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LEGO

On March 18, 2011, Jørgen Vig Knudstorp, CEO of the LEGO Group, strode out of the cafeteria at company headquarters in Billund, Denmark, and turned right into the packaging area. He had just witnessed a discussion between Bali Padda, Executive VP of Global Supply Chain, and Mads Nipper, Executive VP of Markets & Products, that had ended without clear decisions. Knudstorp wanted Padda and Nipper to know that he was available to help with the decisions if necessary.

Known among families worldwide for its iconic brick-based toys, the LEGO Group was privately held by the Kirk Kristiansen founding family and had been committed since its early days to developing the imaginations of children. A rocky decade had culminated in a near-death experience in 2004, but the Group had gotten back on track under Knudstorp's leadership. Between 2004 and 2010, the Group's revenue had grown by 165% in a stagnant global toy market, making it the world's fourth largest traditional toy maker. By 2010, its return on invested capital soared above 160%. (See **Exhibits 1 and 2** for selected financials and the company's organization.)

Padda and Nipper had started their annual negotiations on how many new components product designers would have available for their new products. (A "component" was a LEGO® brick of a particular shape in a specific color or with a specific decoration.) Since the 2004 crisis, LEGO Group leaders had tightly controlled the component count; setting the next target was always difficult. Nipper felt that Padda's target was not compatible with the new products that designers envisioned, especially a proposed line of buildable games. "With that target, we'd have to drop half of our projects, including the new games line. We need to add groundbreaking developments like games to sustain our growth. We can't achieve that with this target." But Padda had never been convinced by business-case arguments that tried to justify adjustments to production. In addition, the idea of complex buildable games raised a red flag in his mind; this was not about adding just another brick shape. A number of LEGO employees were convinced that the company should enter the games market with a new product line, but Padda and many others had their doubts.

The Toy Industry

As Knudstorp reflected on the component count and games decisions, he considered the evolution of the global toy market. The industry booked wholesale revenues of \$83.3 billion in 2010. The retail market for toys grew at a steady pace of about 4% per year, but demand for specific fad toys could surge or collapse rapidly. (See **Exhibit 3** for selected industry figures.)

Professors Jan W. Rivkin and Stefan H. Thomke and Europe Research Center Assistant Director Daniela Beyersdorfer prepared this case. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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Industry observers noted a few important trends. First, fad toys seemed to be rising and product life cycles declining, perhaps not surprising for an industry, as one journalist put it, “subject to the whims of [kids] who can’t decide which shoe to put on which foot.”¹ Second, in many parts of the world, children had more after-school activities and less unscheduled time to play than in the past. Third, for kids over three years old, demand had shifted toward technology, either in a toy itself or in the form of toys coming with access codes to online worlds.² As children gave up traditional toys earlier for videogames and online activities, childhood became shorter and adolescence longer. Parents were often torn between buying the toys their kids wanted and those they considered good for their children.

Thousands of toymakers served the world market, but a handful led the industry. Mattel, the world’s leading toymaker by revenue, featured brands like Fisher-Price, Barbie, Hot Wheels, and American Girl dolls.³ Hasbro, the second largest player, housed brands such as Transformers, Monopoly, GI Joe, Play-Doh, and Playskool. To win consumer attention, retail shelf space, and sales, toymakers introduced new products, cut their wholesale prices, sponsored cooperative ads and promotions with retailers, provided in-store support, and advertised to consumers. The impact of new product introductions was muted by rapid imitation and limited protection of intellectual property. To boost brand presence among consumers, toymakers often licensed characters from media companies. Mattel, for example, was the “favored creator of toys based on Disney and Pixar characters.”⁴ Toymakers increasingly manufactured in Asia, where labor was inexpensive and subcontractors stood ready to produce goods on their behalf. The majority of toys sold in the U.S., for instance, were manufactured in China by outside contractors, while global players such as Hasbro specialized in new product development, sales, and marketing.

Toymakers went to market via diverse retail channels, including independent toy specialists, chain stores, discount stores, department stores, and online stores. In choosing among toys to stock their shelves, retailers focused on profit per square foot and consequently considered margin, turn, and product space requirements. In a highly seasonal business in which consumers bought a large fraction of their toys during the holiday season, retail purchasing occurred mainly in the second half of the year.⁵ Large retail chains had separate toy buyers for each toy category; for instance, different buyers might manage board games and construction toys.

Building the LEGO Group (1916-1992)

In 1916, Ole Kirk Kristiansen, a humble carpenter, bought a wood workshop in the rural Danish village of Billund and began to build houses and furniture for farmers. In 1932, he added wooden toys to his production and chose the name LEGO, formed from the Danish words “LEg GOdt” (“play well”). Only later did he learn that in Latin “lego” meant “I assemble.” Aiming for quality, he wrote on his wall, “Only the best is good enough.”

Ole’s son Godtfred started working in the business in 1932 at age 12. In 1947, the firm became the first in Denmark to buy a plastic injection-molding machine. By 1949, its portfolio had grown to 200 plastic and wooden toys, including the automatic binding brick, a forerunner of the modern LEGO brick. In 1954, during a ferry ride to England, a purchasing agent complained to Godtfred that toy departments were a mess: toys lacked a systematic organization. The comments moved Godtfred to consider a “LEGO system of play.” Such a system began to form in 1958, when the company changed the design of its bricks to match its current form. When a fire destroyed the LEGO Group’s wooden warehouse in 1960, Godtfred discontinued wooden toy production. Knudstorp reflected:

Godtfred Kirk Christiansen bet the whole farm on one-third of his business, plastic toys, and not just any toy – the brick. Godtfred Kirk Christiansen felt he had stumbled onto something unique with this brick. You can build anything out of it. It doesn't fall apart when you throw it around. And you can add to this system forever as it allows you to create a new toy every day, make endless variations, thereby inspiring and challenging a child's imagination and creativity. Godtfred Kirk Christiansen realized that in this system, the value of play expands exponentially the more elements you have.

In 1963, Godtfred laid out ten principles of "good play" that defined LEGO product characteristics (see **Exhibit 4**). By 1967, the company produced LEGO bricks in 218 distinct shapes. In 1977, Godtfred's son Kjeld Kirk Kristiansen joined the company's management. Born in the same year as the brick, Kjeld felt, in Knudstorp's words, that "The LEGO brick is more than a toy. He knows what the brick can be and what it can do for humanity."

From early on, a strong culture of creativity at the LEGO Group favored the steady introduction of new products and themes based on the brick system. The high quality of bricks and the standardized spacing between studs ensured that all elements made after 1958 were compatible with one another, resulting in enormous opportunities for creativity. The Group expanded its audience in 1968 with larger "DUPLO" bricks for children under five and, in 1977, with the LEGO Technic line for teens. By 1980, about 70% of Western European families with children under 14 owned LEGO bricks.

By that time, a three-phase production process lay at the heart of Group operations. First, in the molding phase, injection-molding machines produced plastic elements in massive numbers. Because it took a molding tolerance of 0.002 millimeters to make bricks clutch each other right, Godtfred focused on developing industrial excellence and cutting-edge capabilities in material science and production technology. Second, in the decoration phase, specialized parts were painted. Third, in the packaging phase, the many small elements that made up a product were placed in a box along with an instruction manual.

Godtfred controlled the company's operations closely, and no new product, brick, or color was introduced without his approval. Until the early 1980s, LEGO bricks came in five base colors: black, white, red, blue, and yellow. Kjeld felt that the company's sustained growth required new bricks, but it took him 10 to 15 years to convince his father to add the color green. Kjeld also added new themes, began to collaborate with the MIT Media Lab on robots in the mid-1980s, expanded into Eastern Europe and Asia, and maintained a strong position in America and a leading one in Western Europe.

The LEGO Group enjoyed steady organic growth and profitability. By 1992, it was a top 10 global toy manufacturer, and according to *Advertising Age*, accounted for about 80% of the construction toy market. With its products so popular among consumers, LEGO Group management came to see retailers as "a necessary evil." Christian Iversen, Executive VP of LEGO Corporate Center, recalled:

We were used to stable growth and expansion, driven by our growing pipeline. This was further fueled when the Berlin Wall came down, with millions of young Eastern Europeans eager to get their hands on Western products. If anything, the LEGO Group worked hard to control sales growth. The head of production, a strong person on Kjeld's team, watched production costs and capacity closely. When I joined in 1993, the first meeting I attended was about how to shelve several product introductions so that projected growth would fall to the target range of 8-10%. We had such a grip on the market and unmet demand that we could gradually add new products and more or less decide five years out what and how much we wanted to sell.

The Growth Period That Wasn't (1993-1998)

In the early 1990s, several shifts in the toy market caught the LEGO Group's management by surprise. Knudstorp explained:

Birth rates in our core markets—Western Europe and North America—declined, as did household spending on toys. Between 1993 and 2003, the total profit pool in the industry decreased by 50%. Traditional mom & pop stores started to disappear. Retail channels consolidated, and mass discounters featured toys more aggressively. Mattel, Hasbro, and others pushed manufacturing to the Far East. Finally, market research suggested that children had less time for unstructured play, had shorter attention spans, and looked more for instant gratification as well as fashionable and electronic products. These changes did not play to our strengths.

In 1993, Kjeld Kirk Kristiansen suffered a severe illness and left the company for a year. Upon his return, he built a five-person management team to help him run the company. Increasingly, Kjeld pushed responsibility to frontline managers, so they could be more responsive to market dynamics. The head of production was dismissed. Growth became the new focus. Fueling the drive to grow was a desire to leverage the LEGO Group's position among the world's top 10 brands for families with children. Iversen said:

The other companies on that list, such as Disney and Nike, were much larger than us. We concluded that our brand must have huge untapped potential. This potential seemed to lie outside our core play systems, so we stretched our brand and explored opportunities in new areas. We experimented with new ways to push out more products, without necessarily having an eye on their margin. The businesses were encouraged to make their own decisions. Suddenly you couldn't speak to an important retail customer without offering an account-specific product. We also did studies on how to grow in untapped markets like Southern Europe and concluded that we needed products tailored to those markets.

The Group branched out beyond the brick. Inspired by the success of its family leisure park in small Billund, it opened LEGOLAND Windsor (U.K.) in 1996. The same year, the company launched www.lego.com and began to develop videogame software related to its products. LEGO Media was set up in London to develop media products linked to LEGO play themes (e.g. movies, television programs, or books). The company introduced children's wear in 1993, watches in 1996, and LEGO® MINDSTORMS® robotic bricks in 1998. Knudstorp reflected on the company's strategy during these years: "All of these efforts to push our boundaries felt natural in our Disney-like brand stretch strategy. There seemed to be potential everywhere." Expansions tended to be done in-house, not through partners. Mike Moynihan, VP of marketing, explained: "The mentality was that only we sufficiently knew our brand, and the expression of it could therefore not be outsourced."

In its brick-based product lines, the Group launched a host of new themes and products. Designers created LEGO products with more complex and chunkier pieces for some sets, so that children could build objects faster and arrive sooner at the playing part of the experience. The number of distinct components rose. In cases where brick shapes were more pre-defined, such as the lower and upper side of a car, they were harder to combine with other pieces.

Despite management's efforts and significant investments to grow the top line, sales stagnated. In 1998, the LEGO Group faced the first financial loss in its history.

The Fix that Wasn't (1999-2004)

To restore profitability and growth, Kjeld brought in a new CFO, Poul Plougmann, who soon became COO and took over day-to-day management. Ploughman's experience with turnarounds at Danish companies led the press to announce the arrival of "Mr. Fix-it." A restructuring program was launched to cut costs by DKK 1 billion [US\$140 million]¹ and lay off up to 1,000 employees (10% of total staff). Of the 100 top executives, more than 60 were asked to leave. Ploughman's "Fitness Program" included measures to streamline production, reduce organizational layers, and increase responsibility and customer focus, all to build a simpler, more responsive, global business system. When management announced these drastic measures, employees stood up and applauded.

Change To develop stronger leaders who could take the group into new areas, Ploughman moved managers around rapidly. People stayed in one position for 6-12 months before rotating or being replaced by someone who could do a better job. General leadership experience was valued more than direct experience with LEGO toys.

Design responsibilities were shifted from small, rural Billund to global product development concept centers in creative locales such as Milan, London, and San Francisco. Production was streamlined and geared to match forecasts. Several tool-making factories were sold, and manufacturing processes that were difficult to automate were transferred to the LEGO Group's new plant in the Czech Republic. In sales, senior management consolidated 25 country-level sales companies into five regional entities. The incentives of salespeople were tied, in part, to whether their actual sales exceeded their forecasts. Back-office functions were globalized.

Management decided in 1999 to sell directly to consumers through two initiatives: an online shop and LEGO-owned retail stores in Europe and the United States. Iversen recalled that "this was both about meeting the consumer in the right places, online and in our own stores, and about building the brand. Another reason was that we found ourselves increasingly working with discounters that were squeezing us on their shelves. This made it impossible to display the wealth of our brand."

The Group's product line continued to evolve. Among the most prominent product launches in 1999 was the brick-based LEGO® Star Wars™ theme. While the LEGO Group had developed many play themes over the years, LEGO Star Wars was the first in-licensed brand. The decision had not been an easy one. Long-time employees bristled at the idea of placing the word "War" on a LEGO box and putting laser guns in the hands of LEGO minifigures, who traditionally carried nothing more lethal than a pirate's sword. The financial potential of the partnership was also difficult to assess. Iversen recalled that "these debates about the danger of eroding our brand heated up when we launched LEGO Star Wars. But we saw it as an opportunity to be more 'in tune' and add storytelling to building." More licensed products followed, including "Winnie the Pooh and Friends" in 1999 and "Harry Potter" in 2001.

In 2002, the company repositioned the preschool line, LEGO® DUPLO®, under a new brand name. Nipper explained: "We tried to tap into mothers' emphasis on child development and make the product more learning-focused." The expansion of theme parks continued with the opening of LEGOLAND California in 1999 and LEGOLAND Germany in 2002. Projects like videogames continued to flourish, but some lifestyle initiatives, such as wristwatches and publishing, were cut back after 2000.

Consequences Knudstorp recalled the ensuing difficulties in operations:

¹ 1 DKK was about 0.1434 US\$ in 1999 (average BID rate for the year of 1999). On March 18, 2011, 1 DKK was 0.18725 US\$.

When I was brought in as a consultant in 2001 to analyze the supply chain, I realized nobody had kept an eye on complexity. Product developers argued that the number of distinct shapes did not matter, as the marginal cost of an extra mold was so low. And management did not see the impact of this on design, manufacturing, servicing of retailers, forecasting, and managing inventory. You could be out of stock for a product just because you miss one of its 675 pieces, which you did not make when you got the forecast wrong. The total number of components was not visible, but in 2004 we discovered that it had more than doubled since 1993. We had 3,560 different shapes, 157 colors, and 10,900 elements in our assortment. Each shape required a mold, and a mold cost €50,000 on average, or up to €300,000 for complicated ones.

Padda also recalled the company's operations nightmares.

When I joined in 2002, there was a lack of discipline, of accountability, and a costing system that I could not figure out. I couldn't understand how net production prices were determined or which products were profitable. It took me six months to get a sense of our fill rate to customers [the proportion of demand delivered without delay from stock on hand]. I found out it was anywhere between 5% and 70%, and my colleagues told me not to worry. My inventory costs were exploding, we had a lot of write-offs and obsolescence, and I couldn't explain anything! We started to control costs, for example by ordering fewer molds, but sometimes we could not meet demand anymore. Balancing supply and demand was further complicated by individuals directly calling their friends in manufacturing and asking them to produce more of this or that.

The LEGO Group's major customers were frustrated by stock-outs and slow-moving inventory. Padda recalled, "When I met the Wal-Mart buyer for the first time in 2004, he asked me: 'Can you please tell me why I shouldn't put dog food on the shelves?'" LEGO Group's own stores were well received by consumers, but the company struggled to run them efficiently.

Among the Group's new products, the LEGO Star Wars line thrived, rising to become 35% of total revenue. The repositioning of LEGO DUPLO proved less successful. Nipper recalled, "Many consumers found the new products did not live up to our promise and missed the LEGO DUPLO brand. A German retailer bluntly asked me, 'Have you absolutely lost your mind?' This was only one of several innovation and marketing approaches at the time that customers did not understand." Increasingly, senior leaders noticed that managers were attributing poor results to factors beyond their control; weak sales, for instance, might be blamed on nice weather, which discouraged consumers from buying indoor toys.

The company's results were characterized by large profit swings. The Group saw 25% top-line growth and a return to profitability in 1999, a sales downturn and a loss in 2000, and a small profit in 2001. The upswing continued in 2002, stimulated by new product launches, a new Star Wars film, growth in core products, and a strong U.S. dollar.

By 2003, it became clear that the new growth strategy wasn't working. Sales plunged by 26% to DKK 6.8 billion, and the company lost DKK 935 million. Management acknowledged that the substantial investment in expanding the product portfolio and consequent cost increases had not produced the desired results. Worse yet, some new products had cannibalized core products and eroded earnings. In a year without Star Wars or Harry Potter movie launches, the unsatisfactory sales of products with movie tie-ins accounted for more than 50% of the overall sales decrease. Iversen summarized the situation: "We were pregnant with many initiatives and their costs, and the market environment turned against us." In December 2003, Kjeld Kristiansen asked Plougmann and four of

his 14-person management team to leave the company. When 2004 brought another loss and pushed the LEGO Group to the brink of bankruptcy, Kristiansen invested in the company, retired as CEO, and handed the position to Knudstorp.

Managing for Cash (2004-2005)

The appointment of then 35-year old Jørgen Knudstorp as the LEGO Group's first outside CEO surprised industry observers. Born a short distance from Billund, Knudstorp had earned a PhD in Business Economics at the University of Aarhus, Denmark and had started his career as a consultant at McKinsey & Company before joining the LEGO Group as Director of Strategic Development in 2001. Iversen recalled that "the reaction in the Danish corporate community was: 'How can they put a 'rookie' in charge when they are struggling to survive?' But Kjeld had gotten to know Jørgen, had come to trust his views, and liked his values."

Knudstorp and his management team developed the "Shared Vision" strategy, a 7-year agreement with the board to restructure and stabilize the business, boost sales, and reduce debt. Iversen added:

Jørgen bluntly told the board that if they wanted the business to survive in the long run, this could not be a quick fix. He said that if he was a financial investor, he would advise them to sell. But if they did not want to sell, they needed to believe that the LEGO family firm could do it right. They needed to allow us to deliver long term and not quarter by quarter, and they would have to sacrifice some of the 'sacred cows.'

The plan had three stages: "Manage for cash" (2004-2005), "Manage for value" (2006-2008), and "Manage for growth" (2009+). The first stage focused on securing the survival of the company and gaining control by focusing on "core" products and processes. Knudstorp explained:

I had many discussions with people in and outside of the LEGO Group to understand our identity, our core business, our unique capabilities, and the value proposition for our customers and consumers. Based on what I found, I decided to focus on four core priorities: 1) the LEGO brand, 2) the LEGO brick, 3) our unique system of play, and 4) the loyal LEGO community. These priorities became our foundation for the shared vision and framed our decisions on the business portfolio, manufacturing, innovation, and so on. In hindsight, there were a few things missing, like key account management, but we realized this only later. (See **Exhibit 5** for the brand definition and core values.)

The management team streamlined the business and product portfolios, using fit with the LEGO Group's core along with financial performance as a guiding framework. Any ventures beyond the brick were immediately curtailed. Knudstorp recalled some difficult times.

I had the banks breathing down my neck and asking for immediate repayment of all outstanding debt. We quickly needed to close or sell items to generate cash. My CFO listened to my theory about the 'core' and said, 'I don't get all you're saying, but what I take away is that a core is something which makes a superior return. But if you take this to the extreme, since our business is almost destroyed, there is no meaningful core in that sense.' So we had to decide what parts we could and should turn around, and how each of those ventures would affect the system as a whole.

In 2005, the company sold the LEGOLAND parks to private equity group Blackstone for €375 million but kept a 22% equity stake in the new theme park operator, Merlin Entertainment. The equity stake gave the LEGO Group some control over its brand and later resulted in additional profit,

when Merlin turned around the parks' performance. Management also shut down the video games unit and returned the LEGO DUPLO brand to its original positioning. Knudstorp reasoned, "We decided to rebrand the preschool line. It was not profitable, particularly its buckets of loose bricks, but for me this was close to the core." The team also reintroduced LEGO CITY and launched a new and improved version of the programmable robot kit LEGO MINDSTORMS. LEGO Clickits for girls, a constructible fashion accessory line, was discontinued because it was "too far away from the core."

A 2004 decision to trim the number of brick components was "relatively easy" for Knudstorp, although less obvious to some production and development managers:

Some of them did not believe complexity was a problem and continued challenging this. One day in September 2005, I had to fire five of the seven senior manufacturing executives and put Bali [Padda] in charge, not because they were low performers, but we just did not have the same view on what it would take us to be successful again. I cried almost as much as they did as I knew them and their families for years, but it was the right decision.

Finding the right target for the number of components was not easy, Padda remembered:

We ran calculations with consultants and tried to juggle with the figures and our gut feeling, until we came up with a target number of 5,000, which sounded like the right optimum. Of course there was a lot of noise in the organization, with designers complaining we took their creativity away, but in my view this took us back to the basics of system of play.

Once the management team started taking out molds, people were overwhelmed by how much the company benefitted from simplification. Knudstorp also sought to outsource any non-core operational processes.

Manufacturing was not one of my priorities. We had lost our edge in manufacturing and supply chain management in the 1990s when many competitors like Hasbro started outsourcing things, and our costs were out of control. We felt that it should be easy to find professional manufacturers able to operate the factories better than we could. Also, offloading the factories meant taking a huge chunk of our fixed asset base and risk off our balance sheet.

Padda added,

As part of our analysis, Jørgen asked me to explain the exploding manufacturing costs, but I just couldn't. The forecasts and sales orders varied so much, and these changes were directly taken to our production line. A change in a salesperson's forecast could alter the order on a molding machine within the hour. We produced what we guessed would be the demand, and at the same time, could not respond quickly enough. One day I told my wife, I had had it and would leave the LEGO Group, but that night I started to suspect we actually had a demand problem.

For outsourcing, the Group chose electronics manufacturing service provider Flextronics, because of its experience in molding. An employee recalled how Knudstorp went to the shopfloor of Billund's factory to announce the decision to move much of the operations out of the firm and Denmark: "Here was this young guy telling all these people that in three years time about 80% of them would be laid off. But instead of leaving, many at the time felt this may be the wrong decision and said they were going to work harder to prove there is something worth fighting for." It was Knudstorp's hardest decision so far because of the consequences for "his" people. Outsourcing to Flextronics affected thousands of loyal employees in factories in Denmark, Korea, Switzerland, and the United States.

Knudstorp also decided that the Group had to focus more on satisfying retailers. The longest serving managers resisted:

I said forget about the consumer for a moment and let's start making money by focusing on customers. Let's rescue ourselves by making the retailers profitable. I spent one year trying to convince our top leaders, as some still banged their fists on the table, saying 'As long as we're here, we will focus on the consumer.' They were worried the pendulum may swing too far.

In 2005, a year of low growth in the toy market, the company posted a profit of DKK 505 million and sales grew to DKK 7,050 million. These results reflected sales increases of the modified core products as well as larger cost savings than anticipated. In addition, asset sales accounted for nearly half of the year's before-tax profit. In 2006, profit almost tripled to DKK 1,430 million and sales grew to DKK 7,823 million. The results reflected increased sales of re-launched classic product lines (City, DUPLO, MINDSTORMS, and TECHNIC), an improved gross margin, and improved operations. The better-than-expected results suggested that the LEGO Group was getting back on track.

Managing for Value and Growth (2006-Present)

Having stopped the bleeding, Knudstorp turned to putting the right management team in place:

As the CEO of a complex business, I'm a generalist and need to rely on my direct reports. I chose them for their unique contributions and capabilities. Then I wanted them to become the best at what they are doing! I'm not a big believer in moving people across functions. If you look at my top 50 team, they have not changed jobs a lot over the last few years, but have upgraded their capabilities and become more strategic.

Good working relationships, collaboration, and trust had always been LEGO strengths. To reinforce this culture, Knudstorp brought in a psychoanalyst to train the management team to distinguish between what is "above the line" (expressed logic) and what is "below the line" (emotions). Meetings would often start with people saying how they felt at the moment, a practice that took the edge off many discussions. In addition, Knudstorp made himself available to managers and employees alike, trying to recreate the family-like atmosphere that the owners had built. Simon Riis-Hansen, head of corporate HR, emphasized the importance of the new leadership style:

What we had been through was not just a commercial crisis, but a leadership crisis. We tended to define ourselves increasingly from a product standpoint, but our products would not be LEGO products if they were not produced in a company run the way we run it: close owner/CEO-employee relations, a family-like atmosphere with a human touch in which we celebrate people's jubilees, a strong alignment with our brand vision, and a willingness to give your best. We needed to create an environment in which our people could thrive.

To do so, management emphasized collaboration among different departments and created opportunities for people to meet, such as regular inter-department meetings.

Consumer Connections

The LEGO Group also became better at tapping into its strong community of loyal fans, so-called AFOLs (Adult Fans of LEGO). Beyond buying bricks for themselves and their kids, many AFOLs met on the internet to share experiences, pictures, and videos, founded and joined clubs that arranged large exhibits, and attended LEGO conventions. While the first convention in 2000 attracted 60

people, the 2010 convention in Seattle drew 11,000 visitors and filled a 40,000-square-foot hall. Lisbeth Pallesen, Executive VP of Community, Education, and Direct (CED), noted:

In my CED business area, we have dedicated people who work with communities in different geographic regions, the so-called LUGs (LEGO User Groups). We regularly ask them for their opinions, connect them to co-creation projects or specific development areas, and bring them together in conferences on specific topics.

In 2005, the company launched a program for “LEGO Ambassadors,” who could be nominated by LUGs in democratic elections. In 2009, the Group collaborated with LUGs on 80 projects, ranging from events to development projects. By then, the program had 44 members from 27 countries. Another bridge to consumers was the LEGO website, which brought together groups through games, stories, activities, and experiences. By 2009, it topped the list of family and children’s internet sites. LEGO Clubs for children had a membership of 3.2 million and a dedicated website.

Innovation System

Among the core priorities that Knudstorp added later was the ability to invent, design, and commercialize unique products based on the LEGO system of play. By 2011, new products accounted for 50% of SKUs and 60-70% of sales each year. Nipper reflected on past challenges:

What fascinates me the most is that our designers who are now creating world-class products are the same designers who were here during the crisis. They were just told to do the wrong things. Before the turnaround, we looked at consumer data without questioning it and did not read between the lines to figure out what the essence was. And we did not question whether each product we were designing was what we used to do in the past: creating the world’s very best building and playing experiences. Some conclusions from our analysis, like consumers now asking for bigger pieces and more storytelling, were not wrong. But the solutions did not match our LEGO values. Consumers didn’t recognize our products anymore.

In addition, the Group adopted more disciplined innovation processes. Management realized that not only were designers working on the wrong projects, but also the output of the new product development pipeline was neither predictable nor manageable. Nipper explained the changes:

Our developers, particularly those with the craziest ideas, now follow strict processes and have to use market research insights. The paradox is that product ideas are much more promising than back in the days when designers had no constraints and would bombard each other with new ideas in endless brainstorming sessions. Consumer insights are now used throughout our iterative development process. We start gathering early market insights even before deciding on the product development portfolio and learn from previous launches. We do everything from co-creating product concepts with children and parents to validating products with them. I think you will struggle to find someone in the industry who is better at engaging consumers than we are.

The LEGO Group also sent designers to live with and observe consumers for weeks at a time. Developers used consumer panels for testing ideas, concepts, prototypes, and products and had access to the latest research technologies. For instance, biometric coding of 23 facial movements allowed product developers to measure seven consumer emotions during play. One of Knudstorp’s priorities had been to reduce the time between conceiving of a new brick-based product and bringing it to market. The time now averaged less than twelve months.

Organizationally, innovations came from four distinct groups.

Product and Marketing Development (PMD) was the main product “engine,” with two groups responsible for developing innovations within existing products and themes. About 100 designers came up with 200 to 250 new SKUs each year, and 95% of Group sales came from products that PMD had developed. Nipper summarized PMD’s mission: “Their main responsibility is to keep our core portfolio of existing product concepts fresh and vibrant, for example by adding new licensed brands, creating a new power source for LEGO Racers, and so on. If they come up with completely new ideas, we will of course look at them, but that should not be their focus.”

The **Concept Lab** was responsible for developing fundamentally new products and physical play concepts – both by applying existing concepts to new markets and channels and by conceiving new concepts for core markets. The Lab’s 19 developers focused on new-to-the-world toys rather than line extensions, seeking innovations that were “obviously LEGO – but never seen before.” According to Nipper, “the Concept Lab has a very disciplined process in which we ask them to consider consumer and ethnographic insights, evaluate business potential, and use other inputs. Compared to the PMD group, their hit rate for accepted projects is much lower. We said ‘no’ to 72 concepts before saying ‘yes’ to one recent concept, whereas we would accept nearly 80% of PMD’s proposals.”

Community, Education, and Direct (CED) was primarily responsible for digital innovations in online play experiences. The whole CED unit included about 2,000 employees as it also managed and supported products targeted at schools, existing online experiences, consumer communities, and the LEGO retail chain and online store. Nipper explained, “We discourage the different groups from working in silos. They sit in joint gate meetings in early portfolio milestones, and we annually ask if projects should be shared or handed over to another group. For example, Concept Lab and CED can work together when a concept combines both physical and digital play, which will increasingly happen in the future.”

The **New Business Group**’s 10 developers, responsible for new business models, had the “freedom to experiment with small ideas” with limited sales potential. Their innovation process was slightly different. According to Nipper:

It’s harder to get specific metrics at different gates for these projects, so it’s more about deciding at different steps what kind of investment we are willing to make. At an early stage, if we see an opportunity, this could be \$25,000 for research, prototyping, and hiring a freelance designer. But it can be \$100,000 if it turns into a project. Otherwise they have similar constraints on components and new shapes but are not obliged to comply with minimum order quantities.

For instance, the New Business Group developed the LEGO Architecture product line based on the idea of a LEGO fan who was an architect. Scale models of landmarks such as the White House were sold to adults in museums and souvenir stores.

Knudstorp reflected on his innovation approach: “Personally I believe more in incremental continuous improvement than true innovation breakthroughs, so the number of people dedicated to the long-term perspective is very limited here.”

Designers had to follow a pre-defined framework of rules and principles. The Group’s management team approved the one-page frame document, covering SKUs, elements, colors, shapes, etc. Managers required that the “reuse rate” of each new SKU – that is, the portion of bricks that did not involve new shapes or colors – be above a certain threshold. Knudstorp said, “This has helped us

put a lid on the number of components. We are back at the 1999 level with a much higher turnover.” (Exhibit 6 shows the number of components over time.)

However, the fundamental tension between controlling complexity and giving developers autonomy to create new products did not disappear. Padda argued that innovation comes from scarcity and that having more components had not led to more innovation in the past. But Nipper felt that if the company wanted to grow, designers had to be able to add new elements. He insisted:

I can accept the principle that the number of components should grow less than sales in a three-year stretch. But since 2004, our sales have grown much more than the number of components, so instead of complaining about us, operations should be sending us champagne. And given the increasing nuances in our products, number of IPs and minifigures, we need complexity growth to support business growth. The bad news is that often the products that drive miracle sales numbers also have a heck of a lot of complexity.

Manufacturing and Supply Chain Management

Between 2007 and 2008, the LEGO Group cancelled its contracts with Flextronics and moved most production back in-house, to its sites in Eastern Europe, Mexico, and Denmark. “In hindsight,” Knudstorp said, “given our new system, it was a big mistake to consider manufacturing as non-core.” The company invested hundreds of millions of dollars to rebuild its own manufacturing capabilities, though it continued to use Chinese contractors for electronics and decoration. Padda explained:

Flextronics’ business and operating model differed too much from ours. Their factories are decentralized, don’t talk to each other, and are profit centers. I’ve learned a lot from them in terms of efficiency and cash management, but this also caused some of our key priorities to suffer: inventory accuracy fell, lifetimes of our molds shortened due to lower maintenance levels, purchasing costs in some cases rose instead of going down. For example, while the LEGO Group would order huge volumes of standardized boxes and just change the print from Star Wars to Harry Potter, Flextronics purchased boxes separately for each SKU. In manufacturing parts we are competitive here due to our cutting-edge molding technology and high automation with two to three people handling 64 machines in our molding halls. In China, they have two to three people per machine. So we mainly outsource where we lack the in-house capabilities like the electronics for LEGO MINDSTORMS or some complicated manual decorations. The 12-week lead times with China can be a problem if we need to push or stop a SKU that kids like or hate.

A core priority added to Knudstorp’s 2004 list was building a strong operating system to address earlier supply chain problems. To synchronize supply and demand, a team led by Padda had worked out a new sales and operations planning (S&OP) process. Padda explained:

We start with a demand review at theme and SKU level for the previous and current months, depending on how ‘hot’ the SKU is. We then review the products in development to see when they come through and what their impact will be in 12 to 18 months. And then we do a capacity review. We consolidate the demand, capacity, and supply data in a ‘pre-S&OP’ to see where the peaks and troughs are and how we can address any issues. And if these data show that we need to invest in new molding or packaging machines, then we put these recommendations into an S&OP for our executive team. Or, when it turns out that a specific SKU is too hot and we can’t build up capacity quickly enough, then we need to tone down some of the marketing.

Production planning was further optimized by decoupling it from sales incentives and exact forecasts. Padda continued:

We disconnected the forecasts from the 'incentive game' to prevent recurrent underestimates and introduced scenario planning in the last two years. We create different scenarios with potential up and down sales at the theme and sometimes SKU level. For example, if you have a big Star Wars event coming up in Los Angeles, what impact could that have on the theme in terms of sales and manufacturing capacity? Or if a theme does not look promising, how could those numbers change or which SKUs are likely to die? We look at these scenarios using insights from our sales people and adjust them throughout the year.

The company also developed systems to gauge full manufacturing costs by product and customer profitability.

Retailer Relations and Distribution

Knudstorp had come to realize that better relationships with retail customers needed to be among his priorities. "We put an emphasis on developing excellence in key account management and created dedicated organizations in some markets to become better at servicing our customers. Our efforts have paid off. LEGO products are now sold by pretty much anybody who claims to be selling toys, and we are envied for our retailer relationships."

The Group tailored its value propositions to specific customers. While all retailers wanted sales growth, high in-stock percentage, strong margins, and fast turns, Target focused on meaningful exclusivity, Wal-Mart on price leadership, and Toys R'Us on broad assortments.

The Group had improved its service level (fill rate or product availability on retailer's shelves) to retailers thanks to its internal push for products that shared more bricks and used fewer unique components. Padda described the changes that had become possible as a result:

We decoupled molding from packaging and ordering, reduced the inventory of finished goods, and increased inventory of common elements. We have large boards in the packing area with the daily inventory of all our SKUs in the distribution centers. New orders for any items or SKUs with high commonality directly create a pull signal, and when these signals don't fill our lines, we load them with push items (for example, SKUs with low commonality, product launches, or large special program orders for Wal-Mart). So instead of a 100% push, mold to order, we are now at about 34% to 40% pull and push the rest.

In addition, a modified incentive system tied management incentives closer to the results of an annual customer satisfaction survey and sales teams' incentives to actual sales.

Management of Complexity

With all the changes, complexity remained the most important issue for Padda:

Our higher brick reuse levels have brought advantages on all fronts: more compatibility for consumers who own several sets, a better service level to customers, and more efficient manufacturing below SKU level without hurting customers' search for variety. It also means we can take more risks on inventory molding, and we are now nearly level-loaded all year round even though seasonality remains massive (with about 50% to 60% of our sales happening during the Christmas weeks). We mold common pieces throughout the year and then chase 30%, depending on demand, and pack as late as possible.

Nipper and Padda jointly decided on a two-year portfolio, including key parameters such as the total number of components and shapes in the assortment, the number of new SKUs, as well as total project costs and resources. Nipper described the process:

We currently make the decisions for the 2012-2013 portfolio, and this always creates some tension between Bali [Padda] looking for minimum complexity and me pushing for innovation and a better consumer experience. Typically we don't agree at first but then call each other the next morning to get there. We know we both want what's best for the LEGO Group and only had to call Jørgen once to arbitrate. If I let my creative directors talk directly to Bali's manufacturing guys, they would not begin the negotiation between 7,000 and 9,000 components, but between 5,000 and 15,000. Once a number is agreed on, we look at the pipeline. A target of 8,300 components and a need of 6,400 for current products would leave 1,900 for new products, which we need to divide among the different lines and SKUs. If we think that's not doable, we either shelve projects or go back to Bali. Throughout the development process, we regularly review our progress.

Results

In 2010, LEGO Group sales jumped 37% to DKK 16 billion, with net profit soaring 69% to DKK 3.7 billion. The company increased its return on sales from 4% (in the early 2000s) to 30%, far above the industry average. Virtually all product lines sold more than expected. The Group had grown faster than the toy market and continued to dominate the construction segment with 80% market share. The company had also made important gains at retail, increasing its shelf space in a typical store from 9 linear feet in 2004 to 30 feet in 2009, retailer margins from 19% in 2004 to 30% in 2009, and inventory turns for retailers from 2x in 2004 to 5x in 2009.

Knudstorp summed up the role of excellence in execution:

At least 50% of the LEGO Group's success is due to the optimization of our complex operating model – the system of factories, distribution centers, inventory, packaging, and shipping. We mold about 30,000 bricks every minute of the day, 24 hours a day, in 6,000 to 7,000 variations. They need to be sorted to go into 350 retail SKUs that have to be packaged in their boxes and delivered with precision. If you don't meet the 7am cross-docking window at Wal-Mart, they tell you to come back the next day.

Inventing the Future of Play

As Knudstorp walked through the packaging area and noticed the huge variety of tiny bricks tumbling through the sorting machines, he understood Padda's concern with the growing number of LEGO components. But he also empathized with the designers' calls for more variety and freedom. Additional components might be essential if the LEGO Group were to launch the new toys currently under consideration: a new play system for girls, products for expanding in China and India, and the focus of Padda's and Nipper's most recent discussion – a line of buildable games. (See **Exhibit 7** for growth initiatives.)

Emerging from the Concept Lab and tentatively dubbed LEGO Games, the proposed new line would enable kids and parents to play games using boards, pieces, and even dice that they had built with LEGO bricks. (**Exhibit 8** shows a designer's early sketch and describes one possible game.) If launched, the new line would pioneer a new, hybrid category of toy and take the Group close to board games, a category dominated by Hasbro and Mattel.

The Group's managers knew that in many ways, board games differed from the construction-toy category they knew so well. Parents played a greater role in purchases of board games than in purchases of LEGO sets. Parents often saw board games as a way to get family members to play together. LEGO Games might be a way for the company to appeal to mothers, many of whom reported that they wanted to play alongside their LEGO-loving sons but didn't enjoy traditional LEGO sets. LEGO Games might also attract girls, a perennially weak segment for the company, though designers suspected that girls and boys might like different games.

Board games and construction toys also differed at retail, where they tended to be placed in separate aisles. Sales of board games were less seasonal, more concentrated (the top 10 board games accounted for about 30% of category sales, compared to less than 10% for the top 10 construction SKUs), and more stable among top sellers (games such as Monopoly could sell for decades). The board-game category brought in roughly twice as much revenue as construction. However, the category seemed to be shrinking slowly, and its margins were persistently low, with stores often using board games as loss leaders. Observers saw board games as a toy category with relatively little innovation in recent years, but it was unclear why.

If launched, LEGO Games would confront the Group with considerable complexity and difficult choices. A line of games targeted at boys would require 250-300 new components. Extending the line to appeal also to girls would probably add another 200-300 components. Moreover, the games would need a durable box that families could use to store the games rather than a typical LEGO box, made for one-time use. The company lacked the capability to make and pack such boxes, and sourcing the cardboard for durable boxes would make procurement more complex.

The LEGO Group designers felt that buildable dice would make the games line much more appealing to kids. When rolled, however, dice made of the same plastic as ordinary LEGO bricks would make an annoying, loud noise and would slide rather than tumble across many surfaces. Designers had come up with an alternative construction, with rubber edges around a LEGO cube, but the company's process engineers weren't sure they could make the novel dice economically.

Launching a games line would also force the company to make tricky choices about the design of game characters. One option was to use traditional LEGO minifigures, which had separate heads, torsos, arms, hands, and legs. As an alternative, the games designers proposed a "microfigure" – a novel, smaller figure made as a single piece. Using microfigures would keep the component count down but would require a new mold. Minifigures might add 100 components, but they were familiar within the company's operations and beloved by many LEGO enthusiasts.

Most designers and managers in Nipper's product groups supported the launch, but even there, questions remained. "Will games confuse the LEGO experience and dilute the brand?" Nipper asked. "Will we cannibalize our existing products? If so, is it worth it? If not, how will competitors react?"

Reflecting the sentiment of many in operations, Padda remained skeptical. "The core of what we should be doing is the basic brick. We should focus on SKUs that share bricks with other SKUs and not get too fancy with unique components."

Meanwhile, the total number of components in the LEGO product portfolio was approaching 9,000, a number not seen since the company's crisis in 2004. With Padda and Nipper struggling to set the annual component target and to reach a decision on buildable games, Knudstorp wondered whether he should weigh in. More broadly, he wondered whether new products like games could lead the LEGO Group down a familiar path, one that had earlier led to disaster.

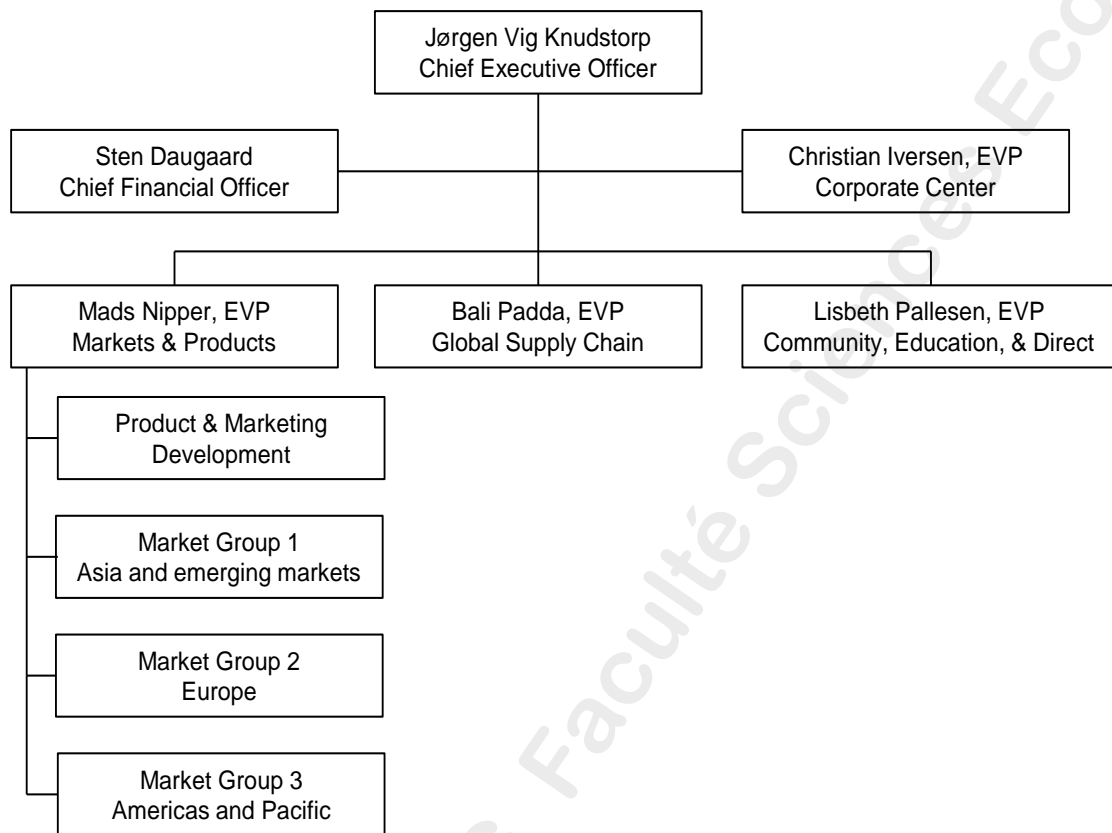
Exhibit 1 LEGO Group Selected Financials, 1996-2010

(in DKK million)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Income Statement															
Revenues	7,534	7,616	7,680	9,808	9,467	9,000	9,601	6,792	6,315	7,050	7,798	8,027	9,526	11,661	16,014
Expenses	N/A	N/A	N/A	(8,615)	(10,145)	(8,142)	(8,795)	(7,902)	(6,252)	(6,582)	(6,393)	(6,556)	(7,522)	(8,659)	(10,899)
Operating profit before special items	N/A	N/A	N/A	N/A	N/A	858	806	(1)	63	468	1,405	1,471	2,004	3,002	5,115
Special items*	N/A	N/A	N/A	(555)	(191)	(122)	0	(455)	(1,225)	(9)	(80)	(22)	96	(100)	(142)
Financial income and expenses	N/A	N/A	N/A	(122)	(201)	(215)	(189)	67	(75)	(3)	(44)	(35)	(248)	(15)	(84)
Profit before income tax	699	171	(282)	516	(1,070)	521	617	(1,498)	(1,237)	456	1,281	1,414	1,852	2,887	4,889
Net profit for the year	470	62	(194)	274	(831)	366	326	(935)	(1,931)	505	1,290	1,028	1,352	2,204	3,718
Balance Sheet															
Total Assets	10,061	9,767	11,250	12,694	12,280	14,093	12,560	10,049	8,089	7,689	6,907	6,009	6,496	7,788	10,972
Equity	5,913	5,437	5,841	6,970	6,266	6,225	6,478	4,892	2,948	3,589	1,191	1,679	2,066	3,291	5,473
Liabilities and Provisioning	4,148	4,330	5,409	5,714	6,014	7,868	6,082	5,157	5,141	4,100	5,716	4,330	4,430	4,497	5,499
Cash Flow Statement															
Cash flows from operating activities	N/A	N/A	N/A	N/A	N/A	1,227	1,853	944	774	1,057	1,157	1,033	1,954	2,712	3,744
Investments in property, plant, and equipment	1,490	745	1,397	968	1,156	1,478	1,264	709	457	265	316	399	368	1,042	1,077
Investment in intangible assets	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34	75	216	123
Cash flows from financing activities	N/A	N/A	N/A	N/A	N/A	870	(1,003)	(560)	(29)	(1,070)	597	(467)	(1,682)	(906)	(3,477)
Total cash flows	N/A	N/A	N/A	N/A	N/A	771	(290)	(215)	538	2,549	1,925	592	128	558	(871)
Employees															
Average number (full time)	8,178	8,668	8,670	7,821	7,669	7,658	8,316	8,298	7,345	6,643	4,908	4,199	5,388	7,286	8,365
Financial Ratios (in %)															
Gross margin	N/A	N/A	N/A	N/A	N/A	65.4	70.0	61.3	57.7	58.0	64.9	65.0	66.8	70.3	72.4
Operating margin (ROS)	N/A	N/A	N/A	N/A	N/A	8.2	8.4	(23.0)	(18.4)	6.5	17.0	18.1	22.0	24.9	31.1
Net profit margin	6.2	0.8	(2.5)	2.8	(8.8)	4.1	3.4	(13.8)	(30.6)	7.2	16.5	12.8	14.2	18.9	23.2
Return on equity (ROE)	7.9	1.1	(3.5)	3.8	(13.3)	6.8	4.6	(16.7)	(46.3)	18.1	147.1	71.6	72.2	82.3	84.8
Return on invested capital (ROIC)**	N/A	N/A	N/A	N/A	N/A	9.1	8.2	(12.8)	1.2	19.1	63.6	69.7	101.8	139.5	161.2
Equity ratio	N/A	N/A	N/A	N/A	N/A	44.2	51.6	48.7	36.4	46.7	17.2	27.9	31.8	42.3	49.9

Source: LEGO Group, Annual Reports 2010, 2005, 2000.

Notes: * The Special items category included different items in different years; it may therefore not be fully comparable.

** ROIC = EBITA before special items x 100 / average invested capital.

Exhibit 2 LEGO Group Organizational Chart, 2011

Source: LEGO Group.

Exhibit 3 U.S. Traditional Toy Industry Sales by Segment

Category	2008 Revenue (\$ billion)	2009 Revenue (\$ billion)	Change
Action figures and accessories	1.50	1.56	4%
Arts & Crafts	2.50	2.68	7%
Building sets	0.89	1.10	23%
Dolls	2.70	2.65	(2%)
Games/Puzzles	2.30	2.33	1%
Infant/Preschool	3.10	3.05	(2%)
Youth Electronics	0.87	0.72	(17%)
Outdoor and sports toys	2.70	2.56	(5%)
Plush	1.70	1.48	(13%)
Vehicles	1.90	1.78	(6%)
All other toys	1.30	1.36	5%
Total traditional toy industry	21.46	21.26	(1%)

Source: Narayanan, Ranjit. "Mega Brands Inc. Equity Research Report," Union Securities Ltd., January 10, 2011. Accessed via Thomson-Reuters ONE Banker, June 2001.


Exhibit 4 The Ten Product Characteristics Defined by Godtfred Kirk Christiansen in 1963

1. Unlimited play potential
2. For girls and for boys
3. Fun for every age
4. Year-round play
5. Healthy, quiet play
6. Long hours of play
7. Development, imagination, creativity
8. The more LEGO, the greater the value
9. Extra sets available
10. Quality in every detail

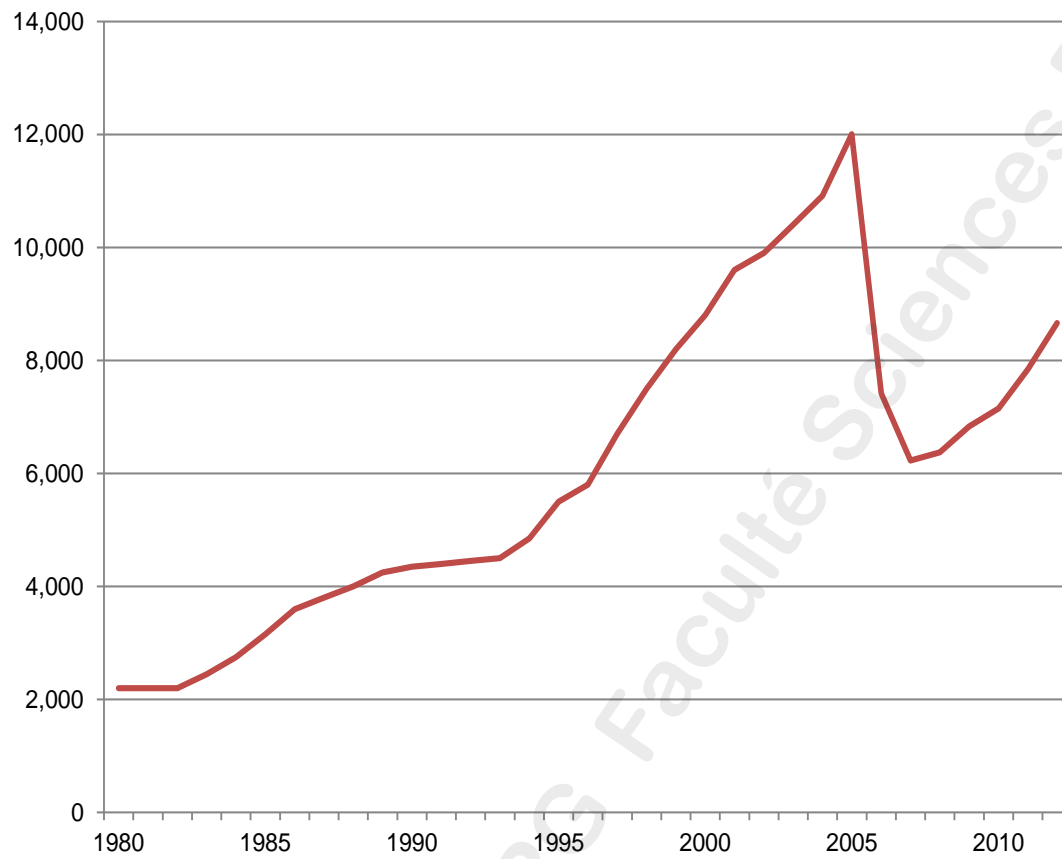
Source: LEGO Group (Website (<http://aboutus.lego.com/en-us/group/future.aspx>), accessed May 2011.)

Exhibit 5 LEGO Brand & Core Values

The LEGO brand is more than simply our familiar logo. It is the expectations that people have of the company towards its products and services, and the accountability that the LEGO Group feels towards the world around it. The brand acts as a guarantee of quality and originality.

Value	Short Description
Imagination	Curiosity asks "Why?" and imagines explanations or possibilities (if.. then). Playfulness asks "what if?" and imagines how the ordinary becomes extraordinary, fantasy or fiction. Dreaming it is a first step towards doing it. Free play is how children develop their imagination – the foundation for creativity.
Creativity	Creativity is the ability to come up with ideas and things that are new, surprising and valuable. Systematic creativity is a particular form of creativity that combines logic and reasoning with playfulness and imagination.
Fun	Fun is the happiness we experience when we are fully engaged in something that requires mastery (hard fun), when our abilities are in balance with the challenge at hand and we are making progress towards a goal. Fun is both in the process, and in the completion. Fun is being active together, the thrill of an adventure, the joyful enthusiasm of children and the delight in surprising both yourself and others in what you can do or create.
Learning	Learning is about opportunities to experiment, improvise and discover – expanding our thinking and doing (hands-on, minds-on), helping us see and appreciate multiple perspectives.
Caring	Caring is about the desire to make a positive difference in the lives of children, for our partners, colleagues and the world we find ourselves in, and considering their perspective in everything we do. Going the extra mile for other people, not because we have to – but because it feels right and because we care. Caring is about humility – not thinking less of ourselves, but thinking of ourselves less.
Quality	From a reputation for manufacturing excellence to becoming trusted by all – we believe in quality that speaks for itself and earns us the recommendation of all. For us quality means the challenge of continuous improvement to be the best toy, the best for children and their development and the best to our community and partners.
Logo	

Source: LEGO Group. (Company Website (<http://aboutus.lego.com/en-us/group/future.aspx>), accessed May 2011.)

Exhibit 6 Number of Components (Shapes, Colors, Decorations), 1980-2012E

Source: LEGO Group.

Exhibit 7 LEGO Mission, Vision, and Future Direction - The Seven Growth Initiatives

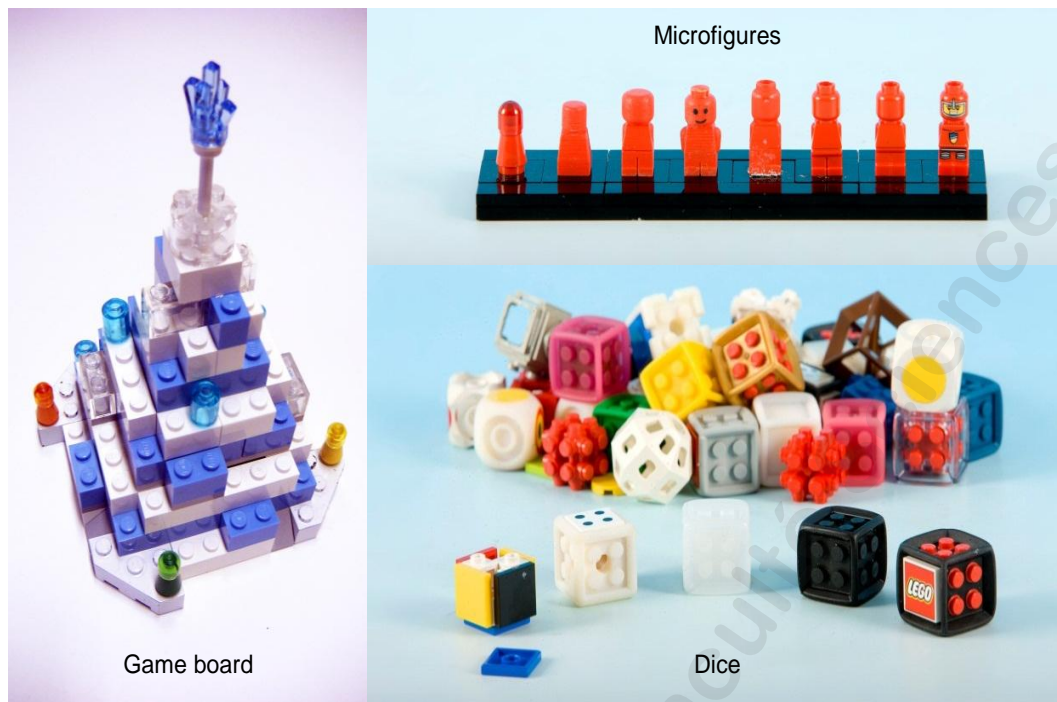
- **Mission:** 'Inspire and develop the builders of tomorrow'
Our ultimate purpose is to inspire and develop children to think creatively, reason systematically and release their potential to shape their own future - experiencing the endless human possibility.
- **Vision:** 'Inventing the future of play'
We want to pioneer new ways of playing, play materials and the business models of play - leveraging globalization and digitalization...it is not just about products, it is about realizing the human possibility.

Growth Initiatives: The LEGO Group expects continued growth in sales in the years ahead. The foundation for this growth is a constant focus on the company's core products and markets. On this basis, seven growth initiatives have been defined:

Growth Initiatives	Short Description
Increase market share in USA	USA is the world's largest market for toys, and the LEGO Group has dramatically increased its market share in recent years, to approximately five per cent. The LEGO Group believes this share can be further increased in the coming years.
Increase market share in Eastern Europe.	The toy market in Eastern Europe is experiencing rapid growth, and the LEGO Group aims to continue to expand its strong position on these markets.
Invest in emerging markets.	The LEGO Group does not yet enjoy a strong market position in markets such as China, Mexico, Brazil and India. These markets are expected to see strong growth in the future, and the LEGO Group plans to invest in developing them.
Develop innovative new products.	In addition to ongoing product development based on the existing core portfolio, the LEGO Group will develop innovative new products, which are ideally suited as LEGO products, yet never seen before..
Expand "direct to consumer" activities.	The LEGO Group currently has direct contact to consumers through its own sales channels, clubs, collaboration programs, etc. The aim is to get even closer to consumers through greater contact and by expanding offers available direct to consumers.
Expand LEGO Education.	The aim is to create growth in the area of educational materials for preschools, schools and educational institutions all over the world.
Expand electronic activities.	The LEGO Group currently operates on electronic platforms through the www.LEGO.com website and video games. Our electronic presence will be further expanded, in particular through LEGO Universe – the first MMOG (massively multiplayer online game) from the LEGO Group, to be launched in the second half of 2010.

Source: LEGO Group. (Company Website (<http://aboutus.lego.com/en-us/group/future.aspx>), accessed May 2011.)

Exhibit 8 Prototypes Associated with Buildable Games



Description of one potential game in the LEGO Games product line:

Before the game begins, players construct a game board from LEGO bricks. The board is a large, flat square surface with studs, walls, home bases for four players in the four corners, and a target destination in the center. Players also construct a die, with the numbers 1, 2, 3, and 4 on four sides, a gray side, and a black side. Each player has four microfigures that start in his or her home-base corner. A monster figure starts in the center of the board.

Players take turns rolling the die. If a player rolls a number 1, 2, 3, or 4, the player advances one of his or her microfigures that number of studs toward the target destination. When a microfigure reaches the destination, it is retired from play. The first player to retire all of his or her microfigures wins the game.

If a player's roll lands on the gray side of the die, the player can remove a small piece of a wall and place it somewhere else on the board. This allows a player to clear the path toward the destination for one of his or her microfigures as well as obstruct the path for an opponent's microfigure.

If a player's roll lands on the black side of the die, the player can move the monster figure as many as eight studs. When the monster lands atop or passes directly over a microfigure, the microfigure is forced to return to its home base.

Source: LEGO Group; casewriter description.

ENDNOTES

¹ "Building profits child's play for Lego," *The Economist*, May 7, 2011. Accessed via Factiva, May 2011.

² Philp, Matt. "Toy Story," *Dominion Post*, April 2, 2011. Accessed via Factiva, May 2011.

³ Santoli, Michael. "Play Time for Mattel," *Barron's Online*, December 13, 2010. Accessed via Factiva, May 2011.

⁴ Santoli, Michael. "Play Time for Mattel," *Barron's Online*, December 13, 2010. Accessed via Factiva, May 2011.

⁵ Mattel Annual Report 2010.