*Preliminary*

# Inflation as a Cause for the Downfall of Democracy

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The article is an attempt to clarify how direct is the influence of monetary instability on political stability and whether it exerts any influence at all, or, more specifically, how does high inflation affect the sustaining of democracy? Even though both inflation and democratic rule of government are phenomena which mankind has experienced in the past in one way or another, the spread and influence of both on the societies of the world have showed abrupt increase since the last but one century, and particularly since the century before last. While in 1900, every fifth country of the world was considered democratic according to the Polity ratings system, every second country was categorized as democratic in 2000. Then again, almost all collapses of democracies and hyperinflations have occurred in the 20th century. The analysis of the socio-political influence of inflation becomes topical in relation with the increase in the prices of energy goods in the nearest future, which may, first of all, present a threat to the monetary stability of western democracies which are major energy importers.

Currently, inflation has already become a favorite research subject of economists as well as economic historians. Ten or so years ago, the hyperinflations in Eastern Europe in the post-World War I period, which generally resulted in a change in the political regime, were considered as relatively neglected in economic research.[1] In recent years, however, several outstanding studies on inflations in Eastern Europe and the stabilization of economy, including the present brilliant monograph by the author of this article, have been published.[2] Nevertheless, in these studies as well as in earlier economic historical studies on inflation, little attention has been paid on the effect of inflation on political processes. Even though economists and economic historians have studied the relationship of inflation and the social and political processes, they have mostly focused on the social and political conditions under which inflation and hyperinflation may develop[3] rather than on changes in the political situation after a high inflation.

The latter topic – i.e. the influence of inflation and hyperinflation on the stability of democracy – has been explored by political scientists and historians. They find the analysis of the reasons for the stability and collapse of democracies as central a research topic as inflation has proved for economists and economic historians. The influence of the latter on political processes, however, has remained out of the central focus of research. Inflation does not even

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[1] Patricia Clavin. The Impact of Inflation and Depression on Democracy. New Writing on the Inter-War Economy. - The Historical Journal 1995, 38 (3), p. 749.

[2] Derek H. Aldcroft. Currency Stabilization in the 1920s: Success or Failure? – Economic Issues, Vol. 7, Part 2, 2002; Péteri, G. Global Monetary Regime and National Central Banking. The Case of Hungary, 1921-1929. Social Science Monographs, Boulder, Colorado, 2002; Holger C. Wolf. Inflation and Stabilization in Latvia: 1918-1922. – Economic Systems 2001, 25; Jaak Valge. Breaking Away from Russia. Economic Stabilization in Estonia 1918-1924. Acta Universitatis Stockholmiensis. Studia Baltica Stockholmiensia, 2006, 26

[3] E.g. Ch. S. Maier. The Politics of Inflation in the Twentieth Century. - Major Inflations in History. Ed. F. H. Capie. Brookfield, 1991; Barry Eichengreen and Beth Summons. International Economics and Domestic Politics. Notes on the 1920s. - Banking, Currency, and Finance in Europe Between the Wars. Ed. Charles H. Feinstein. Oxford, Clarendon Press, 1995; Peter Bernholz. Monetary Regimes and Inflation. History, Economic and Political Relationships. Cheltenham, Edward Elgar 2003

appear as a key word in the subject index of the recently published book by Daron Acemoglu and James A. Robinson dedicated specifically on the economic context of democracy and dictatorship.[4]

The schools of political studies emphasize the establishment of democracy and stability as major factors influencing the level of economic development and modernization, political culture, the distribution of wealth and power resources, international political climate, etc.[5] The claim that there is a strong positive correlation between economic development and democracy, proposed half a century ago by Seymour Martin Lipset, has become generally acknowledged. According to his generalizations, the wealthier part of a society stands better chances of establishing democracy and also withstands it better.[6] According to Lipset, the level of economic development is not the only factor influencing democracy. Most other political scientists agree that democratization or the collapse of democracies cannot be attributed to a single or dominant factor. Abraham Diskin, Hanna Diskin and Reuven Y. Diskin, scholars at the University of Jerusalem have analyzed factors affecting democracy on the example of 30 cases of collapses of democracies and 32 cases of stable democracies, including economic disturbances, and have concluded that the latter (comprising inflation) exert significant effect on the sustaining of democracy, and in this are exceeded only by foreign influences and unfavorable course of history.[7]

Until now, Adam Przeworski, Michael Alvarez, José Antonio Cheibub and Fernando Limongi have arrived at the most definite conclusions on the influence of inflation on the survival of the democratic rule of government. In their case study of 135 countries they analyzed the period between 1950 and 1990, and concluded that in the forthcoming year a democratic regime has a 0.023 chance of dying and a life expectancy of 44 years if the annual inflation rate remains under 6%; a 0.014 chance of dying and a life expectancy of about 71 years if inflation is between 6% and 30%; and a 0.064 chance of dying and an expected life of about 16 years if inflation is above 30%. According to Przeworski et al., inflation does, in fact, affect the sustaining of democracy but its influence is relatively insignificant compared to, say, the level of wealth: in poorer countries where the annual income per capita remains under $1,000 the average expected life of democracy, according to the same analysis, would be 8.5 years. [8]

I have doubts as to whether the distinguishing between the categories of the first two inflations (the annual inflation under 6% and between 6%–30%) has any cognitive value in explicating the democracies' chances of collapsing. The most important result of the analysis by Przeworski, Alvarez, Cheibub and Limongi is the conclusion that democracy has a stronger chance of collapsing in countries where the annual inflation rate exceeds 30%.

This conclusion deserves to be accepted. At the same time, the claim that democracy is more characteristic of and stable in these countries where the general modernization process (so far measured on the basis of the level of wealth) is at a more advanced stage should also be accepted. The aim of this study is to explicate and define the effect of inflation on the basis

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[4]     Daron Acemoglu and James A. Robinson. Economic Origins of Dictatorship and Democracy. Cambridge University Press, 2006.

[5]     Further on this see e.g. Tatu Vanhanen. Democratization. A comparative analysis of 170 countries. Routledge, 2003, pp.7-24; Jan-Erik Lane and Svante Ersson. Democracy. A Comparative Approach. Routledge. 2003, pp. 10-20.

[6]     Seymour M. Lipset. Some Social Requisites of Democracy: Economic Development and Political Legitimacy. - American Political Science Review 1959, 53, p. 75; Seymore M. Lipset. Political Man: The Social Basis of Politics. New York, Doubleday, 1960, pp. 48-50.

[7]     Abraham Diskin, Hanna Diskin, Reuven Y. Hazan. Why Democracies Collapse: The Reasons for Democratic Failure and Success. - International Political Science Review, 2005, Vol. 26, No. 3, pp. 299-300.

[8]     Adam Przeworski, Michael Alvarez, José Antonio Cheibub and Fernando Limongi. What makes democracies endure? — Journal of Democracy, 1996, Vol. 7. No. 1, pp. 44-50.

of an alternative approach, focusing on societies more advanced in the modernization process. Unlike Przeworski et al., the categorization of regimes in this article relies on the ratings systems Polity IV and Polyarchy. Different methods have been used to determine the level of political modernization.

## Ratings systems of political regimes

The presence or absence of democracy can be measured on the basis of two ratings systems – Polity and Polyarchy. Data from the Comparative Survey of Freedom by Freedom House have not been included in this study owing to the fact that corresponding data of this survey is available only from the year 1972 onward.

The Polity ratings system (first developed by Ted Robert Gurr) measures democracy by a ten-point scale derived from the coding of political participation (1-3), competitiveness of executive recruitment (1-2), openness of executive recruitment (1), and constraints on chief executive (1-4). Similarly, it determines the level of autocracy by ten-point scale, which measures the lack of regulated political competitiveness (1-2), regulation of political participation (1-2), the lack of competitiveness of executive recruitment (2), the lack of openness of executive recruitment (1), and the lack of constraints on chief executive (1-3). The Polity index is arrived at by summarizing the results of democracy and autocracy. Countries attaining 6 points and more are considered democratic, while countries scoring –6 or less are categorized as autocratic. Countries in which the form of governance is neither totally autocratic nor completely democratic fall into the range of –5 to 5 Polity points. They are referred to as 'anocracies', which means that they are somewhere in between, rather than having a specific form of government. The smallest countries (population less than 500,000) are excluded. [9]In spring 2006 the Polity dataset presents data on 161 countries in 1800–2003. In this analysis, the cases in which the Polity index falls below +6 are defined as the collapse of democracy and the year in which the index first falls below +6 are regarded as the year of collapse.

The Polyarchy Dataset was compiled by Tatu Vanhanen. To measure democratization, he presents two variables – Competition and Participation. Competition is shown as the percentage of votes won by smaller parties at parliamentary and/or presidential elections. It is calculated by subtracting the percentage of votes won by the largest party from 100. If data on the distribution of votes are unavailable, the value of this variable is calculated on the basis of the distribution of seats in parliament. The variable of Participation is measured as the number of actual voters at the same election as a percentage of the total population. In addition, the participation measure also includes referendums in such a way that each national referendum increases the country's participation figure by 5 percentage points and each local referendum increases the figure by 1 percentage point in the year of occurrence. Even if the number of referendums is higher than six, the percentage does not exceed 30. These two measures – Competition and Participation – are combined into the Index of Democratization (ID) by multiplying the two values and dividing the result by 100. The countries in which Competition exceeds 30% and Participation exceeds 20% are regarded as democracies. Presently (in spring 2006), the Polyarchy rating of democracy includes all countries of the world over the period 1810–2004, except some contemporary mini states (population 50,000 or less) and several former non-democratic states and principalities of the nineteenth

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[9]      Homepage of Polity IV available at http://www.cidcm.umd.edu/inscr/polity/, 19. 03. 2006.

century.[10] In spring 2006, the Polyarchy Dataset includes data on 189 countries in the period 1810–2004.

Thus, while the Polity ratings system is focused on the formal features of democracy, i.e. the chances of citizens to apply democratic mechanisms, the Polyarchy dataset centers on the actual functioning of democracy. The best result is achieved if the two ratings systems are used concurrently.

Let us first examine the influence of hyperinflation on the durability of democracy.[11] Appendix 1 presents the time at which hyperinflation has taken place, and the time of the collapse of democracy in case the country was democratic at the time.

According to the Polity rating, the number of countries governed by democratic regime at the time of hyperinflation is fifteen. If these countries were observed in about the period of half a generation (15 years) later, it turns out that in nine of these countries democracy had collapsed, whereas democracy survived for the longest period (for 14 years) in Estonia. In six countries, democracy has survived, whereas in three (Argentina, Bolivia, Poland) democracy has lasted for over 15 years. According to the Polyarchy rating, the total number of countries governed by democratic regime at the time of hyperinflation is seventeen. In nine of these countries, democracy has collapsed at least 14 years later (e.g. in Estonia). In eight countries, democracy has survived, whereas in four of these (Argentina, Bolivia, Nicaragua, Poland) democracy has lasted for over 15 years.

All the cases of hyperinflation, during which democracy has survived according to both the Polity and Polyarchy system, have occurred in the past decades. Evidently, the international climate of the past few decades has been more favorable to democracy than at any other point in the history of the world. Also international economic cooperation is today more extensive than never before. At the same time it is impossible to say whether the survival of democracy in these countries is sufficient or whether these countries will face tumult in the future. It is clear that hyperinflation is, generally, the "grave digger" of democracy.

In terms of the stability of democracy, it is insignificant whether inflation is 50% per month or somewhat lower, i.e. whether it is hyperinflation or just high inflation. Observation of the effect of inflation on the basis of the so-called average nineteenth–twentieth-century society is not pragmatical. High inflation influences primarily societies of industrial economy with higher level of modernization, because agrarian societies which tend to favor barter economy are less market-oriented and with an underdeveloped middle class, which is generally considered as supporting democracy.

**Estimating the level of modernization**

For estimating the level of modernization, the cases in which democracy collapsed at a high level of modernization should be pointed out. Until now, political level of modernization (which here could be referred to as "maturity for democracy") has been defined primarily according to the level of economic development or wealth. The reasoning is simple – the more advanced a society is in the process of modernization, the wealthier it is. This correlation is largely based on the existence of relatively clear-cut and generally accepted

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[10]    Tatu Vanhanen. Introduction. Available at http://www.fsd.uta.fi, 28. 03. 2006.
[11]    According to P. Cagan's classical definition, hyperinflation occurs when prices rise more than 50% per month. (P. Cagan. The monetary dynamics of hyperinflation. – Studies in the Quantity Theory of Money. Ed. M. Friedman. Chicago, 1956.) Charles S. Maier has provided the following division: hyperinflation (more than 1,000% a year), Latin inflation (10–1,000% a year) and creeping inflation (up to 10% a year). (Ch. S. Maier. The Politics of Inflation in the Twentieth Century. – Major Inflations in History. Ed. F. H. Capie. Brookfield, 1991, p. 335).

indices for measuring the level of economy or economic modernization, such as GDP per capita or the proportion of the agrarian population. The level of economic development, however, is not the most appropriate index for measuring a society's political level of modernization, which determines the "democratic ability" of a given society. And there are at least two reasons for this. First, a society may become wealthy not owing to the level of modernization of its economy but owing to the discovery of some natural resource. Second, at some point the past history of the economy of a specific society influences the wealth of the given society. For example, a comparison of the world's leading oil countries and the post-communist East-European countries reveals that the average wealth of oil countries per capita is higher than that of post-communist countries, though the latter can definitely not be considered as less modernized.[12]

Larry Diamond has proposed the measuring of the level of modernization by means of HDI.[13]Author of this article agrees with Diamond in that HDI is a somewhat more effective yardstick for measuring modernization than GDP per capita or the proportion of agrarian population. HDI is formed of the level of economic development, average life expectancy and literacy. The drawbacks of the first as an index of the level of modernization have already been discussed, whereas the third component is no longer applicable to the majority of modern societies.

The best way to measure the level of political modernization of societies, in the opinion of the author of this article, is to turn to demographic theory. The correlation between the stage of demographic transition and political regime is generally accepted, but has been studied so far from the angle of how political regime affects demographic behavior.[14] The claim proposed here is quite the opposite – the strong correlation between demographic behavior and political regime is caused by the fact that in earlier stage of demographic transition societies tend to be authoritarian and in later stage democratic rather than by the influence of the governing regime on demographic behavior.

As is known, the theory of demographic transition suggests that all societies move from a pre-modern period with a traditional replacement mechanism, involving high birth and death rates, to a modern or rational replacement model, where both rates are low. Western Europe and North America were the first to experience this transition. In the late nineteenth and early twentieth century, Eastern and Southern European countries also arrived at the period of transition, followed during the first half of the twentieth century by South America and many Asian countries. During the second half of the twentieth century, transition began in remaining Asia and in Africa. In the course of transformation, the death rate begins to fall first, followed by a drop in the birth rate. As transition progresses, there is a demographic explosion and also a revolution in migratory trends. At different points in time, these changes have taken place without exception in all societies. A society is regarded as having passed the transition after the birth rate in the society has fallen to and below the replacement level, i.e. the total fertility rate (TFR) remains on or below 2.1. Societies that are drawn into these

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[12]	GDP on a purchasing power parity basis per capita 2005: Bahrain  - 20,500; Brunei – 23,600; Kuwait – 22,800; Oman – 13,400; Qatar – 26,100; Saudi Arabia – 12,900; United Arab Emirates – 29,100; Bosnia-Herzegovina – 6,800; Bulgaria -  9,000; Croatia – 11,600; Czech Republic – 18,600; Estonia – 16,400; Latvia – 13,000; Lithuania – 13,900; Macedonia – 7,600; Moldova – 2,100; Poland – 12,700; Russia – 10,700; Serbia and Montenegro – 2,700; Slovakkia – 15,800; Slovenia – 21,000; Ukraine – 6,800. Source: CIA World factbook. http://www.cia.gov/cia/publications/factbook/fields/2004.html. 3. 05. 2006.

[13]	Larry Diamond. Economic Development and Democracy Reconsidered. - Reexamined Democracy: Essays in Honor of Seymor Martin Lipset. Eds. G. Mark and L. Diamond. Newbury Park: Sage Publications, 1992, p. 107.

[14]	Adam Przeworski, Michael E. Alvarez, José Antonio Cheibub, Fernando Limongi. Democracy and Development. Political Institutions and Well-Being in the World, 1950-1990. Cambridge University Press, 2000, pp. 216-265.

changes later in time undergo demographic transition at a faster pace. The transition may take place in different combinations, but transition itself is inevitable. [15] The process is not known to have halted or reversed after the beginning of transition in any society.

Demographic transition is thus an essential component, or even the foundation, of the modernization process. At least no single country has undergone modernization without experiencing demographic transition. The Princeton Project, an extensive cross-European comparative study conducted in the 1960s-1980s under the lead of Ansley Coale, proved that demographic transition is an independent process which is affected by changes in economy or any other processes only to a very insignificant extent. Transition can be attributed to a combined effect of structural, cultural and technological factors, where changes in the value system play a central role. [16]

In addition to changes in traditional gender roles that take place during demographic transition, it also coincides with the acceptance of an active attitude towards life and individualization (increase in personal freedom of choice and disregard of external authority and moral norms). Therefore, accompanied as it is by a change in mentality, demographic transition is a prerequisite for democratization. Even a cursory observation supports this argument. As a rule, democratic form of rule was sooner and more readily adopted by countries, where demographic transition has arrived at a more "mature" stage.

Several indicators can be used to observe the stages of demographic transition. Here it has been done by means of birth rate, one of the most important factors of demographic transition and the characteristic most dynamically representative of the stage of transition. Birth rate need not – in and of itself – have to be causally related to a society's "readiness for democracy", but it remains the only applicable indicator that enables to ascertain, even remotely, the stage of demographic transition of a society. In order to present a more explicit comparison between different countries, I have used here the indicator of total fertility rate (TFR), which is not influenced by the age structure of the population of a given country. The total fertility rate is the sum of the age-specific fertility rates per woman, and a more direct measure of the level of fertility than the crude birth rate, since it refers to births per woman. The total fertility rate is also the average number of children that would be born alive to a hypothetical cohort of women if, throughout their reproductive years, the age-specific fertility rates for the specified year remain unchanged. To be able to observe the correlation, all the world's countries with a population over half a million have been categorized on the basis of birth rate in three groups of different demographic stages. The first group includes countries that are perceived as having made the demographic transition (the average TFR in 2000–2004 is below the replacement level, being less that 2.1), the second group includes countries where the average TFR in 2000–2004 was above the level of replacement (2.1 and more), but the birth rate has dropped considerably, constituting in 2000–2004 the average TFR 70% or less of the level of 1953. The third group includes all the remaining countries – i.e. those where TFR in 2000–2004 is more than 70% of the level of 1953 (the first year on which TFR data on the majority of the world's countries is available). The percentage calculation is used for reducing the impact of variations in the natural fertility of different societies. These groups are not stable – all the countries that in 2000–2004 belonged to the second and third group are moving towards the first group.[17] According to the 2000–2004 data, the first group includes

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[15]     Dudley Kirk. Demographic Transition Theory. - Population Studies 1999, 50, p. 386.

[16]     Dirk J. Van De Kaa. Europe and its population: the long view. - European Populations. Unity in Diversity. Ed. by D. J. Van De Kaa, H. Leridon, G. Gesano and Marek Okólski. Kluwer Academic Publishers. Dordrecht/Boston, London, 1999, p. 27

[17]     **First group:** Armenia, Australia, Austria, Belarus, Belgium, Bosnia, Brazil, Bulgaria, Canada, China, Croatia, Cuba, Cyprus, Czech, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Guyana, Hungary, Ireland, Italy, Iran, Jamaica, Japan, Kazakhstan, Latvia, Lebanon, Lithuania, Macedonia, Mauritius, Moldova, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia, Serbia and Montenegro,

59, the second group 57, and the third group 45 countries, whereas if TFR would be used in 2006 there would be more countries in the first group and fewer countries in the third group. The distribution of democracies in groups is shown in Table 1.

**Table 1.**
Distribution of democracies in groups at different stage of demographic transition according to Polity and Polyarchy ratings systems in 2003.

|  | Stage of demographic transition | | |
| --- | --- | --- | --- |
|  | **I** | **II** | **III** |
| Democracies (Polity) % | 52.9 | 39.1 | 8.0 |
| Democracies (Polyarchy) % | 56.0 | 34.1 | 9.9 |

*Source*: Polity Dataset; Polyarchy Dataset; CIA World Factbook.

The correlation between democratization and the stage of demographic transition is undeniable. The stage of demographic transition involves directly or indirectly many characteristic features that theories of economic development and modernization theories have regarded as prerequisites for the functioning of democracy. Such characteristics are, for example, the level of political culture, in more general terms also urbanization, wealth and its distribution, etc.

That demographic transition is an independent process, hardly subject to economic development, is demonstrated by the example of the Baltic States. In Estonia and Latvia, for example, in the periphery of the Russian Empire, demographic transition began already in the first half of the nineteenth century.[18] Estonia and Latvia are thus the countries of the earliest demographic development in Europe. During the transition, the Russian Empire functioned as a quasifeudal state, in which the majority of population suffered from extreme poverty. It took more than half a century before the start of industrialization and urbanization in these countries.

**The collapse of democracy in countries at different level of modernization**

The following analysis will take into consideration countries with a population exceeding 50,000 (analogously to Polity IV Dataset). According to Polity, the total of 140 transitions to democracy has occurred in the period 1810–2003. There have been 56 cases of collapse, constituting 40% of the collapses of democracy. The figures are somewhat different according to the Polyarchy dataset: with 197 transitions and 106 collapses democracy has collapsed in

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Singapore, Slovakia, Slovenia, South Korea, Sri Lanka, Spain, Sweden, Switzerland, Taiwan, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, United Kingdom, United States. **Second group**: Albania, Algeria, Argentina, Azerbaijan, Bahrain, Bangladesh, Bolivia, Botswana, Burma, Cambodia, Chile, Colombia, Costa Rica, Dominican Republic, East Timor, Ecuador, Egypt, El Salvador, Fiji, Ghana, Guatemala, Honduras, Iraq, India, Indonesia, Israel, Jordan, Kenya, Kuwait, Kyrgyzstan, Lesotho, Libya, Malaysia, Mexico, Mongolia, Morocco, Nicaragua, North Korea, Panama, Pakistan, Papua New Guinea, Paraguay, Peru, Philippines, Republic of Congo, Qatar, South Africa, Swaziland, Syria, Tajikistan, Turkmenistan, United Arab Emirates, Uruguay, Uzbekistan, Venezuela, Vietnam, Zimbabwe. **Third group**: Afghanistan, Angola, Benin, Bhutan, Burkina Faso, Burundi, Cameron, Central African Republic, Chad, Comoros, Cote d`Ivoire, Djibouti, Democratic Republic of Congo, East Guinea, Eritrea, Ethiopia, Gabon, Gambia, Guinea, Guinea-Bissau, Haiti, Laos, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Nepal, Niger, Nigeria, Oman, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Tanzania, Togo, Uganda, Yemen, Zambia. (Demographic yearbook, 2000; CIA World Factbook, n.d.).

[18] Kalev Katus. Post-transitional fertility development: new perspectives introduced by Central and East European nations. - Population of Central and Eastern Europe. Challenges and Opportunities. European Population Conference. Warsaw, 26-30 August 2003, p. 118.

54% of cases.[19] The frequency of the collapse of democracy is highly varying in countries at different level of modernization. To observe this, countries may be divided in groups according to the level of modernization. Since TFR became available only in the second half of the twentieth century, the countries cannot be categorized according to the same principles as presented in Table 1. This justifies the application of the crude birth rate (CBR). CBR indicates the number of live births per 1,000 population a year. As a criterion for categorizing countries into stages of demographic transition, CBR is less reliable than TFR, since it also depends on the age distribution of the society's population: still, its application here is inevitable owing to the lack of a better option. The first group includes countries with CBR up to 15 (as a rule, these countries have made demographic transition); the second group includes countries with CBR 16–35 (countries which are currently undergoing demographic transition); and the third group includes countries with CBR exceeding 36 (countries, which have not arrived at demographic transition or in which the transition occurred relatively recently). Evidently, according to the Polity ratings system, during 1810–2003, 27 of the 58 democracies of the third group had collapsed, constituting 47%; 27 of the 93 democracies (29%) of the second group had collapsed, and 2 of the 43 democracies (5%) which had arrived at the first group by 2003 had collapsed.[20]According to Polyarchy, 55 of the total of 81 democracies (68%) in the third group, 48 of the 114 democratic countries (42%) of the second group, and 3 of the 46 democracies (7%) which had arrived at the first group had collapsed.[21] According to Polity the exceptional cases of collapse in the first group were Armenia and Belarus and according to Polyarchy these countries were Bosnia and Herzegovina, Moldova and Yugoslavia. However, all these exceptions have one thing in common – the collapse of democracy was preceded by a high-rate inflation!

This provides a reason to have a closer look at the cases in which democracy has collapsed in societies of higher level of modernization (CBR 36 and less). In societies of lower level of modernization, democracy is under threat as it is and collapses occur more frequently. Appendices 2 and 3 present the cases of the collapse of democracy in two columns: the countries with CBR 22 and less and those with CBR 23–35. The division is rather arbitrary. In order to avoid random yearly fluctuation, the average of 11 years has been considered: in addition to the year when the country lost democracy, the mean value of CBR in the five preceding and five following years has been presented.

Appendix 2 indicates the collapses of democracy according to the Polity ratings system and inflations preceding the collapses. The latter have been divided in two – those

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[19]     Polyarchy dataset available at http://www.fsd.uta.fi 28. 09. 2005; Polity dataset available at http://www.cidcm.umd.edu/inscr/polity/polreg.htm, 23. 04. 2006.

[20]     Polity IV: http://www.cidcm.umd.edu/inscr/polity/polreg.htm 23. 04. 2006; Demographic Yearbook 1948. United Nations 1949, pp. 260-275; International Historical Statistics. Europe 1750-2000. Fifth Edition. B. R. Mitchell. Palgrave Macmillan, 2003, pp. 93-116; International Historical Statistics. The Americas 1750-1993. Fourth Edition. B. R. Mitchell. Macmillan Reference LTD, 1998, pp. 68-75; International Historical Statistics. Africa, Asia & Oceania 1750-1993. Third Edition. B. R. Mitchell. Macmillan Reference LTD 1998, pp. 69-78. Estimates of mid-year population and vital statistics summary: 1948-1997 - Demographic Yearbook, Historical supplement 1948-1997. 1st issue DYB-CD, data from 1948-1997. United Nations 2000, table 3, pp. 1-211; CIA World Factbook. (http://www.cia.gov/cia/publications/factbook/geos/xx.html 24. 04. 2006).
[21]     Polyarchy dataset: http://www.fsd.uta.fi 28. 04. 2006; Demographic Yearbook 1948. United Nations 1949, pp. 260-275; International Historical Statistics. Europe 1750-2000. Fifth Edition. B. R. Mitchell. Palgrave Macmillan, 2003, pp. 93-116; International Historical Statistics. The Americas 1750-1993. Fourth Edition. B. R. Mitchell. Macmillan Reference LTD, 1998, pp. 68-75; International Historical Statistics. Africa, Asia & Oceania 1750-1993. Third Edition. B. R. Mitchell. Macmillan Reference LTD 1998, pp. 69-78. Estimates of mid-year population and vital statistics summary: 1948-1997 - Demographic Yearbook, Historical supplement 1948-1997. 1st issue DYB-CD, data from 1948-1997. United Nations 2000, table 3, pp. 1-211; CIA World Factbook. (http://www.cia.gov/cia/publications/factbook/geos/xx.html 24. 04. 2006).

with the yearly inflation rate exceeding 500% and those with the yearly inflation rate in the range of 50–500%. The number of countries in which democracy has collapsed at the level of modernization in which CBR is 35 and less, is 29, according to Polity. In at least 19 of these countries (as far as inflation data was not available on all of these countries), the yearly rate of inflation, which occurred the maximum of 15 years before the collapse of democracy, was at least 50%. According to the Polity dataset, there have been 10 cases of the collapse of democracy in countries of higher level of modernization (CBR 23 and less), and in nine of them the inflation 15 years before the collapse was at least 50% per year. France is the only country which did not have to fight high inflation before the collapse of democracy in 1940. **Therefore**, the example of France is irrelevant in the context of this study, since democracy collapsed with the country's defeat in war and thus does not form an exception in this case.

In Appendix 3, countries have been categorized according to the same principle, except the collapses of democracy have been defined according to the Polyarchy ratings system. There have been 49 collapses of democracy. In at least 22 cases (data on inflation was unavailable on all of these countries), a yearly inflation exceeding 50% has preceded the collapse. In countries of higher level of modernization (CBR 23 and less) 14 collapses of democracy can be counted on the basis of Polyarchy rating, and in 12 countries inflation has been at least 50% per year in the preceding 15 years. Countries that form an exception here are France 1944 and Greece 1967. Again, the first may be dismissed, considering that the Polyarchy dataset does not apply to periods in which the country was occupied, which applies to France in 1940–1943. By 1944 the country was re-established but democratic elections had not been held. A true exception is thus the collapse of democracy in Greece in 1967, which was not preceded by a high inflation within 15 years. However, hyperinflation occurred in Greece in 1942–1945, exceeding 50% in 1946.

The "two-dimensional" analysis above thus leads to the conclusion that the effect of high inflation on the stability of democracy in societies of high level of modernization is considerably more significant than indicated in research so far. Not all high inflations have been **succeeded** by the collapse of democracy, as not all collapses of democracy have been **preceded** by a high inflation. Still, **nearly all collapses of democracy in societies of high level of modernization have been preceded by a high inflation.**

**Inflation and the collapse of democracy. Case of Estonia**

The political and economic history of the Baltic States in the 20th century has been more diverse and the economic growth slower than in any other region in Europe. Having gained independence after the World War I, both Estonia and Latvia were forced to tackle the radical economic orientation from Russian market to West-European markets. The percentage of losses in population and economy of the Baltic States in the World War II were among the largest in Europe. The main reason for the slow economic development, however, was about half a century of the Soviet occupation. At the same time, Estonia and Latvia pioneer in demographic development in Europe.

After the World War I, the independent Estonian society had nearly achieved the level that Germany, Austria and Latvia were at, being according to demographic indicators a country "mature for democracy", in which democracy collapses only under highly unfavorable circumstances. Regardless of this, democracy was ended in Estonia, Germany, Austria and Latvia. In the early 1920s, all these countries suffered from a high inflation.

Estonia and Latvia, which were then a part of the Russian Empire, experienced high inflation at the onset of World War I. After the outbreak of war, the Russian imperial regime abandoned the gold standard. Following the overthrowing of the Tsar, the fall in the currency rate accelerated. By the Bolshevik coup in October 1917, the value of tsarist ruble had

dropped to 20–25%. Estonia was then occupied by Germany, and by the end of the occupation the valid currency had devalued twice. Therefore, by the time Estonia declared itself independent the fall had already become tenfold. Further increase of the already tenfold fall in the value of Estonian Mark, the currency of Estonia at the time, was caused by the Estonian War for Independence. This war, as the fall in currency value, could not be avoided in Estonia or in Latvia. Inflation proved the only measure for financing the war in the situation of impeded tax collection and the unavailability of foreign loans. Inflation was the highest in 1919 and at the beginning of 1920. In 1921, Estonian Mark was stabilized but in the six years only 1.1% was left of the value of currency. Latvia, too, stabilized its currency in 1921. The already weak middle class, which had emerged as late as in the late 19th century, had lost most of their fortunes. The new economic elite differed from the former also in the higher proportion of black-marketeers and venturers among them.

Yet, problems with Estonian currency had not been overcome. Since Estonia was the first country to sign a peace treaty with Soviet Russia, the latter established its economic communication with the Western world in the 1920s through Estonia. Bolsheviks traded their currency and precious metal resources through Estonia. Estonia was then seized by enterprise fever and the focus shifted to the economic ideology according to which the Estonian economy was intended to be based on Russian market and mediation of Russian goods. The enterprise advancing contacts with Russia in the east was largely financed by the national bank. When the Soviet Union broke off the earlier contacts with Estonia in 1923 and relinquished Estonia as the mediator, the enterprises oriented at eastern markets ran into trouble. Also, the Estonian Mark rate failed to hold its value. People who had accumulated wealth with inflation and Russian transactions, including many influential politicians who, relying on Russian market, had taken loans, were interested in the Estonian Mark undergoing the inflation, as this would have settled most of their debts. In 1924, the Mark was stabilized again. In this and the following few years, most of the economic elite lost their fortunes. In 1927, Estonia adopted the gold standard.

The 1919–1920 hyperinflation and a new threat of the fall in currency rate in 1924 had formed the collective opinion that any change in currency rate results in a threat of major inflation. This nicely demonstrates how people learned from their history, **but learned wrong**. Analogous specific influence of the 1920s' inflations was also characteristic of other countries. Indeed, it had an immense effect on the choice of politics for overcoming the crisis of the 1930s. The economic crisis of the 1930s could be overcome by mitigating the devaluation of currency or by adopting the floating rate system. In countries which had undergone major inflation the implementation of such measures was complicated. Currency was not devalued in countries with high inflation, which meant that economy in these countries was set in the worst of crisis. The situ**ation was the most critical in Estonia and Latvia, as among the countries they exported to the proportion of those, which devalued currency, was the largest, and the countries thus** found themselves in a particularly serious situation. Logically, it also exacerbated the political atmosphere.

Already before the Great Depression, the Estonian politics could be characterized as instable. The society having survived hyperinflation was unsettled, expecting rapid solutions from the government and preferred to vote for political extremities. The change of governments was particularly fast. Urban bourgeois who favoured political stability was extremely weak. Until 1924, communists, who aimed to subjugate Estonia under the Soviet rule, enjoyed nearly 10% of support in the parliament and could not be formed a coalition with. Socialists were almost as unsuitable for forming a coalition with but were nevertheless included in some governments in the 1920s. In the crisis of the 1930s, however, the League of Liberators (*Eesti Vabadussõjalaste Liit*) emerged, a new political force outside the parliament which offered radical solutions for achieving government stability and enjoyed immense

popularity. They also proposed a new constitution for limiting parliamentary control, winning by a landslide at national elections. To prevent the members of the League of Liberators from coming to power after the national elections (which in itself would not have resulted in the collapse of democracy), Konstantin Päts, leader of the transition government, and general Johan Laidoner launched a coup d'état in March 1934. The elections were postponed and the parliament dissolved.

In other societies at a high level of modernization which have undergone major inflations, the ways how democracy has collapsed have been different, but they all share the characteristic political instability resulting from the weakness of forces safeguarding stability. The main cause of the latter is high inflation.

But it has to be rembered, that inflation which has lost control and has skyrocketed is suggestive of problems in the society. Inflation is by no means always a choice – it may serve as a consequence reflecting, say, the lack of minimal consensus in the society or the control of state authority over important processes. This dual role of inflation renders its treatment as a factor triggering the collapse of democracy rather complicated. Avoiding major inflation also means preventing the situations which may cause it (e.g. wars, problems in internal affairs, economic crises, weak administration of state power); the latter, in turn, are the cause of the downfall of democratic rule of government.

Appendices

## Appendix 1. Collapse of democracy following hyperinflation

| Country | Hyperinflation (year) | Polity | Polyarchy | Collapse of democracy | |
|---|---|---|---|---|---|
| | | | | **Polity** | **Polyarchy** |
| Argentina | 1989/90 | democratic | democratic | **preserved** | **preserved** |
| Armenia | 1993/94 | democratic | democratic | **1995** | **preserved** |
| Austria | 1921/22 | democratic | democratic | **1934** | **1934** |
| Azerbaijan | 1991/94 | non-democratic | non-democratic | non-democratic | non-democratic |
| Belarus | 1994 | democratic | non-democratic | **1995** | non-democratic |
| Bolivia | 1984/86 | democratic | democratic | **preserved** | **preserved** |
| Brazil | 1989/93 | democratic | democratic | **preserved** | **preserved** |
| Bulgaria | 1997 | democratic | democratic | **preserved** | **preserved** |
| China | 1947/49 | non-democratic | non-democratic | non-democratic | non-democratic |
| Congo (Zaire) | 1991/94 | non-democratic | non-democratic | non-democratic | non-democratic |
| France | 1789/96 | not specified | not specified | not specified | not specified |
| Georgia | 1993/94 | non-democratic | democratic | non-democratic | **2004** |
| Germany | 1920/23 | democratic | democratic | **1933** | **1933** |
| Greece | 1942/45 | democratic | non-democratic | **1949** | non-democratic |
| Hungary | 1923/24 | non-democratic | non-democratic | non-democratic | non-democratic |
| Hungary | 1945/46 | non-democratic | democratic | non-democratic | **1948** |
| Kazakhstan | 1994 | non-democratic | non-democratic | non-democratic | non-democratic |
| Kyrgyzstan | 1992 | non-democratic | non-democratic | non-democratic | non-democratic |
| Nicaragua | 1986/89 | non-democratic | democratic | non-democratic | **preserved** |
| Peru | 1988/90 | democratic | democratic | **1992** | **2000** |

| Country | Hyperinflation (year) | Polity | Polyarchy | Collapse of democracy | |
|---|---|---|---|---|---|
| Poland | 1921/24 | democratic | democratic | **1926** | **1926** |
| Poland | 1989/90 | democratic | democratic | **preserved** | **preserved** |
| Serbia (Yugoslavia) | 1992/94 | non-democratic | democratic | non-democratic | **1997** |
| Soviet Union | 1922/24 | non-democratic | non-democratic | non-democratic | non-democratic |
| Taiwan | 1945/49 | non-democratic | non-democratic | non-democratic | non-democratic |
| Tajikistan | 1995 | non-democratic | non-democratic | non-democratic | non-democratic |
| Turkmenistan | 1993/96 | non-democratic | non-democratic | non-democratic | non-democratic |
| Ukraine | 1992/94 | democratic | democratic | **preserved** | **preserved** |
| Yugoslavia | 1990 | non-democratic | non-democratic | non-democratic | non-democratic |
| *Estonia** | 1920 | democratic | democratic | **1934** | **1934** |
| *Latvia** | 1921 | democratic | democratic | **1934** | **1934** |

**Source:** P. Bernholz. Monetary Regimes and Inflation. History, Economic and Political Relationships, p. 8. Moldova may also be a candidate for inclusion. Producer prices rose by 64.5% in April 1994. But as Bernholz stated, the data are insufficient to verify this for consumer prices. According to Polity, Moldova was a democracy in 1994 and has remained democratic, whereas according to Polyarchy it is categorized as non-democratic.

**Note. *** Although the data is not completely accurate, it seems that in Estonia in May, June, July and August 1920 and probably in Latvia in March and April 1921 prices rose more than 50% per month. (Jaak Valge. Breaking Away from Russia. Economic Stabilization in Estonia 1918-1924, p. 14; Holger Wolf. Inflation and Stabilization in Latvia 1918-1922. - Economic Systems 2001, 25, p. 40).

## Appendix 2. Collapse of democracy (according to Polity dataset) in countries of higher modernization level in 1810–2003 and preceding inflation

| Country/Year | CBR 22 and less | CBR 23–35 | Inflation exceeding 500% | Inflation 50–500% |
|---|---|---|---|---|
| 1. Argentina 1976 | | ** | | 1972-3; 1975-6 |
| 2. Armenia 1995 | ** | | | 1995 |
| 3. Austria 1934 | ** | | 1922 | |
| 4. Belarus 1995 | ** | | | Soviet Union 1990-1 |
| 5. Chile 1973 | | ** | | 1972-3 |
| 6. Czechoslovakia 1948 | | ** | | 1946 |
| 7. Dominican Republic 1994 | | ** | | 1990 |
| 8. Fiji 1987 | | ** | Absent | Absent |
| 9. Fiji 2001 | | ** | Absent | Absent |
| 10. Finland 1931 | ** | | | 1917-9 |
| 11. Estonia 1934 | ** | | | 1920-1 |
| 12. France 1852 | | ** | Absent | Absent |
| 13. France 1940 | ** | | Absent | Absent |
| 14. France 1958 | ** | | | 1947-8 |
| 15. Germany 1933 | ** | | 1923 | |
| 16. Greece 1915 | | ** | Not known | Not known |
| 17. Greece 1936 | | ** | | 1918; 1922-3 |

| Country/Year | CBR 22 and less | CBR 23–35 | Inflation exceeding 500% | Inflation 50–500% |
|---|---|---|---|---|
| 18. Greece 1949 | | ** | 1942-5 | 1946 |
| 19. Latvia 1934 | ** | | 1920-1 | |
| 20. Pakistan 1999 | | ** | Absent | Absent |
| 21. Peru 1992 | | ** | 1988-90 | |
| 22. Poland 1926 | | ** | 1919-24 | |
| 23. Portugal 1930 | | ** | | 1920-3 |
| 24. Singapore 1965 | | ** | Not known | Not known |
| 25. Spain 1923 | | ** | Absent | Absent |
| 26. Spain 1939 | | ** | Not known | Not known |
| 27. Sri Lanka 1982 | | ** | Absent | Absent |
| 28. Turkey 1980 | | ** | | 1979-80 |
| 29. Uruguay 1973 | ** | | | 1965-8; 1972-3 |

**Source:** Polity dataset: http://www.cidcm.umd.edu/inscr/polity/polreg.htm 23. 04. 2006; Demographic Yearbook 1948. United Nations 1949, pp. 260-275; International Historical Statistics. Europe 1750-2000. Fifth Edition. B. R. Mitchell. Palgrave Macmillan, 2003, pp. 93-116; International Historical Statistics. The Americas 1750-1993. Fourth Edition. B. R. Mitchell. Macmillan Reference LTD, 1998, pp. 68-75; International Historical Statistics. Africa, Asia & Oceania 1750-1993. Third Edition. B. R. Mitchell. Macmillan Reference LTD 1998, pp. 69-78. Estimates of mid-year population and vital statistics summary: 1948-1997 - Demographic Yearbook, Historical supplement 1948-1997. 1st issue DYB-CD, data from 1948-1997. United Nations 2000, table 3, pp. 1-211; CIA World Factbook (http://www.cia.gov/cia/publications/factbook/geos/xx.html 24. 12. 2005); World Bank homepage http://devdata.worldbank.org/query/default.htm, 15. 05. 2006.

**Appendix 3. Collapse of democracy (according to Polyarchy ratings system) in countries of higher modernization level in 1810–2004 and preceding inflation**

| Country/Year | CBR 22 and less | CBR 23–35 | Inflation exceeding 500% | Inflation 50–500% |
|---|---|---|---|---|
| 1. Argentina 1955 | | ** | Not known | Not known |
| 2. Argentina 1962 | | ** | Not known | Not known |
| 3. Argentina 1966 | | ** | Not known | Not known |
| 4. Argentina 1976 | | ** | | 1975-6 |
| 5. Australia 1905 | | ** | Not known | Not known |
| 6. Austria 1934 | ** | | 1922 | |
| 7. Bosnia and Herzegovina 1992 | ** | | 1990 | |
| 8. Chile 1973 | | ** | | 1972-3 |
| 9. Colombia 1978 | | ** | | Ca 20% since 1973 |
| 10. Colombia 1991 | | ** | | Ca 20% since 1973 |
| 11. Cuba 1952 | | ** | Not known | Not known |
| 12. Czechoslovakia 1945 | | ** | Absent | Absent |
| 13. Czechoslovakia 1948 | | ** | | 1946 |
| 14. El Salvador 1989 | | ** | Absent | Absent |
| 15. El Salvador 2000 | | ** | Absent | Absent |
| 16. Estonia 1934 | ** | | 1920-1 | |
| 17. Fiji 1987 | | ** | Absent | Absent |

| Country/Year | CBR 22 and less | CBR 23–35 | Inflation exceeding 500% | Inflation 50–500% |
|---|---|---|---|---|
| 18. Fiji 2000 | | ** | Absent | Absent |
| 19. Finland 1918 | | ** | | 1917-8 |
| 20. Finland 1940 | ** | | | 1917-9 |
| 21. France 1876 | | ** | Absent | Absent |
| 22. France 1881 | | ** | Absent | Absent |
| 23. France 1893 | | ** | Absent | Absent |
| 24. France 1944 | ** | | Absent | Absent |
| 25. France 1963 | ** | | | 1947-8 |
| 26. Georgia 2004 | ** | | | 1999 |
| 27. Germany 1933 | ** | | 1923 | |
| 28. Greece 1925 | | ** | | 1918 |
| 29. Greece 1936 | | ** | | 1918; 1922-3 |
| 30. Greece 1967 | ** | | Absent | Absent |
| 31. Hungary 1948 | ** | | 1945-6 | Absent |
| 32. Kenya 1997 | | ** | Absent | Absent |
| 33. Korea, Republic of 1972 | | ** | Absent | Absent |
| 34. Latvia 1934 | ** | | 1920-1 | |
| 35. Lebanon 1992 | | ** | | 1985-8; 1990; 1992 |
| 36. Malaysia 1974 | | ** | Absent | Absent |
| 37. Moldova 2001 | ** | | | USSR 1990-1 |
| 38. Norway 1906 | | ** | Absent | Absent |
| 39. Panama 1989 | | ** | Absent | Absent |
| 40. Paraguay 1999 | | ** | Absent | Absent |
| 41. Peru 2000 | | ** | 1988-90 | 1978-86; 1991-2 |
| 42. Poland 1926 | | ** | 1919-24 | |
| 43. Spain 1939 | | ** | Not known | Not known |
| 44. Sri Lanka 1978 | | ** | Absent | Absent |
| 45. Trinidad and Tobago 1971 | | ** | Absent | Absent |
| 46. Turkey 1980 | | ** | | 1979-80 |
| 47. United States 1904 | | ** | Absent | Absent |
| 48. Uruguay 1973 | ** | | | 1965-8; 1972-3 |
| 49. Yugoslavia 1997 | ** | | 1990 | |