



CHALLENGES AND ECONOMIC ADJUSTMENT POLICIES IN THE EU

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ABSTRACT

The following article focuses on the uncertainties and economic adjustment policies in the EU. The author explores the balance between uncertainty and speed of economic adjustment policies as well as practical factors that influence political stability in the EU. Certain factors, such as unemployment, the level of tax, growth in incomes and inflation are examined as being essential for the provision of economic stability within the EU. Special attention is paid to the ongoing sanctions introduced against Russia due to its aggression in Ukraine, which can be labelled as “economic war”. It is argued that the ensued refugee crisis may also largely affect economic stability of the EU countries as well as the whole architecture of European security. Moreover, Russia’s behavior in the EU neighborhood has manifested that political stability is of crucial importance for the economy of the EU members since instability in a neighboring country, for example in Ukraine is apt to provoke repercussions for the EU as a whole. It is stated that the effective economic development and political stability, being the main objectives of the European Union, can be achieved only if the EU politicians thoroughly consider the factors hindering the development of EU member states in terms of legislation, security policy, welfare and economic determinants.

Keywords: European Union, International Monetary Fund, Least Developed Countries.

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INTRODUCTION

In Europe, the political behaviour of well-organized societies has an impact on the well-being of the whole region, which is why it is necessary for authoritative bodies, like the European Council, to impose certain rules and obligations in social, economic, political, legal and security spheres on each EU member country. Although political behaviour in European countries is primarily formed in response to the socio-economic and political issues particular to each given country, positive political behaviour in the whole European Union can be achieved only if the collective efforts of all national governments are applied. The recent financial and



economic crisis affecting all EU Member States has proved that the issue of political stabilization as the key condition of EU integration is very topical, with most EU Member States showing readiness to compromise and implement more effective economic adjustment measures in their countries to provide for overall political stability in the European region.

On the other hand, political stability is not only ensured by adequate policies and reforms in the political or social sphere, the economic factors (such as, unemployment, fiscal policy, growth in incomes and inflation) are equally important.

Political stabilization is a long-term commitment to the specific region both in terms of political effort, financial and human resources. The centerpiece of the stabilization process is the conclusion of the agreement which represents a far-reaching contractual relationship between the politicians and society. Such “agreement” can have high political value since it is based on the gradual implementation of reforms designed to achieve the aim of moving closer to the high social standards (Abuseridze, 2020). Given this context, it is essential to clarify which are the economic factors that tend to influence stability in the European Union. To this end, the authors will analyze economic adjustment policies and other principal issues.

Balance between Uncertainty and Speed of Economic Adjustment Policies

All economic policies are undertaken in an environment of uncertainty. Hence, the balance-of-payments stabilization programs appear to involve relatively serious risks. For instance, the typical LDC (the Least Developed Countries) economy is vulnerable to many different shocks: weather affects the production of crops or food export, or unforeseeable variations in the international terms of trade can be quite violent. Other international factors can also be important: for example, the floating interest rate that determines debt service on much of previously contracted debt which may rise unexpectedly. A recession or change in immigration policy abroad can also upset the calculations of labour-exporting countries (Bienen & Gersovitz, 1985).

On the one hand, there are analysts who believe that rapid action will be economically successful. If the credibility of the authorities’ commitment to reform is not established quickly, individuals and firms may hesitate to respond by, for instance, increasing exports.

They will fear that promises may not be kept or that partially implemented policies may even be reversed, thereby rendering their actions unprofitable. Furthermore, some policies must be implemented without warning in order to avoid costly speculation. If a large devaluation is anticipated, attempts to shift out the domestic currency will result either in a large loss of foreign-exchange reserves or in the need to impose extensive restrictions.

On the other hand, the need to act in an uncertain environment with imperfect knowledge about economic structure suggests the desirability of proceeding slowly, in case if the availability of foreign exchange and other constraints make this strategy possible. An important point is that by providing loans during the adjustment process, the IMF programs lessen economic risks. From the economic point of view, there are important arguments for rapid implementation, especially with regard to devaluation.



The case for quick adjustment is the strongest when the information about the structure of the economy is reliable and wage and price rigidities are not important. However, primarily political considerations are also relevant to decisions about the speed of adjustment.

The early success or failure of policies implemented after agreements by the IMF itself affects stability or instability. Thus, many factors affect stability within countries. Some of these factors are external to a country's internal politics: the weather, for example, or changes in the price of commodities. Usually, external factors interact in complicated ways with domestic social and political structures to produce shifts in power relationships between groups. To conclude, it is important to highlight the role of political choice in producing the resource course, underscoring the importance of what might be called structured contingency in mediating the relationship between resources and political and economic outcomes.

Economic Factors Contributing to Political Stability

Political stability based on the sound economic development of its Member States is regarded to be the main goal of the European Union (Parton, 2011). The EU appears to be an ideal arena for an experiment in how organizations facilitate cooperation across diverse, self-interested, and competing rational actors. When nation-states accede to regional organizations, they aim to extract particular political and economic benefits through regional cooperation with their neighbors. However, in order to support their own aims of extracting benefits from a regional organization, it is essential to secure collective support for the mechanisms that enable regional organizations to effectively create the desired conditions. At the minimal level, regional organizations should be governed by the established norms and rules underlying the interactions between nation-states, in order to enhance predictability, trust, and cooperation.

As according to Heyneman, when regional organizations wish to govern the relations between the governments of nation-states, they influence regional cooperation through “the acceptance of institutional rules that pertain across organizations within the same category of purpose” (Heyneman & Brent, 2011).

This enables cooperation through the adherence to accepted institutional rules that engender trust among national actors, and regional organizations thereby have the ability to effectively contribute to social cohesion in a region. In turn, a region marked by high levels of social cohesion both within and across member states is likely to experience better developmental possibilities that accompany political stability and sound economic relationships with neighbors.

According to the author political stability is largely influenced by a number of economic factors:

1. Unemployment

High unemployment threatens social stability in any nation. In fragile countries, which are too weakened by violent conflict to guarantee citizens the rule of law, security and welfare, unemployment aggravates all other problems (Schultze, 2011). The proportion of individuals who have continuously been unemployed for a long period of time (12 months and longer) attracts particular attention from labor market policy makers and



researchers in all countries and political blocks, including the EU. Recent research has shown that gender, age, marital status, region, previous work experience and, to lesser extent, education are the main predictors of long-term unemployment (Alhawarin & Kreishan, 2010). The issue of political stability becomes even more problematic in countries with high unemployment rate where a large number of young people are unemployed (Schultze, 2011).

European countries, in particular, have long been discussing the need to reform and reduce government's labor market regulation. However, while rationale for government intervention in the labor market is linked to the need to correct market imperfections, it is still not clear why government regulation in the labor market is so pervasive and why reforms are so difficult to implement. In particular, these authors argue that because labor market policies require time to be designed and implemented, weak and unstable government (i.e. the one without the political power to sustain the reform process and unsure to be in office in the next period) will find it optimal to limit policy discretion of future governments by regulating the labor market. They have developed a model in which government intervention in the labor market (i.e. its policy stance) is linked to the structure of the political process and its stability (i.e. ability to be re-elected), and in this model political instability is the main driver of government labor market policy stance. Importantly, these authors have proven that in countries where the political process is less stable and more fragmented, there is stronger government intervention in the labor market and unemployment is, on average, higher (Lucifora, C., and Moriconi, S., 2008).

Unemployment has always been at the centre of the socio-economic policy in the EU because it is one of the most disturbing problems hindering the labor market and the macroeconomic performance and the individual well-being, which altogether influences the level of political stability in the region. It is obvious that an increasing level of unemployment aggravates inequality, poverty and crime issues that always undermine political stability (Hooghe et al., 2011). According to Eurostat, in 2021, Euro area unemployment rate was estimated 7,2%, while unemployment rate in all 27 EU Member States reached 9.5% (Eurostat, 2021). However, Lagana highlights that, alongside the risk of unemployment, the EU labour market is highly susceptible to the entrapment of its increasingly mobile workforce in unskilled occupations (Lagana, 2011). In addition, recent research findings show that the penalization of immigrants is lower in countries where the quality of labour demand is poorer, unemployment benefits are less generous, the employment protection legislation is stricter and the proportion of refugees is lower (Fullin, 2011).

Therefore, taking into consideration that EU immigrants come from various countries (both inside and outside the Union), it is essential to provide for better incorporation of immigrants in the EU labor market because political stability in the region requires that the level of unemployment be moderate.

2. The Level of Tax (Fiscal Policy)



The use of discretionary fiscal policy as a counter-cyclical tool has declined in popularity over the last 30 years (Wren-L, Steven, 2000). Both a small calibrated model and a larger econometric model suggest that the intertemporal consumer should smooth away most of the impact of temporary tax changes, even when additional discounting and credit constraints are allowed. However, this analysis suggests a more powerful role for other forms of fiscal policy, such as government objections to the use of discretionary fiscal stabilization policy, as well as makes a tentative suggestion as to how these might be overcome.

A fiscal policy refers to the choice of tax rates, and of the level and composition of government spending, whereas a tax reform relates to the broad design of a tax system that determines the available tax bases and the technology for collecting taxes (Cukierman, 1998). A tax reform that changes the tax system will, typically take time and resources, since it requires investment in the acquisition of information and in infrastructure. Meanwhile, a fiscal policy, on the other hand, can be implemented more swiftly (Rogers, 1998). Thus, at any given moment in time, the existing tax system acts as a constraint on the fiscal policy of the current government. This suggests that tax reforms should also be determined by strategic considerations: a tax system is designed by taking into account how it will constrain the fiscal policies of future governments (Hinrichs, 1996).

Tax reforms are also determined by strategic considerations: a tax system is designed by taking into account how it will constrain the fiscal policies of future governments. The central idea of this section is that, if there is political instability and political polarization, these strategic considerations may induce the current government to leave an inefficient tax system to its successors. The author suggests that the interdependence of a fiscal policy and of the level of political stability could be expressed by the following assumption: the higher the level of tax - the lower the interest of investors - the higher unemployment - the higher political unrest among society - the lower political stability.

3. Growth in Incomes

To begin with, it is worth mentioning that the question of the effect of income and the income distribution on the political system is complicated by the two-way character of the causal path. This is the so-called “path” connects incomes with politics. If, for example, there is great inequality of income in a democracy, the median voter will have an increased incentive to support heavily progressive taxes. It will be so since the opportunities for redistribution from the wealthy to the non-wealthy will be great. The more equal the distribution of income is, the less the median voter will have to gain from such taxes because the less income the wealthy will have to be taxed away. There is some evidence, that incomes are more equal in democratic than in non-democratic nations (where “democracy” is defined not just formally, but in terms of actual behavior such as voter turnout) as a result of the political system.



It should be admitted that successful democracies are widely held to be liberal states (Posner, 1997). It is so because pure, direct, plebiscitary democracy, democracy with no legal or institutional checks on majority rule, is bound to unraveling into dictatorship. For instance, John Stuart Mill considered the modern welfare state to be more democratic and less liberal, in other words, optimal. Such a kind of state typically allows for considerable occupational freedom and almost completes personal freedom. It also implies recognition and protection of property rights, although less than laissez-faire liberals would like. The net effect of these liberties on the income distribution cannot be predicted but they certainly complicate democratic efforts to bring about equality of incomes through taxation and other forced measures.

According to Kuznets, economic development involves a shift of labor from a traditional agricultural sector to a modern industrial sector. Higher productivity in the modern sector allows employers to attract workers from the traditional sector by offering higher wages (Posner, 1997). A less equal distribution of income is likely to be the result of such shortsighted actions on the part of employers. Inequality will decline and more effective redistribution of income from rich to poor will take place after the low-wage traditional sector shrinks and democratic institutions are founded. In this case, domestic political instability will display the following features (Campos & Gassebner, 2011):

Domestic political instability will be the main cause of international terrorism because terrorism is more likely to stem from politically unstable countries.

Severe political instability (for example, civil wars) allows terrorists to acquire specific skills that would be difficult to acquire under less drastic forms of domestic political instability (such as antigovernment demonstrations).

After 1989, domestic political instability tends not to decrease over time.

Finally, if the severity of terror attacks is likely to increase over time even if the number of attacks does not change.

It has to be pointed out that political stability largely depends on economic aspects. Therefore, trade is an important indicator for both political and economic stability. When trade decreases, it does not only imply that there is a lack of production but also shows that there is a lack of political stability. Trade can also be seen as an indicator of how effectively a state deals with its neighbors (Goldsmith, 1987).

The effects of political instability on economic growth are measured with variables which have been established in the theoretical literature mentioned in this paper. Among those are ethnic and religious diversities in countries. A society which is separated into ethnic or religious groups is unsteady, and this imbalance and instability is often caused by both ethnic and religious discrepancies. However, taking into account the long-term co-existence of different ethnic groups in European states, it can be stated that Western Europe manages to provide for political stability regardless of the ethnic and religious diversity of its population, which, yet, can be attributed to the relatively high economic development of Western European countries.



4. Inflation

Based on the results of their analysis of the interrelationship of inflation and political stability, Aisen and Veiga prove that political instability leads to higher inflation, while higher degrees of economic freedom and democracy are associated with lower inflation (Aisen, Veiga, Francisco, 2005). It has been established that institutions such as economic freedom and democracy are important determinants of inflation. In addition, it has been proven that the impact of political instability on inflation is much stronger for high-inflation than for moderate- and low-inflation countries, and it is also higher for developing countries than for industrial countries.

Indeed, political stability and economic stability, achieved by the strict control over inflation, have always reinforced each other. High inflation can have deep undesired social and political consequences. In fact, severe inflation can be more disruptive than a recession because it literally destroys people's earnings and savings, which, in turn, can result in drastic political dramas (e.g. coups, suspension of democracy or overthrow of power) (Zakaria, 2009). That is why central banks undertake any possible measures to suppress hyperinflation: political stability in a region can be ensured only if economic processes follow positive scenarios.

As it can be seen, economic growth, based on moderate level of unemployment, adequate fiscal policy, controlled inflation and increasing growth of incomes, is one of the most important conditions that facilitate political stability. It has to be added that, in accordance with the neoclassical growth model, the growth rate tends to be negatively related to the absolute level of per capita GDP, owing to diminishing returns to capital (Solow, 1956). Numerous empirical findings have found support for this argument. In this study, the real GDP per capita in 1960 is used as an indicator of initial economic development, which is expected to have a negative effect on growth. Yet, it is also human capital accumulation that is regarded as another important factor for economic growth by some scholars (Trostel, 2000).

5. Russian factor as the source of economic war and refugee crisis

Russia's invasion of Ukraine has shaken up the world, and EU most importantly. This war will fundamentally transform security system in Europe and beyond. European Union and the United States have launched an "economic war" against Russia, that have effectively cut off the country from international financial markets. However, the sanctions are hurting a vast number of countries, which rely heavily on wheat, natural gas and other goods from the parties at war. Many of the effects, including higher gas, electricity and food prices, have either already set in or could hit soon. Undoubtedly, this will have its due effect on political as well as economic stability of the countries, and for the most part on the EU space. The scope of instability is yet to come.

However, the EU countries are already making huge steps to completely diversify their import and export markets and upgrade the renewable energy technologies.



Concurrently, this war has produced a huge amount of displaced Ukrainians who have fled mainly in the EU countries. Despite the openness of different countries, it will be quite difficult for Europe to accept such a large number of migrants in the short term.

According to the authors, countries that host the displaced people for protracted periods may experience long-term economic, social, environmental, and political and security impacts. The economic impacts of their presence may include uncompensated public expenditure, burden on the economic infrastructure, etc.

While the impacts of the presence of the displaced persons on neighbouring countries are complex and context-specific, they may also be positive, like stimulated local economies through increasing the size of local markets, reduction of commodity prices, new skilled work-force, etc. The positive contributions that the numbers of the displaced people can make to the economy of host countries should be viewed in terms of winners and losers among both “guests” and host populations.

Another group relocating to other countries, including to Europe, may be the Russian citizens fleeing Russia either in protest of the Russian aggressive policy or just to evade worsened lifestyle in the sanctioned Russia. It is crucial, that the host countries stay on the alert to identify the saboteurs trying to infiltrate into the country.

The authors believe that with the good coordination, it will be possible to minimize the risks, stop the slowdown of economic growth and thus secure stability both political and economic.

CONCLUSION

Based on the above analysis it can be concluded that the main factors contributing to political stability are as follow:

1. Implementation of reforms that ensure continuous economic growth, a high standard of living, a comprehensive system of social security and overall political accountability;
2. Promotion of foreign policy that aims to protect the viability of the European social and economic model from the pressures of globalization and wars as well as to support a full-fledged creation of the European area of freedom, justice and security.

Meanwhile, the following factors can be regarded as politically destabilising:

1. Ineffective labor market policies;
2. Slowing down economic growth;
3. Worsening of macroeconomic environment;
4. War and migration crisis.

It is clear, that against the background of existing geopolitical challenges, and primarily the Russian invasion of Ukraine will generate economic challenges triggering destabilization in the EU and far beyond. It has already caused economic war in the form of anti-Russian sanctions and triggered waves of migrants to EU Member States which might struggle to cope with such a migration wave.



To deal with the ensuing challenges, and provide political stability in the short and long-term perspective, the authors recommend to:

1. Improve macroeconomic situation to ensure lower level of unemployment, balanced level of tax and sustenance of low level of inflation;
2. Develop and implement more effective migration policies to prevent labour market destabilization from a large influx of migrants;
3. Devise foreign policies which will pursue not only national interests but will imply coordination with peaceful, democratic states in the region;
4. Cut off dependence on Russian fossil fuels and develop renewable energies;
5. Diversify and develop alternative markets.

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Conflict of interests

The authors declare no conflict of interest.

References

- Abuseridze, G (2020). Political Stability and Trade Agreements. *Bulletin of the Georgian National Academy of Sciences*, vol. 14, Issue 4, pp. 139-145
- Aisen, A., and Veiga, Francisco J., (2005). Does Political Instability Lead to Higher Inflation? A Panel Data Analysis. IMF Working Paper 05/49.
- Alhawarin, I., Kreishan, F. (2010). An Analysis of Long-Term Unemployment (LTU) in Jordan's Labor Market. *European Journal of Social Sciences*, 15(1), pp.56-65
- Beck, N.N. (1993). Central Bank Strategy, Credibility, and Independence: Theory and Evidence. By Alex Cukierman. Cambridge: Massachusetts Institute of Technology Press, 1992. *American Political Science Review*, 87, 519-520. DOI:10.2307/2939099
- Bienen, Henry S., Gersovitz, M. (1985). Economic Stabilization, Conditionality, and Political Stability. International Organization, 39(4). The MIT Press
- Campos, N. F., Gassebner, M. (2009). International Terrorism, Political Instability and the Escalation Effect. IZA Discussion Paper No. 4061. <https://ftp.iza.org/dp4061.pdf>
- Eurostat (2021). Euro area unemployment. See the link - <https://ec.europa.eu/eurostat/documents/2995521/14084165/3-10012022-AP-EN.pdf/53ac483e-71d9-3093-5bd8-12f1ea89683a>
- Fullin, G., (2011). Unemployment trap or high job turnover? Ethnic penalties and labour market transitions in Italy. *International Journal of Comparative Sociology*. 52(4):284-305. doi:10.1177/0020715211412111
- Goldsmith, A., (1987). Does Political Stability Hinder Economic Development? Mancur Olson's Theory and the Third World. *Comparative Politics*, 19(4), pp. 471-480. <https://doi.org/10.2307/421818>



- Hooghe, M., Vanhoutte, B., Hardyns, W., Bircan, T. (2011). Unemployment, Inequality, Poverty and Crime: Spatial Distribution Patterns of Criminal Acts in Belgium, 2001–06, *British Journal of Criminology*, 51.
- Hinrichs, H. (1996). A General Theory of Tax Structure Change During Economic Development. Harvard University Law School.
- Lucifora, C., Moriconi, S. (2008). Political Instability and Labour Market Institution. Regulation and Unemployment. Discussion Paper No. 6457. Iza, Germany
- Lagana, F., (2011). Blocked mobility or unemployment risk? Labour market transitions of natives and immigrants in Switzerland. *International Journal of Comparative Sociology*, 52(4), pp. 327-349
- Parton, B. (2011). Stability for Development, Development for Stability: The Relationship Between Regional Organizations and Social Cohesion Through the Lens of the EU and MERCOSUR. *Peabody Journal of Education*, Vol. 86. Issue 2, pp. 129-143, <https://doi.org/10.1080/0161956X.2011.561175>
- Posner, R. (1997). Equality, Wealth, and Political Stability. *Journal of Law, Economics, and Organization*. vol. 13, issue 2, 344-65
- Rogers, C.A., 1989. Changing Tax Bases in a Model of Endogenous Tax Reform. Papers 451, Institute for International Economic Studies. University of Stockholm.
- Schultze, A. (2011). Work brings security. <https://www.dandc.eu/en/archive/201005> (access 13.03.2022)
- Solow, R. (1956) A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, The MIT Press, 70(1), pp. 65-94, <http://www.jstor.org/stable/1884513>
- Trostel, P.A., 2000. Micro Evidence on Human Capital as the Engine of Growth. The Warwick Economics Research Paper Series (TWERPS) 555, University of Warwick, Department of Economics.
- Wren-L, Steven. (2000). The limits to discretionary fiscal stabilization policy, *Oxford Review of Economic Policy*, 16(4).
- Zakaria, F., (2009). The Secrets of Stability, *Newsweek*, 12/21/2009, Volume 154, Issue 25. <http://www.newsweek.com/id/226425>

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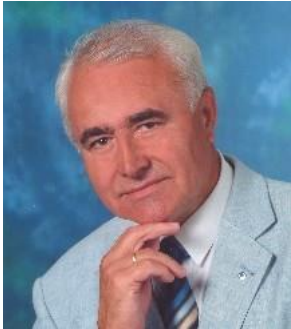
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