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1995	39,7	17,4	22,6	28,0
2001-2005	24,6	11,0	15,2	16,9
2006	21,7	9,3	16,5	19,8
2007	21,6	9,3	16,2	21,1
2008	21,1	9,2	16,3	21,6

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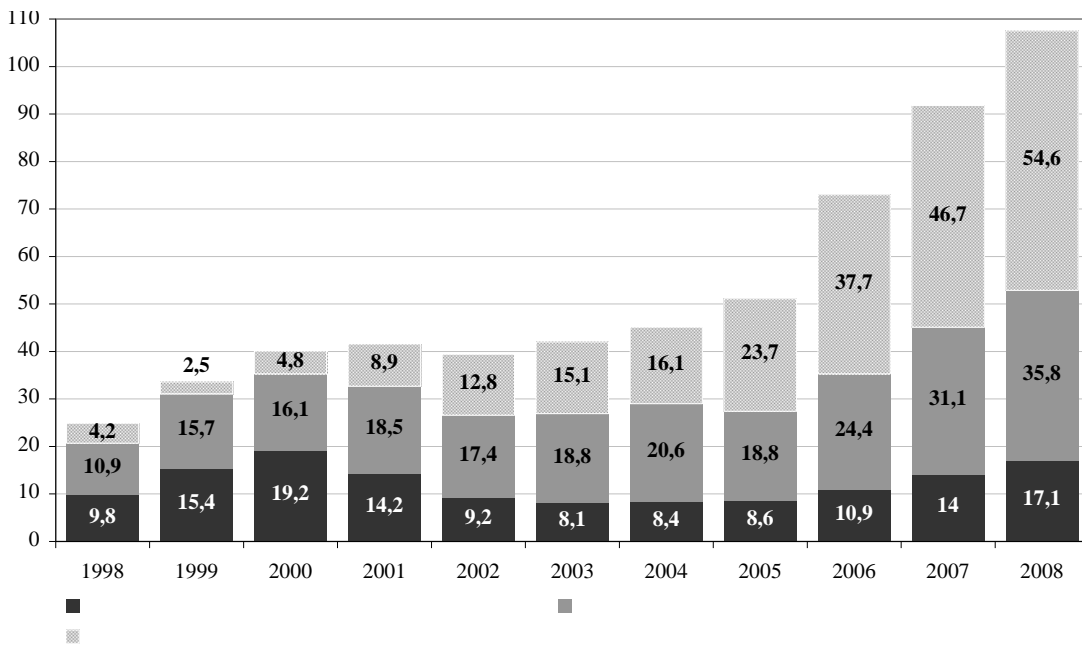
	1992	1995	2000	2002	2003	2004	2005	2006	2007	2008
	18,0	13,1	15,6	19,6	17,8	18,8	18,5	18,9	19,8	23,8
	192,0	188,0	188,0	219,0	227,0	277,0	282,0	325,0	292,0	362,0
	11,6	10,6	9,0	9,7	10,0	10,2	11,9	11,4	11,3	12,3

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	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
	<40	<20	<20	1,2	1,5	1,7
	40-50	20-50	20-40	1,1	1,3	1,5
	51-70	51-100	41-80	1,0	1,0	1,3
	71-100	101-150	81-120	0,9	0,75	1,0
	101-140	151-200	121-180	0,8	0,5	0,7
	>140	>200	>180	0,7	0,2	0,5

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$$\begin{matrix}
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 \overline{X_j}
 \end{matrix}
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Таблица 16. Содержание питательных веществ, макро- и микроэлементов в 1 кг кормов и кормовых добавок

Питательное вещество	Пшеница дробленая	Ячмень дробленый	Горох	Комбикорм	Витаминно-травяная мука	Сено	Солома	Сенаж	Силос	Жом	Патока	Минерально-витаминные премиксы
Кормовые единицы, к.ед.	1,20	1,15	1,18	1,00	0,72	0,48	0,20	0,32	0,20	0,12	0,76	0,50
Обменная энергия, мДж	10,80	10,50	11,10	9,10	8,60	6,45	4,80	3,68	2,30	1,13	9,36	
Сухое вещество, кг	0,850	0,850	0,850	0,880	0,900	0,830	0,830	0,450	0,250	0,112	0,800	
Сырой протеин, г	133	113	218	165	189	91	37	54	25	12	99	
Переваримый протеин, г	106	27	192	110	119	51	5	38	14	6	60	55
Сырая клетчатка, г	17	49	54	55	211	237	331	148	75	33		
Сахар, г	20,0	22,0	55,0	51,0	40,0	29,0	2,4	22,0	6,0	2,5	626,0	25,5
Сырой жир, г	20	22	19	25	29	21	13	13	10	3		
Кальций, г	0,8	2,0	2,0	6,5	17,3	5,6	2,8	2,8	1,4	1,5	3,2	133,6
Фосфор, г	3,6	3,9	4,3	6,0	3,1	1,3	0,8	1,4	0,4	0,14	0,2	257,3
Магний, г	1,0	1,0	1,2	4,0	3,3	1,4	0,8	0,8	0,5	0,5	0,1	11,0
Каротин, мг	1,0	0,2	0,2		260,0	24,0	4,0	30,0	20,0			
Кобальт, мг	0,10	0,26	0,18	0,20	0,20	0,20	0,14	0,39	0,02	0,06	0,60	0,50
Витамин Е, мг	11,9	50,0	53,0	35,0	93,5	300,0		45,0	46,0		3,0	85,0
Соль, г												81,0

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 5,5 (B₃), 775
 (B₆), 400
 (B₁₀), 7
 (B₁₅).

(B₁), 45
 (B₄), 505
 (B₇), 200
 (B₁₂), 2,4

800
 (B₂), 4,6
 (B₅), 840
 (B₉), 11
 (B₁₃), 100
 (B₁₄), 10

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	20 (16)	30 (17)
	10 (18)	25 (19)
	15 (20)	25 (21)
	5 (22)	15 (23)
	8 (24),	15 (25)

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 (M₂₆), - 2 (M₂₇), - 30 (M₂₈).
 - 55% 50% (μ₂₉),
 (μ₃₀).

- 2,41 . (c₁), - 2,03 . (c₂), - 4,27 . (c₃),
 - 2,24 ./ (c₄), - 2,64 . (c₅), - 0,79 . (c₆),
 - 0,25 . (c₇), - 0,83 . (c₈), - 0,53 . (c₉), - 0,06
 . (c₁₀), - 1,50 . (c₁₁), - 5,48 . (c₁₂).

(X_j)
 $\frac{1}{X_j}$
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(1 15)

$$\sum_{j=1}^{12} a_{ij} X_j = B_i \quad (i = 1, \dots, 15),$$

$$X_j \geq 1;$$

$$a_{ij} - \dots, \dots - \dots i- \dots 1 \dots j- \dots$$

$$B_i - \dots i- \dots$$

$$\dots - \dots 1 \dots (16) - \dots$$

$$1,20X_1+1,15X_2+1,18X_3+1,00X_4+0,72X_5+0,48X_6+0,20X_7+0,32X_8+0,20X_9+0,12X_{10}+0,76X_{11}+0,50X_{12} \geq 5,5.$$

$$0,48 \dots \dots \dots$$

$$\dots \dots \dots$$

$$\dots \dots \dots$$

(16 25)

$$\bar{X}_{13} \sim \sum_{j=1}^{12} a_{1j} X_j \sim \bar{X}_{13} \quad (i=16, 25),$$

$$X_j - \dots$$

$$\frac{1}{\bar{X}_{13}} - \dots$$

$$\dots \dots \dots (20\%) \dots (30\%)$$

$$1,20X_1+1,15X_2+1,18X_3+1,00X_4 \geq 0,20X_{13} \quad 1,20X_1+1,15X_2+1,18X_3+1,00X_4 - 0,20X_{13} \geq 0;$$

$$1,20X_1+1,15X_2+1,18X_3+1,00X_4 \leq 0,30X_{13} \quad 1,20X_1+1,15X_2+1,18X_3+1,00X_4 - 0,30X_{13} \leq 0.$$

(26 28)

$$X_j \sim M_i \quad (i=26,27,28),$$

$$\dots \dots \dots (0, 1) \dots ;$$

$$M_i - \dots i- \dots$$

$$1,8 \dots -30 \dots -2,0 \dots$$

$$X_5 \leq 1,8$$

$$X_9 \leq 30,0$$

$$X_{11} \leq 2,0$$

(29 30)

$$\sum_{j=1}^{12} a_{1j} X_j \leq \sum_{j=1}^{12} a_{1j} X_j \quad (29,30),$$

$$X_j \leq \bar{X}_j, \quad j=1, \dots, 12;$$

50 %

$$\begin{aligned} 1,00X_4 &\leq 0,50 \cdot (1,20X_1 + 1,15X_2 + 1,18X_3 + 1,00X_4) \\ &: \\ 1,00X_4 - 0,50 \cdot (1,20X_1 + 1,15X_2 + 1,18X_3 + 1,00X_4) &\leq 0, \\ -0,50 \cdot 1,20X_1 - 0,50 \cdot 1,15X_2 - 0,50 \cdot 1,18X_3 + (1,00 - 0,50) \cdot X_4 &\leq 0, \\ 0,600X_1 - 0,575X_2 - 0,590X_3 + 0,500X_4 &\leq 0. \end{aligned}$$

55%

$$\begin{aligned} 0,48X_6 &\leq 0,55 \cdot (0,48X_6 + 0,20X_7) \\ &: \\ 0,48X_6 - 0,55 \cdot (0,48X_6 + 0,20X_7) &\leq 0, \\ (1 - 0,55) \cdot 0,48X_6 - 0,55 \cdot 0,20X_7 &\leq 0, \\ 0,216X_6 - 0,110X_7 &\leq 0. \end{aligned} \quad (31)$$

$$\sum_{j=1}^{12} a_{1j} X_j = \bar{X}_{13},$$

$$1,20X_1 + 1,15X_2 + 1,18X_3 + 1,00X_4 + 0,72X_5 + 0,48X_6 + 0,20X_7 + 0,32X_8 + 0,20X_9 + 0,12X_{10} + 0,76X_{11} + 0,5X_{12} = X_{13},$$

$$1,20X_1 + 1,15X_2 + 1,18X_3 + 1,00X_4 + 0,72X_5 + 0,48X_6 + 0,20X_7 + 0,32X_8 + 0,20X_9 + 0,12X_{10} + 0,76X_{11} + 0,5X_{12} - X_{13} = 0.$$

$$X_j \geq 0, \quad \bar{X}_j \geq 0.$$

$$Z_{\min} = \sum_{j=1}^{12} c_j X_j,$$

$$Z_{\min} = 2,41X_1 + 2,03X_2 + 4,27X_3 + 2,24X_4 + 2,64X_5 + 0,79X_6 + 0,25X_7 + 0,83X_8 + 0,53X_9 + 0,41X_{10} + 1,50X_{11} + 5,48X_{12}$$

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Microsoft Excel.

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X ₁		0,07	1,20	0,09	1,58
X ₂		0,00	1,15	0,00	0,00
X ₃		0,52	1,18	0,61	10,94
X ₄		0,70	1,00	0,70	12,52
X ₅		0,00	0,72	0,00	0,00
X ₆		1,60	0,48	0,77	13,75
X ₇		3,14	0,20	0,63	11,25
X ₈		2,62	0,32	0,84	15,00
X ₉		4,19	0,20	0,84	15,00
X ₁₀		6,98	0,12	0,84	15,00
X ₁₁		0,28	0,76	0,22	3,85
X ₁₂		0,12	0,50	0,06	1,11
X ₁₃				5,58	100,00

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1	$B_1 = 5,8$ $B_2 = 49$ $B_3 = 5,4$ $B_4 = 850$ $B_5 = 550$ $B_6 = 1050$ $B_7 = 440$ $B_8 = 220$ $B_9 = 27$ $B_{10} = 14$ $B_{11} = 11$	$B_{12} = 90$ $B_{13} = 3$ $B_{14} = 125$ $B_{15} = 15$ $\beta_{16} = 19\%$ $\beta_{17} = 29\%$ $\beta_{18} = 11\%$ $\beta_{19} = 26\%$ $\beta_{20} = 13\%$ $\beta_{21} = 24\%$ $\beta_{22} = 17\%$	$\beta_{23} = 27\%$ $\beta_{24} = 7\%$ $\beta_{25} = 18\%$ $M_{26} = 2,2$ $M_{27} = 2$ $M_{28} = 31$ $\mu_{29} = 49\%$ $\mu_{30} = 37\%$ $c_1 = 3,04$ $c_2 = 3,12$	$c_3 = 3,50$ $c_4 = 2,76$ $c_5 = 4,15$ $c_6 = 0,95$ $c_7 = 0,33$ $c_8 = 0,86$ $c_9 = 0,38$ $c_{10} = 0,05$ $c_{11} = 1,16$ $c_{12} = 6,21$
2	$B_1 = 6,2$ $B_2 = 54$ $B_3 = 6$ $B_4 = 905$ $B_5 = 590$ $B_6 = 1260$ $B_7 = 470$ $B_8 = 235$ $B_9 = 31$ $B_{10} = 18$ $B_{11} = 14$	$B_{12} = 115$ $B_{13} = 3,6$ $B_{14} = 150$ $B_{15} = 20$ $\beta_{16} = 20\%$ $\beta_{17} = 31\%$ $\beta_{18} = 10\%$ $\beta_{19} = 25\%$ $\beta_{20} = 12\%$ $\beta_{21} = 23\%$ $\beta_{22} = 18\%$	$\beta_{23} = 30\%$ $\beta_{24} = 9\%$ $\beta_{25} = 19\%$ $M_{26} = 2,3$ $M_{27} = 1,2$ $M_{28} = 26$ $\mu_{29} = 37\%$ $\mu_{30} = 39\%$ $c_1 = 2,71$ $c_2 = 2,19$	$c_3 = 4,4$ $c_4 = 3,44$ $c_5 = 3,88$ $c_6 = 0,83$ $c_7 = 0,32$ $c_8 = 0,86$ $c_9 = 0,61$ $c_{10} = 0,06$ $c_{11} = 0,82$ $c_{12} = 4,35$
3	$B_1 = 7$ $B_2 = 61$ $B_3 = 7,5$ $B_4 = 915$ $B_5 = 595$ $B_6 = 1575$ $B_7 = 540$ $B_8 = 260$ $B_9 = 38$ $B_{10} = 21$ $B_{11} = 17$	$B_{12} = 140$ $B_{13} = 4,5$ $B_{14} = 185$ $B_{15} = 25$ $\beta_{16} = 21\%$ $\beta_{17} = 28\%$ $\beta_{18} = 12\%$ $\beta_{19} = 22\%$ $\beta_{20} = 11\%$ $\beta_{21} = 25\%$ $\beta_{22} = 22\%$	$\beta_{23} = 28\%$ $\beta_{24} = 10\%$ $\beta_{25} = 20\%$ $M_{26} = 1,5$ $M_{27} = 1,8$ $M_{28} = 25$ $\mu_{29} = 44\%$ $\mu_{30} = 50\%$ $c_1 = 3,35$ $c_2 = 3,06$	$c_3 = 4,92$ $c_4 = 3,48$ $c_5 = 3,27$ $c_6 = 1,06$ $c_7 = 0,31$ $c_8 = 0,93$ $c_9 = 0,58$ $c_{10} = 0,04$ $c_{11} = 0,75$ $c_{12} = 6,25$
4	$B_1 = 7,3$ $B_2 = 66$ $B_3 = 8,5$ $B_4 = 955$ $B_5 = 620$ $B_6 = 1785$ $B_7 = 560$ $B_8 = 270$ $B_9 = 40$ $B_{10} = 23$ $B_{11} = 19$	$B_{12} = 160$ $B_{13} = 5,1$ $B_{14} = 215$ $B_{15} = 30$ $\beta_{16} = 22\%$ $\beta_{17} = 27\%$ $\beta_{18} = 9\%$ $\beta_{19} = 19\%$ $\beta_{20} = 12\%$ $\beta_{21} = 22\%$ $\beta_{22} = 19\%$	$\beta_{23} = 29\%$ $\beta_{24} = 5\%$ $\beta_{25} = 17\%$ $M_{26} = 1,7$ $M_{27} = 2,2$ $M_{28} = 22$ $\mu_{29} = 58\%$ $\mu_{30} = 51\%$ $c_1 = 2,74$ $c_2 = 2,68$	$c_3 = 4,89$ $c_4 = 2,15$ $c_5 = 2,77$ $c_6 = 1,23$ $c_7 = 0,33$ $c_8 = 0,95$ $c_9 = 0,58$ $c_{10} = 0,03$ $c_{11} = 1,12$ $c_{12} = 4,56$

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5	$B_1 = 8,1$ $B_2 = 75$ $B_3 = 9,5$ $B_4 = 1080$ $B_5 = 650$ $B_6 = 1805$ $B_7 = 650$ $B_8 = 300$ $B_9 = 44$ $B_{10} = 24$ $B_{11} = 22$	$B_{12} = 180$ $B_{13} = 5,7$ $B_{14} = 235$ $B_{15} = 35$ $\beta_{16} = 18\%$ $\beta_{17} = 25\%$ $\beta_{18} = 15\%$ $\beta_{19} = 28\%$ $\beta_{20} = 14\%$ $\beta_{21} = 19\%$ $\beta_{22} = 21\%$	$\beta_{23} = 30\%$ $\beta_{24} = 3\%$ $\beta_{25} = 16\%$ $M_{26} = 2,1$ $M_{27} = 2,3$ $M_{28} = 19$ $\mu_{29} = 57\%$ $\mu_{30} = 52\%$ $c_1 = 3,07$ $c_2 = 2,17$	$c_3 = 3,59$ $c_4 = 2,42$ $c_5 = 3,54$ $c_6 = 1,04$ $c_7 = 0,32$ $c_8 = 0,75$ $c_9 = 0,48$ $c_{10} = 0,04$ $c_{11} = 0,76$ $c_{12} = 5,62$
6	$B_1 = 8,4$ $B_2 = 84$ $B_3 = 10,5$ $B_4 = 1120$ $B_5 = 670$ $B_6 = 1995$ $B_7 = 670$ $B_8 = 315$ $B_9 = 50$ $B_{10} = 27$ $B_{11} = 25$	$B_{12} = 190$ $B_{13} = 6,3$ $B_{14} = 265$ $B_{15} = 40$ $\beta_{16} = 19\%$ $\beta_{17} = 32\%$ $\beta_{18} = 10\%$ $\beta_{19} = 16\%$ $\beta_{20} = 11\%$ $\beta_{21} = 28\%$ $\beta_{22} = 20\%$	$\beta_{23} = 29\%$ $\beta_{24} = 7\%$ $\beta_{25} = 15\%$ $M_{26} = 1,3$ $M_{27} = 1,5$ $M_{28} = 28$ $\mu_{29} = 34\%$ $\mu_{30} = 46\%$ $c_1 = 2,70$ $c_2 = 2,27$	$c_3 = 4,97$ $c_4 = 2,56$ $c_5 = 2,86$ $c_6 = 1,23$ $c_7 = 0,27$ $c_8 = 0,67$ $c_9 = 0,38$ $c_{10} = 0,05$ $c_{11} = 0,75$ $c_{12} = 4,61$
7	$B_1 = 8,7$ $B_2 = 96$ $B_3 = 11$ $B_4 = 1160$ $B_5 = 695$ $B_6 = 2280$ $B_7 = 695$ $B_8 = 325$ $B_9 = 55$ $B_{10} = 30$ $B_{11} = 28$	$B_{12} = 200$ $B_{13} = 7,2$ $B_{14} = 300$ $B_{15} = 45$ $\beta_{16} = 20\%$ $\beta_{17} = 26\%$ $\beta_{18} = 13\%$ $\beta_{19} = 25\%$ $\beta_{20} = 10\%$ $\beta_{21} = 18\%$ $\beta_{22} = 5\%$	$\beta_{23} = 10\%$ $\beta_{24} = 9\%$ $\beta_{25} = 13\%$ $M_{26} = 2$ $M_{27} = 1,7$ $M_{28} = 16$ $\mu_{29} = 46\%$ $\mu_{30} = 48\%$ $c_1 = 2,20$ $c_2 = 2,51$	$c_3 = 3,07$ $c_4 = 2,43$ $c_5 = 4,25$ $c_6 = 0,84$ $c_7 = 0,26$ $c_8 = 0,67$ $c_9 = 0,54$ $c_{10} = 0,04$ $c_{11} = 1,16$ $c_{12} = 6,20$
8	$B_1 = 6,1$ $B_2 = 51$ $B_3 = 5$ $B_4 = 890$ $B_5 = 580$ $B_6 = 925$ $B_7 = 465$ $B_8 = 230$ $B_9 = 25$ $B_{10} = 13$ $B_{11} = 7$	$B_{12} = 85$ $B_{13} = 2,6$ $B_{14} = 110$ $B_{15} = 20$ $\beta_{16} = 21\%$ $\beta_{17} = 31\%$ $\beta_{18} = 11\%$ $\beta_{19} = 19\%$ $\beta_{20} = 15\%$ $\beta_{21} = 25\%$ $\beta_{22} = 19\%$	$\beta_{23} = 28\%$ $\beta_{24} = 5\%$ $\beta_{25} = 12\%$ $M_{26} = 1,4$ $M_{27} = 2,1$ $M_{28} = 25$ $\mu_{29} = 52\%$ $\mu_{30} = 53\%$ $c_1 = 2,70$ $c_2 = 2,64$	$c_3 = 4,53$ $c_4 = 3,04$ $c_5 = 4,20$ $c_6 = 1,21$ $c_7 = 0,29$ $c_8 = 0,77$ $c_9 = 0,51$ $c_{10} = 0,05$ $c_{11} = 0,81$ $c_{12} = 6,15$

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9	$B_1 = 6,6$ $B_2 = 55$ $B_3 = 5,6$ $B_4 = 960$ $B_5 = 625$ $B_6 = 1135$ $B_7 = 500$ $B_8 = 250$ $B_9 = 30$ $B_{10} = 16$ $B_{11} = 11$	$B_{12} = 105$ $B_{13} = 3,2$ $B_{14} = 135$ $B_{15} = 25$ $_{16} = 17\%$ $\beta_{17} = 27\%$ $_{18} = 8\%$ $\beta_{19} = 18\%$ $_{20} = 18\%$ $\beta_{21} = 29\%$ $_{22} = 20\%$	$\beta_{23} = 27\%$ $_{24} = 8\%$ $\beta_{25} = 11\%$ $M_{26} = 1,6$ $M_{27} = 1,3$ $M_{28} = 29$ $\mu_{29} = 50\%$ $\mu_{30} = 55\%$ $c_1 = 3,11$ $c_2 = 2,09$	$c_3 = 3,68$ $c_4 = 3,38$ $c_5 = 3,51$ $c_6 = 1,11$ $c_7 = 0,22$ $c_8 = 0,96$ $c_9 = 0,43$ $c_{10} = 0,07$ $c_{11} = 0,90$ $c_{12} = 4,84$
10	$B_1 = 7,6$ $B_2 = 71$ $B_3 = 5,8$ $B_4 = 1143$ $B_5 = 494$ $B_6 = 1251$ $B_7 = 594$ $B_8 = 212$ $B_9 = 37$ $B_{10} = 28$ $B_{11} = 16$	$B_{12} = 185$ $B_{13} = 2,9$ $B_{14} = 122$ $B_{15} = 29$ $_{16} = 27\%$ $\beta_{17} = 34\%$ $_{18} = 16\%$ $\beta_{19} = 25\%$ $_{20} = 10\%$ $\beta_{21} = 19\%$ $_{22} = 15\%$	$\beta_{23} = 26\%$ $_{24} = 9\%$ $\beta_{25} = 21\%$ $M_{26} = 1,1$ $M_{27} = 2,5$ $M_{28} = 17$ $\mu_{29} = 36\%$ $\mu_{30} = 40\%$ $c_1 = 2,67$ $c_2 = 2,41$	$c_3 = 4,95$ $c_4 = 2,88$ $c_5 = 3,34$ $c_6 = 1,01$ $c_7 = 0,23$ $c_8 = 0,74$ $c_9 = 0,44$ $c_{10} = 0,08$ $c_{11} = 0,85$ $c_{12} = 5,74$
11	$B_1 = 8,8$ $B_2 = 58$ $B_3 = 10,3$ $B_4 = 1238$ $B_5 = 455$ $B_6 = 1351$ $B_7 = 655$ $B_8 = 222$ $B_9 = 36$ $B_{10} = 25$ $B_{11} = 18$	$B_{12} = 101$ $B_{13} = 3,6$ $B_{14} = 134$ $B_{15} = 16$ $_{16} = 27\%$ $\beta_{17} = 34\%$ $_{18} = 14\%$ $\beta_{19} = 25\%$ $_{20} = 12\%$ $\beta_{21} = 24\%$ $_{22} = 26\%$	$\beta_{23} = 34\%$ $_{24} = 7\%$ $\beta_{25} = 16\%$ $M_{26} = 1$ $M_{27} = 1,4$ $M_{28} = 23$ $\mu_{29} = 54\%$ $\mu_{30} = 62\%$ $c_1 = 2,64$ $c_2 = 2,47$	$c_3 = 4,27$ $c_4 = 2,65$ $c_5 = 3,43$ $c_6 = 1,24$ $c_7 = 0,35$ $c_8 = 0,90$ $c_9 = 0,48$ $c_{10} = 0,06$ $c_{11} = 0,96$ $c_{12} = 4,14$
12	$B_1 = 9,2$ $B_2 = 71$ $B_3 = 9,4$ $B_4 = 1149$ $B_5 = 692$ $B_6 = 2084$ $B_7 = 449$ $B_8 = 269$ $B_9 = 44$ $B_{10} = 16$ $B_{11} = 11$	$B_{12} = 102$ $B_{13} = 5,1$ $B_{14} = 222$ $B_{15} = 23$ $_{16} = 19\%$ $\beta_{17} = 26\%$ $_{18} = 16\%$ $\beta_{19} = 26\%$ $_{20} = 9\%$ $\beta_{21} = 18\%$ $_{22} = 25\%$	$\beta_{23} = 33\%$ $_{24} = 10\%$ $\beta_{25} = 22\%$ $M_{26} = 1,6$ $M_{27} = 1,8$ $M_{28} = 34$ $\mu_{29} = 54\%$ $\mu_{30} = 43\%$ $c_1 = 2,66$ $c_2 = 2,91$	$c_3 = 4,07$ $c_4 = 3,43$ $c_5 = 3,10$ $c_6 = 0,99$ $c_7 = 0,33$ $c_8 = 0,63$ $c_9 = 0,44$ $c_{10} = 0,09$ $c_{11} = 0,82$ $c_{12} = 4,55$

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13	$B_1 = 7,3$ $B_2 = 68$ $B_3 = 6,8$ $B_4 = 780$ $B_5 = 817$ $B_6 = 1197$ $B_7 = 659$ $B_8 = 193$ $B_9 = 29$ $B_{10} = 26$ $B_{11} = 11$	$B_{12} = 187$ $B_{13} = 6$ $B_{14} = 192$ $B_{15} = 17$ $_{16} = 29\%$ $\beta_{17} = 35\%$ $_{18} = 12\%$ $\beta_{19} = 24\%$ $_{20} = 8\%$ $\beta_{21} = 21\%$ $_{22} = 20\%$	$\beta_{23} = 30\%$ $_{24} = 11\%$ $\beta_{25} = 19\%$ $M_{26} = 1,9$ $M_{27} = 2,1$ $M_{28} = 29$ $\mu_{29} = 50\%$ $\mu_{30} = 41\%$ $c_1 = 3,47$ $c_2 = 2,02$	$c_3 = 3,02$ $c_4 = 2,15$ $c_5 = 3,57$ $c_6 = 1,02$ $c_7 = 0,21$ $c_8 = 0,89$ $c_9 = 0,50$ $c_{10} = 0,04$ $c_{11} = 1,20$ $c_{12} = 3,99$
14	$B_1 = 5,4$ $B_2 = 82$ $B_3 = 8$ $B_4 = 1091$ $B_5 = 468$ $B_6 = 1237$ $B_7 = 690$ $B_8 = 170$ $B_9 = 28$ $B_{10} = 22$ $B_{11} = 13$	$B_{12} = 138$ $B_{13} = 4,5$ $B_{14} = 167$ $B_{15} = 33$ $_{16} = 22\%$ $\beta_{17} = 28\%$ $_{18} = 8\%$ $\beta_{19} = 21\%$ $_{20} = 8\%$ $\beta_{21} = 18\%$ $_{22} = 24\%$	$\beta_{23} = 34\%$ $_{24} = 12\%$ $\beta_{25} = 20\%$ $M_{26} = 1,6$ $M_{27} = 2,4$ $M_{28} = 32$ $\mu_{29} = 34\%$ $\mu_{30} = 59\%$ $c_1 = 2,41$ $c_2 = 2,62$	$c_3 = 4,94$ $c_4 = 3,13$ $c_5 = 4,32$ $c_6 = 0,82$ $c_7 = 0,29$ $c_8 = 0,66$ $c_9 = 0,56$ $c_{10} = 0,02$ $c_{11} = 0,99$ $c_{12} = 3,78$
15	$B_1 = 6,1$ $B_2 = 76$ $B_3 = 4,8$ $B_4 = 1187$ $B_5 = 392$ $B_6 = 2026$ $B_7 = 606$ $B_8 = 196$ $B_9 = 24$ $B_{10} = 26$ $B_{11} = 20$	$B_{12} = 115$ $B_{13} = 5,3$ $B_{14} = 138$ $B_{15} = 23$ $_{16} = 21\%$ $\beta_{17} = 29\%$ $_{18} = 11\%$ $\beta_{19} = 23\%$ $_{20} = 13\%$ $\beta_{21} = 21\%$ $_{22} = 16\%$	$\beta_{23} = 28\%$ $_{24} = 12\%$ $\beta_{25} = 21\%$ $M_{26} = 1,4$ $M_{27} = 2,2$ $M_{28} = 17$ $\mu_{29} = 38\%$ $\mu_{30} = 46\%$ $c_1 = 2,42$ $c_2 = 2,27$	$c_3 = 3,57$ $c_4 = 2,45$ $c_5 = 3,09$ $c_6 = 0,75$ $c_7 = 0,33$ $c_8 = 0,63$ $c_9 = 0,46$ $c_{10} = 0,05$ $c_{11} = 1,16$ $c_{12} = 5,44$
16	$B_1 = 5,3$ $B_2 = 60$ $B_3 = 7,3$ $B_4 = 716$ $B_5 = 567$ $B_6 = 1086$ $B_7 = 361$ $B_8 = 205$ $B_9 = 42$ $B_{10} = 27$ $B_{11} = 21$	$B_{12} = 102$ $B_{13} = 4,7$ $B_{14} = 206$ $B_{15} = 26$ $_{16} = 23\%$ $\beta_{17} = 30\%$ $_{18} = 16\%$ $\beta_{19} = 26\%$ $_{20} = 9\%$ $\beta_{21} = 18\%$ $_{22} = 23\%$	$\beta_{23} = 33\%$ $_{24} = 8\%$ $\beta_{25} = 17\%$ $M_{26} = 90\%$ $M_{27} = 1,5$ $M_{28} = 27$ $\mu_{29} = 54\%$ $\mu_{30} = 46\%$ $c_1 = 3,19$ $c_2 = 2,17$	$c_3 = 4,36$ $c_4 = 3,09$ $c_5 = 3,03$ $c_6 = 0,91$ $c_7 = 0,34$ $c_8 = 0,70$ $c_9 = 0,51$ $c_{10} = 0,10$ $c_{11} = 0,92$ $c_{12} = 4,47$

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17	$B_1 = 9,4$ $B_2 = 40$ $B_3 = 7,2$ $B_4 = 1047$ $B_5 = 649$ $B_6 = 1653$ $B_7 = 727$ $B_8 = 254$ $B_9 = 41$ $B_{10} = 14$ $B_{11} = 16$	$B_{12} = 152$ $B_{13} = 4,3$ $B_{14} = 156$ $B_{15} = 29$ $\beta_{16} = 22\%$ $\beta_{17} = 29\%$ $\beta_{18} = 10\%$ $\beta_{19} = 19\%$ $\beta_{20} = 15\%$ $\beta_{21} = 23\%$ $\beta_{22} = 22\%$	$\beta_{23} = 32\%$ $\beta_{24} = 13\%$ $\beta_{25} = 21\%$ $M_{26} = 1,8$ $M_{27} = 1,6$ $M_{28} = 22$ $\mu_{29} = 55\%$ $\mu_{30} = 39\%$ $c_1 = 2,66$ $c_2 = 2,31$	$c_3 = 3,55$ $c_4 = 2,90$ $c_5 = 3,42$ $c_6 = 1,04$ $c_7 = 0,33$ $c_8 = 0,94$ $c_9 = 0,57$ $c_{10} = 0,05$ $c_{11} = 1,05$ $c_{12} = 5,73$
18	$B_1 = 6,9$ $B_2 = 74$ $B_3 = 8,6$ $B_4 = 892$ $B_5 = 528$ $B_6 = 1791$ $B_7 = 420$ $B_8 = 233$ $B_9 = 30$ $B_{10} = 25$ $B_{11} = 12$	$B_{12} = 133$ $B_{13} = 4,1$ $B_{14} = 153$ $B_{15} = 34$ $\beta_{16} = 13\%$ $\beta_{17} = 19\%$ $\beta_{18} = 10\%$ $\beta_{19} = 20\%$ $\beta_{20} = 13\%$ $\beta_{21} = 22\%$ $\beta_{22} = 25\%$	$\beta_{23} = 36\%$ $\beta_{24} = 6\%$ $\beta_{25} = 17\%$ $M_{26} = 1,5$ $M_{27} = 1,8$ $M_{28} = 27$ $\mu_{29} = 38\%$ $\mu_{30} = 40\%$ $c_1 = 2,24$ $c_2 = 3,10$	$c_3 = 3,33$ $c_4 = 2,94$ $c_5 = 3,94$ $c_6 = 0,94$ $c_7 = 0,33$ $c_8 = 0,81$ $c_9 = 0,62$ $c_{10} = 0,04$ $c_{11} = 1,09$ $c_{12} = 3,87$
19	$B_1 = 7,8$ $B_2 = 73$ $B_3 = 6,7$ $B_4 = 1235$ $B_5 = 582$ $B_6 = 1041$ $B_7 = 665$ $B_8 = 335$ $B_9 = 33$ $B_{10} = 27$ $B_{11} = 21$	$B_{12} = 105$ $B_{13} = 6$ $B_{14} = 178$ $B_{15} = 24$ $\beta_{16} = 14\%$ $\beta_{17} = 20\%$ $\beta_{18} = 13\%$ $\beta_{19} = 23\%$ $\beta_{20} = 12\%$ $\beta_{21} = 24\%$ $\beta_{22} = 26\%$	$\beta_{23} = 37\%$ $\beta_{24} = 6\%$ $\beta_{25} = 17\%$ $M_{26} = 1,4$ $M_{27} = 2,3$ $M_{28} = 19$ $\mu_{29} = 42\%$ $\mu_{30} = 40\%$ $c_1 = 2,41$ $c_2 = 2,40$	$c_3 = 3,75$ $c_4 = 2,67$ $c_5 = 3,69$ $c_6 = 0,79$ $c_7 = 0,22$ $c_8 = 0,82$ $c_9 = 0,57$ $c_{10} = 0,05$ $c_{11} = 1,15$ $c_{12} = 4,82$
20	$B_1 = 6,6$ $B_2 = 43$ $B_3 = 9,7$ $B_4 = 791$ $B_5 = 545$ $B_6 = 2004$ $B_7 = 554$ $B_8 = 253$ $B_9 = 24$ $B_{10} = 27$ $B_{11} = 17$	$B_{12} = 191$ $B_{13} = 6$ $B_{14} = 139$ $B_{15} = 34$ $\beta_{16} = 21\%$ $\beta_{17} = 26\%$ $\beta_{18} = 8\%$ $\beta_{19} = 18\%$ $\beta_{20} = 14\%$ $\beta_{21} = 27\%$ $\beta_{22} = 24\%$	$\beta_{23} = 35\%$ $\beta_{24} = 9\%$ $\beta_{25} = 19\%$ $M_{26} = 1,3$ $M_{27} = 1,5$ $M_{28} = 18$ $\mu_{29} = 53\%$ $\mu_{30} = 57\%$ $c_1 = 3,46$ $c_2 = 2,10$	$c_3 = 3,45$ $c_4 = 2,51$ $c_5 = 3,01$ $c_6 = 1,08$ $c_7 = 0,26$ $c_8 = 0,81$ $c_9 = 0,59$ $c_{10} = 0,08$ $c_{11} = 1,05$ $c_{12} = 6,21$

