

INDEX OF RATIONALITY

INDEX OF RATIONALITY 3 AND 4

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1 GOALS AND METHODOLOGY

The Center for Civil Communications from Skopje is the only non-governmental organization in the Republic of Macedonia that implements direct and comprehensive monitoring of public procurement procedures organized in the country. With the aim to make an additional contribution to advancing the state of affairs in this field, the Centre initiated the development of the so-called Index of Rationality in public spending. It aims to introduce a new instrument that will be used to assess effectiveness of public spending, to identify bottlenecks in the system, and ultimately to contribute to institutions' rational spending of public funds.

The Index of Rationality is developed by means of comparisons of prices under which different institutions have procured same products, services or works. The Index of Rationality will be developed quarterly and each quarter will include maximum five different types of procurements. The Index provides comparisons of public spending practices of at least five institutions and, where possible, efforts are made to maximize the number of institutions targeted. In addition to enabling comparison of prices, the analysis of same commodities, services or works provides different patterns of behaviour on the part of state institutions as regards implementation of same type of public procurements.

The Index is envisaged to serve the state institutions as an indicator against which they will improve the rationality in public procurements, i.e., public spending. Given that index-included prices are the average value of those paid by the institutions and do not imply the actual or market prices, state institutions should, when possible, pursue attainment of lowest prices and spend public funds in a more rational manner, moreover knowing that other institutions have attained more favourable prices for same types of procurements.

Differences in price paid by institutions for same types of products and services indicate the need for a thorough market research prior to tender announcement and harmonized approach on the part of contracting authorities when procuring same type of products.

The sample used to develop the Index can include all national and local level contracting authorities, i.e., from line ministries and municipalities, public enterprises and agencies, to schools and kindergartens. For the purpose of securing better coverage on the territory of the Republic of Macedonia, the Centre's monitoring team also includes representatives from civil society organizations seated in several municipalities country-wide.

It should be noted that the Index of Rationality will disclose the contracting authorities monitored, but not the companies with whom contracts have been signed (although data thereof is available), given that the responsibility for rational spending primarily lies with the contracting authorities.

The Index of Rationality uses primary and secondary data sources.

Data collection from primary sources is pursued by means of:

- attendance at public opening of bids submitted by economic operators under specific public procurement procedures, in order to obtain data on prices bided; and
- direct contacts with contracting authorities, in order to obtain data on the selection of the most favourable bid.

These activities provide data on prices paid to procure particular products, services or works.

Secondary data sources include:

- Electronic Public Procurement System (EPPS); and
- Free Access to Information (FOI) applications.

The research and the Index of Rationality were developed in cooperation with and financial support from the Foundation Open Society – Macedonia.

2 INDEX OF RATIONALITY

The third Index of Rationality is developed for the following five types of products, i.e. services:

- written translation from Macedonian into English language;
- air-conditioners;
- private security services;
- notebook computers;
- GPS vehicle devices;

The selection of Index-targeted products and services was made in compliance with their status of most commonly used products and services by national and local level institutions.

However, given the fact that, on one side, the methodology for Index-development implies comparison of prices attained by at least five institutions, and on the other hand, the information requested from institutions is not always disclosed or when disclosed it is not conducive to comparisons, for the purpose of developing the relevant indices of some Index-targeted products and services, apart from those implemented in the course of 2011, we included the public procurements implemented in the previous years as well.

For the purpose of securing data necessary for the Index development in regard to above mentioned products (air-conditioners, notebook computers, and GPS vehicle devices), i.e., services (written translation, private security service), the Center for Civil Communications submitted a total of 94 FOI applications to national and local level institutions.

When developing the individual indices with prices of targeted products and services, we resorted to the Freedom of Information Act (access to information of public character) and hence submitted FOI applications to the contracting authorities whose procurements were registered in the Electronic Public Procurement System (EPPS). The general idea behind the development of indices per individual products or services was to detect possible differences in price attained and thereby assist contracting authorities in learning more about price fluctuations related to these products, i.e., services.

2.1 INDEX OF RATIONALITY FOR WRITTEN TRANSLATION

The lowest and highest price ratio for the written translation from Macedonian into English language is 1:2.67, which means that the highest price paid for this service, as noted with the Parliament of the Republic of Macedonia, is by 167% higher than the lowest price attained by the Pension and Disability Insurance Fund of the Republic of Macedonia. It should be noted that the selection criterion for the most favourable bid used by both contracting authorities was "lowest price". However, unlike the Parliament of the Republic of Macedonia, when implementing the public procurement procedure the Pension and Disability Insurance Fund of the Republic of Macedonia used e-auctions, which is law-stipulated instrument used with a view to secure additional reduction in prices offered by the bidding companies. Indicative is the fact that the group of institutions that paid prices higher than the average include those whose procurement contracts were marked by the highest value, which is contrary to the basic economic logic that contract's higher value should result in decreased individual price.

Table 1:
Index of Rationality
for Written
Translation
(price paid per 1
translation page from
Macedonian into Eng-
lish language)

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Pension and Disability Insurance Fund of the Republic of Macedonia	228	-50.00%
Institute for Sociological, Political and Juridical Research	300	-34.21%
Joint Stock Company for Construction and Management of Residential and Business Premises	449	-1.54%
Average	456	0.0%
Ministry of Culture	484	+6.14%
PE "Water Supply and Sewage" - Skopje	531	+16.45%
Standardization Institute of the Republic of Macedonia	590	+29.39%
Parliament of the Republic of Macedonia	610 ¹	+33.77%

¹ This price is calculated as the average price from the five translation agencies with whom the Parliament of the Republic of Macedonia signed framework agreements for the year 2011 (two agencies charge 531 MKD per translated page, while the remaining three charge 567 MKD, 608 MKD and 814 MKD, respectively).

The Index of Rationality for written translation was developed on the basis of information obtained by means of FOI applications submitted to all contracting authorities that contracted such services in 2011 by implementing public procurements and that were recorded in the EPPS. From the total number of 10 institutions addressed with these applications only the Ministry of Defence did not provide a response thereto, whereas the Public Broadcasting Service "Macedonian Radio and Television" informed that it benefits from translation services calculated per minute and not from written translation per page. The Bureau for Development of Education responded that it did not contract translation services from Macedonian into English language. Thus, the Index is comprised of 7 institutions. It was developed on the basis of price paid per translated page (defined as 1,800 characters without spaces) from Macedonian into English language.

As it can be noted, there are significant differences in terms of procurement prices paid by the institutions. The lowest price is by 50% lower than the average price calculated and the highest price is by one-third (33.77%) higher than the average price.

The average price of 456 MKD paid per translated page or 1,800 characters without spaces and calculated under this Index pertains to the group of prices higher than the service's market price. Moreover, three contracting authorities paid a price lower than the average, while four contracting authorities signed contracts with individual prices that are higher than the average price calculated for the monitoring-targeted institutions.

Great differences in price paid cannot be explained with the type of public procurement procedure applied, especially if taking into consideration that open procurement procedures with previously announced call for bids imply greater transparency and competition, which ultimately leads to lower prices. Namely, two contracting authorities (Institute for Sociological, Political and Juridical Research and Joint Stock Company for Construction and Management of Residential and Business Premises) attained prices lower than the average by implementing bid-collection procedure without previously announced call for bids, while the remaining contracting authorities applied procedures with previously announced call for bids. Moreover, the simplified bid-collection procedure with previously announced call for bids was applied by the Pension and Disability Insurance Fund of the Republic of Macedonia, the PE "Water Supply and Sewage" – Skopje and the Standardization Institute of the Republic of Macedonia, whereas the Ministry of Culture and the Parliament of the Republic of Macedonia announced calls on public procurement contract awarding. Having this in mind, inevitable is the conclusion that the type of procurement procedure applied did not affect the price outcome as given in this Index.

As regards the selection criteria for the most favourable bid, six of the seven contracting authorities used the "lowest price" criterion. The Standardization Institute used the selection criterion "economically most favourable bid" which included the following elements: recommendations for previously contracted translation services in standardization-related projects were allocated 40 points, recommendations for previous translations performed were allocated 30 points; price was allocated 20 points and number of source pages translated per day was allocated 10 points.

The "lowest price" criterion was used also by the PDIF and the Parliament, but the differences in price attained are represented with the ratio 1:2.67. However, the relevant procurement procedures applied by these two contracting authorities differ as well, notably in regard to utilizing e-auctions. In the procurement of translation services the PDIF used e-auctions, which the Parliament of the Republic of Macedonia did not anticipate. E-auctions provide an additional opportunity to reduce the initial prices bided and recorded during the opening of bids. The Standardization Institute is the second institution from the seven contracting authorities targeted by this Index which used

e-auctions. However the use thereof could not have significantly affected price reduction considering the fact that this institution has allocated only 20 points to the price element in the selection criteria for the most favourable bid, whereas the remaining 80 points were allocated to the translation agency's previous performance.

The comparison of prices paid by contracting authorities for translation from Macedonian into English language and the values of translation contracts signed indicates that one cannot identify any economic logic behind them. Namely, the contracting authorities that attained prices lower than the average signed translation contracts in the value of 285,000 to 295,000 MKD, whereas the Parliament of the Republic of Macedonia, as one of the biggest individual contracting authorities for translation services whose annual contract was estimated in the value of 2 million MKD, will pay the highest price according this rank. The group of contracting authorities that pay prices higher than the average includes also the Ministry of Culture, whose translation service contract (written translation and consecutive interpretation) is the biggest according to its value, notably because it is a three-year contract signed for the period 2009-2011.

Table2:
Value of
translation
contracts
signed

CONTRACTING AUTHORITY	CONTRACT'S VALUE IN MKD	DIFFERENCE AGAINST THE AVERAGE PRICE
Pension and Disability Insurance Fund of the Republic of Macedonia	295,000	-50.00%
Institute for Sociological, Political and Juridical Research	285,000	-34.21%
Joint Stock Company for Construction and Management of Residential and Business Premises	295,000	-1.54%
Ministry of Culture (contract for the period 2009-2011)	7,950,000	+6.14%
PE "Water Supply and Sewage" - Skopje	1,180,000	+16.45%
Standardization Institute of the Republic of Macedonia	/	+29.39%
Parliament of the Republic of Macedonia	2,000,000	+33.77%

2.2 INDEX OF RATIONALITY FOR AIR-CONDITIONERS

Under the Index of Rationality for procurement of 3.5 KW air-conditioners, the ratio between the lowest and highest price is 1:1.90, which means that the highest price is by 90% higher than the lowest price. Such significant differences in price cannot be explained by the type of public procurement procedure applied, where dominant is the use of bid-collection procedures without previously announced call for bids, or by the quantity purchased. Therefore, obvious is that certain subjective factors had played a significant role in the contracting authorities' decision on the three companies that will be asked to submit their bids for the procurement of air-conditioners.

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
National Bank of the Republic of Macedonia	11,682	-29.78%
Attorney General	12,300	-26.06%
Faculty of Pharmacy - Skopje	13,899	-16.45%
Public Broadcasting Service "Macedonian Radio and Television"	14,475	-12.99%
Municipality of Centar	14,750	-11.34%
Municipality of Sveti Nikole	15,000	-9.83%
Municipality of Aerodrom	16,520	-0.70%
PE "Macedonian Railways – Infrastructure"	16,632	-0.02%
Average	16,636	0.0%
Health Insurance Fund of the Republic of Macedonia	18,774	+12.85%
Municipality of Vasilevo	21,590	+29.78%
Municipality of Gorce Petrov	21,830	+31.22%
Municipality of Stip	22,184	+33.35%

Table 3:
Index of Rationality for Air-Conditioners
(price per 3.5 KW air-conditioner)

For the purpose of developing the Index of Rationality for air-conditioners, we addressed 23 contracting authorities with FOI applications, whose selection was made on the basis of public procurement calls announced in the course of 2011, or data submitted on so-called small procurements performed in the second half of 2010 or the first half of 2011. Majority of responses (received by 12 institutions) obtained to the 23 FOI applications indicated that the procurement procedures concerned air-conditioners with capacity of 3.5 KW. Six contracting authorities responded that they procured air-conditioners with capacity lower or higher than 3.5 KW, those being: the Central Register, Public Municipal Institution "Sue Ryder Hospice" in Bitola, Municipality of Tetovo, Municipality of Dojran and Public

Utility Enterprise "Pazari" Prilep, M-NAV (Civil Aviation Agency) – Skopje responded that it is not considered holder of public information, while the National Hydrometeorological Institute, the Ministry of Labour and Social Policy, the Municipality of Struga, the Public Enterprise "Macedonian Road" – Skopje and the Ministry of Defence did not respond to the FOI applications submitted. Hence, the Index is developed on the basis of prices attained by 12 national and local level institutions for procurement of 3.5 KW air-conditioners.

The average price attained by institutions is 16,636 MKD for procurement of one air-conditioner. Eight institutions purchased the air-conditioners at prices lower than the average price and four institutions purchased them at prices higher than the average price. Under the Index of Rationality for air-conditioners, the lowest price attained is by 29.78% lower than the average and the highest price is by one-third, i.e., by 33.35% higher than the average price.

The noted differences in price at which air-conditioners were purchased cannot be explained with the type of public procurement procedure applied. Notably, ten of the twelve contracting authorities included in the Index purchased the air-conditioners by means of bid-collection procedure without previously announced call for bids. Only the Public Broadcasting Service "Macedonian Radio and Television" and the Health Insurance Fund of the Republic of Macedonia applied open procurement procedures with previously announced call for bids. Despite the open procurement procedures applied, the Public Broadcasting Service "Macedonian Radio and Television" is the fourth-ranked institution according to the price attained, while the Health Insurance Fund of the Republic of Macedonia attained a price higher than the average.

Moreover, differences in price cannot be justified with the quantity purchased. In that, the National Bank, which attained the lowest price, purchased only 2 air-conditioners with 3.5 KW heating and cooling capacity and is the smallest quantity, as shown in the table below. The fact that prices of air-conditioners purchased are not counter-proportionate to the quantity as implied by basic economic logic is demonstrated also in the example of the Health Insurance Fund of the Republic of Macedonia.

CONTRACTING AUTHORITY	QUANTITY PURCHASED	DIFFERENCE AGAINST THE AVERAGE PRICE
National Bank of the Republic of Macedonia	2	-29.78%
Attorney General	5	-26.06%
Faculty of Pharmacy - Skopje	16	-16.45%
Public Broadcasting Service "Macedonian Radio and Television"	33	-12.99%
Municipality of Centar	3	-11.34%
Municipality of Sveti Nikole	2	-9.83%
Municipality of Aerodrom	4	-0.70%
PE "Macedonian Railways – Infrastructure"	12	-0.02%
Health Insurance Fund of the Republic of Macedonia	28	+12.85%
Municipality of Vasilevo	2	+29.78%
Municipality of Gorce Petrov	4	+31.22%
Municipality of Stip	7	+33.35%

Table 4:

Quantity of air-conditioners purchased

2.3 INDEX OF RATIONALITY FOR PRIVATE SECURITY SERVICES

The procurement of private security services demonstrated significant differences in price paid by the contracting authorities for 1 hour service. The lowest and highest price ratio is 1:5, i.e., the highest price attained is by 400% higher than the lowest price. Differences in price can only be partially explained with the number of contracted personnel, as well as the type of public procurement procedure applied.

Table 5:
Index of
Rationality for
Private Security
Services
(price per 1 hour
service)

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
PHF Clinical Hospital "Trifun Panovski" Bitola	39,3	-68.31%
Municipal Public Kindergarten "Astibo" - Stip	50	-59.68%
Cultural Heritage Protection Office on behalf of the Museum on Water	114,5	-7.66%
PHF General Hospital Kavadarci	115	-7.26%
Public Communal Enterprise "Derven" Veles	115,6	-6.77%
PHF University's Surgical Clinic "St. Naum Ohridski" - Skopje	120,3	-2.98%
Faculty of Veterinary Medicine - Skopje	124	0.0%
Average	124	0.0%
PHF Psychiatric Hospital - Skopje	130	+4.84%
National Institute "Memorial House for Mother Teresa"	142	+14.52%
PHF Institute for Physical Medicine and Rehabilitation - Skopje	159,7	+28.79%
JSC Macedonian Power Plants (security services needed for the Headquarters)	180,4	+45.48%
Municipality of Vevcani	196,7	+58.63%

For the purpose of developing the Index of Rationality for private security services, FOI applications were submitted to all contracting parties that had announced relevant calls for bids in the course of 2011. It is a matter of 23 national and local level institutions. With the exception of Primary School "Dame Gruev" – Gradsko, the Museum of the Macedonian Fight for Statehood and Independence and the Municipality of Struga, the remaining 20 institutions responded to the FOI applications submitted. Although they duly responded to the FOI applications, eight contracting authorities were exempted from the Index because of the different methodology applied to calculate service costs. Actually, data disclosed by these institutions prevented the calculation of the price per 1 hour of private security

service. They include: Municipality of Novaci, Public Broadcasting Service “Macedonian Radio and Television”, PHF General Hospital Strumica, Real Estate Cadastre Agency, University “Ss. Cyril and Methodius”, PHF Health Care Centre “Zelezara” – Skopje, PHF Gerontology Institute “13 Noemvri” – Skopje, Health Insurance Fund of the Republic of Macedonia. Therefore, the present Index of Rationality includes only 12 contracting authorities. The Index is developed on the basis of comparing prices per 1 hour of private security attained by 12 contracting authorities.

The lowest and highest price ratio under this Index is a high 1:5, which undoubtedly represents an enormous difference in prices attained and is thereby indicative of market distortions as regards this type of services. As shown in the table below, the average price calculated under the Index of Rationality for private security services is 124 MKD. Seven institutions pay prices lower than the average and five institutions pay prices higher than the average price. The lowest price attained by the PHF Clinical Hospital “Trifun Panovski” – Bitola is by 68.31% lower than the average, and the highest price is by 58.63% higher than the average price.

Significant differences in price for procurement of these services can only be partially explained with the number of personnel contracted and the value of contracts signed. Namely, the value of the contract signed by the institution that attained the lowest price is 715,116 MKD, while the contracting authority that paid the highest price for this service signed an annual contract in the value of 154,000 MKD. Nevertheless, as given in the table below that provides an overview of contract values, obvious is that certain institutions whose individual contracts are among the highest in value have not attained the lowest price, while some of them are ranked in the group of institutions that attained prices higher than the average.

Table 6:
Value of private
security contracts

CONTRACTING AUTHORITY	CONTRACT'S VALUE	DIFFERENCE AGAINST THE AVERAGE PRICE
PHF Clinical Hospital "Trifun Panovski" Bitola	715,116	-68.31%
Municipal Public Kindergarten "Astibo" - Stip	300,000	-59.68%
Cultural Heritage Protection Office on behalf of the Museum on Water	4,010,678	-7.66%
PHF General Hospital Kavadarci	/	-7.26%
Public Communal Enterprise "Derven" Veles	1,000,000	-6.77%
PHF University's Surgical Clinic "St. Naum Ohridski" - Skopje	351,168	-2.98%
Faculty of Veterinary Medicine - Skopje	1,416,000	0.0%
PHF Psychiatric Hospital Skopje	1,121,472	+4.84%
National Institution "Memorial House for Mother Teresa"	1,040,400	+14.52%
PHF Health Care Institute for Physical Medicine and Rehabilitation - Skopje	389,664	+28.79%
JSC Macedonian Power Plants (for the private security needs at the Headquarters)	4,916,352	+45.48%
Municipality of Vevcani	154,000	+58.63%

As regards the type of public procurement procedure applied, three institutions implemented open procedures for contract-awarding (PHF Clinical Hospital "Trifun Panovski" Bitola, Cultural Heritage Protection Office on behalf of the Museum on Water in Ohrid, and JSC Macedonian Power Plants for the needs of the Headquarters). The bid-collection procedure without previously announced call for bids was applied by two contracting authorities (Municipal Public Kindergarten "Astibo" - Stip and Municipality of Vevcani), whereas the remaining Index-targeted institutions (PHF General Hospital - Kavadarci, Public Communal Enterprise "Derven" - Veles, PHF University's Surgical Clinic "St. Naum Ohridski" - Skopje,

Faculty of Veterinary Medicine - Skopje, PHF Psychiatric Hospital - Skopje, National Institution "Memorial House for Mother Teresa", PHF Health Care Institute for Physical Medicine and Rehabilitation – Skopje) implemented bid-collection procedures with previously announced call for bids. Analysis of procedures applied and prices attained provides the conclusion that the type of procurement procedure applied does not per se guarantee attainment of approximately same prices when contracting private security services. However, an in-depth analysis of the manner in which procedures were implemented and the selection criteria used for the most favourable bid indicates that the lowest price for this service was attained under an open procedure with "lowest price" as the selection criterion, whose final stage included e-auctions. The highest price was attained under a bid-collection procedure without previously announced call for bids. At the same time, the fact that selection criteria used for most favourable bid can affect the price is demonstrated with the examples of JSC Macedonian Power Plants and PHF Health Care Institute for Physical Medicine and Rehabilitation – Skopje. In the case of JSC Macedonian Power Plants, the most favourable bid was selected according to the "economically most favourable bid" criterion, where the "price" element was allocated up to 60 points, 20 points - to the number of certified personnel and 20 points - to the number of employees exceeding the stipulated minimum. The Institute for Physical Medicine and Rehabilitation – Skopje used the "economically most favourable bid" criterion with the following elements: price – up to 70 points and quality – up to 30 points.

2.4 INDEX OF RATIONALITY FOR NOTEBOOK COMPUTERS

For the purpose of developing this Index, we submitted FOI applications to the contracting authorities that purchased notebook computers in the period 2010/2011, and were registered in the Electronic Public Procurement System. 24 FOI applications were submitted. 16 institutions responded thereto, while 8 institutions did not submit their responses, those being: Municipality of Karpos, Public Broadcasting Service "Macedonian Radio and Television", Agency for Foreign Investments, Faculty of Veterinary Medicine – Skopje, National Hydrometeorological Institute, Secretariat for Implementation of the Ohrid Framework Agreement and the Civil Aviation Agency.

The development of this Index has proven to be exceptionally difficult, notably considering the great differences in processors, graphic cards and RAM memories of notebook computers purchased. From the 24 institutions addressed with information requests on prices paid per notebook computer and the 16 responses obtained, only 10 institutions presented us with information that are conducive to comparison-making. In order to reduce differences between notebook computer types and thus calculate the differences in price for procurement of similar products, the Index of Rationality for notebook computers was developed for two types thereof. The distinction was made on the basis of computer's processor as a key price factor. Therefore, the institutions were divided into two groups: institutions that purchased notebook computers with Intel Core i3 processor and institutions that purchased notebook computers with Intel Core i5 processor.

Although the contracting authorities were requested to provide information on prices per notebook computer without the software installed, not all of them were able to provide these data due to the fact that the vendors had not indicated the software price in their bids and invoices. Consequently, the Index of Rationality for notebook computers with Intel Core i5 processor is based on comparison of prices without software, whereby the software price was deducted from the price disclosed by one institution (PHF City Hospital

“8-mi Septemvi” – Skopje). However, considering that all institutions included in the Index of Rationality for notebook computers with Intel Core i3 processor disclosed the relevant prices with software included, this Index had to be developed on the basis of comparison of prices with software included.

2.4.1 Index of Rationality for Notebook Computers with Intel Core i3 Processor

The lowest and highest price ratio for procurement of notebook computers with Intel Core i3 processor is 1:1.98, i.e., the highest price is by 98% higher than the lowest price attained. In that and contrary to all expectations, the highest price under this Index was attained by means of an open procurement procedure which included e-auctions. The quantity purchased did not affect prices attained, as shown in the table below, notably because the institutions that obtained the highest and the lowest price purchased similar quantities.²

Table 7:
Index of Rationality
for Notebook
Computers with Intel
Core i3 Processor
(price per 1 notebook
computers with
software included)

CONTRACTING AUTHORITY	PRICE IN MKD (5% VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Agency for Foreign Investments and Export Promotion of the Republic of Macedonia	24,413 ²	-26.54%
Faculty of Civil Engineering - Skopje	27,903	-16.04%
Broadcasting Council of the Republic of Macedonia	31,342	-6.03%
Average	33,232	0
State Statistical Office	34,049	+2.46%
Health Care Centre Skopje	48,453	+45.80%

As shown in the Index, the differences in price are significant, whereby the lowest price is by 26.54% lower than the average and the highest price is by 48.5% higher than the average price calculated.

As noted in the conclusion for this Index, the prices do not correspond with standard expectations related to procedures applied, notably because the lowest price was attained under a bid-collection procedure without previously announced call for bids. Nevertheless, it should be noted that the Agency for Foreign Investments and Export Promotion of the Republic of Macedonia purchased the computers with Windows Home Basic OS installed, which is cheaper than Windows Professional 7 OS as installed on the notebook computers

² The notebook computers have Windows Home Basic OS installed, which is cheaper than Windows Professional 7 OS which was installed in the notebook computers purchased by the other institutions.

purchased by the other institutions included in this Index. At the same time, the institution that purchased the computers at the highest price applied an open procedure for contract-awarding, whose final stage implied e-auctions. Open procedures, however without e-auctions, were implemented also by the Faculty of Civil Engineering – Skopje and the State Statistical Office, where the notebook computers were purchased as a separate lot in the procurement of IT equipment. The Broadcasting Council organized a bid-collection procedure with previously announced call for bids.

As regards the selection criteria for the most favourable bid, the Faculty of Civil Engineering – Skopje and the State Statistical Office used the “lowest price” as the selection criterion. The criterion “economically most favourable bid” was used by the Broadcasting Council, and it was comprised of the following elements: price – up to 80 points and warranty period – up to 20 points. The same criterion was used also by the Health Care Centre – Skopje, where price was allocated up to 90 points and quality – up to 10 points. It can be concluded that the selection criteria were of no crucial significance as regards the decision on the most favourable bid.

The quantity purchased did not affect the prices attained, as shown in the table below. Namely, the institutions that attained the highest and the lowest price purchased similar quantities. At the same time, the group of institutions that paid prices higher than the average includes the contracting authority that purchased the greatest quantity of notebook computers, which was a separate lot in the even bigger procurement of IT equipment.

CONTRACTING AUTHORITY	QUANTITY PURCHASED	DIFFERENCE AGAINST THE AVERAGE PRICE
Agency for Foreign Investments and Export Promotion of the Republic of Macedonia	6	-26.54%
Faculty of Civil Engineering - Skopje	14	-16.04%
Broadcasting Council of the Republic of Macedonia	15	-6.03%
State Statistical Office	27	+2.46%
Health Care Centre - Skopje	5	+45.80%

Table 8:

Quantity of notebook computers with Intel Core i3 processor purchased

2.4.2 Index of Rationality for Notebook Computers with Intel Core i5 Processor

The index of Rationality for notebook computers with Intel Core i5 processor shows that the quantity purchased, type of procurement procedure applied and use of e-auctions affected the prices attained. Nevertheless, the differences in price are so high that the price deviations cannot be justified with any economic logic or cost-effectiveness in public spending. The lowest and highest price ratio is 1:2.1, i.e. the price paid for the most expensive notebook computer is by 101% higher than the lowest price.

Table 9:
Index of Rationality
for Notebook
Computers with
Intel Core i5
Processor
 (price per notebook
 computer without
 software)

CONTRACTING AUTHORITY	PRICE IN MKD (5% VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
University of Information Science and Technology – Ohrid	28,361	-29.10%
PHF City General Hospital “8-mi Septemvi” – Skopje ³	31,370	-21.56%
Average	39,994	0
Protection and Rescue Directorate	39,995	0
Public Communal Enterprise “Derven” - Veles	40,990	+2.49%
University “St. Clement of Ohrid” - Bitola ⁴	59,253	+48.15%

The prices at the Index' extremes are attained by education institutions, i.e., the University of Information Science and Technology – Ohrid and University “St. Clement of Ohrid” – Bitola. However, the difference lays in the fact that even though it is a matter of computers with same processors, the University in Bitola purchased the so-called “EliteBook” with more powerful Nvidia 250 G graphic card. The reason that we still pursued comparison of these computers despite the above indicated difference is the fact that the concerned contracting authorities are state institutions, i.e., education institutions, which, on one hand, should enable professors and students equal working and studying conditions, but - on the other hand - should never disregard the principle of rationality in public procurements.

In addition to the graphic card, the notebook computers purchased by the two universities also differed in terms of quantity. As shown in the table below, the lowest price was attained in the procurement procedure that implied the largest quantity thereof.

³ In order to enable comparison against other institutions, 7,813 MKD (as the lowest price attained for procurement of this type of software) were deducted from the price of notebook computers with licenced Windows 7 Professional OS (39,183 MKD).

⁴ EliteBook with powerful Nvidia 250 G graphic card

CONTRACTING AUTHORITY	QUANTITY PURCHASED	DIFFERENCE AGAINST THE AVERAGE PRICE
University of Information Science and Technology - Ohrid	200	-29.10%
PHF City General Hospital "8-mi Septemvi" – Skopje	3	-21.56%
Protection and Rescue Directorate	10	0
Public Communal Enterprise "Derven" - Veles	4	+2.49%
University "St. Clement of Ohrid" - Bitola	4	+48.15%

Table 10:

Quantity of notebook computers with Intel Core i5 processor purchased

Here, it seems that the type of procurement procedure applied provide logical explanation for the matters at hand. The lowest price was attained under an open procedure that used the "lowest price" criterion for selection of the most favourable bid and concluded with e-auctions that have led to additional reduction of prices. The situation is similar in regard to the second-ranked lowest price attained by PHF City General Hospital "8-mi Septemvi" – Skopje, where considering the smaller quantity, the notebook computers were purchased as part of the IT equipment procurement, whose final stage included e-auctions that have led to additional reduction of prices bided. The institutions ranked below, i.e., Protection and Rescue Directorate and Public Communal Enterprise "Derven" - Veles applied bid-collection procedure with previously announced call for bids. The highest price for notebook computers was attained under a bid-collection procedure, but without previously announced call for bids. As regards the selection criterion for the most favourable bid, four of the five institutions used the "lowest price" as selection criterion. Only the Protection and Rescue Directorate used "economically most favourable bid" as the selection criterion, comprised of the following elements: price – up to 80 points, quality – up to 10 points, and delivery deadline – up to 10 points.

2.5 INDEX OF RATIONALITY FOR GPS VEHICLE DEVICES

The highest price attained under this Index is by 158% higher than the lowest price, and thus the lowest and highest price ratio is 1: 2.58. The Index shows that prices attained for this procurement type are particularly liable to the quantity being purchased, but not to the type of public procurement procedure applied.

Table 11:
Index of Rationality
for GPS Devices
(price per 1
GPS device and
installation thereof)

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Macedonian Postal Service (in 2010) ⁵	14,635	-33.11%
Municipality of Stip (in 2010)	17,051	-22.06%
PE "Ohridski komunalec" – Ohrid (in 2010)	17,818	-18.56%
Customs Administration (in 2008)	18,587	-15.04%
Protection and Rescue Directorate (in 2010)	21,853	-0.11%
Average	21,878	0,0%
PE "Water Supply and Sewage" – Skopje (in 2008)	23,482	+7.33%
PE "Communal Hygiene" (in 2009)	23,789	+8.73%
PTE Skopje (in 2009)	37,807	+72.81%

Procurement of GPS vehicle devices became particularly common in the course of 2011; however, the public procurement procedures were often concluded in tender annulments. In order to provide a comprehensive overview of this procurement type, we analysed procurement procedures for GPS devices implemented in the period 2008-2011. Adequate FOI applications were submitted to 14 contracting authorities. Responses were not obtained from the Department on General and Common Matters, which made several announcements that it will respond to the FOI application, but did not follow through. This was also the case with Public Communal Enterprise "Water Supply and Sewage" – Prilep. FOI responses obtained from the contracting authorities PE "Macedonian Forests" and the Agency for Financial Support of Agriculture and Rural Development indicated that these contracting authorities did not install GPS devices on their vehicles, but have rather procured manual devices used only for field work. The Real Estate Cadastre Agency responded that their GPS devices are not intended for vehicles, but are rather used to determine urban trigonometric networks. AD MEPSO (Macedonian Electricity Transmission System Operator) submitted its response indicating that it did not implement any new public procurement procedures for GPS devices following the tender's annulment in 2010. Hence, the Index of Rationality for GPS devices includes only 8 institutions. ⁵

The analysis of this Index shows that the average price of 21,878 MKD per GPS device is by 33% higher than the lowest price attained. Evidence in support of fluctuating prices bided under different procurement procedures is identified in the fact that the highest price attained is by 72.81% higher than the average price calculated. In that, five contracting authorities attained prices lower than the average which was based on individual prices

⁵ The year when the public procurement procedure was implemented.

attained, whereas three contracting authorities purchased GPS devices at prices higher than the average.

As given in the Index, prices are marked by a slight reduction in the course of time, which is also directly related to the quantity purchased.

Notably, institutions that purchased greater quantities were able to attain lower prices. However, the differences in price are so high that one cannot find any justification as to the cost-effectiveness behind the lowest and highest price ratio of 1:2.58. Thus, the Protection and Rescue Directorate purchased greater quantity of GPS devices at a price higher than the one attained by the Municipality of Stip and PE "Ohridski komunalec" whose quantities purchased, as well as prices attained are by 28.2%, i.e., 22.65% lower, respectively. At the same time, economic justification defined as quantity purchased cannot be applied in regard to prices attained for GPS devices by PE "Communal Hygiene" and PTE Skopje, whose relevant procurement procedures were implemented in the same year, but whose prices attained differ by as high as 59%.

CONTRACTING AUTHORITY	NUMBER OF DEVICES PURCHASED	DIFFERENCE AGAINST THE AVERAGE PRICE
Macedonian Postal Service	150	-33.11%
Municipality of Stip	6	-22.06%
PE "Ohridski komunalec"	12	-18.56%
Customs Administration	130	-15.04%
Protection and Rescue Directorate	30	-0.11%
PE "Water Supply and Sewage" – Skopje	100	+7.33%
PE "Communal Hygiene"	15	+8.73%
PTE Skopje	30	+72.81%

Table 12:

Quantity of GPS devices purchased

Considering the fact that the highest and lowest price included in the Index were attained on open procurement procedures, inevitable is the conclusion that the type of procurement procedure applied did not affect prices attained. This interpretation is additionally enhanced with information that the only two institutions that implemented bid-collection procedures without previously announced call for bids – Municipality of Stip and PE "Ohridski komunalec" – managed to procure these devices at prices that are relatively lower than the average price.

Serious differences that would explain the differences in price attained could not be found also in terms of selection criteria for the most favourable bid. Probably the most contradicting situation was noted in regard to the single institution that used only the "lowest price" criterion – PE "Communal Hygiene" Skopje, which attained one of the highest prices included in the Index. All other institutions that applied the open procedure on contract-awarding (Macedonian Postal Service, Customs Administration, PE "Water Supply and Sewage" and PTE Skopje) used "economically most favourable bid" as the selection criterion. Macedonian Postal Service applied the following elements: price (50

points) and quality (50 points). Customs Administration allocated 45 points to price, 30 points to quality, 15 points to warranty period and 10 points to response deadline in cases of system upgrading and maintenance.

When selecting the most favourable bid, the PE “Water Supply and Sewage” – Skopje allocated 50 points to price, 40 to quality, 5 to manufacturer’s warranty period and 5 points to post-warranty period. Finally, PTE Skopje pursued the following point-ranking of elements included in the selection criterion for the most favourable bid: price - up to 60 points, quality – up to 25 points, manufacturer’s warranty period – up to 10 points and post-warranty service – up to 5 points. Quality and warranty period point-ranking was also noted in the public procurement implemented by the Protection and Rescue Directorate, which applied a bid-selection procurement procedure with previously announced call for bids (price was allocated up to 60 points, quality – up to 20 points, and warranty period – up to 20 points).

As noted above, all institutions have allocated a significant number of points to “quality” and “warranty period” elements, which leads to the conclusion that the selection criteria used did not affect the prices attained.

3 GENERAL CONCLUSION

Knowing that the Index of Rationality's purpose is to detect possible differences in procurement price attained for various goods and services, the first and most important conclusion inferred is that differences in price attained are extremely high and in most cases raise concerns as to the cost-effectiveness of public spending. The ratio between the lowest and highest price attained per individual commodity is as follows:

- 1:2.67 for translation services, i.e., the highest price is by 167% higher than the lowest price;
- 1:1.90 for air-conditioners, i.e., the highest price is by 90% higher than the lowest price;
- 1:5 for private security services, i.e., the highest price is by as high as 400% higher than the lowest price;
- 1:1.98 for notebook computers with Intel Core i3 processor and 1:2.1 for notebook computers with Intel Core i5 processor, i.e., the highest prices are by 98% and 101% higher than the lowest prices, respectively;
- 1: 2.58 for GPS vehicle devices, i.e., the highest price is by 158% higher than the lowest price.

Such differences in price attained cannot be justified, in particular knowing that public procurements were implemented by institutions that are funded from the same source: the Budget of the Republic of Macedonia, which is sustained by tax-payers.

Most distressing is the fact that for most part identified differences in price attained by institutions for procurement of same products or services cannot be justified with the type of procurement procedure applied, the selection criteria used for the most favourable bid or the quantity purchased. Hence, as was the case with the previous Indices of Rationality, the conclusion is reached that the Index developed for this group of products and services is contrary to the generally accepted logic based on the following principles:

- prices should decrease according to the type of procurement procedures applied, where the open procurement procedures should encourage competition, notably in regard to bidding lower prices;

- use of “lowest price” element in the selection criterion for the most favourable bid should result in lower prices compared to procedures where the selection criterion is defined as the economically most favourable bid;
- quantity purchased should be counter-proportionate to prices, whereby procurement of greater quantity implies lower prices.
- The situation, as noted above, raises doubts that public procurement procedures may have included other factors that affected prices attained.

On the other side, positive is the fact that the Index developed for this group of products (air-conditioners, notebook computers, and GPS devices) and services (written translation and private security services) indicated that in most cases the use of e-auctions did result in significantly lower prices.

Given the contracting authorities’ legal obligation to duly respond to FOI applications, unclear remains why a significant share thereof – despite being addressed with FOI applications – did not disclose information requested and related to prices at which they purchased particular products and services. The Ministry of Defence did not disclose information on prices paid for translation services and air-conditioners purchased. The Municipality of Struga did not disclose information on prices paid for air-conditioners purchased and private security services contracted. The National Hydrometeorological Institute, the Ministry of Labour and Social Policy, PE “Macedonia Road” – Skopje did not disclose information on prices paid for air-conditioners purchased. Primary School “Dame Gruev” – Gradsko, National Institute “Museum of the Macedonian Fight for Statehood and Independence” did not disclose information on prices paid for private security services contracted. The Municipality of Karpos, Public Broadcasting Service “Macedonian Radio and Television”, the Agency for Foreign Investments, the Faculty of Veterinary Medicine – Skopje, the National Hydrometeorological Institute, PE “Communal Hygiene”, the Secretariat for Implementation of the Framework Agreement and the Civil Aviation Agency did not disclose information on prices paid for notebook computers purchased. The Department for General and Common Matters and PE “Water Supply and Sewage” – Prilep did not respond to the FOI application on prices paid for GPS vehicle devices purchased.

Thus, inevitable is the question whether some of these institutions refrained from information disclosure due to objective reasons or maybe the reason for such ignorant attitude towards their legal obligation should be sought in the attempt to conceal prices and the lack of accountability as regards the manner in which public funds are spent. The Index developed for this group of products and services did not resolve the long-standing dilemma whether differences in price would have been even greater if the above-indicated contracting authorities disclosed the public information requested.

Having in mind the above indicated, it should be noted that national and local level contracting authorities must make serious efforts to improve the rationality (cost-effectiveness) in public spending. Hence, the following recommendations:

- to use, as much as possible, data related to prices attained on the market;
- to create fair terms and conditions for competition among companies, with a view to obtain the best value for the money (appropriate quality under lower prices);
- to adherently enforce the legal obligation that anticipates completion of public procurements with e-auctions;
- to refrain from practices whereby the contracting authorities believe that they have secured transparent and fair proceedings only because they had announced a call for public procurement, notably because the successful outcome of such procedures, to a large extent, depends on the application of eligibility criteria for bidding companies, as well as the quality of tender documents and technical specifications developed.

INDEX OF RATIONALITY

4.

Skopje, March 2012

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1 GOALS AND METHODOLOGY

The Center for Civil Communications from Skopje is the only non-governmental organization in the Republic of Macedonia that implements direct and comprehensive monitoring of public procurement procedures organized in the country. With the aim to make an additional contribution to advancing the state of affairs in this field, the Centre initiated the development of the so-called Index of Rationality in public spending. It aims to introduce a new instrument that will be used to assess effectiveness of public spending, to identify bottlenecks in the system, and ultimately to contribute to institutions' rational spending of public funds.

The Index of Rationality is developed by means of comparisons of prices under which different institutions have procured same products, services or works. The Index of Rationality will be developed quarterly and each quarter will include maximum five different types of procurements. The Index provides comparisons of public spending practices of at least five institutions and, where possible, efforts are made to maximize the number of institutions targeted. In addition to enabling comparison of prices, the analysis of same commodities, services or works provides different patterns of behaviour on the part of state institutions as regards implementation of same type of public procurements.

The Index is envisaged to serve the state institutions as an indicator against which they will improve the rationality in public procurements, i.e., public spending. Given that index-included prices are the average value of those paid by the institutions and do not imply the actual or market prices, state institutions should, when possible, pursue attainment of lowest prices and spend public funds in a more rational manner, moreover knowing that other institutions have attained more favourable prices for same types of procurements.

Differences in price paid by institutions for same types of products and services indicate the need for a thorough market research prior to tender announcement and harmonized approach on the part of contracting authorities when procuring same type of products.

The sample used to develop the Index includes all national and local level contracting authorities, i.e., from line ministries and municipalities, public enterprises and agencies,

to schools and kindergartens. For the purpose of securing better coverage on the territory of the Republic of Macedonia, the Centre's monitoring team also includes representatives from civil society organizations seated in several municipalities country-wide.

It should be noted that the Index of Rationality will disclose the contracting authorities monitored, but not the companies with whom contracts have been signed (although data thereof is available), given that the responsibility for rational spending primarily lies with the contracting authorities.

The Index of Rationality uses primary and secondary data sources.

Data collection from primary sources is pursued by means of:

- attendance at public opening of bids submitted by economic operators under specific public procurement procedures, in order to obtain data on prices bided; and
- direct contacts with contracting authorities, in order to obtain data on the selection of the most favourable bid.

These activities provide data on prices paid to procure particular products, services or works.

Secondary data sources include:

- Electronic Public Procurement System (EPPS); and
- Free Access to Information (FOI) applications.

The research and the Index of Rationality were developed in cooperation with and financial support from the Foundation Open Society – Macedonia

2 INDEX OF RATIONALITY

The fourth Index of Rationality is developed for the following five types of products, i.e. services:

- website design;
- firewood;
- behaton paving elements;
- health examination for employees; and
- fire-fighting protection.

The selection of Index-targeted products and services was made in compliance with their status of most commonly used products and services by national and local level institutions.

The present Index provides data on prices and values of contracts signed by 84 institutions throughout the country. For the purpose of developing individual indices with prices of targeted products and services, we submitted FOI applications to all contracting authorities whose procurements were registered in the Electronic Public Procurement System (EPPS).

The general idea behind the development of indices per individual products or services was to detect possible differences in prices attained, to identify shortfalls in public spending, and thereby assist contracting authorities in learning more about price fluctuations related to these products, i.e., services.

2.1. INDEX OF RATIONALITY FOR WEBSITE DESIGN

The lowest and highest price ratio for website design is 1:5.7, which means that the highest price paid for this service is by 470% higher than the lowest price. Prices range from 61,750 MKD to 352,230 MKD. As shown in the table below, most contracting authorities signed these contracts in values that do not exceed the financial threshold of 5,000 EUR (without VAT) which is stipulated for bid-collection procedures without prior announcement of calls for bids. Due to this approach pursued by institutions, the average price for website design and development amounts to 232,898 MKD, which is rather high price compared to market conditions.

Table 1:
Index of Rationality
for Website Design
(price per website
design)

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Macedonian Bank for Development Promotion	61,750	-73.50%
Directorate for Personal Data Protection	74,970	-67.82%
Bureau for Development of Education	164,020	-29.60%
Average	232,899	0.00%
Ministry of Foreign Affairs	301,000	+29.19%
Ministry of Information Society and Administration	326,565	+40.16%
Ministry of Local Self- Government	349,752	+50.11%
President of the Republic of Macedonia	352,230	+51.18%

This index targets national level institutions. In that, browsing information available in the Electronic Public Procurement System showed that for this procurement type all institutions applied the bid-collection procedure without prior announcement of call for bids (which is implemented in case of procurements whose value does not exceed 5,000 EUR without VAT). This means that no institution has purchased this service by means of bid-collection procedure with prior announcement of call for bids or by means of an open procedure. Hence, in order to obtain data need for developing this index, notifications and records submitted to the Electronic Public Procurement System and related to so-called small procurements implemented in 2011 were researched and browsed in detail. This activity targeted national level institutions, such as ministries, public enterprises, bureaus and joint stock companies. Results thereof indicated that in 2011 this service was used by only seven institutions and all of them are included in the Index of Rationality. Although it was a matter of same services purchased by institutions, relevant contracts signed defined the procurement subject in different manner. In order to demonstrate that

it is a matter of same services being procured despite the different descriptions used, below is the description of services purchased by different institutions included in the Index of Rationality.

The Macedonian Bank for Development Promotion defined the procurement subject as new website development; the Directorate for Personal Data Protection signed contract on overall website design, CMS design and implementation and new design's application on the existing website (Central Registry of Personal Databases); the Bureau for Development of Education requested new website design for the project "Mathematics and Logics"; the Ministry of Foreign Affairs signed a contract for website graphic design; the Ministry of Information Society and Administration used services defined as e-Democracy portal development; the Ministry of Local Self-Government signed contract on website development; and the President of the Republic of Macedonia procured new website design and programming.

The lowest and highest price ratio for new website development is 1:5.7, i.e., the highest price is by 470% higher than the lowest price. Prices attained by individual institutions range from 61,750 MKD to 352,230 MKD. As shown in the table above, most contracting authorities signed these contracts in values that do not exceed the financial threshold of 5,000 EUR without VAT, which is applied for bid-collection procedures without prior announcement of call for bids. Thus, the average price paid for website design and development amounts to 232,898 MKD, which is rather high price compared to market conditions. This interpretation is supported with the fact that the procurement procedure implemented by the Directorate for Mandatory Reserves of Oil and Oil Derivatives is not included in this index because in addition to website development, its contract also includes other services, and the contract value is significantly lower compared to the average amount paid by other institutions that purchased services for website design only. By means of contract signed in the amount of 88,100 MKD, the Directorate purchased website design or redesign, as well as website updating, modification, content translation and website servicing and maintenance.

Such great discrepancies in website prices can easily be explained with the type of procurement procedure implemented. As indicated above, all institution used the bid-collection procedure without prior announcement of call for bids. Notably, this procedure does not enable any transparency, because the institutions are those that select the three companies whom they will address with request for bids. However, thorough analysis of contract notifications and records on so-called small procurements that are submitted twice a year to the Electronic Public Procurement System identifies further weaknesses in procurement of website design services. Namely, the Ministry of Information Society and Administration selected the contractor for e-Democracy portal development on the basis of single bid obtained. Although Article 100 of the Public Procurement Law stipulates that contracting authorities must address at least three companies with their request for bids, which does not necessarily mean that they will obtain at least three bids, fact is that in cases where only one bid has been obtained there is no selection. Low competition was noted also in the procurement procedure for website development organized by the Cabinet of the President of the Republic of Macedonia, where only two economic operators submitted their bids.

2.2. INDEX OF RATIONALITY FOR FIREWOOD

This index discloses unexpectedly great differences in price under which municipalities and local schools purchased firewood for heating. Identified differences in price are best illustrated by the fact that the highest price per 1m³ of firewood that amounts to 4,366 MKD is by 121% higher than the lowest price of 1,972 MKD. Hence, the lowest and highest price ratio under the Index of Rationality for firewood is 1:2.21. In that, differences in price can be explained by the type of firewood procured, since prices per 1m³ of oak and beech firewood range from 50 to 100 MKD. However, differences in price are not result of firewood's quality, because all institutions purchased firewood of first class. In addition to PE "Macedonian Forests", the group of firewood suppliers includes also the National Park "Mavrovo" and the National Park "Pelister", and private companies. Great differences in price for firewood were noted also among various subsidiaries of "Macedonian Forests", where prices range from 2,271 MKD to 3,741 MKD per 1m³ of firewood, which represents a difference of 65%. However, the average price attained by municipalities and schools for purchase of 1m³ of firewood amounts to 3,090 MKD, which is on the same level with retail prices. In economic terms, this is utterly illogical given the fact that quantities purchased by municipalities and schools are several times higher than those purchased by households on the retail market.

This Index targeted 28 contracting authorities, all of which announced their calls for bids on firewood procurement in the Electronic Public Procurement System. However, the Index includes 23 municipalities and schools, because five contracting authorities did not disclose data on quantity purchased and prices attained per 1m³ of firewood. Contracting authorities that did not disclose data requested include the following municipalities: Kavadarci, Vasilevo, Zelenikovo, Studenicani and Staro Nagoricane.

Table 2:
Index of
Rationality for
Firewood
(price per 1m³ of
firewood)

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Municipality of Mavrovo-Rostuse	1,972	-36.18%
Municipality of Pehcevo	2,371	-23.27%
Municipality of Vinica	2,372	-23.24%
Secondary Municipal School "Goso Vikentiev" – Kocani	2,372	-23.24%
Primary School "Debrca", village Belcista	2,453	-20.61%
Primary Municipal School "Dimce A. Gaberot" – Demir Kapija	2,454	-20.58%
Primary School "Manus Turnovski" – Municipality of Novo Selo	2,491	-19.39%
Municipality of Makedonski Brod	2,549	-17.51%
Municipality of Bitola	2,550	-17.48%
Primary School "Mancu Matak", village Krivogastani	2,990 ¹	-3.24%
Average	3,090	0.00%
Primary School "Pasko Vasa" – Grupcin	3,186	+3.11%
Municipality of Sopiste	3,186	+3.11%
Municipality of Kicevo	3,274 ²	+5.95%
Municipality of Debar	3,387	+9.61%
Municipality of Demir Hisar	3,505	+13.43%
Primary School "Vidoe Podgorec" – Novo Selo	3,557	+15.11%
Municipality of Veles	3,557	+15.11%
Primary School "Goce Delcev", village Bosilovo	3,557	+15.11%
Municipality of Jegunovce	3,599	+16.47%
Primary School "Straso Pindzur" – Josifovo	3,690	+19.42%
Municipality of Radovis	3,741	+21.07%
Municipality of Brvenica	3,894	+26.02%
Primary School "Gerg Kastrioti Skenderbeu" – Aracinovo	4,366	+41.29%

¹ This price is weighted average for 130 m³ oak firewood purchased at price of 3,009 MKD and 60 m³ oak firewood purchased at price of 2,950 MKD.

² The price included in the Index is the average price calculated per 1m³ of oak firewood purchased at price of 3,329.6 MKD and 1m³ of beech firewood purchased at price of 3,217.5 MKD. In the procurement contract signed, the municipality did not define firewood quantity needed and indicated that it will depend on the needs of schools and local fire-fighting units.

Firewood is usually purchased by municipalities or schools that appear as procurement-performing entities for all institutions in the municipality that use firewood for heating purposes. This means that one school purchases firewood for all schools in the municipality or the municipality implements the procurement for all schools on its territory.

The Index developed on the basis of price comparison per 1m³ of firewood shows significant differences in prices attained. The lowest price is by 36.18% lower than the average price calculated, while the highest price is by 41.29% higher than the average. Characteristic for this Index is the fact that the average price (average calculated from prices attained by 23 Index-targeted contracting authorities) amounts to 3,090 MKD, which is significantly higher than the retail price announced by PE "Macedonian Forests" at the beginning of the heating session: 2,200 MKD to 2,300 MKD per 1m³ of firewood. In practice, cases were noted where the price bided by "Macedonian Forests" per 1m³ of firewood amounted to as high as 3,741 MKD, i.e., was by 66% higher than the retail price announced. In that regard it should be noted that these procurement procedures implied procurement of hundreds of cubic meters of firewood.

The question is raised on how this situation affects the rationality in public spending. Given that two contracting authorities did not submit data on quantities purchased and relevant contracts' value, data available from 21 contracting authorities indicate that the total value of procurements amounts to 294,162 EUR for 5,963 m³ of firewood. If these quantities were purchased at the lowest price attained by Index-targeted institutions, the total amount spent would account for 191,204 EUR and would imply public savings of 35%. Moreover, if the same quantities of firewood were purchased at the price announced by "Macedonian Forests" (2,250 MKD), the total amount spent would account for 218,158 EUR and would imply public savings of 26%.

These differences in price attained cannot be fully explained with the type of procurement procedure implemented. High prices attained in the procurement procedures implemented by the Municipality of Sopiste and the Municipality of Kicevo might be explained with the fact that they organized non-transparent public procurement procedures. Namely, the Municipality of Sopiste implemented a bid-collection procedure without prior announcement of call for bids and the Municipality of Kicevo organized a procedure with direct negotiations without prior announcement of call for bids. Nevertheless, all other contracting authorities implemented procedures with prior announcement of calls for bids, or open procedures. The fact that procedure type and criteria used for selection of the most favourable bid are not key factors for prices attained in procurement of firewood was also confirmed by the fact that the lowest price (Municipality of Mavrovo) and the highest price (Municipality of Aracinovo) were attained by means of bid-collection procedures with prior announcement of calls for bids. Moreover, paradoxical is the fact that the lowest price was attained under the procedure where the selection criterion was "economically most favourable bid" and where 80 points were allocated to price bided, 10 points were allocated to delivery deadline and 10 points to payment deadline, whereas the highest price was attained under the procedure where the selection criterion for the most favourable bid was "lowest price".

Differences in procurement price for firewood can be partially explained with the quantity purchased. The Municipality of Mavrovo-Rostuse, which attained the lowest price and purchased the largest quantity of firewood (715 m³), is the second municipality in terms of highest quantity purchased, after the Municipality of Vinica which purchased 1,120 m³ of firewood and attained a price lower than the average. However, at the same time some institutions that paid prices higher than average also purchased high quantities, those being: Municipality of Radovis (522 m³), Municipality of Jegunovce (393 m³) and Municipality of Brvenica (354 m³). The quantity purchased by the primary school "Gerg Kastrioti Skenderbeu" – Aracinovo (210 m³) does not justify the highest price attained. On the other hand, contracting authorities such as the Municipality of Makedonski Brod and the primary school "Mancu Matak" from village Krivogastani attained prices lower than the average price calculated, despite the low quantity of firewood purchased, 50 m³ and 60 m³, respectively.

The table below provides an overview of quantities purchased by contracting authorities and their comparison in terms of differences in price attained. For the purpose of enabling better insight, the table ranks the contracting authorities according to quantity purchased, rather than according to price difference against the average.

Table 3:
Quantity of
Firewood
Purchased

CONTRACTING AUTHORITY	QUANTITY (m ³)	DIFFERENCE AGAINST THE AVERAGE
Municipality of Vinica	1,120	-23.24%
Municipality of Mavrovo-Rostuse	715	-36.18%
Municipality of Bitola	681	-17.48%
Municipality of Radovis	522	+21.07%
Secondary Municipal School "Goso Vikentiev" – Kocani	446	-23.24%
Municipality of Jegunovce	393	+16.47%
Municipality of Brvenica	354	+26.02%
Primary School "Pasko Vasa" – Grupcin	300	+3.11%
Municipality of Debar	255	+9.61%
Primary School "Gerg Kastrioti Skenderbeu" – Aracinovo	210	+41.29%
Primary School "Debrca", village Belcista	200	-20.61%
Primary Municipal School "Dimce A. Gaberot" – Demir Kapija	195	-20.58%
Primary School "Mancu Matak", village Krivogastani	190	-3.24%
Primary School "Manus Turnovski" – Municipality of Novo Selo	150	-19.39%
Municipality of Pehcevo	150	-23.27%
Primary School "Vidoe Podgorec" – Novo Selo	137	+15.11%
Primary School "Goce Delcev", village Bosilovo	100	+15.11%
Municipality of Sopiste	80	+3.11%
Primary school "Straso Pindzur" – Josifovo	55	+19.42%
Municipality of Makedonski Brod	50	-17.51%
Municipality of Veles	14	+15.11%
Municipality of Demir Hisar	14	+13.43%
Municipality of Kicevo	framework contract	+5.95%

2.3. INDEX OF RATIONALITY FOR BEHATON PAVING ELEMENTS

This index is divided into two separate indices, one developed for procurement of behaton paving elements excluding placement costs and one developed for procurement of behaton paving elements including placement costs. This division was deemed necessary due to the fact that when providing relevant data some contracting authorities did not disclose information on placement or labour costs or they have signed contracts with neighbourhood units for free-of-charge placement of paving elements.

Under the Index for procurement of behaton paving elements excluding placement costs, the lowest and highest price ratio is 1:1.41, i.e., the Municipality of Caska attained a price that is by 41% higher than the price attained by the Municipality Mavrovo-Rostuse, per 1m² of paving elements. As regards the Index for procurement of behaton paving elements including placement costs, the ratio is 1:1.30, i.e., the Municipality of Resen attained a price that is by 30% higher than the price attained by the Municipality of Berovo, per 1m² of paving elements. These differences are significant given the fact that it is a matter of common procurements implemented by municipalities and that they were expected to demonstrate greater consistency in prices from those recorded in the Index.

It is important to emphasize that differences were noted in cases where some institutions organized one procurement procedure for all streets or sidewalks, whereas others purchased them under separate procedures. Moreover, cases were noted where the contracting authorities organized separate procurement procedures for paving elements and separate procurement procedures for their placement.

This Index was developed on the basis of Freedom of Information (FOI) applications submitted to 17 institutions, i.e., all institutions which implemented procurements of this type in 2011. In that, they were identified by browsing data available in the EPPS, both as calls for bids announced or notifications and records submitted on procurement procedures implemented by means of bid-collection procedure without prior announcement of call for bids.

However, the Index is developed on the basis of comparing prices attained by 10 contracting authorities, since the municipalities Delcevo, Vrapciste, Lozovo and Studenicani did not respond to our FOI applications. The Municipality of Butel responded that it is not a company that sells behaton paving elements and therefore it cannot disclose prices under which behaton paving elements are purchased. This municipality remained firm on this utterly unreasonable interpretation even after we submitted the second FOI application. Public Utility Enterprise "Komunalec" from Prilep provided an extremely vague response to our FOI application, the contents of which made it impossible for us to identify the information requested. The Municipality of Jegunovce informed us that it had purchased behaton paving elements with dimensions of 20x10x6, which are larger than dimensions of paving elements purchased by other municipalities monitored, and thereby prevented its inclusion in the comparison exercise.

2.3.1. Index of Rationality for Behaton Paving Elements Excluding Placement Costs

As indicated above, the highest price attained under this Index of Rationality is by 41% higher than the lowest price. According to prices attained by different municipalities for purchase of behaton paving elements, it can be concluded that the average price per 1m² amounts to 413.62 MKD. Prices attained by three municipalities are lower than the average within the range from

-14.41% to -0.33%, while two municipalities attained prices higher than the average within the range from 1.91% to 20.88%. In fact, extremes under this Index are seen in the two lowest prices and the highest price attained.

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Municipality of Mavrovo-Rostuse	354.00	-14.41%
Municipality of Sveti Nikole	377.60	-8.71%
Municipality of Tearce	415.00	-0.33%
Average	413.62	0.00%
Municipality of Strumica	421.52 ³	+1.91%
Municipality of Caska	500.00	+20.88%

Table 4:
Index of Rationality for Behaton Paving Elements
(price per 1m² behaton paving elements with dimensions 20x10x6 cm, excluding placement costs)

Differences in price cannot be fully explained with the type of public procurement procedures applied, especially knowing that the two municipalities which attained the highest and the lowest price, applied the same procedure, i.e., bid-collection procedure without prior announcement of call for bids. The Municipality of Tearce and the Municipality of Strumica whose prices attained gravitate around the average price organized bid-collection procedures with prior announcement of call for bids and used "lowest price" as the selection criterion for the most favourable bid. The Municipality of Sveti Nikole is the only contracting authority that organized an open procedure and actually attained one of the lowest prices for procurement of behaton paving elements. In that, this is the only municipality that used "economically most favourable bid" as the selection criterion, where price was allocated 70 points, and payment deadline was allocated 30 points. This fact provides additional evidence in support of the fact that the type of procurement procedure and selection criteria used have little effect on prices attained, which is not favourable.

Differences in price cannot be justified either by the quantities purchased. As shown in the table below, the Municipality of Tearce purchased the smallest quantity, but belongs in the group of municipalities that have attained prices lower than the average price. Nevertheless, the fact that quantities purchased can result in lower prices is confirmed in the case of the Municipality of Sveti Nikole, which procured a record-breaking quantity of 10,000 m² at a price that is not the lowest, but is among lower prices. The effect of quantity purchased on the price bided was noted in the case of the Municipality of Strumica where the price is weighted average of three procurements made and where the lowest price (390.58 MKD per 1m² of paving elements) was attained for procurement of large quantities. This means that municipalities must strive to group their annual procurements of behaton paving elements and even separate procurement thereof from the placement.

³ The price is weighted average calculated from three procurements of behaton paving elements in 2011, as follows: 390.58 MKD per 1m² of paving elements for procurement of 2,240 m² in total; 441.48 MKD per 1m² of paving elements for procurement of 960 m² in total; and 537 MKD with VAT included per 1 m² for procurement of 434 m² in total.

Table 5:
Quantity of
Paving Elements
Purchased

CONTRACTING AUTHORITY	QUANTITY IN m ²	DIFFERENCE AGAINST THE AVERAGE
Municipality of Sveti Nikole	10,000	-8.71%
Municipality of Strumica	3,634	+1.91%
Municipality of Mavrovo- Rostuse	1,000	-14.41%
Municipality of Caska	600	+20.88%
Municipality of Tearce	135	-0.33%

2.3.2. Index of rationality for behaton paving elements including placement costs

The lowest and the highest price ratio for procurement of 1m² behaton paving elements with placement costs is 1:1.30, which means that the highest price attained by the Municipality of Resen is by 30% higher than the lowest price attained by the Municipality of Berovo. Three municipalities attained prices lower than the average and within the range from -11.55% to -0.57%, and two municipalities attained prices higher than the average price and within the range from 6.91% to 15.22%.

Table 6:
**Index of Rationality
for Behaton Paving
Elements Including
Placement Costs**
(price per 1m² of
behaton paving
elements with
dimensions 20x10x6
cm, including
placement costs)

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Municipality of Berovo	678.50	-11.55%
Municipality of Pehcevo	690.30	-10.00%
Municipality of Bosilovo	762.67 ⁴	-0.57%
Average	767.08	0.00%
Municipality of Kisela Voda	820.10	+6.91%
Municipality of Resen	883.82	+15.22%

⁴ This price is weighted average from four procurements of behaton paving elements implemented in 2011, as follows: 637.20 MKD per 1m² for procurement of 250 m² in total; 684.4 MKD per 1m² for procurement of 317 m² in total; 730.42 MKD per 1m² for procurement of 210 m² in total; and 804.98 MKD per 1m² for procurement of 1,488 m² in total.

Differences in price under this Index can be partially explained with the type of public procurement procedure applied. Namely, the lowest price noted with the Municipality of Berovo was attained under an open procedure, and the highest price noted with the Municipality of Resen was attained under a non-transparent bid-collection procedure without prior announcement of call for bids. In that, it should be noted that the Municipality of Resen pursued an approach of two separate procurements, one for paving elements and another for their placement. As shown in the results obtained under this Index, the approach pursued by this municipality negatively affected the final price, notably because the price per placement of 1m² paving elements (448 MKD) is higher than the procurement price per 1m² of paving elements (435 MKD).

The Municipality of Bosilovo implemented four procedures, three of which were organized as bid-collection procedures without prior announcement of call for bids and one procurement procedure was organized as bid-collection with prior announcement of call for bids where “lowest price” was defined as the selection criterion for the most favourable bid.

The Municipality of Pehcevo applied bid-collection procedure with previously announced call for bids, but used “economically most favourable bid” as the selection criterion, where the price was allocated 60 points and post-sale services were allocated 40 points.

Evidence in support of the interpretation that the type of procurement procedure applied does not justify prices attained was noted in the case of the single municipality that organized an open procedure. Namely, the Municipality of Kisela Voda attained a price higher than the average, but used “economically most favourable bid” as selection criterion where price was allocated 70 points, deadline for works performance was allocated 20 points and payment deadline was allocated 10 points.

CONTRACTING AUTHORITY	QUANTITY IN m ²	DIFFERENCE AGAINST THE AVERAGE
Municipality of Berovo	6,000	-10.00%
Municipality of Pehcevo	3,000	-11.55%
Municipality of Bosilovo	1,488	-0.57%
Municipality of Kisela Voda	/	+6.91%
Municipality of Resen	800	+15.22%

Table 7:

Quantity of Paving Elements Purchased

Data analysis under this Index shows that quantities did affect prices attained. The Municipality of Berovo, which attained the lowest price, purchased the largest quantity of 3,000 m² which is 4 times higher than the quantity purchased at the highest price attained by the Municipality of Resen. Except for the Municipality of Kisela Voda, which did not define planned quantity of paving elements, the remaining municipalities are marked by progressive increase of prices in proportion to the decreasing quantity of behaton paving elements purchased.

2.4. INDEX OF RATIONALITY FOR HEALTH EXAMINATIONS

Having in mind that all Index-targeted agencies perform a public function and are not private entities, the fundamental idea behind this Index is to determine whether funds spent on health examination of employees are somewhat levelled or the amount thereof depends on the funds disposed by institutions and their individual budgets. The ratio between the lowest and the highest price is 1:6.3, which means that the highest price paid per health examination is by 530% higher than the lowest price. In that, obvious is the fact that agencies which paid as high as 6 times of the amount for mandatory health examination have enabled additional health check-ups for their employees, contrary to the health examinations secured for employees at agencies which paid the lowest price. Therefore, the dilemma raised under this Index of Rationality concerns the fact whether health examination costs should be set pursuant to certain rules or they should be based on the amount of income generated by individual agencies. The question raised here is why some employees are entitled to broad and comprehensive health examinations covered by the state and others are denied the same privilege. Moreover, these differences in funds spent on health examinations do not correspond with the nature of work and jobs performed by agencies' employees. Namely, there is no economic justification behind the significantly thorough health examination provided for employees and managers at the Insurance Supervision Agency compared to examinations provided for employees at the Employment Agency or the Civil Aviation Agency, which include also flight navigators.

This Index was developed on the basis of FOI applications that requested information on the price paid for health examination per employee. FOI applications were submitted to all 22 agencies. In that, the Emigration Agency of the Republic of Macedonia and the Agency for Promotion of Entrepreneurship of the Republic of Macedonia responded that they did not use this service in 2011. The Intelligence Agency of the Republic of Macedonia responded that data they dispose with are confidential, whereas the Agency for Electronic Communications of the Republic of Macedonia, the Food and Veterinary Agency, the Agency for Supervision of Fully Funded Pension Insurance and the Agency for Promotion and Support of Tourism from Struga did not respond to FOI applications submitted.

CONTRACTING AUTHORITY	PRICE IN MKD	DIFFERENCE AGAINST THE AVERAGE
Employment Agency of the Republic of Macedonia	594	-59.32%
Civil Aviation Agency	598	-59.04%
Agency for Youth and Sports	820	-43.84%
Agency for Real Estate Cadastre	899	-38.42%
Agency for Seized Property Management	900	-38.35%
Commodity Reserve Agency	1,000	-31.51%
Agency for Foreign Investments	1,100	-24.66%
Energy Agency of the Republic of Macedonia	1,200	-17.81%
Administration Agency	1,400	-4.11%
Average	1,460	0
Railway Regulatory Agency	1,499	+2.67%
Agency for Financial Support to Agriculture and Rural Development	1,526 ⁶	+4.52%
Postal Agency	1,777	+21.71%
Agency for State Roads	2,050	+40.41%
Spatial Planning Agency	2,800	+91.78%
Insurance Supervision Agency	3,743 ⁷	+156.37%

Table 8:
Index of Rationality for Health Examination
 (price for health examination per employee⁵)

⁵ In compliance with Article 129 from the Law on Value Added Tax, this service is exempted from VAT.

⁶ This price is weighted average of two different prices applied for health examination, i.e., the cost for 52 male employees was 999 MKD, and the cost for health examination of 58 female employees was 1,999 MKD.

⁷ This price is weighted average of prices paid for three categories of employees, i.e., male, female and managers. Namely, health examination cost for 10 female employees was 3,950 MKD; for 7 male employees was 2,845 MKD and for 3 managers the cost was 5,150 MKD.

Under this Index, the average price attained for health examination per employee is 1,460 MKD. Nine agencies attained prices lower than the average price and within the range from -59.32% and -4.11%, while six agencies attained prices higher than the average price and within the range from 2.67% to 156.37%.

This Index shows extreme differences in price which cannot be justified with the nature of work performed by agencies' employees. At the same time, such differences raise the question on the distinction made between employees at different agencies in terms of state-funded health examinations and what right do certain employees have to benefit from broader and comprehensive health examinations in comparison to others? It should be noted that these differences did not depend on the nature of work performed by the agencies, but on the contrary they depend on the budgets made available to individual agencies.

It is important to note that the agencies included in the Index are established by the Government. Parliament of the Republic of Macedonia appears as the founder only in the case of the Insurance Supervision Agency, the Postal Agency and the Railway Regulatory Agency.

Prices attained for health examinations are not related to type of procurement procedure applied.

Namely, in regard to contract-awarding for health examination of employees, Index-targeted agencies predominantly organized bid-collection procedure without prior announcement of call for bids. This procedure was applied by the two agencies that attained the highest price and the lowest price, respectively. More specifically, the Employment Agency attained the lowest price and the Insurance Supervision Agency attained the highest price. Moreover, this type of procedure for contract-awarding was used by other eight agencies, those being: the Civil Aviation Agency, the Railway Regulatory Agency, the Agency for Seized Property Management, the Spatial Planning Agency, the Agency for Foreign Investments, the Administration Agency, the Commodity Reserve Agency and the Agency for State Roads. In that, the analysis of relevant data and information indicate the fact these eight agencies have appropriately applied the indicated procurement procedure, as their relevant values of contracts signed did not exceed 5,000 EUR.

Three agencies did not apply any public procurement procedure whatsoever, having in mind that the value of relevant contracts signed did not exceed 500 EUR without VAT, which is in compliance with the exemptions stipulated under the Public Procurement Law and related to cases that do not imply organization of public procurement procedure. They are the Agency for Youth and Sports, the Energy Agency of the Republic of Macedonia and the Postal Agency.

The Agency for Financial Support to Agriculture and Rural Development applied bid-collection procedure with previously announced call for bids, whereas the only open procedure was applied by the Agency for Real Estate Cadastre, which is logical given the contract's value.

The table below shows that agencies with higher number of employees were able to procure health examination services at lower prices.

CONTRACTING AUTHORITY	NUMBER OF EMPLOYEES	DIFFERENCE AGAINST THE AVERAGE
Agency for Real Estate Cadastre	966	-38.42%
Employment Agency of the Republic of Macedonia	145	-59.32%
Agency for Financial Support to Agriculture and Rural Development	110	+4.52%
Agency for Foreign Investments	45-60	-24.66%
Administration Agency	59	-4.11%
Agency for State Roads	51	+40.41%
Civil Aviation Agency	50	-59.04%
Agency for Youth and Sports	37	-43.84%
Spatial Planning Agency	28	+91.78%
Commodity Reserve Agency	27	-31.51%
Insurance Supervision Agency	20	+156.37%
Agency for Seized Property Management	12	-38.35%
Postal Agency	11	+21.71%
Energy Agency of the Republic of Macedonia	9	-17.81%
Railway Regulatory Agency	4	+2.67%

Table 9:
Number of
Employees Who
Received Health
Examinations

2.5. INDEX OF RATIONALITY FOR FIRE-FIGHTING PROTECTION

The Index of Rationality for Maintenance of Fire-Extinguishers aimed to provide comparison of annual costs incurred by relevant institutions. However, in practice this task has proven to be impossible. Contracting authorities do not separate maintenance costs for fire-extinguishers from the overall costs related to this type of services, which also include maintenance of lightning arresters and fire-hydrant installations, inspection of electrical installations, insulation resistance, protective grounding resistance, and fire-fighting protection training for employees. On this ground, the simple division of contracts' value by the number of fire-extinguishers provided unrealistic and distorted image on the actual situation.

However, in order to obtain clear impression on rationality in public spending for this type of services, the table below provides an overview of contracts' total value. Having in mind different types of procurement and great disparities in prices, this Index does not include calculation of average value for contracts signed and individual institutions' difference from the average. Overview of contracts' value shows that there are great differences among institutions in relation to this type of costs. Individual values of contracts vary within the range from moderate 23,600 MKD to 2.5 million MKD, which cannot be justified by the number of fire-extinguishers. This resulted in situations where JSC "Makedonski Posti" spends 362,850 MKD on maintenance of 1,085 fire-extinguishers in total, whereas the Faculty of Veterinary Medicine in Skopje has signed an annual contract in the amount of 2.5 million MKD for maintenance of 104 fire-extinguishers in total. In that, the Faculty's contract in addition to servicing of fire-extinguishers also includes servicing, measurements and maintenance of lightning arresters and fire-hydrant installations, inspection of electrical installations, insulation resistance, protective grounding resistance, and fire-fighting protection training for employees. The conclusion is inferred that the three institutions which have signed contracts in the highest amounts registered under this Index, in fact have contracted broader scope of fire-fighting protection services. Notwithstanding the justifiability of such broad services, the dilemma remains on why this type of services was deemed necessary by some institutions and not by others and whether the contracts signed in lower amounts also include these addition services, but have not duly noted them.

CONTRACTING AUTHORITY	TYPE OF CONTRACT SIGNED FOR FIRE-FIGHTING PROTECTION	VALUE IN MKD (18% VAT INCLUDED)
Faculty of Veterinary Medicine in Skopje	Servicing and maintenance of 104 fire-extinguishers, servicing, measurements and maintenance of lightning arresters and fire-hydrant installations, inspection of electrical installations, insulation resistance, protective grounding resistance and fire-fighting protection training for employees	2,500,000
Agency for Real Estate Cadastre	Servicing of fire-fighting installations and 152 fire-extinguishers, fire-hydrant network, fire alarm system, lightning arrester installation, protective grounding resistance installation, insulation resistance and FM 200 system with spare parts.	2,360,000
Pension and Disability Insurance Fund of the Republic of Macedonia	Servicing, maintenance and repair of 203 fire-extinguishers and fire-fighting equipment, as well as procurement of spare parts (two contracts)	1,540,000
JSC "Makedonski Posti"	Servicing of 1,085 fire-extinguishers	362,850
Sports Centre "Boris Trajkovski" Ltd. Skopje	Inspection and servicing of 159 fire-extinguishers, testing and measuring pressure for 4 fire-hydrants, as well as fire-fighting protection training for employees	332,465
Commodity Reserve Agency	Filling-in and servicing of 57 fire-extinguishers, maintenance of fire-hydrant network and fire alarm system	313,715
PHI General Hospital Prilep	Servicing of 56 fire-extinguishers and procurement of spare parts (two contracts)	160,980
PE Official Gazette of the Republic of Macedonia	Maintenance of 8 fire-extinguishers and fire-fighting equipment	23,600

Table 10:

Value of Contracts Signed for Fire-Fighting Protection

FOI applications were submitted to 10 national level institutions which have implemented this type of procurements in 2011. They were identified by means of browsing calls for bids announced in the EPPS and notifications and records on contracts signed in the first half of 2011. FOI-addressed institutions include: the Department on General and Administrative Matters at the Government of the Republic of Macedonia, the Pension and Insurance Fund of the Republic of Macedonia, JSC City Trade Centre, PHI General Hospital Prilep, Faculty of Veterinary Medicine in Skopje, Agency for Real Estate Cadastre, JSC "Makedonski Posti", Commodity Reserve Agency, PE Official Gazette of the Republic of Macedonia, and Sports Centre "Boris Trajkovski" Ltd Skopje. They were required to submit data on prices paid for annual maintenance of fire-extinguishers and number of fire-extinguishers covered by the procurement. Data obtained in response to our FOI applications did not enable calculation of annual cost per fire-extinguisher. In that, it was noted that institutions dispose with information on the number of fire-extinguishers for which relevant services were procured and on the total value of contracts, but at the same time their contracts cover other types of services, such as maintenance of lightning arresters and fire-hydrant installations, inspection of electrical installations, insulation resistance, protective grounding resistance, and fire-fighting protection training for employees. Due to these reasons, simple division of contracts' value by the number of fire-extinguishes resulted in unrealistic and distorted image on the actual situation. In order to overcome this problem and in compliance with Article 24, paragraph 4 of the Law on Free Access to Public Information, in the course of February the Center for Civil Communications' team requested an explanation for public information disclosed by the relevant institutions. They were required to disclose precise information on the price paid (with or without VAT) for annual maintenance of fire-extinguishers (servicing and testing) excluding costs for spare parts which should be indicated as separate item or cost. According to the Law, institutions are obliged to respond by disclosing information requested within a deadline of 10 days. Official response was submitted only by the Agency for Real Estate Cadastre, but it contained identical information with those provided in the first response. All other institutions did not comply with the Law on Free Access to Public Information. Important is to note that the Department on General and Administrative Matters at the Government of the Republic of Macedonia and JSC City Trade Centre did not respond to FOI applications, and therefore this Index does not include information on their costs incurred for the services in question. In that, it should also be noted that the Department on General and Administrative Matters continues its practices on non-disclosing information related to prices paid for certain products and services procured. As was the case in the past, representatives of the Department on General and Administrative Matters were repeatedly reminded by telephone on their legal obligation to disclose public information, but these attempts were to no avail.

As regards the type of procurement procedures, one can note that the type of procedure organized is not directly related to the contract value. Namely, obvious is the fact that institutions selected the type of public procurement procedure on the basis of procurement's assessed value. Hence, the Faculty of Veterinary Medicine in Skopje and the Agency for Real Estate Cadastre applied open procedures as the only procedure appropriate for contract-awarding in procurements whose value exceeds 20,000 EUR. The Pension and Disability Insurance Fund signed two contracts: one for servicing and maintenance of fire-extinguishers and procurement of fire-extinguishers, for which they organized a bid-collection procedure with previously announced call for bids; and one for procurement of spare parts for fire-extinguishers, for which they organized a bid-collection procedure without previously announced call for bids. Given the value of relevant contracts that does not exceed 5,000 EUR (VAT excluded), all other contracting authorities organized bid-collection procedures without previously announced call for bids: JSC "Makedonski Posti", PHI General Hospital "Borka Talevski" Prilep, Commodity Reserve Agency, PE Official Gazette of the Republic of Macedonia and Sports Centre "Boris Trajkovski" Ltd. Skopje.

3 GENERAL CONCLUSION

The Index of Rationality developed for products (firewood and behaton paving elements) and services (website design, health examination for employees and maintenance of fire-extinguishers) shows serious disparity in prices attained and differences in the approach pursued by institutions in regard to certain types of services.

As regards differences in price, justified is the statement that these differences are extremely high, whereby the highest and the lowest price ratios per individual products and services targeted with the present index are as follows:

- 1:5.7 for new website design, which means that the highest price is by 470% higher than the lowest price;
- 1:2.21 for firewood, which means that the highest price is by 121% higher than the lowest price;
- 1:1.41 for behaton paving elements excluding placement costs, and 1:1.30 for behaton paving elements including placement costs, which means that the highest prices are by 41% and 30% higher than the lowest prices, respectively;
- 1:6.3 for health examination of employees, which means that the highest price is by 530 % higher than the lowest price.
- as regards procurement of fire-fighting protection services, differences were noted in regard to contract values which vary within the range from 23,600 MKD to 2.5 million MKD.

The last Index of Rationality for fire-fighting protection reiterates the problem of different approaches pursued by institutions in regard to procurement of same type of services, which results in great differences in costs incurred by the institutions. Here, it should be noted that some institutions procure only services related to fire-extinguishers' maintenance, while others procure overall fire-fighting protection. This opens the dilemma on the reasons behind institutions' different approach. Similar dilemma appears also in regard to contracting authorities' costs for health examination of employees. Great differences noted under this Index raise the question on why certain employees benefit

from broader and comprehensive health examination covered by the state, while others do not benefit from such services. Furthermore, differences recorded in terms of funds spent for health examination do not correspond to the nature of job positions held by employees at the agencies included in the Index.

The general conclusion inferred in relation to all indices included in the present report is that disparities in prices attained by individual institutions cannot be justified, in particular knowing that it is a matter of same-type institutions whose procurement needs are funded by the same source, i.e., the Budget of the Republic of Macedonia, which is sustained by the citizens/taxpayers. Given the absence of direct connection between the type of procurement procedure applied and quantity being purchased on one hand and the value of services and prices attained on the other hand, the impression is obtained that for most part differences in price are due to subjective reasons.

Another problem that raises concerns is the non-disclosure of public information on the part of some institutions and related to data on procurement prices for certain products or services. This confirms the fact that differences recorded under relevant indices might be even higher if all contracting authorities complied with their legal obligation on responding to FOI applications.

On the grounds of above indicated facts, inevitable is the conclusion that rationality in public spending is not on desired level. Evidence in support of this statement is identified in the fact that high amount of public funds will be saved if most contracting authorities targeted by the present Index have purchased products and services at the low prices recorded under the relevant indices.

Challenges that prevent greater rationality in public spending remain unaddressed and include: creating competition-conductive environment for public procurements; stimulating increased number of companies to actively participate in the public procurements market and limiting the possibility for personal interests to affect price levels in public procurements.

