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Overcoming the consequences of financial crisis on the example of Island and Ireland

Abstract

Will Ireland share the fate of Iceland? Is this open, small economy with a debt-to-GDP ratio of above 130% on the verge of bankruptcy? Economists argue that if public debt is greater than national income, then smaller economies, heavily involved in the international division of labor are at risk of becoming insolvent.

The bankruptcy of Ireland, whose prosperity is based on its reputation for being a good place to do business, could be a catastrophe. Contrary to the countries of southern Europe, the economy of the Green Island has never had problems with paying its liabilities and with solvency. While Greece has gone bankrupt five times since gaining independence in 1826 and Spain as many as thirteen in the past two centuries, Ireland's history in this area is impeccable (Reinhard, Rogoff, 2009, p. 3-6).

Since the beginning of the 21st century Ireland's economic development has been based mainly on construction industry and not exports, as it used to be in the 1990s when the country was nicknamed the Celtic Tiger. The boom resulted in a budget surplus and a positive balance in current settlements. But it also resulted in higher prices - the Irish no longer had to accept slow wage growth to stay internationally competitive - which, combined with the low nominal interest rate of the European Central Bank, provided fertile ground for the build-up of the real estate bubble.

The aim of the article is to identify the factors that led Ireland to the brink of bankruptcy and to try to answer the question whether the action of recapitalization of failing banks by the government and international financial institutions will bring the expected results in the form of healing the financial system and returning Green Island to the path of economic growth.

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1. A road to nowhere ...

"Crises rarely paralyze a completely healthy economy, in general the economic collapse is due to fundamental systemic weaknesses and flaws" (Roubini, Mihm, 2011, p.144).

The views of economists on the causes of crises and the actions to be taken when they occur are divergent, often contradictory. Both liberals (J. S. Mill, C. Menger, L. von Mises, F. Hayek) and advocates of state intervention agree that sudden economic downturns are caused by huge asset and credit bubbles. However, there is no consensus on the source of these instabilities. Some argue that it is the fault of the institutions that create capitalism, and others that the interference of the state in the economy is the obstacle to the efficient functioning of markets. Regardless of the causes, the effect is the same - there is a crash causing shock in all spheres of economic life.

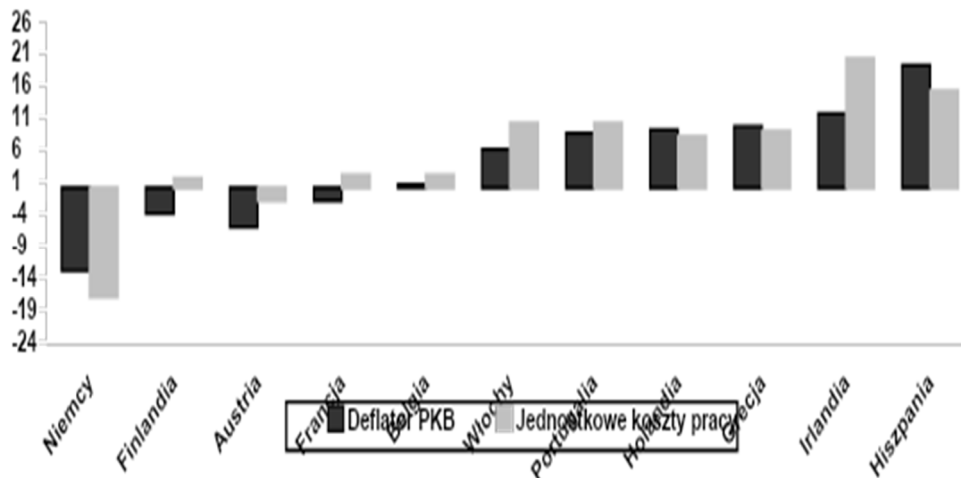
The dynamic development of the real estate industry and related markets can be linked to the adoption of the common European currency by Ireland. Monetary integration - a process that was to constitute the basis for economic security and macroeconomic stability of its participants turned out to be the beginning of problems for the economy of the Green Island. The country, as a member of the euro area, was among the top economic leaders, generating budget surpluses and occupying leading positions in prestigious rankings in the field of competitiveness, innovation and ease of running business.

However, there was an allegation that the level of inflation exceeding the reference values puts this economy in a privileged position in the context of development opportunities, due to it generating negative real interest rates (Under the conditions of monetary integration, this allegation has a much broader dimension, as a higher inflation rate at a given ECB reference rate may lead to conflicts between the members of the EMU against the background of unequal benefits obtained from participation in the common currency area in the context of disproportionate costs associated with maintaining a low level of prices). The reason for the relatively high inflation could be, on the one hand, the dynamic development of the real estate market, which resulted in the transfer of labor to the non-tradable segment, favoring the rise in prices in this sector and on the other - the high degree of openness of the Irish economy, which

by intensifying competition and increasing pressure labor productivity growth has an impact on the price level in the tradeables sector (Kalinowska, 2011, p. 93).

To compare the competitiveness of the countries that constitute the common currency area, one needs to compare the level of the real, effective exchange rate (Effective means based on a currency basket, and real - adjusted to inflation).

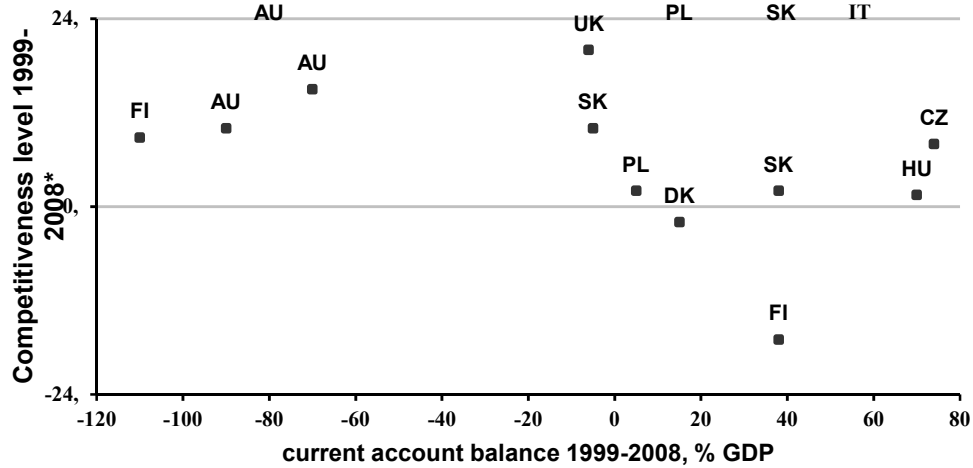
Figure 1. Competitiveness of the euro area economies in 1998-2008.



Source: Data quoted from UniCredit (2010).

Figure 1 shows that the main reason for the loss of Irish competitiveness in the analyzed period was not the change in the prices of all goods that make up the GDP (GDP deflator) but the increase in unit labor costs. Another very important conclusion drawn from the data analysis concerns the significant disproportions in the levels of inflation among the members of the EMU, which precludes the effectiveness of the single monetary policy implemented by the European Central Bank.

Figure 2. The relationship between the current account balance and the level of competitiveness in the EMU countries in 1999-2008.



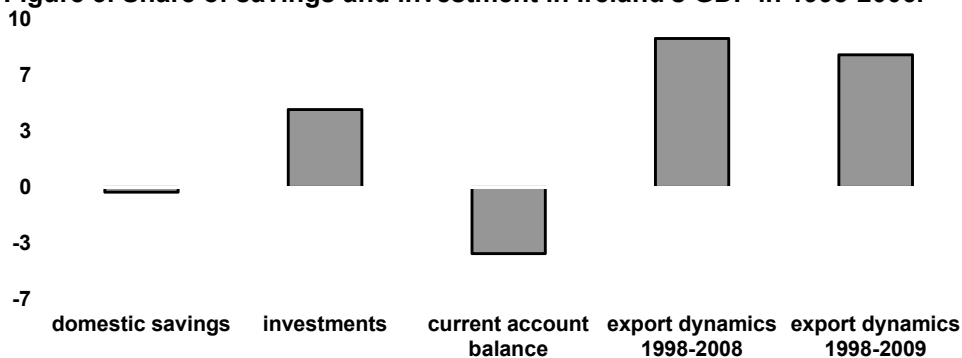
* Measured as change in unit labor costs.

Source: EC (2009), UniCredit (2010).

The analysis of the data in Figure 2 shows that countries that have problems with a structural deficit in the current account balance have lost the most in the competitiveness of their economies. In the group of countries whose price competitiveness deteriorated significantly, only the Netherlands managed to maintain a surplus in the current settlements, and Ireland recorded the highest export dynamics in the EMU. This means that what has been responsible for the deficit in this country's current account are capital flows, mainly from Germany and Great Britain.

The current account balance is a reflection of the difference between domestic savings and domestic investments.

Figure 3. Share of savings and investment in Ireland's GDP in 1998-2006.



Source: as above

A low savings rate and a high investment rate mean that the current account balance is moving towards negative values. This means that the property boom in Ireland was financed by savings made by other countries. In order to meet the demand for mortgage loans Irish banks massively borrowed (mainly short-term) from other banks in the euro area. It is estimated that between 2003 and 2008 the foreign debt of Irish banks increased from 10 to 60% of GDP.

The collapse of Lehman Brothers meant an almost complete disappearance of speculative demand, and banks drastically limited lending due to liquidity difficulties on the interbank market. To restore stability to the financial system in September 2008 Ireland had to raise the guarantee limit and insure deposits with a value of up to EUR 100,000, and then it provided unlimited guarantees on all deposits made in the six largest banks. The situation was temporarily improved, but in order to keep the word, in December 2008 the state recapitalized the banks. In January 2009, the government took control of Anglo Irish Bank, fully covering from the budget its systematically accumulating losses.

The Irish government allocated the equivalent of 4% of GDP for capital injections to capital institutions, which affected the condition of public finances. This coincided with a collapse of budget revenues, and the recession triggered an increase in social spending. In 2008, after many years of budget surpluses, the share of the budget deficit in GDP exceeded 7%, a year later it increased to around 12.5% and currently it is higher than 30%. The relatively low public debt began to increase dramatically - it is forecasted to exceed 155 billion euro in 2011, i.e., 100,000 euro per each household (www.ft.com).

2. Moral hazard

The level of public debt in period t depends on nominal economic growth, budget balance and on the level and average nominal interest rate of debt in period $t-1$ (IMF 2010).

$$\text{Dept.} = \beta_1 + \beta_2 X_1 + \beta_3 X_2 + \beta_4 X_3 + \beta X_4 + \varepsilon$$

D P_t - public debt in period t ;

β_1 - equation constant;

X_1 - average nominal interest rate of the debt held in the period $t-1$;

X_2 - nominal GDP growth;

X_3 - the difference between budget revenues and expenditures;

X_4 - public debt level in period $t-1$

ε - random fluctuation;

The aim of the study is to estimate the significance level of factors that determine the amount of public debt in Ireland in the years 2000-2011. The adopted time frame correlates with the adoption of the single currency by this country, which lowered the cost of raising capital and provided a fertile ground for inflating the speculative bubble on the real estate market.

The study used annual statistical data published by the European Central Bank, Eurostat the International Monetary Fund.

The methodology used in the first stage of the study concerned the estimation of the multiple regression equation. Using the classical method of least squares, the regression function was estimated:

$$DPt = -1.43 - 0.92X3 + 0.97X4$$

All the necessary calculations were made using the GRETL software and are presented in table 1:

Table 1. Classical least squares method estimation, observations used 2001-2011 (N = 10), dependent variable: public debt.

	factor	standard error	t-Student	value p
const	-1,46380	5,32249	-0,2750	0,7895
X3	-0,920971	0,197279	-4,668	0,0012 ***
X4	0,969161	0,156532	6,191	0,0002 ***

*** Variable significant at the 1% significance level.

Source: Own compilation based on GRETL.

The basic statistics for the analyzed data are presented below:

Arithmetic mean of the dependent variable - 32.62392

Standard deviation of the dependent variable - 28.55 174

Residual sum of squares - 975.3650

Residual standard error - 10.41028

Coefficient of determination R-squared - 0.891230

Corrected R-square - 0.867059

Log-likelihood - -43.41469

Akaike's Information Criterion - 92.82939

Schwarz's Bayesian criterion - 94.28411

Crit. Hannan-Quinn - 92.29080

First order residual autocorrelation - -0.677606

Durbin-Watson test statistics - -2.629486

The assessment of the diagnostic usefulness of the estimated function was conducted on the basis of analysis of the coefficient of determination R^2 and the adjusted coefficient of determination R^2 . The statistical significance of individual parameters of the equation was determined using the Student's t-test at the significance level $\alpha = 0.05$.

The relatively high level of the coefficient of determination proves that the model was well adjusted to empirical data. Independent variables explained the dynamics of GDP in the analyzed period in almost 90%.

To make sure that the assumptions of classical least squares method estimation are met after the model estimation, the following statistical tests were additionally carried out:

1. Normality of the random component distribution - Doornik-Hansen test

p value: 0.02659

p value > assumed significance level, therefore there are no grounds to reject the hypothesis of the normal distribution of the random component.

2. Multicollinearity testing (VIF test)

X3 - 1.037

X4 - 1.037

If $VIF > 10$, the variable should be treated as an important causative factor of multicollinearity.

In the analyzed model, there is no occurrence of any confounding multicollinearity between the distinguished explanatory variable and other explanatory variables.

3. Detection of autocorrelation - Durbin-Watson test for autocorrelation of the order of 1

The value of the D-W statistics for the model is approximately 3.1192.

With the number of observations $n = 12$ and the model variables $k = 3$, the critical values of dL and dU take the values of 0.6577 and 1.8640 respectively. Therefore, at the adopted significance level $D-W > dU$, there are no grounds for rejecting the null hypothesis (no positive autocorrelation of random component disturbances).

4. Heteroscedasticity of the random component - White's test

The value of the White's statistic is approximately 11,018.

The critical value of chi square at 5 degrees of freedom is approximately 11.0705. Due to the fact that the value of the White statistic is lower than the critical value, there are no grounds to reject the null hypothesis and it should be assumed that the random component is homoscedastic.

5. Testing the ARCH effect in a residual process

The test results indicate that the ARCH effect did not occur in the examined residual process, because the critical value of chi square at 1 degree of freedom is approx. 3.84146 and is higher than the value of the LM test statistic (approx. 2.05405).

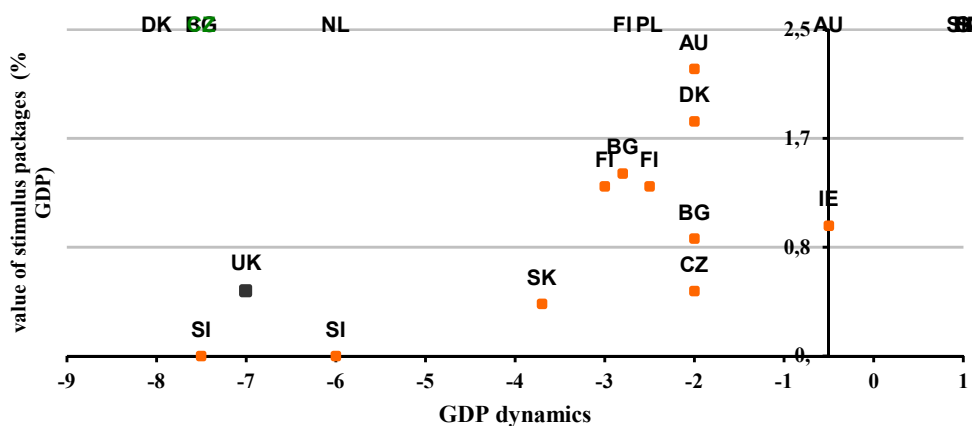
6. Conclusions:

- Irish public debt in the analyzed period depended on the level of the budget deficit and the amount of debt in the period $t-1$;
- the level of public debt was not affected by the production dynamics and the interest rate on Irish bonds;

- in 1999-2007, the macroeconomic conditions for Ireland's debt were very favorable: the dynamics of GDP growth was higher than the nominal interest rate on treasury securities, and the budget balance was positive;

Ireland was plunged by an undisciplined and over-leveraged banking sector that was the origin of the boom in corporate loans and the property price bubble. The main reason for the over thirty percent share of the budget deficit in GDP were costs related to recapitalization of banks at risk of bankruptcy, and not stimulus packages aimed at limiting the effects of the crisis.

Figure 4. The value of stimulus packages and the economic collapse in selected EU countries in 2009



Source: Prepared on the basis of: European Commission, Public Finances in EMU-2009, p. 68.

The data in Figure 4 shows that Ireland was the country in which the value of the recovery package was one of the lowest, especially if one takes into account the scale of the decline in production dynamics. In contrast to many European governments, Dublin could not afford to stimulate the economy with fiscal stimulus. Not being able to count on currency correction, Ireland cut unit labor costs in the manufacturing sector by over 20% since 2008, which had a comparable impact on competitiveness to a 20% depreciation of the currency.

It is worth recalling that the creation of foundations for the development of the Irish economy was based on the doctrine of the free market and had little to do with state intervention. Hence the question: is the large-scale action to recapitalize financial institutions the result of political decisions at European level? Is 85 billion euro under the three-year EU-IMF aid plan

not a relief for foreign investors who misjudged their exposure to Irish systemic risk?

The campaign to recapitalize and rescue the banking sector cost the Irish government nearly 50 billion euro (www.ft.com), i.e., more than 1/3 of the national income in 2009 and nearly 1/3 of the value of net public debt of 2011. If the costs of supporting banks were not taken into account, the budget deficit today would amount to less than 12% in relation to GDP (www.ft.com).

If Ireland allowed its banks to go bankrupt and distanced itself from the EU and IMF bailout, depositors and foreign creditors would suffer losses, but an unprecedented level of budget deficits and public debt would be avoided. In real terms, the rescue plan of the EU and the IMF has little to do with the repair of Irish public finances: EU decision-makers decided to lend money to the government in Dublin that wanted to cover the liabilities made to German and English banks and those in their own country.

Recapitalization of banks - without forcing any consequences of engaging in excessively risky transactions - certainly does not reduce the moral hazard in the future. This means that the government as the lender of last resort for all financial (and non-financial) institutions: both those that lost liquidity due to the freezing of the interbank market as well as those that became insolvent as a result of excessive risk-taking, encourages further speculative bubbles and banking crises.

The new regulations of the financial system, which are created in response to the recent crisis, are to be more thoughtful and tighter, especially with regard to securitization. It is worth wondering as to why they should be more effective than the existing ones. Perhaps the only regulation that should be imposed on financial institutions would prohibit governments from recapitalizing failing banks? Their lack of responsibility is the cause of the recent economic downturn - in order to prevent such crises in the future, this cause must be eliminated.

The collapse of insolvent banks, even the large ones, may not only not harm the economy but help it, because it will strengthen and heal the banking system. Ultimately, it is a much cheaper solution than government support: should taxpayers lower their standard of living by 20 years to pay off the mistakes of a small, elite group (Stiglitz 2009)? The costs of saving banks from the 1990s are borne by Japan to this day. Functioning only thanks to state subsidies, zombie banks suck in cash, accumulating it in safes, thus limiting lending and, consequently, economic growth. On the other side there is the example of Iceland that 3 years ago, having no resources to guarantee the liabilities of its banks, allowed them to collapse, and today is on the path of economic growth, with a relatively low level of unemployment and the condition of public finances that many EU countries can only dream of.

Conclusion

Since the beginning of the 21st century, Ireland's economic development has been based mainly on construction and not exports, as it used to be in the 1990s when the country was nicknamed the Celtic Tiger. In the long term this growth model proved to be unstable. When the price bubble in the real estate market burst, the government in Dublin decided to rescue the bankruptcy threatened banking sector. About 4% of Irish GDP was allocated to support financial institutions, which had a drastic impact on the condition of public finances.

In 2009, it was joked that the difference between Ireland and Iceland was only one letter and six months between the moment of their bankruptcy. Before the crisis, both countries were characterized by similar GDP dynamics. Both economies have been destroyed by an undisciplined and over-leveraged banking sector. Economists say the reason Iceland emerges faster than Ireland is because, on the one hand, it has let its banks collapse and, on the other, it has devalued the krona (It is estimated that the Icelandic krona has lost around 30% against the dollar since September 2008). According to the estimates of the European Commission, the pace of economic growth in 2011 in both countries is to be similar. However, this does not translate into the degree of involvement of the labor factor: the unemployment rate in Iceland will be 8%, while in Ireland it will be over 13.5%. The largest disproportions are reflected by the state of public finances: the ratio of the budget deficit to GDP in Iceland will be just over 6%, and in Ireland around 32%, the corresponding values of public debt are 80% and 120%. It is worth noting that in Iceland the Scandinavian model of social policy has not been abandoned.

Were it not for the political pressure that prompted the government in Dublin to accept aid from the EU and the IMF, the path to stable economic growth and consolidation of public finances would undoubtedly be shorter and less costly. The more so as the financial turmoil in this country was accompanied by solid economic foundations and two key advantages that constituted this country's advantage over others: a qualified workforce and business-friendly regulatory and tax conditions. Moreover, the fiscal policy pursued before the crisis gave a lot of room for a counter-cyclical economic policy: in 2007, public debt was 25% in relation to GDP, and the budget was balanced.

Currently, Ireland is trying to return to the growth model of the 1990s. The success of this return depends on the global prosperity and the economic condition of trading partners. In the face of the second wave of the crisis, achieving this goal may turn out to be difficult and time-consuming.

References:

1. Economic Crisis in Europe: Causes, Consequences and Responses, European Commission 2009.
2. European Commission, Public Finances in EMU-2009
3. IMF 2010
4. Kalinowska K. (2011), *Irlandia – porażka doktryny liberalnej?*, E. Kwiatkowski, . Kucharski (red.), *Wzrost gospodarczy – rynek pracy – polityka państwa*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź
5. Kwiatkowski E., Kucharski L. (2011), *Wzrost gospodarczy – rynek pracy – polityka państwa*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
6. Public Finances in EMU - 2009, European Commission 2009.
7. Reinhard C., Rogoff K. (2009), *This Time It's Different: Eight Centuries of Financial Folly*, Harvard University.
8. Roubini N., Mim S. (2011)., *Ekonomia kryzysu*, Wolters Kluwer Polska Sp. z o.o., Warsaw.
9. Stiglitz E. (2009), *Selected Works of Joseph E. Stiglitz: Volume I: Information and Economic Analysis*, Oxford University Press,.
10. www.ft.com

