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**Some Disadvantages from Classical Theory of Economic
Competition and Perspectives for Effective Future**

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Some Disadvantages from Classical Theory of Economic Competition and Perspectives for Effective Future

As a member of American Economic Association, I permanently feel responsibility to think about for improving of a human life and a maximal eliminating of a poverty. We think, that It's possible only with a minimal unfair competition in the world.

By my this work, the USA has the best experience in an evaluating and protecting competition, but there is one significant but - it's important to have many competitors, but not very or infinitely many, as even some official structures and specialists traditionally think about "perfect competition". If we don't correct wisely this understanding, we can damage fair businessmen and thoughtlessly help to dangerous "masked" monopolies. At the initial stages of my research, I didn't see it, but in the end, I noticed.

For study the nature of competition, as a doctor of economic sciences and founder of Academy named after economist A. Gunia (Georgia), I organized many urgently needed philanthropic works and have to express special gratitude to professional economists of American Economic Association for so needful intellectual support. In the 1990s, I was acting minister of Economy in the Adjara Region and became member of 3 American Academies of Sciences - Political, New York and California, but when I became member with economic ministry and personally of the American Economic Association, It was especially respectable for me as for professional economist. We started charity research and reformed problematic economy by the very talented retrospectives of Robert Fogel and Ludwig Erhard.

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† About author's positions, Please see:

https://en.wikipedia.org/wiki/Revaz_Lordkipanidze

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To Comprehension of “Force of Competition”

For determination of the most exact understanding about competition, on a base of economic-mathematical analysis, I used¹ even physics and define the natural force of competition by experience of famous Ohm's law ($I=V/R$), where “I” is the force of competition, “V” (voltage) – the volume of market, “R” (resistance) – the largest supplier. This natural similarity of the strength of electric current (“current through a conductor”), makes possible to determine the strength of competition and the optimal - the most effective level of competition.

With the growth of the number of competitors, the strength of competition grows, but a very large number of market participants, in my opinion, can cause a "short circuit" and "overheating" of the economy, as a result, a hyperinflation surplus and a severe crisis shock.

We do not need the competition of an infinitely large number of "ants" in the economy - need a natural competition of diligent competitors, where all participants (not only small, but also large) of the competition do their necessary (effective) business.

My goal is not a criticism of Smith - I think He was a genius for his era, but, naturally, with human errors. My goal is to perfect the established understanding from times of Smith and to present in the world Herfindahl-Hirschman and Bork visions, that a large number of competitors (buyers and sellers) the first of all determines a perfectness of competition: “The HHI takes into account the relative size distribution of the firms in a market. It approaches zero when a market is occupied by a large number of firms of relatively equal

¹ My work about it “The Force of International Competition (For the Fundamentals of Business and Law)” published in the Digital Foundation of Parliamentary Library of Georgia.

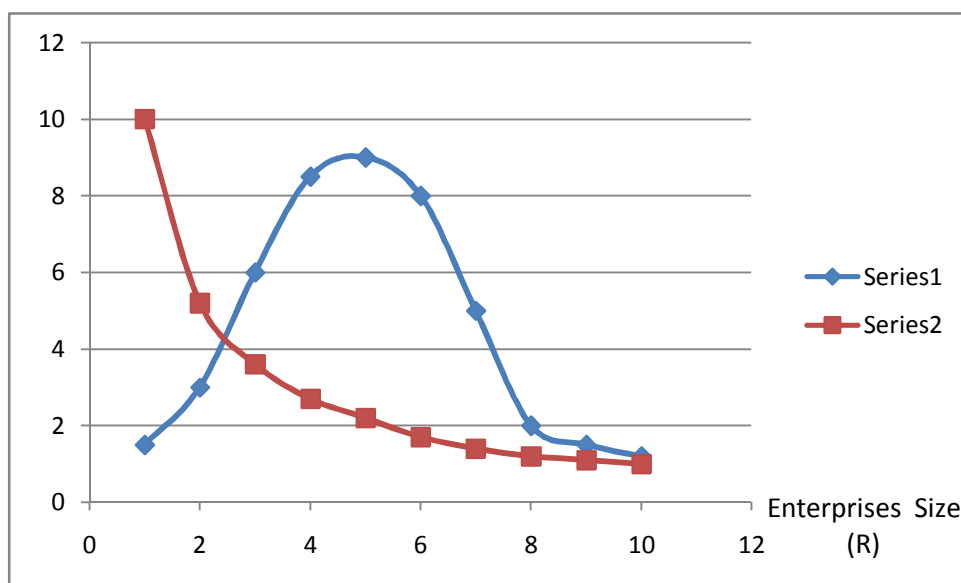
size and reaches its maximum of 10,000 points when a market is controlled by a single firm”.²

For Determination of Optimal Level of Competition

The curves of "Force of Competition" and "Efficiency of Enterprises Size" can determine the optimal level of competition for each concrete reality³. The conducted studies on expert assessments of the Georgian industry (Figure 1) showed that the average enterprises of the 5th group characterized with the highest efficiency and creates the optimal level of competition.

Figure 1

Interrelation between levels of Efficiency (Series 1) and Competition (Series 2) with Enterprises Size



Source: Author.

Note: Series 1 about Efficiency based on expert assessments of enterprises 10 groups in the industry of Georgia (1988-2018). Series 2 about competition level reflects the own theoretical model of the force of competition.

² Herfindahl-Hirschman Index. Updated July 29, 2015. <https://www.justice.gov/atr/herfindahl-hirschman-index> ; Bork, Robert H. (1993). The Antitrust Paradox (second edition). New York: Free Press, also about it https://en.wikipedia.org/wiki/Perfect_competition

³ Lordkipanidze, Revaz (2018) "Competition theory's "sensational" implicit defects and urgent regulations": 103.

Taking into account different views about competition from very many microeconomic features and Chandra-Lederman price discrimination to modern macroeconomic synthesis and Costinot-Rodriguez-Clare foreign factors, also quality problems and Rodric generalizations by imperfect competition, according my theory of economic competition, we can determine the optimal size of the enterprise in different sectors and regions. Consequently, depending on the demand for a product or service, we can determine the optimal number of enterprises and the rational level of competition. The optimal number of enterprises may be 5, 10, 20, 100, 1000 or more or less and as a rule, the optimal number of enterprises in science-intensive construction and industry should be less than in agriculture, trade or transport.

The Interesting results were shown by calculations on the international trade (Figure 2) and the levels of machines in physical capital (Figure 3) and new equipments in technical park (Figure 4). The largest international companies and new cars with age up to 2 years and level of 40-50% in fixed capital the most fruitfully influenced on the force of competition.

Figure 2
Efficiency in International Trade

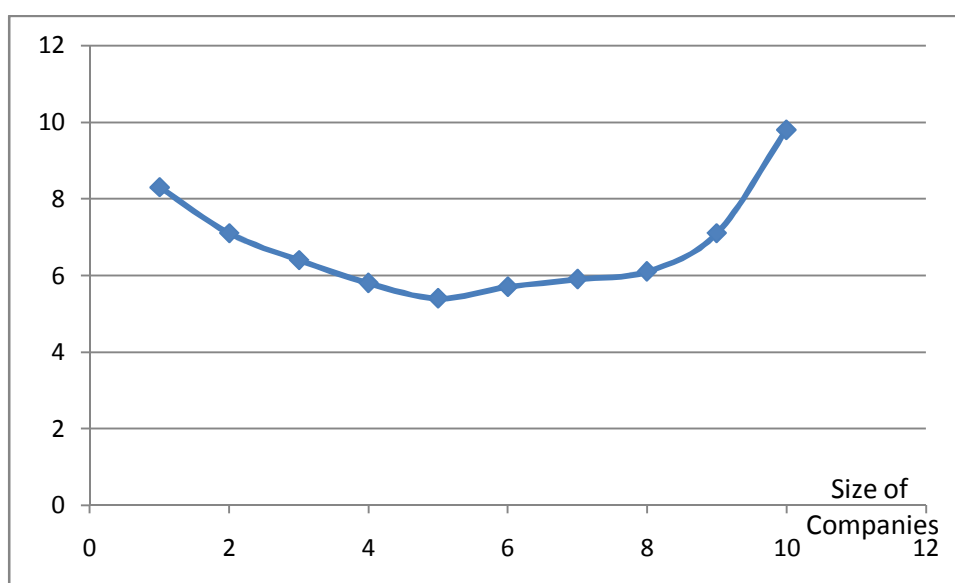


Figure 3

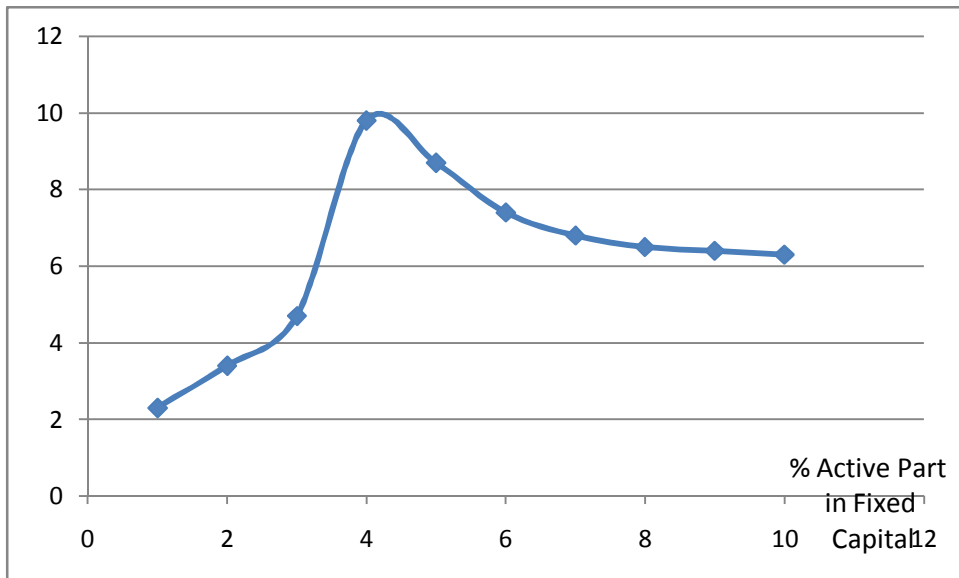
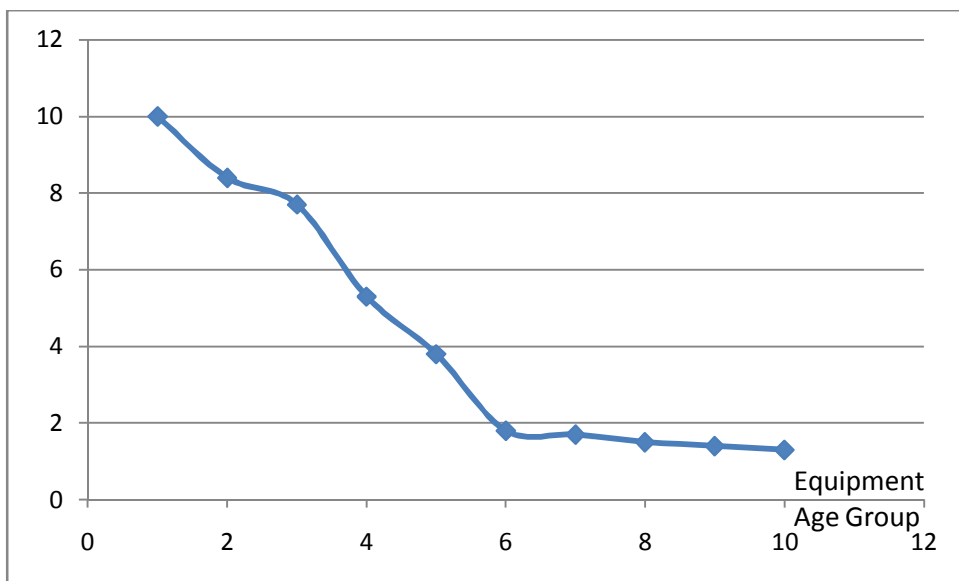
Efficiency of Active Fixed Capital for Competition

Figure 4

Efficiency of Innovative Technologies

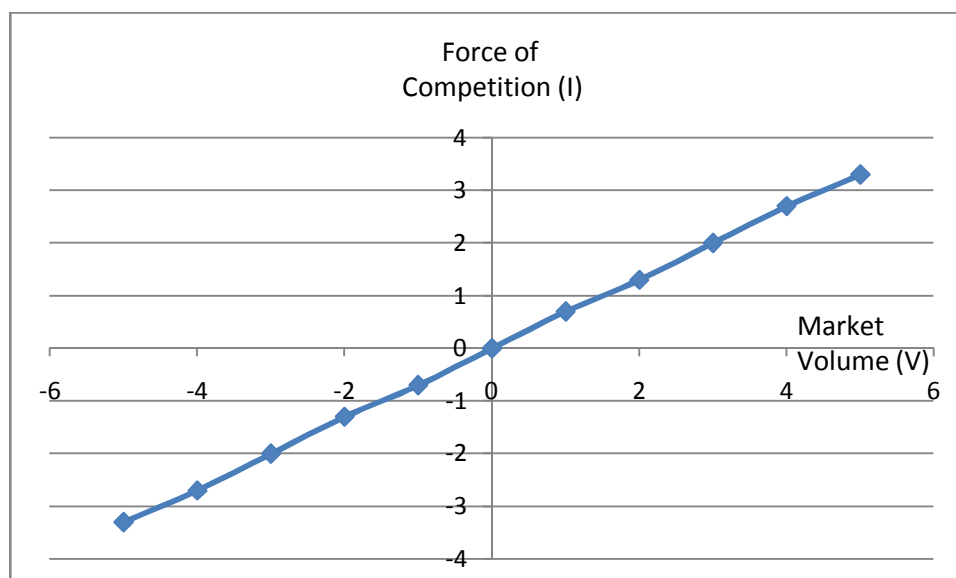
Source of Figures 2-4: Author.

Note to Figures 2-4: Efficiency based on expert assessments of businesses 10 groups in Georgian economy (1988-2018).

In conditions of a weak statistical base without the necessary international antitrust structure, our calculations are often based on approximate expert scientific assessments. I define “Force of Competition Under Influence Factor R” (Figure 5) $I_R = V/R$ and “Force of Competition Under Integral Influences Factors R, Q and N” (Figure 6) $K = I_R I_Q N$, where V is total production (market volume); N – number of firms; R - output of the largest firm (maybe monopoly); $I_Q = V/R_Q$; R_Q – non-realized production due to poor-quality goods or goods with monopolistically increased (or predatory understated) discriminatory prices.

Figure 5

Force of Competition Under Influence Factor R



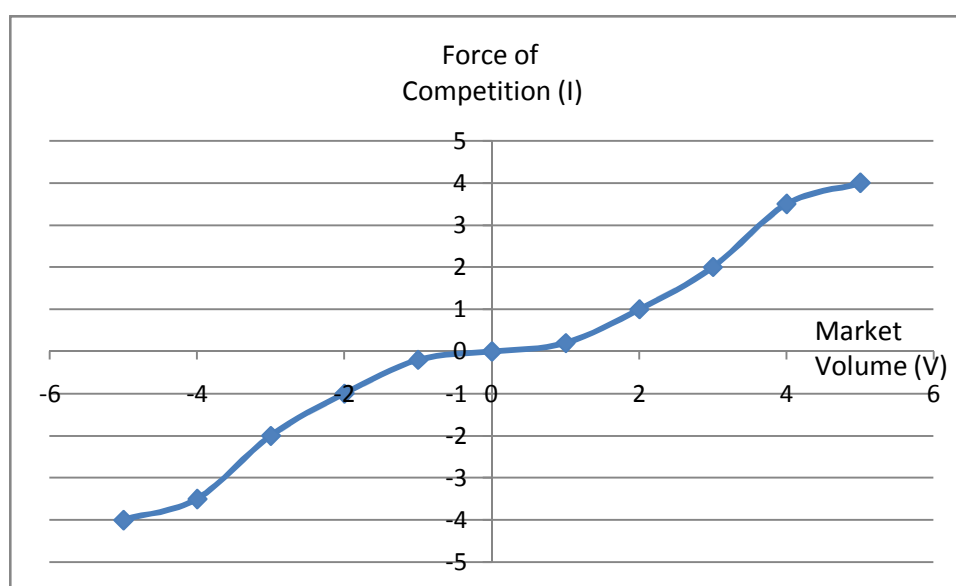
Source: Author.

Note: This figure reflects the own theoretical model of the force of competition.

As we can see, Figure 5 demonstrates a directly proportional dependence between the market volume (size) and the force of competition. Conclusion - large markets are often more competitive. I got similar results in the development of the methodology of the European Commission for

determination the effectiveness of structural changes of the economy⁴. In conditions of high efficiency, competition in the market also takes high levels. Under the action of 3 factors (see Figure 6), the relationship between the size of the market and the force of competition is not quite direct, but essentially positive.

Figure 6
Force of Competition Under Influences Factors R, Q & N



Source: Author.

Note: This figure reflects the own integral theoretical model of the force of competition.

On average, according to my observations, the “number of firms N” in a homogeneous market of a medium-sized country must exceed 10, index “force of competition I_Q ” should exceed 5 and index “force of competition I_R ” should exceed 3. As a result, due to all factors, the integral “force of competition” should exceed 150. The smaller the volume of the largest supplier to the market

⁴ Lordkipanidze, Revaz (2018) “Competition theory’s “sensational” implicit defects and urgent regulations”: 78, 110.

give the greater result the force of competition, but we must not forget, that there is an upper limit, after which the efficiency begins to run down.

According to my observations, the lowest interval of rational competition is fixed on the construction business (Table 1). Here are the largest companies in the average for a knowledge-based economy. The rational competition in industry is slightly higher, but the largest number of natural monopolies are recorded here. Significantly high levels of rational competition in agriculture and various services are caused by the presence of a large number of entrepreneurs of self-employed small-farm, commercial and transport enterprises. But their large number does not give the right to appeasement - here it is especially necessary to monitor the competence of personnel and the quality of products.

Table 1

***Exemplary Approximate Intervals of
Rational Competition in Economic Branches***

Economic Branches	Rational Competition
Building Business	100-700
Industry	150-1000
Rural Economy	500-2000
Different Services	1000-5000

Source: Author.

Note: Table based on expert assessments of author enterprises of Georgian Economy (1988-2018).

From Classical Theory to Effective Perspective

The competition has deep and versatile roots. After the very interesting and, in my opinion, accurate in the dates interpretation of the historical process of a development in economic relations, R. Fogel writes, that “The accumulation of historical and current biomedical studies on the trends in health, longevity, and human physiology, combined with controlled studies of animal populations, are leading some evolutionary biologists to place increasing emphasis on plasticity in human aging.”⁵ By a good influence of this multi-factorial research of human life, I conducted also an logical analysis of neuroeconomic character, which shows us, that a human not so often behaves as better for all. The examined elementary cases of decisions in critical situations illustrated many instinctive and not expediency reaction of a businessman, which even goes to aggravate competition, when could act more freely. For example, if a person buys a ticket to a movie and makes a choice between a full and empty halls, the instinct of desire to be more popular makes him go to the full situation. The result is over-strained competition and more polluted air in the full hall. It’s fact that in such cases a protection (regulation) of a reasonable competition is very needful.

Observations on American business showed us too, that even an economically very strong country like America, without a wise international antitrust structure in new conditions of a world economy with internet abilities, will not be able to neutralize international dishonest implicit monopolies. The unfair competition is the main motivator for a world poverty and terrorism⁶, which demands urgent reforms, especially in small developing

⁵ Fogel, Robert, W. (1999) "Catching Up with the Economy." *American Economic Review*, 89 (1): 9.

⁶ Silverstein, Jason. 2017. *Newsweek*. Trump and Putin Keep Calling Each Other for Praise, Discuss North Korea and Terrorism.

countries and practice has confirmed that big businessmen can be successful far-sighted political reformers as well.⁷

I consider myself like a debtor for developing a conceptually sound opinion on overcoming a very high 80% poverty level in an increasingly rich world, morally justified (effective) form of enriching a person and, accordingly, the true basis of a competition. The role of the United States in the reduction of world poverty is truly invaluable and many of my works are devoted to this.

My country - Georgia, after the collapse of the Soviet Union, was the latest in the world by GDP per capita and in conditions of the poorest statistical base, often only professional intuition saved us. The main reason for the failure at the start of an economic independence was an erroneous knowing about a competition and role of economic policy, whereas the different models with some combination of a competition and regulation gave the best stable results in as big countries as the US, Germany, China and so on.⁸

I appreciate the greatest job of reformer President of America Donald Trump for future perspective. He worked out even more professionally difficult and dangerous deals, than Ronald Reagan in Tax reform and for finish of Cold War. The first results similar to the effectively perspective combined-network regulation proposed by me are particularly noticeable in the started US tax warming reform and state subsidies for the high technological cluster (Silicon Valley, USA), on the social market of the economically developed EU countries (Germany, Sweden, Benelux countries), in free regional zones (China), with effective implementation of planned market mechanisms (Japan), on the example of "science cities" (Academgorodok and present experience of large state universities, Russia), in the healthcare of Great Britain, etc. God and

⁷ Herszenhorn, David M. (2013) Georgia Elects New President, but Real Power Will Rest With Next Premier. New York Times.

⁸ Lordkipanidze, Revaz (2018) "Competition theory's "sensational" implicit defects and urgent regulations": 3, 59, 91, 101.

the "Invisible Hand" of competition exist, but God doesn't require that a person should live with his hands down - an intelligent regulation is urgently needed.

Since the Great Depression (30s of the 20th century) and post-war reforms in Germany⁹, the debate between the neoclassical supporters of the "Invisible Hand" of Adam Smith's competition and the supporters of Keynesian regulation has become more sharp until our time too. Some of them disclaimed the "invisible hand" in general and the new neoclassical synthesis came as an intermediary.

With the sincere respect to Adam Smith and David Ricardo, I must remark, that they genially see the power of the "Invisible Hand" of Competition, but in assessing of a created value by it, emphasis is placed on the quantity of labor, but not on quality and demand for the needful efficiency. About the Real and Nominal Price of Commodities, Smith writes, that "Equal quantities of labour will at distant times be purchased more nearly with equal quantities of corn..."¹⁰ and in Labor theory of value Ricardo determines - "The value of a commodity, or the quantity of any other commodity for which it will exchange, depends on the relative quantity of labour which is necessary for its production, and not as the greater or less compensation which is paid for that labour."¹¹

I published a lot of monographs and publications about a competition and in this article I presented a maximal shortly generalized work with my more perfect conclusion vision of rational competition. Without the proposed by me "rational number" instead of a "large number", we can erroneously divide the effective local big business or prevent the merger of business in a decent way, violate the presumption of innocence of the local entrepreneurs and create

⁹ Mierzejewski, Alfred C. (2004) "1957: Ludwig Erhard's Annus Terribilis", *Essays in Economic and Business History*, 22; Snower, Dennis J., and Steven J. Bosworth. 2016. "Identity-Driven Cooperation versus Competition." *American Economic Review*, 106 (5).

¹⁰ Smith, Adam. *An inquiry into the nature and causes of the wealth of nations*. <http://www.econlib.org/library/Smith/smWN.html> I.5.15

¹¹ Ricardo, David. *On the Principles of Political Economy and Taxation*. 1.1 <http://www.econlib.org/library/Ricardo/ricP.html>

favorable conditions for secret collusions of external dishonest "businesslike" activities.

The definition of market competitiveness only according with Herfindahl-Hirschman's methodology, can create a false impression, that the market is doing well. And false impressions about the markets can lead to false ideas about the most important demographic and political-defensive abilities of all country. For Elimination of Threats from artificial "race" (for a large number of competitors) of some antimonopoly authorities to new progressive small, middle and big businesses with innovation technologies, we recommend 5 main principles for estimates of market competitiveness in economic perspective: 1) honesty of businesses; 2) effectiveness; 3) level of unrealized (mostly substandard) production and services; 4) level of the largest supplier; 5) number of competitors. Only complex estimate with integral indexes will have the best results.

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Abstract

By this work, the USA has the best experience in an evaluating and protecting competition, but there is one significant but - it's important to have many competitors, but not very or infinitely many, as even some official structures and specialists traditionally think about "perfect competition". Author thinks, that if we don't correct wisely this understanding, we can damage fair businessmen and thoughtlessly help to dangerous "masked" monopolies.

This work was reviewed by scientist-economists

S. Fetelava and D. Chlaidze.