Issues and Types of Adverse Selection and Negative Selection*

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In a relatively high number of cases, there are selection criteria in everyday life, the implementation of which clearly does not support the development of the economy, even in the short term. At the same time, the phenomenon of adverse selection raises its head relatively rarely in reality, since it is equally dependent on the preconditions of a high degree of hidden information and the complete good faith of the stakeholders. In comparison, negative selection is – by necessity – a more frequent case. In such cases, the relevant information is available to the parties. At the same time, the individual or group possessing the information consciously abuses their dominant position. Moreover, this specifically disadvantages those who currently best comply with the existing selection requirements, but in spite of this are vulnerable due to the lack of a proper negotiating position or interest-asserting capability. However, the dominant position or power possessed by the relevant party can also be used "according to its intended purpose", which enables the implementation of positive selection that is very likely to promote development.

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1. Introduction

In folktales, it is a common ending that good deeds are amply rewarded. The fact that this is not always so in everyday life seems natural, since even in a modern market economy not every effort is destined to succeed. It is more remarkable that in Eastern and Central Europe we usually do not feel that the message of the adage "It is the horse that pulls its weight that gets beaten" is no exaggeration. Mihály Vörösmarty wrote in his poem titled Appeal: *"And here in age-long struggles fell our best and noblest, dead."* In fact, the way a particular community, organisation, group or company treats its best members tells a lot about it. A military leader or even a football coach worth his salt knows that the best persons should be

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protected, treated gently and supported, to enable them to serve the interests of their communities, and ultimately those of the leaders for as long and as best as possible. They know that if the existence of the best ones are put on the line or even lost, the survival of the community may become questionable. On the other hand, in everyday life it is common that the best employees, managers, the best customers, even high-performing companies or entire industries suffer disadvantages. Typically, economic operators suffer the disadvantages not directly in their person, legally or physically, but rather because the goods, services produced by them or the activity performed by them, generally, their implemented activities are underrated. This underrating may occur both inside and outside the organisation, and it is reflected back (*Schumpeter /1934/ 1980*) to every operator participating in creating the given value. Here is what István Széchenyi wrote about it: *"The Hungarian farmer cannot bring his fields to the highest level of flourishing.* (...) *It is because of limitations, especially the limitation of meat, that one of the cornerstones of our agriculture is paralysed, and therefore stands with one leg raised. The administered price of meat makes all proper fattening useless, and wherever fattening is useless, there one of the cornerstones of the economy is missing. Good meat is not more expensive than bad meat, so why would a farmer strive to produce better meat?"* (*Széchenyi /1830/ 1903: 58–59*). The majority of domestic economic operators do not seem to understand – and this is almost like a tradition – the seriousness of the requirement that the high quality they need – whatever the area where they want to utilise it – should be properly appreciated and rewarded, to enable the relevant efforts of the stakeholders to benefit in the longer term as well. This study is intended to provide assistance for the awareness necessary for this.

2. The foundational logic of economic evolution

Darwin's theory of biological evolution had a strong impact on several disciplines, including economics. The idea that, by way of the filtering effect of evolution, a population capable of achieving a high level of harmony could be created from the constantly emerging variations, has stirred the fantasy of several economists. According to *Thorstein Veblen* (*1899: 125*), who is considered one of the founders of evolutionary economics, *"The life of man in society, just like the life of other species, is a struggle for existence, and therefore it is a process of selective adaptation. The progress which has been and is being made in human institutions and in human character may be set down, broadly, to a natural selection of the fittest habits of thought and to a process of enforced adaptation of individuals to an environment which has progressively changed with the growth of the community and with the changing institutions under which men have lived.*[1]

[1] *Veblen* (*1972: 180*)

For a long time, the analogy between biological specimens and economic operators, the population and the national economy, industry and market seemed quite unambiguous. Especially in the special case when a high level of adaptability of economic operators and that of the population was identified with economic development. *Kotosz* (*2002*) also pointed out that in fact, there is no accurate, generally accepted definition for evolutionary economics, similarly to several branches of economics, especially to those that do not belong to the mainstream. In the opinion of *Beinhocker* (*2006*), applying the terminology of game theory, economic evolution itself, its basic logic is a "child's play", in that there is and there can be no difference between the researchers and analysts exploring various fields of this subject. In fact, we have a given set, a population which – still or already – must have at least two members. Let us assume that there are minor or major differences among members of the population in terms of their capabilities or the activities they perform. Hence, let us assume that there are variants. Through selection, certain consequences are attached to the individual variants, depending on the extent of their adequacy in respect of the current selection requirements. It is possible that differences compared to one another –who is which variant – happen to be insignificant, but typically the variants may face different consequences. Consequences that are more favourable improve the chances of the given variant for survival or its survivor conditions, and consequences that are generally adverse do the opposite. According to *Beinhocker* (*2006*), economic evolution is different from biological evolution in that the role of awareness is extremely high in both the creation of variants and in the field of selection requirements, and thus the biological characteristics of humans could be much less important. In fact, *Harford* (*2011*) highlights that in biological evolution there is and there can be no foresight or planning, only different levels of compliance with the trials. Only the current variants and the current selection requirements exist. At the same time, in economic evolution humans try – with varying degrees of success – to look forward, to plan and to gain advantages in selection, even at the expense of longer-term investments or sacrifices. The reason why evolutionary economics itself is still so diverse in the opinion of *Beinhocker* (*2006*) is that various concepts exist to explain the emergence of variants, selection requirements, the process of selection or the existence, expression and transfer of genes, as well as the spread of successful patterns and concerning the relationship between economic development and economic evolution.

Schumpeter, one of the major economists of the 20th century, also believed that the foundational evolutionary logics can be transferred into economics. As is pointed out by *Shionoya* (*2008*), Schumpeter initially interpreted development and evolution as basically identical. *Hagemann* (*2008*) points out that the early, famous work of Schumpeter – The Theory of Economic Development – systematically used the term evolution instead of development in its earliest version. Even in its title. However,

according to *Shionoya* (*2008*), Schumpeter later realised that although the role of knowledge and awareness in the process of economic evolution is very high, it is not at all obvious that those innovations – i.e. variants – that are successful in the short term will result in favourable quality transformations, i.e. the development of the economy in the longer term as well. In the opinion of *Nazaretyan* (*2003*), it could also happen in the economy that short-term efficient adaptation to the current conditions destroys the foundations of longer-term survival. In other cases, drastic changes in the circumstances subsequently make the former highest level of compliance and adaptability a complete dead-end. This is what we call an evolutionary dead-end. An evolutionary dead-end is not very common even in biology, and in economic evolution it is even less frequent. According to *Deng* (*2003*), there are several development alternatives even at this point, and the decision time horizon of the decision-makers is still very far from the beginning of the supposed endgame. Therefore, in these cases we can talk about developmental dead-ends at best. In their theory of the so-called learning society, *Stiglitz and Greenwald* (*2016*) keep away from the specific sub-areas of economic evolution, the debates going on about these, and only focus on the basic rationale of economic evolution, as outlined above. *According to Stiglitz and Greenwald* (*2016: 188–190*), countries that are capable of alleviating the major problems of economic evolution by establishing and maintaining the creative and learning capabilities of society can be successful or relatively more successful in the future. In their opinion, the following factors counter the efficiency of economic evolution:

- when profit is applied as an exclusive criterion of selection, as the sole benchmark of adequacy;
- when the time horizon of the operators is short;
- when economic competition may be decided even in the short term;
- when those that issue negative externalities, i.e. the beneficiaries of irrational abundance, are able to secure a lasting evolutionary advantage.

3. The requirements of selection

In the opinion of *Nelson and Winter* (*1982*), the selection criteria are the requirements that define the likelihood of survival by the measure of compliance with them, as well as the characteristics of the survival state, i.e. the conditions for survival. In respect of economic evolution, *Nelson* (*1995*) drew a distinction between biological selection criteria consisting of conditions created by the natural environment and “cultural” selection criteria created by humans. In economic selection, “fit” operators which maintain a higher level of harmony with the current selection criteria have better chances of becoming survivors in the given period

and in a favourable state, which will provide more significant and positive chances for them later on. Therefore, operators who enjoy an advantage in selection can "afford" more than those who are less in harmony with the selection criteria. The source of that could be knowledge, power, health, time, money or other resources. *Friedman* (*2007*) concludes that if a more successful survivor starts the next period with such additional reserves, this will provide to them relatively higher freedom of action, less vulnerability and more opportunities for influencing and making an impact. *Nelson and Winter* (*1982: 262–263*) defined four elements of the environment of selection:

- what are the expenditures required by the individual activities and what returns can be accomplished by them;
- the method by which the preferences and rules of the consumer or the regulatory agency affect efficiency;
- what relationship applies between efficiency on the one hand, the size of the operator and the level of market concentration on the other hand;
- in what way and to what extent one can learn from successful innovators, to what extent copying is facilitated or prevented.

Within the cultural, artificial selection environment, a market and a non-market selection environment has been distinguished. According to *Dosi and Nelson* (*1994*), some actors – for example, legislators – specifically show a certain purposefulness and complexity, in order to shape the partial results of the selection, typically through the selection environment. At the same time, the economic thought of the early (1934) school also associated with the name of *Schumpeter* (*1980*), namely that ultimately it is the consumers who determine the value of everything, became popular and remains so to this day. It is their decision that is reflected back all the way to the prices of raw materials or is expressed at the given point in the value chain in the amount of wages as well. Agreeing with that, *Sandlin and Mclaren* (*2010*) emphasise that ultimately it is the consumer who helps reproduce capitalism on an ongoing basis. Naturally, it makes a difference how successful reproduction is, especially in the long term.

An actor that has a so-called dominant (market) position is capable of influencing the definition of the selection criteria of the actors affected by its activity, including customers, competitors or suppliers, in a direct and meaningful way, even in the short term, as well as the compliance of the stakeholders with these selection criteria (*Utton 2003*). Meanwhile, the relevant stakeholders are capable of exerting similar impacts on the party in a dominant position only in an indirect manner and in the longer term, by the so-called co-evolution. Power is not a market category. Power means formal or informal prerogatives in a hierarchical relationship, for the

person having the power to direct or substantially influence the activities of the obligor, in order to accomplish aims that are theoretically the aims of the group, also defined by the hierarchical relationship (*Kornai 1993*).

4. Group selection

By group we mean an interest community of individuals not isolated from one another, where cooperative interactions assuming reciprocity occur relatively regularly among the members and where the activities of the members have a meaningful impact on each other's goal attainment activity (*Bergh – Gowdy 2009*). Therefore, group members depend on one another and thus they are forced to display a certain degree of cooperation, adaptation and mutuality, especially because this dependence is not an occasional arrangement, but rather a permanent one, owing to the series of interactions. Following this logic, all organisations, including companies, can be considered a group. But the community of residents in a street, family or circle of friends can also be a group. There may be overlaps between groups, i.e. one person may be a member of multiple groups at the same time. Membership is not necessarily established by joining a group formally. Similarly to contracting, implied conduct may be very significant in this case as well. In other words, in the event of the realisation of a series of interactions with other members and compliance with the rest of the conditions for group membership, we can already talk about belonging to a group, without formal joining or admission having taken place. In the study, within groups we focus on companies. In accordance with the concept of the group as outlined above, according to *Van den Bergh and Stagl* (*2003*), during group selection a member of a particular community participates in selection primarily and crucially not separated from others, not on their own, but rather as part of a large or small community as a unit of selection. In this way, it is not the particular individual characteristics, but rather the relevant group characteristics that need to apply with the selection requirements. A group may exist because the individual obtains or may obtain some kind of selection advantage from activities more or less coordinated with its peers and its "proximity" to them: its chances for survival increase and its survival conditions may improve. At the same time, the entirety of the group may also obtain a selection advantage through the relatively larger and more diverse population and through synergies. The decision situation often mentioned as an example "a smaller slice of a larger cake or a larger slice of a smaller cake" applies to the situation as well. The operation and survival of the group in the longer term is also manifested by the fact that series of interactions regularly occur among group members and with other groups over and over again, i.e. using the terminology of game theory, infinitely repeated games are realised.

During these repeated interactions or "games", group members have a chance of getting to know one another better and they implement combinations of various alternative actions and "test" the strategies of themselves and those of others. Eventually, a higher level of trust and a sense of responsibility may develop among "veteran" members of groups that experience and survive longer periods, and furthermore, a shared value system and routines may be established, which can significantly facilitate the successful achievement of their aims. Not every group is destined to succeed. Establishment of groups and participation in them provides an opportunity for acquiring selective advantages. However, as with every opportunity, this also needs to be managed properly for the individual to retroactively consider its group membership for a particular period as a success. In economic group selection, it is also not ruled out that every group may strengthen its survival characteristics absolutely (*Polignac 1995*), even though substantial differences may persist, originate or increase compared to one another.

Nevertheless, the development of the size of the group or population is also a substantial criterion of acquiring an advantage in group selection (*Bergh – Gowdy 2009*). The size of the group is so much a benchmark of success that according to *Avilés* (*2002*), it is a general feature among individuals that in the case of two alternative groups to choose from, they want to join the larger group. *Barry* (*1961*) pointed out that when the population of a particular city decreases below a certain level, it starts showing signs of collapse, since outward migration could become a self-propelling process. On the other hand, the attainment of a certain city size will generate a self-propelling process in the opposite direction. *Diamond* (*2009*) illustrated by several historical examples that a human community becomes vulnerable and its direct physical survival is endangered if – while meeting other conditions – the size of the group drops below the critical level and there is no way to substitute the lost members. Today, in a modern market economy, the physical existence of members of a particular group cannot be endangered, but at the same time, the decline and termination of the groups themselves – companies, organisations, populations, markets, industries, customer communities and others – is a very real danger. We know full well that this is an inevitable feature of the operation of the market economy. Still, when it is a group to which we are committed, we would like to act against the decline or termination. On the other hand, as we will see in the following part, it does make a difference whether a group is defeated in selection because considering the important, substantial aspects, it does not perform well enough compared to the rest of the groups, or because sand got into the cogwheels of the operating mechanism of selection.

5. Stakeholder base and free riders

The so-called stakeholder theory is primarily associated with the name of *Edward Freeman* (*1984*), a representative of the theory of strategic management. It intends to demonstrate that a company is structured not only according to the shared will of the owners and the employees, but it is subject to the essential influence of other stakeholders as well. *Masahiko Aoki* (*1984*) uses the methodological toolset of game theory to present the basic relations determining corporate existence by presenting the company as a system distinct from its environment, through the emergence and changes of its internal institutions. *Clarkson* (*1995*) identifies primary and secondary stakeholders within the stakeholder group. Primary stakeholders include those without the support and cooperation of which, i.e. the realisation of interests necessary for that in the making of company decisions, it is not possible to ensure the existence or survival of the company at all. This category generally includes employees, management and owners, but apart from these, even an authority that issues an operating license may be a primary stakeholder, for the necessary time. Members of the secondary group are also important, but their support "only" increases the efficiency of the company, it has a favourable impact on the likely survival state conditions of the company. *Mitchell et al.* (*1997*) argue that three conditions must be met simultaneously for one to be a stakeholder. It should be affected by the operation of the company, this concern should be important for it from some aspect, and it should have some kind of power to affect the operation of the company. *Freeman and Liedtka* (*1997*) go as far as talking about stakeholder capitalism. In other words, the engine of existence and development as a capitalist company is a stakeholder base that is more extensive and stronger compared to other systems. Since each of the stakeholders is subject to some kind of impact by the given company, organisation or activity, therefore directly or indirectly, as initiators, suffering or receiving parties, each of us is a participant of the relevant interactions. That way – regardless of what other groups the members are also interested in – each of us paddles in the same boat in terms of selection and moreover as a group. Naturally, this is an advantage for those who are affected positively and a disadvantage for the negatively affected.

One of the most well-known analyses of the so-called free rider problem that loads the operation of communities can be associated with *Hardin* (*1968*) and deals with the tragedy of commons. Before that, *Olson* (*1965*) provided the general theoretical framework. It posits that an actual or potential group member may expropriate some of the common goods produced by a group, in such a manner that while doing so, it does not take its share or its fair share of the burdens of the common good that has become a private good in the meantime. The result of the free rider behaviour will be a decrease in group performance or group efficiency, or it relatively underperforms the level that would have become attainable but for the

free riders. The term "free rider" does not sound as bad as the level of the negative impact it could have on the given group in group selection. Recently, free riding has also been identified as a negative externality burdening the group, regardless of whether it is committed by an actual group member or only by a potential group member (*Milgrom 1987*; *Laffont – Tirole 1988*; *Rey – Salanié 1996*). Free rider group members are not real, only pseudo-members in the conceptual framework of group selection. While earlier free riding was almost considered as a natural feature of large groups, i.e. something that they have to tolerate, later approaches consider it much more as a negative externality that can and should be reduced.

6. Adverse selection and negative selection

It is important to clarify at the beginning of this chapter that this study is intended to provide a normative approach to selection requirements. It is not our aim to assess the "adequacy" of selection requirements, such as their compliance with the needs of sustainability. In the process of economic evolution, adverse selection and negative selection are phenomena that can occur regardless of the actual selection requirements that apply in terms of economic development. Subsequently many selection requirements are proven to have had an expressly adverse effect. At the same time, this failure arising from the trial and error method is an apparent feature of both biological and economic evolution.

The mere name of adverse selection means that here we are talking about such an unusual thing, a "selection anomaly" in which selection occurs specifically despite the selection requirements. Not because of human misconduct or ill-will, but because in respect of certain goods, situations and activities the knowledge of the involved actors is not sufficient to set up selection requirements that they are also capable of enforcing. As a result, economic operators which otherwise fulfil the relevant selection requirements relatively the best by the goods produced by them, by their services, activities or performance have to leave the group, for example, the industry, market, company or organisation. The reason of departure forced by economic necessity is that owing to the high level of compliance with the selection requirements, the goods, services, activities or performance considered of the highest quality and the economic operator which provides these do not receive the highest consideration in relative terms to which they are proportionately "entitled". They will not and cannot receive it, because the other economic operator which determines and provides the consideration is not in a position where it could determine the level of compliance with the selection requirements with at least rough accuracy, owing to the information asymmetry it suffers. Therefore, the consideration is only defined as an estimate and apparently its basis can only be an expected quality value. In this manner, by necessity, the consideration available for the actors capable of providing the relatively highest level of quality substantially

underrates their efforts. This leads to them leaving the group to find another group where relevant efforts are rewarded in the appropriate manner and on the appropriate level. It is important to note that money or value expressed in monetary terms are not the only forms of consideration, it can also be, for example, moral appreciation. Since after some time it is noticed that providers of higher quality have left, more and more estimated considerations are defined for the remaining group members, each time on a lower level than before. Unless some kind of solution is provided for the problem of the evaluation of quality, according to *Akerlof* (*1970*), the group will eventually fall apart.

In everyday life, processes are also labelled as adverse selection that are in reality forms of manifestation of negative selection, which is discussed later. In fact, in adverse selection the actor affected by the selection fulfils all the current selection requirements at relatively the highest level by the good, service or activity provided by it or by its performance, but it still cannot obtain the relatively proportionate consideration. The system is prevented from doing so by hidden information. On the contrary, in the case of negative selection discussed below, the undervalued actor cannot fulfil an important selection requirement properly, while it can fulfil all the others. This leads to a phenomenon with similar manifestations as the one we saw with adverse selection. Here, the problem of the undervalued actors is that they are not in an appropriately strong negotiating position. Not only are they not in a dominant position or in a position of authority in respect of the party that defines the consideration, their interest-enforcing ability is also expressly weak. Although this selection requirement is not one directly associated with the goods, services or activity provided by the actor, or with the performance provided by it, it still is a selection requirement.

Tirole (*2016*) concludes that all in all, selection can be negative or positive. If appropriate objectivity is ensured, it is actually possible to make a distinction between the two. The relevant community may develop through positive selection. For example, according to Tirole a case in point is when the market is expanding, something that is also manifest in such features as the improvement of the determining factors, which could make the relevant activities more efficient. In the case of a market, this means a lower price level projected on unchanged products, while the producer side is also capable of retaining its profitability in the long term. However, negative selection undermines and disrupts efficiency in some way, which will result in adverse consequences for the community sooner or later. I have summarised the comparison of adverse selection and negative selection in *Table 1*.

Table 1
Comparison of adverse selection and negative selection

Aspect	Adverse selection	Negative selection
Who will be in a selective disadvantage	Those who comply with all the selection criteria the best, by the goods produced by them, or by their activities or performance.	Those who comply with all the selection criteria – except one – the best, by the goods produced by them, or by their activities or performance.
What circles are adversely affected by selection directly	External and internal stakeholders	External and internal stakeholders
Deficiencies of disadvantaged parties	Cannot express their high quality outwards	Have no negotiating power, are in a subordinated position
Good faith of those who cause a disadvantage	They are in good faith	They abuse their rights, dominant position or power
The purpose of originators of disadvantage by causing a selective disadvantage	Causing a disadvantage is not intentional	A private interest against the internal stakeholders, a short-term group interest against the external stakeholders
Impact on the size of the group	Constant loss of members	At the beginning there is no loss of membership, but later on it becomes continuous
Final outcome of the process	Termination of the group	Termination of the group
Opportunities of removing, suppressing	Reducing the information asymmetry below the proper level	Imposing sanctions for abuse by the relevant selection criteria and/or by creating commitment of the abusers
Forms of manifestation of this phenomenon	Equal treatment regardless of quality, with hidden information	1) Equal treatment regardless of quality, without hidden information; 2) Ad hoc and collective soft budget constraint; 3) Abuse with the dominant position of monopoly; 4) Corruption hidden activity; 5) Maintenance or change of status quo while suppressing higher quality

7. Fundamental types of adverse selection and negative selection in everyday life

As seen previously, in reality negative selection underlies most of the processes of apparent adverse selection and not actual adverse selection. As we will see in the summary chapter, in themselves dominant position or power are not adverse for the purposes of selection either, since they can be used in many ways. The problem of negative selection basically occurs when the abuse of dominant position or power is intentionally targeted against those who otherwise fulfil every selection

requirement at the highest level, with the exception of interest assertion. In the following part, we present a brief description of real adverse selection and those types of negative selection that are significant in respect of economic selection.

7.1. Equal treatment regardless of quality, with hidden information

In his famous study, *George Akerlof* (*1970*) presents how informational asymmetry in a market between the demand and the supply side can result in adverse selection, which may ultimately lead to the collapse of the market. This process can intensify owing to the high and increasing uncertainty, since there are no institutions operating in the market – as clear selection criteria – that could minimise this uncertainty. In Akerlof's model, buyers cannot assess the actual quality of the product, and therefore they have to underprice it systematically and increasingly. These activities also increasingly keep sellers which come up with better quality products that are of higher quality from this aspect away from the market. For lack of a better alternative, an average good considered to be of average quality could not be priced higher than the average price, which creates an adverse situation for sellers delivering higher quality and a favourable situation for those delivering lower quality.[2] Therefore, in this case the buyers are not in a position to assess quality of the goods because of the hidden information, and for lack of the institutionalisation of some kind of solution, this will result in a deterioration of the market. In this case, it is a consequence of the lack of knowledge of the actors on the buyer's side, and moreover in an unintended way. Buyers expressly want to recognise higher quality and are also willing to pay higher prices for it proportionately to that, but they are unable to do so.[3]

Arrow (*1979*) considered the uncertainty of the quality of goods to be purchased more significant than even the uncertainty of the prices. Price and non-price indications – such as those on quality – are equally significant in the decisions made by economic operators. If an insurance company is not capable of screening out the low-quality portion of possible customers, the phenomenon of adverse selection may become extensive, and increasingly those customers will take out insurance who will raise the highest compensation claims, at a high price, owing to the poor portfolio. As the customer portfolio is deteriorating and insurance premiums keep rising, more and more high quality customers will stay away from the insurance market. Therefore, the company needs to make efforts to be able to offer a proportionate insurance premium for everyone, distinguishing the high quality customers from the low-quality ones: screening theory (*Spence 1973*; *Stiglitz 1975*). By this, the expenditures on obtaining and enforcing non-price type indications and information may be recouped. However, as has been pointed out

[2] The research of *Major* (*2014*) on the system of relations of economic operators and their bilateral asymmetric informational positions has led to similar conclusions.
[3] *Vincze* (*1991a*, *1991b*) analysed this model of the emergence of adverse selection in great detail.

by *Bester* (*1985*), it is important to fine-tune the severity of screening. Excessive severity could plunge the market into a decline – through the loss of some of the high quality customers – in the same way as the penetration of processes of adverse selection can. Unreasonably loose control could expose the operation of the company to excessive risks. Even high quality customers are interested in conveying genuine signals – signalling theory (*Spence 1973*) – to the effect that they can be considered high quality customers. In their compelling model simulating the behaviour of the insurance market, *Rothschild and Stiglitz* (*1976*) present, on the one hand, that higher quality customers express their lower risk characteristics by a higher level of risk sharing with the insurance company, i.e. the deductible. Naturally, the repeated application of screening on one side of the market could encourage the actors on the other side or in certain markets even force them to release signals about themselves that comply with the system of conditions of screening (*Riley 1989*).

7.2. Equal treatment regardless of quality, without hidden information

Of the types of negative selection, let us first review the case in which the actor makes no distinction on the *input side* between different qualities, in respect of either the supplier or the employees. In this case the actor has appropriate information concerning the inputs, and in respect of the inputs it is also important for it to obtain the highest possible quality. However, by abusing its dominant position it attempts to obtain higher quality at a price that is usually attached to lower quality. In other words, the pricing of the inputs is not quality-dependent. It is obvious that according to the basic logic of the market, in this case the actor could only obtain higher-quality inputs if the production of these involves lower expenditures by the actors affected there. But in a high number of cases this is not so. What else could still ensure that the actor can obtain higher-quality inputs, more beneficial for it, persistently at such lower prices that could only yield an adequate income for the input-side stakeholders at a lower level of quality? According to *Kegan and Lahey* (*2017*), a large number of economic operators display substantial resistance to any kind of change. In our case, a change for the input-side stakeholders producing high quality would mean that they would have to accommodate to the production of lower quality inputs requiring lower expenditures. This is only possible for suppliers in the first place, since an employee is not able to invalidate their qualification, experiences or other required skills and competences. If an employee is not able to take a proper bargaining position, they have no other choice than accept the abuse of power to their disadvantage or join another group with better outlooks. This lock-in situation is extensively analysed by *Hirschman* (*1995*) in his work titled Exit, Voice, and Loyalty.

However, in the case of suppliers, “quality deteriorating” production methods must also be elaborated and learned and this too requires efforts. Helplessness could

stabilise production at an earlier level of quality, at a higher one in our example, (*Schumpeter 1980*). The measure of the producer's helplessness occurring as a result of technological change and manifest in the duration of staying away from change, is significantly shaped by the size, knowledge and income of the operator (*Dong – Saha 1998*), on the other hand, the cultural embeddedness of the owners formulating the production strategy, managers or employees, their system of norms do not enable the intentional reduction of quality even if it would increase the profitability and survival chances of the operator (*Solow 1979*). If the production of the high quality "best possible" good is based on deeply embedded norms, customs or possibly religion, then these could be maintained for as long as several decades or generations (*Williamson 2000*) even when consideration is not proportionate with quality. It happens often even without the institution of embeddedness of efforts at higher quality, that commitment is on a personal or group level. The operators perceive the disappearance of relatively higher quality as a crisis and they would like to terminate this crisis by the institutionalisation of higher quality on the one hand, on the other hand, by accepting and obtaining acceptance for a proportionate market price, if they had an appropriate bargaining position or interest asserting capability for that (*Sylvander et al. 2006:63*).

The second sub-type is the case of collective reward and penalty. Both of these concepts consist of two components. As was pointed out by *Avnar Greif* (*2006*), in the case of collective punishment, each member of a particular community participates in punishing those who operated in violation of the rules, regardless of which member of the community was injured directly. Any member of the community who fails to participate personally in punishing the perpetrator will be punished themselves. At the same time, even if the perpetrator acted alone, not only one person will be punished, but the group that includes them as well. In the case of the medieval "merchants of the Maghreb" this meant that any member of the merchant community who acted in grave violation of the rules was no longer allowed to trade with anyone, he was placed under a certain kind of boycott. This could be easily extended to include several members of his narrower group or even to the entire group, regardless of the fact that the rest of the affected group members apparently did not commit any crime. Therefore, collective punishment was intended to take advantage of a stronger commitment to the narrower group, for the benefit of the larger group. This kind of punishment is a strong deterrent. The method of decimation, as applied in ancient Rome, is based on a similar fundamental rationale. The fundamental rationale of collective reward is similar. In other words, it is not that – theoretically – it would be impossible to clearly identify those members of the community who deserve a reward or that no differentiation would be possible among them, but rather that rewarding the entire group provides a better drive for increasing the cooperation of the members. *According to Narloch et al.* (*2012*), the system of collective rewarding is workable if

the members of the group are appropriately homogeneous, in terms of both their individual characteristics and their interests. This system presumes appropriate group cohesion as well as cooperation within the group. However, where these attributes are missing, those members of the group which contribute to group efforts to a relatively higher extent, by higher expenditures or more significant sacrifices could more easily deplete their reserves, while their proportionate entitlement of the collective reward does not compensate them for all of this (*Willer 2009*). In a community that is not closely-knit or not homogeneous enough, collective punishment means a similarly substantial disadvantage for those who otherwise fulfilled the selection requirements relatively at the highest level, but there is no way to have their extra efforts returned and they have to suffer the same disadvantage as the others. It is these operators who are the first to see their operations and activities fail (*Heckathorn 1993*). It needs to be highlighted that it should also be interpreted as collective punishment if in reality there is no formal collective punishment, but there is no reward either. Therefore, where a community is not appropriately homogeneous, tightly-knit and cooperative to start with, and although there are no collective punishments, but there is no differentiated reward system either, there we will certainly face the consequences of negative selection.

7.3. Ad hoc and collective, soft budget constraint

When analysing the soft budget constraint, *János Kornai* (*1997*) points out that in the case of a hard budget constraint it is essential for the operators to attain an appropriate level of efficiency from their income, to be able to cover their expenditures. However, with a soft budget constraint the budget is no longer able to constitute a bottleneck for the operator. Those who should become victims of this selection requirement are also able to continue operating, since their actual or relative losses – relative to the more efficient ones that is – will be covered eventually. If they are saved by the state, then it will marshal the resources for this coverage of loss and income support by directly or indirectly taking away the profits of the successful operators. If the profitability of the company does not significantly affect the remuneration of the management, then there is no appropriate motivating force for the management to make substantial efforts in order to reduce costs and increase profitability (*Kornai et al. 2004*). The same applies to subordinates: successful innovation draws no or insignificant rewards from the centre, even at management level, which hardly affects those who actually did the job (*Kornai 2010*). The presence of soft budget constraint in a group does not necessarily mean that negative selection is also present. *Kornai* (*2008*) describes that the regular annual debt consolidation by the state in the case of domestic hospitals and “bailouts” results in a situation where the hospitals have clearly adapted to this feature of their financial environment. Those that attained a relatively greater harmony with the rest of the selection requirements – i.e. are among the best in terms of healing and prevention and generally in financial management – as

well as those that did not. In this way, hospitals that represent higher quality are not necessarily disadvantaged only because they show greater harmony with the selection requirements, i.e. there is no negative selection at present among hospitals in Hungary. Apparently, they operate and manage their finances with wide efficiency gaps according to several aspects, but those hospitals that represent higher quality do not have to suffer selective disadvantages. Having said that, it is true that the reason why hospitals need a bailout by the state at the end of each year, is that they are underfinanced by the state during the year, as a way of motivating them for cost efficiency. The debt consolidation of local governments implemented between 2011 and 2014 is a different situation. Similarly to hospitals, *Lentner* (*2014*) did not find negative selection for these either, but only because he did not meaningfully include in his analysis those local governments that had not accumulated debts earlier, and despite that, were capable of significant development. A budget constraint that is occasional and ad hoc in nature and is also soft occurs too infrequently to make the rescued parties view it as a selection requirement and adapt to its existence. Despite that, this phenomenon also clearly affects selection among local governments (*Vigneault 2005*) and this applies to countries other than Hungary as well. Local governments with balanced finances are put at a disadvantage by the occasional, but general debt consolidation plans that apply to everyone – a soft budget constraint – compared to those that became indebted generally through their own faults. By their balanced financial management they caused just as much "damage" to their own local government as the amount of the debt that they could have borrowed and then have consolidated by the state. Although in Hungary the central government took notice of this controversial situation and intended to provide compensation for local governments with balanced finances, only a token amount was provided as compensation. In the case of Hajdúszoboszló, it remained below 10 per cent, and the local governments had to submit grant applications even for that amount. At the same time, the awarded support was allowed to be spent only on projects that were substantially completed earlier in the areas of well-managed local governments.[4] With this, the small town was put at a disadvantage of about HUF 3 billion compared to those cities that financed their similar tourism developments from loans.

7.4. Hidden corruption

According to the principle-agent theory, agents will basically follow their own interests that may conflict with the interests of the principal. Concerning the decision characteristics of agents, there is an informational asymmetry to the benefit of agents, and the higher risk appetite of agents compared to their principles partly derives from this (*Eisenhardt 1989*). To talk about corruption, *Graaf and Huberts*

[4] Support for developments of municipalities pursuant to Article 10 of Annex 3 of Act C of 2014 on the central budget for Hungary for the year 2015.

(*2008*) add another condition to this, namely the condition that the agent needs to assert its own private interests, through the violation of the rules applying to its activity, at the expense of the interests of that group where it has obligations and responsibility as a member. The power that was abused by certain group members in this case is enabled by the informational asymmetry from which they benefit, and is created by their decision and action autonomy of a specific measure. In the United States of America mainly the abusive practices of the management of private companies are considered corruption (*Heidenheimer – Johnston 2011:28–29*), after all, it is not necessary to have state property or a public office for the interests of a community to be sacrificed illegally in the assertion of private interests. In the framework of the principal-agent theory, corruption related to the public sector can be interpreted similarly, with the difference that the politicians who oversee the offices are themselves the agents of the voters. Therefore, in this case we talk about agents of agents. As is presented by *Guriev* (*2004*), because corruptible officials or managers demand a share of the implementation costs or revenues of projects, corruption systematically and continuously eradicates the highest quality. This is because typically not the best ones will become the winners, since the best bidders would not have to apply corruption in order to win. Lower "quasi-quality" provides more available resources to be skimmed for those involved in corruption. But even if occasionally the highest quality was selected, economic motivation for further quality development would still be weakened. Thus, high quality goods are gradually disappearing from the market in any case, and the increasingly poor quality can cause increasingly worse damages to the community. Competition is distorted, and indirectly the entire society suffers welfare losses (*Hámori 2002*). According to certain experts – *Huntington* (*1968*) and *Leff* (*1964*) among others – corruption is not generally and clearly harmful concerning the development of the economy. In their opinion, several kinds of corruption increase efficiency, improve operability and provide lubricant for the machinery of the economy as an early stage of the institutionalisation of the new rules. Others – including (*Méon – Sekkat 2005*) – do not share this view. In their opinion, the assertion of private interests at the expense of group interests means a disadvantage relative to the affected groups in selection, even if otherwise those rules that are violated do not support the development of the group adequately. Only such illegal activities can actually be a "lubricant" for the machinery – while committing not corruption, but other acts of crime – that directly prioritise the perceived interests of the group. It is true that all this is done probably at the expense of other economic operators, while personal private interests may be satisfied indirectly. *Bardhan* (*1997*) pointed out that the fact that Eastern European countries were capable of accomplishing economic growth parallel with increasing corruption after the political changes, but this does not mean that corruption did not set back the development and growth of these countries. We will never know what would have been the growth rates of these countries with substantially less corruption. However, it is certain that economic operators who were unable to

fulfil only one single selection requirement at a high level were pushed back and put at a disadvantage by necessity, i.e. they did not have the proper bargaining position and they lacked adequate interest-asserting capability. Therefore, negative selection created and could create chances for those operators by corruption who had an excellent bargaining position and interest-asserting capability, even though they were less capable of meeting other selection requirements. In accordance with that, the calculated estimates of *Mo* (*2001*) show that 1-per cent increase in the level of corruption reduces economic growth by 0.72 per cent, in other words, one unit of increase of the corruption index reduces economic growth by 0.545 percentage points.

7.5. Discriminatory action of a monopoly at the expense of the best customers

According to *Lambsdorff* (*2002*), in the vast majority of cases, monopolies are fundamentally created by the intervention of the state into the economy. Either the state wants to realise rent through them or it wants to provide these to another economic operator. According to Lambsdorff, there is an obvious connection between rent-seeking and corruption. But rent can be obtained not only illegally, not only by corruption. A monopoly is capable of providing rent to its owners in a legal way as well (*Hillman – Katz 1984*). Typically, monopolies undoubtedly have a dominant position, but this derives not only from their market share, but also from demand features, for example, from its different elasticity, (*Pindyck 1985*). Economics has been interested in monopolies for a long time. The social deadweight loss caused by monopolies is an essential parts of textbooks on microeconomics, as is the discussion of applied price discrimination. According to these, it seemed necessary that monopolies should be considered one of the basic types of market failures (*Stiglitz 1986*). At the same time, *Vickers* (*2005*) notes that the abuse of dominant position by a monopoly may not be manifest in relatively higher prices, but in the tools by which it attempts to maintain its monopolistic power. Such areas of maintaining the dominant position as a restriction of competition or unfair competition may lead to inequitable, unfair competition, or perhaps to the total lack thereof, and indirectly may not serve development either. However, the way actual and possible competitors are treated cannot result in negative selection. As pointed out by *Baumol* (*1982*), even a monopoly with the most powerful dominant position, i.e. the one that abuses it the most, only becomes unchallengeable if currently and in the predictable future it can present the best possible proposal to its customers, in terms of both price and quality. If this is not so, then potential entrants pose a real threat to it even if very serious barriers to entry exist. Therefore, the only way for a monopoly to maintain its monopolistic power is to ensure that it is the one that meets the existing selection requirements the most, however inequitable these might be. As long as only such challengers, such actual or potential competitors are defeated by it who comply with the selection requirements to a lesser extent,

selection remains positive (*Schumpeter 1942*). Therefore a monopoly cannot cause negative selection in respect of its competitors. However, the situation is different concerning its suppliers, employees or customers.

In the earlier sections, the negative selection of the input side – regardless of the existence of a monopoly – has been discussed. Let us now continue with the buyer side. *Mussa and Rosen* (*1978*) demonstrated that the price discrimination and quality policy applied by the monopoly in respect of the individual buyer segments result in peculiar cases by creating several kinds of combinations. Indeed, when price discrimination is coupled with quality provided on a standard level, an excessively large difference may emerge in the price-to-value ratios of a good sold to the individual segments. Buyers who receive access at the lowest price receive relatively high quality in exchange for their money, while those who pay the highest price receive relatively low quality as consideration. Therefore, what is too high for the latter is not the price, but rather the consideration manifested in quality by the monopoly. If the buyer's segment that pays the highest price is composed of those buyers who comply the best with the selection requirements imposed by the monopoly, then in this case the monopoly may be losing its best customers. When a monopoly abuses its dominant position in respect of its best paying customer community, then there is a high probability of the emergence of negative selection. The only way to stop negative selection is price capping by statute or an increase in quality standards (*Besanko et al. 1987*). According to *Forgács* (*2013*), the contribution revenues for domestic health insurance stem from one third of the population, while essentially the entire population is entitled to healthcare services. As he pointed out *"for those who pay the contribution, sometimes a very high amount, it is difficult to tolerate that they receive the same treatment as their fellow countrymen who never pay any contribution. This anomaly is compensated by the German social security system in such a manner that persons belonging to the upper income decile are not even allowed to use the services of solidarity-based insurance"* (*Forgács 2013:8*). In addition, those who pay the highest contribution are in the best health on average, and therefore they should use services rarely, but then in high quality. However, the domestic healthcare system does not intend to forego the resources provided by these persons, since in that case even the general quality minimums could not be maintained any longer. In turn, this results in constant negative selection, even formally the best customers continue paying social security contribution. The healthcare sector is constantly losing these persons as customers: they use private healthcare services, and now it is not uncommon that they buy these services in a foreign country. Therefore, hardly any supplementary income flows any longer to healthcare practitioners in the form of gratitude payments made by them.

7.6. Suppression of higher quality for the maintenance or change of the status quo

The status quo between the affected persons – whether they are entities or individuals – is of determining importance for every stakeholder, since this is what designates the boundaries of autonomy in activities, responsibilities, powers and decision-making. Changing the status quo, even though it can be more favourable for the given person or entity for the attainment of their aims, is always loaded with uncertainty. In respect of the existing status quo, the person or entity has certain, minor or major knowledge owing to past experiences and learning; by comparison, in respect of the assessment of future status quo they may have substantially less knowledge available. Until the new status quo is reached, several transaction and other costs are also incurred, the amount of which is not easy to forecast, nor is it easy to forecast the amount of supplementary yields. In addition to cost-benefit analysis, we should also anticipate the increase in risks, since the existing routines and skills are incomplete from the aspect of the different future, or at least they have not gone through the baptism of fire yet. In the model of planned behaviour, *Ajzen* (*1991*) presents the behaviour of the persons or entities as the combined effect of three factors: the norms applying to the planned behaviour or activity of the person or entity, their own relevant attitudes, and their perceptions concerning maintaining control over the future activity. It is these three factors from which such a critical level of motivating could develop that is already sufficient for the planned activity to start. At the same time, the persons or entities continue to afford special attention to the measure of keeping under control by the start of the activity, since the biggest danger for them could be the loss of control. The more relevant past experiences and similarities the person or entity has, the likelier that they will be able to keep the planned activity under control. In their theory applicable in every market, *Samuelson and Zeckhauser* (*1988*) point out that if in a decision situation choosing – i.e. maintaining – the existing status quo as an alternative is allowed by the community, organisational norms and the rules of the regulatory body, then it is the most likely choice to be made. And when it is not allowed, then the alternative that will be chosen is the one that will result in conditions that are the closest to the conditions provided by the existing status quo. Naturally, the extent may change, on the one hand because of taking into account uncertainty and risks as a rational actor, on the other hand, because of wrong perceptions of cognitive origin – decoding of information – and thirdly, owing to differences in psychological commitment. According to *Mokyr* (*2004*), persons and groups interested in maintaining the current status quo traditionally attempt to block technological progress and other forms of development. They do so even though they could be clearly aware that those goods, services, processes and techniques and through these, indirectly those who produce them, comply better with the existing selection requirements than themselves. This is exactly why it is necessary to counter them, to put them at a disadvantage and to squeeze them out, because by their appearance, actions and

activities they made it clear that – using the terminology of *Baumol* (*1982*) – there is a good chance to challenge or change the current status quo. In the opinion of *Geletkanycz* (*1997*), commitment to the current status quo has its roots in social norms and values, in a form that is almost genetically coded. However, it is not self-evident at all that the newly created higher quality or the operators that represent them should be put at such a disadvantage, by abusing a dominant position, that already corresponds to negative selection. The selection requirements should be especially stringent in respect of new things, but it is not desirable to create an insurmountable disadvantage for the possible tools and agents of development (*Geletkanycz 1997*).

According to *Olson* (*2008*), compelling institutional changes must be applied to prepare the field for radical economic development or transformation. However, for this the community of operators interested in the maintenance of the status quo, possessing strong bargaining power and interest-asserting capability, should be significantly weakened. For this to happen, they should be put at a significant disadvantage in selection, in the short term already. As a result of the institutional and political changes, those operators who otherwise comply with the existing selection requirements to the highest degree may lose their strong bargaining positions and interest-asserting capabilities in respect of the governing power. If the selection requirements in the economy have not changed, then the market mechanisms – including the use and abuse of dominant position – are not really suitable for weakening those operators who comply best with the requirements through negative selection. However, the government is capable of launching the process of negative selection more efficiently, by abusing its power. The reason why governments abuse their power is that although formally the relevant actions may seem legitimate, they are obviously in conflict with the economic and other interests of the governed group. This is what happened in Hungary as well after the Second World War, where the prosperous peasants (kulaks) were interned to promote the political changes of the time, and extensive nationalisation took place (*Glatz 1997*). In the beginning the most successful, biggest rural farmers and companies were targeted, and later on, of those who remained, the relatively most successful, largest ones. This resulted in a permanent disadvantage in the development of Hungary's domestic economy.

8. Conclusions

In a relatively large number of cases, there are selection criteria in everyday life, the implementation of which clearly does not support the development of the economy, even in the short term. At the same time, the phenomenon of adverse selection raises its head relatively rarely in reality, since it is equally dependent on the preconditions of a high volume of hidden information and the complete

good faith of the stakeholders. In comparison, negative selection is – by necessity – a more frequent case. In this case, the relevant information is available to the parties. At the same time, the individual or group possessing the information consciously abuses their dominant position. Moreover, this puts at a disadvantage exactly those who currently best comply with the existing selection requirements, but despite that, they are vulnerable because of the lack of a proper negotiating position or asserting capability. However, the dominant position or power in the possession of the relevant party can also be used "according to its intended purpose", which enables the implementation of positive selection, very likely to promote development (see *Table 2* for a summary of that).

Table 2
Taking advantage of dominant position or power – as opposed to abuse

Description	Abuse with dominant position	Example for abuse of dominant power
Equal treatment regardless of quality	Bleeding out the best operators on the input side, collective punishment, collective reward	Definition of consideration differentiated according to quality, forcing or motivating operators representing lower quality for development
Ad hoc and collective, soft budget constraint	Putting the best performers at a disadvantage, retroactively raising their alternative costs drastically	While bailing out weaker performers, provision of a proportionate premium that significantly exceeds even the full compensation of those that do not require assistance
Hidden corruption	Squeezing out the best stakeholders that do not perform hidden activities	Establishment of an organisation that ensures the coordination of individual and group interests and a high level of individual interests
Discriminatory action of a monopoly	Discrimination at the expense of the best customers	Innovations for goods that the buyers find more attractive or for cost reduction; Increasing the knowledge of the customers
Suppression of higher quality for the maintenance or change of the status quo	Pushing the best quality stakeholders to the background	Constant planning, encouragement of constant learning and adaptation, enforcement

According to *Akerlof and Klenow* (*2009:323*), the perception of corruption is – similarly to other negative selection – an indication that from the aspect of the development of the group, "bad guys" managed to infiltrate the system. In fact, these "bad guys" are considered a body alien to the interests: they are pseudo-members of the group who serve interests not compatible with the interests of the group. Although they seem to be group members, in reality it is just the other way

around, and therefore their presence, their free riding cause negative externalities to certain stakeholder groups, and thereby manifests every reason that results in a selection problem designated by *Stiglitz and Greenwald* (*2016:188–190*) and already referred to in *Chapter 2*:

- For these individuals which abuse their dominant position, power or profit is the only success criterion;
- As free riders, they have a short-term planning horizon;
- As a result of their activity, those which best comply with the selection requirements are pushed to the background and expelled from the system within the shortest time;
- Their irrational abundance acquired through their operation regularly resulting in negative externalities provides a selection advantage for them, even in the long term.

Considering developed market economies, the leaders are not distinguished from the rest of the countries by the lack of a wild presence of dominant positions in the markets, or a lower level of concentration of power. The substantial difference lies in the fact that in the leading countries in most cases dominant position and power are used, but not abused.

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