

# INDEX OF RATIONALITY

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## INDEX OF RATIONALITY 5 AND 6

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For the publisher:  
Vladimir Milcin, Executive Director

Prepared by:  
German Filkov  
Sabina Fakic  
Damjan Siskovski

Editors:  
Fani Karanfilova Panovska  
Kire Milovski  
Aleksandar Stojanovski

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Abakus

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# 1 GOALS AND METHODOLOGY

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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

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

- commission rates charged by Agencies for Temporary Employment;
- ISO 9001 Quality Management System Standards;
- antifreeze liquid;
- carwash services; and
- bottled still water.

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 that the methodology applied to develop the Index implies comparison of prices attained by at least five institutions and the fact that requested information is not always disclosed or, when disclosed, it is provided in a form that does not allow comparisons to be made, the development of relevant indices per products and services, in addition to information on public procurements organized in 2012, also includes information on procurements implemented in the previous years.

For the purpose of securing data required for development of indices for above-indicated products and services, the Centre presented national and local level institutions with 46 FOI applications.

When developing the indices, prices of products and services concerned were secured by means of FOI applications addressed 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 product or service was to detect possible differences in prices attained, to identify shortfalls in public spending, and thereby to assist contracting authorities in learning more about price fluctuations related to these products, i.e., services.

## 2.1 INDEX OF RATIONALITY FOR COMMISSION RATES CHARGED BY AGENCIES FOR TEMPORARY EMPLOYMENT

Commission rates charged by copyright agencies for temporary employment and paid by state administration bodies range from 0.24% to 12.98% of employee's gross salary, which provides the conclusion that there are major differences in rates charged. The highest commission rate was recorded with PE "Komunalec" from Negotino and concerns 40 employments, while PE "City Parking" – Skopje, which was marked by the lowest commission rate, did not provide information on the exact number of temporary employees contracted, although it was requested to disclose this information as well. According to data made available, the institution that pays the highest commission rate has actually signed a contract for the highest number of temporary employments, which is contrary to any economic logic, whereby high value of contract signed should result in decreased commission rate charged per employee.

**Table 1:**  
**Index of Rationality for Commission Rates Charged by Agencies for Temporary Employments**  
(commission rate charged as percentage of temporary employee's gross salary)

CONTRACTING AUTHORITY	COMMISSION RATE (VAT INCLUDED, IN %)	DIFFERENCE AGAINST THE AVERAGE
PE "City Parking" - Skopje	0.24	-93.44%
Municipality of Bogdanci	0.59	-83.88%
PE "Streets and Roads" - Skopje	0.71	-80.69%
Municipality of Petrovec	0.73	-80.05%
VET School for Agriculture and Forestry "Gorce Petrov" - Kavadarci	3.13	-14.48%
Average	3.66	0.0%
Kindergarten "Bresia" – Debar	5.00	+36.61%
Municipality of Ohrid	5.90	+61.20%
PE "Komunalec" – Negotino	12.98	+254.64%

For the purpose of developing the Index of Rationality for commission rates paid for temporary employments, FOI applications were submitted to all contracting authorities that have implemented this type of procurements in the first quarter of 2012, and were identified by browsing the Electronic Public Procurement System. From the total of 10 FOI applications submitted, information requested was not disclosed by the City of Skopje and PE Care Centre for Elderly People "Zafir Sajto" in Kumanovo. Hence, the Index ranks only the institutions (eight in number) that disclosed the information requested and was developed on the basis of commission rates charged as share of employee's gross salary, VAT included.

As shown in the table above, major differences between state institutions were noted in procurement of these services. The lowest price is by 93.44% lower than the average calculated, and the highest price is by 254.64% higher than the average. In that, five contracting authorities paid commissions lower than the average and three contracting authorities signed contracts with commission rates higher than the average calculated for all index-targeted institutions.

Great differences in price cannot be justified with the type of procurement procedure applied, especially when knowing that procedures with previously announced call for bids are more transparent and imply greater competition among bidding companies, which ultimately leads to lower prices. Namely, seven of the eight index-targeted institutions implemented procurement procedures with previously announced call for bids. Kindergarten "Bresia" in Debar was the only institution that signed a contract by means of bid-collection procedure without previously announced call for bids. In its notification submitted to the EPPS, the kindergarten indicated that it has annulled the previously announced tender procedure on the grounds of unpredictable and objective circumstances. All other index-targeted institutions announced relevant calls for bids. Moreover, PE "Streets and Roads", Municipality of Ohrid and PE "Komunalec" – Negotino applied the open procurement procedure, whereas the remaining institutions (PE "City Parking" – Skopje, Municipality of Bogdanci, Municipality of Petrovec, VET School "Gorce Petrov – Kavadarci) organized bid-collection procedures with previously announced call for bids. As regards criteria used to select the most favourable bid, seven of the eight institutions used 'lowest price' as selection criterion for contract-awarding. 'Economically most favourable bid' was used as the selection criterion only by PE "Komunalec" – Negotino and included three bid-assessment elements, those being: payment deadline - 40 points, service price - 40 points, and quality - 20 points. This shows that great differences in commission rates attained by index-targeted institutions and charged for temporary employments can be partially justified by the criteria used to select the most favourable bid. In that, fact is that use of 'economically most favourable bid' has resulted in attainment of the highest prices, but at the same time the institutions that used 'lowest price' as the selection criterion also demonstrate great differences in commission rates paid, which range from 0.24% to 5.90% of temporary employee's gross salary.

Furthermore, comparison of commission rates against the number of temporary employees engaged results in defiance of any economic logic.

CONTRACTING AUTHORITY	NUMBER OF EMPLOYMENTS	DIFFERENCE AGAINST THE AVERAGE
PE "City Parking" – Skopje	295,000	-50.00%
Municipality of Bogdanci	285,000	-34.21%
PE "Streets and Roads" – Skopje	295,000	-1.54%
Municipality of Petrovec	7,950,000	+6.14%
VET School for Agriculture and Forestry "Gorce Petrov" – Kavadarci	1,180,000	+16.45%
Kindergarten "Bresia" – Debar	/	+29.39%
PE "Komunalec" – Negotino	2,000,000	+33.77%

**Table 2:**  
Number of temporary employees

As seen in the table above, the highest commission rate was paid by the contracting authority (PE "Komunalec" – Negotino) whose contract concerns the highest number of temporary employments. On the other hand, the contracting authority (VET School "Gorce Petrov" – Kavadarci) whose contract concerns the lowest number of temporary employees, paid a commission rate lower than the average rate calculated for the Index. However, if differences in commission rates charged cannot be justified with the type of procurement procedure applied, selection criteria used, as well as the number of temporary employees engaged through the Agency, they can certainly be explained by the organization of e-auctions (downward bidding of prices). Namely, the institution that managed to attain the lowest commission rate organized an e-auction in the final stage of the procurement procedure, which is contrary to the contracting authority that paid the highest commission rate for temporary employments, as it did not anticipate any e-auctions.

## 2.2 INDEX OF RATIONALITY FOR ISO 9001 QUALITY MANAGEMENT SYSTEM STANDARDS

Under the Index of Rationality for ISO 9001 Quality Standards, the ratio between the lowest and the highest service value is 1:3.76, which means that the highest price paid for this service is by 276% higher than the lowest price recorded. Such differences in price paid by institutions cannot be justified with the type of procurement procedure applied or with the criteria used for the selection of the most favourable bid. Namely, all five index-targeted institutions organized the same type of procurement procedure (bid-collection with previously announced call for bids) and used 'lowest price' as the selection criterion for the most favourable bid.

**Table 3:**  
**Index of Rationality**  
**for ISO 9001**

(price for introduction  
of Quality Management  
System Standards  
pursuant to ISO  
9001:2008)

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
National Bank of the Republic of Macedonia	109,773	-58.13%
Attorney General	210,000	-19.89%
Faculty of Pharmacy - Skopje	236,000	-9.98%
Average	262,155	0.00%
PHI Otorhinolaryngology Clinic	342,000	+30.46%
PHI University's Ophthalmology Clinic	413,000	+57.54%

Given the continuously increasing trend on introducing ISO 9001 Quality Management System Standards at health institutions, this Index aims to target all institutions in the health sector that benefited from such services in the course of 2011. As regards two institutions from the Index (Otorhinolaryngology Clinic and PHI Clinical Hospital – Tetovo), data concerning the value of contracts signed were secured from the records kept for contracts signed in

the second half of 2011, whereas relevant data for other five institutions (PHI University's Radiotherapy and Oncology Clinic, PHI Pulmonary and Allergy Clinic, PHI General Hospital – Kocani, PHI University's Nephrology Clinic, PHI University's Ophthalmology Clinic – Skopje) were obtained by means of FOI applications. Two from the five health institutions addressed with FOI applications on the value of contracts signed (PHI University's Radiotherapy and Oncology Clinic and PHI General Hospital – Kocani) did not disclose the information requested. The average price attained by index-targeted institutions and related to services on introduction of ISO Quality Standards amounts to 262,155 MKD. Three institutions purchased these services at prices lower than the average, and two institutions paid higher prices. Under the Index of Rationality for ISO Quality Management System Standards, the lowest price recorded is by 58.13% lower than the average and the highest price recorded is by 57.54% higher than the average.

Such differences in price attained for introduction of ISO Quality Standards cannot be explained with the type of procurement procedure applied. Namely, all five health institutions applied the same procedure (bid-collection with previously announced call for bids) and they all used the same selection criterion ('lowest price').

Differences in price cannot be justified with the institution's size. Namely, Otorhinolaryngology Clinic and Ophthalmology Clinic, which paid service prices that are by 30.46% and 57.54% higher than the average, respectively, are smaller health facilities compared to Nephrology Clinic and PHI Clinical Hospital in Tetovo, which paid the services at prices lower than the average.

## 2.3 INDEX OF RATIONALITY FOR ANTIFREEZE LIQUIDS

Great differences were noted in procurement price per 1 litre of antifreeze liquids paid by the contracting authorities. The ratio between the lowest and the highest price is as high as 1:2.25, which means that the highest prices is by 125% higher than the lowest price recorded under this Index. In general, differences in price can be justified with the type of procurement procedure applied and the quantity purchased.

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Public Transportation Enterprise - Skopje	56.44	-35.80%
AD ELEM (JSC Electricity Power Plants)	76.11	-13.42%
Average	87.91	0.0%
Public Communal Enterprise "Proleter" – Resen	90.00	+2.38%
National Bank of the Republic of Macedonia	90.00	+2.38%
Public Communal Enterprise "Sopiste"	127.00	+44.47%

**Table 4:**  
**Index of Rationality for Antifreeze Liquids**  
(price per 1 litre)

As regards procurement of antifreeze liquids, FOI applications were submitted to all contracting authorities that have announced calls for bids for this type of procurements in a period of 6 months (September 2011 – March 2012). They include 11 national and local level institutions. Information requested by means of FOI applications were not disclosed by the Inter-Municipal Public Enterprise “Pro-Aqua” and PHI Clinical Hospital – Stip. Nevertheless, the Index includes 5 institutions due to the fact that 4 of the 11 institutions in total addressed with FOI applications (PE “Macedonia Road”, PE “Communal Hygiene”, PCE “Komunalec” – Gevgelija and PE “Niskogradba” – Ohrid) have purchased concentrated antifreeze.

Average price attained for procurement of 1 litre antifreeze amounts to 87.91 MKD and two institutions purchased this product at prices lower than the average, while three institutions paid prices higher than the average. In that, the lowest price was attained by PTE Skopje and is by 35.80% lower than the average. The highest price was recorded with PCE “Sopiste” and is by 44.47% higher than the average.

Type of procurement procedure applied and quantity purchased can be correlated to procurement prices attained. Namely, two institutions (PTE Skopje and AD ELEM), notably those that attained prices lower than the average, organized open procurement procedure and signed contracts in values that are much higher compared to the value of contracts signed by the other three institutions (PCE “Proleter” – Resen, National Bank of the Republic of Macedonia and PCE “Sopsite”), which paid prices higher than the average. PTE Skopje, which is the contracting authority that attained the lowest price for antifreeze liquids, purchased significantly higher quantity thereof compared to other institutions included in the Index.

**Table 5:**  
Quantity of  
antifreeze  
purchased

CONTRACTING AUTHORITY	QUANTITY (IN LITRES)	DIFFERENCE AGAINST THE AVERAGE
Public Transportation Enterprise Skopje	30000	-35.80%
AD ELEM (JSC Electricity Power Plants)	200	-13.42%
Public Communal Enterprise “Proleter” – Resen	205	+2.38%
National Bank of the Republic of Macedonia	19	+2.38%
Public Communal Enterprise “Sopiste”	50	+44.47%

Prices attained for procurement of antifreeze liquids were also affected by the selection criteria used. Namely, the only two institutions (PCE “Proleter” – Resen and PCE “Sopiste”) that used ‘economically most favourable bid’ as the selection criterion attained prices higher than the average. In that, PCE “Proleter” – Resen has defined the following bid-assessment elements: price – 50 points, quality – 20 points, payment manner – 10 points, payment deadline – 10 points and cost-effectiveness – 10 points. On the other hand, PCE “Sopiste” performed the bid-assessment process on the basis of following elements: price – 75 points, payment deadline and manner – 25 points.

It should be stressed that differences in price attained were noted also in regard to contracting authorities that were excluded from the Index of Rationality on the account of having procured concentrated antifreeze. Therefore, PE "Niskogradba" – Ohrid purchased concentrated antifreeze at the price of 127 MKD per litre, PE "Communal Hygiene" – Skopje attained a price of 168 MKD per litre, PE "Macedonia Road" paid 178.40 MKD per litre of concentrated antifreeze, while PCE "Komunalec" – Gevgelija paid 196 MKD. Ratio between the lowest and highest price paid for procurement of concentrated antifreeze accounts for 1:1.54, which means that PCE "Komunalec" attained a price that is by 54% higher than the price paid by PE "Niskogradba" – Ohrid.

## 2.4 INDEX OF RATIONALITY FOR CARWASH SERVICES

The ratio between the lowest and the highest price paid for carwash services (calculated as annual cost per vehicle) is 1:9.6, which means that the highest cost incurred for this purpose and recorded with the Ministry of Foreign Affairs is by astounding 860% higher than the lowest cost incurred per vehicle and recorded with the Ministry of Transport and Communications. In other words, on annual level, the Ministry of Transport and Communications spends 3,471 MKD per vehicle on carwash services, while the Ministry of Foreign Affairs spends 33,334 MKD per vehicle for the same purpose. It should be noted that the contract signed by the Ministry of Foreign Affairs has been titled as service contract for carwash and interior cleaning.

CONTRACTING AUTHORITY	ANNUAL COST PER VEHICLE (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Ministry of Transport and Communications	3,471	-69.87%
Ministry of Agriculture, Forestry and Water Economy	3,540	-69.27%
Ministry of Labour and Social Policy	6,667	-42.13%
Ministry of Economy	10,588	
Average	11,520	0
Ministry of Foreign Affairs	33,334	+189.36%

**Table 6:**

**Index of Rationality for Carwash Services**

(annual carwash cost per vehicle)

Five line ministries were included in the development of this Index. Data on values of carwash contracts signed by the relevant ministries were secured by browsing the records on so-called small procurements for which contract notifications are submitted to the EPPS. This exercise included browsing of records kept for both six-month periods in 2011 and resulted in identification of only these five line ministries as having signed carwash contracts. In order to enable comparable data on carwash cost per vehicle, the

five line ministries from this Index were addressed with FOI applications, whereby they were requested to disclose information on the number of vehicles for which the relevant contract was signed.

**Table 7:**

Contract value and number of vehicles

CONTRACTING AUTHORITY	CONTRACT VALUE (VAT INCLUDED)	NUMBER OF VEHICLES	DIFFERENCE AGAINST THE AVERAGE
Ministry of Transport and Communications	177,000	51	-69.87%
Ministry of Agriculture, Forestry and Water Economy	354,000	100	-69.27%
Ministry of Labour and Social Policy	360,000	54	-42.13%
Ministry of Economy	360,000	34	-8.10%
Ministry of Foreign Affairs	300,000	9	+189.36%

Figures given in the table show significant differences in costs incurred by different institutions for the same service, which could be a result of differences in individual carwash prices per vehicle and/or number of carwash services used. Nevertheless, they indicate major discrepancies among different line ministries.

Reasons behind different carwash cost per vehicle should not be sought in the type of procurement procedure applied, notably because all contracts were signed by means of bid-collection procedures without previously announced call for bids. Until 1 July 2012, this procedure was used for procurements whose value does not exceed 5,000 EUR, VAT excluded.

## 2.5 INDEX OF RATIONALITY FOR BOTTLED STILL WATER

Starting from the premise that all public institutions need bottled water (at least for meetings and working sessions), the Centre decided to develop an Index of Rationality for still water bottled in packages of 0.5 and 1.5 litres. However, the idea for developing such index proved to be “mission impossible”. Initially, FOI applications were addressed to all line ministries, the Department on General and Common Matters at the Government of the Republic of Macedonia, in the capacity of potential procurement-performance entity on behalf of several contracting authorities, and the Parliament of the Republic of Macedonia.

All institutions, with the exception of the Ministry of Labour and Social Policy, disclosed the information requested by means of FOI applications. Nevertheless, the Ministry of Local Self-Government, the Ministry of Agriculture, Forestry and Water Economy, the Ministry of Foreign Affairs and the Ministry of Culture, informed us that they have not organized procurements of this type. In its FOI response, the Ministry of Culture indicated that it uses services offered by a snack bar established within its premises and is operated



by a private company, whereas the remaining line ministries did not unveil the mystery on how they address their daily needs for bottled still water.

The Ministry of Justice and the Ministry of Information Society and Administration responded that they have forwarded the relevant FOI application to the Department on General and Common Matters at the Government, which procured bottled still water on their behalf. Parliament of the Republic of Macedonia responded to the FOI application as well, but indicated therein that it did not procure still water, but rather organized a procurement procedure for mineral water.

Therefore, it seemed as if only two institutions (Department on General and Common Matters and Ministry of Defence) have signed procurement contracts for bottled still water and they disclosed relevant information on individual prices paid for these products, as well the relevant quantities thereof.

In order to secure sufficient data for developing the Index of Rationality, FOI applications were also submitted to a new group of contracting authorities, comprised of five State Directorates. Majority of them did not provide the information requested, with the exception of the Directorate for Technology and Industrial Developmental Zones, while the Directorate for Personal Data Protection informed us that it did not procure bottled still water. Three State Directorates, i.e., the Directorate for Security of Classified Information, Directorate for Mandatory Reserves in Oil and Oil Derivatives, and the Directorate for Emergency Protection and Rescue, disclosed information on prices paid for procurement of still water. Nevertheless, given the fact that the Directorate for Mandatory Reserves in Oil and Oil Derivatives has procured bottled still water in packages of 0.5 litres, whereas the Directorate for Emergency Protection and Rescue has procured bottled still water in packages of 1.5 litres, the monitoring team was again unable to secure the minimum number of institutions required for comparison of data concerning at least five institutions (contracting authorities), as anticipated with the methodology designed for development of the Index of Rationality.

# 3 GENERAL CONCLUSION

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Given the Index of Rationality's aim to detect possible differences in prices at which institutions purchase same products and services, the first and most important conclusion reached is that differences are significantly high and in most cases they raise concerns about cost-effectiveness in public spending. This Index of Rationality determined the following differences:

- Commission rates charged for temporary employments at state institutions range from 0.24% to 12.98% of employee's gross salary;
- Services related to introduction of ISO 9001 Quality Management System Standards are charged from 109,773 MKD to 413,000 MKD per institution;
- One litre of antifreeze liquid is purchased at prices that range from 56 MKD to 127 MKD; and
- Annual cost for carwash services per vehicle, as paid by different line ministries, ranges from 3,471 MKD to 33,334 MKD.

The Index of Rationality for bottled still water could not be developed due to the fact that only five of the total of 15 institutions addressed with FOI applications indicated that they have signed such procurement contracts, however, these contracts concerned different procurement units that further prevented identification of a common denominator (still water bottled in packages of 0.5 or 1.5 litres) that would facilitate comparison of data. Namely, the methodology applied to develop the Index of Rationality implies comparison of prices attained for same type of products, services or works, by at least five institutions. On the basis of the four indices developed as part of this report, the conclusion is inferred that there are major differences in prices attained by various contracting authorities, which - in turn - raises concerns about rationality in public spending. As was the case with previous reports developed as Index of Rationality, the present report addressed a

new group of products and services, but resulted in defiance of logical expectations, those being:

- Organization of procurement procedures with previously announced call for bids should stimulate greater competition and thereby result in lower prices attained;
- Use of 'lowest price' as selection criterion for the most favourable bid should secure lower prices bided, contrary to the situation where 'economically most favourable bid' is used as the selection criteria for contract awarding; and
- Quantity purchased, i.e., value of contracts signed, should have counter effect on prices, whereby purchase of higher quantities, i.e., higher value of contracts signed, should result in lower prices per item purchased.

The situation noted in the field raises doubts that public procurement procedures are affected by different factors that influence prices attained.

Having this in mind, inevitable is the conclusion that both, national and local level, contracting authorities must make serious efforts to improve their rationality in public spending and to secure the best value for the money spent.



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Skopje, July 2012



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# 1 GOALS AND METHODOLOGY

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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,

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# 2 INDEX OF RATIONALITY

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This Index of Rationality is developed for a group of five products purchased by national and local level institutions in the course of 2012, those being:

- copy paper;
- industrial salt;
- extra light fuel oil (EL-1);
- air-conditioners; and
- calico bandages.

Actually, these products were already targeted and analysed under previous indices developed for procurements implemented in the course of 2010 and/or the first half of 2011, where major differences in price had been noted. Thus, the present Index of Rationality aims to assess possible changes that have taken place in the past period and possible effects of this instrument (index-development) in relation to awareness-raising among contracting authorities on the existence of major differences in price and the need to take measures that would increase their rationality/cost-effectiveness in public spending.

For the purpose of developing this Index of Rationality, the Centre secured data on product prices and quantities purchased in 70 public procurements implemented by national and local level institutions.

When developing the indices, prices of products and services concerned were secured by means of FOI applications addressed to all contracting authorities whose procurements were registered in the Electronic Public Procurement System (EPPS).

## 2.1. INDEX OF RATIONALITY FOR COPY PAPER

The ratio between the lowest and the highest price paid for procurement of copy paper is 1:1.88, which means that the highest price (293 MKD) per 1 ream of copy paper and paid by Sports Centre "Boris Trajkovski" is by 88% higher than the lowest price (156 MKD) paid by the Pension and Disability Insurance Fund for the same product.

If these prices are compared against market prices, inevitable is the conclusion that some institutions use very expensive copy paper.

Nevertheless, compared against the 2011 Index of Rationality for Copy Paper, the present index recorded minor positive improvements. Notably, if the 2011 average price was 211 MKD, in 2012, the average price per 1 ream of copy paper was decreased to 196 MKD. Moreover, compared to 2011 figures, the present index recorded an insignificant decrease in the ratio between the lowest and the highest price paid, which accounts for 12 percentage points. The 2011 ratio between the lowest and the highest price was 1:2, while the ratio calculated in this Index and concerning 2012 procurements is 1:1.88.

**Table 1:**  
**Index of Rationality**  
**for Copy Paper**  
(price per ream of  
copy paper A4, 80 g.)

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Pension and Disability Insurance Fund	156	-20.4%
Agency for Real Estate Cadastre	157	-19.9%
IPA Audit Authority	158	
Penitentiary and Correctional Facility "Idrizovo"	160	-19.4%
PE Macedonian Railways - Infrastructure	177	-9.7%
State Student Center "Skopje"	184	-6.1%
Macedonian Academy of Sciences and Arts	189	-3.6%
Average	196	0.00%
Ministry of Foreign Affairs	211	+7.7%
Ministry of Information Society and Administration	222	+13.3%
Ministry of Local Self-Government	254	+29.6%
President of the Republic of Macedonia	254	+49.5%

Selection of contracting authorities to be included in this Index of Rationality for Copy Paper was made on the basis of calls for office supply procurements announced by national level institutions in the first quarter of 2012. Hence, relevant FOI applications were addressed to 15 contracting authorities. However, the Index includes prices attained by 11 institutions, notably because the Directorate on General Records and "Ss. Cyril and Methodius" University did not disclose information requested by means of FOI applications. With the explanation that relevant data are available in the EPPS, the Appeal Court in Skopje also rejected to disclose requested information on price paid for procurement of copy paper. Unclear is why the Appeal Court in Skopje provided such explanation, given that individual prices paid for goods and services procured are not submitted to EPPS. Also, the Ministry of Agriculture, Forestry and Water Economy did not disclose requested information on prices paid for procurement of 1 ream of copy paper and provided the explanation that relevant tender procedure no. 26-13826/2011 on office supply procurement has been annulled.

As shown in the table above, seven institutions purchased copy paper at prices lower than the average price calculated for all index-included institutions (196 MKD), while four institutions purchased copy paper at prices higher than the average. In that, the lowest price is by 20.4% lower than the average price calculated, while the highest price is by staggering 49.5% higher than the average. The average price calculated on the basis of procurement prices for copy paper paid by all index-targeted institutions falls within the brackets of high market prices.

Differences in price paid for copy paper cannot be explained by the type of public procurement procedure organized or the selection criteria for the most favourable bid applied. Copy paper was purchased as part of office supply procurements and the contracting authorities usually organized bid-collection procedures with previously announced call for bids. This was the case for both groups of institutions in the Index, i.e., those that attained low prices and those that attained high prices. Comparison between two institutions that organized open procurement procedures (Agency for Real Estate Cadastre and PE Macedonian Forests, branch office in Skopje) provides evidence in support of the fact that the type of procurement procedure implemented does not affect prices attained, as these institutions organized the same type of procedure, but the difference in individual prices attained is great.

Also, prices at which copy paper was purchased cannot be closely correlated with the selection criteria for the most favourable bid. Pension and Disability Insurance Fund, which paid the lowest price, used "economically most favourable bid" (price - 80 points, quality - 15 points, and delivery deadline - 5 points), while Sports Centre "Boris Trajkovski" Ltd. Skopje, which purchased copy paper at the highest price recorded under the Index, used "lowest price" as the selection criterion.

As shown in the table below, differences in price cannot be justified with the quantity purchased. Nevertheless, precise comparison of quantities purchased is not possible because Sports Centre "Boris Trajkovski" Ltd. Skopje did not specify the quantity purchased, while PE Macedonian Forests, branch office in Skopje and the Faculty of Philosophy in Skopje did not disclose data on relevant quantities purchased.

**Table 2:**  
Quantity of  
copy paper  
purchased

CONTRACTING AUTHORITY	NUMBER OF REAMS OF COPY PAPER	DIFFERENCE AGAINST THE AVERAGE
Pension and Disability Insurance Fund	/	-20.4%
Agency for Real Estate Cadastre	1,000	-19.9%
IPA Audit Authority	190	
Penitentiary and Correctional Facility "Idrizovo"	1,500	-19.4%
PE Macedonian Railways – Infrastructure	2,500	-9.7%
State Student Center "Skopje"	200	-6.1%
Macedonian Academy of Sciences and Arts	600	-3.6%
Civil Aviation Agency	700	+7.7%
Faculty of Philosophy Skopje	/	+13.3%
PE Macedonian Forests, branch office in Skopje	/	+29.6%
Sports Centre "Boris Trajkovski" Ltd. Skopje	/	+49.5%

## 2.2. INDEX OF RATIONALITY FOR INDUSTRIAL SALT

The ratio between the lowest and highest price for procurement of industrial salt is 1:2.30, which means that the highest price at which salt was purchased is by 130% higher than the lowest price paid for the same product. Differences in price attained cannot be justified with the type of procurement procedure organized or the selection criteria for the most favourable bid, where "lowest price" was the most frequently used criterion. As regards quantity of industrial salt purchased, institutions that have purchased the highest quantities managed to attain significantly lower prices compared to other contracting authorities.

Compared against relevant figures from the 2011 Index, the present analysis recorded smaller differences in procurement price for industrial salt, but the average price calculated was marked by an increase. Notably, the 2011 ratio between the lowest and the highest price per 1 ton of industrial salt was 1:5.5 compared to the 2012 ratio (1:2.30). Nevertheless, the average price calculated under the 2012 Index of Rationality amounts to 7,375 MKD per 1 ton of industrial salt and is by 15.30% higher than the average price calculated under the 2011 Index of Rationality for Industrial Salt (6,396 MKD per 1 ton of industrial salt).

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
PE Macedonia Road	4,672	-36.65%
City of Skopje	4,956	-32.80%
PE Streets and Roads	5,251	-28.80%
PUE Tetovo	5,533 <sup>1</sup>	-24.98%
PE "Komunalec" Kicevo	6,726	-8.80%
Municipality of Kavadarci	6,844	-7.20%
Average	7,375	0.0%
Municipality of Kisela Voda	7,670	+4.00%
Municipality of Aerodrom	10,620	+44.00%
Municipality of Karpos	10,738	+45.60%
Municipality of Centar	10,738	+45.60%

**Table 3:**  
**Index of Rationality for Industrial Salt**  
(price per 1 ton of industrial salt)

Contracting authorities included in development of the Index of Rationality for Industrial Salt were identified by means of calls for procurement of industrial salt and street maintenance services for the winter season 2011/2012, published in the EPPS. Thus, FOI applications were addressed to 11 institutions, but considering the fact that Municipality of Bitola did not respond to the FOI application, the Index was developed on the basis of industrial salt prices attained by 10 institutions.

As shown in the table above, the average price for procurement of industrial salt calculated under this index (7,375 MKD) is by 36.65% higher than the lowest price attained, whereas the average price's difference against the highest price recorded accounts for 45.60%, which provides the conclusion on major differences in price at which this product was purchased by various contracting authorities.

Differences in price attained cannot be explained with the type of procurement procedure organized or the selection criteria for the most favourable bid, where "lowest price" was the most frequently used criterion. With the exception of PE "Komunalec" Kicevo, which organized a bid-collection procedure with previously announced call for bids, all other institutions implemented open procurement procedures. The fact that prices attained are not a result of selection criteria used is confirmed with the procurement procedures organized by PUE Tetovo and PE "Komunalec" Kicevo as the only contracting authorities that used "economically most favourable bid" as the selection criterion, but are nevertheless ranked among institutions that attained prices lower than the average price. All other institutions, even those that attained the highest prices recorded under the Index, used "lowest price" as the selection criterion.

<sup>1</sup> Index-included price attained by PUE Tetovo is weighted average of two prices at which this contracting authority purchased industrial salt, i.e., 100 tons of salt were purchased at the price of 3,268 MKD without VAT and 200 tons of salt were purchased at the price of 5,400 MKD without VAT.

**Table 4:**  
Quantity of  
industrial salt  
purchased

CONTRACTING AUTHORITY	QUANTITY (IN TONS)	DIFFERENCE AGAINST THE AVERAGE
PE Macedonia Road	9,050	-36.65%
City of Skopje	4,000	-32.80%
PE Streets and Roads	500	-28.80%
PUE Tetovo	300	-24.98%
PE "Komunalec" Kicevo	30	-8.80%
Municipality of Kavadarci	50	-7.20%
Municipality of Kisela Voda	120	+4.00%
Municipality of Aerodrom	195	+44.00%
Municipality of Karpos	127	+45.60%
Municipality of Centar	/	+45.60%

As shown in the table above, prices attained can be directly correlated to the quantity of salt purchased. Institutions that purchased the highest quantities of salt succeeded in attaining the lowest prices. This situation is quite logical, in particular knowing that relevant quantities of industrial salt purchased by PE Macedonia Road and the City of Skopje are several times higher than the total quantity purchased by other Index-targeted contracting authorities.

## 2.3. INDEX OF RATIONALITY FOR EXTRA LIGHT FUEL OIL (EL-1)

The Index of Rationality for Extra Light Fuel Oil recorded major discrepancies between the institutions analysed. In that, it should be stressed that unlike other indices whose aim is to compare prices attained, this index is developed on the basis of comparing discounts that the institutions managed to obtain for procurement of extra light fuel oil (EL-1), as the fuel price is set by the Energy Regulatory Commission of the Republic of Macedonia. Therefore, companies that participate in these tender procedures compete in terms of the highest discount offered.

Major discrepancies noted under this index are due to the fact that the Municipality of Berovo, which attained the lowest price, benefited from a discount of 9.73 MKD per 1 litre of EL-1, whereas the secondary school "Bogdanci" secured a discount of only 0.42 MKD per 1 litre of EL-1.

Compared against figures from the 2011 Index, obvious is that the 2012 Index of Rationality for Extra Light Fuel Oil (EL-1) reflects a seriously deteriorated situation. In 2012, the average discount secured by the institutions for procurement of extra light fuel oil (EL-1) accounts for around 5%, while in 2011 it was twice as high, i.e., it accounted for 11%.



CONTRACTING AUTHORITY	DISCOUNT (IN MKD)	DIFFERENCE AGAINST THE AVERAGE
Municipality of Berovo	9.73	+207.92%
Average	3.16	0.0%
Kindergarten "Nasa Idrina" - Prilep	2.58	-18.35%
Secondary School "Koco Racin" - Skopje	1.65	-47.79%
Faculty of Economy – Prilep	1.42	-55.06%
Secondary School "Bogdanci" – Bogdanci	0.42	-86.71%

**Table 5:**  
**Index of Rationality for Extra Light Fuel Oil (EL-1)**  
(discount offered for EL-1 from the highest price set by ERC)

Initially, development of the Index of Rationality for Extra Light Fuel Oil (EL-1) was envisaged to include 10 institutions that have announced relevant calls for bids in the first quarter of 2012. However, the Index includes only 5 institutions due to the fact that successful bidders in the tender procedure organized by the secondary school "Iskra" – Stip declined to sign the public procurement contract, while NI Institute and Museum – Bitola, NI Community Cultural Centre "Anton Panov" – Strumica, Public Institute for Children with Educational and Social Problems – Skopje and the Municipality of Resen did not respond to FOI applications submitted.

As shown in the table above, the average discount calculated for the five contracting authorities and concerning procurement of EL-1 amounts to only 3.16 MKD per 1 litre of EL-1. Great differences recorded under this index can be best illustrated with the highest and lowest discount obtained, where the discount obtained by the Municipality of Berovo is by staggering 207.92% higher than the average, while the lowest discount is by 86.71% lower than the average.

Prices attained can be partially justified with the type of public procurement procedure organized and the selection criteria for the most favourable bid applied. The lowest price was attained by means of open procurement procedure that used "lowest price" as the selection criterion for the most favourable bid, while the highest price was attained by means of bid-collection procedure with previously announced call for bids, where the selection criterion was defined as "economically most favourable bid" (price – 80 points, payment manner and deadline – 20 points).

Importance attributed to discounts obtained is best illustrated by the fact that the Municipality of Berovo, on the account of the discount obtained, managed to reduce its procurement costs by 924,350 MKD. On the contrary, if the municipality purchased 95,000 litres of EL-1 under the lowest discount recorded, it would have saved only 40,000 MKD.

**Table 6:**  
Quantity of extra  
light fuel oil  
purchased (EL-1)

CONTRACTING AUTHORITY	QUANTITY (IN LITRES)	DIFFERENCE AGAINST THE AVERAGE DISCOUNT
Municipality of Berovo	95,000	+207.92%
Kindergarten "Nasa Idnina" – Prilep	83,000	-18.35%
Secondary School "Koco Racin" - Skopje	30,000	-47.79%
Faculty of Economy – Prilep	80,000	-55.06%
Secondary School "Bogdanci" – Bogdanci	12,000	-86.71%

Although there are significant differences in quantity of extra light fuel oil purchased by contracting authorities that attained the highest and the lowest prices, they do not suffice to justify differences in discounts obtained, as shown in the table above.

## 2.4. INDEX OF RATIONALITY FOR AIR-CONDITIONERS

Under the Index of Rationality for Air –Conditioners, the ratio between the lowest and the highest price is 1:1.55, which means that the highest price is by 55% higher than the lowest price. Prices attained by different contracting authorities cannot be explained with the type of public procurement procedure organized. Municipalities that paid the lowest price for procurement of air-conditioners organized bid-collection procedures without previously announced call for bids, i.e., they asked at least three companies to present them with relevant bids. On the contrary, the contracting authorities that purchased the most expensive air-conditioners organized bid-collection procedures with previously announced call for bids, which should have created conditions for greater competition among companies, and thereby should imply the possibility to lower prices bided and to obtain more favourable bids.

Compared against figures from the 2011 Index, the present index recorded an improved situation. This is due to the fact that the 2011 ratio between the lowest and the highest price was 1:1.90, i.e., the highest price was by 90% higher than the lowest price, compared to the ratio calculated for procurements organized in 2012 (1:1.55).

As regards the average price, it is almost the same in both years, where the 2011 average price calculated for procurement of air-conditioners, without delivery and installation costs, amounted to 16,636 MKD, and the average price calculated under this index, with delivery and installation costs included, amounts to 19,739 MKD.

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
Municipality of Kisela Voda	16,665	-18.45%
Municipality of Zelino	17,000	-13.88%
Municipality of Gevgelija	17,884	-9.40%
City of Skopje	18,101	-8.30%
Municipality of Karpos	19,412	-1.66%
Municipality of Mogila	19,490	-1.26%
Average	19,739	0.00%
Municipality of Kocani	21,004	+6.41%
Faculty of Natural Sciences and Mathematics at "Ss. Cyril and Methodius" University	22,190	+12.42%
Customs Administration	25,905	+31.24%

**Table 7:**  
**Index of Rationality for Air-Conditioners**  
(price per 3.5 KW air-conditioner, delivery and installation costs included)

Contracting authorities included in development of the Index of Rationality for Air-Conditioners announced their relevant calls for bids in 2012 and the second half of 2011. With a view to target as many as possible contracting authorities that organized this type of procurements, the Index includes also municipalities and line ministries that implemented small procurements on air-conditioners in the second half of 2011 and submitted relevant contract notifications to EPPS. FOI applications concerning procurement prices for air-conditioners were submitted to 12 institutions; however, this index is based on prices attained by 9 institutions, due to the fact that General Hospital – Gevgelija purchased air-conditioners whose capacity is lower than 3.5 KW, while Municipality of Sopiste and M-NAV AD – Skopje (Civil Aviation Agency) did not disclose the information requested.

As shown in the table above, the group of six institutions that purchased air-conditioners at prices lower than the average price includes individual prices that are up to 18.45% lower, whereas the group of three institutions with prices higher than the average price includes individual prices that are up to 31.24% higher. Average price calculated on the basis of prices paid by all Index-targeted institutions and concerning procurement of air-conditioners with capacity of 3.5 KW falls within the brackets of high market prices paid for this particular product.

Prices attained cannot be justified with the type of public procurement procedure organized. Municipality of Kisela Voda, Municipality of Zelino and Municipality of Gevgelija, which attained the lowest prices for procurement of air-conditioners, organized bid-collection procedures without previously announced call for bids, i.e., they asked three companies of their choice to submit relevant bids. Customs Administration and the Faculty of Natural Sciences and Mathematics at "Ss. Cyril and Methodius" University, which attained the highest prices, organized bid-collection procedures with previously announced call for bids. Institutions that purchased the most expensive air-conditioners used "economically most favourable bid" as the selection criterion. Customs Administration allocated 80 points to price element, 5 points each to warranty period and quality, and 10 points to company's reference list, whereas the Faculty of Natural Sciences and Mathematics at

“Ss. Cyril and Methodius” University allocated maximum number of 60 points to price element, 5 points to post-warranty service and availability of spare parts, 20 points to quality and 15 points to warranty period.

**Table 8:**  
Quantity of  
air-conditioners  
purchased

CONTRACTING AUTHORITY	QUANTITY PURCHASED	DIFFERENCE AGAINST THE AVERAGE
Municipality of Kisela Voda	9	-18.45%
Municipality of Zelino	13	-13.88%
Municipality of Gevgelija	3	-9.40%
City of Skopje	20	-8.30%
Municipality of Karpos	/	-1.66%
Municipality of Mogila	5	-1.26%
Municipality of Kocani	3	+6.41%
Faculty of Natural Sciences and Mathematics at “Ss. Cyril and Methodius” University	4	+12.42%
Customs Administration	4	+31.24%

As shown in the table above, differences in quantity purchased are not significant enough to justify differences in price attained. Moreover, the institution that purchased the highest number of air-conditioners did not attain the lowest price recorded in the Index.

## 2.5. INDEX OF RATIONALITY FOR CALICO BANDAGES

Difference between the lowest and the highest price for procurement of this product is as high as 90%. In that, the institution that purchased the cheapest calico bandages paid a price that is by 29.68% lower than the average price, whereas the institution that purchased the most expensive calico bandages paid a price that is by 33.33% higher than the average price.

These differences cannot be explained with the type of procurement procedure organized or the selection criteria for the most favourable bid applied, due to the fact that bandages were frequently purchased as part of procurements for medical disposables organized as open procedures, where “lowest price” was used as the selection criterion.

Comparison between 2011 and 2012 indices for calico bandages with dimensions 8 cm x 5 m provides the conclusion that there are no improvements made in regard to cost-effectiveness in procurement of these medical disposables. Namely, the 2012 ratio between the lowest and the highest price attained is identical with the ratio calculated under the 2011 Index (1:1.90), however the 2012 average price calculated on the basis of individual prices attained by Index-targeted contracting authorities (109.5 MKD) per package of 10 calico bandages 8x5 is marked by a minor increase compared to last year’s average price of 105 MKD.

The Index of Rationality for Calico Bandages with dimensions 8 cm x 5 m was developed on the basis of procurement prices disclosed by the hospitals that were recorded as contracting authorities in the EPPS.

FOI applications were submitted to 23 contracting authorities. Nevertheless, the Index includes 13 institutions, since 7 contracting authorities did not respond to FOI applications submitted, and 3 contracting authorities responded that they have not procured this type of bandages. Contracting authorities that did not respond to FOI applications include: PHF City General Hospital "8-mi Septemvri" - Skopje, PHF Clinical Hospital - Stip, PHF General Hospital - Stip, PHF General Hospital - Kocani, PHF General Hospital - Ohrid, PHF General Hospital - Veles and PHF Psychiatric Hospital - Demir Hisar. PHF Specialized Hospital for Pulmonary Diseases and TBC "Lesok", PHF General Hospital - Debar and PHF Specialized Hospital for Gynaecology and Obstetrics "Cair" - Skopje responded that they do not procure calico bandages with dimensions 8x5.

CONTRACTING AUTHORITY	PRICE IN MKD (VAT INCLUDED)	DIFFERENCE AGAINST THE AVERAGE
General Hospital - Prilep	77	-29.68%
Clinical Hospital - Tetovo	84	-29.23%
General Hospital - Gevgelija	86	-23.12%
General Hospital - Kumanovo	98	-10.50%
General Hospital - Kicevo	100	-8.68%
General Hospital "D-r Ferid Murat" - Gostivar	106	-3.30%
Special Hospital for Orthopaedics and Traumatology "St. Erasmus" - Ohrid	109	-0.46%
Average	109,5	0.00%
General Hospital - Strumica	111	+1.37%
General Hospital - Kavadarci	112	+2.28%
Psychiatric Hospital - Skopje	118	+7.76%
General Hospital - Struga	133	+21.46%
Psychiatric Hospital - Negorci	143	+30.59%
Clinical Hospital - Bitola	146	+33.33%

**Table 9:**  
**Index of Rationality for Bandages**

(price per package of 10 calico bandages 8x5)

As shown in the table above, seven hospitals purchased bandages at prices that are by 0.46% to 29.68% lower than the average price, whereas six hospitals purchased bandages at prices that are by 1.37% to 33.33% higher than the average price.

As regards procurement of bandages, contracting authorities most frequently organized open procedures. Exceptions therefrom were identified in the procurement procedures organized by the General Hospital - Gevgelija and Psychiatric Hospital - Negorci, which organized bid-collection procedures with previously announced call for bids. However, given

that one of these institutions procured bandages at a price lower than the average price and the other at a price higher than the average price, inevitable is the conclusion that the type of procurement procedure organized did not affect prices attained. Without any exceptions, all hospitals/contracting authorities used “lowest price” as the selection criterion.

**Table 10:**  
Quantity of calico  
bandages 8x5  
purchased

CONTRACTING AUTHORITY	NUMBER OF BANDAGES	DIFFERENCE AGAINST THE AVERAGE
General Hospital - Prilep	/	-29.68%
Clinical Hospital - Tetovo	4,500	-29.23%
General Hospital - Gevgelija	2,400	-23.12%
General Hospital - Kumanovo	2,000	-10.50%
General Hospital - Kicevo	2,500	-8.68%
General Hospital “D-r Ferid Murat” - Gostivar	7,200	-3.30%
Special Hospital for Orthopaedics and Traumatology “St. Erazmo” - Ohrid	3,600	-0.46%
General Hospital - Strumica	10,000	+1.37%
General Hospital - Kavadarci	2,000	+2.28%
Psychiatric Hospital - Skopje	400	+7.76%
General Hospital - Struga	350	+21.46%
Psychiatric Hospital - Negorci	10	+30.59%
Clinical Hospital - Bitola	2,600	+33.33%

As shown in the table above, differences in price cannot be justified with the quantity purchased. The highest price, which is by 33.33% higher than the average price, was attained by Clinical Hospital – Bitola and concerned procurement of 2,600 bandages; however some hospitals from the Index paid prices that are by more than 23% lower than the average price for procurement of similar quantity of bandages.

# 3 GENERAL CONCLUSION

Great differences in price attained for procurement of same products indicate that the institutions have serious problems concerning their cost-effectiveness in public spending. Not only does significant portion of public procurement procedures fail to secure favourable prices, but they result in attainment of prices higher than market prices at which products are sold.

This conclusion is supported by following differences recorded under the present index:

- copy paper A4 is purchased at prices that range from 156 MKD to 293 MKD per 1 ream of copy paper;
- industrial salt is purchased at prices that range from 4,672 MKD to 10,738 MKD per 1 ton;
- extra light fuel oil - EL-1 is purchased at discounts that range from 0.42 MKD to 9.73 MKD per litre deducted from the fuel price set by the Energy Regulatory Commission;
- air-conditioners with capacity of 3.5 KW are purchased at prices that range from 16,665 MKD to 25,905 MKD;
- calico bandages with dimensions 8 cm x 5 m are purchased at prices that range from 77 MKD to 146 MKD per package of 10 calico bandages.

Worrying is the fact that under all indices developed so far significant differences in price cannot be justified with the type of public procurement procedure organized, notably because almost all contracting authorities attained the prices in question by means of procedures with previously announced call for bids and used "lowest price" as the selection criterion for the most favourable bid. Therefore, the issue of different prices paid for same goods or services should be sought in the technical specifications that failed to encourage competition among bidding companies, as well as in other factors that govern public procurement system's legal aspects and efficiency.

Nevertheless, despite the fact that rationality in public spending is far from ideal, this index identified minor positive developments. Given the fact that products included in this analysis concern those marked by great differences in prices under previous indices developed

for procurements organized in the course of 2011, this index aims to assess possible changes that have taken place in the past period and possible effects of this instrument (index-development) in relation to awareness-raising among contracting authorities on the existence of major differences in price and the need to take measures that would increase rationality in public spending.

Compared to conclusions inferred and figures contained in 2011 Index of Rationality for Copy Paper, the 2012 Index records minor positive developments. Namely, if the 2011 average price paid for this product accounted for 211 MKD, in 2012 the average price was decreased to 196 MKD per 1 ream of copy paper. Consequently, this resulted in decreased ratio between the lowest and highest price attained (by 12 percentage points). In 2011, the ratio between the lowest and the highest price was 1:2, and in 2012 it is 1:1.88.

As regards procurement of industrial salt, the present index records smaller differences in procurement prices paid by the institutions. Notably, the 2011 ratio between the lowest and highest price per 1 ton of industrial salt was 1:5.5, while its 2012 value is 1:2.30. Nevertheless, the average price calculated for the 2012 Index of Rationality for Industrial Salt amounts to 7,375 MKD per 1 ton and is by 15.30% higher than the average price calculated under the 2011 Index of Rationality for Industrial Salt (6,396 MKD per 1 ton of industrial salt).

Improved situation was noted in regard to procurement of air-conditioners, notably because in 2011 the ratio between the lowest and the highest price was 1:1.90, which meant that the highest price was by 90% higher than the lowest price, compared to this year's ratio of 1:1.55.

Comparison of 2011 and 2012 indices for calico bandages with dimensions 8x5 provides the conclusion that cost-effectiveness in procurement of these medical disposables has not improved. Namely, the 2012 ratio between the lowest and the highest price is identical with the ratio calculated last year (1:1.90), and is accompanied with small increase in the average price paid by contracting authorities (109.5 MKD) per package of 10 calico bandages 8x5 compared against last year's average price of 105 MKD.

Completely deteriorated situation was noted only under the Index of Rationality for Extra Light Fuel Oil (EL-1). In 2012, the average discount offered to institutions for procurement of extra light fuel oil (EL-1) is around 5%, whereas the average discount calculated for 2011 procurements was twice as high and accounted for 11%.

Taking into account above-indicated results, the conclusion is inferred that the Index of Rationality has provided initial positive results, however, given the fact that there are still significant, and sometimes immense, differences in price paid by various institutions that purchase same goods and service, unquestioned is the need to continue development of these indices as an instrument that exerts indirect pressure on contracting authorities in order to increase their rationality in public spending.





