

“The Natural Rate of Education” as the Factor of Political Stability and Human Capital Development in the Context of the “Arab Spring” and Contemporary Russia

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Abstract—The given article contains a hypothesis about the increasing level of influence of the system of tertiary education on stability of political regimes in many contemporary countries. In order to reveal the mechanism of such influence, the authors propose the concept of “natural rate of education”, which reflects optimal balance between the labor market and the educational system from the perspective of avoidance and tackling of social protests and instability. The authors suppose that the stabilizing function of the system of tertiary education is determined by its role of the specific regulator of labor market and its capability to involve millions of young males, providing them long-term occupation. Under the state policy, this stabilizing function may be enormously exaggerated and even reach the point of extremum and become counterproductive, triggering mass protests. The article contains interdisciplinary approach, being on junction of political science and economics. The authors use selected methodological foundations of theory of human capital and introduce the notions: “educational pyramid”, “educational bubble” and others. The article also includes a case study of Egypt and Tunisia before the Arab spring and contemporary Russia. The authors stress that Russian tertiary education system plays a unique and significant political role.

Keywords—*political stability; education; unemployment; political regime; protest movements*

I. INTRODUCTION

In the given article, we're going to stress the multidimensional character of the influence of the system of tertiary education on the political and economic processes. Some of these effects could be disguised and subdued to their own logic.

During the last decade, we witnessed that the protestors from Arab countries (as well as East European protest movements) mostly consisted of relatively young and educated individuals. This explains the relatively bloodless character of the modern revolutions (at least at their first stages) that could be classified as the revolutions of possibilities and the revolutions of expectations.

In the contemporary world, a national system of tertiary education (that includes higher and professional education) influences the level of employment and becomes one of the key factors of political destabilization from below. This role of the educational system is so high because of its economic function of the specific regulator of the labor market.

But by what economic mechanisms does the educational system influence protest activity both positively or negatively? This political function of the educational system appeared relatively recently, chronologically simultaneous to formation of the modern system of mass tertiary education. In many countries, this function of education can be

exaggerated. This could be one of the reasons of many revolutions of the beginning of the 21st century. In many countries, the system of education in different historical periods can become the cornerstone of stability of a political regime or a catalyst of social and even political perturbation.

Considering reasons of social protests and revolutions that happened in many Arab countries, we should pay attention to the enormous numbers of students and graduates and their correspondence with the conditions of national economies. The role of educational system in contemporary Russia is also very special and very substantial – for at least two decades, the Russian tertiary education system played a unique and significant political role. We believe that contemporary Russia presents a unique example of configuration of employment and educational levels that permits to draw a conclusion about the exceptional role and efficiency of educational system in sustaining stability in the country.

II. THE CONCEPT OF “THE NATURAL RATE OF EDUCATION”

To understand the above-stated phenomenon, we propose the concept of “the natural rate of education”.

Here, we base upon the following definition of political stability – “the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism” [1].

To begin the explanation of the proposed concept, we should answer the following question: “What demographical group represents the most notable threat to political stability?”

According to the recent data, four main statements could be made.

- The high rate of unemployment could affect people orientations, civil societies, their protest activities and political stability.
- The numerous revolutions of the beginning of the 21st century prove that, in the modern world, the most explosive demographical group is young people and, especially, single young males aged from 15 to 24 in the Asian nations and 16-30 in Europe.
- People with higher educational levels are more inclined to have more substantial and complex needs, demands, and higher level of citizen activity. It's easier for them to comprehend the political messages and use information technologies. They are establishing social and civil networks more easily. This means that they are more critical about dictatorship, kleptocracy, oligarchy, “wild” capitalism and other forms of restrictive and repressive authoritarianism. Their level of political culture and participation is above average.
- Today's younger generation is considered the most educated in the world's history, but the rate of

unemployment among youth surpasses all other population groups.

The youth is the important and active part of the national civil society and possible protest movements. Youngsters are often feared by governments. As J. Goldstone wrote, the growth of the weight of youth could undermine the existing political coalitions and stability. Big cohorts of youngsters often attract new ideas and heterodoxy religions that challenge old forms of power. Since the majority of young people have less family and career obligations, they can be mobilized to take part in social and political conflicts relatively easily. “The role of the youth in political violence during the known history is undisputable” [2].

According to the UN specialized report, the current generation of youth is the most educated in the world history, but the unemployment rate in this cohort is unparalleled and still is getting worse. 45% of young people in the world live on \$2 per day or less.

On the national level, “the natural level of education” means the optimal balance of the educational system output and the number of the new jobs and private entrepreneurship possibilities created in “Fig. 1”. If the balance is absent, this could lead to instability.

Also, state universities and colleges could purposely overproduce graduates to unload the labor market and win some time for the economy to grow and create new occupations for more people. Sometimes, national governments do not have many public and economic goods to offer to the youth except access to higher education. Populism or idealism of political leaders could be other factors of politically motivated unbalancing of supply and demand of educated specialists.

This strategy could wither demographical pressure on the labor market and boost stability in short- or mid-term periods. In long-term periods, it could become counterproductive, often provoking accumulation of the “overeducated” and underemployed young males and their frustration and radicalization. Thus, the education system contributes greatly to growth of precariat, as G. Standing defines it: “This is the first class in history for which the norm is having a higher level of educational qualifications than the labor the person can expect to obtain and be obliged to do. This makes the alienation easier to appreciate. But this imbalance generates deep status frustration, as well as an anger about having no sense of a future, no sense that life and society is about advancing to a better state” [3].

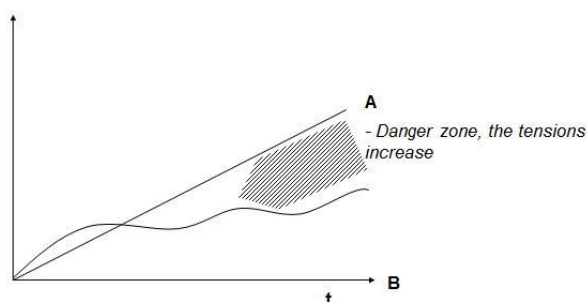


Fig. 1. The approximate effect of the increasing deviation from the “natural rate of education”. The growth of tensions in the country is determined by the broadening gap between A – the number of graduates (supply of the specialists), B – the number of qualified jobs, created by economy with an effect of possible fluctuations (demand).

State driven investments in the sphere of higher education could have a very substantial multiplicative effect, providing not only the training of demanded specialists, economic growth, employment and modernization but also substantial political outcomes and “probe effects”.

However, it would be a mistake to automatically associate the investments in the sphere of education with the investments in the reproduction and development of the human capital.

We’ll try to illustrate the thesis that these investments not always are aimed at development, and their quantitative growth could demonstrate the absence of correlation with the level of the human capital. In some cases (including Egypt, Tunisia and even to a certain extent contemporary Russia), the increase of the state educational investments dictated by the need of sustaining political stability sometimes leads to the formation and accumulation of so called negative human capital.

The Russian Federation spends just 2% of GDP on its tertiary education system. The return, both economic and political, is enormous. The system of higher education contributes greatly to sustaining stability of the political regime. This is very effective, but it’s not a very generous investment. This proves that, in contemporary Russia, the government’s attitude towards education policy is mostly instrumental. The output is also questionable because at least 1/3 of the graduates of the universities find jobs that are not connected with their competencies. There is a huge gap between professional training and job placement.

The unbalance of “the natural rate of education” is especially evident if the unemployment significantly deviates from its “natural rate”.

As we know, there are three main types of unemployment:

- Cyclical unemployment, also known as deficient-demand unemployment, occurs when there is not enough aggregate demand in the economy to provide jobs for everyone who wants to work.
- Frictional unemployment is the time period between jobs when a worker is searching for or transitioning from one job to another. It is sometimes called search unemployment and can be voluntary based on the circumstances of the unemployed individual.
- Structural unemployment occurs when a labor market is unable to provide jobs for everyone who wants one because there is a mismatch between the skills of the unemployed workers and the skills needed for the available jobs.

All three types can contribute to the protest activities of the relatively young and educated specialists but only 1 and 3 can be described as inevitable “social evils”. So here in the given article we pay attention mostly to cyclical unemployment.

Human resources could be distinguished into 3 main parts:

- Employed (E) – most stable.
- Unemployed (U) – most unstable, often the “fuel” of violent protests.
- Non-labor force» (NL) – more stable, they don’t work but have temporal or permanent occupation.

In some situations, if the labor market is not developing fast enough to absorb young people, the state could afford to convert potential unemployed (U) to Non-labor force (NL), providing them a long-term occupation.

For this distinction, we propose the term: “stabilized by education non-labor force” (SNL). Many young people who can’t adequately realize themselves in the economy receive a possibility to postpone their entering the labor market. If the educational system mostly belongs to the state, it can increase investments, open new universities, programs, propose educational loans, and etc. Another tool is the “market signals” – the increase of educational demands to the workforce.

This strategy works just fine when the economy is growing and developing, but, during recessions, the adequate number of new jobs are not created (for instance, in the Egypt before the revolution, there were annually 700,000 new graduates from universities and colleges and only 250,000 new jobs).

In such conditions, the spending on SNL becomes a burden and a waste (according to the Okun’s law). This function is becoming counterproductive in “Fig. 2”.

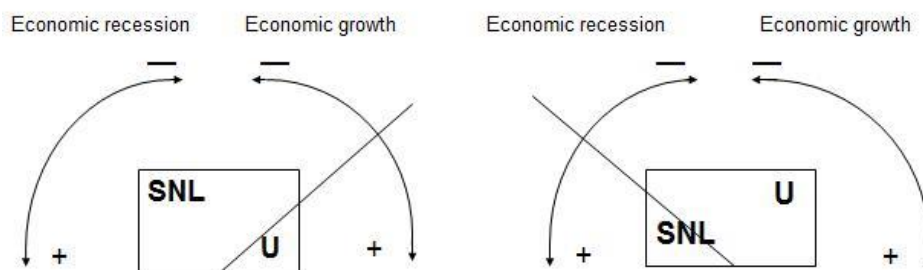


Fig. 2. The impact of economical conjuncture on the growth of SNL (–, + – the degree of intensity of recession/growth). During the stable and substantial growth the cyclical unemployment is decreasing as the necessity of SNL and vice versa.

Quantitative investments in the sphere of education (the sheer number of students at the expense of quality of tuition) are often a valid indicator of the process of churning out of SNL just to soften economic and social tensions.

The accumulation of critical mass in this group leads to social radicalization, especially among single and relatively young males. The demographical “fuel” of Arab Spring (and Euromaidan in Ukraine) mainly consisted of such individuals. The possible critical point of accumulation of young and educated unemployed in Egypt was reached in 2011. This was the result of the state driven educational “boom” of 1990-2000th in the country. This tectonic social shift provoked by demographical “youth bulge” was not sufficiently backed up by national economy.

From this perspective, it’s possible to consider “brain drain” as a “good” possibility for many political regimes to add more relief to labor markets and decrease possible instability. This explains why many governments in developing countries complain on “brain drain”, but, at the same time, do little to prevent it. We can call this process “the canalization of the excessive human capital”.

It would be fruitful to apply some of the notable concepts of the theory of human capital to the analysis of the phenomenon of “the natural rate of education”.

According to the prevalent definition, human capital is the stock of competencies, knowledge and personality attributes embodied in the ability to perform labor so as to produce economic value. K. Marx was the first to prove economic and political effectiveness of investments in human capital (workers).

Employees with higher levels of human capital are prone to expect and demand more. The nations with high level of human capital are more competitive, developed and stable. Human capital investments are educational, training and other spending such as: public, private or personal. If they are not efficient, we can witness accumulation of the negative human capital.

Negative human capital can be defined as human capital with little to no effective output. It cannot provide economic modernization and sufficient return on investments. Graduates with insufficient or outdated skills, knowledge and ethics cannot satisfy modern requirements. Negative

human capital cannot be easily canalized. Above all, negative human capital is being accumulated to produce mass frustration and protest activities.

The system of education can form negative human capital by 2 ways (quantitative and qualitative):

Disproportionate overproduction of particular types of specialists leading to the unbalance of the labor market (“educational bubbles”)

Low quality of educational standards and “pseudo-education” (outdated or locally limited knowledge).

The next important question here is the rate of efficiency of tertiary education. This concept was proposed by Polish-American economist J. Mincer [4]. The rate of efficiency of tertiary education measures the economic gain of an educated specialist. It’s high if the difference in lifelong earnings of the groups with different educational levels is substantial.

The rate of efficiency of education illustrates the percentage of increase of earnings for each additional year of tertiary education.

According to the recent data, we see that in the OECD countries the rate of efficiency is rather high – 7-10 % of extra earnings for 1 additional year of training.

In some countries (like Georgia), the difference is only 3%. We can imagine the frustration of young graduates – their gain is next to nothing.

In Russia, we witness an interesting exception – overproduction of educated specialists were accompanied with a rather high rate of economic efficiency of tertiary education.

In Russia, we have one of the most educated labor force in the world from the formal criterion. More than two thirds of national labor force have full tertiary education. Only the US and Japan can compare. But the hi-tech sector of the economy is less than 3% of GDP. That seems very untypical. Since the beginning of the 1990’s, the number of students and universities tripled, but economy and applied science are still being in poor condition.

To explain this phenomenon, we propose the term “Educational Pyramid” in “Fig. 3”.

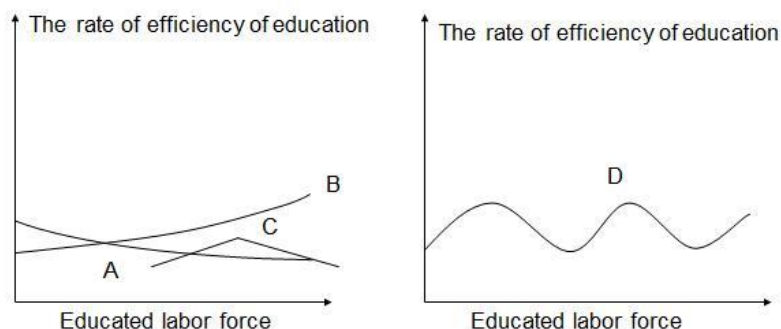


Fig. 3. The dynamics of change of the rate of efficiency of education and the effect of “educational pyramid”. A – the situation of economic recession, B – the situation of sustainable development, C – “Educational pyramid”. The number of educated labor force is permanently increasing – this means that in perspective the rate of efficiency of tertiary education is going down. D – The ‘swine cycle’ gives the most exact presentation of the dynamics of fluctuations of the rate of efficiency of education affected by the economical conjuncture.

The effect of the “educational pyramid” seems to be rather simple. Overproduction of educated workforce leads to the increase of educational demands to the workforce even if they don’t correspond with the condition and level of development of the economy. This policy is carried out by the state and at the expense of less educated social groups. This strategy creates some kind of artificial situation but can boost stability and postpone the negative effects of economic and social imbalances. Such situations can be found in several Middle East and post-communist countries including Russia.

Why are these pyramids are formed just in certain countries? Which factors contribute to formation of “educational pyramids”?

- The presence of the “resource” economy based on natural rent that helps to smooth out market contradictions at the expense of extra rent income (like “oil money” in Jordan and Russia);
- Formation and inflation of the “educational bubbles”;
- The moderate level of demographical pressure;
- Sociocultural factor – the status of higher education is very high in the society;
- Successful combination of low alternative (“opportunity”) costs and non-monetary benefits;

The presence of the disguised and possibly not recognized state policy directed at tackling of social and political processes undesirable for political elites.

Let’s take a look at the Russian case.

In contemporary Russia, we can witness many economic and social paradoxes connected with tertiary education:

- The huge growth of number of educated specialists and at the same time the decrease of productivity of labor;
- The expansion of the system of higher education and the decrease of the hi-tech sector of economy;

- Rapid development of post-graduate education and the decrease of inventions and patents;
- Very high percent of youngsters entering universities and colleges and high percent of graduates, applying for low-qualification vacancies;
- Rapid decrease of the number of researches and increase of the number of lecturers.

The authors suppose that these paradoxes could be effectively understood by applying of the proposed hypothesis of “the natural rate of education”.

From many perspectives, the parameters of the educational system in Russia are very specific. We can clearly see the great scale of tertiary education system and its important role in supporting political stability in 1990-2000.

The unique parameters of tertiary education in contemporary Russia are as follows:

- The highest coverage of education.
- Preparation of specialist’s costs very low to the state.
- Russian system of education involves students for a very long time.

The stabilizing function of the system is that it became a huge and very important employer. Then again, the salaries of professors are below the average level.

In contemporary Russia, the return on investments in production of SNL is very high (a long duration of study, one of the widest levels of coverage in the world, a huge supply of relatively affordable or free places in colleges and universities, big numbers of relatively cheap professors and personnel and also high motivation of the youth to receive tertiary education). These investments are not so costly for the state (the “share” of GDP of one student is much lower than of an employed person). Like in several countries, it’s much easier for elites to open the doors of universities for young people than to carry out effective modernization of economy and improvement of vertical mobility.

Sound quantitative parameters of higher education in Russia are compensated by not so bright qualitative

parameters. The process of accumulation of negative human capital is underway. Often, the problem is not only lowering educational standards and disciplinary demands of many institutes. For many students, diplomas, instead of knowledge, became the main aim. This is especially true because of the formation of the educational pyramid which leads to increase of formal educational requirements to the work force even if a given vacancy is not connected with received specialty and competencies of a candidate.

In the period of recession of the economy and weak political regime, the role of the education system in supporting of stability was very high although hidden and not obvious. The number of universities as well as students more than doubled in a decade. But the quantity was before quality (also because of socio-political aims). Also, universities helped overcome structural unemployment provoked by market reforms, "information revolution" and transformation of the society.

In the 2000's, the political regime became stronger. The economy began to grow, but the educational system preserved its role and even amplified because of the formation of educational pyramid. Now this process has reached its limits. Since the financial crisis of 2008, forced continuation of overproduction of specialists most of which are not decent is becoming bad for economy and stability. If educated people don't see perspectives, this could lead to mass frustration and development of protest movements.

From the end of 2011, we were witnessing some of these trends and processes coming true. But these processes are not likely to lead to mass and serious transformations, because of objective reasons. The first obstacle is a "demographic pit" that Russia began to face in 2009. The demographical decrease of the youth is a dangerous trend for the nation, especially from long-term perspective, but it could be a relief for the political regime that desperately wants to keep power.

This means that the system of higher education has accomplished its "hidden" socio-political function of helping political regime to withstand the wave of the youth of baby boomers from the late 1980's without large-scale social turmoil.

III. CONCLUSION

- The era of mass tertiary education: the political implications. Previously in human history, political regimes used to restrict the access of the masses to higher education. The important factor was concerns about political stability and the integrity of highly polarized social structure.

Now the regimes that want to stay at power have to open doors of educational institutes as wide as possible. To restrict access to education could be a very unpopular move nowadays because it's perceived as a high value by young people.

Previously, there used to be many governmental programs to deal with jobless youngsters (like labor camps described in "Grapes of Wrath" by J. Steinbeck), but,

nowadays, physical labor for food is absolutely not attractive. These camps have been replaced by colleges.

- Education is not a guarantee of modernization and development of the society.

- The quality run. Previously, including a big portion of the 20th century, there was widespread perception among the elites that the quality of education shouldn't be "too high". Now, such strategy could lead to social conflicts and revolutions. The quality of education becomes the important component of political stability.

- The civil society challenge. In the past, different access to education separated young males preventing them from creating network structures and articulating common interests. Now, white and blue collars can communicate via Internet, and their differences often do not prevent them from joint civil activity.

- The exhaustion of "enlightened autocracies"?

In his classic works, J. Schumpeter wrote about the overproduction of "intellectuals" as the "undertakers" of capitalism [5]. We think that this thesis is true for many "enlightened autocracies", for instance of the Arab World. They produce too many "intellectuals" and often don't know what to do next. They are doing many things right (developing human capital, tackling radical Islamism etc.) but the mistake is to exclude young and educated people from politics and limit their vertical mobility [6]. Revolutions in Egypt and Tunisia were "the revolutions of possibilities." Anyway, even replacement of authoritarian regimes in these countries with democracies won't eradicate the preconditions of political instability.

- The decline of religious fundamentalism and the possible "renaissance" of ideologies.

If the output of educational system in the Middle East keeps its dynamics (which is probable, and the results of modeling prove that), we can see the growth of modern and rational demands and interests in the region, the development of civil society and further global unification. If, in the future, more than 2/3 of the young population has tertiary education, will they still be interested in religious values and not consumerism? That's a question, but the probable fact is the growth of political activity, disapproval of dictatorship and emergence of new political parties and social institutions. In the future, consider the ambivalent position of the global youth and the recession of the global economy, social (ideological) but not civilizational factor will dominate the politics again.

The spread of education usually leads to rationalization of politics, the deepening of economic recession, and global polarization leads to ideological conflicts and increase of protest activities. What would emerge at the point of intersection of these two global trends?

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