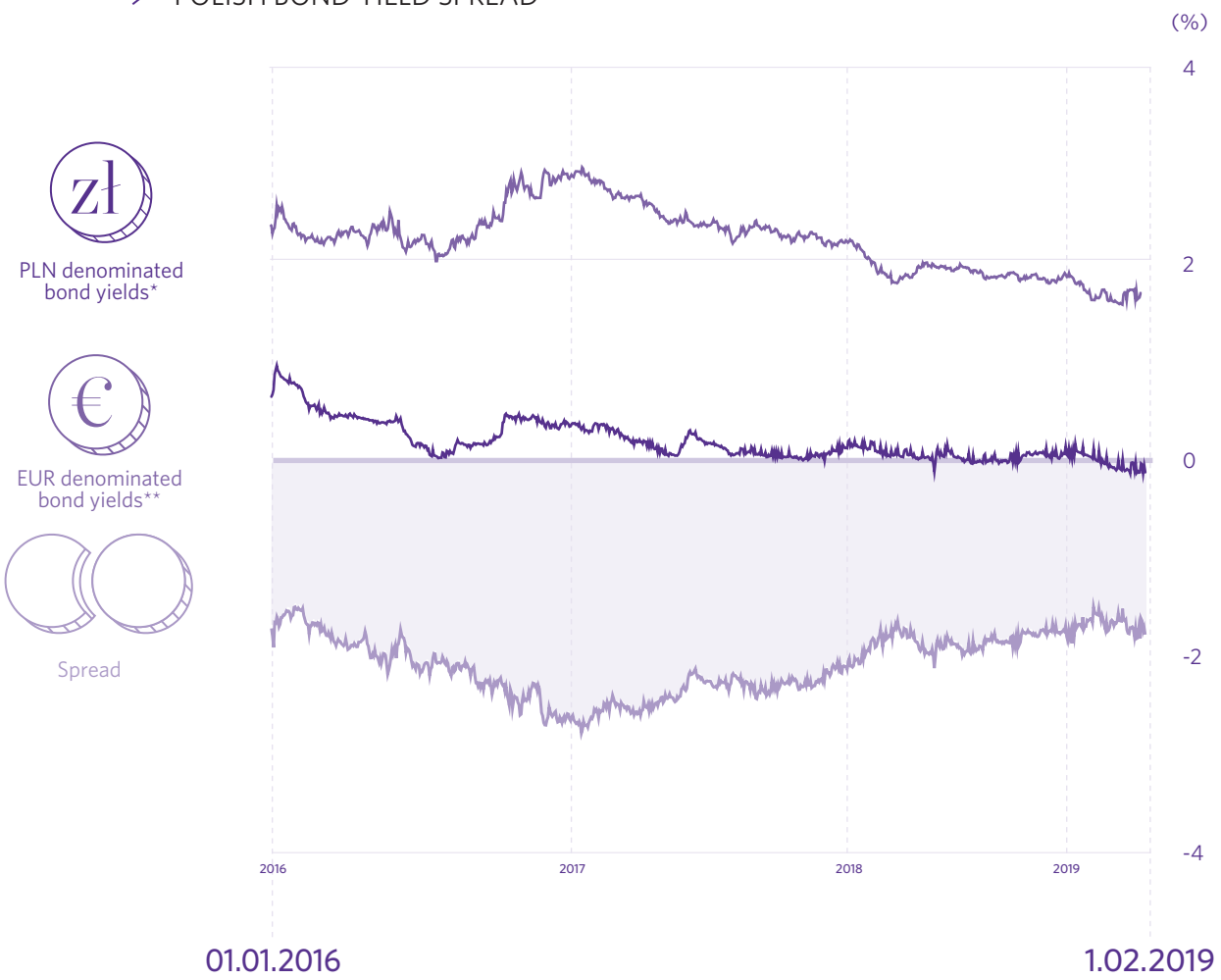
Higher costs of servicing public debt

Yet another cost associated with delaying integration with the euro area, which is also directly the result of higher interest rates on the interbank market, arises from the higher costs of servicing public debt. When compared with interbank interest rates, the profitability of government bonds (on which the cost of servicing government debt directly depends) is determined by a number of factors. In addition to the currency risk premium, the level of central bank interest rates, and the stability of the financial system, the interest rates on public debt are affected by the creditworthiness of a given country (so-called "rating"), the profitability of bonds in the largest euro area Member States or the US, as well as the debt management policy itself. In addition, as a result of the long average maturity of public bonds (4.5 years as of end of 2018), the benefits of reducing the profitability of government bonds will be distributed over time.

From the perspective of financial markets, up until 2010 the euro area Member States were considered to have a low default risk, and as a result enjoyed a relatively low cost of debt. According to IMF's estimates (IMF, 2015) being outside of the euro area reduced bond profitability in the same way as raising S&P rating by two grades. However, the sovereign debt crisis in Greece and other periphery Member States of the euro area virtually eliminated the systematic differences in risk premia between euro and non-euro Member States. In the case of Poland, we can still anticipate a certain decrease in sovereign default risk premium as a result of lower risk of speculative attacks on the currency and given the high share of foreign-currency denominated public debt (30 per cent). The range of this decrease is not possible to estimate. We therefore somewhat conservatively assume, that a reduction in the sovereign default risk as reflected in bond profitability would not take place if euro is adopted.

Taking into account the above factors, to estimate how much higher the cost of servicing public debt is as long as Poland remains outside of the euro area, we must resort to a certain estimation, namely to calculate the discounted present value of the difference between annual expenditure on debt servicing of PLN denominated debt and that arising from the cost of servicing euro denominated bonds (as of 25 February 2019 this different was on average 1.8 percentage points). According

POLISH BOND YIELD SPREAD



*series PL0000108916 maturing at 25 April 2021

**series XS0543882095 maturing 23 March 2021

Source: Datastream.

to our calculations, the cost of delaying integration arising from servicing public debt would amount to PLN 7.4 bn in 2019, i.e. 0.3 per cent of GDP. By comparison in 2008, the finance ministry estimated that such savings would amount to PLN 6.1 bn per annum, including 1 bn saved as a result of Poland's improved creditworthiness (Pełnomocnik Rządu ds. Wprowadzenia Euro przez Rzeczpospolitą Polską, 2010).

The size of this cost of delaying euro adoption should remain stable in relation to GDP over the next decade due to the fixed ratio of euro-denominated debt to GDP and a generally stable over time yield spread of Polish PLN and EUR sovereign bonds. In addition, EMU reforms introduced after the financial crisis proved that the euro Member States are determined to protect the credibility and the irreversibility of the common currency, which should not result in a higher risk premium for countries that are part of the euro area.

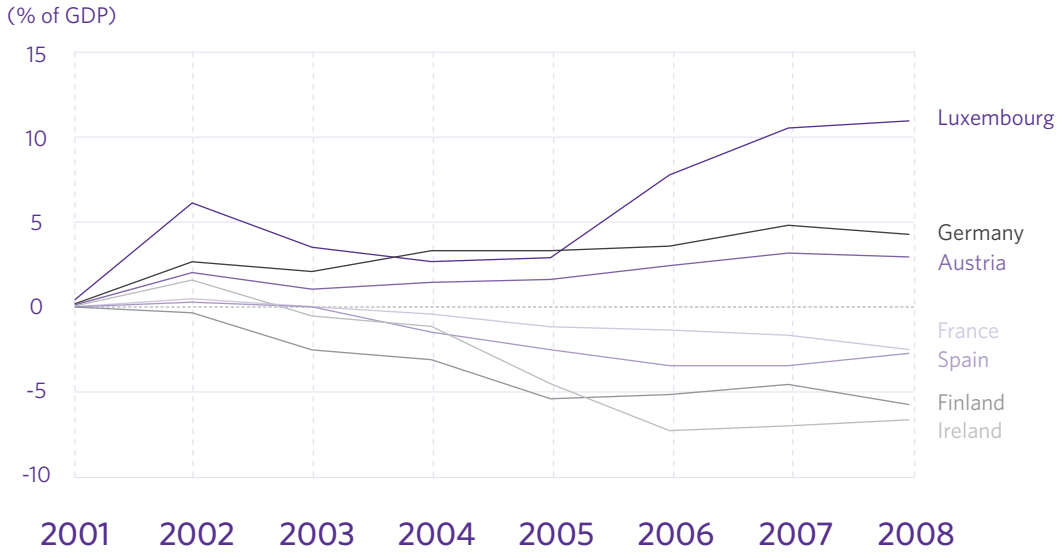
Potential costs

Slower increase in exports

The free movement of goods and services encompasses the entire European Union. However, some scholars (Eichengreen and Bayoumi, 1993; Frankel and Rose, 1998; Grauwe, 2000; Rosati, 2013) show that membership in a common currency area

Experience of euro area countries provides evidence that different scenarios for export and import dynamics can occur after monetary integration. Germany has benefited the most from the creation of the euro area experiencing an increase in goods exports, while Luxembourg and Austria have increased their exports of services. A much higher increase in imports than exports after euro integration was observed in the peripheral countries – from Ireland, where the scale of goods exports has decreased significantly in relation to GDP, through Finland which became the principal importer of services, all the way to Spain, where the ratio of both services and goods exports to GDP decreased.

CHANGE IN THE TRADE BALANCE IN GOODS AND SERVICES FROM THE MOMENT OF EURO ADOPTION IN SELECTED COUNTRIES



Source: Eurostat, own calculations.

further facilitates trade integration (the so-called Rose effect). Barriers to trade arising between countries maintaining different currencies emerge principally from higher transaction costs already discussed above as well as a higher risk from establishing long-term business relations. Eliminating the currency exchange volatility risk means more predictability in business. In addition, with the adoption of a more credible currency, export to third countries increases as well.

In 1990s it was estimated (Frankel and Rose, 1998) that adopting the common currency could increase exports by 10-54 per cent. NBP estimates showed that in the case of Poland, exports would be 12.9 per cent higher, while imports would be 9.2 per cent higher if Poland adopted the euro (Daras and Hagemejer, 2009). A little over half of this effect (7 per cent and 5.6 per cent, respectively) arises from the decrease in the transaction costs alone. The remaining increase would be a result of the reduction in the risk premium priced at market interest rates, equal to 1 percentage point. Interestingly, the effect on exports and imports would vary over time. In the first quarters after the adoption of the common currency imports would be expected to rise – this would negatively affect GDP. Only in the longer term – once the new business links are established, production capacity increases and the inflation stabilizes –would benefits from the higher exports materialise and induce higher GDP.

More recent publications (Baldwin, 2006; IMF, 2015; Festoc, 2017; Algebris Policy & Research Forum, 2018; Gąska and Kawalec, 2018; Mika and Zymek, 2018) have shown that the balance of benefits from trade integration could be overestimated, for example by overemphasizing benefits stemming from the risk premium reduction and from exports increases, if the loss of competitiveness by euro area Member States is not appropriately taken into account. In addition, the magnitude of benefits decreases with time, with economic development and an increase in trade interconnectedness within the European Union as a whole (Rose, 2017). As a result, we consider it necessary to adopt a somewhat more conservative assumptions than those proposed in 2009. First, as studies of the International Monetary Fund show (IMF, 2015), we should not expect a significant reduction of risk premium after Poland adopts the euro. If this decrease materializes, it will be too small to materially affect the economy. Second, the scale of benefits from monetary integration for trade decreases over time, since an increase in trade will take place in any case. This means that the main cost of delaying euro area adoption for exporters is a delay in wider access to global value chains allowing for increase in their market share.

Slower increase in investment and consumption

The above-described effects of delaying euro adoption have an indirect impact not only on the dynamics of imports, but also on the rate of increase in investment outlays and consumption (Narodowy Bank Polski, 2009). The literature on this topic distinguishes at least five mechanisms through which integration with a currency union translates into higher internal demand:

1. Lower interest rates after joining the euro should stimulate enterprises and households to take credit, increasing investment and consumption (Pełnomocnik Rządu ds. Wprowadzenia Euro przez Rzeczpospolitą Polską, 2010)

2. Lower transaction costs, lower interest rates and lower currency risk should stimulate the development of the Polish capital market, and by consequence increase entrepreneurs' access to capital (Pełnomocnik Rządu ds. Wprowadzenia Euro przez Rzeczpospolitą Polską, 2010). Slower development of the capital market outside of the euro area translates into lower choice of investment products available to firms, such as corporate eurobonds (Bernoth et al., 2019).

3. Monetary integration facilitates faster financial integration, which increases banking sector capacity to provide credit for investment and spending (Narodowy Bank Polski, 2009).

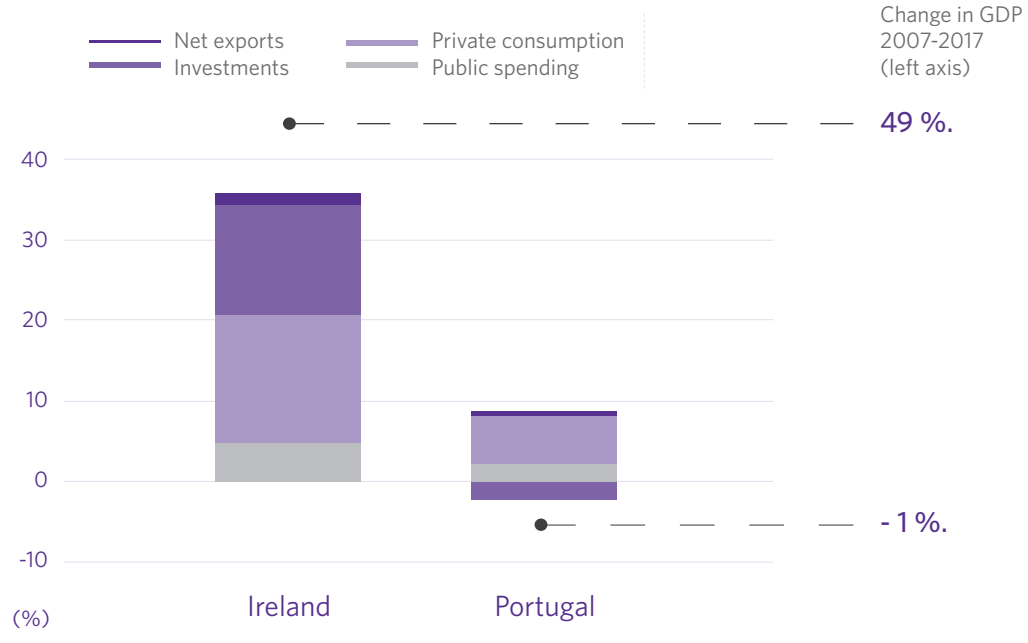
4. Lower transaction costs and FX risk should result in higher inflows of foreign direct investment (FDI), especially from other euro area Member States. According to some estimates, after joining the euro, FDI inflow to Poland could increase by 18.5 per cent (Brouwer, Paap and Viaene, 2008).

5. As a result of multiplier and supply effects, employment and productivity should increase (Bukowski, Dyrda and Kowal, 2008), leading to a faster wage growth. This will additionally stimulate consumption expenditures.

The total value of these types of costs is, however, very difficult to estimate, as it depends on the foreign and domestic business cycles, the institutional set-up of financial markets, firms' and households' propensity to take credit, as well as on the Member State's economic policy stance. Further, it is crucial to assess whether these internal demand effects will lead to an increase in long-run economic potential. Studies carried out thus far show that the impact of monetary integration on the economy (incl. increase in net exports) will amount to 0-7.5 per cent of GDP over the long term (Bukowski, Dyrda and Kowal, 2008; Daras and Hagemejer, 2009; Brzoza-Brzezina, Makarski and Wesołowski, 2012; IMF, 2015). The most significant differences are observed in the estimates of the effects of euro adoption on investment – these range between 0 and 12.6 per cent. The relative increase of investment and consumption is key for determining the long term impact of adopting the euro on potential GDP. If euro adoption effects are concentrated on the consumption

A good example of the various effects that adopting the euro could lead to are the development paths of Portugal's and Ireland's GDP dynamics after 2001. In both countries there was a significant increase in consumption – in Ireland the increase in household consumption contributed an additional 16 percentage points to GDP growth between 2001 and 2007, in Portugal 6 percentage points. However, it was only Ireland that took euro adoption as an opportunity to increase investment. As a result, the share of contribution of investment to Irish GDP growth equalled to 14 percentage points, while in Portugal this contribution was negative (sic!) and totalled -2 percentage points. Such crowding out of investment by consumption and an increase in public spending meant that Portugal was not able to regain international competitiveness after the global economic crisis kicked in and that – between 2007 and 2017 – the real GDP of that country almost did not change, while the Irish economy cumulatively increased by 49 per cent.

THE STRUCTURE OF GDP GROWTH IN 2001-2007 VS. CHANGE IN GDP IN 2007-2017



Source: Eurostat, own calculations.

side of domestic demand, they will have a temporary effect and – in the worst scenario – could even destabilize the economy (see: potential benefits from delaying integration).

No participation in ECB profits

Each central bank generates profits originating from currency issuance and managing the reserve portfolio. Poland after joining the euro will get access to ECB profits proportionally to its share in the bank's capital. This share should be equal to the one of the Dutch central bank (currently 5.8 per cent). If Poland was a member of the euro area in 2018, the NBP would receive an additional PLN 322 mn from the PLN 6.8 bn profit generated by the ECB. 95 per cent of this profit would be transferred to the state budget, raising non-tax revenue. At the same time, the NBP would lose part of the profit it generates from managing the reserve portfolio, which would be immediately reduced by all the euro area denominated assets – these would become a part of the Eurosystem money supply. According to our calculations, the combined positive impact of monetary integration on the non-tax budget revenues will not exceed 0.1 per cent of GDP.

Non-measurable costs

Higher social and political risk resulting from FX denominated or indexed mortgage loans

An additional benefit of adopting the euro by Poland is a significant reduction of political risk, and as a result risk of financial sector instability, connected to mortgage loans issued before 2013 in foreign currencies (later the availability of such loans was reduced due to the S recommendation issued by the Polish Financial Services Authority and EU regulations). By adopting the euro, currency risk will be fully removed from euro-denominated/indexed loans. Swiss franc (CHF) denominated/indexed loans will also be exposed to lower risk for two reasons. First, the EURCHF exchange rate has been more stable over time as compared to the CHFPLN exchange rate. Second, within the euro area the Polish banking sector will have much easier and cheaper access to securitisation of Swiss franc loan portfolio. Consequently, even when faced with a mandatory redenomination of loans, banks within the euro area would incur lower losses and enjoy higher financial stability.

Higher susceptibility to speculative attacks and risk of crises

The original architecture of the euro area foresaw only common monetary policy. Contrary to the vision of EMU's architects including Tomasso Padoa-Schioppa (2005), oversight over the banking sector, i.e. micro and macroprudential policies, remained at national discretion. The financial crisis and the crisis of sovereign debt in some of the euro area countries spurred fundamental reforms of the EMU institutional architecture. The creation of the Banking Union and strengthening of the competences of the ECB as a financial supervisior are intended to ensure financial stability in the euro area as a whole. Centralised oversight already allowed for more decisive action oriented at limiting risk in the banking sector arising from faulty management or illegal activity, such as money laundering.

Financial supervision in the euro area consists of crises-preventing mechanisms and a set of safety nets for the event of financial sector distress in one or more

eurozone countries. An example of the latter is the second pillar of the Banking Union, namely the Single Resolution Mechanism (SRM). The SRM has at its disposal the Single Resolution Fund amounting to EUR 50 bn, which is now guaranteed by a credit line from the European Stability Mechanism, which has firepower of EUR 500 bn. The fund is accessible to all euro area banks. The EU is still working on creating a common deposit guarantee fund.

While outside of the euro area, Poland is not part of these institutions – this decreases the credibility of its financial sector (IMF, 2015; Belke et al., 2016) and increases the susceptibility of the country to speculative attacks. In this respect, remaining outside of the euro area is more worrisome, as the share of euro-denominated or indexed assets in the balance sheets of Polish financial institutions increases with EU-wide integration of bank and capital markets. As a result, a sudden depreciation of the domestic currency caused by a speculative attack or a fiscal crisis could dry up the capital market, induce bank insolvency or lead to a stock market crash. As estimated by Czerniak et al. (2019) membership in the euro area significantly reduces the risk of stock market bubbles.

Additionally, as a fallout of the eurozone sovereign debt crisis new institutions were established to provide financial aid for governments in fiscal distress. The ultimate recovery mechanism is the ESM. It was established to assist Member States in times of economic or financial crises and to enable the restoration of financial stability. As the experience of non-euro area Member States (e.g. Hungary or Romania) indicates, access to such backstops has important implications for the cost of crises. Currently non-euro area countries are supported only by a much smaller – and much less flexible – Balance of Payments instrument established by EU Treaties (Art. 143 TFEU), the firepower of which was only recently raised to EUR 50 bn (Alcidi et al., 2017). Alternatively, non-euro area Member States have to rely on support from the International Monetary Fund (as was the case of Poland in 2009 when a flexible credit line with the IMF was established for eight years at a total cost of almost PLN 2 bn). IMF programs bear a substantially higher burden, which includes stiffer institutional conditionality and higher interest payments, than the ESM support. As a consequence, by delaying accession to the euro area Poland forgoes access to the financial safety net protecting against speculative attacks and cushioning against the consequences of fiscal crises.

No access to the euro area budget

After much discussion, a budgetary instrument for the euro area is now foreseen in the Multiannual Financial Framework 2021-2027. In the initial stages it is likely to remain relatively small (European Commission's 2018 proposal foresee a mere EUR 25 bn over the seven year period). Therefore the opportunity cost of foregoing access to this fund directly – even if its creation entails a reallocation from the overall EU budget – for Poland would be small.

In the long run, a higher cost of delaying euro area membership will include the inability to shape this budget and participate in the discussion on what function it would serve. As of winter 2019, the possibilities considered include establishing the budget with a view to supporting reforms increasing competitiveness and convergence in the euro area countries or introducing fiscal stabilisers (such as unemployment benefits). Although non-euro area Member States are participating in the discussion (for example by supporting the Netherlands, reluctant to any risk-sharing instruments), they are not directly involved in the the process of designing the

budget nor in the creation of its conceptual framework. Limited participation in this debate, taking also into account the ideological disputes underpinning the ongoing EMU reform (Brunnermeier, James and Landau, 2016), is yet another cost of delaying the adoption of the common currency.

Limited influence over the political decisions concerning the European Union's future

EU Treaties foresee a separate decision-making structure for euro area Member States (Orłowski et al., 2019). For example, the voting rights of Member States enjoying a temporary derogation from full EMU membership are suspended during votes in the Council of the EU which concern the general direction of euro area economic policies, nomination of Governing Council members of the ECB, decisions concerning common positions in international organisations as well as those decisions that refer to sanctions imposed as part of the dedicated Excessive Deficit Procedure (Art. 139 TFEU).

Since the crisis, an even more important role has been played by the Eurogroup – an informal grouping of ministers of finance of the euro area, since 2017 chaired by the Portuguese Finance Minister Mario Canteno (Braun, Hübner and Hoffmann-Axthelm, 2019). It is at the Eurogroup meetings that the key decisions concerning the future shape of the euro area are taken. Since these meetings often precede the meetings of the EU Finance Ministers (EcoFin), they are used as a platform for euro area Member States to coin their common position in further negotiations with non-eurozone countries. Yet another institution which is only attended by the euro area Member States are Euro Summits. Lack of representation in these meetings means limited impact over the prospective far-reaching EU policies, in particular the social dimension of the EMU, including labour market reforms (Juncker et al., 2015). Finally, with the euro area budget close to materialising, calls for the creation of a separate chamber for euro area representatives will return (Funke and Guttenberg, 2019).

In addition to the limited influence over the shaping of EMU institutions, non-euro Member States are prevented from participating in decisions which shape the international role of the euro as a reserve currency, such as the proposal to create a separate euro area payment system as an alternative to SWIFT (Draghi, 2019). These are likely to accelerate under the new ECB president Christine Lagarde. On a more general level, the costs of delaying the decision to adopt the euro encompass a lower impact on future EU institutional architecture.

Important decisions on macroprudential issues are taken in the ECB. The Treaties foresee no representation for non-euro area members in the governing bodies of the ECB (Art. 139 TFEU). Even in pan-EU oversight institutions, such as the European Systemic Risk Board, meetings are increasingly taken in a restrictive eurozone format at working group level. Such an exclusion results from the fact that the representatives of national euro area supervisors consider financial instability in the euro area a separate issue from that of financial instability in the multi-currency internal market. This restricts the influence of non-euro area governments on technical financial regulations already at the early stages of the decision-making process. Furthermore, ECB oversight extends over banks, which have Polish subsidiaries, which gives the bank indirect influence on the functioning of Polish banks (Belke et al., 2016). As a result, delaying the adoption of the euro implies a limited incorporation of Polish local-market specific concerns within the ECB

3. Benefits of delaying euro adoption

policy decision-making processes.
In most studies about euro adoption in Poland it is argued that delaying monetary integration is costly as it postpones the advancement to a higher trajectory of economic growth. When the research outcome implies a positive cost-benefit balance of euro adoption, than full as-soon-as-possible EMU membership is argued for as an imperative. In turn, in analyses which claim that the costs outweigh the benefits of monetary integration, the question of delaying integration is omitted as it is argued that Poland should never join the common currency area. In contrast, we propose to introduce a dynamic analysis of the benefits of delaying euro adoption. Such an approach is justified by new research on the sovereign debt crisis in the eurozone and a change in Polish government's policy after the 2015 parliamentary elections. Moreover, it is particularly necessary when one analyses the potential benefits of delayed euro adoption to the extent that a delay allows for preparation for monetary integration in terms of institutional soundness (Rapacki, 2015) and economic convergence (Czerniak et al., 2019). Such benefits arise principally from minimising the risk of following the Greek or Portuguese scenario of monetary integration in Poland.

Measurable benefits

Gradual decrease of real costs of integration

According to NBP estimates from 2009 the approximate cost of introducing the euro to cash and cashless circulation in Poland would amount to PLN 20-23 bn, depending on the mechanism of integration (Narodowy Bank Polski, 2009). The most cost-effective would be a so-called Big Bang method, i.e. the exchange of all currency at the moment of euro adoption, while the least cost effective method would be temporarily keeping both currencies in circulation. However, the latter would minimise the negative social consequences as well as the so-called "cappuccino effect" (upward rounding-up of prices at the moment of conversion).

Four types of costs connected to introducing the euro into circulation can be distinguished. First, NBP expenses arising from the cost of printing new notes and disposal of the old ones, changes in the bank's IT systems, adjusting sorters and other machines to the new currency as well as costs of public educational campaigns would total PLN 1.5-2 bn. Second, expenses in public administration arising from changes in legal acts, informational campaign and adjusting the public IT systems would cost PLN 0.9-1.1 bn. Third, costs of introducing the euro to circulation borne by banks (PLN 2.3-2.6 bn), which would have to change

ATMs, sorters and other machines, in addition to IT systems. Banks would also lose income from currency exchange operations and financial products securitising the currency risk. Finally, the highest cost at the macro level is the financial burden of introducing the euro borne by enterprises (PLN 15.7-17 bn) – they will have to adjust their IT and accounting systems, as well as change their pricing lists and product price tags.

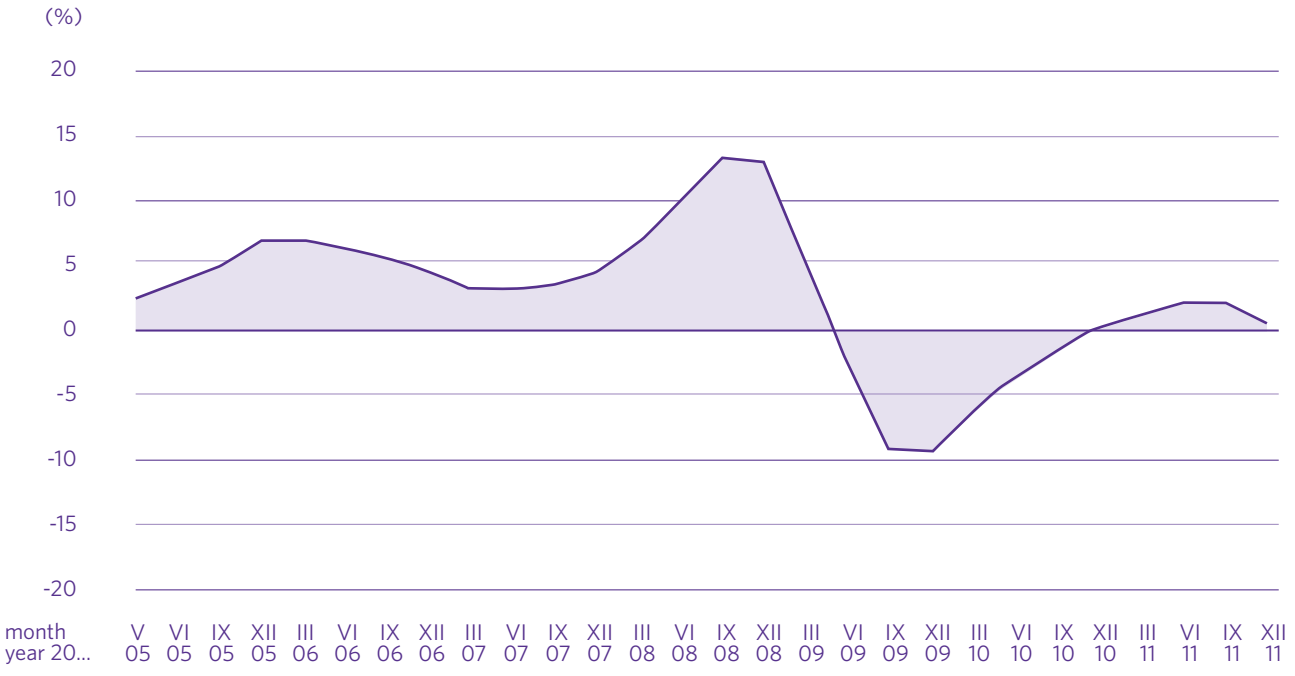
The real costs of introducing the euro decrease over time, due to the increasing share of cashless payments, as well as the fixed real cost of exchanging the IT systems or printing new notes, and disposing of the old ones. We assume that while in 2009 the cost of exchanging the currency amounted to 1.6-1.8 per cent of GDP, in 2018 this cost would amount only to 1 per cent.

Potential benefits

Higher stability of economic growth

The main argument in favour of staying outside of the euro area is the autonomy of pursuing monetary policy (Kawalec and Pytlarczyk, 2016b). Independence is here understood as preventing a situation where the level of interest rates is badly adjusted to the economic situation in a given member state, in other words that interest rates are set at a level too low, leading to overheating of the economy, or too high - limiting growth and hindering investment activity. An element of an independent monetary policy is of course a flexible exchange rate, which can absorb domestic and foreign macroeconomic shocks. A majority of economists argue that it was the sudden depreciation of the PLN which shielded Poland from recession in 2008/2009 – the country remained the only EU member state with positive GDP growth.

THE DIFFERENCE BETWEEN ACTUAL AND COUNTERFACTUAL GDP IN THE SCENARIO OF POLAND ADOPTING EURO IN 2005

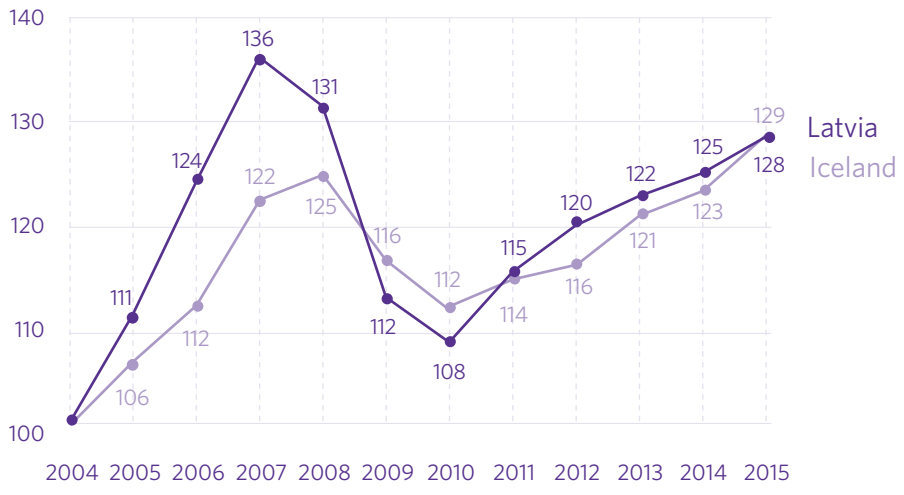


Source: Brzoza-Brzezina et al. (2012)

In this context, however, we must differentiate between the phenomenon of business cycle volatility and an increase in the economic potential of a given country. The public debate on benefits of independent monetary policy and flexible FX rates is usually narrowed down to crisis period analysis. This is a gross oversimplification, as independent monetary policy slows down GDP growth due to currency appreciation and higher interest rates at the peak of the economic cycle. As a result, a faulty conclusion is drawn that keeping domestic currency can increase the economic potential over the long term, while the actual impact of independent monetary policy on long-term potential GDP growth is close to zero. According to the study by Brzoza-Brzezina et al. (2012) Polish GDP would be 13 per cent higher at the peak of the economic cycle (III quarter of 2008) and 10 per cent lower at the trough (IV quarter of 2009) if Poland had adopted the euro in 2005. Moreover, Polish GDP would be roughly the same with and without euro at the end of the global financial crisis (IV quarter 2011).

Differences between business cycle volatility in countries with a fixed and a flexible exchange rate mechanism can be observed in the diverging experience of Latvia (fixed exchange rate against the euro since 2005, joined the eurozone in 2014) and Iceland (flexible exchange rate throughout the whole decade) over the course of the crisis. The range of GDP increase experienced by these countries between 2004 and 2015 is similar (28.4 and 28.8 per cent, respectively), but Latvia noted a 11.4 percentage point higher GDP growth rate during the pre-crisis boom and a 4.3 percentage point higher growth during the post-crisis rebound, while being subject thad adopted during the global crisis itself.

BUSINESS CYCLE COMPARISON IN LATVIA AND ICELAND (2004=100)



Source: Eurostat, own calculations.

Finally, it should be noted that research does not confirm the stabilising effects of independent monetary policy on the Polish business cycle. According to some economists, since the 2000s the weakening of the PLN negatively impacted GDP growth (Arratibel and Michaelis, 2014) at the same time contributing to higher income inequalities (Cravino and Levchenko, 2015). The positive effects of depreciation meanwhile are proven to materialise only partly and with a significant delay (Demian and di Mauro, 2017). In addition, other studies argue that the effective NBP independence is rather limited due to a high interdependence between Polish and euro area capital markets (Gabrisch, 2017) and due to the ongoing financial globalisation (Rey, 2013).

Therefore, it is impossible to precisely estimate the amplifying impact of euro membership on cyclical fluctuations of the economy and a decrease in the resilience of the economy to shocks. However, we can determine that the scale of fluctuations after the euro is adopted will be dependent on policies which would still remain in the hands of national institutions, namely fiscal and macroprudential. Through the use of a number of instruments (tax rates, social transfers, public investment, capital buffers, loan to income rations, etc.) the amplitude of cyclical fluctuations after euro adoption may be limited (Kosior and Rubaszek, 2014). This is all the more warranted in the case of countries such as Poland, which, compared to Iceland and Latvia, have a larger domestic market.

Higher competitiveness of the economy

The Polish economy - much like any other country on the path of real convergence – is characterised by higher wage dynamics than average in wealthier euro area countries, and therefore a relatively higher inflation rate. This is known as the Balassa-Samuelson effect, well covered in the literature (Boratyński et al., 2019a), which EMU membership amplifies. This effect can cause a sudden drop in international competitiveness after euro adoption – as experienced by the peripheral EMU countries.

Estimates suggest that as a result of the Balassa-Samuelson effect between 1995-2010 inflation in Poland was 3.3 percentage points higher per annum than in the euro area member states – that is 28 per cent of the total difference in inflation levels between Poland and EMU (Konopczak and Welfe, 2017). This effect was much lower in other Visegrad countries and amounted to 2.2-2.5 percentage points per annum. In addition, the same study shows that the very structure of the Polish economy, i.e. high and non-progressive wage tax, high level of natural unemployment and inelastic labour market, means that the higher wage growth feeds directly into inflation, but also that this effect is magnified by second round effects (recursive impact of inflation on wage dynamics). A 0.4 percentage point difference between inflation levels in Poland and the euro area arises as a result of the institutional structure of the domestic economy – this scale being much higher than in other Visegrad countries.

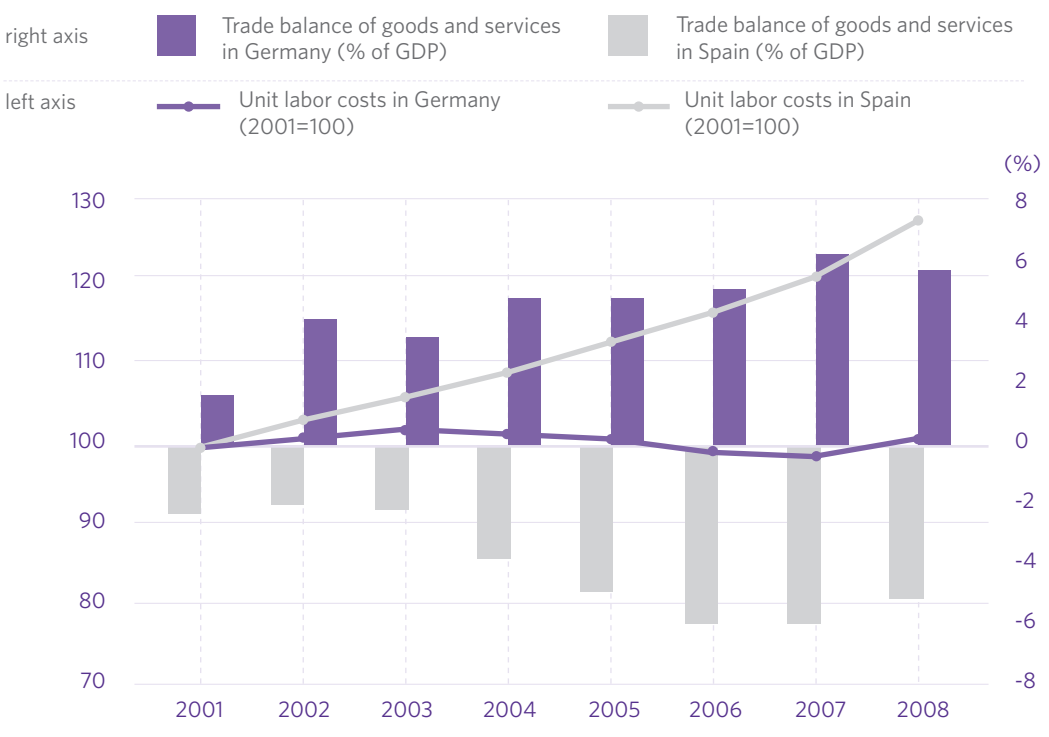
While over the next years the magnitude of the Balassa-Samuelson effect in Poland will decrease as a result of further real convergence and a decrease in structural unemployment, it will nonetheless remain most likely higher than in Southern euro area Member States after they had joined the EMU – 1.8 percentage point in Spain, 1.2 percentage point in Greece and 1.1 percentage point in Portugal. The corollary of

this is that, premature euro adoption implies a high risk that the ECB interest rates will be too low for the Polish economy, facilitating its overheating and subsequent loss of competitiveness.

Scholars argue that a country which has lost its competitiveness and is a member of a common currency area, could experiences significant difficulties in regaining it (Kawalec and Pytlarczyk, 2016a; Gąska and Kawalec, 2018). Lack of a flexible exchange rate means that policy makers cannot restore the price competitiveness of exports though currency depreciation. Rather, the country has to implement the politically and socially costly internal devaluation, that is to enter into a long-term process of wage and price decreases. This may cause a deep recession and a fiscal crisis, especially in countries which had not carried out restrictive fiscal policies in times of prosperity. This risk is magnified by the increased amplitude of cyclical fluctuations, which are an intrinsic feature of currency union membership. This is in particular the case for economies with inelastic labour markets, where periods

Consequences of the loss of international competiveness arising from the Balassa-Samuelson effect within a common currency area can be observed by comparing the changes in nominal unit labour costs in Germany and Spain after the euro area was created. Between 2001-2008 these remained stable in Germany, while in Spain they rose by 29 per cent. This caused a loss of competitiveness of the latter economy and a significant lowering of the international balance in trade of goods and services - by 2.8 percentage points of GDP. Simultaneously the German trade surplus improved by 4.3 percentage points.

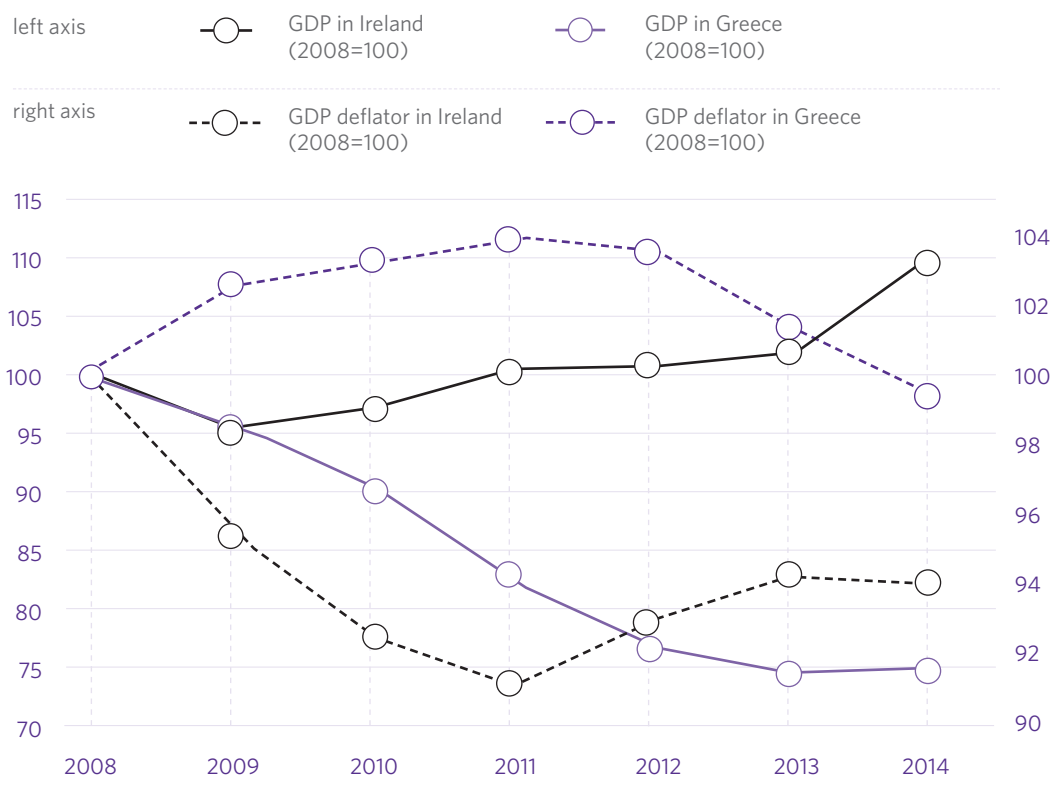
CHANGE IN LABOR COSTS AND TRADE BALANCE IN SPAIN AND GERMANY



Source: Eurostat, own calculations.

Differences between a permanent loss of price competitiveness and a quick adjustment of the level of wages and prices can be observed by comparing Greece and Ireland after the global financial crisis. The recessions in both countries were comparable (5 per cent in Ireland and 4.3 per cent in Greece). However, the Irish economy responded quite flexibly – already in 2009 the prices of goods and services (measured by GDP deflator) decreased by 4.4 per cent, and in the following years dropped by a cumulative 9.2 percent – while in Greece prices rose well into 2011 and only a deepening recession and unemployment surpassing 20 per cent forced an internal devaluation and a consecutive improvement in international competitiveness. Such low flexibility of the economy, in particular in the labour market, meant Greece was unable to quickly regain its competitiveness to pre-crisis levels.

FLEXIBILITY OF THE ECONOMY AND THE LENGTH OF THE RECESSION AFTER THE ECONOMIC CRISIS



Source: Eurostat, own calculations.

of deep recession may lead to hysteresis effects (i.e. sustained high unemployment even after business sentiment improves). As a result, low dynamics of potential GDP persist over an extended period of time, stemming economic recovery.

There are several ways to reduce the risk of long-term loss of competitiveness at the point of entry into a common currency area. These include higher GDP convergence, implementing a responsible, non-populist fiscal policy and structural reforms of the labour market oriented at reducing the tax wedge and improving the mobility of the labour force (Kosior and Rubaszek, 2014). Such institutional

adjustments enable the restoration of lost competitiveness with a correction of wages and prices. They allow for accelerated economic growth, without the risk of hysteresis effects or political or fiscal crises. Furthermore, from this perspective the EURPLN conversion rate is very important: it should include a security buffer for inflation increases resulting from the Balassa-Samuelson effect. Adopting the euro at a too high conversion rate would force an immediate internal adjustment, translating into lower economic growth.

Limited risk of a price bubble on the real estate market

A high level of convergence in terms of living standards is considered to be one of the conditions for the proper functioning of currency areas. If Poland continues to grow at a higher pace than Western countries, delaying the decision to join the euro area would mean that adoption of the common currency would take place between economies at a more similar level of development. Convergence in living costs would further lower the risk of a house market bubble (Stążka-Gawrysia, 2011; Czerniak et al., 2019). Countries with a low share of rental housing, such as Ireland, Spain and Poland (Czerniak and Rubaszek, 2018) or those with unfavourable cultural endowment (Czerniak and Witkowski, 2016) are particularly exposed to this risk.

The proneness to housing bubbles can be curtailed by introducing the right macroprudential policy (Rubio and Comunale, 2016) which decreases the risk of an excessive increase in credit availability after euro adoption, and thus prevents the financial accelerator mechanism from kicking in. In other words, macroprudential tools can limit the supply of mortgage credit resulting from an increase in real estate prices and the consequent improvement of bank's capital requirements (Bernanke, Gertler and Gilchrist, 1999). The most commonly used instruments are loan-to-value and debt-to-income requirements, as well as higher capital buffers for banks in

→ REAL HOUSE PRICES IN SELECTED EUROZONE COUNTRIES (2001=100)

Source: Eurostat, own calculations.

times of favourable business conditions and rapid real estate price growth. Since 2014 the ESRB publishes a register of macroprudential policies introduced by different Member States oriented at reducing the destabilising fluctuations in access to capital. Macroprudential policies are typically introduced by national authorities – this is the case also for the countries which are members of the euro area. Banking Union likewise is oriented at reducing instabilities in the Union financial markets. As a result, joining the Banking Union – obligatory for euro area countries – should reduce the risk of a price bubble on the Polish real estate market (Kosior and Rubaszek, 2014).

No temporary increase in inflation due to rounding up of prices

One of the most common arguments against the adoption of the euro by Poland appearing in the public debate is that it will cause an increase in prices at the moment of currency conversion. In popular opinion the prices will be converted 1-1, or – in the best case scenario – simply rounded up. Studies of current members of the euro area show that these worries are exaggerated since an increase in prices – though it may materialise – is usually much smaller than anticipated. In the case of the Netherlands, for example, it was anticipated that the increase could amount to as much as 0.9 per cent, while in reality it barely reached 0.3 per cent.

The possible increase in prices which may materialise as a result of rounding up ranges from 0 per cent if enterprises will round up prices arithmetically, to as much as 0.6 per cent if they will round up the attractive (e.g. 4.99 PLN) or psychological (e.g. 3.50 PLN) prices to the closest attractive or psychological upward price (respectively, 1.49 euro and 1 euro) (Rozkrut, Jakubik and Konopczak, 2009). Which of these scenarios materialises depends on the method of introducing the euro into circulation (Big Bang or a gradual conversion), what price tagging mechanism will be introduced (e.g. whether an obligation to provide prices in both złoty and euro would be introduced) and how successful the information campaign on currency conversion will be. Also the actual conversion rate will be a major factor in determining integration-driven inflation. From this perspective the most favourable conversion rate would be a whole number (e.g. 3 or 4 PLN), and the least favourable a conversion rate with two decimal places right before the psychological conversion rate (e.g. 4.49 PLN) – the differences in the impact of the actual conversion rate on inflation can reach as much as 2 percentage points (Rozkrut, Jakubik and Konopczak, 2009).

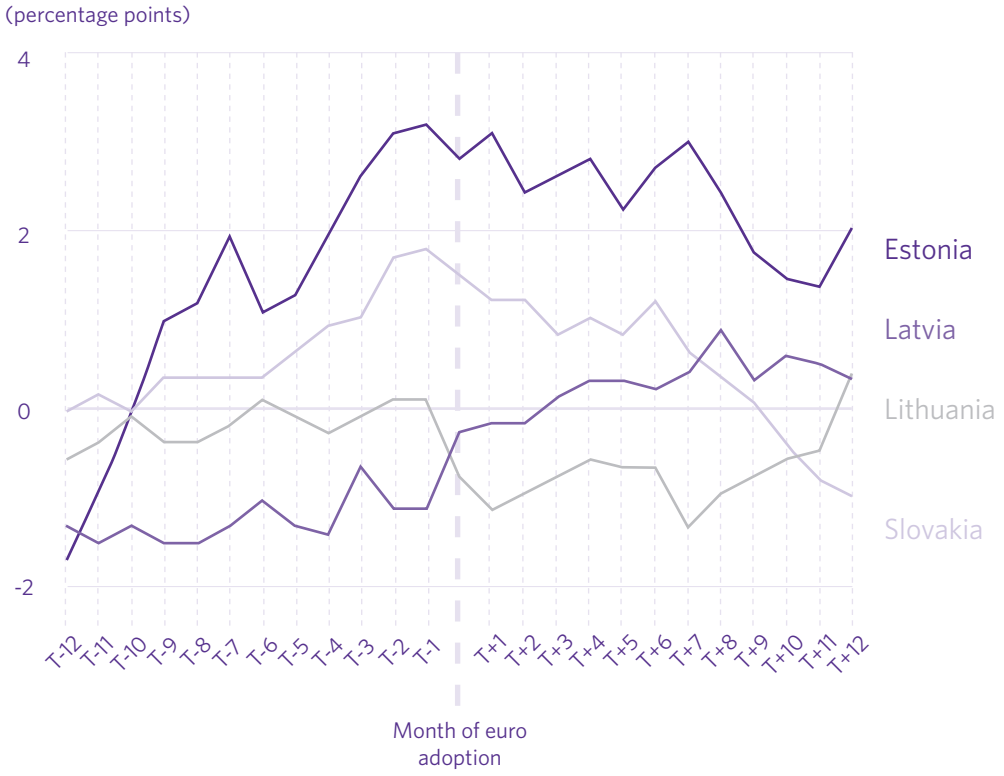
Non-measurable benefits

Resilience to future euro area crises

One of the costs of monetary integration often invoked by those who remain sceptical to the euro, is the potential participation of Poland in the cost of rescue of other euro area member states and higher susceptibility to crisis spillovers across the common currency area, i.a. via increased public debt servicing costs. Poland would most likely have to participate in the bail-out programs of insolvent states, and – in the event of euro area break-up – it may incur losses resulting from Target2

In countries which adopted the euro after the global financial crisis, a small increase in prices as a result of currency conversion could be observed. An acceleration of inflation as compared to the average increase in price dynamics in the 19 EMU countries materialised only in Latvia (0.9 percentage points), while in Slovakia and Estonia an acceleration in price increases was observed before the derogation was lifted, which could have been the result of an early adjustment of prices. In Lithuania, which was the last country to join the euro, the inflation rate at the moment of accession visibly declined.

DIFFERENCE BETWEEN MONTHLY INFLATION RATES IN A GIVEN COUNTRY AND THE EA19 AVERAGE



Source: Eurostat, own calculations.

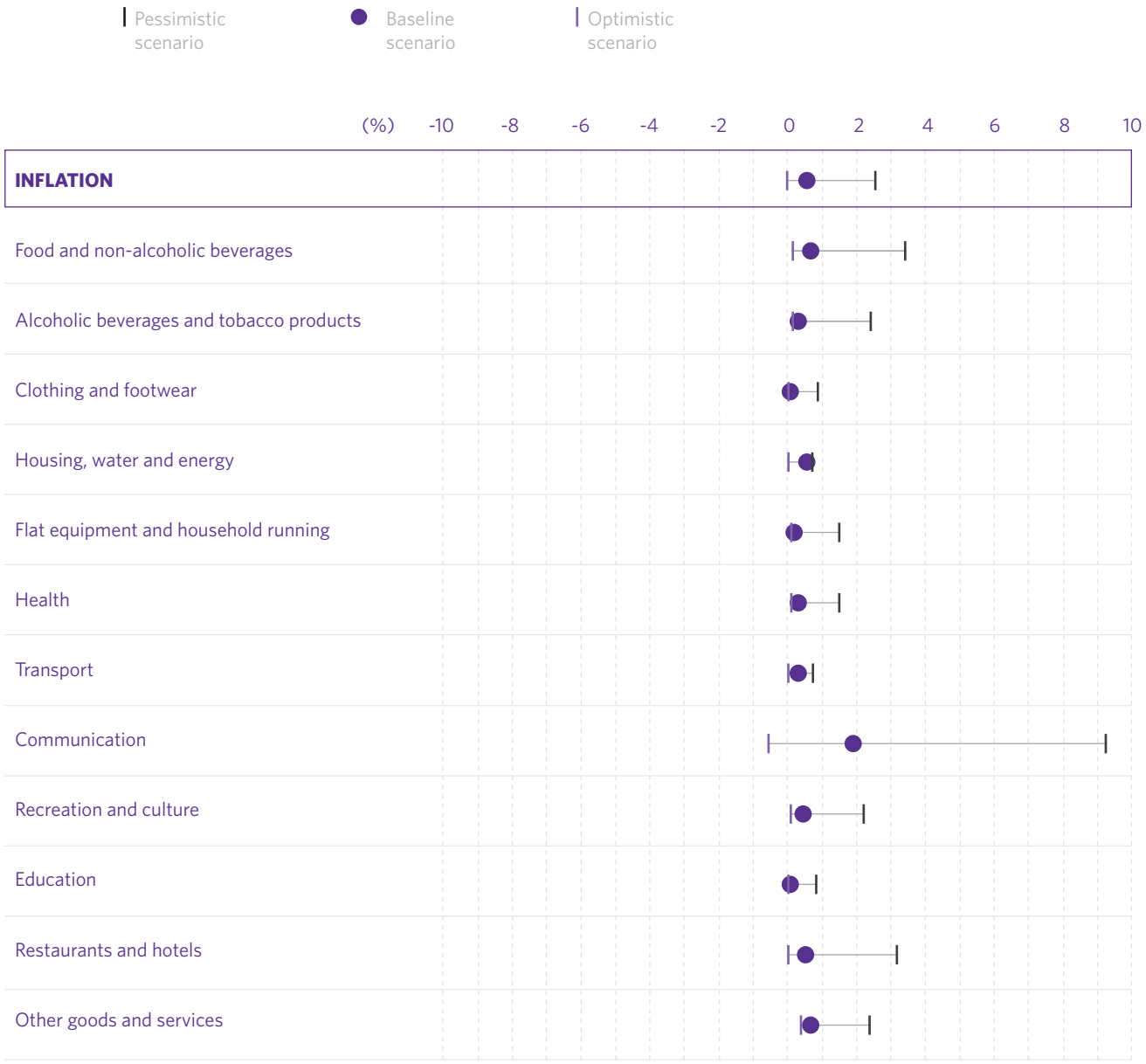
settlements between central banks (Whelan, 2017). The scale of these costs and the probability of them materialising is impossible to estimate. Further, even staying outside of the euro area Poland bears at least part of these costs as a result of the scale of financial and trade integration within the European Union (Stoupos and Kiohos, 2017).

Greater independence of state economic policy

Euro area institutions restrict the possibility of pursuing and independent economic policy by EMU Member States. In particular, after the sovereign debt crisis in some member states, decision-making over national budgets within the EMU became more coordinated, with greater influence of Union institutions over the national budgets of euro area countries. New regulations not only forbid euro area Member States from accumulating excessive macroeconomic imbalances, but also

strengthen the sanction mechanisms which can be employed with regard to countries which have an irresponsible economic policy (e.g. fines can be imposed on countries which do not meet budgetary targets). Even greater restrictions on the economic policy stance are imposed on countries which are covered by Assistance Programmes (Greece, Ireland, Portugal) – which are required by the ECB and euro area finance ministers to implement restrictive fiscal policy (Varoufakis, 2018). Countries outside of the euro area have greater freedom in shaping their economic policy, in particular with regard to social benefits.

IMPACT OF EURO ADOPTION ON CONSUMER PRICES IN POLAND



Source: Rozkrut et al. (2009)

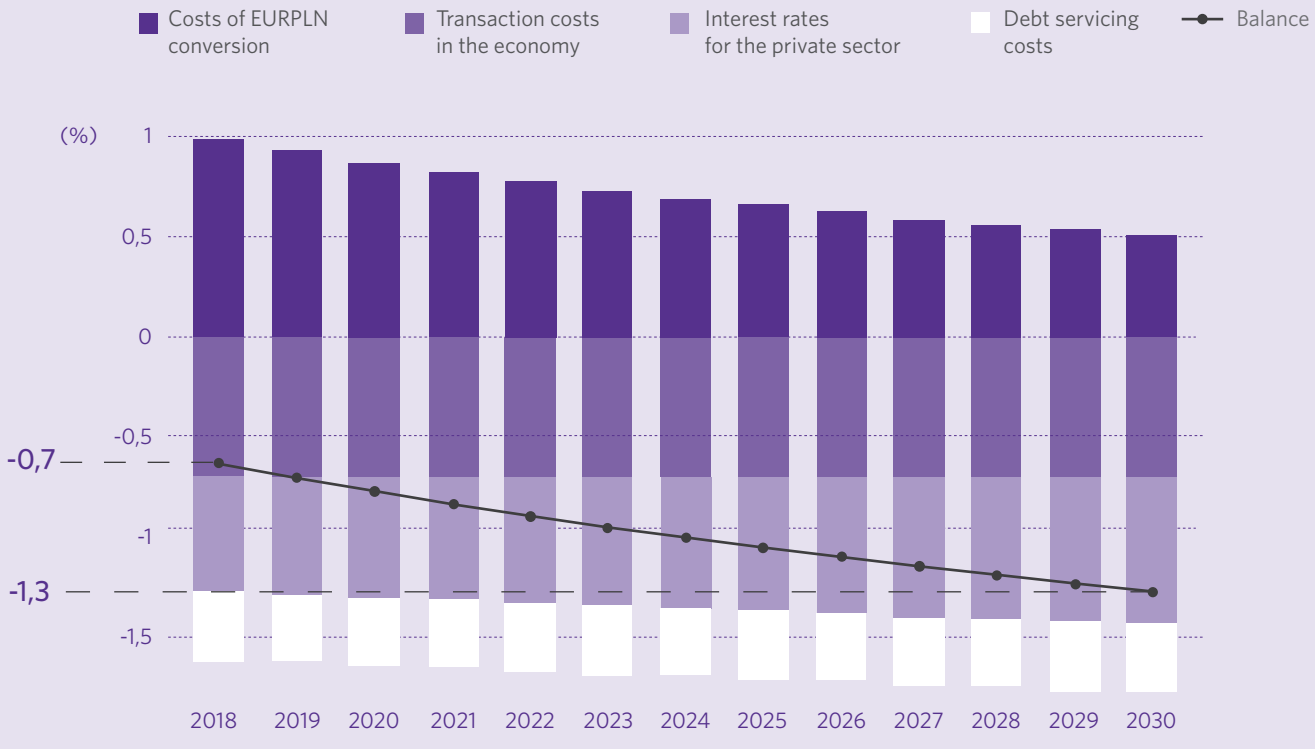
4. Balance of costs and benefits of delaying euro adoption

Previous research on monetary integration that provides a cost-benefit analysis has taken a number of benefits of adopting the E for granted (Narodowy Bank Polski, 2009; Pełnomocnik Rządu ds. Wprowadzenia Euro przez Rzeczpospolitą Polską, 2010; Rosati, 2013). Another strand of literature encompasses primarily the unmeasurable or potential consequences of adopting the euro, with a special focus on its political aspects (Kolodko, 2017; Orłowski et al., 2019). The literature lacunae we have identified was a complex and dynamic cost-benefit analysis of delaying monetary integration, including measurable, potential and non-measurable effects. For the sake of filling this gap, below we present the balance of costs and benefits of the decision to delay euro adoption up until 2030.

Balance of measurable effects

The balance of measurable costs and benefits of delaying monetary integration is negative in the case of Poland, and increases with time. According to our estimates, the annual net cost (i.e. the difference between combined measureable costs and benefits) of not adopting the euro amounts to 0.7 per cent of GDP. The measurable costs of delaying the euro adoption includes higher transaction costs (0.7 per cent of GDP), costs arising from higher interest rates for firms and households (0.6 per cent of GDP) and higher costs of public debt servicing (0.3 per cent of GDP). They are only partially compensated by the savings arising from not converting the zloty to euro (0.9 per cent of GDP). It should be remembered, however, that the savings are one-off, while the costs of delaying integration are fixed. In other words, the costs of delaying the decision to adopt the euro accumulate over time.

BALANCE OF MEASURABLE COSTS AND BENEFITS OF DELAYING INTEGRATION (% of GDP)



Source: own calculations.

Over the coming years we will witness a gradual decrease in the benefits of delaying the decision to adopt the euro, caused by the gradual decline of the real cost of currency conversion – we estimate that in 2030 they will amount only to 0.5 per cent of GDP. This downward trend results from the increase in the use of cashless payments and ICT solutions, while the cost of physical exchange of notes and coins will remain relatively stable. What may increase however are the costs arising from higher interest rates, as the supply of credit to the private sector increases. There will be no change – in relation to GDP – of transaction costs and costs of debt servicing. In the case of the former, the increase in trade of Polish products and services denominated in euro will be counterbalanced by a decrease in the fees and spreads connected to currency exchange as non-financial institutions will increase their market share and decrease transactional costs. Additionally, following the Ministry of Finance outlook, we assume a stable ratio of public PLN-denominated debt to GDP and a constant spread between domestic and foreign bond yields.

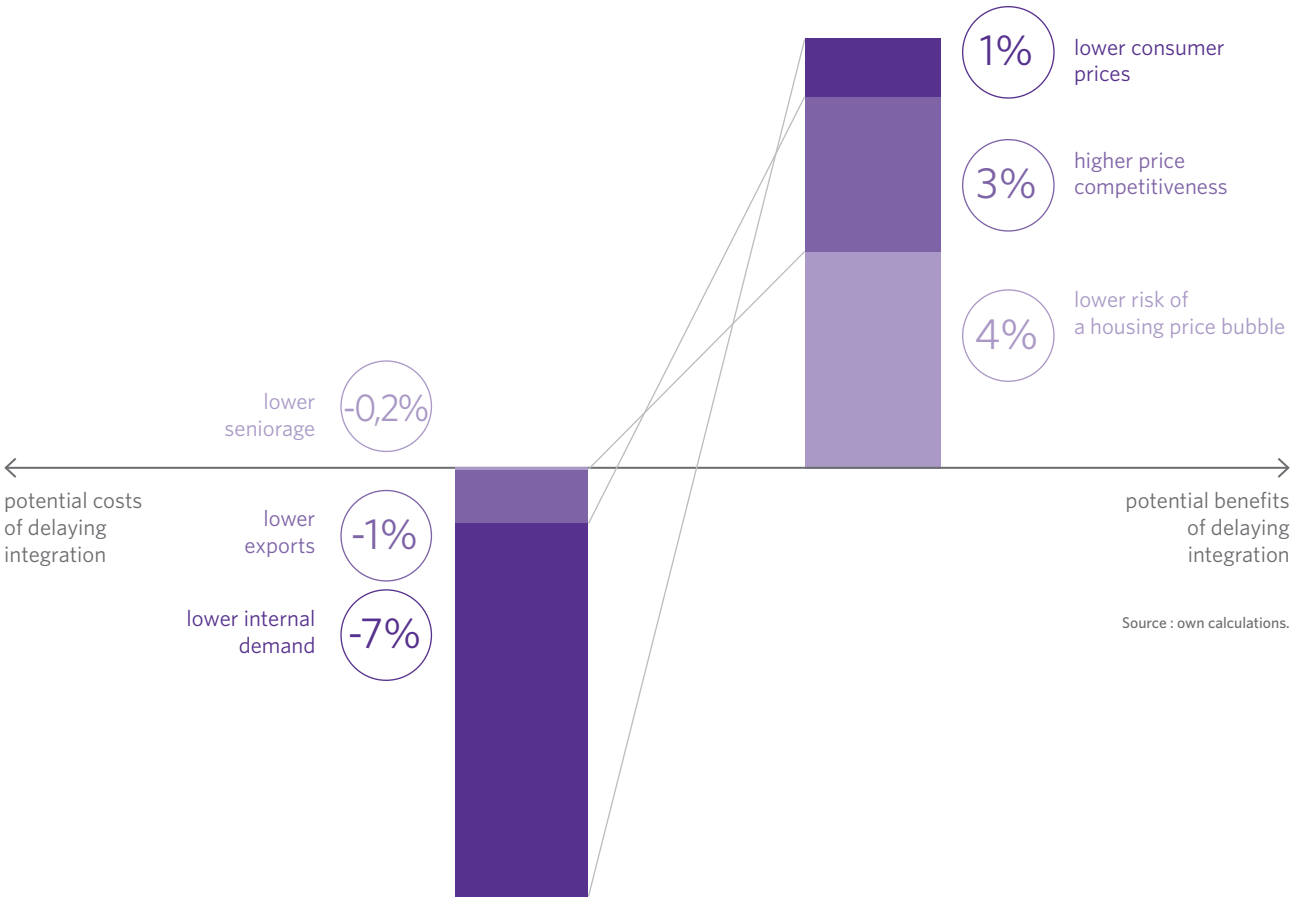
Summing up, the annual measurable net cost of delaying euro adoption by Poland will increase twofold over the next decade to 1.3 per cent of GDP in 2030. This finding is consistent with previous quantitative analyses, which similarly suggested that delaying monetary integration will lead to economic losses for Poland.

Balance of potential costs and benefits

The balance of potential costs and benefits is difficult to carry out due to difficulties in estimating the correct magnitude and probability of occurrence of the phenomena described in previous sections. In addition, what remains unknown is the scale of interdependencies between various probabilities, which additionally complicates the analysis. However, it should be emphasised that the balance is dependent in any case on the capabilities of the Polish administration to implement structural reforms benefiting the economy, the institutional transformation of the euro area, the EURPLN conversion rate and the responsibility of national fiscal policy implemented after the euro is adopted. As a result we can only compare the magnitude of the potential costs and benefits of delaying adopting the euro, assuming a scenario where these effects fully materialise. This is only the case in a hardly definable long term (and not until 2030 as we were able to do for the balance of measurable costs and benefits).

The potential costs of delaying monetary integration have been studied in detail (Pełnomocnik Rządu ds. Wprowadzenia Euro przez Rzeczpospolitą Polską, 2010). The most important of these is the potential increase in domestic demand, especially investment. Assuming the most optimistic of the scenarios outlined in section 2, lower interest rates and transaction costs resulting from euro adoption could boost domestic demand by as much as 7 per cent of GDP, to which an increase in investment outlays would have the highest contribution. A further 0.5 percentage point would arise from an increase in net exports – export itself would increase over the long-term by 5.6 per cent (under the assumption that the risk premium on Polish sovereign bonds would not drop significantly). Foregone profits of the ECB are a marginal cost of delaying integration. Assuming that Poland would receive an amount comparable to that from 2018, the cumulative loss of additional general government revenues until 2030 would equal 0.5 per cent of GDP. Summing up, the

BALANCE OF POTENTIAL COSTS AND BENEFITS OF DELAYING INTEGRATION



total potential costs of delaying monetary integration can reach even 7.8 per cent of GDP in the long term.

We estimate the total potential benefits of delaying the decision to adopt the euro at approx. 7.5 per cent of GDP. This means that they are at a marginally lower level than potential costs – most likely within measurement error. The benefits include predominantly the higher risk of a price bubble materialising on the real estate market if Poland joins the euro area prematurely. According to estimates of Cecchetti (2008) an overvaluation of real estate prices by 5 per cent can lead to as much as 4 per cent of GDP loss over the long term. It should be borne in mind, however, that these estimates are made in a scenario where the real estate prices are already overvalued, that is at the peak of the business cycle. On the other hand, the GDP loss can be even deeper, if the deviation of prices from trend after the euro adoption is significantly higher than 5 per cent (in Spain and Ireland it exceeded even 15 percent).

Equally difficult to estimate are the potential benefits of delaying the decision to adopt the euro arising from the Balassa-Samuelson effect. In our analysis we therefore assume as a benchmark the scale of deterioration of competitiveness in Spain measured as the increase in deficit in international trade of goods and services between 2001-2007, which equalled 2.8 per cent of GDP. Due to similarities between countries in terms of economic structure, institutional factors (Rapacki, 2015) and the comparability of the magnitude of the Balassa-Samuelson effect (Konopczak

and Welfe, 2017) it appears warranted to assume that the GDP loss due to lower competitiveness would materialise in Poland in a similar scale to the one in Spain.

However, the estimates provided above should serve only to show the relative importance of the respective phenomena, rather than as a precise prediction of actual consequences of euro adoption in Poland. Further qualitative studies are required which could allow for a more precise measurement of potential costs and benefits and their probability of occurance.

Finally, it is essential to bear in mind that the consequences of monetary integration for Poland depend largely on the institutional preparedness of Poland, the EURPLN conversion rate and the restrictiveness of fiscal policy in the first years of full EMU membership (Rapacki, 2015; Kolodko and Postula, 2018). It should be further pointed out that the magnitude of potential costs and benefits decreases with economic convergence, which means that the variation of possible scenarios of GDP changes after euro adoption will decrease in time. As a corollary the risks (and therefore costs) arising from a premature euro adoption will fall in the forthcoming decade.

Balance of non-measurable costs and benefits

The balance of non-measurable costs and benefits is subjective and depends predominantly on one's political preferences. Delaying the decision to adopt the euro means that Poland enjoys greater perceived independence in matters such as determining its institutional architecture and pursuing independent fiscal and social policy. If one considers that independent domestic monetary policy (independent of the ECB) ensures sufficient stability and security of the Polish capital market, the benefits of delaying the common currency accession will significantly outweigh its costs. This would be the case in particular for those who consider that joining the euro should be avoided in general, and that influence over EMU institutional set-up is irrelevant.

On the other hand, those who assume that the creation of the common currency area is indeed irreversible or at least that the EMU will not disintegrate in the foreseeable future, will point to the potential costs of delaying integration and will argue that decisions made within the euro area are already largely influencing the economic situation in Poland. From an economic point of view, the inability to access the euro area budget, of which Poland would undoubtedly be a net beneficiary (as is the case for the EU budget) is a cost which is relevant for both the eurosceptics and euroenthusiasts. Nonetheless, until the scale of possible fund transfers to Poland remains unknown, it is unlikely that this argument will determine the direction of the Polish public debate on the adoption of the euro.

BALANCE OF NON-MEASURABLE COSTS AND BENEFITS OF DELAYING THE EURO ADOPTION BY POLAND

Costs

Lower impact on political decisions regarding the European Union architecture

Higher political and social risks related to FX loans

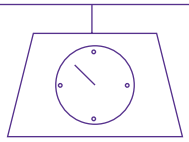
Greater susceptibility to speculative attacks and the effects of fiscal crises

No access to funds from the eurozone budget

Benefits

Greater independence of the country's economic policy

Greater resilience to possible euro area crises



Summary

Our cost-benefit analysis of Poland delaying its euro adoption does not provide a clear-cut answer to the questions of "whether" and "for how long" the government should refrain from pursuing further monetary integration with the common currency area. Although the balance of measurable costs and benefits indicates that adopting the euro in the near future would give an additional boost to economic development, the effect would most likely be small – within the GDP forecast error. Moreover, with delayed monetary integration, the measurable costs will fall in real terms. On the other hand, the benefits of monetary integration will grow in time, which also indicates that the delay will not be too expensive for Poland in measurable terms.

It is the balance of potential costs and benefits, however, which is key to finding the right timing for euro adoption by a country such as Poland. A premature and poorly prepared monetary integration can lead to large economic losses - significantly exceeding the measurable savings from the early adoption of the euro. Thus, adopting the euro in haste could hamper Poland's economic development for many years ahead, as was arguably the case with Greece. In turn, preceding euro adoption with a thorough institutional preparation, especially by reforming the functioning of the labour and financial markets, and ensuring that conversion is done at a relatively weak EURPLN conversion rate and is accompanied by a responsible, non-populist fiscal policy (i.e. maintaining budgetary discipline even in times of prosperity), would ensure that EMU membership is an additional growth stimulus for Poland in the coming decades, just as was the case of Ireland.

Finally, it should be noted that the balance of costs and benefits of delaying the adoption of the euro also depends on the public opinion factors, namely on the subjective ex ante assessment of the likelihood of positive and negative consequences materialising. Currently the majority of public opinion in Poland are against adopting the common currency. This can be explained by the fact that after the global financial crisis and the concomitant fiscal crisis in some eurozone countries, the subjectively perceived risks associated with the common currency (i.a. price bubbles, loss of competitiveness, inflation) are so high, that in the public perception the benefits from delaying euro adoption outweigh the costs. What is more, most politicians do not engage with the debate on EMU membership in Poland as they see no interest in joining the euro zone and convincing the public opinion to do so, because they are afraid of limiting their own policy-setting independence.

Finally, the ongoing reform of the euro area will impact the balance of potential costs and benefits in any case. Emerging EMU institutions and new risk-sharing mechanisms, although they cannot fully replace national institutional preparedness, create a new framework for economic governance and crisis management. A growing non-measurable cost of delaying the adoption of the single currency is, therefore, the limited impact on the shape of the future EMU architecture, including whether, and to what extent, it will ultimately be conducive to the growth of Eurozone as a whole, including economies such as Poland.

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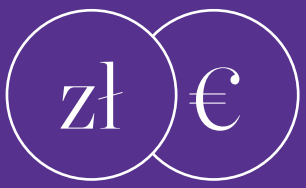
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