

**The LEGO Group**

## **Conclusion**

The LEGO Group is mature and financially self-sufficient company and can show profitability in future due to product development and market penetration. The toy market is growing slowly; however, the LEGO Group is conquering market share from other participants (1.8% in 2006; 4.7% in 2012) and in near future could push out the Mattel from first place by sales. Furthermore, the LEGO Group's dividends will have stable growth: sum of expected dividends during 2015-17 is 17 bln. Danish kroner (DK), due to its strategy behind the capital structure: the LEGO Group is operational company and any surplus liquidity is distributed to the owners.

## **Introduction**

Now, the LEGO Group is a successful company which takes the second place in toys market sales with the toy market share of more than 5%. In 2014, the company generated net profit in the amount of 7 025 mln. DK or 63.4% return on equity. However, before 2005, the perspectives of the LEGO group were not so magnificent because the company staid on the brink of the default due to errors in global strategy, weak product portfolio and competition from new market, in particular digital games.

In 2003, the LEGO Group faced a budget deficit of 1.4 bln. DK (about 220 million USD). This led to dismissal of almost one thousand employees and to sale of non-production assets, i.e. Legoland amusement parks. The measures were taken that allowed returning to the profit generating in 2005 (702 mln. DK) and to the revenue growth (on 12% from 6 315 to 7 027 mln. DK) even with the share of the toy market less than 2%. In this survey, there will be discussed the historical tendencies of company's revenue, factors of its renaissance, and growth perspectives for the next three years.

## **Analysis and financial model of the LEGO Group**

Question 1. The LEGO Group<sup>1</sup> has 16.6% average yearly growth during 2005-14 (after its crisis) with the lowest revenue growth rate in 2007 (2.9%) and with the highest revenue growth rate in 2010 (37.3%). The LEGO "renaissance" could be divided on three periods: 2005-06 was the period of normal growth rate at the time of company's restart; 2007-10 was after-crisis period of accelerating growth rate - from 2.9% to 37.7%; and 2011-14 was after-growth period of slowing growth rate (2011 – 17.0%; 2012 – 23.3%; 2013 – 9.5%; 2014 – 13.0%) when after-crisis strategy of company became "core" strategy of the LEGO Group. The inconsistent slowing of the growth rate is the result of one element of its overall strategy: new launches account for approximately 60% of the LEGO Group's sales; therefore, the "bad" growth year follows the "good" growth year if the new series of toys are not accepted by the consumers (and vice versa). At the same time, such structure of sales could create value for the long period of time if the company continues product portfolio developing

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<sup>1</sup> The detailed balance sheet and main figures of the LEGO Group are presented in Appendix I and Appendix II; description of data and time series sources is presented in Appendix III.

through widening consumer's base, i.e. widening of age groups or the opportunities of toy's uses.

The second element of LEGO Group's overall strategy is location of production close to core markets that requires extensive investments in production capacity. For example, in March 2014, a new factory was opened in Nyíregyháza, Hungary, with purpose to replace the existing plant in the same town. Additionally, in April 2014, the plant in Asia was begun to build with the aim to provide sufficient supply solely for the Asian market (the plant is expected to begin operation in 2015 and to be fully functioned by 2017). Also, in 2014, the investments were made for enhancing of the factories in Monterrey, Mexico, Kladno, the Czech Republic, and Billund, Denmark. Finally, the LEGO Group opened the sales offices in Brazil, Turkey, and Malaysia in 2014.

The overall strategy of the LEGO Group can explain the divergence between growth rate of the company and of the toy market from 2006 until 2012: average growth of 18.9% for the LEGO Group comparing with 2.7% for the toy market. However, growth rate for the next three-five years will be lower than historical both for the LEGO Group and the toy market due to low real growth rate of the world gross domestic product, in general, and of the emerging and developing Asia region, in particular. For example, the growth rate of the toy market (and also the LEGO Company after 2007) and real growth rate of gross domestic product in emerging Asia have high correlation (97.5% for toy market and 85.2% for the LEGO Company after 2007) and their dependence could be described with the next equations (author's calculations):

$$\text{Growth Rate of Toy Market} = 1.607 * \text{Real Growth Rate of Emerging and Dev. Asia} - 9.724\% \quad (1.1)$$

$$\text{Growth Rate of LEGO} = 7.1751 * \text{Real Growth Rate of Emerging and Dev. Asia} - 32.765\% \quad (1.2)$$

According to this model, the potential growth rate of toy market after 2012 will be lower than 1% due to low level of growth in countries of the emerging and developing Asia (near 6.5%). At the same time, the growth rate of LEGO Company could be expected near 14% (revenue forecast will be discussed later).

Question 2 (partly) and Question 2.1. The main use and source of funds<sup>2</sup> were stable in the last two years: "Land, buildings and installations" was the main use of funds, "Retained earnings" was the main source of funds (their share in 2014 could be seen on Fig. 1); and with high probability, the main source and use of funds will be the same next year. However, other uses and sources statements was different in 2013 and 2014. For example, in 2013, the company got the money in addition to main source from related parties through direct ("Debt to related parties") or indirect ("Receivables from related parties") borrowing. In 2013, sources were used to finance, additionally to the main use of funds, increasing cash level in banks and repayment of old debt to other parties. At the same time, additionally to the main source of funds in 2014, there were the following sources: increasing of other short-term debt, lowering of cash at banks, increasing in trade payables. All the accumulated funds in 2014

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<sup>2</sup> The detailed uses and sources statements for 2013 and 2014 are presented in Appendix IV.

were used to increase receivables and inventories in addition to the main source (“Land, buildings and Installations”).

Source: The LEGO Group annual report; author’s calculations

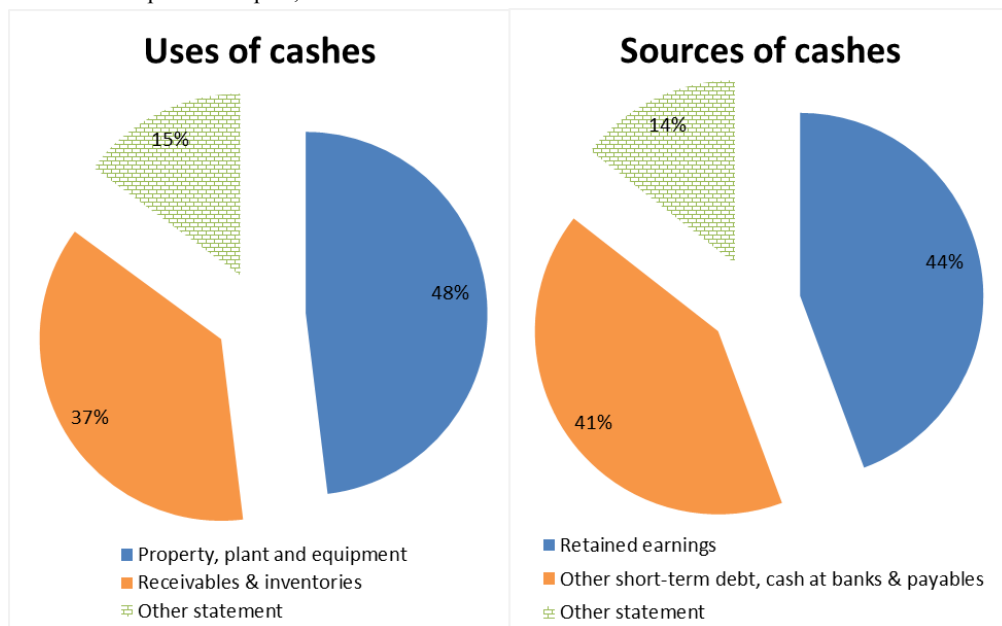


Fig. 1 Major uses and sources of funds in 2014

Question 2.2.

$$\begin{aligned}
 \text{Internal growth rate}_{2014} &= 14.1\% = \frac{\text{Retained earnings}_{2014}}{\text{Net assets}_{2013}} = \\
 &= \frac{\text{Retained earnings}_{2014}}{\text{Net income}_{2013}} \times \frac{\text{Net income}_{2013}}{\text{Equity}_{2013}} \times \frac{\text{Equity}_{2013}}{\text{Net assets}_{2013}} = \\
 &= \frac{(7\,025 - 4\,500)}{7\,025} \times \frac{7\,025}{11\,075} \times \frac{11\,075}{17\,952} = 35.9\% \times 63.4\% \times 61.7\% \\
 \text{Sustainable growth rate}_{2014} &= 22.8\% = \frac{\text{Retained earnings}_{2014}}{\text{Net income}_{2013}} \times \frac{\text{Net income}_{2013}}{\text{Equity}_{2013}} = \\
 &= \frac{(7\,025 - 4\,500)}{7\,025} \times \frac{7\,025}{11\,075} = 35.9\% \times 63.4\%
 \end{aligned}$$

The last figures of “Internal growth rate” and “Sustainable growth rate” are relatively high due to historically low level of expected dividends for 2014. According to the company’s annual report, dividends for 2014, which will be paid in first half of 2015, is expected to be as much as 4 500 mln. DK. The same level of dividends was expected to be paid for 2013 but they were increased to 5 000 mln. DK, what gives the next figures for 2013: “Internal growth rate” is equal 6.6%; “Sustainable growth rate” is equal to 10.9%. Therefore, it is suitable to expect an increasing of dividends for 2014; hence, the actual “Internal growth rate” and “Sustainable growth rate” will be lower than was calculated. For example, they will be 11.1% and 18.0% accordingly for dividends under financial models which will be presented later in this survey - 5 032 mln. DK.

Question 3.1. As it was already mentioned, the revenue of the LEGO group could be described by the equation 1.2 and could be expected on the level near 14% for the next three

year; however, such huge growth rate could be real only if all the new series of toys will be accepted by the costumers, as it was, for example, in 2014 (revenue growth of 13.0% or 14.9% excluding foreign exchange impact). At the same time, there is a high probability that revenue growth will be lower due to one or both following issues: new toys will not be accepted by costumers; countries in emerging and developing Asia will have lower growth rate in the future than it is expected at the moment by International Monetary Fund.

Source: The LEGO Group annual report; author's calculations

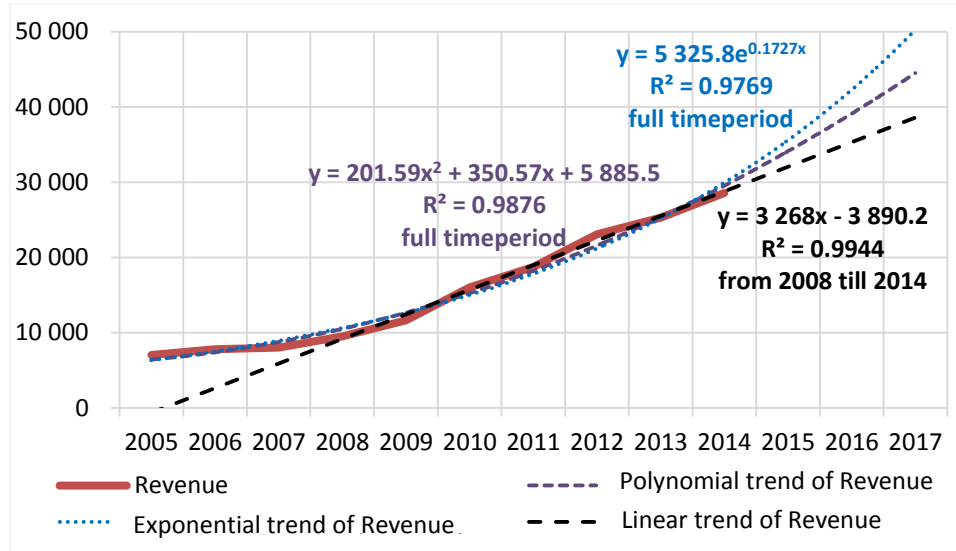


Fig. 2 Revenue of the LEGO group for 2005-14 and forecasting trends

On Fig. 2 are presented three mathematical trends of expected revenue: exponential trend with the highest level of growth rate; polynomial trend that is almost equal to the equation 1.2; and linear trend with the lowest level of growth. The exponential trend could be possible only if the countries of emerging and developing Asia (and world economy also) will get additional stimulus for growth, or the people of these countries will pay more money on the child's toys. However, such changes cannot happen in one year, and it is not possible to expect such high yearly growth rate (18.85%) for the nearest future. The polynomial trend, as was said before, is a little risky to take as the core of financial model. Therefore, the forecast according to linear trend is the only suitable one for financial model<sup>3</sup> which is described by the next equation:

$$\text{Revenue of LEGO (in mln. DK)} = 3\,268 * \text{Year (2015 = 11)} - 3\,890.2 \quad (1.3)$$

The equation 1.3 could be explained in the next way: for each year in the near future, LEGO may provide growth of revenue in nominal value of 3 268 mln. DK in average. However, it is necessary to remember that this trend works only after 2007 (also, as the trend according to equation 1.2).

Question 3.2 (partly) and Question 3.3. The LEGO Group's revenue forecast according to equation 1.3 is the main input of the LEGO Group's financial model for 2015-17 that is described in Table 1 (and in Appendix V with additional descriptions of figures calculating).

<sup>3</sup> It is necessary to mention that with current level of capital investments and with high growth rate of sales (double digit growth in China market and in educational sector), it is preliminary to expect lowering of revenue growth in nominal value.

Additional inputs for the model were the relations between revenues and other figures of company: balance sheet statement and income statement data (more detailed information is presented in Table II.3 and Appendix VI).

Table 1

Financial model of the LEGO Group for 2015-2017				
in mln. DKK	2014	2015	2016	2017
<b>ASSETS</b>				
Propety, plant & equipment	8 456	10 757	13 386	16 343
Inventories & Cash at banks & Intangible assets & Other assets	3 693	3 879	4 066	4 252
Receivables	9 270	10 454	11 637	12 821
<b>Total Assets</b>	<b>21 419</b>	<b>25 090</b>	<b>29 089</b>	<b>33 415</b>
<b>EQUITY AND LIABILITIES</b>				
Equity	12 832	15 786	19 067	22 677
Other liabilities (including debt) <sup>4</sup>	6 057	6 511	6 966	7 420
Payables	2 530	2 793	3 056	3 319
<b>Total Liabilities</b>	<b>21 419</b>	<b>25 090</b>	<b>29 089</b>	<b>33 415</b>
<b>INCOME STATEMENT</b>				
Revenue	28 578	31 846	35 114	38 382
Profit before taxes	9 491	10 792	12 092	13 393
Taxes	2 466	2 806	3 144	3 482
Net profit after taxes	7 025	7 986	8 948	9 911
Dividends <sup>5</sup>	5 043	5 032	5 667	6 302
Retained earnings <sup>6</sup>	1 997	2 954	3 282	3 609
Payout ratio	71.6%	71.0%	70.4%	70.0%
Revenue growth	13.0%	11.4%	10.3%	9.3%

Source: The LEGO Group annual report; author's calculations

As it can be seen from Table 1, the LEGO Group can continue to grow on 10.3% in average for the next three year, if it continues to produce the new products which will be accepted by costumers. At the present moment, the only limitation to the company's growth is the total volume of toy market, and the growth rate of emerging and developing countries, i.e. Asia, but there is also some opportunities due to new factory in China. However, in percentage level the growth rate will be slowing due to the higher nominal revenue and market share.

The average expected growth rate is slightly lower than internal growth rate which is calculated with the increased dividends for 2014 (11.1%), and it can provide the payout ratio near 70% (after 2006 average payout ratio was 72%) for the next three years without taking additional debt or equity financing. In Table 1, the statement "Other liabilities (including debt)" is growing, but it is almost due to growth in other liabilities – it is not expected that the company will pay inflated dividends with debt financing from related parties (as it was in 2013) in next three years.

<sup>4</sup> Except the credit from related parties in amount of 600 mln. DK which was taken in 2013 after additional payout of dividends, the LEGO Group does not have almost any credits for financing business.

<sup>5</sup> The expected dividends for 2014, which will be paid in 2015, is equal to 4 500 mln. DK according to annual report; at the same time, according to financial modeling, the dividends could be increased without pressure on company's future profits.

<sup>6</sup> Retained earnings for 2014 include the other comprehensive income which was equal 15.

# Appendix I. Balance sheet of company for 2012-2014

Question 1.

Table I.1

Comparing of balance sheet of the LEGO Group for 2013-2014

in. mln. DK	2014	2013	Δ	%Δ
<b>ASSETS</b>				
<i>Non-current assets:</i>				
Development projects	85	71	14	19.7%
Software	126	131	-5	-3.8%
Licenses, patents and other rights	60	58	2	3.4%
<b>Intangible assets</b>	<b>271</b>	<b>260</b>	<b>11</b>	<b>4.2%</b>
Land, buildings and installations	3 299	1 777	1 522	85.6%
Plant and machinery	2 494	2 114	380	18.0%
Other fixtures and fittings, tools and equipment	1 072	846	226	26.7%
Fixed assets under construction	1 591	1 553	38	2.4%
<b>Property, plant and equipment</b>	<b>8 456</b>	<b>6 290</b>	<b>2 166</b>	<b>34.4%</b>
Deferred tax assets and investments in associates	497	143	354	247.6%
Prepayments	162	146	16	11.0%
<b>Other non-current assets</b>	<b>659</b>	<b>289</b>	<b>370</b>	<b>128.0%</b>
<b>Total non-current assets</b>	<b>9 386</b>	<b>6 839</b>	<b>2 547</b>	<b>37.2%</b>
<i>Current assets:</i>				
Inventories	2 182	1 824	358	19.6%
Trade receivables	5 891	4 870	1 021	21.0%
Other receivables	733	946	-213	-22.5%
Prepayments	99	74	25	33.8%
Current tax receivables	48	65	-17	-26.2%
Receivables from related parties	2 598	2 310	288	12.5%
Cash at banks	482	1 024	-542	-52.9%
<b>Total current assets</b>	<b>12 033</b>	<b>11 113</b>	<b>920</b>	<b>8.3%</b>
<b>TOTAL ASSETS</b>	<b>21 419</b>	<b>17 952</b>	<b>3 467</b>	<b>19.3%</b>
<b>EQUITY AND LIABILITIES</b>				
<i>EQUITY</i>				
Share capital	20	20	0	0.0%
Reserve for hedge accounting	-158	94	-252	-268.1%
Reserve for currency translation	-362	-374	12	-3.2%
Retained earnings	13 332	11 335	1 997	17.6%
<b>TOTAL EQUITY</b>	<b>12 832</b>	<b>11 075</b>	<b>1 757</b>	<b>15.9%</b>
<i>LIABILITIES</i>				
<i>Non-current liabilities:</i>				
Borrowings	196	205	-9	-4.4%
Deferred tax liabilities	209	126	83	65.9%
Pension obligations	82	57	25	43.9%
Provisions	95	88	7	8.0%
Debt to related parties	600	600	0	0.0%
Other long-term debt	96	68	28	41.2%
<b>Total non-current liabilities</b>	<b>1 278</b>	<b>1 144</b>	<b>134</b>	<b>11.7%</b>
<i>Current liabilities:</i>				
Borrowings	162	88	74	84.1%
Trade payables	2 530	2 201	329	14.9%
Current tax liabilities	154	85	69	81.2%
Provisions	228	110	118	107.3%
Other short-term debt	4 235	3 249	986	30.3%
<b>Total current liabilities</b>	<b>7 309</b>	<b>5 733</b>	<b>1 576</b>	<b>27.5%</b>
<b>TOTAL LIABILITIES</b>	<b>8 587</b>	<b>6 877</b>	<b>1 710</b>	<b>24.9%</b>
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>21 419</b>	<b>17 952</b>	<b>3 467</b>	<b>19.3%</b>

Source: The LEGO Group annual report; author's calculations

Table I.2

## Comparing of balance sheet of the LEGO Group for 2012-2013

in. mln. DK	2013	2012	Δ	%Δ
<b>ASSETS</b>				
<i>Non-current assets:</i>				
Development projects	71	37	34	91.9%
Software	131	104	27	26.0%
Licenses, patents and other rights	58	68	-10	-14.7%
<b>Intangible assets</b>	<b>260</b>	<b>209</b>	<b>51</b>	<b>24.4%</b>
Land, buildings and installations	1 777	1 688	89	5.3%
Plant and machinery	2 114	1 615	499	30.9%
Other fixtures and fittings, tools and equipment	846	746	100	13.4%
Fixed assets under construction	1 553	517	1 036	200.4%
<b>Property, plant and equipment</b>	<b>6 290</b>	<b>4 566</b>	<b>1 724</b>	<b>37.8%</b>
Deferred tax assets and investment in associates	143	134	9	6.7%
Prepayments	146	0	146	
<b>Other non-current assets</b>	<b>289</b>	<b>134</b>	<b>155</b>	<b>115.7%</b>
<b>Total non-current assets</b>	<b>6 839</b>	<b>4 909</b>	<b>1 930</b>	<b>39.3%</b>
<i>Current assets:</i>				
Inventories	1 824	1 705	119	7.0%
Trade receivables	4 870	4 950	-80	-1.6%
Other receivables	946	630	316	50.2%
Prepayments	74	226	-152	-67.3%
Current tax receivables	65	22	43	195.5%
Receivables from related parties	2 310	3 442	-1 132	-32.9%
Cash at banks	1 024	468	556	118.8%
<b>Total current assets</b>	<b>11 113</b>	<b>11 443</b>	<b>-330</b>	<b>-2.9%</b>
<b>TOTAL ASSETS</b>	<b>17 952</b>	<b>16 352</b>	<b>1 600</b>	<b>9.8%</b>
<b>EQUITY AND LIABILITIES</b>				
<i>EQUITY</i>				
Share capital	20	20	0	0.0%
Reserve for hedge accounting	94	39	55	141.0%
Reserve for currency translation	-374	-117	-257	219.7%
Retained earnings and non-controlling interest	11 335	9 922	1 413	14.2%
<b>TOTAL EQUITY</b>	<b>11 075</b>	<b>9 864</b>	<b>1 211</b>	<b>12.3%</b>
<i>LIABILITIES</i>				
<i>Non-current liabilities:</i>				
Borrowings	205	210	-5	-2.4%
Deferred tax liabilities	126	21	105	500.0%
Pension obligations	57	54	3	5.6%
Provisions	88	71	17	23.9%
Debt to related parties	600	0	600	
Other long-term debt	68	72	-4	-5.6%
<b>Total non-current liabilities</b>	<b>1 144</b>	<b>428</b>	<b>716</b>	<b>167.3%</b>
<i>Current liabilities:</i>				
Borrowings	88	608	-520	-85.5%
Trade payables	2 201	2 112	89	4.2%
Current tax liabilities	85	96	-11	-11.5%
Provisions	110	64	46	71.9%
Other short-term debt	3 249	3 180	69	2.2%
<b>Total current liabilities</b>	<b>5 733</b>	<b>6 060</b>	<b>-327</b>	<b>-5.4%</b>
<b>TOTAL LIABILITIES</b>	<b>6 877</b>	<b>6 488</b>	<b>389</b>	<b>6.0%</b>
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>17 952</b>	<b>16 352</b>	<b>1 600</b>	<b>9.8%</b>

Source: The LEGO Group annual report; author's calculations



## Appendix II. Main figures of company for 2006-2014

Question 1.

Table II.1

Main figures of the LEGO Group for 2006-2014									
in. mln. DK	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Consolidated Income Statement:</b>									
Revenue	28 578	25 294	23 095	18 731	16 014	11 661	9 526	8 027	7 798
Expenses	-18 881	-16 958	-15 489	-13 065	-10 899	-8 659	-7 522	-6 556	-6 393
Operating profit	9 697	8 336	7 606	5 666	4 973	2 902	2 100	1 449	1 325
Financial income and expenses	-206	-97	-84	-124	-84	-15	-248	-35	-44
Profit before income tax	9 491	8 239	7 522	5 542	4 889	2 887	1 852	1 414	1 281
Net profit for the year	7 025	6 119	5 613	4 160	3 718	2 204	1 352	1 028	1 290
Dividends	5 043	4 532	3 022	2 518	1 516	1 000	1 009	404	501
Toy market volume (mln. USD)			84 100	83 300	83 300	79 600	77 200	78 300	72 000
Market share of LEGO <sup>7</sup>	6.0%	5.4%	4.7%	4.2%	3.4%	2.7%	2.4%	1.9%	1.8%
<b>Financial ratios (in %):</b>									
Gross margin	71.8	70.7	70.6	70.5	72.4	70.3	66.8	65.0	64.9
Operating margin	33.9	33.0	32.9	30.2	31.1	24.9	22.0	18.1	17.0
Net profit margin	24.6	24.2	24.3	22.2	23.2	18.9	14.2	12.8	16.5
Return on equity (ROE)	58.8	58.4	66.7	66.8	84.8	82.3	72.2	71.6	147.1
Return on invested capital	106.0	114.4	134.9	133.4	161.2	139.5	101.8	69.7	63.6
Equity ratio	59.9	61.7	60.3	54.1	49.9	42.3	31.8	27.9	17.2
Payout ratio <sup>8</sup>	64.1	82.4	80.7	72.6	67.7	68.8	74.0	98.2	31.3
<b>Changes of Consolidated Income Statement :</b>									
Revenue	13.0%	9.5%	23.3%	17.0%	37.3%	22.4%	18.7%	2.9%	11.0%
Expenses	11.3%	9.5%	18.6%	19.9%	25.9%	15.1%	14.7%	2.5%	-3.2%
Operating profit	16.3%	9.6%	34.2%	13.9%	71.4%	38.2%	44.9%	9.4%	248.7%
Financial income and expenses	112.4%	15.5%	-32.3%	47.6%	460.0%	-94.0%	608.6%	-20.5%	-13.7%
Profit before income tax	15.2%	9.5%	35.7%	13.4%	69.3%	55.9%	31.0%	10.4%	289.4%
Net profit for the year	14.8%	9.0%	34.9%	11.9%	68.7%	63.0%	31.5%	-20.3%	502.8%

Source: The LEGO Group annual report; <http://www.statista.com/>; author's calculations

<sup>7</sup> Market share for 2013-2014 was calculated with toy market volume of 2012 in denominator.

<sup>8</sup> Payout ratio for 2014 was calculated with expected dividends for 2014 (from annual report) in numerator.

Table II.2

## Main figures of the LEGO Group's balance sheet for 2006-2014

<b>Assets:</b>									
Property, plant & equipment	8 456	6 290	4 566	3 395	2 568	1 930	1 266	1 154	1 198
Inventories & Cash at banks	2 664	2 848	2 173	2 098	2 129	2 686	1 999	1 947	2 627
Receivables	9 270	8 191	9 044	6 642	5 873	2 843	2 991	2 548	2 316
Intangible assets & Other assets	1 029	623	569	769	402	329	240	360	766
<i>Total Assets</i>	<i>21 419</i>	<i>17 952</i>	<i>16 352</i>	<i>12 904</i>	<i>10 972</i>	<i>7 788</i>	<i>6 496</i>	<i>6 009</i>	
<b>Liabilities</b>									
Equity	12 832	11 075	9 864	6 975	5 473	3 291	2 066	1 679	1 191
Debt & Borrowings	5 289	4 210	4 070	4 010	3 533	2 809	2 962	2 973	4 279
Payables	2 530	2 201	2 112	1 611	1 518	1 336	1 036	778	749
Other liabilities	768	466	306	308	448	352	432	579	688

Source: The LEGO Group annual report; author's calculations

Table II.3

## Figures of the LEGO Group in relation to growth for 2006-2014

	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Consolidated Income Statement:</b>									
Expenses	-66%	-67%	-67%	-70%	-68%	-74%	-79%	-82%	-82%
Operating profit	34%	33%	33%	30%	31%	25%	22%	18%	17%
Financial income and expenses	-1%	0%	0%	-1%	-1%	0%	-3%	0%	-1%
Profit before income tax	33%	33%	33%	30%	31%	25%	19%	18%	16%
Net profit for the year	25%	24%	24%	22%	23%	19%	14%	13%	17%
<b>Assets:</b>									
Property, plant & equipment	30%	25%	20%	18%	16%	17%	13%	14%	15%
Inventories & Cash at banks	9%	11%	9%	11%	13%	23%	21%	24%	34%
Receivables	32%	32%	39%	35%	37%	24%	31%	32%	30%
Intangible assets & Other assets	4%	2%	2%	4%	3%	3%	3%	4%	10%
<b>Liabilities</b>									
Equity	45%	44%	43%	37%	34%	28%	22%	21%	15%
Debt & Borrowings	19%	17%	18%	21%	22%	24%	31%	37%	55%
Payables	9%	9%	9%	9%	9%	11%	11%	10%	10%
Other liabilities	3%	2%	1%	2%	3%	3%	5%	7%	9%

Source: The LEGO Group annual report; author's calculations

## **Appendix VI. Description of data and time series**

**All the company's data:** balance sheet and income statement data, information about strategy and expected dividends, and time series of main figures, were taken from annual reports of the LEGP Group (<http://www.lego.com/en-us/aboutus/lego-group/annual-report>).

**Time series of gross domestic product real growth** were taken from the site of International Monetary Fund (<http://www.imf.org/external/pubs/ft/weo/2014/02/weodata/index.aspx>).

**Information about toy market sales** was taken from the Statistic portal (<http://www.statista.com/topics/1108/toy-industry/>).

## Appendix IV. Sources and uses statements for 2013 and 2014

Question 2.

Table IV.1

Sources and uses statements of the LEGO Group for 2014

in mln. DK	2014	2013	Δ	%
<b>USES OF FUNDS</b>				
<b>ASSETS</b>				
Land, buildings and installations	3 299	1 777	1 522	34%
Trade receivables	5 891	4 870	1 021	23%
Plant and machinery	2 494	2 114	380	8%
Inventories	2 182	1 824	358	8%
Deferred tax assets	494	140	354	8%
Receivables from related parties	2 598	2 310	288	6%
Other fixtures and fittings, tools and equipment	1 072	846	226	5%
Fixed assets under construction	1 591	1 553	38	1%
Prepayments (current)	99	74	25	1%
Prepayments (non-current)	162	146	16	0%
Development projects	85	71	14	0%
Licenses, patents and other rights	60	58	2	0%
Investments in associates	3	3	0	0%
<b>LIABILITIES</b>				
Reserve for hedge accounting	-158	94	252	6%
Borrowings (non-current)	196	205	9	0%
<b>TOTAL</b>			<b>4 505</b>	<b>100%</b>
<b>SOURCES OF FUNDS</b>				
<b>LIABILITIES</b>				
Retained earnings	13 332	11 335	1 997	44%
Other short-term debt	4 235	3 249	986	22%
Trade payables	2 530	2 201	329	7%
Provisions	228	110	118	3%
Deferred tax liabilities	209	126	83	2%
Borrowings (current)	162	88	74	2%
Current tax liabilities	154	85	69	2%
Other long-term debt	96	68	28	1%
Pension obligations	82	57	25	1%
Reserve for currency translation	-362	-374	12	0%
Provisions	95	88	7	0%
Share capital	20	20	0	0%
Debt to related parties	600	600	0	0%
<b>ASSETS</b>				
Cash at banks	482	1 024	542	12%
Other receivables	733	946	213	5%
Current tax receivables	48	65	17	0%
Software	126	131	5	0%
<b>TOTAL</b>			<b>4 505</b>	<b>100%</b>

Source: The LEGO Group annual report; author's calculations

Table IV.2

## Sources and uses statements of the LEGO Group for 2013

in mln. DK	2013	2012	Δ	%
<b>USES OF FUNDS</b>				
<b>ASSETS</b>				
Fixed assets under construction	1 553	517	1 036	27%
Cash at banks	1 024	468	556	15%
Plant and machinery	2 114	1 615	499	13%
Other receivables	946	630	316	8%
Prepayments (non-current)	146	0	146	4%
Inventories	1 824	1 705	119	3%
Other fixtures and fittings, tools and equipment	846	746	100	3%
Land, buildings and installations	1 777	1 688	89	2%
Current tax receivables	65	22	43	1%
Development projects	71	37	34	1%
Software	131	104	27	1%
Deferred tax assets	140	131	9	0%
Investments in associates	3	3	0	0%
<b>LIABILITIES</b>				
Borrowings (current)	88	608	520	14%
Reserve for currency translation	-374	-117	257	7%
Current tax liabilities	85	96	11	0%
Borrowings (non-current)	205	210	5	0%
Other long-term debt	68	72	4	0%
<b>TOTAL</b>			<b>3 771</b>	<b>100%</b>
<b>SOURCES OF FUNDS</b>				
<b>LIABILITIES</b>				
Retained earnings and non-controlling interest	11 335	9 922	1 413	37%
Debt to related parties	600	0	600	16%
Deferred tax liabilities	126	21	105	3%
Trade payables	2 201	2 112	89	2%
Other short-term debt	3 249	3 180	69	2%
Reserve for hedge accounting	94	39	55	1%
Provisions	110	64	46	1%
Provisions	88	71	17	0%
Pension obligations	57	54	3	0%
Share capital	20	20	0	0%
<b>ASSETS</b>				
Receivables from related parties	2 310	3 442	1 132	30%
Prepayments	74	226	152	4%
Trade receivables	4 870	4 950	80	2%
Licences, patents and other rights	58	68	10	0%
<b>TOTAL</b>			<b>3 771</b>	<b>100%</b>

Source: The LEGO Group annual report; author's calculations

## Appendix V. Financial model of company for 2015-2017 with description of calculations

Question 3.2.

Table V.1

Financial model of the LEGO Group for 2015-17					
in mln. DK	2014	2015	2016	2017	Description of statement calculation from year to year
<b>ASSETS</b>					
Propety, plant & equipment	8 456	10 757	13 386	16 343	Statement changes due to polynomial trend $2E-05 \cdot \text{Revenue}^2 - 0.223 \cdot \text{Revenue} + 2080$ )
Inventories & Cash at banks & Intangible assets & Other assets	3 693	3 879	4 066	4 252	Statement changes on 5.7% of change in Revenue
Receivables	9 270	10 454	11 637	12 821	Statement changes on 36.22% of change in Revenue
<b>Total Assets</b>	<b>21 419</b>	<b>25 090</b>	<b>29 089</b>	<b>33 415</b>	
<b>EQUITY AND LIABILITIES</b>					
Equity	12 832	15 786	19 067	22 677	Statement is plug and its change equals Retained earnings
Other liabilities (including debt)	6 057	6 511	6 966	7 420	Statement changes on 13.9% of change in Revenue
Payables	2 530	2 793	3 056	3 319	Statement changes on 8.05% of change in Revenue
<b>Total Liabilities</b>	<b>21 419</b>	<b>25 090</b>	<b>29 089</b>	<b>33 415</b>	
<b>INCOME STATEMENT</b>					
Revenue	28 578	31 846	35 114	38 382	Revenue grows on 3 268 million DKK
Profit before taxes	9 491	10 792	12 092	13 393	Statement changes on 39.8% of change in Revenue
Taxes	2 466	2 806	3 144	3 482	Statement equals 26% of Profit before taxes
Net profit after taxes	7 025	7 986	8 948	9 911	Difference between Profit before taxes and Taxes
Dividends	5 043	5 032	5 667	6 302	Difference between Net profit after taxes and retained earnings
Retained earnings	1 997	2 954	3 282	3 609	Statement is plug and equals difference of assets and liabilities
Payout ratio	71.6%	71.0%	70.4%	70.0%	Ratio of Dividends of the next year to Net profit after taxes of the current year
Revenue growth	13.0%	11.4%	10.3%	9.3%	Division of Change in Revenues and Revenues of the last year

## Appendix VI. Relations of company's figures with revenue

### Question 3.1.

Source: The LEGO Group annual report; author's calculations

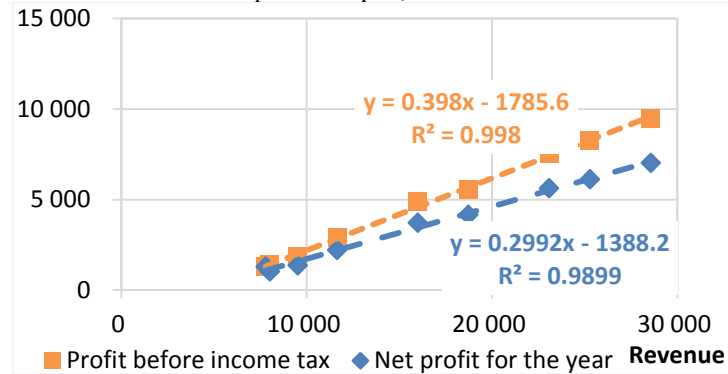


Fig. VI.1 Historical relation between Profit before tax and Net profit for year and Revenue

Source: The LEGO Group annual report; author's calculations

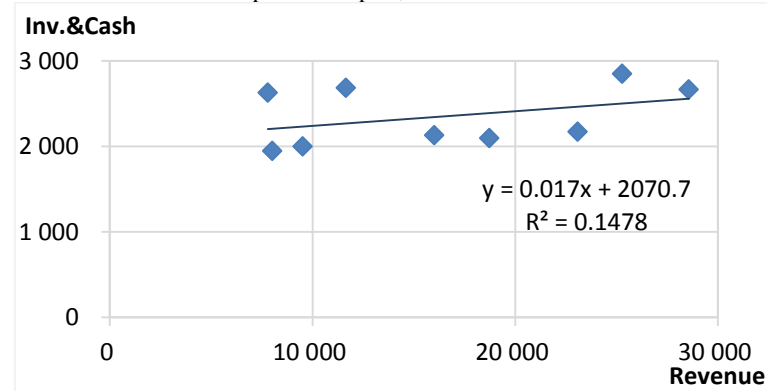


Fig. VI.2 Historical relation between Inventories & Cash and Revenue

Source: The LEGO Group annual report; author's calculations

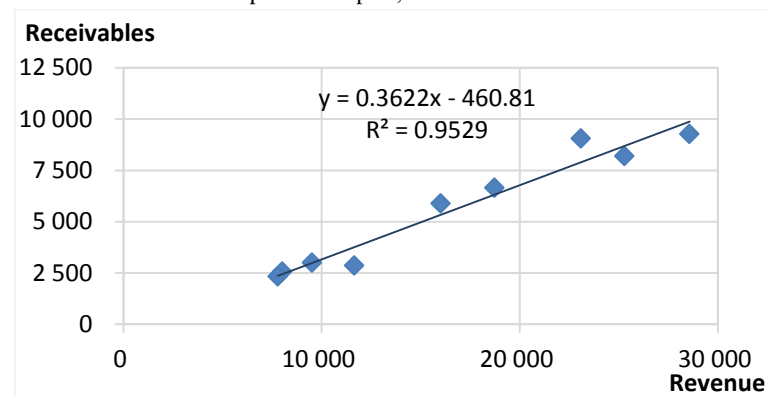


Fig. VI.3 Historical relation between Receivables and Revenue

Source: The LEGO Group annual report; author's calculations

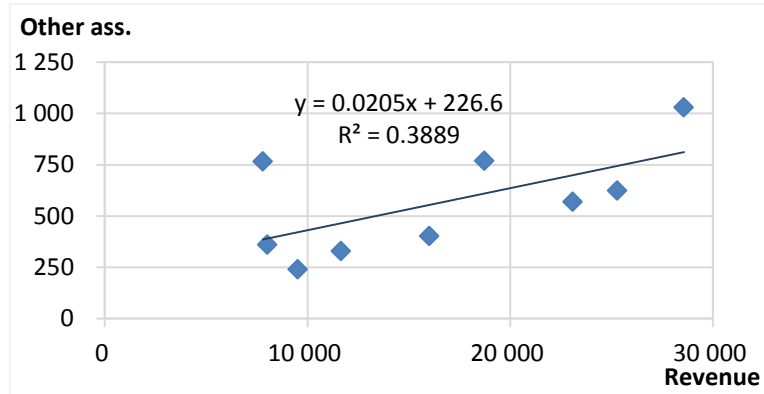


Fig. VI.4 Historical relation between Other assets and Revenue

Source: The LEGO Group annual report; author's calculations

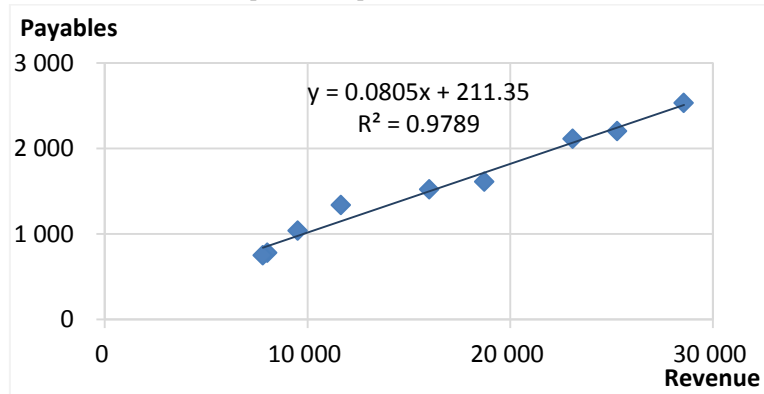


Fig. VI.5 Historical relation between Payables and Revenue

Source: The LEGO Group annual report; author's calculations

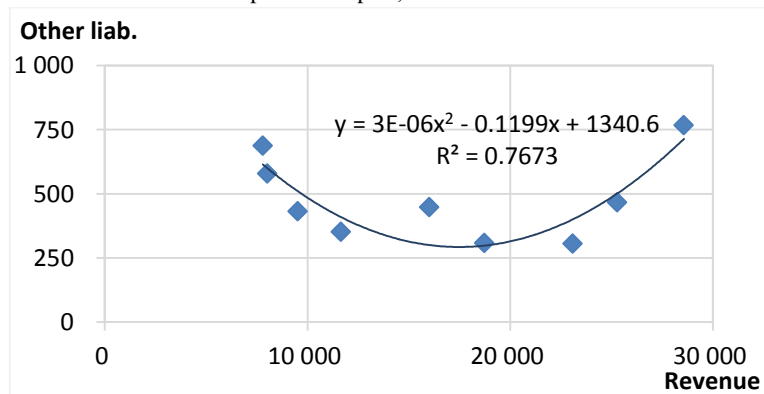


Fig. VI.6 Historical relation between Other liabilities and Revenue



Source: The LEGO Group annual report; author's calculations

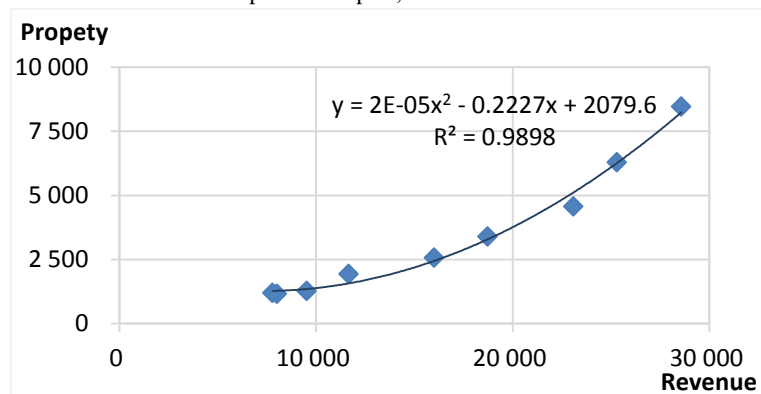


Fig. VI.7 Historical relation between Property, plant & equipment and Revenue