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Evaluation of the competitiveness of the region of Republic of Kazakhstan

This article attempts to determine the level of competitiveness of the regions of the Republic of Kazakhstan, using existing approaches. The authors have defined the essence of the concept of the region's competitiveness. The article examines the existing methods of assessing the competitiveness of the regions. Also, the article shows the system of competitiveness indicators of the region, consisting of three blocks of indicators: economic potential, regional efficiency and competitive advantages. Using the Pattern method, the authors have calculated the integral index of the competitiveness of the regions of the Republic of Kazakhstan. The article categorizes the regions according to the level of competitiveness. According to the results of the study, the authors came to the conclusion that no region of the republic belongs to regions with a high level of competitiveness. Seventy percent of the regions have a low level of competitiveness in the region's economy. This study allows us to draw the following conclusion: the advantage of the Pattern method is that the list of indicators for assessing the competitiveness of the region can be changed depending on the specifics and specificity of individual regions, as well as on existing research goals and objectives. Using this method allows you to determine the competitive advantages of the regions, as well as their problems, which will be solved in the future.

Keywords: competitiveness of the region, competitiveness of an industry, evaluation of the competitiveness, the level of the competitiveness, Pattern method, competitiveness advantages, regional efficiency.

The problem of competitiveness is an actual problem of the modern economy. Both domestic and foreign scientists, as well as world institutions, are engaged in the study of this issue.

Competitiveness as an economic category can be considered at several levels: the country, the region, the industry, the enterprise, the commodity, used resources.

The competitiveness of the region is understood as the ability of the region to ensure the production of competitive goods and services in the context of effective use of existing factors of production (economic potential), using existing and creating new competitive advantages, preserving (improving) the standard of living while observing international environmental standards [1].

Currently, a lot of scientific work is devoted to the problems of regional competitiveness. Theoretical and methodological aspects of competition and enterprise's competitiveness are developed in the works of modern Russian scientists: A.Yu. Yudanova, R.A. Fatkhutdinova, I.M. Lifitsa, N.I. Gerchikova, P.S. Zavyalov, P.V. Zabelina, G.L. Azoeva et al.

Various research directions of the problems of increasing the competitiveness of the national economy and its individual branches are set forth in the works of Kazakh scientists: Ya.A. Aubakirova, U.B. Baymuratova, K.O. Okaeva, N.K. Mamyrov, M.B. Kenzheguzin, A.E. Essentugelova, A.A. Abisheva, O.A. Yanovsky, S.B. Akhmetzhanova, R.K. Zholamana, O.S. Sabden and many others.

According to A.Z. Seleznev, «the competitiveness of the region is conditioned by economic, social, political and other factors, the position of the region and its individual commodity producers in the domestic and foreign markets, reflected through indicators that adequately characterize such a state and its dynamics» [2; 30].

The main tasks of enhancing the region's competitiveness are to increase the capacity of the real sector of the economy. At present, for a complete analysis of the real sector of the economy, a fundamentally different approach has emerged. According to a number of scientists, among which the ancestor of the theory of competition Michael Porter [3; 59], in the modern economy, the traditional division of the economy into sectors or industries is no longer relevant. Clusters - groups of geographically adjoining interrelated economic companies and the various organizations oriented on them, including budget ones - come to the forefront. It includes: educational institutions, organizations that regulate business in some areas, which, regardless of the general competition, create conditions and mechanisms for partnership, complementarity of joint projects, including political or social ones.

Many scientists are actively engaged in developing methods for assessing the competitiveness of regions, but a unified methodology has not yet been worked out. There are various methods for assessing the competitiveness of regions, based on statistical indicators, expert evaluations, ranks [4; 35].

The advantages and disadvantages of the existing methodologies for assessing the competitiveness of the regions are presented in Table 1.

Table 1

Comparison of methods for assessing the competitiveness of regional economies

The method of evaluation	Advantages	Disadvantages
The rating evaluation of competitiveness (S.U. Salikhov, V.V. Pechatkin, V.A. Sablin)	- approbation	- lack of clear justification; - lack of a concept for assessing the competitiveness of the region
Evaluation of a regional market based on supply and demand (V.E. Andreev)	- justification of the methodology; - structural-conceptual approach to assessing the competitiveness of the region; - accessibility of the information base; - appropation	- the main focus is on pricing; - lack of social indicators - needs the evaluation of an expert.
Competitiveness of the region: evaluation of the clusterization potential (A.V. Ermishina)	- justification of the methodology; - multifactorial analysis of competitive stability	- methodology is aimed at assessing the clustering potential; - inaccessibility of informational base
Integral evaluation of regional competitiveness (V.V. Merkushev)	- justification of the methodology; - three-component system of indicators for assessing competitiveness; - approbation; - accessibility of informational base.	- lack of social indicators; - methodology shows only general economic development
Integral evaluation of regional competitiveness (L.I. Ushvitsky, V.N. Parahin)	- approbation; - concept of an estimation of competitiveness of region is formulated; - composition of indicators for determining the level of competitiveness is justified; - accessibility of informational base.	- it is necessary to supplement and provide a list of indicators characterizing the competitiveness of the region
Evaluation of the competitiveness of regions based on the calculation of the index (similar to the methodology for determining country ratings; N.I. Larin)	- approbation; - composition of indicators for determining the level of competitiveness is justified; - accessibility of informational base.	- the addition and justification of the list of indicators characterizing the competitiveness of the region is required; - methodology shows only general economic development

Note. Compiled by the source [5].

To assess the competitiveness, in our opinion, it is advisable to use the integral evaluation of the competitiveness of regions, proposed by V.V. Merkushev. Integral evaluation of the competitiveness of the regions is calculated on the basis of three particular systems of indicators.

The analysis of competitiveness makes sense only if the conditions of the object are compared at different times (intervals) of time, or when the object under study is compared with comparable competitors.

We introduce the notion of «level of competitiveness». The level of competitiveness of the region is the value of an integral evaluation of the competitiveness of the region under study, compared with an integral evaluation of the competitiveness of the reference region.

The level of competitiveness of the region can be assessed by applying an integral evaluation of the competitiveness of the region under study and comparing it with the integrated evaluation of the competitiveness of the reference region. As a reference region, it is most expedient to use a region (actually existing or conditional) that has the best competitiveness characteristics [6].

For the synthesis of integral indicators of economic potential, regional efficiency, competitive advantages and directly the level of competitiveness, nonparametric methods of statistical analysis can be used. The main advantage of using nonparametric methods is to reduce the dimension of the matrices of the original data by «compressing» the original information. In this case, non-parametric methods of multivariate statistical comparisons have little sensitivity to distortions in statistical data, are applicable to small samples, and do not require comparability of units of measurements of particular indicators.

These shortcomings can be eliminated using multidimensional nonparametric methods that use relative estimates. Consider two of them: the method of relative differences and the «Pattern» method.

The method of relative differences involves obtaining estimates on partial indices by means of the normalization using formula (1). That is, the excess of the value of the j-th partial indicator for the i-th region over the minimum value correlates with the magnitude of the variation of the j-th partial index across the whole set of regions.

$$t_{ij} = \frac{x_{ij} - x_{j\min}}{x_{j\max} - x_{j\min}}, \tag{1}$$

here ij – j-indicator i-region; Xjmaxj – maximum value of the J-th private indicator; Xjminj – minimum value of the j-th partial indicator.

The value of the integral coefficient can be obtained with the help of the arithmetic mean of the simple partial coefficients (2). The values of the coefficient T_i will belong to the region (0; 1). $T_i = 1$ can be achieved only if the i-th region has the best values for all the particular indicators.

$$T_i = \frac{\sum_{j=1}^{n} t_{ij}}{n}, \tag{2}$$

here T_{ij} – competitiveness index for blocks; n – the number of indexes.

Method «Pattern» allows you to obtain estimates on the basis of individual indicators by referring the actual values to the best formula (3). The value of the integral coefficient is determined by the formula (2).

$$t_{ij} = \frac{x_{ij}}{x_{\max}}, \tag{3}$$

here x_{ij} – j – indicator i –re; X_{max} – the maximum value of the j-th partial indicator.

Using the method of relative differences and the «Pattern» method involves imposing a restriction on the positivity of the initial values of the partial indices [6; 151].

Knowing that the values of the coefficient T_i belong to the region (0; 1), we can distinguish five groups of regions with equal intervals:

1 group – high level of competitiveness:$0{,}8 \le T_i \le 1$;

2 group – very high level: $0{,}6 \le T_i \le 0{,}8$;

3 group – average level:$0{,}4 \le T_i \le 0{,}6$;

4 group – low level: $0{,}2 \le T_i \le 0{,}4$;

5 group – uncompetitive regions.

Based on statistical data, the calculation of the region's economic potential ($T_{пот}$), regional efficiency (T_{aff}) and competitive advantages (T_{recep}) by regions of the Republic of Kazakhstan was carried out. The region's competitiveness indicators are presented in Table 2.

Table 2

The system of competitiveness indicators of the region

The system of indicators of the economic potential of the region (T_{pot})	The system of regional efficiency indicators (T_{aff})	The system of indicators of competitive advantages (T_{recep})
Area of agricultural land and arable land, ha	GRP per capita, thousand tenge	Number of self-employed workers, thousand people.
Gross regional product, mln. tenge	The volume of industrial output per capita, thousand tenge	Availability of fixed assets at the end of the year, KZT bn.
Investments in fixed assets, mln. tenge	Gross output of agriculture per capita, mln. tenge	Volume of innovative products, mln. Tenge
Number of employees, thousand people	Monetary income per capita, on average for the month, tenge	Number of small businesses, units
Number of enterprises with foreign capital participation, units		
Number of scientific and educational institutions performing research and development, units.	Volume of export per capita, USD	Profitability (unprofitableness) of the enterprises, %
Number of employees performing research and development, people. Number of employees performing research and development, people		

Note. Compiled by the author.

Figure 1 shows the indicators of the economic potential of the regions of the Republic.

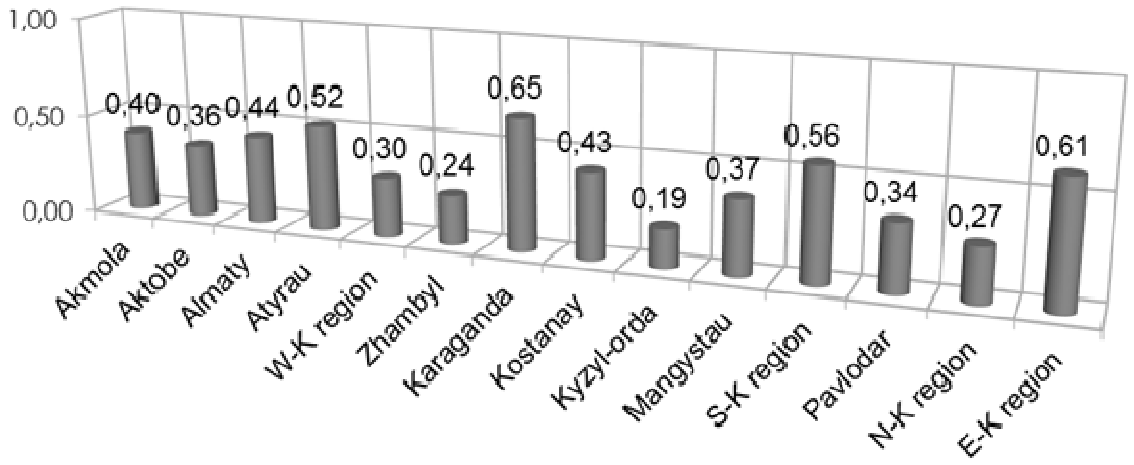

Figure 1. Indicators of the coefficient of economic potential of the regions of the Republic of Kazakhstan

The gross regional product and the volume of investments in fixed assets, have the maximum value in the Atyrau region. Karaganda region is the leader in the number of enterprises with foreign capital participation and in the number of scientific and educational institutions that carry out research and development. The coefficient of economic potential has the maximum value in the Karaganda region and is 0.65.

Figure 2 shows the Regional efficiency coefficient for the Regions of the Republic.

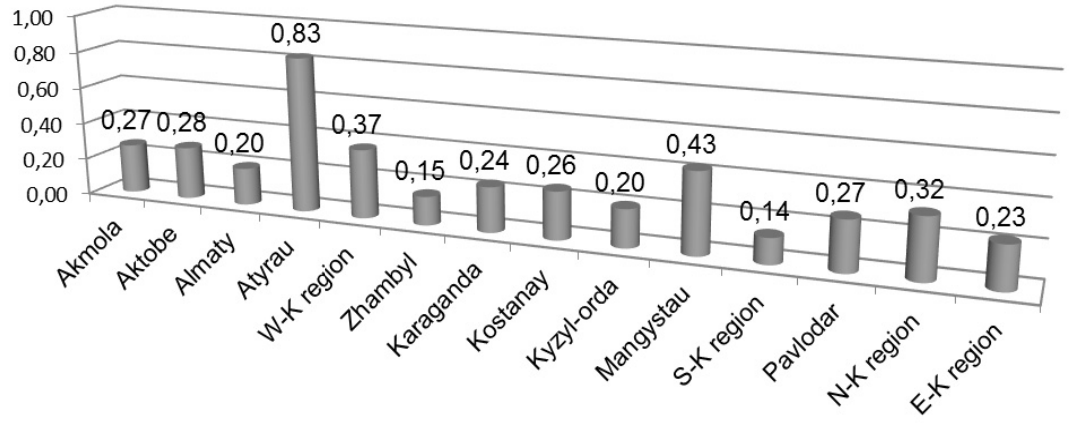

Figure 2. Indicators of regional efficiency coefficients
of the regions of the Republic of Kazakhstan

The region Atyrau is the leader in terms of the following indicators: GRP per capita, industrial output per capita, per capita income, and per capita exports. The North-Kazakhstan region is characterized by a high level of gross output of agricultural products per capita. It follows from the calculations that the coefficient of regional efficiency has the maximum value for the Atyrau region (0.83).

Next, we calculated the coefficients of competitive advantages of the regions, the indicators of which are presented in Figure 3.

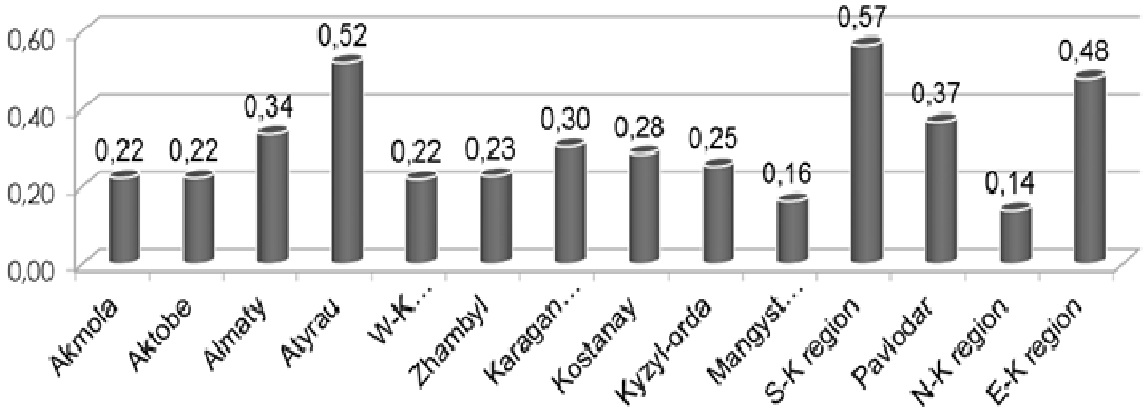

Figure 3. Indicators of the coefficient of competitive advantage
of the regions of the Republic of Kazakhstan

The maximum value of the competitive advantage factor reaches in the SKR - 0.57. This is explained by the fact that this region has competitive advantages in such indicators as the number of small enterprises and the number of self-employed workers.

The integral evaluation of competitiveness is defined as the arithmetic mean of the estimates obtained. The most obvious index of competitiveness is shown in Figure 4.

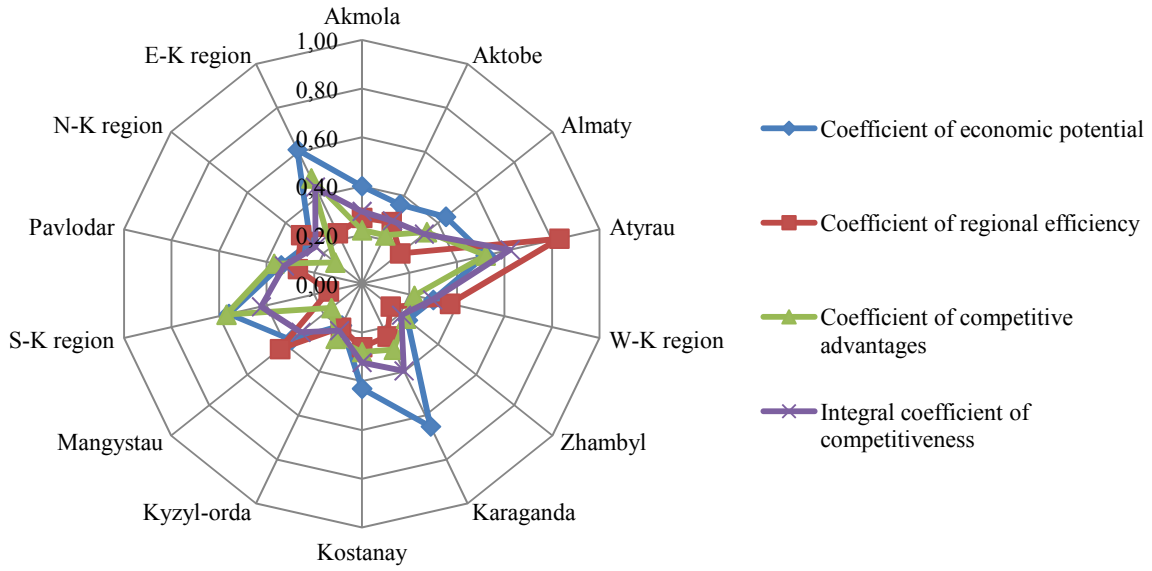

Figure 4. Indicators of the integral coefficient of competitiveness of the regions of the Republic of Kazakhstan

No region of the republic belongs to the first group of regions, according to our classification by the level of competitiveness. That is, no region has scored an indicator of competitiveness within $0,8 \leq T_i \leq 1$.

To the second group with an index of $0.6 \leq T_i \leq 0.8$ there is only one region of the republic - the Atyrau, where the competitiveness index is 0.63. This is a region with a very high level of competitiveness.

The third group of regions with a competitiveness index of $0.4 \leq T_i \leq 0.6$ includes three regions of the republic: East Kazakhstan (0.44), South Kazakhstan (0.43) and Karaganda (0.40) regions. These are regions with an average level of competitiveness. All other regions of the republic belong to the fourth group with a low level of competitiveness, where $0.2 \leq T_i \leq 0.4$. Thus, 70 % of the regions of the republic have a low level of competitiveness of the regional economy.

The level of competitiveness of the region Akmola corresponds to a value of 0.30, which indicates a low competitiveness of the region.

Based on the study of the essence of the concept of «competitiveness of the region» and its evaluation, the following conclusion can be drawn. To assess the competitiveness of regions, you can use the «Pattern» method. Its advantage lies in the fact that the list of indicators for assessing the competitiveness of the region can be changed depending on the specifics and specificity of individual regions, as well as on the existing goals and objectives of the study. This method allows you to determine the level of competitiveness of the regions. Based on the study of private indicators, it allows us to determine the competitive advantages and bottlenecks of the regions, which in future will be objects of improvement.

In modern conditions it is advisable to focus on the stage of investment with the subsequent transition to innovative development. Today there is an objective need for innovative «fullness» of the attracted investments. In creating the competitive advantage of the Tambov region, scientific knowledge, education - both as factors of production development, and as factors in the formation of the region's innovative potential are of great importance.

The competitiveness of the region ensures the growth of the economy along the path of innovative development. Therefore, in modern conditions, increasing competitiveness is becoming one of the main strategic goals of economic development of regions and the country as a whole.

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Қазақстан Республикасы аймақтарының бәсекеге қабілеттілігін бағалау

Мақалада қолданыстағы тәсілдерді пайдалана отырып, Қазақстан Республикасы аймақтарының бәсекеге қабілеттілігі деңгейін айқындауға әрекет жасалды. Авторлар аймақтың бәсекеге қабілеттілігі ұғымының мәні, бәсекеге қабілеттілік ұғымының ресейлік және қазақстандық авторлардың түсініктемелерін жан-жақты қарастырған. Мақалада бәсекеге қабілеттілігін рейтингтік бағалау, бәсекеге қабілеттілігін интегралдық бағалау, сұраныс пен ұсыныстың негізінде аймақтық нарығын бағалау, индекс негізінде бағалау сияқты аймақтардың бәсекеге қабілеттілігін бағалау әдістемелері зерттелген. Сондай-ақ үш блок көрсеткіштерден тұратын, яғни экономикалық әлеуетін, аймақтық тиімділігі мен бәсекелестік артықшылықтары, аймақтың бәсекеге қабілеттіліктің көрсеткіштер жүйесі келтірілген. Авторлар Паттерн әдісін пайдаланып, Қазақстан Республикасы аймақтарының бәсекеге қабілеттіліктің интегралды көрсеткіштің есептеуін жүргізді. Аталған аймақтарының экономикалық әлеуеті коэффициенті, аймақтық тиімділік коэффициенті, бәсекелестік артықшылықтар коэффициентінің нәтижелері суреттерде ұсынылған. Бәсекеге қабілеттілік деңгейі бойынша жіктелу келтірілген. Авторлар зерттеу нәтижелері бойынша бәсекелестік деңгейі жоғары аймаққа қарай ешбір аймақ жатпайды деген қорытындыға келді. Облыстардың жетпіс пайызы — экономиканың бәсекеге қабілеттілігінің төмен деңгейлі аймақтар. Бұл зерттеу келесі қорытынды жасауға мүмкіндік береді: Паттерн әдісінің артықшылығы ретінде аймақтардың бәсекеге қабілеттілігін бағалау үшін көрсеткіштерінің тізбесін аймақтың ерекшелігіне және зерттеудің мақсаты мен міндеттеріне байланысты өзгертуге болады. Бұл әдісті пайдалану аймақтардың бәсекелестік артықшылықтарын, сонымен қатар олардың проблемаларын анықтауға мүмкіндік береді.

Кілт сөздер: бәсекеге қабілеттілік, аймақтың бәсекеге қабілеттілігі, саланың бәсекеге қабілеттілігі, бәсекеге қабілеттілік деңгейін бағалау, Паттерн әдісі, бәсекелестік артықшылықтары, экономикалық әлеует, аймақтық тиімділік, интегралдық көрсеткіштер.

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Оценка конкурентоспособности регионов Республики Казахстан

В статье предпринята попытка определить уровень конкурентоспособности регионов Республики Казахстан, используя существующие подходы. Авторами определена сущность понятия «конкурентоспособность региона», даны трактовки понятия «конкурентоспособность» различными авторами, в том числе российскими и казахстанскими. В статье изучены существующие методики оценки конкурентоспособности регионов, такие как рейтинговая оценка конкурентоспособности, интегральная оценка конкурентоспособности, оценка регионального рынка на основе спроса и предложения, оценка на основе индексов. Приведена система показателей конкурентоспособности региона, состоящая из трех блоков показателей: экономического потенциала, региональной эффективности и конкурентных преимуществ. Используя метод Паттерн, авторы произвели расчет интегрального показателя конкурентоспособности областей Республики Казахстан. Полученные показатели коэффициента экономического потенциала регионов республики, коэффициента региональной эффективности, коэффициента конкурентных преимуществ регионов представлены на рисунках. Приведена классификация регионов по уровню конкурентоспособности. По результатам исследования авторы пришли к выводу, что к регионам с высоким уровнем конкурентоспособности не относится ни один регион республики. Семьдесят процентов областей имеют низкий уровень конкурентоспособности экономики региона. Данное исследование позволяет сделать следующее заключение: преимущество метода Паттерн заключается в том, что перечень показателей для оценки конкурентоспособности региона можно менять в зависимости как от особенностей и специфики отдельных регионов, так и от существующих целей и задач исследования. Использование данного метода позволяет определить конкурентные преимущества регионов, а также их проблемы, которые в дальнейшем будут решены.

Ключевые слова: конкурентоспособность, конкурентоспособность региона, конкурентоспособность отрасли, оценка конкурентоспособности, уровень конкурентоспособности, метод Паттерн, конкурентные преимущества, экономический потенциал, региональная эффективность, интегральные показатели.

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