



BUILDING, STRENGTHENING, PERFORMING.

The 2005 Annual Report





Lyondell Chemical Company is the third-largest independent, publicly traded chemical company in North America. With operations on five continents and approximately 10,000 employees worldwide, we are a global leader in the manufacture of chemicals and polymers, building blocks for countless goods and products that enhance quality of life for people around the world every day. With approximately \$15 billion in assets, we manufacture basic chemicals and derivatives, including ethylene, propylene, propylene oxide, titanium dioxide, styrene, polyethylene and acetyls. Lyondell also is a significant producer of gasoline-blending components and has a 58.75 percent interest in LYONDELL-CITGO Refining LP.



CONTINUING TO PERFORM

At Lyondell, we are creating long-term value for our stakeholders by staying true to our strategies, and our performance during 2005 demonstrates that we are achieving our goals.

Lyondell is among the top chemical and polymers manufacturers in the world, with leading North American and global capacity positions in virtually all of our key products. By expanding our portfolio and widening our geographic reach, we have reduced our vulnerability during times of demand cyclicalities and increased our product leverage. Through disciplined cash management, we have strengthened our financial flexibility and achieved significant debt reduction. Our steadfast commitment to continuous improvement has produced excellent safety, reliability, quality and customer satisfaction results.

Although we have experienced tremendous change since our formation 20 years ago, the fundamental beliefs that make us who we are have not wavered. At Lyondell, we believe in managing our business well, operating safely and efficiently, and returning value to our stakeholders. With these goals firmly established, Lyondell is well positioned to provide continued value to stakeholders in 2006 and beyond.

2005 SUMMARY OF ACHIEVEMENTS

- Our 10,000 employees demonstrated their commitment to safety, delivering a 2005 safety performance that is among the best in our industry.
- We achieved a record full-year net income of \$531 million, a \$477 million improvement compared with 2004 net income.
- Our year-to-year profit improvement was driven by strong performance in the ethylene and propylene oxide segments, coupled with the full-year ownership of 100 percent of Equistar, which enjoyed the most profitable year in its history.
- We continued to focus our efforts on reliability and product quality, which allow us to consistently meet or exceed our customers' requirements.
- Between September 2004 and December 2005, Lyondell repaid \$1.66 billion toward our goal of at least \$3 billion in debt reduction, saving approximately \$160 million a year in interest expense and bringing us closer to our goal of achieving an investment-grade credit rating.

HIGHLIGHTS OF CONSOLIDATED FINANCIAL STATEMENTS

US\$ IN MILLIONS	2005 ^(a)	2004 ^(a)	2003
Sales and other operating revenues	\$ 18,606	\$ 5,946	\$ 3,781
Operating income (loss)	1,268	86	(17)
Income (loss) from equity investments	124	451	(103)
Net income (loss)	531	54	(302)
Income (loss) per share – basic	2.16	0.29	(1.84)
Income (loss) per share – fully diluted	2.04	0.29	(1.84)
Dividends per share ^(b)	0.90	0.90	0.90
Cash flow from operations	1,594	354	99
Capital expenditures ^{(c)(d)}	249	70	264
Depreciation and amortization	729	289	250

^(a) Results of operations and cash flow data reflect the consolidation of Millennium Chemicals Inc. ("Millennium") and Equistar Chemicals, LP ("Equistar") for full year 2005 and for December 2004.

^(b) Prior to December 31, 2004, Lyondell paid dividends to Occidental Chemical Holding Corporation by issuing shares of Series B common stock in lieu of a dividend payment in cash. On December 31, 2004, all of the outstanding shares of Series B common stock were converted, at Lyondell's election, into shares of Lyondell's common stock on a one-for-one basis, and no shares of the Series B common stock since have been outstanding.

^(c) Capital expenditures of \$264 million in 2003 include Lyondell's purchase of the Botlek BDO facility from the lessor for \$218 million.

^(d) In addition, contributions to the European PO joint venture and the U.S. PO joint venture were \$20 million, \$8 million and \$107 million in 2005, 2004 and 2003, respectively.

2005 SELECTED FINANCIAL DATA

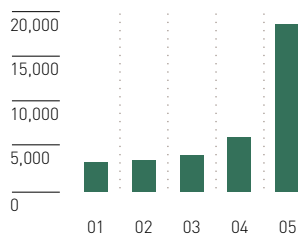
US\$ IN MILLIONS	Ethylene, Co-Products & Derivatives Segment	PO & Related Products Segment	Inorganic Chemicals Segment	LYONDELL- CITGO Refining ^(a)
Sales and other revenues ^(b)	\$ 12,191	\$ 6,568	\$ 1,360	\$ 6,741
Operating income	950	316	18	232
Capital expenditures	155	36	53	176
Depreciation and amortization	388	235	98	116

^(a) Represents the historical operating results of LYONDELL-CITGO Refining on a 100-percent basis.

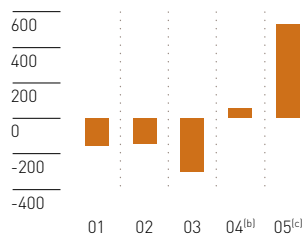
^(b) Sales include sales to affiliates and intersegment sales.

Historical Performance

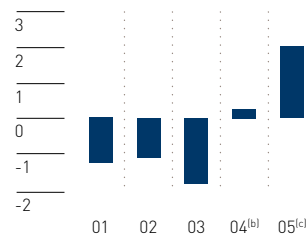
Sales and Other Operating Revenues^(a)
(millions of dollars)



Net Income (Loss)^(a)
(millions of dollars)

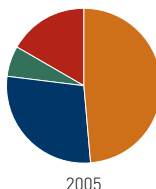


Earnings (Loss) Per Share, Diluted^(a)
(dollars)



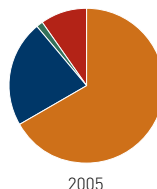
2005 Results

Sales^{(d)(e)} by Segment
(billions of dollars)



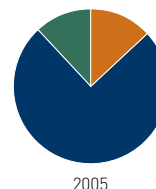
■ Ethylene, Co-Products & Derivatives: \$10.9
 ■ Propylene Oxide & Related Products: \$6.3
 ■ Inorganic Chemicals: \$1.4
 ■ Refining (58.75%): \$3.7

Operating Income^(e) by Segment
(millions of dollars)



■ Ethylene, Co-Products & Derivatives: \$950
 ■ Propylene Oxide & Related Products: \$316
 ■ Inorganic Chemicals: \$18
 ■ Refining (58.75%): \$136

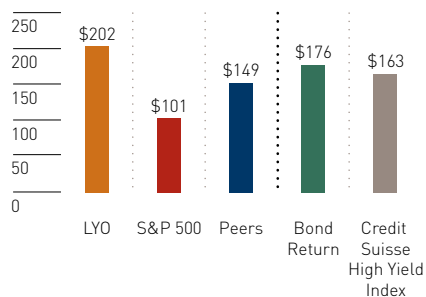
Cash Uses
(millions of dollars)



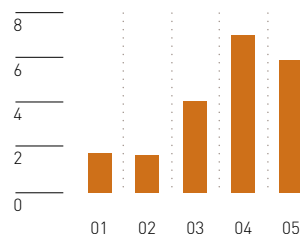
■ Capital Expenditures: \$249
 ■ Debt Reduction: \$1,412
 ■ Dividends Paid: \$222

Investment Performance

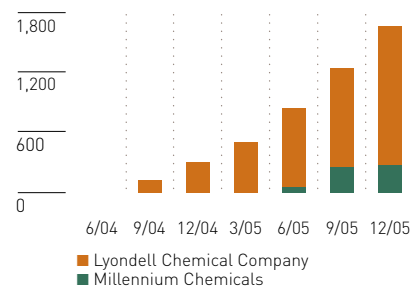
Investor Return
(Value on 12/31/05 of US\$100
Invested on 12/31/00)



Year-End Market Capitalization
(billions of dollars)



Debt-Reduction Progress
Cumulative Debt Payments:
\$1.66 Billion



^(a) Results of operations reflect the consolidation of Millennium Chemicals Inc. ("Millennium") and Equistar Chemicals, LP ("Equistar") prospectively from December 1, 2004.

^(b) Net income for 2004 included a \$64 million, or \$0.34 per share, after-tax charge for purchased in-process research and development as a result of Lyondell Chemical Company's acquisition of Millennium on November 30, 2004, and resulting consolidation of Equistar.

^(c) Net income for 2005 included a \$127 million, or \$0.49 per share, after-tax charge to reduce the carrying value of the Lake Charles, Louisiana, toluene diisocyanate plant.

^(d) Excludes intersegment sales.

^(e) Represents Lyondell's 58.75 percent pro rata share of LCR's sales and operating income.

TO OUR STAKEHOLDERS:

Staying True to Our Strategy and Delivering Results

FOR MANY REASONS, 2005 WAS A YEAR THE CHEMICAL INDUSTRY will not soon forget. At Lyondell, it will be remembered as a year of record profitability, achieved in the face of tremendous external challenges. Although the global economic fundamentals of our industry remained solid throughout the year, soaring raw material and energy prices, coupled with unprecedented natural disasters along the U.S. Gulf Coast, drove wide margin volatility from quarter to quarter. Our ability to overcome these challenges to deliver strong earnings and cash flow is directly attributable to the steps we have taken over the last several years to diversify and grow our portfolio, maintain our emphasis on Operational Excellence and continue our disciplined use of cash flow.

Looking forward, we believe our industry's potential for profit performance remains quite vibrant. With continued global economic growth, we expect that supply-and-demand balances will tighten even further in 2006. By staying true to our core strategies, we have better positioned Lyondell to maximize profitability at any point of the industry cycle.

Our highlights for 2005 include:

- Tightened conditions in the ethylene, propylene oxide and gasoline markets contributed to record full-year net income of \$531 million, a \$477 million improvement compared with 2004 net income.
- The full-year ownership of 100 percent of Equistar bolstered our results, as our ethylene business enjoyed the most profitable year in its history.
- Higher margins led to an approximate \$325 million increase in MTBE results.
- Between September 2004 and December 2005, Lyondell repaid \$1.66 billion of debt, and the reduction of our interest payments represents approximately 40 cents per share in earnings improvement annually.

As we had anticipated, tight global supply-and-demand balances led to a strong 2005 performance for Lyondell. However, our results were negatively impacted by charges related to ceasing TDI production at our Louisiana facility, as well as planned and unplanned activities at our refining joint venture, including a scheduled turnaround and a delayed restart following Hurricane Rita. In addition, our progress in TiO₂ has not been as rapid as we had hoped. However, the integration of this business into the Lyondell culture of continuous improvement is still in its early phases, and we believe the TiO₂ business is poised for a better performance in 2006.

"By staying true to our core strategies, we have better positioned Lyondell to maximize profitability at any point of the industry cycle."


The foundation of our success in 2005 was established over the past 10 years, as we identified and implemented the necessary steps to ensure Lyondell's long-term sustainability. Once we determined the factors required for long-term success in the commodity chemicals market, we set out to reshape Lyondell in that image.

First, we knew that we needed to expand our product portfolio and grow in size. Not long ago, Lyondell was a small, two-facility company based in Houston. Following a set of strategic transactions, we are now a leading global competitor. We have built a much more stable portfolio that offers breadth, scale and differentiation. Our multiple, integrated product platforms and leading North American and global capacity positions in virtually all of our key products provide a solid platform for performance.

Having the right products and geographic reach are only the first steps. To sustain success, we needed to sharpen our operating focus. At Lyondell, we call this Operational Excellence, and it symbolizes our continual focus on maximizing the efficiency and value of each of our businesses. With outstanding records in safety, reliability and product quality, it's clear that Operational Excellence has become a core value at Lyondell.

That discipline also extends to the use of our cash flow. Our financial strategy is designed to maintain sufficient liquidity, repay debt and ultimately achieve an investment-grade credit rating. During recent industry tough conditions, we focused on liquidity. With the improving business conditions, the challenge is to maintain that financial discipline and meet our debt-reduction goals. Including the first two months of 2006, we have attained approximately two-thirds of our goal of at least \$3 billion in debt reduction, converting those saved interest expenses into increased earnings.

Even with all of this in place, there are factors outside our control that shape our business results in a given year. The state of the global economy is critical to driving demand for our products, which are present in almost all aspects of our modern lives. Current forecasts indicate a 3 percent annual growth rate in world gross domestic product through at least 2010, which creates a very healthy chemical industry outlook. In addition, there has never been a period of global development where populations the size of China and India have emerged as consumers as they are beginning to do today. As these economies continue to develop, the purchasing power of

A portrait of a middle-aged man with glasses, smiling, wearing a dark suit, white shirt, and a yellow tie. He is standing against a blue background.

"We are doing what we said we would do, and we are delivering results."

TO OUR STAKEHOLDERS

Continued...

more than two billion people will expand, driving strong demand for goods manufactured with our products. With tight market conditions forecast for some time, we have a favorable outlook for 2006 and beyond.

Finally, we have the advantage of the Lyondell culture. Although the company has changed significantly since its formation 20 years ago, we have retained many of the same individuals on our team, including many leaders among our senior management. As we have acquired new operations and grown in size, we have worked hard to maintain the advantages of a small company, where teams communicate directly, information flows freely, decisions are made swiftly and the contribution of each individual means more at the end of the day. When I say that Lyondell's employees are among the best and brightest, I truly mean it.

At all levels of our organization, the people of Lyondell understand our strategic goals and recognize how their individual work contributes to our success, now and in the future.

Before I close, I'd like to address the status of lead paint litigation. A Rhode Island jury recently found a Millennium Chemicals subsidiary and two former lead pigment manufacturers liable for a public nuisance created by the pigment's legal use in paint decades ago. There has been a long history of unsuccessful cases against the lead paint industry since 1989, and this ruling is but one step in the legal process. Millennium believes this litigation is misdirected, and the company will continue to vigorously defend itself. Further detailed information on this topic is included in our attached Form 10-K.

Looking back over the past year, I am proud of what we have achieved together. During the coming year, we will continue to work together to strengthen our portfolio and maintain our focus on Operational Excellence and debt reduction. I believe 2006 will be a strong year for Lyondell, and I look forward to sharing our results with you.

Sincerely,



Dan F. Smith
President and Chief Executive Officer
February 28, 2006

Lyondell's Core Strategies

Lyondell has built its businesses around the fundamental belief that to be a successful competitor in the global chemical industry the company must have:

- **Global scale and product breadth**
- **Sustainable competitive advantage through raw material flexibility, technology or market position**
- **Disciplined operating focus that maximizes the value of each business**
- **Disciplined use of cash flow to create shareholder value**

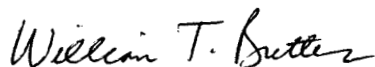
MESSAGE FROM THE CHAIRMAN

AS I BEGIN MY NINTH YEAR AS NONEXECUTIVE CHAIRMAN, I AM proud of Lyondell's progress and management's performance as the company has developed into an industry leader and global competitor. I am equally proud to report that as they took on greater responsibility, navigated through increasingly complex challenges and continued to achieve strong results, the people of Lyondell maintained their commitment to the company's culture of high performance and integrity.

The outside world agrees. Lyondell continues to be recognized for adherence to the highest standards of corporate governance. Based on a review of Lyondell's corporate governance policies, procedures and business practices, Institutional Shareholder Services and other governance-rating services consistently rank the company as a leader in its industry. Additionally, in May 2005, the *Houston Chronicle* named Lyondell "Company of the Year." The Board was pleased to see Lyondell and its employees recognized for their achievements and commitment to shareholder value.

As Lyondell grows, we continue to seek experienced and talented individuals for the Board to help guide the company as it becomes ever more complex. In early 2006, we welcomed two leading corporate CEOs as directors: Paul S. Halata of Mercedes-Benz USA, LLC and Daniel J. Murphy of Alliant Techsystems, Inc. In addition to broad management expertise, Paul brings extensive knowledge of downstream sales and marketing, while Dan offers a strong background in the areas of supply chain and logistics. We believe their contributions and perspectives will be important as we pursue our strategic objectives. They will replace retiring directors Worley H. Clark, Stephen F. Hinchliffe Jr. and Dr. Ray R. Irani. We thank all three of these individuals for their dedicated service to Lyondell. Steve Hinchliffe has served on the Board with me for 15 years, and I want to personally acknowledge Steve's contributions during his tenure.

Your Board and I are pleased with senior management's steadfast commitment to and continuing progress toward Lyondell's strategic goals. We will work together to realize maximum profitability and sustainability for our stakeholders during 2006.

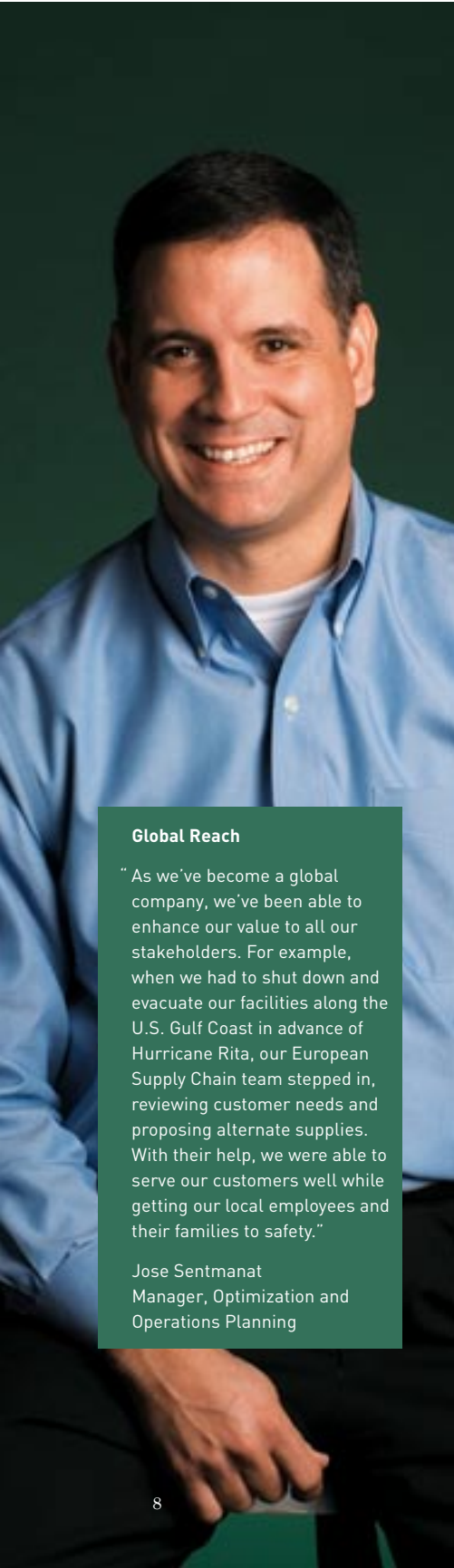


William T. Butler
Chairman of the Board
February 28, 2006



"I am proud of Lyondell's progress and management's performance as the company has developed into an industry leader and global competitor."

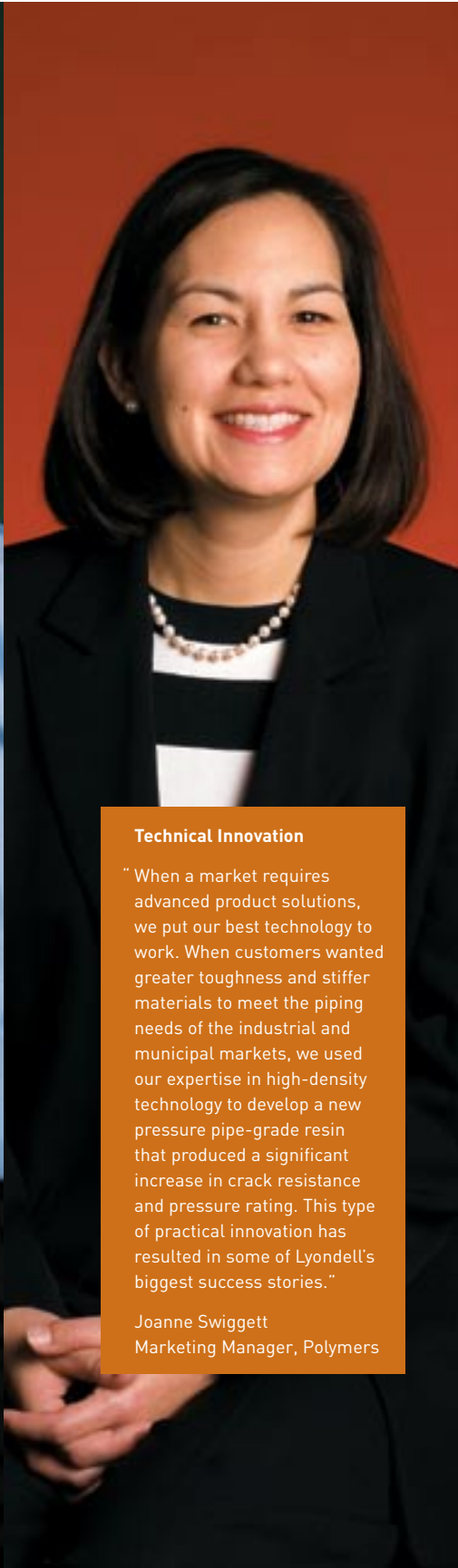
FOLLOWING OUR STRATEGY IN EVERYTHING WE DO



Global Reach

"As we've become a global company, we've been able to enhance our value to all our stakeholders. For example, when we had to shut down and evacuate our facilities along the U.S. Gulf Coast in advance of Hurricane Rita, our European Supply Chain team stepped in, reviewing customer needs and proposing alternate supplies. With their help, we were able to serve our customers well while getting our local employees and their families to safety."

Jose Sentmanat
Manager, Optimization and
Operations Planning



Technical Innovation

"When a market requires advanced product solutions, we put our best technology to work. When customers wanted greater toughness and stiffer materials to meet the piping needs of the industrial and municipal markets, we used our expertise in high-density technology to develop a new pressure pipe-grade resin that produced a significant increase in crack resistance and pressure rating. This type of practical innovation has resulted in some of Lyondell's biggest success stories."

Joanne Swiggett
Marketing Manager, Polymers



Product Breadth

"As our product offerings have grown, we've become a more valuable partner to our customers. We now have one of the widest selections of chemical products available, so customers can buy a multitude of products from us, rather than buying each product from a different supplier. Our customers continue to choose Lyondell because we have the selection, quality and service that they expect."

Dave Rubin
National Accounts Manager,
Chemical Sales

AT LYONDELL, OUR 10,000 EMPLOYEES ARE A DIVERSE AND TALENTED GROUP, BRINGING EXPERTISE IN multiple disciplines, a wide variety of backgrounds and unique perspectives and talents. Despite their many differences, they all share one thing in common: a commitment to Lyondell's core strategies. Those strategies guide the work we do together every day, focusing our efforts and defining the path ahead.

A portrait of Marlies van Driel, a woman with blonde hair, smiling, wearing a dark blazer over a patterned blouse. The background is a solid orange color.

Operational Excellence

"Operational Excellence brings our mission of continuous improvement to life in everything we do. At Lyondell, we don't settle for good enough; we always want to take things to the next level. For instance, we're launching a new system to keep customers better informed of the complex regulatory requirements required by different countries. This clear, consistent communication helps protect our reputation as an environmentally responsible corporate citizen."

Marlies van Driel
Regulatory Affairs Manager,
Europe

A portrait of Robert Steele, a man with short dark hair, smiling, wearing a light-colored button-down shirt. The background is a solid green color.

Safety

"Lyondell's belief has always been that all injuries are preventable. Our latest example of just how achievable that goal is comes from the North Region, where we recently celebrated a full year without a single recordable injury at any of the region's facilities. Employees from each facility served on a new regional safety team, sharing best practices and ideas throughout the year. Working safely also helps us meet our customers' needs by enhancing our reliability. At Lyondell, safety is not a priority; it's a value."

Robert Steele
Environmental Superintendent

A portrait of Jude Kuo, a man with dark hair, smiling, wearing a blue blazer over a light blue shirt. The background is a solid red color.

Debt Reduction

"Everything we do as employees of Lyondell we do with an eye on the bottom line. We each try to work as efficiently as possible, capture cost savings wherever we can and help increase our cash flow. Even something as simple as changing and standardizing the corrugated drums we use for product transport in Asia helped us reduce costs by nearly 5 percent. With \$2 billion of debt already paid down, it's clear that every dollar we save or earn gets us closer to our debt-reduction goal."

Jude Kuo
Manager of Logistics,
Great China

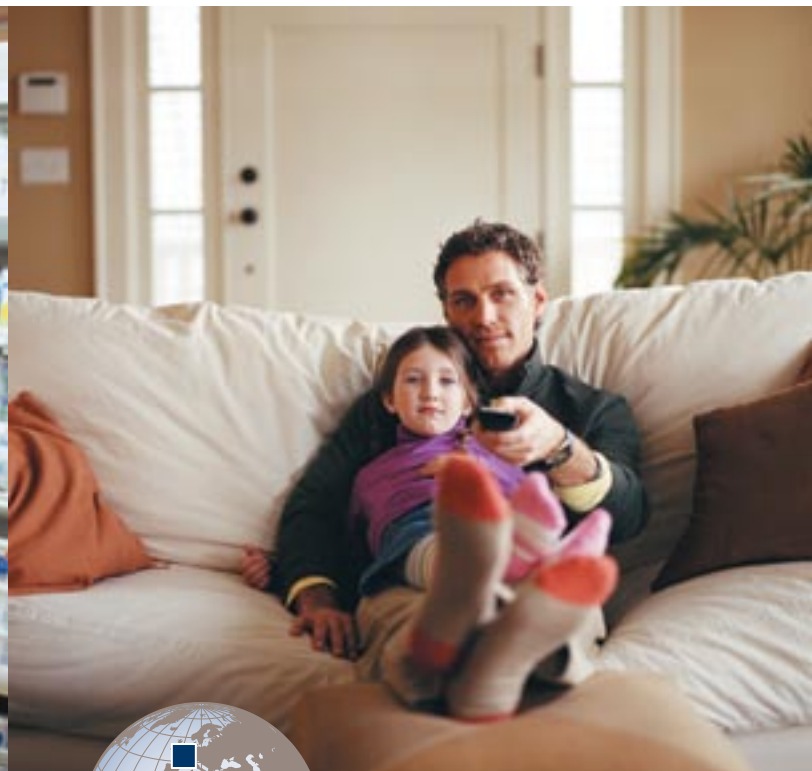
MEETING THE WORLD'S GROWING NEEDS



10:15 a.m.

QUETZALTENANGO, GUATEMALA

At the supermarket, Lyondell products help protect the safety, freshness and flavor of many of your family's favorite food and consumer items. Our polymers are used in the manufacture of many goods found on the aisles of your local stores, including thin-wall plastic packaging for dairy items; liners for cereals, cracker boxes and pet food bags; garbage bags; packaging films; and plastic bottles and cups. In addition, our solvents and fragrances are used in glass cleaners, laundry detergents and carpet cleaners. Many pharmaceutical, personal-care and cosmetics items rely on propylene glycols. At the checkout, our cooling agents enhance the cooling power of chewing gums and breath strips. Even the lightweight plastic bags that carry your groceries home are made with Lyondell products.



12:17 p.m.

PARIS, FRANCE

Your home is built with Lyondell products, from the construction materials inside the walls to the paints and furnishings that decorate the rooms. Our chemicals and polymers form the building blocks of the sheetrock, housing wrap, insulation, fiber composite boards, plastic pipes, concrete, and wire and cabling that are part of your home's construction. Inside, approximately 85 percent of the world's furnishings use flexible urethane foam cushioning, a major application for propylene oxide. Titanium dioxide and acetyls enhance the opacity and durability of interior and exterior paints. And our products are used in the manufacture of the fixtures, countertops and shower stalls of your bathrooms and kitchens.

AT EVERY MOMENT OF EVERY DAY, LYONDELL'S PRODUCTS ARE HELPING TO ENHANCE THE QUALITY of life for people around the world. Whether our products are used in packaging to deliver fresh food, insulation to increase homes' energy efficiency or foam cushioning to make furniture more comfortable, Lyondell products are the basic building blocks that make thousands of products safer, lighter, stronger, more affordable, more durable and more reliable. As economies around the globe develop, the demand for Lyondell's products continues to grow.



2:30 p.m.

CHICAGO, ILLINOIS

When you get behind the steering wheel of your car, you are surrounded by a vast array of plastic parts and components that help keep your family safe. Parts made with Lyondell products offer durable, lower-cost alternatives to steel or aluminum automotive applications. The use of plastics also contributes to a reduction in the average weight of automobiles, which improves gas mileage. Our products are used to make everything from impact-absorbing body side molding, wheel wells and air bags to wire and cable insulation, carpet fibers and door seals. Lyondell also manufactures gasoline additives designed to help fuels meet clean air requirements, and our joint-venture refining operation processes heavy high sulfur crude oil into gasoline, diesel, jet fuel and other refined products.



3:11 p.m.

HONG KONG, CHINA

At the office, you depend on a wide variety of electronic devices to help you connect with clients, communicate with colleagues around the world and stay abreast of the latest industry news. From your fax machine and electronic planner to your laptop and digital camera, Lyondell products are a part of the tools that help you get your work done. Our chemicals and polymers enhance the durability, safety and energy efficiency of many electronic items. Solvents are used to manufacture circuit boards and semiconductor chips. Styrene monomer is a component of computer housings, and allyl alcohol is used to make exceptionally clear, scratch-resistant anti-glare screens. Right down to the casing of your cell phone, Lyondell products are a part of your work.

A FUTURE AS VAST AS THE WORLD'S IMAGINATION

NOT LONG AGO, THE BUSINESS OF CHEMISTRY WAS IN ITS INFANCY.

In a relatively brief period of time, technological advances have dramatically improved the world's standard of living. Just 20 years ago, when Lyondell was formed, who would have dreamed of the conveniences of today? Plasma TVs. Resealable sandwich bags. Easy-to-clean, scrubbable interior paints. Bicycle safety helmets. MP3 players. Never has civilization seen the rapid innovation and development that we have experienced in our lifetimes. And Lyondell products are a part of that modernization: helping make new products better, helping make lives easier.

Over the past 20 years, Lyondell's investments in acquisitions and expansions have broadened our product portfolio and the global markets we serve. Virtually every major industry today relies on the chemicals and polymers we produce to enhance their products' quality, durability or effectiveness. Among the major industries that depend on Lyondell products are the transportation; packaging; furnishings; electronics; building and construction; adhesives, inks and coatings; and industrial and machinery markets.

Although our industry is sometimes viewed as mature, the factors that drive demand for Lyondell's products are dynamic. In addition to the demand created by the growth of the world economy, new uses for our products are discovered every day.

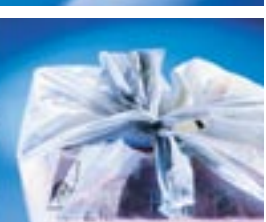
Picture the world in another five, 10 or 20 years. How will we live? What conveniences and luxuries will we take for granted that are beyond the realm of our comprehension today? Whatever they are, we know that Lyondell products will be a part of that future, and more people around the world will be able to enjoy the conveniences of modern life than ever before.



Yesterday→ Today

Milk Packaging: An Evolution in Convenience

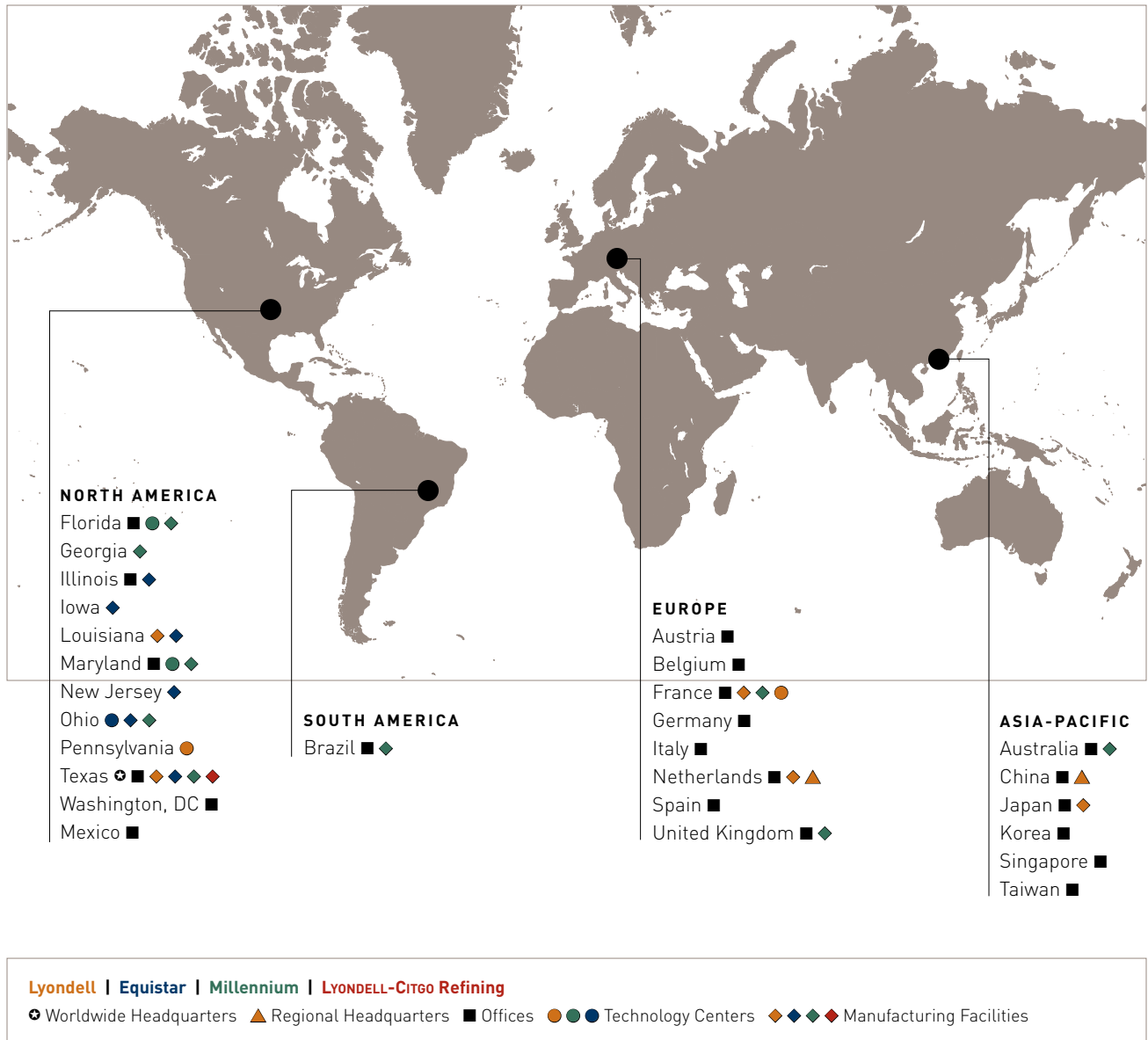
The safe packaging of milk has been important since consumers began to move away from rural dairy regions and into cities. From heavy, breakable glass bottles that had to be sanitized for reuse, milk packaging has continued to evolve, moving in time to lighter paperboard cartons and durable plastic jugs. Today, single-serving, 16-ounce plastic containers are making the nourishment of milk portable, from school vending machines to automobile cup holders. Made with high-density polyethylene, these containers help milk stay fresh longer, and the convenient packaging encourages consumers to select fresh milk as their beverage of choice on the go.



?

What will be the next use
for our products?
Only the future will tell.

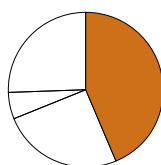
LYONDELL AT A GLANCE



With operations on five continents, Lyondell is a global leader in the manufacture of chemicals and polymers, including ethylene, propylene, propylene oxide, titanium dioxide, styrene, polyethylene and acetyls. These are the building blocks for countless goods and products that people use every day, such as clothing, food packaging, household furnishings, detergents, cosmetics, automotive parts, construction and home-building materials, paints and coatings, gasoline and many other applications. Whether our products are used to supply the necessities of modern life or some of the first convenience products needed in developing countries, our chemicals help enhance quality of life for people around the world.

Lyondell Operates in Four Segments

ETHYLENE, CO-PRODUCTS AND DERIVATIVES



Total Revenues
\$10.9 billion

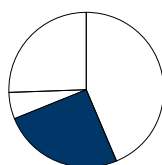
BUSINESS OVERVIEW

We are a leading North American producer of ethylene, propylene, polyethylene, ethylene glycol and acetyls. These highly cyclical businesses are capable of generating significant earnings and cash flow, particularly during positive periods of the business cycle.

BUSINESS STRENGTHS

- Large scale operations and the operational flexibility to use the lowest-cost raw materials provide competitive advantages
- A key producer of polymer resins for plastic films, blow-molded and extruded products and wire and cable insulating resins and compounds for electrical, electronic, telecommunications and automotive markets
- 1,400-mile ethylene/propylene pipeline distribution system that spans the Texas Gulf Coast and into Louisiana

PROPYLENE OXIDE AND RELATED PRODUCTS



Total Revenues
\$6.3 billion

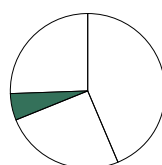
BUSINESS OVERVIEW

We are the world's leading producer of propylene oxide (PO), with manufacturing operations in North America, Europe and Asia. This business offers strength in process technology in an industry that we believe provides growth opportunities both domestically and internationally.

BUSINESS STRENGTHS

- Created and owns the industry standard in propylene oxide (PO) technology and is leading the development of one-step PO production technology
- A leading producer of butanediol, a PO derivative and key intermediate chemical for engineering plastics and urethanes
- A leading global producer of propylene glycol, a PO derivative and key component of aircraft deicers and fiberglass resins, and propylene glycol ethers, key components of coatings, cleaners and solvents

INORGANIC CHEMICALS



Total Revenues
\$1.4 billion

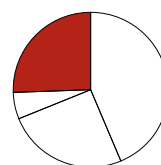
BUSINESS OVERVIEW

We are a leading global producer of TiO_2 , offering state-of-the-art products in all major customer markets, including paints and coatings, plastics and paper. We believe that these businesses offer a less volatile stream of earnings over a business cycle.

BUSINESS STRENGTHS

- The number-two global producer of the world's largest-volume pigment, TiO_2 , which is used to impart whiteness and opacity to paints, plastics and paper
- A strong technology base, with 77 percent of our TiO_2 production based on chloride technology

REFINING



Total Revenues
\$6.3 billion^(a)

BUSINESS OVERVIEW

Houston-based LYONDELL-CITGO Refining LP (LCR) is a joint venture between Lyondell and CITGO Petroleum Corporation. LCR provides strong cash generation under a supply contract.

BUSINESS STRENGTHS

- Operational flexibility to refine lower-cost, heavy, high-sulfur crude oil
- Crude oil supply contract allows the realization of a predetermined margin on every barrel refined under the contract
- A leader in the production of clean fuels

^(a) Represents 100 percent of LCR's operating results. Lyondell's 58.75 percent pro rata share of revenues is \$3.7 billion.

KEY DATA

Major Products	Rated Capacity (Billion lb/yr)	2005 Major Capacity Positions	
		Global	North America
Ethylene	11.6	5	2
Propylene	5.0		2
Butadiene	1.2	3	2
Benzene (million gal/yr)	310		3
Ethylene glycol	1.4		2
Ethylene oxide	1.5		2
High-density polyethylene	3.2		3
Low-density polyethylene	1.4		3
Linear low-density polyethylene	1.2		4
Propylene oxide	4.6	1	1
Styrene monomer	5.1		
MTBE (thousand bbl/day)	77	1	1
Propylene glycol & propylene glycol ethers	1.6	2	2
Toluene diisocyanate	0.3		
Butanediol	0.4	2	3
TiO_2 (thousand metric tons/yr)	670	2	3
Vinyl acetate monomer	0.8	3	2
Acetic acid	1.2	3	2

KEY DATA

Major Products	Rated Capacity
Crude run capacity (thousand bbl/day)	268
Gasoline (thousand bbl/day)	120
Diesel (thousand bbl/day)	95
Benzene (million gal/yr)	10
Paraxylene (million lbs/yr)	266
Orthoxylene (million lbs/yr)	226

LYONDELL DIRECTORS & OFFICERS



Carol A. Anderson^{1,3}
Managing Director,
New Century
Investors, LLC



Dr. William T. Butler^{2,3,4}
Chairman of
the Board,
Lyondell Chemical
Company
Chancellor
Emeritus,
Baylor College of
Medicine



Stephen I. Chazen
Senior Executive
Vice President
& Chief Financial
Officer,
Occidental
Petroleum
Corporation



Worley H. Clark³
Retired Chairman,
President & Chief
Executive Officer,
Nalco Chemical
Company



Travis Engen^{2,3,4}
President &
Chief Executive
Officer,
Alcan Inc.



Paul S. Halata
President &
Chief Executive
Officer,
Mercedes-Benz
USA, LLC



Stephen F. Hinchliffe, Jr.^{1,2}
Chairman of the
Board & Chief
Executive Officer,
BHH Manage-
ment, Inc.



Danny W. Huff^{1,2}
Retired Executive
Vice President,
Finance & Chief
Financial Officer,
Georgia-Pacific
Corporation



Dr. Ray R. Irani
Chairman of
the Board,
President & Chief
Executive Officer,
Occidental
Petroleum
Corporation



David J. Lesar^{1,3,4}
Chairman of
the Board,
President &
Chief Executive
Officer,
Halliburton
Company



David J.P. Meachin²
Chairman &
Chief Executive,
Cross Border
Enterprises, L.L.C.



Daniel J. Murphy
Chairman of the
Board, President
& Chief Executive
Officer, Alliant
Techsystems, Inc.



Dan F. Smith⁴
President &
Chief Executive
Officer,
Lyondell Chemical
Company



Dr. William R. Spivey^{1,2}
Retired
President &
Chief Executive
Officer,
Luminent Inc.

¹ Audit Committee, ² Corporate Responsibility and Governance Committee, ³ Compensation and Human Resources Committee, ⁴ Executive Committee
Symbols in blue indicate committee chair position.

Lyondell Executive Officers

Dan F. Smith
President and
Chief Executive Officer

Morris Gelb
Executive Vice President
and Chief Operating Officer

T. Kevin DeNicola
Senior Vice President and
Chief Financial Officer

James W. Bayer
Senior Vice President,
Manufacturing

Edward J. Dineen
Senior Vice President,
Chemicals and Polymers

Kerry A. Galvin
Senior Vice President,
General Counsel and Secretary

Bart de Jong
Vice President and President,
Millennium Inorganic Chemicals

John A. Hollinshead
Vice President,
Human Resources

Lyondell Officers

John R. Beard
Senior Vice President
and President,
Lyondell Europe

W. Norman Phillips, Jr.
Senior Vice President,
Fuels and Raw Materials

Charles L. Hall
Vice President and Controller
and Chief Accounting Officer

Allen C. Holmes
Vice President,
Tax and Real Estate

Gerald A. O'Brien
Vice President,
Deputy General Counsel

José L. Rodriguez
Vice President, Optimization and
Operations Planning

Eric A. Silva
Vice President,
Information Technology

Karen A. Twitchell
Vice President and Treasurer

Dr. Charles C. Yang
Vice President and President,
Lyondell Asia Pacific

All information correct as of February 28, 2006.

SHAREHOLDER INFORMATION

Stock Exchange

Lyondell Chemical Company's common stock is listed on the New York Stock Exchange under the symbol LYO. As of December 31, 2005, there were 7,347 shareholders of record.

Annual Meeting

The Annual Meeting of Shareholders will be held on Thursday, May 4, 2006, beginning at 9:00 a.m. in Lyondell Chemical Company's General Assembly Room, 42nd floor, One Houston Center, 1221 McKinney, Houston, Texas. Notice of the meeting, proxy statement and proxy card will be sent to shareholders in advance of the meeting.

Shareholder Information Services

Shareholders and other interested parties can learn more about Lyondell's earnings, dividends, stock price, news releases, SEC filings and other information through the following information services:

- Visit Lyondell at www.lyondell.com.
- Call Lyondell Investor Relations at 713-652-4590.
- Mail your questions or request to us at:
Lyondell – Investor Relations Department
PO Box 3646
Houston, Texas 77253-3646

Investor Relations Contact

Douglas J. Pike, 713-309-7141

Corporate Governance

Lyondell's Corporate Governance information is available at www.lyondell.com.

Certifications

Lyondell has filed the certifications of its Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act as exhibits to its Annual Report on Form 10-K for the year ended December 31, 2005. In May 2005, as required by Section 303A.12(a) of the NYSE Listed Company Manual, Lyondell's Chief Executive Officer submitted his certification to the NYSE that he was not aware of any violation by Lyondell of the NYSE's corporate governance listing standards.

Online Annual Report

Lyondell's Annual Report is available online at www.lyondell.com.

Easy Ways to Accumulate Additional Shares of Lyondell Stock

Lyondell provides a convenient way to add to your stock ownership through an automatic dividend reinvestment plan. Shareholders can acquire additional shares of Lyondell stock by reinvesting cash dividends or making optional cash payments.

Registrar and Transfer Agent

To enroll in the dividend reinvestment plan, or to get answers to questions about your stock account or dividends, contact:

American Stock Transfer & Trust Company
PO Box 922
Wall Street Station
New York, NY 10269-0560
1-877-749-4981
Email: info@amstock.com
Web site: <http://amstock.com>

Address shareholder inquiries, send certificates for transfer and address changes to:

American Stock Transfer & Trust Company
59 Maiden Lane
New York, NY 10038
1-800-937-5449
Email: info@amstock.com
Web site: <http://amstock.com>

Market Price and Dividends Paid by Quarter

Dollars	First	Second	Third	Fourth
2005				
Market Price Per Share				
High	35.65	28.87	29.81	29.00
Low	26.89	22.44	24.85	23.36
Cash Dividend				
Per Share	.225	.225	.225	.225
2004				
Market Price Per Share				
High	19.14	17.64	22.69	29.59
Low	14.58	14.80	16.51	20.90
Cash Dividend				
Per Share	.225	.225	.225	.225



www.lyondell.com