

PHENOMENON OF RETROECONOMICS IN POST-SOVIET COUNTRIES: NECROECONOMICS AS THE PAST AND THE FUTURE OF RETROECONOMICS

Medea SHAPATAVA*

Tbilisi Ivane Javakhisvili State University, Chavchavadze Ave. 1, 0179 Tbilisi, Georgia

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Abstract. In Post-pandemic world, after global shutdown and involuntary “break” for the world globalized economic system, the world witnesses the unavoidable changes in the economic processes and in the world economic geography. One of the reasons is the Russia-Ukraine war, which caused serious shifts in global political economy. We are witnessing enormous number of old and not-so-old problems. In all these processes development the term Zombie-economics gets the new life and becomes a new challenge and a problem for the economies worldwide. It demands renewed researches and discussions, aimed to find new approaches in order to overcome the global problem for many countries, as developing, also developed ones. Retroeconomics, together with Necro- and Zombie-economics becomes actual and this topic will be dedicated to the discussion of the ways of overcoming the mentioned problem in contemporary globalized world.

Keywords: retroeconomics, Zombie-economics, necroeconomics, knowledge-based development.

JEL Classification: O1, O2, O3.

1. Introduction

This paper is a part of the research for the dissertation dedicated to the theory of retroeconomics and the ways of overcoming it in the conditions of globalization (on the example of Georgia). It is aiming to understand post-Soviet economic transformation processes and post-communist economic development. The topic is large and includes many important social-economical aspects. A small, but significant part of which – necroeconomics will be discussed below.

Existence of necroeconomics (in literature very often referred to as Zombie-economics) is deeply connected with retroeconomics and the reasons, causing it.

Does there exist technological limit and how far are the developing countries from it? A question raised in of the WB reports (Cirera et al., 2022). Theoretically, there does not exist any limit to technological development. In certain countries the old-styled technologies prevail, thus the countries are left behind in their social-economic development. We will name them countries with retroeconomics. The definition of the retroeconomics by its author is as follows: retroeconomics means the type of

economy, where technologically backlashed firms (retro-firms) exist and function, but despite this fact, there still is demand for their production (Papava, 2016, pp. 3–6). There are 5 factors, which create retroeconomy (Papava, 2017):

1. Protection of intellectual property. Limiting the spread of new technological knowledge contributes to the growth of its unauthorized use. Consequently, the use of sanctioned one is expensive, especially in economically weakly developed countries. Therefore, companies are forced to use outdated technologies;
2. Monopolization of the economy, which means the purchase of new technologies by monopolies, not for use, but for the purpose of not being used by others. These technologies may be used later, but they are often outdated by that time;
3. The behavior of the leaders of international competition – they sell not the latest achievements, but second-hand, used technologies – in order to avoid competition. Due to this, in developing countries are prevailing and collected not innovative, but outdated products.

* Corresponding author. E-mail: medea.shapatava@tsu.ge

4. Low level of education – when the country does not have the appropriate competency personnel at the professional level for the use of certain technologies and it is impossible to use the acquired knowledge. We are talking not only about the personnel of higher and vocational schools, but also about the unsatisfactory level of secondary education;
5. Zombie-economics. When the firms affected by the financial crisis and their related banks continue to operate with bank credits taken on the basis of a guarantee issued by the state. The banks in this case are financed by the government.

The first four factors of the retroeconomics exist in relatively underdeveloped countries, while the zombie-economics exists both in underdeveloped and developing countries, as well as in highly developed countries (Papava, 2016, pp. 5–6). In addition, the danger of the emergence of a zombie economy became clear during the pandemic, when the so-called “helicopter” money has become a reality (Benigno & Nistico, 2020).

2. Discussion

Retroeconomics and its interdependence with necroeconomics through the prism of post-Soviet countries, where the command economy heritage created very strong basis for long-term stability of this phenomenon: One of the main problems of retroeconomics creation and its longevity is considered the weakness of education system. The problems created during transfer, diffusion, imitation of innovations between countries, we mentioned the factor of incompetent labor force (Stoevska, 2021). Together with all those factors, supporting creation of retroeconomics, we must remember that Soviet command economics eliminated and denied the existence of competition. The country allowed competition only in several spheres of economy. In Soviet economy there did not exist market for the old-fashioned and uncompetitive goods, produced in retroeconomic reality. The competition was regarded to exist only in several sectors, such as: energy-production and mining sector, in military sphere and in nuclear weapons production. The latter was due to the realis of Cold war between USSR and SU („Arms Race“, “The Space Race” (Onion et al., 2023). Also, the strongest ‘scaffolds’ for retroeconomics existence were so-called technological and institutional ‘traps’ (Balatski, 2003; Balatski, 2006; Polterovitch, 1999), which provided solid basis for retro-processes stability and longevity. Soviet command economy characteristics were as follows: 1. The natural type of economy, which absolutely excluded the signs of the market. Any kind of market operations or private kind of business activities were prohibited, although there existed illegal “underground” production. Illegal “business” and any manifestation of private business in general was prosecuted by law. The economy was based only on domestic production, the

so-called natural type, where consumption items, necessary for the population were produced in a planned manner under the supervision of centralized governing bodies; 2. The technological and material-technical base of the enterprises of the Soviet system is assessed as primitive, due to their non-competitiveness (except for a few industries mentioned above) and the low quality of the manufactured products; 3. Land and capital were state property. We should also add that labor too seemed to be a state property, since depending on the type of planned economy, people worked not for their own well-being, but for “collectivization” and for the benefit of society. Meanwhile, the personal aspirations of the citizen were mostly neglected for the benefit of the collective. Collective farms and cooperatives, created by the system, belonged to the state. Consequently, the workers did not have the right to work independently, they were necessarily hired workers of the state (Khanzhina, 2015). This approach easily explains free education in the Soviet system. An employee, educated at the expense of the state, contributed his knowledge to the well-being of the state; 4. In our words, the citizen was a hostage of the system and their work was manifested by non-economic coercion (Papava, 2020, pp. 114–118). Therefore, the citizen’s will and choice was not free, it was state property and it had no alternative; this relationship was regulated by the main law of the USSR – the Constitution (Krasilnikov, 2023). At this point, in addition to several areas, involved in competition on the world market, I would add the Soviet film industry and sports, where quite high results were achieved, although, unlike the market economy, the money received by Soviet athletes and representatives of the film industry as awards at international competitions and contests was transferred to the state budget. Along with all other Soviet “positive privileges”, people’s reward for meritorious work was expropriated. We see that the state is the ruler and it fully owns the right to human education and work, does not leave the individual free choice, prohibits and persecutes any type of independent economic activity and appropriates its success for the benefit of the collective, the state. As an outcome, the Soviet system is being estimated as Monopolistic Feudalism, where the state is the sole ruler, or monopolistic feudal (Papava, 1995, p. 9; Papava & Akhmeteli, 1990, p. 33). Any kind of exchange of produced goods was possible only between socialist and communist countries. These operations were carried out within the framework of the Council of Economic Mutual Assistance, where besides of the Soviet Union, were united: Cuba, Eastern Germany, Czechoslovakia, Hungary, Romania, Bulgaria, Poland, Mongolia and Northern Vietnam.

The transformation process and fall of the Soviet Union brought enormous problems, as there never existed any theory regarding this kind of transformation. During transformations there was identified the phenomenon of Necro- or dead economy (from latin word *Necro=Dead*, Papava, 2002, p. 156). Necroeconomy is represented as a segment, where the produced goods are useless due to

their low quality. There is zero demand for this kind of goods and they are being collected and left for years in warehouses. Accordingly, there do not exist any goods exchange operations and naturally, there is no balanced price for them. It is obvious, there is no chance for equilibrium at such a market. The author himself refers to necroeconomics as a “white spot”. In economic science, this term did not exist, since in market economies, unprofitable companies, whose products are not in demand, leave the market without hindrance; In the legacy of the Soviet system, the necro-segment represented the dead material-technical base of the economy and a heavy burden, the removal and destruction of which turned out not so easy. Logically, if there exists dead segment, there should be existing vital segment also. Author of necroeconomics names it as “Vita” (from Latin word meaning *alive*) economics and offers the description of interdependence of Necro and Vita sectors in post-Communist period: 1. Necroeconomics in Public Sector; 2. Vita economics in public sector; 3. Privatized Necroeconomics; 4. Privatized Vitaeconomics and 5. Vitaeconomics created on the basis of new investments.

Necroeconomics of the public sector defined the economic heritage that was revealed in the new transition period: the producer of completely non-competitive products, however, in their importance, often strategic objects. After privatization, they moved to the 3-rd group. The second group reflects the economy that mainly included the sectors necessary for the functioning of the infrastructure, such as the energy sector, mineral extraction, transport, etc. After privatization, these objects and enterprises would be transferred to the 4-th group. The 5-th group represents more or less healthy sector of the transition economy, although during its formation, investments were made mainly in backward technologies and equipment, and it was named the “secondary investment” sector (Papava, 2002, pp. 158–160). Naturally, the products, created in this segment are suitable only for developing markets, for a certain period of time, before the market develops to a competitive level (Reinert, 2019, p. 475).

If we look at the picture from this perspective, clarifying the cause-and-effect relationship and evaluating the necroeconomy and vitaeconomy in a certain period of time, necroeconomy appears as a precursor of retroeconomy.

Necroeconomy, its privatization and subsequent replacement of secondary, however completely useless products accumulated in the economy, with products of slightly better quality, show us a picture of a long-term retroeconomy (Papava, 2011, pp. 341–345). Based on the fact that the Soviet economy functioned according to the certain periodic timelines and a plan, it was impossible to liquidate unprofitable enterprises or start a mechanism for their bankruptcy. The process would question the efficiency of the entire system and stop the “routine” functioning of the system. The state maintained necro-enterprises and thereby promoted the existence of necro-economics. This is explained by the evolutionary

theory of economic changes (Papava, 2010). According to this theory, the basis of economic reproduction is a certain “routine”, which regulates the rules and ways of behavior of enterprises, companies, which organizes the processes of their reproduction (for example, Murrell, 1992a, pp. 35–55; Murrell, 1992b). On the path of transformation of countries towards post-communist capitalism, the routine of Necro-economy was preserved and its replacement by the “healthy” routine of market economy could not be done for a long time. During the *creative destruction* in the new system, legislative changes were necessary, which would serve to replace the old, necro-routine economic processes with the new ones, although this process was delayed due to the governors, the actors and decision-makers of the transition processes (Khaduri, 2002). The necro-routine formed in the Soviet core reflected the process where the low-quality goods produced in the segment of the necro-economy were accumulated in warehouses for years; The enterprises (creating the low-quality products) debts to the budget and to the enterprises of the adjacent sectors grew day by day (Åslund, 1995, p. 6; Papava, 2005, pp. 32–34). As there was no demand for low-quality goods produced by Soviet enterprises, and the enterprises did not have the ability to repay debts, there was adopted the practice of “writing off” debts, easily managed in agreement with the ‘upper echelons’. It was carried out as a systematic action and illustrates a clear case of path dependence.

In case of retroeconomics, we mentioned that the reason for Retro-economy long-term sustainability (because the time period is also very important) lies in the problematic issues of the education system (Stoevska, 2021). Of course, it was a ‘trap’ for development. According to Douglas North, the institutional system plays an important role in the functioning of the economy, since the existing market, includes a variety (mix) of institutions, some of which increase efficiency, while others decrease it. For example, the author, comparing the institutional systems of the USA, Great Britain, France, Germany and Japan with the countries of the “Third World”, or developing countries in the past, showed us that the existing institutional system is critically important for economic success. Douglas North received the Nobel Prize for this theory in 1993, and with this work, he was able to shift the attention of development agencies from technical issues to institutional issues (Faundez, 2016). During the transitional processes, the so-called technological traps are the hindering events together with institutional traps, which are characteristic of countries in transition economies, due to the unstable and unpredictable conditions of these countries (Balatski, 2003). Technological traps are often found in foreign literature with the terms: “path dependence”, “lock-in” (Liebowitz & Margolis, 1995; Arthur, 1989), “blocking” (Rodrick, 1996; Acemoglu & Robinson, 2006). The path-dependence has become the major problem, particularly in its mental expression. The compulsory change did not come with the transformation itself as it was strictly observed in the frame of

post-soviet “*entrepreneurs*” (below mentioned as “Deltsi”) and their usual path to personal interest defending, not the democratic development process. More than half a century ago, as early as 1962 Milton Friedman in his book “Freedom and Capitalism” pointed out that despite intensive government support in many areas, from the military to the medical field to the exploitation of the moon, the enormous economic power concentrated in the hands of the government poses a threat to the free market. (Friedman, 1962, p. 202).

Path dependence in post-Soviet reality drove to the decisions and regulations which destroyed the sustainability and lead to unavoidable mistakes, thus causing the prolongation of the Retro- and Necro- economics.

During social-economical transformations in the countries due to weak institutional frames and often, as a result of not very successful reforms (and often- pseudo-reforms), the weak firms cannot leave the market and they keep “working” in the state of Necro-firms. The author of theory himself refers to necroeconomics as a “white spot”. In economic science, this term did not exist, since in a market economy, unprofitable companies, whose products are not in demand, leave the market without hindrances, and in the legacy of the Soviet system, the necro-segment represents the material-technical base of the economy and a heavy burden, the removal and destruction of which turned out not so easy.

Usually, in literature, necroeconomics is mentioned with the term Zombie-economics. We should not mix this classification, as Zombie-schemes are usually working in market economies, while Norco-economics is born under the command economy. Zombie-economics represents the phenomenon, when insolvent companies partially or fully operate at the expense of credits, issued by zombie-banks under the warranty of the state.

One of the threats of necroeconomics is its “Zombification” and vice-versa: the Zombie-economics creates the threat of the necroeconomics and, in various cases, is both: the precursor to the necroeconomy and its future (Papava, 2002). I see the illustration of the problem of retroeconomics as a triangle (Figure 1), below as a simple model for the description:

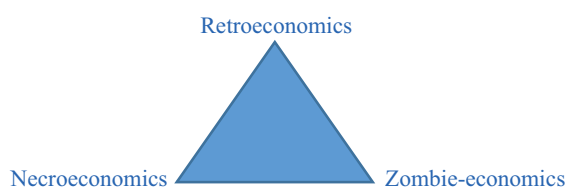


Figure 1. RNZ triangle

In my point of view, it shows well the problem of retroeconomics and its pre- and post-economic states: Zombie- and Necro- economics. This geometrical figure is stable, but it does not mean that there exists equilibrium in the market. It only illustrates the “steadiness” of the phenomenon of retroeconomics and its possible “outcomes” (and no way the balance).

If we turn this triangle over, we will get the peak of it down and accordingly, Zombie- and Necro economics as a future of retroeconomics. Meanwhile, both of them (“Z” and “N”) are in the same line, as their interdependence seems to me to be placed in linear position.

Unfortunately, during the collapse of the Soviet reality, high executive positions in the countries economic processes were occupied by businessmen transferred from the shadow sector of the economy (Papava & Khaduri, 1997), thus the processes moved from a natural and healthy algorithm to a mode of mutation. In the transition period, in the conditions of a weak institutional space, the corruption, protectionism and mediocrity characteristic of the necroeconomy (and, of course, the Retroeconomy) were preserved (for example, Papava, 2000, pp. 57–62; Shevardnadze et al., 2000; Tanzi, 1999; Gray et al., 2004, pp. 11–37). Despite the described common characteristic (sustainability), the existence of a retro-economy is equivalent to a regression of development for the country, and its economic mechanisms are opposite to those mechanisms that promote economic growth. However, it is possible that old and new technologies can “co-exist” in such a system where new combinations are formed as a result of creative destruction and their harmonious balance should take place. I would call such a coexistence a *combined systematicity* (Shapatava, 2023) – bringing the retro-part and innovations into one system, which would have the ability to function in the conditions of the developing market. Of course, I assume that this systematization should be done with the supervision and partial intervention of the state.

3. The role of Homo Transformativus

The main actor in retro-economy and, accordingly, necroeconomy, is Homo Transformativus. He is a pragmatist and does not think about the future: he prefers to control the system manually and keep it in a necro-state to protect his own interests (Papava, 1996, 1999, 2004; Papava, 2001, pp. 11–14). In the Soviet space, entrepreneurs of the shadow sector of the economy were referred by the name “Deltsi” (from the Russian word *дело*); during the transformation period, those entrepreneurs transformed into post-entrepreneurs – “post-Deltsi” (Papava, 2005, pp. 34–36). In the process of privatization, they were able to take over state enterprises. They often used hired managers to run their enterprises, but for the most part, they kept the leadership positions themselves. In pursuit of their private interests, post-entrepreneurs, not creative businessmen, emerging from the “comfort” of the necroeconomy, prevented the implementation of the newly created bankruptcy law, thus causing significant damage to the newly conceived market economy. Post-entrepreneurs consciously could not and did not manage to play a positive role for the economy, in the actually experimental and reformative, and often – pseudo-reformative environment of

regulations and legislative framework. In this regard, a thorough analysis of institutional research allows to assess the influence of formal, informal and shadow economy-related institutions on the quality of economic development (Papava, 2002, pp. 98–107). Actually, at that moment, economists in the world had neither theoretical nor practical knowledge (Papava, 2002, pp. 32–36; Papava, 2021, pp. 222–227), which would facilitate the transition from the command economy to the market economy. Complex problems, sudden defaults during the collapse of the Soviet Union, the activity of collective post-businessmen, vicious practices of solving business issues in criminal ways, bureaucratic traps of the state apparatus and many visible and invisible factors led to the preservation of the legacy of necro-economy for a long period of time. The transformation into Homo Economicus, who had to become a rationally thinking individual during the social-economical changes in post-soviet countries and replace the so-called Homo Sovieticus, i.e., Soviet man (Buzgalin, 1994, pp. 250–253), never happened. The transformation of the mentality of the Homo Sovieticus and later –Homo Transformativus, turned out to be the most difficult issue (Papava, 2005, p. 51–57). It is important to mention the new variety of influential personalities emerging in the post-Soviet space, which the elite of developed countries called “oligarchs”. The history of the origin of oligarchy is ancient, and the term is mentioned in the works of Plato and Aristotle, but in the post-Soviet countries, oligarchy has become a new phenomenon (Guriev & Rachinsky, 2005). The scale of accumulation of wealth by oligarchs, influence and control over economic processes is different. However, the majority of them accumulated wealth close to and with the support of the government or top-ranked-executives, which allowed them to interfere in political processes, facilitated lobbying and later – manual control over the processes. A lot of oligarchs put themselves at the head of the countries (Kuper, 2023). If we were talking about the vulnerability of personal will and freedom above, in this case, there is already a place for certain individuals or their group to influence the economy as a whole and the vulnerability of the business environment (Guriev & Rachinsky, 2005). The practice of any country with an oligarchic government shows that in no case, due to the merits of the oligarchs and even their group, progress in overcoming the retro-economy was not achieved, or it was very insignificant, and the formation of the oligarchic segment from the business society deepened the social inequality and inequality that were sharply expressed during the transformations (Novokmet et al., 2017; Guriev & Rachinsky, 2006). To be fair, we should add that the vices of socio-political aspects are not only characteristic of developing countries. For developed countries, we may mention the phenomenon of *white collars* in economic crimes (“White Collar Crime”) (Sutherland, 1983, pp. 199–258).

4. Overcoming necroeconomics

How can the necroeconomy be overcome? The real solution is to create a routine mechanism of the market economy. First of all, we are talking about the 5-th group, where vitaeconomy is represented as the base of new investments. The government should focus on this sector and create an appropriate institutional, political, stable environment that will promote the emergence of new companies. This should be done at the expense of the 1-st and 3-rd groups. So that the economy can remove this burden and develop. As for the 2-nd and 4-th groups, regardless of in whose ownership these segments turned out to be, it is necessary to attract investments here and to attract financing parties for long-term projects in order to use partial Vita-, – economically viable potential. Otherwise, they too will end up relegating themselves to the segment of the necro economy. It is important for the first group- necro-enterprises in the public sector, to attract the investment of interested parties in the strategic but “dead” segment, which is quite difficult. The second solution is to privatize these facilities at a nominal price (since a “dead” enterprise cannot be expensive), and this privatization should become a long-term investment commitment. In addition to privatization processes, it is necessary to implement the bankruptcy law (Papava, 2011, pp. 133–138; Papava, 2005, p. 91). Despite the fact that in the transition period of the post-Soviet countries bankruptcy legislation was created to liquidate unprofitable enterprises, it was often “stillborn”, i.e. necro- (Papava, 2005, pp. 36–38). Unfortunately, the refinement of the processes could not be fully implemented, and the necro legacy has remained a persistent segment of the retroeconomics past and present.

5. Conclusions

Re-thinking retroeconomics? The main path for overcoming retroeconomics is the creation of strong, knowledge-based economics. In the full paper of my research I am discussing and strongly supporting DEA – Data Envelopment Analysis (Charnes et al., 1978) and the most recent model EUTOHA (Emerging Unified Theory of Helix Architectures) (Carayannis & Campbell, 2022) for the research of the Retro system and diagnostics of the problems. I would also include the approach which I named *combined systematic approach* (Shapatava, 2023) – meaning bringing the retro-part and innovations into one system, which would have the ability to function in the developing market. Of course, I carefully suggest that this systematization should be done with the supervision and partial intervention of the state.

There is no single, unique and guaranteed success model or formula to overcome the phenomenon of retroeconomics and create an ideal economic model. Even the results of scientifically proven studies always leave some room for interpretations, although they give the advantage of reducing errors. I will borrow from Friedrich

Hayek that scientific knowledge is not the sum of all knowledge, and there is a large amount of “unorganized” knowledge, which can hardly be called “scientific” in its general sense, that is, knowledge that arises under certain circumstances, in a certain place and time (Hayek, 1945, pp. 519–530). Therefore, there will be endless space for development and new knowledge in this direction.

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