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THE PROPERTY STATUS OF HUNGARIAN AGRICULTURAL PARTNERSHIPS IN THE PERIOD 2002-2011

STATUS NIERUCHOMOŚCI WĘGIERSKICH SPÓŁEK ROLNYCH W LATACH 2002-2011

Key words: agriculture, disponibility, financial structure, mobility of assets, Hungary Słowa kluczowe: rolnictwo, dostępność, struktura finansowa, mobilność środków, Wegry

Abstract. The aim of the study is the analysis of the property status of Hungarian agricultural enterprises, including main financial processes. The study is based on the corporation tax returns database collected by the NAV (National Taxation and Customs Organization) for the period 2002-2011. Referring to literature related to the topic, the study presents special features of agriculture and their effects on agricultural revenues. Invested (fixed) assets as well as current assets, including parameters describing their structures, within the scope of the financial position of enterprises, have been analysed. The description of the financial position has been conducted using the method of liquidity analysis, after which resource allocation, strictly connected with it, has been analysed.

Introduction

The main purpose of our analysis is to outline the changes in the financial situation of agricultural enterprises in the period 2002-2011, focusing on the causality of factors behind them. Our research has also covered the analysis of changes of assets and resources at agricultural partnerships, including the forestry businesses.

Data resources and methods of analysis

For the mathematical analysis, we have used the regular statistical database, created from corporation tax return figures, provided by the taxation authority. During analysis we have considered all agricultural enterprises dealing with agriculture, fishing and forestry, which have double entry book-keeping and have to prepare corporation tax return annually. Our research has covered the period between 2002 and 2011. For the analysis of assets and resources, horizontal and vertical datasets have been applied, used for creating parameters, and then for executing compound analysis.

Results

Agricultural enterprises – similarly to other partnerships – use physical assets in their production processes. The required quantity of assets for these processes is determined by special characteristics of agricultural production, some of them – without any preferences – are listed below. Agricultural production is primarily influenced by features of the natural environment and circumstances. Agricultural production is a biological process, which generally may be divided into several long phases. The determining means of production is land, an immovable place and the fertility of which can only be improved within certain limits. Goods produced in agriculture have a dual function: on the one hand they act as end-products or goods. On the other hand, in other processes, they appear as raw material [Miklósyné et al. 2006].

The rate of invested assets to total assets typically fluctuated between 51-53%. As far as the value of invested assets is concerned, there was another 7.1% increase in 2010, and this grow-

$ts/million\ HUF$, 1 EUR = $HUF\ 305\ on\ 14.03.2013$	ych środków/milion HUD, 1 EUR = 305 HUF na dzień 14.03.2013
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Table	Tabel

Tabela 1. Sit untara zaniwestowanych stoanow/minori 110D, 1 EON $-$ 505 110F ha azien 1 $+$.05.2015	oakow/mino	" 110D' 1	TON I	1011 60	ממקובנו ז	02.707.					
Name/Nazwa	Units/		T	he structur	e of inves	ted assets	/Struktura	zainwesto	The structure of invested assets/Struktura zainwestowanych środków	łków	
	Jedn.	2002	2003	2004	2005	2006	2007	2008	5000	2010	2011
I	mln HUF	623 838	710 484	768 575	818 077	869 931	908 475	947 591	1 095 620	1 173 687	1 264 227
Invested assets/ zainwestowane sroaki	%	100	100	100	100	100	100	100	100	100	100
F	mln HUF	44 612	48 823	50 881	55 760	59 822	62 248	66 611	75 963	78 703	82 173
Forestry/Lesniciwo	%	100	100	100	100	100	100	100	100	100	100
Invested monetary assets/	mln HUF	41 452	42 881	51 122	55 573	61 870	65 183	70 725	68 673	77 183	716 18
Zainwestowane środki monetarne	%	6.64	6.04	6.65	6.79	7.11	7.17	7.46%	6.27	6.58	96.9
E. monthum / I of an interior	mln HUF	2 736	2 901	2 435	2 888	3 129	2 980	8 0 0 9	5 010	4 464	5 407
rotestry/ <i>Lesnictwo</i>	%	6.13	5.94	4.79	5.18	5.23	4.79	9.12	09'9	5.67	6.58
Discosing of the state of the s	mln HUF	576 353	658 650	707 542	752 830	798 622	798 622 833 380	866 072	1 014 651	1 084 501	1 164 879
Filysical assets/ sroaki jizyczne	%	92.39	92.70	92.06	92.02	91.80	91.73	91.40	92.61	92.40	92.14
To an other / I of a state of	mln HUF	41 296	45 401	47 989	52 259	56 059	58 402	59 481	69 631	72 992	74 440
rotestry/ <i>Lesnictwo</i>	%	92.57	92.99	94.32	93.72	93.71	93.82	89.30	91.66	92.74	90.59
Intangible goods/Dobra	mln HUF	6 032	8 952	6 910	9 674	9 439	9 912	10 793	12 295	12 003	11 371
niematerialne	%	26.0	1.26	1.29	1.18	1.09	1.09	1.14	1.12	1.02	6.0
Executer/I of airtus	mln HUF	580	522	458	614	633	998	1 052	1 322	1 247	2 3 2 6
rotestry/ <i>Lesnictwo</i>	%	1.30	1.07	0.90	1.10	1.06	1.39	1.58	1.74	1.58	2.83

Source: own calculations based on the data corporation tax returns of tax authority Žródlo: obliczenia własne na podstawie danych dotyczących zwrotu podatku dochodowego przez urząd podatkowy

ing tendency was also typical of forestry companies, despite only reaching 3.6%. The increasing tendency mainly took place in the field of invested monetary and physical assets. The book value of invested assets increased by 76%, in the analysed period. Within this time, the highest growth – 104% – was observed in intangible goods, while the weakest growth was produced by monetary assets, at a 66% level. The rate of growth of physical assets was the same as invested assets. The increase of investment activity. which was instantly followed by an increase of physical assets, was basically triggered by newly accessible credit facilities, opening legal titles for subsidies and tax allowances relating to investment, introduced in the taxation system.

The majority of forestry enterprises produced a similar investment tendency, resulting in an almost 20% increase of total investments by 2010. The value of physical assets grew considerably in spite of the fact that the amount of aggregated depreciation increased by 61% in the period, and the possibilities of paying off depreciation expenses were modified favourably by taxation regulations.

The majority of invested assets came from physical assets at forestry enterprises. Comparing to figures in 2002, this balance-sheet item grew by nearly 70%, and this trend was even more significant in the whole agricultural sector, where it achieved 76%. In the forestry businesses, the current assets produced 5-7% lower figures in all of the examined years. The reason for it was the typically higher rate of physical assets of these companies, which usually generated a higher value of invested assets. The security of liquid funds in the sector did not improve. What is more, the

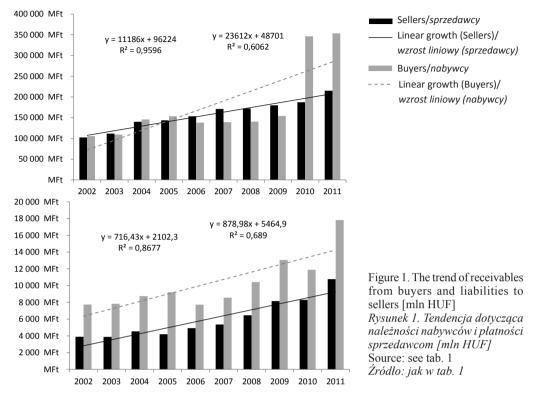
Table 2. Trends of changes of current assets/million HUF Tabela 2. Tendencje zmian środków bieżących/milion HUF

	CIIIIS/		Tre	nds of char	iges of cur.	rent assets/	Tendencje,	Trends of changes of current assets/Tendencje zmian środków bieżących	lków bieżą	cych	
	Jedn.	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Inventories/Spis inwentarza	mln HUF	273 657	273 657 269 628 318 010	318 010	310 936	310 936 307 548	351 682	369 454 365 425	365 425	355 589	426 271
Ratios/Współczynnik	%	47.84	45.95	44.95	41.78	41.18	43.45	45.20	44.36	40.89	42.66
Forestry/Leśnictwo	mln HUF	8 888	8 921	9 1 7 9	9 460	8 680	8 204	9 148	11 510	10 073	11 882
Ratios/Współczynnik	%	30.38	27.76	24.8	23.58	20.65	20.15	21.00	24.78	20.18	20.68
Receivables/Nalezności	mln HUF	184 084	204 112	272 830	306 727	298 409	310 978	316 425	326 866	348 503	421 340
Ratios/Współczynnik	%	32.18	34.78	38.57	41.21	39.96	38.42	38.71	39.68	40.07	42.16
Forestry/Leśnictwo	mln HUF	11 475	11 598	13 727	14 844	13 834	13 227	15 408	18 486	17 512	21 999
Ratios/Współczynnik	%	38.78	36.09	37.10	37.00	32.91	32.49	35.37	39.80	35.08	38.28
Monetary assets/Środki monetarne	mln HUF	94 440	95 578	598 66	99 865 110 084		122 910	119 956 122 910 108 496	117 439	148 015	151 700
Ratios/Współczynnik	%	16.51	16.29	14.12	14.79	16.06	15.19	13.27	14.26	17.02	15.18
Forestry/Leśnictwo	mln HUF	6 342	8 624	10 155	11 722	15 074	15 941	15 441	14 054	19 242	23 583
Ratios/Współczynnik	%	21.44	26.84	27.4	29.22	35.86	39.15	35.45	30.26	38.55	41.04
Current assets/Środki bierzące	mln HUF	572 061	586 825	707 432	744 229	746 784	809 317	817 383	823 703	869 637	999 311
Ratios/Współczynnik	%	100	102.58	120.55	105.20	100.34	108.37	101.00	100.77	105.58	114.91
Forestry/Leśnictwo	mln HUF	29 588	32 138	37 027	40 114	42 032	40 718	43 561	46 441	49 918	57 464
Ratios/Współczynnik	%	100	108.62	115.21	108.34	104.78	28.96	106.98	106.61	107.49	115.12

stock of insecure liabilities grew, which can be seen in the changes of buyers' stocks of orders (Tab. 1 and 2). Partnerships in the agricultural sector produced a significant increase in monetary assets, considering both their nominal values and ratios, which might have a positive effect on liquidity, though short-term liabilities also rose slightly.

Summarizing the above facts, it can be concluded that the value of inventory and receivables played a decisive role among current assets of enterprises. As far as forestry enterprises are concerned, inventory proportion never reached that of the agro-industrial sector in the examined years. This might be the consequence of the special character of this type of production. The liquidity position showed an improving tendency by 2010. The rate of monetary assets reached 38%, which neared double the rate calculated for all agricultural enterprises.

Within current assets the main role was played by stocks and receivables. Stocks increased by approximately HUF 92 million, which equalled ~ 34% in the examined period. The velocity of stock circulation, calculated in days, fluctuated between 90 and 100, but in 2009, it exceeded 104 days [Borbély et al. 2011]. In the whole period, the stock of orders of agricultural enterprises considerably exceeded the aggregated stock of orders observed in the entire national economy. In 2010, the value of receivables from buyers grew remarkably. At the same time the volume of sellers did not change much. It can be assumed that this was due to reciprocal current (yet unpaid) liabilities among participants of the national economy, the impact of which was also felt by this sector and the negative effect of which deepened by 2011.



The liquidity parameter (acid parameter) describes how much an enterprise can satisfy its annual liabilities [Bíró et al. 2007].

The liquidity position of agricultural enterprises – described by liquidity indicators – declined slightly in comparison with their position in the 1990s. Moderate growth, in the first years of the decade, turned into steady decline after the country's accession to the European Union. In spite of this, liquidity indicators could not be considered critical at all. The high proportion of inventories and receivables in current assets simply suggests an "illusory or virtual liquidity" [Borbély et al. 2011, Jánsky, Novák 2002].

The liquidity position of forestry enterprises was more favourable. While the liquidity position of agricultural enterprises – described by the acid rate parameter – reached 88.77% by 2010, this parameter equalled 176.82% in forestry companies. One of the reasons for this major difference is that the proportion of short-term liabilities in forestry companies was approximately half of those found in agricultural enterprises. Furthermore, the proportion of monetary assets was more favourable in forestry companies. Table 3 demonstrates how liabilities and monetary assets influenced liquidity.

By 2010, the liquidity of the sector seemed to improve slightly due to a considerable growth of the stock of orders. However, owing to much longer duration terms, the time of obtaining receivables extended, which resulted in much poorer liquidity. In the examined period, the total resource funds of the enterprises increased, including a significant increase in the total amount of equities and short-term liabilities.

The most important element of self-financing is self-owned capital, which is the local source of the property of the enterprise [Penson-Lins 1980]. In the examined period, the total amount of self-owned capital (equities) increased by 65 % and, in 2010, surpassed one HUF thousand billion (HUF 1.087 billion). The main role of this remarkable growth was played by the accumulated profit reserve, which reached a close 3.7 times higher level in the examined period. The growth rate of the self-owned capital made the position of agrarian enterprises safer, yet it can be presumed that this

ľable 3. Changing proportions of monetary assets and short-term liabilities ľabela 3. Zmiany w proporcjach środków pieniężnych i krótkoterminowych płatności

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Ratio in the balance sheet footing/Współczynnik oparty na bilansie			Zmia	ny w la	tach/C/	iange ii	Zmiany w latach/Change in years [%]	[%]		
	2002	2003	2004	2005	2006	2007	2002 2003 2004 2005 2006 2007 2008 2009 2010 2011	2009	2010	2011
Monetary assets/Total assets (Agriculture)/Środki pieniężne/ środki całkowite (Rolnictwo) 7.84 7.29 6.67 6.94 7.29 7.03 6.04 6.02 7.10 6.50	7.84	7.29	6.67	6.94	7.29	7.03	6.04	6.02	7.10	6.50
Monetary assets/Total assets (Forestry)/Środki pieniężne/środki całkowite (Leśnictwo)	8.46	0.58	11.41	12.02	14.49	15.30	8.46 10.58 11.41 12.02 14.49 15.30 13.86 11.31 14.73 16.50	11.31	14.73	16.50
Short-term liabilities/Total sources (Agriculture)/Krótkoterminowe platności/ źródła razem (rolnictwo)	31.96 28.10 29.04 30.97 30.53 32.66 32.54 29.16 27.79 27.98	28.10	29.04	30.97	30.53	32.66	32.54	29.16	27.79	27.98
Short-term liabilities/Total sources (Forestry)/Krótkoretminowe platności/ źródla razem (Leśnictwo)	18.63 16.79 17.60 16.38 17.02 16.72 17.77 16.90 17.25 18.19	62.9	17.60	16.38	17.02	16.72	17.77	16.90	17.25	18.19
Monetary assets/Short-term liabilities (Agriculture)/Środki pieniężne/ krótkoterminowe płatności (rolnictwo)	24.53 25.95 22.96 22.42 23.87 21.54 18.57 20.64 25.56 23.23	56.53	22.96	22.42	23.87	21.54	18.57	20.64	25.56	23.23
Monetary assets/Short-term liabilities (Forestry)/Środki pieniężne/ krótkoterminowe platności (leśnictwo)	45.43 63.00 64.83 73.40 85.12 91.48 78.02 66.93 85.39 90.73	93.00	64.83	73.40	85.12	91.48	78.02	66.93	85.39	90.73
Source: see tab. 1 Źródło: jak w tab. 1										

was caused by shrinking credit facilities rather than conscious decision-making on capitalization. The optimal capital structure and the stability of monetary assets of enterprises is a complex problem. All the important features of the financial performance of enterprises can be explained by the actual structure and the current price of monetary assets [Hercherova et al. 2003]. Long-term liabilities increased by 89%, while short-term liabilities by 48%. Altogether, the rate of growth of liabilities surpassed that of self-owned capital. The proportion of financial leverage and self-owned capital (an indicator of financial leverage) shows the degree of external financing compared to the role of self-owned capital at the enterprises [Bíró et al. 2010].

Long-term liabilities rose considerably in 2003 and 2004 in comparison with former years (by 64 and 33%). The reason for this was the fact that a certain amount of short-term liabilities was converted into long-term debts. On the other hand, in 2002, the debts of the sector were consolidated with ~ HUF 60 billion, thus influencing the sector's performance until 2005.

The rate of liabilities towards suppliers, which may be considered to be "forced credits", grew from about 27% in 2002 to 32.27% in 2004, in the amount of short-term liabilities. In the following coming years they levelled out between 29 and 31.5%. In 2010, both short-term and long-term liabilities increased. In the forestry industry, the growth reached 7.3% in comparison with the increasing level of total liabilities of all agricultural enterprises. At the same time, the pace of growth of short-term liabilities was more moderate in the forestry industry. The proportion of addressed reserve funds increased by 70% by 2010, which was probably due to unfavourable financial-economic conditions: in the forestry industry this ratio reached 80%. Within the credit portfolio, the proportion of long-term liabilities regularly surpassed the rate of short-term liabilities, in the examined period, except in 2002. This growth can be explained by the fact that, in 2003 and 2004, agricultural enterprises were able to take up so-called accession credits. In December 2004, this credit amounted to HUF 203 billion, which represented 47.72% of all subsidized agrarian credits, and 44.7% of credits due over a year [Herczeg 2009]. However, after 2006, it can be observed that the majority of credit growth was caused by short-term liabilities and thus, the proportion of long-term liabilities, within the credit stock, was slightly over 50% [Károlyné et al.. 2009].

Table 4. The structure of the main components of resource funds Tabela 4. Struktura głównych komponentów finansowania zasobów

Name/ <i>Nazwa</i>			Resc	ource fund	Resource funds/Finansowanie zasobów [mln HUF]	owanie za	rsobów [r	nln HUFJ		
	2002	2003	2004	2005		2006 2007 2008	8007	2009	2010	2011
Self-owned capital (Agricultural)/Kapital wlasny (Rolny) 638 330 669 233 707 776 754 208 843 767 878 133 938 689 1 053 262 1 087 463 1 318 585	638 330	669 233	9/1 /0/	754 208	843 767	878 133	689 886	1 053 262	1 087 463	1 318 585
Self-owned capital (Forestry)/Kapital wlasny (Leśnictwo)	53 021	57 711	890 09	67 764	60 068 67 764 58 899	73 211	76 264	86 548	86 725	93 705
Long-term liabilities (Agricultural)/Platności długoterminowe (Rolny)	138 348	227 547	138 348 227 547 302 500 280 698 256 223 235 970 238 166	280 698	256 223	235 970	238 166	261 631	274 315	281 468
Long-term liabilities (Forestry)/Platności długoterminowe (Leśnictwo)	4 538	5 934	8 394	066 2	7 104	5 884	4 721	6 181	068 9	10 242
Short-term liabilities (Agricultural)/Platności krótkoterminowe (Rolny)	384 945	368 316	384 945 368 316 434 883 491 102 502 435 570 647 584 200	491 102	502 435	570 647	584 200	666 895	589 647	653 010
Short-term liabilities (Forestry)/Platności krótkoterminowe (Leśnictwo)	13 960	13 689	15 664	15 970	15 664 15 970 17 708 17 425	17 425	19 790	20 997	21 455	25 992
Passive /or Deferred/ liabilities (Agricultural)/ Pasywne/ lub wstrzymane/ płatności (Rolny)	42 862	45 612	52 544		59 631 43 436 62 501	62 501	34 248	67 512	51 628	26 908
Short-term liabilities (Forestry)/Plamości krótkoterminowe (Leśnictwo)	3 097	3 734	4 361	5 131	7 135	6 791	9 543	8 902	9 081	10 310
Common con tob 1										

Source: see tab. 1 Źródło: jak w tab. I Sources of financing influence a company's profitability through expenses. If an enterprise finances its current assets with short-term credits to a higher degree, it may reduce interest charges [Illés 2007].

Although precise figures concerning the value of assets demanding constant financing within current assets are not available, it can be ascertained that, in the examined period, the enterprises followed a typically conservative financing strategy, which means that a part of their interim assets was financed from long-term resources [Borszéki 2008].

Summary

The total value of assets of the analysed enterprises demonstrated nearly constant growth in the examined period, which was especially spectacular in the field of invested assets. An increase of investment activity, which was followed by an increase of physical assets, was primarily encouraged by access to newer credit constructions, supported credit titles and newly introduced tax allowances aimed at promoting investment. By 2010, investment activity reached 10% in the sector in general, and 20% in forestry. The proportion of monetary assets among current assets decreased and, although we can see some improvement by 2010, the high levels of stocks and receivables remained governing factors. The stock of orders at the agricultural enterprises considerably surpassed the stock of orders in the national economy during the whole period. Receivables showed a rising tendency, and this is considered to be a serious problem since it demonstrates a depressing trend of financing opportunities. Buyers' liabilities were able to finance suppliers' obligations (liabilities) to a smaller extent and, at the same time, receivables provided monetary assets with continuously declining probability.

Although self-owned capital increased in the period, the uncertainty of the economic and financial situation is to blame for the remarkable growth of total reserve funds. In the same period, forestry enterprises had more stable capital, liquidity and profitability positions in comparison to agricultural enterprises in general. After the country's accession to the European Union and owing to broadening opportunities of subventions, the profitability of agricultural companies increased, which outlines the fact that profitability, and consequently profit-based self-financing of the sector, is seriously dependent on subventions.

Bibliography

Bíró T., Kresalek P., Pucsek J., Sztanó I. 2007: A vállalkozások tevékenységének komplex elemzése, Budapest, Perfekt Kiadó, p. 263.

Bíró T., Pucsek J., Sztanó I. 2010: Amit a mérleg mutat, Budapest, Saldo Kiadó, p. 120.

Borbély K., Pataki L., Vágyi F.R. 2011: Examination of the financial position of Hungarian agricultural enterprises between 2002 and 2009, Agrár és Vidékfejlesztési Szemle, vol. 6. (1) supplement "Traditions, innovation, sustainability", Hódmezővásárhely, 5th May 2011. Conference Cd supplement.

Borszéki É. 2008: *A jövedelmezőség és a tőkeszerkezet összefüggései a vállalkozásoknál*, Bulletin of the Szent István University, Special Issue, Part I.

Hacherrová Z., Hulík R., Pribilovicová I. 2003: The state and development of financial structure in agricultural co-operatives, Agricultural Economics – Chech, no. 49(8), p. 369-374.

Herczeg A. 2009: Társas *mezőgazdasági vállalkozások forrás-* és *tőkeszerkezetének elemzése 2002* és *2006 között*, DE AMTC PhD értekezés.

Illés I-né 2007: Vállalkozások pénzügyi alapjai, Budapest, Saldo Kiadó, p. 243.

Jánsky J., Novák P. 2002: The analysis of financial situation of agricultural enterprises in productive and marginal condition with the use of the non-financial indicators, Agricultural Economics – Chech, no. 48(7), p. 417-423.

Károlyné Ždenkó I., Illés B. Cs., Pataki L., Kozma T. 2009: The effect of the foreign capital and European subventions on the competitiveness of the Hungarian agribusiness enterprises in the last 15 years, Proceedings of the 113th EAAE Seminar, A resilient European food industry and food chain in a challenging world. MAICh Chania, Crete, Greece, CD, full paper, p. 14.

Miklósyné Ács K., Siklósi Á., Simon Sz., Sztanó I. (eds.) 2006: *A mezőgazdasági vállalkozások számviteli sajátosságai*, Budapest, Saldo kiadó, p. 240.

Penson J.B., Lins D.A. 1980: Agricultural finance an introduction to micro and macro concepts, PRENTI-CE-HALL, Inc, Englewood Cliffs, N. J. (USA), p. 13-37.

www.nav.gov.hu/data/cms260837/Kettos konyvvitelt vezetok mutatoi 2011.pdf

Streszczenie

Celem badań było przedstawienie statusu nieruchomości węgierskich spółek rolnych oraz prześledzenie głównych procesów finansowych. Badanie oparto w szczególności na bazie danych dotyczącej zwrotów podatku dochodowego, opracowanej przez NAV (Narodowa Organizacja ds. Opodatkowania i Cła), obejmującej okres lat 2002-2011. Nawiązując do literatury temetu przedstawiono charakterystyczne cechy rolnictwa i ich wpływ na zyski rolne. Przeanalizowano zainwestowane (stałe) środki pod kątem pozycji finansowej przedsiębiorstw, jak również środki bieżące, posiłkując się parametrami opisującymi ich strukturę. Opis pozycji finansowej stworzono za pomocą metody analizy płynności, a następnie zbadano podział zasobów, bezpośrednio z nim związany.

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