#### SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

#### FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER



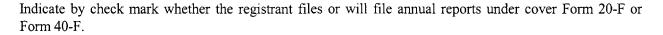
Pursuant to Rule 13a-16 or 15d-16 of The Securities Exchange Act of 1934 Date of Report: March 1, 2005

P.E,

#### **NOVA Chemicals Corporation**

1550 Coraopolis Heights Road, Moon Township, Pennsylvania, U.S.A. 15108

(Address of principal executive offices) Commission File Number: 1-13064



Form 40-F <u>√</u>

Form 20-	F
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Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes	No	7

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-N/A.

A copy of the Registrant's:

1. Annual Report for the fiscal year ended December 31, 2004.

are furnished herewith and are incorporated by reference into the following Registration Statements:

Registration Statement on Form S-8 #33-47673
Registration Statement on Form S-8 #333-520
Registration Statement on Form S-8 #333-9076
Registration Statement on Form S-8 #333-9078
Registration Statement on Form S-8 #33-86218
Registration Statement on Form S-8 #33-77308
Registration Statement on Form S-8 #333-11280
Registration Statement on Form S-8 #333-12910
Registration Statement on Form S-8 #333-101793
Registration Statement on Form S-8 #333-109424
Registration Statement on Form F-9 #333-13824

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#### **SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NOVA Chemicals Corporation

Jack S. Mustoe

Senior Vice-President, Legal, General Counsel and Corporate Secretary

Date: March 1, 2005

#### **EXHIBITS**

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Απας	nea	hereto	are:

1. Annual Report for the fiscal year ended December 31, 2004.

**NOVA Chemicals**: A Commodity Plastics and Chemical Company

NCX

2004 Annual Report

NOVA Chemicals — Focuse	d and	<u>Improving</u>
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re-manufacture commodity plastics and chemicals, with a focus on two product chains:

attiviene and polyethylene — styrene and polystyrene. Our industry is capital intensive

and cyclical. The balance of supply and demand for our products is the key determinant

at profitability.

The maintain a culture of relentless cost reduction and process improvement. Building

an our pasic products, we develop value-added materials and management processes

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5 Corporate Social Responsibility	
8 Board of Directors	
Executive Leadership Team	
<del>⊋ Share</del> holder Value	

NC	OVA Chemicals Highlights
(MILLI	IONS OF U.S. DOLLARS, EXCEPT PER SHARE AMOUNTS AND RATIOS)

(MILLIONS OF U.S. DOLLARS, EXCEPT PER SHARE AMOUNTS AND RATIOS)	2004	2003	2002
Revenue	\$5,270	\$3,949	\$3,091
Net income (loss) to common shareholders	\$ 252	\$ (1)	\$ (112)
Net Income (loss) per common share (1)			
— Basic	\$ 2.91	\$ (0.02)	\$ (1.30)
— Diluted	\$ 2.71	\$ (0.02)	\$ (1.30)
Cash from operations	\$ 346	\$ 15	\$ 359
Plant, property and equipment additions	\$ 242	\$ 130	\$ 71
Total assets	\$5,047	\$4,413	\$4,154
Net debt to total capitalization	42.9%	32.0%	43.5%
Return (loss) on average common equity (2)	19.1%	(9.8)%	(14.5)%
Closing share price			
— NYSE (U.S.\$)	\$47.30	\$26.95	\$18.30
— TSX (Cdn\$)	\$56.70	\$35.04	\$28.89

<sup>(1)</sup> There were 87 million weighted-average basic (95 million diluted) common shares outstanding in 2004; 87 million basic and diluted in 2003; 86 million basic and diluted in 2002.

#### Summarized Quarterly Financial Information

MILLIONS OF U.S. DOLLARS, EXCEPT PER SHARE AMOUNTS)	2004			2003						
	D	EC 31	SEPT 30	JUN 30	MAR 31	C	EC 31	SEPT 30	JUN 30	MAR 31
Revenue	\$1,	,527	1,379	1,238	1,126	\$1	,041	967	964	977
Operating income (loss)	\$	51	96	76	41	\$	3	(56)	(36)	14
Net income (loss)	\$	164	57	29	12	\$	(8)	(58)	82	12
Net income (loss) per share										
— Basic	\$	1.91	0.64	0.31	0.08	\$ (	0.18)	(0.75)	0.86	0.05
— Diluted	\$	1.78	0.60	0.30	0.08	\$ (	0.18)	(0.75)	0.79	0.05
Weighted-average common										
shares outstanding (millions)										
— Basic		84.8	87.2	87.6	87.3	;	87.0	86.8	86.8	86.7
— Diluted		92.4	95.9	96.9	89.2	;	87.0	86.8	96.0	87.4

<sup>(2)</sup> Net income (loss) to common shareholders divided by average common equity (excluding preferred securities and retractable preferred shares).

## Fellow Shareholders,



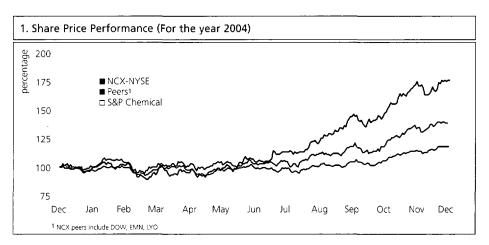
Jeffrey M. Lipton President and Chief Executive Officer

After three years of losses, NOVA Chemicals earned a profit in 2004. We are starting to climb out of the longest and deepest trough the chemical industry has experienced in over forty years. It feels good to finally be able to say that, but we still have a long way to go to deliver on our full potential. I'm very pleased with our company's continued development and confident that current market conditions and our prospects for the next few years appear to be aligning in a way that will allow us to outperform for shareholders during the upturn in the same way we did in the downturn.

In 2004, we continued to manage cash flow well, sell non-strategic assets for good prices, and improve the way we operate the company. We also earned net income to common shareholders of \$252 million or \$2.71 per share.

Our two businesses earned \$186 million compared to a net loss of \$109 million in 2003. Asset sales and a settlement of an old tax issue were offset by accounting charges for stock-based compensation and other corporate items. The result was \$76 million of other net income compared to \$100 million in 2003.

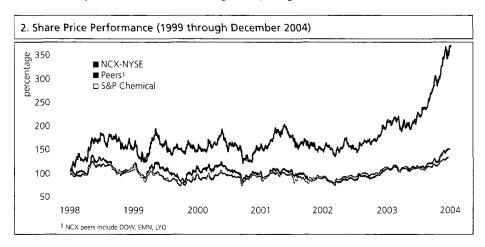
NOVA Chemicals shareholders continued to benefit from our improved balance sheet, stronger business results and prospects for the coming years. The chart below (Figure 1) shows that our common stock outperformed our peers' equity on the New York Stock Exchange (NYSE) and the S&P Chemical Index in 2004. Our stock was up 76% on the NYSE and 62% on the Toronto Stock Exchange as the Canadian dollar continued to strengthen.



The next chart (Figure 2) shows our relative performance since 1999, our first full year of operation as an independent company. NOVA Chemicals has outperformed our peers and the Index by a widening margin.

Investors have, in my view, continued to respond to our success in improving the risk/reward balance for our company. Given the highly cyclical nature of our industry, risk will always be an important part of the investment equation. With global economies strengthening and our industry supply/demand balance shifting to the producers' favor, the big questions for the next few years will focus more on the reward, or

earnings potential, of NOVA Chemicals and its chemical industry peers. The prospects, while certainly still far from a sure thing, are quite good.



First, let's look at the broad industry perspective.

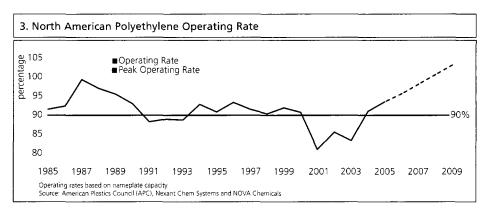
The long, severe "depression" in our industry has sharply curtailed investment in new facilities almost everywhere in the world. Major oil companies have announced decisions to exit petrochemicals in favor of energy exploration and development, and Liquefied Natural Gas projects. Independent chemical companies find their investment plans limited by balance sheets that still suffer from the difficulties of the trough. China and India, rapidly growing consumers of our products, find it relatively expensive to raise capital and hard to motivate investment because feedstock in both countries is about the most expensive in the world.

The Middle East, with the lowest feedstock costs and therefore the best project economics, remains in turmoil that has slowed down existing projects and makes it very hard for international companies to consider starting new ones in a number of countries.

As a consequence, even with robust industry prospects, global capacity growth is likely to lag demand. In the U.S., our major market, increasingly high and volatile feedstock costs make it difficult to think about investing in new facilities for basic petrochemicals and plastics. International companies are looking elsewhere for new sites and are prepared to wait for troubled areas to calm down before investing the hundreds of millions necessary to build new plants.

On the demand side, a number of major questions have been answered in 2004. Demand for our products grew rapidly, despite record high prices. Polyethylene demand for North American manufacturers increased 9% in 2004. Styrenic polymer demand was up 5%. North American consumer products, industrial packaging, new polymer-based construction techniques and expanded exports were major growth factors. Commodity plastic usage, in just about every market segment, proved that the "value in use" of our products far exceeded record high prices.

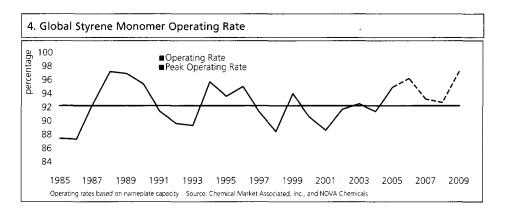
Figures 3 and 4 show projected supply/demand balances for the North American polyethylene and global styrene markets. The details are spelled out in the Business and Product Summary section of this report on pages 14 and 19, but the essence of both projections is that demand is expected to be well above the capacity utilization levels our industry has been able to sustain for any significant period of time. In the past, similar utilization levels have led to greatly expanded margins for producers. It seems likely to happen again. In fact, if the experts are close to being correct we will see a very long and very strong period of earnings and cash flow.



#### Shareholder Value Growth

Our job at NOVA Chemicals is to deliver more earnings per share and to utilize our cash flow to generate more shareholder value than most investors now expect from us. That is the only way we will continue to outperform other investment alternatives.

Investors understand how much each penny of margin improvement means to NOVA Chemicals. After we complete the current 7.5 million common share buy-back program a 1¢ per pound change for each of our four major products for a year comes to \$1.12 of earnings per fully diluted share. If, as industry consultants believe is likely, all of our products peak at about the same time, that leverage is highly relevant to our investors.



The majority of analysts are projecting the next earnings peak for our products to generate the same chain margins, and to last about as long, as the last industry peak in the mid 1990's. But that surge in profitability came from a series of plant problems rather than a fundamental supply/demand imbalance and lasted only about one year.

In our view, the supply/demand imbalance for 2005 through at least 2008 looks much more like the very high profit two to three year period the industry experienced in the late 80's. If we have reasonable global economic growth, as economists predict, we will have a structural shortage of manufacturing capacity that will take a number of years to correct. As a consequence, we think NOVA Chemicals and the rest of the petrochemical industry will outperform the so-called consensus expectations. NOVA Chemicals has much more earnings leverage to the ethylene/polyethylene and styrene/polystyrene chains than others do.

We are positioned to outperform in other ways as well.

NOVA Chemicals cannot have a meaningful impact on the industry-wide cycle — but we can exceed investor expectations in a number of areas where our efforts can make a big difference.

We are using our financial strength and balance sheet flexibility to buy back 7.5 million or 10% of our "outstanding shares." As our cash flow builds, we will continue to return surplus cash to our shareholders, reduce debt and further strengthen our balance sheet.

Our financial strength has also allowed us to move up plant maintenance and modernization projects from 2006 and 2007 to 2005. This will improve reliability during the coming peak years, reduce operating costs, improve energy efficiency and in some cases improve throughput rates. We have scheduled a series of major turnarounds in 2005, and all will add to our peak earnings potential.

We've announced plans for a commodity polystyrene joint venture with BP in Europe and hope to have it operating by June 2005. The venture will improve market coverage and add manufacturing flexibility. Most importantly, it will allow very significant cost reduction in what has been our most difficult market place. We will begin the venture looking for at least \$40 million per year of savings in the combined business and an appetite for achieving a lot more, as quickly as possible.

Some investors have questioned the sustainability of our historic 6¢ per pound cash-cost advantage in Alberta, compared to the two-thirds of U.S. ethylene production that relies on natural gas liquid feedstock. That advantage slipped to 4¢ per pound during the trough as reduced feedstock demand on the U.S. Gulf Coast resulted in lower ethane and propane prices in that market. As activity on the Gulf has stepped up, our advantage has expanded beyond previous expectations and averaged 10¢ per pound for the last 6 months of 2004. We believe we will continue to do better than expectations in a strong demand environment.

Despite the fact that we have been talking about our new Performance Products for a period of time, few investors expect them to have a significant impact on our company's performance in the near future. We are working very hard to surprise them and I believe we will.

This annual report provides information about the Performance Products we are focused on. In the fourth quarter of 2004 the combination of polyethylene and styrenics Performance Products added EBITDA at a \$42 million/year rate. By 2006 we should have enough manufacturing capacity in place to generate \$170 million/year of EBITDA from these products at expected margins. By the end of our current expansion program in 2007 the total EBITDA capability from new Performance Products should be more than \$270 million/year.

Since there is little, if any, of this potential in current analyst projections, sales of Performance Products at anywhere close to our manufacturing capability will allow us to significantly outpace expectations for 2006 and 2007. We have a lot of confidence in our ability to get that job done.

All of the new products have been well accepted and valued by our development partner customers. We have reached or exceeded target performance specifications in every product area and have straightforward, relatively low-cost expansion programs under way.

The largest styrenics opportunity we have is with ARCEL® — a high performance, moldable foam that competes with expanded polypropylene, expandable polystyrene and other packaging materials on both damage prevention and total logistical cost reduction for electronic products of all kinds. It is especially valuable for large, flat screen TV sets, computers and printers.

We have tripled the ARCEL business over the last two years. A plant expansion was started up this past summer and despite operating at well over rated capacity, we are still sold out.

In the third quarter of 2005 we will double capacity again — and expect to be sold out as we start-up. We expect additional expansion to allow ARCEL sales of 100 million pounds per year by the end of 2006, in a growing 2 billion pound per year protective foam packaging market and in some new market areas as well.

If we achieve our ARCEL objectives, that alone will have a significant impact on our company. As we look at our portfolio of polyethylene and styrenics Performance Products we can't help but get energized about their potential to deliver excellent value to our customers and generate excellent returns for our shareholders at the same time.

#### Financial Transparency

Investors, regulators and the public have clearly demonstrated their concerns about the need for trustworthy accounting and clear reporting of corporate financial results. NOVA Chemicals, since its inception, has worked to provide transparency in all of our public statements. We are one of a very small number of Canadian companies with U.S. stock market listings that achieved Sarbanes-Oxley Act 404 compliance one year in advance of requirements.

As you examine the data in this report, there is one area in particular that differentiates NOVA Chemicals from some of its peers. We not only expense stock options using a commonly accepted approach, we also update the potential cash-cost of other stock-based compensation on a quarterly basis by marking those potential costs to the market value of our stock. In 2004 we accrued after-tax charges of \$52 million against the eventual cash payment of these long-term incentives. The periodic charges, either plus or minus, relate directly to our share price. Our plans are designed to pay our employees at the mid-range of industry compensation programs. Of course, if we outperform for investors, the compensation will be higher than the mid-range and if we under-perform, it will be lower.

What is important for investors, is the fact that we have taken the potential costs into account and have clearly stated them. As the long-term incentives that are marked to the market are exercised, there should be no negative income surprises and we will not be adding to the shareholder float. Our accounting practices significantly reduced our reported income in 2004 because stock values increased strongly, but we think they provided important clarity to investors.

As the Board of Directors and employees of NOVA Chemicals look forward to 2005 and the buoyant economic picture for the coming years we are excited about our ability to continue to deliver exceptional value to our shareholders. We have been successful in the downturn and hope to be just as successful in the long, strong upturn we expect for the foreseeable future.

Finally, the Board and Management would like to express our appreciation to Janice Rennie who retired from the Board in 2004 after 14 years of valuable service to our company.

Sincerely.

Jeffrey M. Lipton

President and Chief Executive Officer

February 4, 2005



### 2004 Year-End Review

OVA Chemicals works in a fast-paced environment of constant change. One thing that does not change; however, is the level of energy we bring to executing our simple and focused five-point strategy. The year 2004 was no exception, as the summary below indicates:

#### ===ecus on Commodity Plastics and Chemicals

—We sold our interest in two non-strategic assets for cash proceeds of \$97 million. During the year we completed the sale of our existing Alberta ethylene pipeline (the Ethylene Delivery System) and the sale of our interest in the alberta Ethane Gathering System — taking advantage of record highs in the Canadian dollar and maintaining access to transportation rights on both pipelines.

#### 2. Be the Low-Cost Provider

- We announced a non-binding agreement in principle to merge our European styrenic polymers business into a new 50:50 joint venture with BP p.l.c. Pending final agreements and regulatory and other approvals, the planned joint senture has the potential to reduce operating costs, by at least \$40 million per year.
- <u>-construction began on a new feedstock pipeline for our Joffre facility, which will be owned by Taylor NGL Limited and operated by NOVA Chemicals increasing feedstock flexibility for our Joffre facility and enhancing our Alberta envirene cost advantage.</u>
- —We permanently shut down our highest-cost polyethylene line at the St. Clair River site in Corunna, Ontario emoving 275 million pounds of capacity, with expected cost savings of U.S. \$5 million per year.
- \_we reduced our non-feedstock variable costs by \$54 million for the year through a wide variety of business process moreovement projects, such as upgrading Advanced Process Control systems, which improved product quality and consistency while reducing costs through improved yields and minimized off-grade production.

#### I. Invest Only for High Returns

- We competed for and won the opportunity to work with Pemex Petroquimica to conduct a feasibility study for sproposed Mexican ethylene-based petrochemicals and plastics complex known as Project Phoenix. If the project proceeds, initial assessments indicate potential for the proposed complex to achieve a competitive position that squals or exceeds that of our cost advantaged facilities in Alberta. If the study results are positive, we will negotiate participation as a strategic joint venture partner in the project.
- —Under a normal course issuer bid, we began to repurchase shares of NCX common stock through the Toronto Stock exchange. By December 31, 2004, we repurchased 4.9 million shares through this buy-back program reducing the number of shares across which earnings per share are spread.

#### 4. Build Upon and Add to Our Sustainable Competitive Advantage

- —We increased sales of our Advanced SCLAIRTECH polyethylene resins by 27% introducing SURPASS rotomolding resins to build on our leading position in the rotational molding products market.
- —We increased the production capacity of ARCEL moldable foam resins by almost 100% to meet record-high levels of semand for this unique material.

#### Be an Industry Consolidator

— the proposed 50:50 joint venture, which merges the European styrenics businesses of NOVA Chemicals and BP p.l.c., sexpected to be a leading manufacturer and marketer of styrenic polymers in Europe. The new joint venture is anticipated to be operational by mid 2005, pending final documentation, regulatory and other approvals.



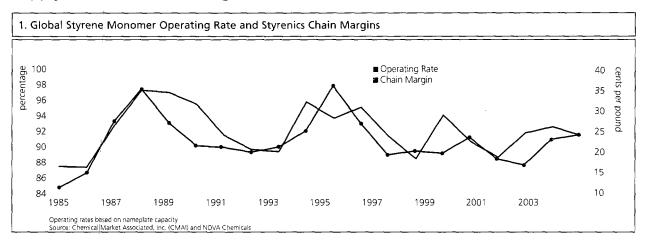
## 2004 Business Summary

NOVA Chemicals produces commodity plastics and chemicals, with a focus on two product chains: ethylene and polyethylene — styrene and styrenic polymers. Our plastics are used to manufacture products that are essential to everyday life — including food packaging, construction insulation and shrink-wrap for industrial customers.

Our businesses are highly cyclical and the balance between supply and demand for our products ultimately drives results. As supply tightens, prices increase and earnings expand.

In 2004, economic conditions improved and demand strengthened. Years of very limited investment by the entire industry have resulted in increased operating rates, prices and earnings. Many industry experts believe we are now entering what could be a long and strong earnings period for our industry. All companies in the industry will benefit from the cyclical upswing; however, we believe NOVA Chemicals is positioned to deliver substantially more value to shareholders.

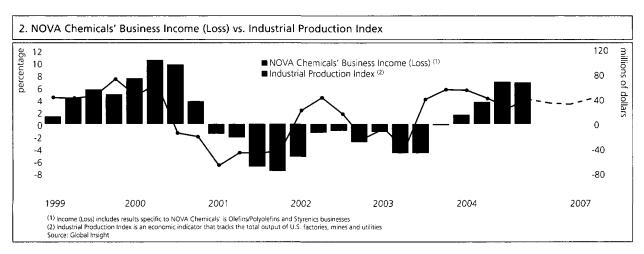
## Industry Dynamics — Supply, Demand and Earnings



The balance between supply and demand is the main driver of profitability in commodity plastics and chemicals. Operating rates represent the percentage of production capacity utilized; rates rise and fall with changes in supply and demand.

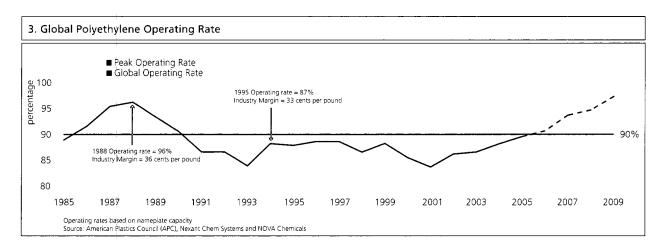
Peak conditions are the result of increased demand (driven by economic growth) and scarcity of supply (a consequence of limited investment in new capacity), which lead to higher operating rates, increased prices and improved earnings.

The relationship between operating rates and earnings in the form of chain margins can be seen in the CMAI data in Figure 1, which also illustrates the cyclicality of our industry.



#### **Emerging from the Trough**

NOVA Chemicals' income from our Olefins/ Polyolefins and Styrenics businesses tends to correlate with the U.S. Industrial Production Index <sup>(2)</sup>, as seen in Figure 2. In 2004, the U.S. Industrial Production Index grew by 4.1%. Income from our two principal businesses grew to \$186 million in 2004 from a loss of \$109 million in 2003. Global Insight, a leading economic consulting firm, predicts Industrial Production will continue to grow for the next three years. Experts also anticipate strong growth for the chemical industry after three years of trough market conditions.



#### Polyethylene Demand Outpaces Supply

In the ethylene and polyethylene chain, it is the supply/demand dynamics for polyethylene that usually drive margins. Peak market conditions exist during periods of tight polyethylene supply and result in rising prices and higher producer margins. When polyethylene operating rates rise above the 90% threshold, product becomes scarce and profits increase.

#### Global Polyethylene — Tight

As shown in Figure 3 (APC and Nexant Chem Systems), global polyethylene operating rates in 2004 reached 88%, an increase from the 86% operating rate in 2003. Global polyethylene demand is projected to grow at a rate of 5.5% per year while supply capacity is forecasted to grow an average of only 3.9% per year from 2004 through 2009. This ongoing imbalance is expected to tighten supply and raise operating rates by 1% to 3% per year.

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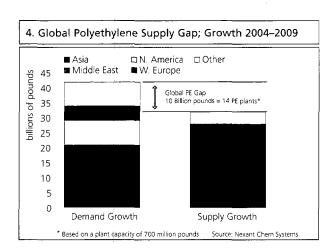
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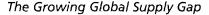
the billions and available in fresh food markets around the globe. This is a basic "one-time use" application; a commodity staple that provides consumers with convenient and hygienic fresh food packaging. Additionally, retailers have instant product identification for faster, more accurate pricing at checkout, as well as reduced pilferage. The total food packaging market for polyethylene film in North America is 3.6 billion pounds annually, including both commodity and performance resins.

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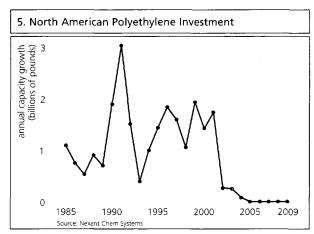






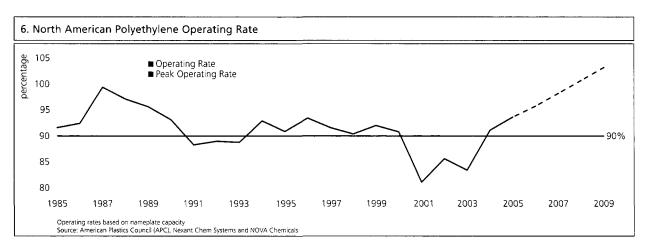
The data from Nexant Chem Systems in Figure 4 shows the announced polyethylene supply additions versus the total demand growth for each major geographic region from 2004 through 2009. To keep pace with projected demand, an increase in capacity of 42 billion pounds is required. The announced global capacity investment for this same time frame equals 32 billion pounds. Based on this estimate, an additional three new polyethylene plants per year would be required to keep pace with expected demand, which is not likely to occur given the 3-5 year lead time required to design and build new facilities.

The majority of announced global polyethylene capacity expansions are in Asia and the Middle East. These capacity increases will not keep pace with global demand growth. Any delay in Middle East capacity investments, as a result of turmoil in the region, could widen the supply and demand gap and further strengthen global operating rates and extend peak conditions.



#### North America — Tighter Still

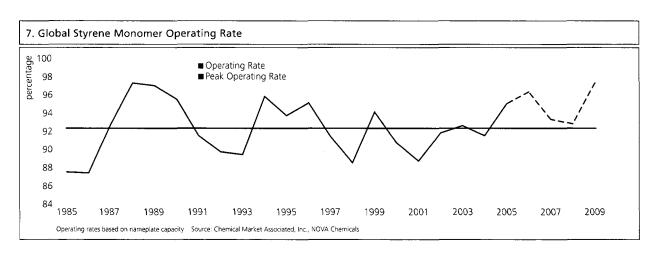
The story in North America is even more dramatic. A combination of poor industry returns through the trough, high and volatile energy costs, and limited access to new sources of low-cost feedstock have suppressed investment in the region to the point where there are no announcements of new polyethylene capacity through 2009. Nexant Chem Systems provided the data in Figure 5.



As reported by the APC, operating rates in 2004 for the North American polyethylene industry were 94%, up from 85% in 2003. The domestic North American polyethylene market totals about 32 billion pounds. The projected demand growth rate, as reported by Nexant Chem Systems, is 4.8% per year from 2004 through 2009. To date, there are no new announced capacity investments for North America through 2009.

This lack of investment is expected to keep North American operating rates above the 90% peak threshold level and above the global operating rate for the foreseeable future. As shown in Figure 6, this sets the stage for what we believe could be an especially attractive North American market during what industry experts have predicted to be a long and strong global polyethylene peak.





#### **Styrenics Chain Growth**

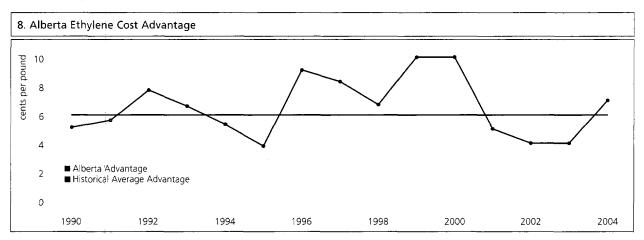
operating rates.

Styrenics chain margins are driven by the same supply and demand fundamentals as the ethylene and polyethylene chain, with one significant difference. In the styrenics chain there is less styrene capacity than there is derivative capacity to consume it. As a result, styrene is the bottleneck in the styrenics chain, and global styrene operating rates are the key indicator of supply and demand tightness and potential producer profitability. The industry normally cannot sustain styrene operating rates above 92% utilization, so at that point markets tend to tighten, producer profitability increases and peak market conditions emerge. As seen in Figure 1 (page 12), margins for the

styrenics chain historically track styrene monomer

In 2004, global demand for styrene grew by 4%, supply grew by approximately 5% and operating rates declined to 91%. Current CMAI supply/demand forecasts suggest this trend will reverse going forward. Styrene demand is projected to grow at a rate of 4.5% per year while supply capacity is expected to grow an average of 3.5% per year from 2004 to 2009. As indicated in Figure 7, styrene operating rates are expected to continue to rise and remain above the 92% threshold for the forseeable future, potentially setting the stage for a long and strong global peak in styrenics.

## NOVA Chemicals — Delivering More



We are highly leveraged to the ethylene and polyethylene chain and the styrenics chain, which according to industry experts look as if they will peak soon and at roughly the same time. While all companies in our industry will benefit from a cyclical upswing; we believe NOVA Chemicals is positioned to deliver substantially more value. Our leverage, combined with successful efforts to improve our balance sheet and the quality of our business, position us to take full advantage of the upcoming peak and opportunities to enhance shareholder value.

#### Feedstock Advantage

In 2004, feedstocks were a competitive advantage for NOVA Chemicals. Our Alberta ethylene cost advantage expanded, and at Corunna we exploited the crude oil/naphtha price differential and our earnings from energy co-products rose dramatically. Our Joffre, Alberta site has two major competitive cost advantages: feedstock and scale. The feedstock portion of the Alberta Advantage is based on the natural gas transportation cost differential between delivery from Western Canada and the U.S. Gulf Coast (USGC) to major markets. The scale advantage includes the operating and energy efficiency of these world-scale assets and the infrastructure that supports them. During the last 15 years, our Joffre

ethylene cost advantage has averaged  $6\mathfrak{p}$  per pound. In 2002 and 2003, excess supply reduced the price for ethane relative to natural gas on the USGC and our advantage dropped to an average of  $4\mathfrak{p}$  per pound. In the second half of 2004, demand for ethane began to improve on the USGC and for 2004, our average ethylene advantage increased to  $7\mathfrak{p}$  per pound.

The feedstock flexibility at NOVA Chemicals' Corunna, Ontario site provides a number of competitive advantages. Our flexi-cracker has the capability to switch from using almost 100% heavy-based (crude oil, naphtha and condensates) feedstocks to using a balance of both heavy- and light-based (natural gas liquids) feedstocks, and can do so based on market conditions for feedstocks, ethylene and co-products. Most North American crackers do not have this flexibility. When the price of naphtha increases at a faster rate than crude oil, our Corunna flexi-cracker's capability to use crude oil as a primary feedstock provides a sizable cost advantage. The Corunna plant also produces a wide range of co-products, such as propylene and butadiene. Earnings from co-products, primarily from our Corunna flexi-cracker, increased by 29% in 2004 over 2003 as the rise in energy prices, and higher demand, led to increased co-product values.





# Charbroil

## COOKED COOKED

#### SURPASS PERFORMANCE POLYETHYLENE

#### **Extruded Film**

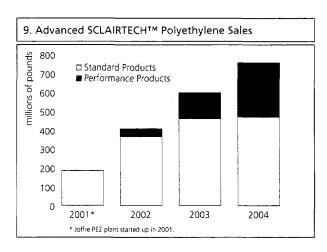
NOVA Chemicals launched its first SURPASS film grades in 2003 and sales volumes continued to grow rapidly through 2004, with new customers in North America, Europe and Asia. SURPASS film resins boast exceptional optical properties. Clarity and gloss are essential to enhanced package graphics, which provide the consumer's first impression of a product. The North American performance food packaging market is about 1.3 billion pounds annually and similar markets are growing in other parts of the world.

#### **Higher-Value Performance Products**

NOVA Chemicals is utilizing our unique technologies to develop a portfolio of performance polymers. Complementing our existing commodity polymers, these unique plastic resins offer greater value to our customers and contribute higher margins for NOVA Chemicals.

Our strategy for developing performance polymers:

- Stay with What We Know. The new products are based on the same set of technical skills and assets we have been focused on for our commodity products. Small changes to our core products can deliver big results for our customers, with minimal capital.
- Take a Portfolio Approach. We focus our efforts on the areas most likely to succeed. We target applications that are growing the fastest, in markets that we know well. This approach ensures higher success rates and greater returns.



#### Advanced SCLAIRTECH Polyethylene

In 2004, total sales volume of Advanced SCLAIRTECH resins grew by 27%, exceeding our target of 750 million pounds. Sales of Performance Products, those products yielding more than 6¢ per pound premium over standard grades, more than doubled.

The SURPASS family of polyethylene resins represented 60% of our total performance polyethylene sales growth in 2004. These products, first introduced in 2003, are made at our new Joffre PE2 plant, using a combination of our proprietary single-site catalyst and Advanced SCLAIRTECH technology.

SURPASS film resins deliver a unique combination of processability, puncture resistance and exceptional optical properties not found in traditional single-site polyethylene resins. SURPASS thin-wall injection molding resins are distinguished by superior toughness and flexibility, coupled with the ability to fill the thinnest molds faster than other polyethylene products. SURPASS rotational molding resins exhibit significantly greater stiffness and toughness and can be used in a wide variety of applications.

#### Technology Licensing

After the planned start-up in 2007 of a licensee's new polyethylene production facility in India, our proprietary SCLAIRTECH™ polyethylene technology will be used for producing almost 45% of all polyethylene in that country. India has one of the fastest growing economies in the world, where plastics consumption has increased at a rate of 14% per year during the last five years. SCLAIRTECH technology was selected for its product slate flexibility to produce resins for a multitude of end-use applications to meet the needs of the Indian marketplace. The licensee's facility in India will be NOVA Chemicals' fourteenth SCLAIRTECH technology license.

#### Styrenics Protective Packaging

ARCEL® moldable foam resin combines the toughness of polyethylene and the processability of polystyrene to yield a uniquely resilient inter-polymer. Improved foam packaging materials are needed to reduce the risk of damage that comes with rapidly growing business-to-consumer deliveries, and higher-performing ARCEL resins have quickly become the resin of choice for premium protective packaging. During the last two years, NOVA Chemicals' ARCEL business has tripled in size by delivering significant benefits to the multi-billion pound protective foam packaging market. Capacity expansions are planned to take global production volume of ARCEL resins to 100 million pounds by the end of 2006.

#### Styrenics Food Packaging

Convenience is becoming increasingly important to consumers and as a result, the convenience food packaging market is rapidly expanding. In 2004, NOVA Chemicals' styrenic polymer sales in the food packaging market increased by 24% over 2003. We developed two new Performance Products targeted for the specific needs of this market — ZYLAR® EX resins, for cold temperature packaging; and DYLARK® FG resins, for use in microwavable packaging applications. By converting two commodity polystyrene lines at our Belpre, Ohio facility, we will have dedicated commercial production for these Performance Products by late 2005 and the first quarter of 2006, respectively.

#### Styrenics Construction

In Europe, EPS Silver™ resins were introduced to the marketplace in September 2004. EPS Silver offers significantly improved thermal insulation properties, as well as flame retardant benefits for construction and building applications. During 2004, we converted existing expandable polystyrene (EPS) capacity to manufacture EPS Silver at our Ribécourt, France facility. In 2005, we will continue to expand production capacity to supply this rapidly growing market. Another new EPS construction application meets a need for low-cost housing in Chile.



#### Financial Flexibility

Through the trough years we worked exceptionally hard to improve our balance sheet. We reduced costs, improved cash flow cycle time and increased our financial flexibility.

#### **Controlling Costs**

Having a low-cost position is fundamental in the commodity plastics and chemical industry. NOVA Chemicals has created a company-wide culture of cost reduction and business process improvement.

In 2004, we reduced fixed costs by shutting down our highest-cost polyethylene production line at our St. Clair River site in Corunna, Ontario. The shutdown of our A-line asset removed 275 million pounds of NOVA Chemicals' polyethylene capacity and is expected to reduce costs by approximately \$5 million per year.

During the last five years we have reduced our fixed costs, net of foreign exchange rate impacts, by an average of 4% per year.

We lowered our variable costs by \$54 million in 2004, through a wide variety of business process improvement projects. Upgrades in Advanced Process Control systems were implemented at a number of sites, which not only improved product quality and consistency but also reduced costs by improving yields and minimizing off-grade production. Formula optimization programs lowered the per unit production cost for targeted products. Process optimization projects led to higher throughput and reduced product cycle times.

In November 2004, we announced a non-binding agreement in principle with BP p.l.c. to merge our European styrenic polymers businesses into a new 50:50 joint venture. The joint venture is expected to be a leading manufacturer and marketer of styrenic polymers in Europe, and has the potential to deliver cost reductions of at least \$40 million per year. We anticipate the joint venture will be operational by mid-2005, pending regulatory and other approvals.

#### **Managing Cash**

Gathering System.

As our industry enters a period of potential high returns, it is important for us to use cash effectively. In 2004 we generated a total of \$219 million from the successful resolution of a tax dispute and the sale of our interests in two non-strategic assets. We booked \$122 million in gains related to the settlement of a tax dispute with the United States Internal Revenue Service by predecessor companies in the 1976-1981 period. We also received \$97 million in cash from the sale of our interests in an ethylene delivery system and the Alberta Ethane

We use Cash Flow Cycle Time (CFCT) to measure working capital management. Our goal is to maintain CFCT between 25 and 30 days.

CFCT is measured on a days-of-sales basis as:

(Inventory + Accounts Receivable – Accounts Payable)

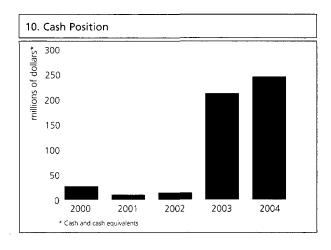
Average Daily Sales

Since the end of 2000, we have reduced our CFCT by 25 days. We ended 2004 with CFCT at 35 days, short of our goal, primarily due to building inventory for maintenance turnarounds in 2005 and a seasonal slow down in December sales.

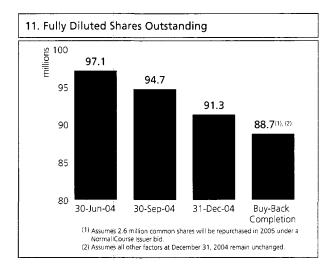
Also in 2004, we reduced our financing costs by approximately \$10 million per year by replacing two series of preferred securities totaling \$383 million, with \$400 million of 6.50% Senior Notes, due 2012. We have \$100 million due in September 2005 and \$304 million due in 2006.

Our net debt to total capitalization ratio improved by 3% and ended 2004 at 49%, after deducting cash and cash equivalents from total debt and classifying both our preferred securities and shares as debt. Taking the most conservative view, and including our accounts receivable securitization programs as debt, our debt to total capitalization is 53%.

We improved our liquidity and ended 2004 with \$245 million cash on hand, and an available \$243 million from our secured credit facility.



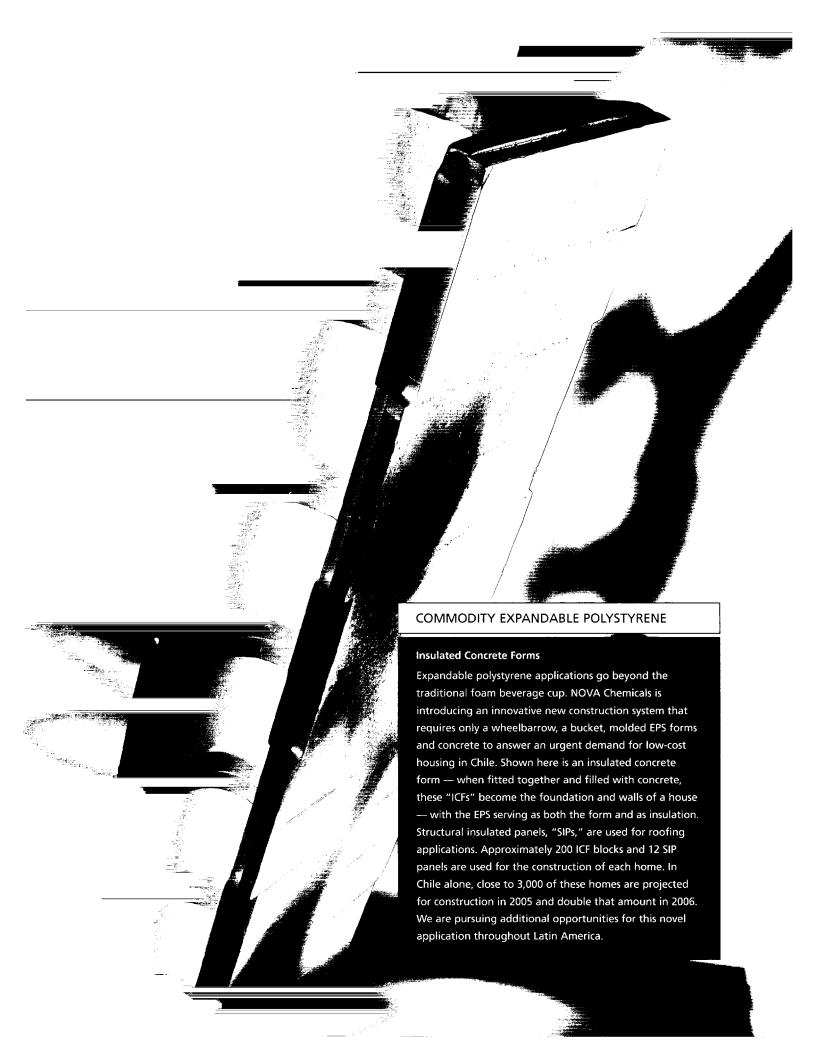
#### **Enhancing Shareholder Value**



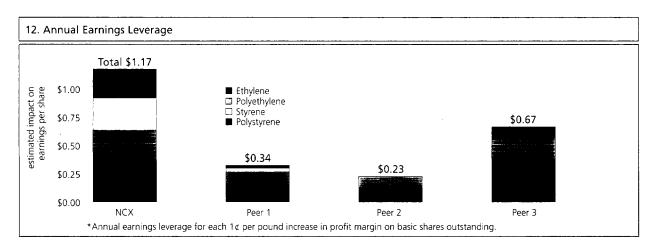
Improving our balance sheet by reducing costs, paying down debt and selling non-strategic assets through the trough provided us with the opportunity to both buy-back shares early in the up cycle and to accelerate value-growth projects.

In July 2004, we began buying back NCX common stock on the Toronto Stock Exchange. Through a normal course issuer bid, NOVA Chemicals is able to buy-back up to 10% of our "public float," or approximately 7.5 million shares, during a 12-month period. By the end of 2004, NOVA Chemicals had repurchased 4.9 million common shares, reducing our basic share count to 84 million and our fully diluted share count to 91 million. We plan to complete the share buy-back program in the first part of 2005.

Increased earnings and a strong balance sheet generated sufficient funds to enable us to pull forward some capital projects into 2004 and 2005, which will better position us to capitalize on the strong market conditions and the earnings potential we expect going forward. In 2004, our capital-spending program totaled \$242 million. We expect to increase our spending by approximately \$60 million in 2005, allowing us to more rapidly expand our capacity of Performance Products, our highest-value resins. Our capital program in 2005 is expected to be financed from cash on hand and cash from operations.







#### Significant Earnings Leverage

NOVA Chemicals continues to have significant earnings leverage. Figure 12 illustrates the estimated impact of a 1¢ per pound change in margin for each of ethylene, polyethylene, styrene monomer, and polystyrene on the after-tax earnings per share for NOVA Chemicals and our primary peers. For every 1¢ per pound margin change, we expect our after-tax earnings to increase or decrease by \$1.17.

Since 1995, NOVA Chemicals has more than doubled our capacity while at the same time reducing the number of basic common shares outstanding by 9%. As a result, NOVA Chemicals' leverage to these four product lines has increased by well over 250%. We are very well positioned for the expected strong market conditions ahead.

The chart above illustrates the maximum potential sensitivity to margin change for the products indicated based solely on NOVA Chemicals' relative leverage to ethylene, polyethylene, styrene and polystyrene.

Does not take into account a number of other factors, any one of which may influence the actual outcome.

References to NOVA Chemicals' peers include the following companies: The Dow Chemical Company (DOW), Lyondell Chemical Company (LYO), and Eastman Chemical Company (EMN).

The referenced peers have other products that impact their earnings sensitivities.

The chart illustrates sensitivity for only those products NOVA Chemicals and the referenced peers may compete in.

Peer earnings leverage calculations are based on publicly available data as of December 31, 2004.

Calculations based on an annual tax rate of 34%.

NOVA Chemicals earnings leverage calculation is based on 84 million outstanding basic common shares as of December 31, 2004. Earnings leverage of \$1.12 per fully diluted share is expected after completion of the current share buy-back program.

# ndustry & Company Snapshot

	- -	HEECKECKOWEITE STIMATED	20	)5 (% GROWTH, FORECAST)
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<del>Yo</del> rth American Gl	OP .	4.3		3.5
<del>urope</del> an GDP		2.2		2.0
<del>China</del> GDP		9.3		7.8
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-Sia	59	44	23	21
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	tutane. Naphtha, Gas Oil	(Butene, Hexene, Octene)		Butadiene Rubber
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	<b>€</b> €13%	Linear Low Dancity	ADC 140/	Polystyrene (HIPS) Expandable
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St. Clair River, Ontario, Canada		395		
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sayport, Texas, USA			1,250	
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ainesville, Ohio, USA				85
<del>springfield, Massachusetts, USA</del>				330*
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reda, the Netherlands				410*
Farrington, England				555
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urope	N/A	N/A	N/A	3
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ional Sales Volume %				
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штөре		_	23	40
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Product Trademarks		NOVAPOL®		ARCEL®
		<b>TLAIR®</b>	-	DYLARK®
		<del>TURP</del> ASS®		DYLITE®
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nology Trademarks		Advanced \$CLAIRTECH™		
		NOVACAT <sup>M</sup>		
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Titules production of select Performance Products.				<u> </u>

# Corporate Governance

NOVA Chemicals has had a broad-reaching plan for corporate governance since 1991 and we continually improve it to deal with the growth and change of our company.

NOVA Chemicals is subject to a variety of corporate governance guidelines and requirements mandated by the Toronto and New York stock exchanges, and by securities administrators in Canada and the United States. NOVA Chemicals complies with the corporate governance guidelines of the Toronto Stock Exchange. The company is also aligned with the corporate governance rules of the U.S. Securities and Exchange Commission and the New York Stock Exchange.

The Board of Directors is responsible for the overall stewardship of NOVA Chemicals, including overseeing the development of both our strategic direction and policy framework. The Board is also responsible for the corporate governance of NOVA Chemicals, and primarily discharges its responsibilities through its four committees. NOVA Chemicals' Executive Leadership Team works under the supervision of the Board to ensure corporate governance issues are appropriately addressed.

Our Board currently consists of eleven directors, ten of whom are considered "unrelated" by Toronto Stock Exchange standards. Under these standards, an unrelated director is one who is independent of management and is free from any interest and any business or other relationship which could, or could be perceived to, materially interfere with the director's ability to act in the best interests of the corporation, other than interests and relationships arising from shareholdings. These standards emphasize the ability of a director to exercise objective judgment, independent of management. Mr. Lipton is the only Board member who could not be considered unrelated by virtue of his position as NOVA Chemicals' President and Chief Executive Officer. Mr. Newall, the Chairman of the Board of Directors, is unrelated.

The Board of Directors and the committees of the Board meet on a regularly scheduled basis. The directors are informed of NOVA Chemicals' operations via meetings, as well as through reports prepared by and discussed with management. Communications between the directors and management also occur apart from regularly scheduled Board and committee meetings. Non-management directors meet at regularly scheduled executive sessions without management present. The Board designates at least one meeting per year as a substantial strategic planning session, which takes into account, among other things, the opportunities and risks of the business. In 2004, the NOVA Chemicals Board of Directors held eight meetings.

All directors, officers and employees of NOVA Chemicals must act in accordance with NOVA Chemicals' Business Conduct Policy, a comprehensive set of expectations, obligations and responsibilities relating to ethical conduct, conflicts of interest and compliance with law. NOVA Chemicals has adopted a Code of Ethics for its Chief Executive Officer and senior financial officers, which establishes additional expectations, obligations and responsibilities for such officers. The Business Conduct Policy and the Code of Ethics can be accessed on NOVA Chemicals' website at www.novachemicals.com.

The four committees of the Board have delegated responsibilities for select NOVA Chemicals' corporate governance responsibilities.

These committees, described below, are the Audit, Finance and Risk Committee, the Corporate Governance Committee, the Human Resources Committee and the Public Policy and Responsible Care Committee. The mandates for each committee are also available on NOVA Chemicals' website.

#### Audit, Finance and Risk Committee

This committee reviews and inquires into matters affecting the financial reporting of NOVA Chemicals; the system of internal accounting and financial controls and procedures; NOVA Chemicals' financial audit procedures and plans; recommends the approval of the issuance of debt securities; oversees the policies and practices of

NOVA Chemicals relating to corporate compliance and risk management strategies; recommends to the Board the appointment and remuneration of the external auditors and approves the mandate and appointment of internal auditors; oversees the funding, administration and investment of the trust funds associated with NOVA Chemicals' savings and profit sharing plans and pension plans; and reviews with management and reports to the Board, annually, on the financing plans and objectives of NOVA Chemicals.

In consultation with management, the Board has identified the principal risks facing NOVA Chemicals and has established committees to monitor systems put in place to address these risks. The Audit, Finance and Risk Committee has primary responsibility to monitor the risk management systems and reviews them regularly with the internal and external auditors.

Members are: Messrs. Hawkins (Chairman), Bougie, Dineen, and Ludwick. In 2004, the Audit, Finance and Risk Committee held eight meetings.

# Corporate Governance Committee

This committee is responsible for the composition, compensation and governance of the Board of Directors of NOVA Chemicals and recommends nominees for election or appointment as directors. The committee is also responsible for maintaining an effective working relationship between the Board of Directors and NOVA Chemicals' management.

Members are: Messrs. Newall (Chairman), Blumberg, Dineen, Fortier and Stanford. In 2004, the Corporate Governance Committee held two meetings.

## **Human Resources Committee**

This committee oversees policies and practices of NOVA Chemicals with respect to human resources. It reviews recommendations for senior executive appointments and considers the terms and conditions of their employment, as well as succession planning and compensation. It recommends awards under the Management Incentive Plan, the Equity Appreciation Plan, the Option Plan, the

Restricted Stock Unit Plan and the Deferred Share Unit Plan. It is also responsible for the proper and orderly administration of NOVA Chemicals' savings, profit sharing and pension plans, other than matters relating to the funding and investment of the plans' trust funds.

The Board is responsible for the appointment and succession of the Chief Executive Officer, appointing senior management and monitoring their performance. The Human Resources Committee annually reviews and reports on organizational structure, recruitment, training and succession planning matters. NOVA Chemicals uses management by objectives to monitor the performance of the Chief Executive Officer and senior management. Moreover, the elements of the Board-approved strategic plan are embedded in the written objectives of the senior executives and are reviewed annually by the Human Resources Committee and the Board.

Members are: Mr. Stanford (Chairman), Dr. Boer, and Messrs. Blumberg, Hawkins and Ms. Creighton. In 2004, the Human Resources Committee held three meetings.

# Public Policy and Responsible Care Committee

This committee is responsible for overseeing the policies and practices relating to NOVA Chemicals Responsible Care management systems and performance, including the environment, occupational health and safety, communications, corporate contributions, public policy matters and NOVA Chemicals' relationship with all of its stakeholders.

Members are: Dr. Boer (Chairman) and Messrs. Bougie, Fortier and Ludwick and Ms. Creighton. In 2004, the Public Policy and Responsible Care Committee held three meetings.

# Corporate Social Responsibility

"At NOVA Chemicals, responsible corporate citizenship is the foundation of our business."

— Jeffrey M. Lipton, President and CEO

Corporate Social Responsibility is about maintaining sound, ongoing relationships between a company and all its stakeholders, from customers to communities, employees to legislators, as well as analysts, investors and the media. Along with upholding strict ethical and financial standards, the philosophy of social responsibility encompasses employee relations, community engagement, environmental protection and security.

NOVA Chemicals' social responsibility efforts are grounded in "Responsible Care"," the chemical industry's award-winning initiative that requires member chemical companies to go above and beyond regulatory requirements and openly share their performance with the public. Through the Responsible Care ethic, we are committed to protecting our employees, the environment and our communities as we make the plastics and chemical products that are essential to everyday life.

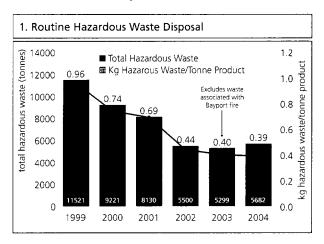
## Responsible Care at NOVA Chemicals

Our objective is to be a leader in achieving and maintaining superior Responsible Care performance. Our ultimate goal is to operate our businesses without harm to people, property or the environment.

As a Responsible Care company, we continuously strive to improve our results by implementing world-class management practices and tracking environmental, health, safety and security performance. We also regularly utilize independent auditors to verify that we are compliant with all Responsible Care requirements and to identify areas for improvement. We work to expand public understanding of the chemical industry — helping people to recognize that the risks associated with our business are manageable and that our products are fundamental to their quality of life.

NOVA Chemicals operates on the premise that all work-related illnesses and injuries can be prevented. Our *Employee Safety* and *Health* programs are designed to protect employees and contractors from both immediate, on-the-job and long-term health risks. Additionally, we believe that healthy employees are safe employees, and therefore we invest in ongoing health and wellness programs. We believe that our results reflect the seriousness with which we approach employee safety and health.

Our *Product Stewardship* program fosters responsible management of our products throughout their lifecycles — ensuring compliance with product regulations and advising customers on the safe handling of our products. While our emphasis is on prevention, we must ensure appropriate plans and procedures are in place to manage potential security issues and emergencies. *Emergency Preparedness and Security* are cornerstones of our Responsible Care program. Each of our facilities is ready to respond to crisis situations in order to protect our workers, the community and the environment.



NOVA Chemicals also strives to preserve and protect the *Environment* by reducing emissions and environmental discharges through the continuous improvement of our manufacturing processes. Our reuse and recycling initiatives limit the amount of waste requiring disposal. We have reduced the quantity of hazardous waste we must dispose per unit of product we manufacture by 49% over the last five years, reaching our 2005 goal one year ahead of target.

NOVA Chemicals publishes a Responsible Care annual review that details our Responsible Care performance. You can access our most current report at www.novachemicals.com, or call 412-490-4000 to request a copy.

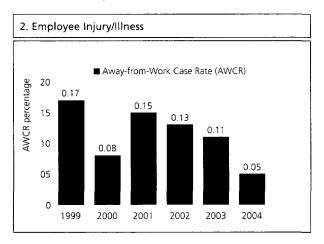
# **Employee Relations**

NOVA Chemicals employees drive our competitive edge. We:

- Value our people and treat them with dignity and respect
- Achieve and maintain superior Responsible Care performance
- · Focus on results
- Adapt quickly to the constant change that will shape our success

A recent employee climate survey showed that NOVA Chemicals employees are challenged by their work and continue to expend a high level of discretionary effort. Our voluntary employee turnover rate is under 3% per year, which places us among the best North American companies in any segment of the economy, a record of which we are proud.

The health and safety of employees and their families at work and at home are critical parts of maintaining an enthusiastic and productive workforce. In 2004, NOVA Chemicals' employee away-from-work case rate declined by 54% compared to 2003 delivering the best performance in our history.



# Community Engagement

Our commitment to be a corporate "neighbor of choice" comes alive through our investment in the growth, diversity and well being of our site communities. We provide resources, such as staff time, knowledge, gifts-in-kind, and funding, in accordance with NOVA Chemicals' Corporate Contributions policy. Programs we support include career and science fairs, mentoring intiatives, speakers' bureaus and school partnerships.

We provide leadership and resources to support community-focused Responsible Care initiatives. River Sweep programs send volunteers to collect debris along river banks, while our Shelter-In-Place program focuses on a "life safety" approach for residents in the event of severe weather or industrial emergencies. Other projects, such as tree planting, wetlands programs, and emergency response training for local authorities, keep NOVA Chemicals volunteers engaged in the health of their community year-round.

As a manufacturer, it is important that we share information with our neighbors about our facilities, operations and products. NOVA Chemicals makes concerted efforts to understand and respond to the concerns of local communities and residents. Our efforts include community forums, open houses, and participation in local government activities. In 2004, we held community open houses from Breda, the Netherlands, to Painesville, Ohio — all part of our ongoing effort to be a "neighbor of choice."

# Board of Directors

J. E. (Ted) Newall, O.C., 69, is Chairman of the Board of Directors of NOVA Chemicals and, prior to July 1998, was Vice Chairman and Chief Executive Officer of NOVA Corporation. He has been a director of NOVA Chemicals, or its predecessor companies, NOVA Corporation and NOVA Corporation of Alberta, since August 1991. He is a director and Chairman of the Board of Canadian Pacific Railway, as well as Chairman of the Board of Novelis Inc. He is also a director of Royal Bank of Canada and Maple Leaf Foods Inc. Mr. Newall resides in Calgary, Alberta.

**Jerald A. Blumberg, 65,** has been a director of NOVA Chemicals since February 2000. He is a retired Executive Vice President of E.I. DuPont de Nemours & Company, Inc. He is a director of The Lubrizol Corporation and iServiceX.com. Mr.Blumberg resides in Houston, Texas.

**Dr. F. Peter Boer, 164,** has been a director of NOVA Chemicals, or its predecessor companies, NOVA Corporation and NOVA Corporation of Alberta, since February 1991. He resides in Boynton Beach, Florida. He is President and Chief Executive Officer of Tiger Scientific Inc., a firm specializing in science and technology consulting and investments. Dr. Boer holds an AB in Physics from Princeton University and a PhD in Chemical Physics from Harvard University.

Jacques Bougie, O.C., 57, has been a director of NOVA Chemicals since June 2001. He resides in Iles-des-soeurs, Québec. He is Past President and Chief Executive Officer of Alcan Inc. Mr. Bougie held numerous other positions within Alcan beginning in 1979 until his retirement in 2001. Mr. Bougie currently serves on the board of McCain Foods Ltd., Abitibi Consolidated Inc., Novelis Inc., and Rona Inc., and previously served on the boards of Royal Bank of Canada, Bell Canada and BCE Mobile Communications, Inc.

**Dr. Joanne V. Creighton, 62,** has been a director of NOVA Chemicals since June 2001. She resides in South Hadley, Massachusetts and is President and Professor of English of Mount Holyoke College. Prior to January 1996, Ms. Creighton was Interim President and Professor of English of Wesleyan University. She is a director and President of Five Colleges, Inc., and a director of the Consortium on the Financing of Higher Education, the Women's College Coalition and the Economic Development Council of Western Massachusetts.

**Robert E. Dineen, Jr., 64,** has been a director of NOVA Chemicals since July 1998. He resides in New York, New York and is a partner of Shearman & Sterling, LLP Attorneys-at-Law, New York, New York. Mr. Dineen is a director of Manulife Financial Corporation.

L. Yves Fortier, C.C., Q.C., 69, has been a director of NOVA Chemicals since July 1998. He resides in Westmount, Québec and is Chairman and a senior partner of Ogilvy Renault, Barristers and Solicitors, Montréal, Québec. He is Governor and director of Hudson's Bay Company, Chairman and director of Alcan Inc., and a director of Northern Telecom Limited (Nortel) and Royal Bank of Canada.

**Kerry L. Hawkins, 64,** has been a director of NOVA Chemicals since July 1998. He resides in Winnipeg, Manitoba and is President of Cargill Limited, and Chief Executive Officer of Canadian Operations for Cargill. He is a director of TransCanada PipeLines Limited, Shell Canada Limited, Hudson's Bay Company and Canadian Council of Chief Executives.

Jeffrey M. Lipton, 62, has been a director of NOVA Chemicals, or its predecessor company, NOVA Corporation, since April 1996. He is President and Chief Executive Officer of NOVA Chemicals and resides in Sewickley, Pennsylvania. Mr. Lipton serves as Chairman of the Board of Trimeris, Inc. He is also a director of Hercules Incorporated. Mr. Lipton is Chairman of the Executive Committee and member of the Board of the American Chemistry Council; and Chairman of the Society of Chemical Industry, America Section. He is also a member of the Board of the Canadian Council of Chief Executives.

**Arnold M. Ludwick, 67,** has been a director of NOVA Chemicals since February 2000. Until December 2002, he was Deputy Chairman of Claridge Inc. and prior to 1999 was President and Chief Executive Officer of Claridge and a Vice President of The Seagram Company Ltd. He resides in Montréal, Québec.

James M. Stanford, O.C., 67, has been a director of NOVA Chemicals since December 1999. He is President of Stanford Resource Management, Inc., and retired President, Chief Executive Officer and director of Petro-Canada (1993-2000) and President, Chief Operating Officer and Director (1990-1993). Mr. Stanford is a director of EnCana Corporation, Inco Limited, Terasen Inc., OMERS Energy, logen Corporation, OPTI Canada Inc., and serves as Chairman of the Canadian Foundation for Sustainable Development Technology. He resides in Calgary, Alberta.

# Executive Leadership Team



# Jeffrey M. Lipton, President and Chief Executive Officer, 62

Jeff joined NOVA Corporation in 1994 as Senior Vice President and Chief Financial Officer and assumed his current position as President and Chief Executive Officer of NOVA Chemicals in 1998. Jeff serves as Chairman of the Board of Trimeris, Inc. and he is also a director of Hercules Incorporated. Jeff is Chairman of the Executive Committee and member of the Board of the American Chemistry Council: and Chairman of the Society of Chemical Industry, America Section He is also a member of the Board of the Canadian Council of Chief Executives. Jeff worked with Ed. DuPont for almost three decades, prior to joining NOVA Chemicals. He graduated from the Rensselaer Polytechnic Institute with a Bachelor of Chemical Engineering degree and obtained an MBA from Harvard University.



# Larry A. MacDonald, Senior Vice President and Chief Financial Officer, 53

Larry joined NOVA Corporation of Alberta in 1979 as Controller. He progressed through several financial, information technology, and merger and acquisition positions within NOVA Corporation and NOVA Corporation of Alberta before assuming the role of Senior Vice President, Manufacturing East for NOVA Chemicals in 1999. He began his current role in December 2001. Larry is a member of the Executive Committee and Board of Directors for the Canadian Chemical Producers Association. He graduated from the University of Windsor with a Bachelor of Commerce degree and is a Chartered Accountant.



# Jack S. Mustoe, Senior Vice President Legal, General Counsel and Corporate Secretary, 57

Jack joined NOVA Corporation of Alberta in 1988 as Vice President, General Counsel and Corporate Secretary and was named Senior Vice President, General Counsel and Corporate Environmental Officer of NOVA Corporation in 1994. In 1998, he was named Senior Vice President, Legal and General Counsel for NOVA Chemicals, and added the responsibility of Corporate Secretary to this role in 2004. Jack is also responsible for NOVA Chemicals' purchasing function and is Chief Compliance Officer. Prior to 1988, he served as Senior Legal Counsel for Dome Petroleum Ltd. and as Assistant General Counsel for Norcen Energy Resources Ltd. Jack graduated from the University of Western Ontario with a Bachelor of Laws degree and is a member of the Ontario and Alberta Bars.



# Dale H. Spiess, Senior Vice President and President, Olefins and Polyolefins, 61

Dale began his current role in November of 2001. He joined NOVA Chemicals as Senior Vice President, Polyethylene Sales and Marketing in 1998. Prior to this, Dale was Group Vice President with Millennium Petrochemicals Inc. and also held positions with Northern Petrochemicals, ARCO Chemical and Uniroyal Chemical. Dale serves as a director of the Flexible Packaging Association. Dale has a Bachelor of Science degree in Biology from Illinois Wesleyan University and is a graduate of the Executive Management Program at The University of Pennsylvania.



# Christopher D. Pappas, Senior Vice President and President, Styrenics, 49

Chris joined NOVA Chemicals in his current role in July of 2000. Chris was President and Chief **Executive Officer of Paint** and Coatings.com just prior to joining NOVA Chemicals. From 1996 until 1998, Chris led the ethylene elastomers business of DuPont Dow Elastomers, Inc. as Vice President, and was later named Commercial Vice President. He began his career with Dow Chemical in 1978, where he held a variety of sales and managerial positions through 1995. Chris serves on the board of Methanex Corporation, is a member of the American Plastics Council Operating Board, Chair of AIChE Industrial Advisory Board and a director of WQED Public Television. He has a Bachelor of Science degree in Civil Engineering from The Georgia Institute of Technology and an MBA from The Wharton School of Business at The University of Pennsylvania.



# John L. Wheeler, Senior Vice President and Chief Information Officer, 61

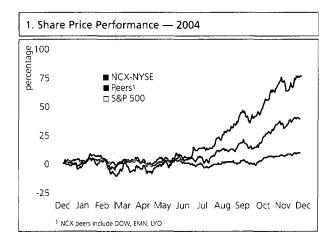
John joined NOVA Chemicals in his current role in 1998. Prior to this, he held senior management positions in Information Technology at AT&T Co., Bristol-Myers Consumer Products, Viacom and PolyGram, and was Director of Information Systems for W.R. Grace Specialty Chemicals Company. John graduated with a Bachelor of Arts degree in Political Science (Pre-Law) from Duke University.



# A. Terence Poole, Executive Vice President, Corporate Strategy and Development, 62

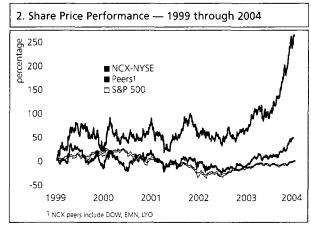
Terry began his current role in 2000. Prior to this, he spent two years as Executive Vice President, Finance and Strategy for NOVA Chemicals. Since 1998, Terry has held several senior management roles within NOVA Corporation of Alberta and NOVA Corporation, including Senior Vice President and Chief Financial Officer: Senior Vice President, Controller and Treasurer: and Vice President and Controller. Terry also serves on the board of Methanex Corporation. Prior to 1988, Terry held senior financial and operating management positions in the John Labatt group of companies and with Phillips Cables. Terry graduated from Dalhousie University with a Bachelor of Commerce degree and is a Chartered Accountant.

# Shareholder Value





NOVA Chemicals' share price increased 76% on the New York Stock Exchange. This compares to an average increase of 39% in peer chemical companies' share prices, and a 9% increase in the S&P 500.



# Share Price Performance — 1999 through 2004

From January 1, 1999 through December 31, 2004, NOVA Chemicals' share price increased 262% on the New York Stock Exchange. This compares to an average increase of 46% in peer chemical companies' share prices, and a 1% decline in the S&P 500.

# **NOVA Chemicals' Share History**

	2004	2003	2002	2001
Dividends paid (Canadian dollars)	\$ 0.40	\$ 0.40	\$ 0.40	\$ 0.40
Market price (NYSE)1 (U.S. dollars)				
High	\$47.80	\$27.04	\$26.09	\$24.70
Low	\$23.67	\$16.80	<b>\$1</b> 8.14	\$14.86
Close	\$47.30	\$26.95	\$18.30	\$19.27
Market price (TSX):(Canadian dollars)				
High	\$58.75	\$35.05	\$40.15	\$37.90
Low	\$31.71	\$24.65	\$28.48	\$23.25
Close	\$56.70	\$35.04	\$28.89	\$30.75
Common dividend yield	0.7%	1.1%	1.4%	1.3%
Shares outstanding				
Year-end (millions)	84	87	87	86
Average (millions)	87	87	86	85
Registered shareholders at year-end (thousands) <sup>2</sup>	13	14	14	19
Percentage of U.S. ownership <sup>3</sup>	35	26	28	27

<sup>&</sup>lt;sup>1</sup> The stated NYSE prices include consolidated U.S. trading.

<sup>&</sup>lt;sup>2</sup> NOVA Chemicals estimates that 85% of the outstanding common shares are managed by institutional investors and 15% are owned directly by individual investors, including approximately 1.3% owned by insiders.

<sup>3</sup> Estimated as of December 31, 2004 based on U.S. Securities and Exchange Commission filings as reported by Thomson Financial.

# 2004 Financial Review

# **Disclosure Regarding Forward-Looking Statements**

The information in this Annual Report contains forward-looking statements with respect to NOVA Chemicals Corporation (NOVA Chemicals), its subsidiaries and affiliated companies. These statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those included in the forward-looking statements. The words "believe," "expect," "plan," "intend," "estimate", or "anticipate" and similar expressions, as well as future or conditional verbs such as "will," should," "would," and "could" often identify forward-looking statements. Specific forward-looking statements contained in this Annual Report include, among others, statements regarding: our expected financial performance in future periods; changes in the demand for our products; changes in pricing policies by us or our competitors; our competitive advantages and ability to compete successfully; our estimates of the present value of our future net cash flows; changes in the costs of energy and raw materials; our methods of raising capital; our level of debt; and general economic conditions. With respect to forward-looking statements contained in this Annual Report, we have made assumptions regarding, among other things: future oil, natural gas and benzene prices; our ability to obtain raw materials; our ability to market products successfully to our anticipated customers; the impact of increasing competition; and our ability to obtain financing on acceptable terms. Some of the risks that could affect our future results and could cause results to differ materially from those expressed in our forward-looking statements include: commodity chemicals price levels (which depend, among other things, on supply and demand for these products, capacity utilization and substitution rates between these products and competing products); feedstock availability and prices; operating costs; terms and availability of financing; technology developments; currency exchange rate fluctuations; starting up and operating facilities using new technology; realizing synergy and cost savings targets; meeting time and budget targets for significant capital investments; avoiding unplanned facility shutdowns; safety, health, and environmental risks associated with the operation of chemical plants and marketing of chemical products, including transportation of these products; public perception of chemicals and chemical end-use products; the impact of competition; changes in customer demand; changes in, or the introduction of new laws and regulations relating to our business, including environmental, competition and employment laws; loss of the services of any of our executive officers; uncertainties associated with the North American, European, and Asian economies; and other risks detailed from time to time in the publicly filed disclosure documents and securities commission reports of NOVA Chemicals and its subsidiaries or affiliated companies.

NOVA Chemicals' forward-looking statements are made only as of the date of this Annual Report, and except as required by applicable law, we undertake no obligation to publicly update these forward-looking statements to reflect new information, subsequent events or otherwise.

# Management's Discussion and Analysis

The following discussion and analysis should be read in conjunction with information contained in the Consolidated Financial Statements and the notes thereto starting on page 69. This discussion and analysis has been based upon financial statements prepared in accordance with Canadian Generally Accepted Accounting Principles (GAAP). These accounting principles are different in some respects from those generally accepted in the United States, and the significant differences are described in Note 25 to the Consolidated Financial Statements. References to EBITDA, average capital employed, after-tax return on capital employed, net debt to total capitalization and total capitalization should be read in conjunction with the discussion of Supplemental Measures on page 61. This discussion and analysis is the responsibility of management. The Board of Directors carries out its responsibility for review of this disclosure principally through its Audit, Finance and Risk Committee comprised exclusively of independent directors. The Audit, Finance and Risk Committee reviews this disclosure and recommends its approval by the Board of Directors. This discussion and associated analysis was prepared as of February 16, 2005.

All amounts are presented in U.S. dollars unless otherwise noted.

# **Commodity Plastics and Chemicals**

NOVA Chemicals operates two commodity plastics and chemicals businesses, Olefins/Polyolefins and Styrenics. Our Olefins/Polyolefins business manufactures and sells ethylene, ethylene co-products and polyethylene resins. Our Styrenics business manufactures and sells styrene monomer and styrenic polymer resins. Our polyethylene and styrenic polymers (plastic resins) are used by our customers to manufacture products ranging from toys and kayaks to packaging materials and foam insulation.

Our businesses are highly cyclical and are driven principally by the balance of supply and demand for our products. Demand, which is driven by global economic growth, normally rises at a relatively even pace. Increases in supply in our industry are driven by investments in new capacity which is usually added in large increments. This new capacity is capital intensive and historically requires lead times of three to five years.

Margin, on a unit basis, is defined as the difference between the selling price of our products and the direct cost to produce and distribute them. During peak conditions, when operating rates are high and products are in short supply, margins may increase rapidly as customers attempt to secure scarce supply to meet their own production needs. Conversely in trough conditions, when operating rates are low, producers often compete for market share by reducing prices. In the trough period of the industry cycle, margins can fall to the point where they may not cover the cash costs of operating the business. As a result, margin, rather than price, is the better indicator of profitability in our business.

During industry downturns, commodity chemical companies are reluctant to add plastics and chemical production capacity. Relatively little new capacity has been added in our product categories in recent years and demand is absorbing excess capacity. Sustained industry operating rates in excess of 90% in polyethylene and 92% in styrene monomer are typical inflection points at which industry margins begin to expand.

#### Price

The prices for our polymer products are based on what customers are willing to pay when they compare the price of our products to the price of similar available products. Prices can change quickly as a result of fluctuations in the supply/demand balance and feedstock costs. Volatile feedstock costs over the last three years have made it essential for us to shorten the time it takes to realize price increases from our customers.

#### Volume

Sales volumes for our products are most heavily influenced by customer demand, price, and value in use. Our market share is the result of the quality, performance properties and price of our products versus those of our competitors. We sell large volumes of commodity products, so being able to earn good returns at a competitive price level requires a low-cost position.

#### Costs

Fixed costs consist of plant operating and distribution costs, selling, general and administrative costs (SG&A), and research and development costs (R&D) that do not vary with production. Variable feedstock costs are the single largest component of our costs, and account for more than three-quarters of the total cost of our products. Our primary feedstocks include crude oil, natural gas liquids and benzene. Pricing of these products has been volatile in the past and may be volatile in the future. However, changes in feedstock costs alone do not determine our profitability. Rather, the supply and demand balance for our products and the pricing we can obtain for them above feedstock costs will primarily determine margins and profitability.

The following table illustrates how changes in various factors could affect our profitability, assuming all other factors were held constant. Changes in the opposite direction would have the opposite effect.

	(MILLIONS OF U.S. \$)		(BILLIONS OF LBS.)	
POTENTIAL IMPACT TO NOVA CHEMICALS' PROFITABILITY OF:	ANNUAL BEFORE-TAX INCOME INCREASE	ANNUAL AFTER-TAX INCOME INCREASE <sup>(1)</sup>	ANNUAL PRODUCTION CAPACITY <sup>(2)</sup>	
Increase of U.S.1∉ per pound in profit margin				
Ethylene	\$48	\$32	4.8(6)	
Polyethylene (3)	34	22	3.4	
Styrene (4)	35	23	3.5	
Styrenic polymers — North America	20	13	2.0	
Styrenic polymers — Europe	13	9	1.3	
Propylene (5)	10	7	1.0	
Decrease in cost of natural gas by U.S.10¢ per mmBTU	11	7		
Decrease in cost of benzene by U.S. 5¢ per gallon	20	13		
Decrease in Canadian dollar of 1¢ vs. U.S. dollar	10	7		

<sup>(1)</sup> Based on an assumed tax rate of 34%.

<sup>(2)</sup> Estimate based on current production capacity assuming utilization of 100%. On average in 2004, our ethylene plants operated at 97% of capacity, our polyethylene plants operated at 96% of capacity, our styrene plants operated at 94% of capacity, and our styrenic polymer plants operated at 71% of capacity.

<sup>(3)</sup> A 275 mmlb polyethylene line at our St. Clair River site in Corunna, Ontario was shut down on May 31, 2004.

<sup>(4)</sup> Includes 675 mmlbs of long-term purchase agreements and 230 mmlbs from the planned 2005 debottleneck of our Bayport, Texas facility.

<sup>(5)</sup> Co-product from Corunna, Ontario flexi-cracker.

<sup>(6)</sup> Represents NOVA Chemicals ethylene production of 6.4 billion pounds per year, less the volume of ethylene capacity that is subject to toll and margin sharing agreements.

# 2004 Financial Overview

**NOVA Chemicals' Highlights** 

(MILLIONS OF U.S. DOLLARS, EXCEPT PER SHARE AMOUNTS AND WHERE NOTED)	2004	2003	2002
Total assets	\$5,047	\$4,413	\$4,154
Total long-term liabilities	\$2,448	\$1,936	\$2,027
Total revenue	\$5,270	\$3,949	\$3,091
Net income (loss)			,
Olefins/Polyolefins	\$ 255	\$ 18	\$ (5)
Styrenics	(69)	(127)	(102)
Corporate and Other Items (1)	76	100	21
Methanex (2)		37	5
Net income (loss) before preferred securities			
dividends and distributions	262	28	(81)
Preferred securities dividends and distributions (3)	(10)	(29)	(31)
Net income (loss) to common shareholders	\$ 252	\$ (1)	\$ (112)
Net income (loss) per common share		<u> </u>	
— Basic	\$ 2.91	\$ (0.02)	\$ (1.30)
Diluted	\$ 2.71	\$ (0.02)	\$ (1.30)
Dividends per share (4)	\$ 0.40	\$ 0.40	\$ 0.40
Weighted-average common shares outstanding (millions)			
Basic	87	87	86
— Diluted	95	87	86

<sup>(1)</sup> In 2004, we began classifying mark-to-market amounts related to stock-based compensation liabilities in the corporate accounts, to more clearly present our operating performance. All prior periods have been restated accordingly. See page 55 for a complete listing of Corporate and Other Items.

Changes in NOVA Chemicals' Net Income (Loss)

(MILLIONS OF U.S. DOLLARS)	2004 vs. 2003	2003 vs. 2002
Higher net unit margins	\$ 334	\$ 16
Higher sales volumes	83	34
Higher gross margins	417(1)	500
Higher SG&A and R&D	(86)	(27)
Lower restructuring charges	7	5
Lower (higher) depreciation and amortization	1	(32)
Higher interest expense	(7)	(2)
(Lower) higher equity earnings in Methanex	(39)	34
Higher other gains	85	33
Higher income tax (expense) recovery	(144)	48
Increase in net income before preferred securities dividends and distributions	234	109
Lower preferred securities dividends and distributions	19	2
Increase in net income to common shareholders	\$ 253	\$111

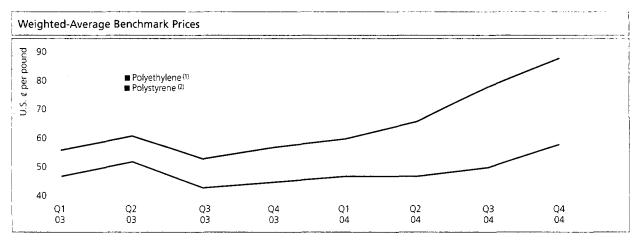
<sup>(1)</sup> Calculated as revenue less feedstock and operating costs.

<sup>(2)</sup> In June 2003, we sold our investment in Methanex Corporation.

<sup>(3)</sup> On March 1, 2004, we redeemed our 9.50% and 9.04% preferred securities.

<sup>(4)</sup> Dividends are paid in Canadian dollars.

After three years of difficult market conditions, plastics and chemical demand growth in 2004 outpaced supply as the United States and European economies rebounded from a recession in the manufacturing sector. In 2004, strengthening demand combined with limited capacity additions, resulted in increased sales volume and prices. Margins expanded for all products despite record high crude oil and benzene costs, as pricing stayed ahead of feedstock cost increases. NOVA Chemicals earned net income to common shareholders of \$252 million in 2004, or \$2.71 per share diluted. This compares to a net loss in 2003 of \$1 million or \$0.02 per share loss diluted.



<sup>(1)</sup> Source: Townsend Polymer Services Information (TPSI). Benchmark prices weighted according to NOVA Chemicals' polyethylene sales volume mix in North America.

Weighted-average benchmark prices for our polymers increased throughout 2004. We implemented several price increases in both polymer businesses during 2004 and have announced additional increases for implementation in 2005.

Sales volumes improved for both of our polymer businesses in 2004. Strong demand due to an improving economy was somewhat tempered by typical seasonal slowdowns in the fourth quarter of 2004.

<sup>(2)</sup> Source: Chemical Market Associates, Inc. (CMAI). Benchmark prices weighted according to NOVA Chemicals' polystyrene sales volume mix in North America and Europe. Includes solid and expandable polystyrene, but excludes styrenic polymer performance products.

Our 2004 net income included the sale of two non-strategic assets. The first was our interest in an Alberta ethylene delivery system, which resulted in \$19 million of cash proceeds. This gain was deferred and will be amortized to income over the term of an operating lease for the system. The second was the sale of our interest in the Alberta Ethane Gathering System, which resulted in \$78 million of proceeds and \$40 million in an after-tax gain recognized in earnings in the fourth quarter. In 2003, we realized a total of \$125 million in after-tax gains on the sale of our investments in Methanex Corporation and the Fort Saskatchewan Ethylene Storage facility.

We also recorded a \$101 million after-tax gain in 2004 due to income tax related settlements (see Corporate and Other Items on page 54).

Offsetting these gains was a \$60 million after-tax mark-to-market charge in 2004 (\$7 million in 2003) resulting from the impact of our stock price appreciation on cash settled stock-based compensation plans, as well as profit sharing accruals.

We recorded a restructuring charge of \$5 million after-tax in 2004 (\$10 million after-tax in 2003) related to additional dismantling and severance costs for the 2004 shutdown of our highest-cost polyethylene production line at our St. Clair River site.

# **Olefins/Polyolefins Business**

## Petrochemical and Feedstock Economics

Our largest volume product is ethylene, which is central to the production of both polyethylene and styrene monomer. Seventy-five percent of our ethylene is produced at our Joffre, Alberta site; the remaining 25% is manufactured at our Corunna flexi-cracker facility.

Our three ethylene plants at Joffre use ethane as their primary feedstock. We purchase natural gas and pay a fee to extract and deliver the ethane from the gas stream. We also directly purchase ethane as a commodity. The majority of the ethane used by NOVA Chemicals at Joffre is extracted and delivered under medium- to long-term contracts. We also have the capability to use propane for up to 10% of our feedstock requirements in Joffre when the economics are favorable. Propane yields less ethylene and more propylene than ethane.

Our Joffre site is the largest ethylene complex in the world and has, on average, a lower cost of production than similar plants in North America. Historically, the average cash-cost advantage was approximately 6¢ per pound. In 2002 and 2003, our advantage dropped to an average of 4¢ per pound as excess supply reduced the price for ethane relative to natural gas on the United States Gulf Coast (USGC). In 2004, demand for ethane improved on the USGC, and as a result, our ethylene advantage increased to 7¢ per pound for the year. While Joffre's ethylene advantage will continue to fluctuate, we expect that the structural advantages associated with lower-cost natural gas in Alberta and the efficiency gained from our world-scale facilities will enable us to maintain the historical average cost advantage of 6¢ per pound.

We sell a large portion of our Joffre ethylene production to third parties via market-facing arrangements. Approximately 45% of our total ethylene capacity at Joffre is consumed by NOVA Chemicals for our own polyethylene production. All of the polyethylene produced by NOVA Chemicals is manufactured from internally produced ethylene.

Our Corunna flexi-cracker has the capability to switch part of its feedstock slate between natural gas liquids and crude oil derivatives, depending on market conditions. Feedstocks for our Corunna ethylene plant are obtained from a wide variety of sources. The majority of the feedstocks are crude oil and crude oil derivatives and condensates, with the remainder being propane, butane and ethane. The crude oil and derivatives are supplied from western Canada, the United States and from overseas. Condensate, a lighter feedstock than crude oil, yields a higher proportion of olefins products than heavier crude oil feedstocks and is sourced primarily from outside North America. Propane, butane and ethane are sourced from western Canada, local producers, and the United States.

# Polyethylene Economics

Financial results in our Olefins/Polyolefins business are driven in large part by the supply/demand balance for polyethylene. Polyethylene is a globally traded commodity with established merchant markets. When the polyethylene supply/demand balance tightens, operating rates increase and margins can be expected to expand. Polyethylene margins typically reach peak conditions when operating rates for polyethylene are at or above 90% since the industry has had difficulty maintaining output above that level for long periods. During 2004, the American Plastics Council (APC) reported North American industry operating rates for polyethylene of 94%, up from 85% in 2003.

# **Operating Highlights**

		26	004			ANNUAL	
(U.S. DOLLARS PER POUND, EXCEPT WHERE NOTED)	Q1	Q2	Q3	Q4	2004	2003	2002
Benchmark Principal Product Prices (per pound): (1)							
Ethylene (2)	\$ 0.31	\$ 0.31	\$ 0.33	\$ 0.39	\$ 0.34	\$ 0.29	\$ 0.22
Polyethylene (weighted-average) (3)	\$ 0.46	\$ 0.46	\$ 0.49	\$ 0.57	\$ 0.50	\$ 0.46	\$ 0.38
Benchmark Raw Material Prices:							
NYMEX Natural Gas (per mmBTU) (4)	\$ 5.69	\$ 5.97	\$ 5.84	\$ 6.87	\$ 6.09	\$ 5.44	\$ 3.25
WTI Crude Oil (per barrel) (5)	\$35.15	\$38.32	\$43.88	\$48.28	\$41.41	\$31.04	\$26.08

<sup>(1)</sup> Benchmark prices do not necessarily reflect actual prices realized by NOVA Chemicals or any other petrochemical company.

<sup>(2)</sup> Source: CMAI-USGC Net Transaction Price.

<sup>(3)</sup> Benchmark prices weighted according to NOVA Chemicals' sales volume mix in North America. Source for benchmark prices: Townsend Polymers Services Information (TPSI). TPSI benchmark polyethylene prices received a one-time downward, non-market adjustment beginning in July 2003. The linear low-density butene liner price was reduced by 5¢ per pound. Months prior to July 2003 were not restated by TPSI.

<sup>(4)</sup> Source: NYMEX Henry Hub 3-Day Average Close.

<sup>(5)</sup> Source: NYMEX WTI daily spot-settled price average for calendar month.

# **Polyethylene Sales Volumes**

(MILLIONS OF POUNDS)	2004	2003	2002
NOVAPOL® Resins			
Joffre LLDPE	1,320	1,256	1,229
Moore LDPE	305	261	265
Moore HDPE	449	392	349
SCLAIR® Resins	452	500	592
Advanced SCLAIRTECH™ Resins	759	600	410
Total	3,285	3,009	2,845

#### Olefins/Polyolefins Financial Highlights

(MILLIONS OF U.S. DOLLARS, EXCEPT PER SHARE AMOUNTS AND WHERE NOTED)	2004	2003	2002
Revenue (1)	\$3,230	\$2,559	\$1,930
Operating income	\$ 445	\$ 98	\$ 67
Depreciation and amortization	181	187	166
Segment EBITDA (2)	\$ 626	\$ 285	\$ 233
Net income (loss) (3)	\$ 255	\$ 18	\$ (5)
Average capital employed (4)	\$1,940	\$1,898	\$1,764
After-tax return on capital employed (5)	. 15.2%	2.6%	1.6%

<sup>(1)</sup> Before inter-segment eliminations.

# 2004 versus 2003

The Olefins/Polyolefins business reported net income of \$255 million in 2004, compared to net income of \$18 million in 2003. Average prices for our ethylene and polyethylene products in 2004 increased over 2003 averages by 17% and 9%, respectively. Several polyethylene price increases were announced during 2004 and were successfully implemented, allowing margins to expand even as feedstock costs rose. Implementation of announced price increases depends on many factors, including feedstock costs, market conditions, and the supply/demand balance for each particular product. These price increases have varying degrees of success and are typically phased in and can differ by product or market. There can be no assurances that any announced price increases will be successful or will be realized within the anticipated timeframe. Benchmark price indices sometimes lag behind price increase announcements due to the timing of publication.

Crude oil prices began to rise midway through 2003 and continued to rise throughout most of 2004, with WTI crude oil hitting a record high close of \$55.17 per barrel in October 2004. Average WTI crude oil prices rose 33% from \$31.04 per barrel in 2003 to \$41.41 per barrel in 2004. NYMEX natural gas was up 12% from 2003 to 2004. Price increases implemented throughout 2004, coupled with strong chemical and energy co-product pricing from the Corunna ethylene plant, more than offset the negative impact of increasing costs. Feedstock and operating costs increased \$320 million, or approximately 15%, from \$2,165 million in 2003 to \$2,485 million in 2004.

<sup>(2)</sup> See Supplemental Measures on page 61 for the definition of Segment EBITDA.

<sup>(3)</sup> Before distributions and dividends on preferred securities and shares. On March 1, 2004, we redeemed our 9.50% and 9.04% preferred securities.

<sup>(4)</sup> Average capital employed equals cash expended on plant, property and equipment (less accumulated depreciation and amortization) and working capital and excludes assets under construction. Amounts are converted to U.S. dollars using current exchange rates. Average capital employed increased \$131 million in 2004 as a result of exchange rate fluctuations.

<sup>(5)</sup> Equals net income (loss) plus after-tax interest expense divided by average capital employed.

Polyethylene volumes were up 9% over 2003 while ethylene volumes were relatively flat. The increase in polyethylene volumes came from all product groups with the largest increase coming from our products made using Advanced SCLAIRTECH technology. These volumes were up 27% to 759 million pounds.

Segment EBITDA, or segment operating income before depreciation and amortization, increased \$341 million, or 120%, to \$626 million in 2004 from \$285 million in 2003. This margin improvement was mainly due to product prices rising faster than feedstock costs and increases in volume.

In 2004, we permanently shut down our highest-cost polyethylene production line, the A-Line at the St. Clair River site, in Corunna. The A-Line shutdown occurred on May 31, 2004 and reduced linear low-density polyethylene capacity by 275 million pounds per year. Sales of our A-Line products were largely replaced by sales from our other polyethylene assets. We are expecting cost savings of about \$5 million annually from this shutdown.

#### 2003 versus 2002

Our Olefins/Polyolefins business reported net income of \$18 million in 2003, compared to a net loss of \$5 million in 2002. 2003 results improved as prices for our polyethylene products increased at a slightly faster pace than feedstock costs. Natural gas and crude oil costs rose rapidly in the first quarter of 2003. NYMEX natural gas rose 67%, averaging \$5.44 per mmBTU in 2003 compared with \$3.25 per mmBTU in 2002, while WTI crude rose 19%, from \$26.08 per barrel to \$31.04 per barrel over this same period. We implemented product surcharges in polyethylene to mitigate the impact of these rising costs. Price increases and surcharges implemented throughout 2003, coupled with strong chemical and energy co-product pricing, helped to mitigate the negative impact of increasing costs.

Polyethylene volumes were up 6%, while ethylene volumes were down slightly. Most of the increase in polyethylene volumes came from our resins made using Advanced SCLAIRTECH technology, which were up 46% to 600 million pounds.

An August 2003 power disruption, impacting the midwestern and northeastern United States and Ontario, reduced earnings in 2003 by approximately \$9 million.

# **Styrenics Business**

# Petrochemical and Feedstock Economics

Styrene is produced from benzene and ethylene. All of the ethylene and approximately half of the benzene requirements for our Sarnia styrene plant are supplied from our Corunna flexi-cracker. The balance of benzene feedstock is obtained from nearby petroleum refineries. For the Bayport and Channelview facilities, ethylene and benzene requirements are purchased, with the exception of some ethylene swaps.

Our global styrenic polymer feedstock requirements are currently satisfied through internal styrene monomer production and long-term supply arrangements. To acquire styrene monomer for our polymer production in Europe, we use a series of trans-Atlantic arrangements with other producers, which result in supply at North American local-producer economics.

We are net sellers of styrene monomer. Our current styrene monomer production capacity, together with long-term supply contracts, exceeds our annual requirements for styrenic polymer production by approximately 1 billion pounds. In a tight market, our long styrene position secures styrene for maximum styrenic polymer sales. It also allows us to sell scarce monomer at high prices in the spot market. In contrast, when demand for styrene and polystyrene weakens, excess styrene monomer may be sold at low spot prices, which would negatively impact our profit margins.

# **Styrene Monomer Industry Dynamics**

Financial results in our Styrenics business are driven in large part by the supply/demand balance for styrene monomer, since there is less capacity to make styrene than there is derivative capacity to consume it. Styrene monomer is a globally traded commodity with an established merchant market. When the global styrene monomer supply/demand balance tightens, margins can be expected to expand. Styrene monomer margins typically reach peak conditions when operating rates for styrene monomer are above 92% for a sustained period of time. In peak conditions, a long styrene monomer position provides a source of earnings leverage.

# **Operating Highlights**

		20	04			ANNUAL	
(U.S. DOLLARS PER POUND, EXCEPT WHERE NOTED)	Q1	Q2	Q3	Q4	2004	2003	2002
Benchmark Principal Product Prices (per pound): (1)							
Styrene monomer (2)	\$0.47	\$0.53	\$0.66	\$0.68	\$0.58	\$0.41	\$0.33
Polystyrene (weighted-average) (3)	\$0.59	\$0.65	\$0.77	\$0.87	\$0.72	\$0.56	\$0.47
Benchmark Raw Material Prices:							
Benzene (per gallon) (2)	\$1.90	\$2.41	\$3.62	\$3.59	\$2.88	\$1.54	\$1.19

<sup>(1)</sup> Benchmark prices do not necessarily reflect actual prices realized by NOVA Chemicals or any other petrochemical company.

#### **Styrenics Sales Volumes**

(MILLIONS OF POUNDS)	2004	2003	2002
Styrene monomer (1)	1,772	1,305	1,257
Solid and expandable polystyrene	2,172	2,110	2,180
Other styrenic polymers (including DYLARK resin)	245	265	281
Total	4,189	3,680	3,718

<sup>(1)</sup> Third-party sales only.

#### Styrenics Financial Highlights

(MILLIONS OF U.S. DOLLARS, EXCEPT PER SHARE AMOUNTS AND WHERE NOTED)	2004	2003	2002
Revenue (1)	\$2,324	\$1,579	\$1,305
Operating loss	\$ (71)	\$ (147)	\$ (118)
Depreciation and amortization	116	111	100
Segment EBITDA (2)	\$ 45	\$ (36)	\$ (18)
Net loss (3)	\$ (69)	\$ (127)	\$ (102)
Average capital employed (4)	\$1,386	\$1,323	\$1,248
After-tax loss on capital employed (5)	(2.5)%	(6.9)%	(5.5)%

<sup>(1)</sup> Before inter-segment eliminations.

<sup>(2)</sup> Source: CMAI Contract Market.

<sup>(3)</sup> Benchmark prices weighted according to NOVA Chemicals' polystyrene sales volume mix in North America and Europe. Includes solid and expandable polystyrene, but excludes styrenic Performance Products. Source for benchmark prices: CMAI. CMAI's published North American low-range contract/market high-heat crystal benchmark polystyrene prices received a one-time downward, non-market adjustment of 6¢ per pound beginning in June 2003. Months prior to June 2003 were not restated by CMAI.

<sup>(2)</sup> See Supplemental Measures on page 61 for the definition of Segment EBITDA.

<sup>(3)</sup> Before distributions and dividends on preferred securities and shares. On March 1, 2004, we redeemed our 9.50% and 9.04% preferred securities.

<sup>(4)</sup> Average capital employed equals cash expended on plant, property and equipment (less accumulated depreciation and amortization) and working capital and excludes assets under construction. Average capital employed increased \$56 million in 2004 as a result of exchange rate fluctuations.

<sup>(5)</sup> Equals net loss plus after-tax interest expense divided by average capital employed.

#### 2004 versus 2003

Styrenics business results improved in 2004 to a net loss of \$69 million compared to a net loss of \$127 million in 2003. Numerous price increases implemented throughout 2004 in North America and Europe allowed margins to improve despite rising feedstock costs. Average benchmark polystyrene prices were up 29% over 2003 across all polymer businesses, while styrene monomer benchmark prices were up 41%.

Implementation of announced price increases depends on many factors, including market conditions, the supply/demand balance for each particular product and feedstock costs. These price increases have varying degrees of success and are typically phased in and can differ by product or market. There can be no assurances that any announced price increases will be successful or will be realized within the anticipated time frame. Benchmark price indices sometimes lag behind price increase announcements due to the timing of publication.

Contributing to this increase in profitability were improving global demand and our Bayport, Texas styrene monomer facility coming on stream in January 2004, after an outage in 2003 resulting from an explosion and fire in the ethylbenzene unit at this facility. As a result of the damage and subsequent repair of the ethylbenzene unit, we delayed our previously announced debottleneck of the Bayport plant. Originally scheduled to be complete in the fourth quarter of 2004, completion of the debottleneck will be delayed to mid 2005. The delay will not have an impact on the previously announced long-term styrene monomer supply contract with BASF Corporation.

Feedstock and operating costs increased \$665 million, or approximately 44%, from \$1,500 million in 2003 to \$2,165 million in 2004. Average benchmark benzene prices in North America rose 87% from \$1.54 per gallon in 2003 to an average of \$2.88 per gallon in 2004. Average benchmark prices for ethylene increased from \$0.29 in 2003 to \$0.34 in 2004.

Styrenic polymer volumes increased 2%, to 2,417 million pounds in 2004, from 2,375 million pounds in 2003, mainly as a result of higher demand. Styrene monomer volumes increased 36% as a result of stronger demand and availability of produced styrene over 2003.

Our Styrenics business segment EBITDA increased \$81 million, or 225%, from a loss of \$36 million in 2003 to earnings of \$45 million in 2004. The improvement over 2003 was mainly due to improving global demand and multiple price increase implementations.

In November 2004, NOVA Chemicals and BP p.l.c. (BP) announced a non-binding agreement in principle to merge the companies' European styrenic polymers businesses into a 50:50 joint venture. The joint venture is expected to be a leading manufacturer and marketer of styrenic polymers in Europe and will be headquartered in Fribourg, Switzerland. The new business is expected to generate approximately \$1 billion U.S. annually in revenue from seven manufacturing sites in France, Germany, the Netherlands, Sweden and the United Kingdom. The joint venture will leverage the existing assets and capabilities of both partners and has the potential to deliver at least \$40 million in cost reductions, as well as a stronger and more broad product line to our customers. Pending final agreements and regulatory and other approvals, we anticipate the joint venture to be operational by the end of the second quarter of 2005.

## 2003 versus 2002

Styrenics business results declined in 2003, bringing our net loss to \$127 million from a \$102 million loss in 2002. Price increases implemented throughout 2003 kept pace with rapidly rising feedstock costs but were more than offset by higher natural gas-based utilities and distribution costs, as well as the negative impact of the Bayport ethylbenzene unit outage. On June 11, 2003, an explosion resulted in a fire in the ethylbenzene unit at our Bayport styrene monomer production facility. Styrene monomer production at Bayport resumed at reduced rates on August 18, 2003, using shipments of ethylbenzene from our Sarnia, Ontario production facility and supplemental purchases of ethylbenzene. This outage reduced our 2003 earnings by approximately \$10 million (after-tax) due to the higher costs of purchasing and shipping ethylbenzene, lower operating rates and costs not covered by insurance.

Revenues increased \$274 million, or 21%, from \$1,305 million in 2002 to \$1,579 million in 2003 due to pricing improvement and strong styrene monomer sales.

Feedstock and operating costs increased \$285 million, or approximately 23%, from \$1,215 million in 2002 to \$1,500 million in 2003. Average benzene market prices in North America rose 29% from \$1.19 per gallon in 2002 to an average of \$1.54 per gallon in 2003. Average benchmark prices for ethylene increased from \$0.22 in 2002 to \$0.29 in 2003.

Styrene monomer benchmark contract prices in North America rose 8¢ per pound in 2003 from 33¢ per pound in 2002. Weighted-average solid polystyrene prices rose 9¢ during the same period.

# **Corporate and Other Items**

# Asset Sales and Other Gains and Losses

## 2004

Joffre Feedstock Pipeline and Ethylene Delivery System (EDS). In August 2004, we entered into an agreement whereby a third-party would build and own a new Joffre Feedstock Pipeline (JFP). We will be the sole shipper and will operate the JFP. Construction of the pipeline is underway and commercial operation is expected to commence in the first quarter of 2005. As part of this transaction, we sold our interest in an Alberta ethylene pipeline, the EDS, for \$19 million in cash proceeds. The gain was deferred and will be amortized to income over the term of our contract to continue to utilize and operate the EDS. These transactions will increase our feedstock flexibility, reduce transportation risk and expand our competitive options.

Alberta Ethane Gathering System (AEGS). In December 2004, we sold our interest in the AEGS for cash proceeds of \$78 million and recorded a gain of \$53 million before-tax (\$40 million after-tax). We will continue to transport ethane as one of several shippers on the AEGS under existing long-term ethane transportation agreements and will physically operate and maintain the system under contract with the new owner. The new owner will be responsible for the commercial aspects of operating the pipeline.

During the year, we recorded a \$122 million settlement resulting from a tax-related dispute. This dispute was related to the deductibility of foreign taxes in certain returns filed with the U.S. Internal Revenue Service prior to 1982. A total of \$12 million was received in 2004, with the remaining \$110 million booked in 2004 for receipt in early 2005. A \$101 million gain (after-tax) was recognized in 2004.

#### 2003

Methanex Corporation (Methanex). In June 2003, we sold our investment in Methanex for a gain of \$29 million before-tax (\$61 million after-tax). During the period we held our investment, we recorded tax expense on equity earnings from Methanex. The recorded tax liability at the time of sale was \$32 million. The sale was completed with no cash taxes payable and accordingly, the previously recorded future income tax provision of \$32 million was not required and was taken into income at the time of the sale.

Our share of Methanex's earnings in 2003, up to the date of sale, was \$37 million after-tax, compared with \$5 million for the year 2002. These results included restructuring charges and asset writedowns of \$27 million in 2002. Global methanol prices improved throughout 2002 and into 2003 due to supply limitations and a recovery in demand.

Fort Saskatchewan Ethylene Storage Facility. We sold our interest in the Fort Saskatchewan Ethylene Storage Facility in 2003 for a gain of \$76 million before-tax (\$64 million after-tax). The total before-tax gain on this transaction was \$114 million, of which \$38 million has been deferred and will be amortized over the 20-year term of a storage contract entered into at the time of the sale. The deferral will partially offset our annual costs associated with this new ethylene storage contract.

#### 2002

Cochin Pipeline. We realized a gain in 2002 of \$59 million before-tax (\$36 million after-tax) from the sale of our interest in the Cochin Pipeline.

# Corporate and Other Items

A listing of after-tax corporate and other items for the periods presented is as follows:

(MILLIONS OF U.S. DOLLARS)	2004	2003	2002
Stock based compensation and profit sharing (1)	\$(60)	\$ (7)	\$ —
Restructuring (2)	(5)	(10)	(15)
Tax settlement	101	_	_
Bayport charge (3)		(8)	
Gain on sale of investments:			
AEGS	40	_	
Methanex	_	61	
Fort Saskatchewan Ethylene Storage		64	_
Cochin Pipeline	<u> </u>	<u> </u>	_36
	\$ 76	\$100	\$ 21

<sup>(1)</sup> We have two cash-settled stock-based incentive compensation plans that are marked-to-market with changes in the value of our common stock price. Additionally, we maintain a profit sharing program available to most employees based on the achievement of shareholder return on equity targets.

<sup>(2)</sup> See Restructuring Charges on page 56.

<sup>(3)</sup> In 2003, we had an explosion and fire at our Bayport, Texas styrene monomer manufacturing facility and as a result incurred a charge of \$13 million before-tax (\$8 million after-tax) primarily related to the amount of property damage not covered by insurance.

#### Other Operating Expense

Depreciation and amortization expense remained essentially flat at \$297 million in 2004 compared with \$298 million in 2003. In June 2004, the cost-of-service contract for our second ethylene cracker at Joffre expired. As a result, depreciation and amortization was reduced by approximately \$30 million annually as this facility was fully depreciated at that time. However, increases in the Canadian dollar and euro denominated asset values when translated to U.S. dollars offset this reduction. Depreciation increased in 2003 over 2002 due mainly to a higher Canadian dollar and euro.

Research and development spending increased \$3 million, or 7%, from \$45 million in 2003 to \$48 million in 2004. In 2002, R&D spending was \$39 million. These year-over-year increases in investment reflect our continued focus on targeted development of Performance Products.

Selling, general and administrative (SG&A) expenses increased \$83 million, or 44%, from \$190 million in 2003 to \$273 million in 2004 due mainly to \$76 million of additional mark-to-market charges resulting from the impact of our common stock price appreciation on cash-settled stock-based compensation plans. The market price of our common stock on the NYSE on December 31, 2004 was \$47.30 compared to \$26.95 on December 31, 2003. Currency related cost increases of approximately \$9 million were due to a higher Canadian dollar and euro. SG&A costs increased \$21 million in 2003 over the \$169 million spent in 2002 due mainly to higher foreign exchange rates and \$11 million of mark-to-market charges related to our cash-settled stock-based compensation plans.

#### **Restructuring Charges**

In 2004, a restructuring charge of \$8 million (\$5 million after-tax) was taken for additional dismantling and severance costs related to the May 2004 shutdown of the A-Line at our St. Clair River polyethylene plant site in Corunna. This amount is in addition to a \$15 million (\$10 million after-tax) charge taken in 2003 which was comprised mainly of asset writedown and severance costs. In 2002, a charge of \$20 million (\$15 million after-tax) was related to streamlining our operations in many areas of our company and was primarily severance related.

#### Interest Expense

Net interest expense in 2004 increased to \$96 million as compared to \$89 million in 2003 as a result of our additional \$400 million of Senior Notes issued in January 2004. The proceeds were primarily used to redeem \$383 million of preferred securities resulting in lower preferred dividends. A net financing cost benefit of \$10 million annually will be realized as a result. See Liquidity on Page 58. In 2002, interest costs were \$87 million.

#### Income Taxes

Income taxes shifted from a recovery in 2003 to expense in 2004. This shift was primarily due to the improvement in earnings. In 2004, income tax expense was \$83 million compared with a recovery of \$61 million in 2003. The recovery in 2003 increased significantly from the \$13 million recovery in 2002 due to the reversal of previously recorded income tax provisions, which were no longer required as a result of non-strategic asset sales and other matters.

# Liquidity and Cash Flow

Our principal sources of liquidity in 2004 were cash flows from operations, non-strategic asset sales and our accounts receivable securitization programs. Our principal uses of cash were capital expenditures, share buybacks and debt service. We also raised \$400 million in 6.5% Senior Notes which were used to redeem \$383 million of preferred securities.

Cash Flow
A summary of the cash inflows and outflows, which contributed to the changes in our cash and debt, is shown below:

(MILLIONS OF U.S. DOLLARS)	2004	2003	2002
Inflows			
Funds generated from operations	\$ 424	\$140	\$153
Reduction (increase) in operating working capital	(78)	(125)	206
Cash generated from operations	346	15	359
Asset sale proceeds (net of unreceived cash)	115	564	82
Common shares issued for stock options	37	9	11
Foreign exchange and other		<u> </u>	1
Total inflows	498	588	453
Outflows			
Capital expenditures (net of project advances)	(227)	(119)	(70)
Turnaround costs, long-term investments and other assets	(9)	(57)	(18)
Common shares repurchased	(188)	_	_
Stock options retired for cash	(18)	_	_
Preferred securities redemption	(383)	_	
Dividends and distributions	(38)	(54)	(54)
Foreign exchange and other	(17)	(46)	
Total outflows	(880)	(276)	(142)
Increase in cash	(33)	(198)	(4)
Debt Reduction (Addition)	\$(415)	\$114	\$307

Inflows of Cash. Funds from operations were \$424 million in 2004, up substantially from \$140 million in 2003 and \$153 million in 2002. Improvement in the economy, stronger demand for our products and price increases resulted in improved business earnings. Working capital increased by \$78 million in 2004, due to higher-priced inventories and accounts receivable as well as building of inventories to meet growing demand and a series of planned plant maintenance outages for 2005. We continued our focus on Cash Flow Cycle Time (CFCT), which is measured as operating working capital divided by average sales. We ended 2004 with 35 days CFCT which is higher than the 28 days CFCT in 2003. The increase in 2004 is primarily a result of building inventories for the planned maintenance shutdowns in 2005 as well as a seasonal sales decline in December 2004. In total, we generated \$346 million in cash from operations versus \$15 million in 2003 and \$359 million in 2002.

We sold non-strategic assets in 2004, which resulted in \$97 million of net cash proceeds. The sale of our interests in the EDS and the AEGS contributed \$19 million and \$78 million, respectively, in 2004. In addition, we collected \$12 million in cash from the settlement of a tax dispute and expect to receive an additional \$110 million in 2005 (see Corporate and Other Items on page 54). In 2003, we received \$564 million from the sale of our interest in Methanex, which generated net cash of \$441 million, and the sale of our interest in the Fort Saskatchewan Ethylene Storage Facility, which generated net cash of \$123 million.

In January 2004, we issued \$400 million of 6.50% Senior Notes due 2012, the proceeds of which were used in March 2004 to redeem two series of preferred securities totaling \$383 million due in 2047 and 2048.

Cash generation in 2004 was predominantly a result of improving business conditions and earnings. This is in contrast to 2003 when non-strategic asset sales generated our most significant cashflows.

Outflows of Cash. We increased our capital spending program to \$227 million (net of project advances) in 2004 compared to the \$119 million (net of project advances) spent in 2003 and \$70 million spent in 2002. We prefer to invest early in the business upturn cycle to position us to fully capitalize on the anticipated growth in demand. We expect our 2005 capital spending program to be approximately \$300 million. We will complete several projects that will expand production capacity, including the 450 million pound debottleneck of the Bayport styrene monomer facility, modernization of the Corunna ethylene flexi-cracker, and Performance Product capacity expansions at both Beaver Valley and Belpre. Our capital program in 2005 is expected to be financed from cash on hand and cash from operations.

We also spent \$9 million in 2004 for scheduled maintenance of facilities, known as turnarounds. We expect to spend approximately \$65 million on scheduled turnarounds in 2005.

In July 2004, we initiated a share repurchase program for up to approximately 7.5 million shares. At December 31, 2004, we had purchased 4.9 million shares at an average cost of \$47.75 Canadian, or \$188 million U.S. We also paid stock option exercise values of \$18 million in cash, in lieu of issuing stock in 2004.

#### Commitments

We have various commercial commitments, including operating leases for office space, railcars and unconditional purchase obligations related to minimum amounts of feedstock and other raw material purchases pursuant to agreements entered into to secure short- and long-term supply. Prices are typically based on market or a cost-plus basis, and fluctuate with changes in the underlying raw material indices. Obligations have been calculated using current pricing for purposes of the chart below.

## Contractual Cash Obligations as of December 31, 2004

(MILLIONS OF U.S. DOLLARS)	PAYMENTS DUE BY PERIOD						
	TOTAL	2005	2006 TO 2007	2008 TO 2009	AFTER 2009		
Long-term debt (1)	\$ 1,516	\$ 100	\$ 306	\$ 254	\$ 856		
Operating leases (2)	516	40	74	69	333		
Unconditional purchase obligations (3)	9,793	3,223	2,996	1,543	2,031		
Total contractual cash obligations	\$11,825	\$3,363	\$3,376	\$1,866	\$ 3,220		

<sup>(1)</sup> Includes current portion and bank loans.

## Liquidity

We meet our short-term liquidity needs through the generation of funds from operations, cash-on-hand, an accounts receivable securitization program, and borrowing capacity under a revolving credit facility. At December 31, 2004, we had \$245 million cash on hand in addition to \$243 million of available borrowing capacity under the revolver after letters of credit. See Credit Facility on page 59.

Senior Notes Offering. On January 13, 2004, we issued \$400 million of 6.50% Senior Notes due 2012. These Senior Notes were issued with investment-grade covenants and are identical in all material respects to the covenants on our existing bonds. Net proceeds of the offering were used to redeem, on March 1, 2004, the 9.04% preferred securities due 2048 and the 9.50% preferred securities due 2047. The two issues of preferred securities totaled \$383 million. The balance of the proceeds were used for general corporate purposes. These transactions reduce annual financing costs by approximately \$10 million.

<sup>(2)</sup> Includes property, railcar and other equipment leasing commitments.

<sup>(3)</sup> We could mitigate the impact of excess quantities of raw materials and feedstock commodities resulting from fixed purchase commitments by reselling these products at market prices.

Credit Facility. As of December 31, 2004, we had no borrowings under our \$300 million secured credit facility, except for operating letters of credit of \$57 million. The expiration date of this facility was extended to April 1, 2007. The covenants related to this facility are as follows:

	•	<b>DECEMBER 31, 2004</b>
COVENANT	_ REQUIREMENT	ACTUAL
Minimum Cash Flow to Interest Expense (1):	2.0:1.0	5.0
Maximum Net Debt to Total Capitalization (2):	55%	47.3%
Minimum Shareholders' Equity (3):	\$1.0 billion plus 50% of positive earnings	\$1.7 billion

- (1) As defined in the revolving credit facility, cash flow equals consolidated net income (loss), in accordance with Canadian GAAP, adding back interest expense, income taxes, depreciation and amortization, extraordinary gains or losses (including gains and losses on sales of assets) and other non-cash items. Interest expense includes preferred share dividends and distributions.
- (2) As defined in the revolving credit facility, net debt includes items not in accordance with Canadian GAAP, such as obligations under operating leases (if in excess of a specified percentage of consolidated assets) and amounts outstanding under the accounts receivable securitization program, however, it excludes the retractable preferred shares to the extent that they are included as debt on the balance sheet. The definition also provides for debt to be offset by cash, other than restricted cash, in arriving at net debt for purposes of this covenant. This covenant was amended in December 2004 for the retractable preferred shares since Canadian GAAP will require the preferred shares be accounted for as debt rather than equity beginning January 1, 2005. See Accounting Standards, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity on page 64.
- (3) Shareholders' Equity is defined in accordance with Canadian GAAP and includes the retractable preferred shares to the extent that they are classified as debt on the balance sheet and includes changes in the cumulative translation adjustment account (CTA). Previously, the calculation excluded changes in CTA after December 31, 2002. This covenant was amended in December 2004 for retractable preferred shares as described in above footnote 2.

We are in compliance with all covenants under the revolving credit facility.

Off-Balance Sheet Arrangements — Accounts Receivable Securitization. Our off-balance sheet financing activities are limited to participation in accounts receivable securitization programs. We have been engaged in the current programs since 1999 to obtain lower financing rates than those available to us from other sources. During 2004, the programs were renewed until April 14, 2007 and the capacity increased from \$195 million to \$250 million. We sell trade accounts receivable to third parties, on a revolving basis, to a maximum of \$250 million (see Note 3 to the Consolidated Financial Statements). At December 31, 2004, \$250 million in receivables were sold under the programs. Of this amount, \$150 million was sold via a special purpose entity (SPE) that is 100% owned by NOVA Chemicals. The SPE isolates the sold receivables and the related cash collections for the exclusive benefit of the purchasers. We have no right to any cash collected from these receivables; therefore, neither the receivables nor any obligation to the purchasers is reflected in our consolidated financial statements. We conduct no other business through SPE's.

Total Return Swap. In connection with the acquisition of styrenics' assets from Huntsman Corporation in 1998, our subsidiary, NOVA Chemicals Inc., issued retractable preferred shares with a liquidation preference of \$198 million as partial consideration. Holders of the retractable preferred shares have the right to exchange the shares (retraction) for our common shares (plus preferred shares if the market value of such common shares is less than \$198 million).

Pursuant to the terms of the retractable preferred shares and related stockholder agreements, we have the right to call the retractable preferred shares on or after December 15, 2001 or repurchase the retractable preferred shares prior to any retraction into our common shares. If we do not exercise our repurchase rights prior to March 15, 2007, the market-based exchange rate at which the retractable preferred shares may be retracted into our common shares (and accordingly, the effective price at which the common shares would be issued) will be fixed on that date. The number of our common shares issuable upon a retraction remains limited to a maximum of 8.5 million shares with the balance of the obligation, if any, met through the issuance of our preferred shares. The dividend rate on the retractable preferred shares is 2% per year.

We also entered into a total return swap, which terminates on March 15, 2007, with respect to the retractable preferred shares. Under the terms of the total return swap: (i) the counterparty pays us an amount equal to the fixed dividend on the retractable preferred shares; (ii) we pay the counterparty LIBOR plus a spread; (iii) we are required to provide maintenance margin in the form of restricted cash for any negative changes in the equity value of the retractable preferred shares; and (iv) the counterparty pays us for any positive changes in the equity value of the retractable preferred shares.

We have provided \$65 million restricted cash to reduce the notional amount of the swap from \$191 million to \$126 million. As a result, prior to March 15, 2007, we can redeem the potentially dilutive security for an additional \$126 million.

Beginning in 2004, changes in the equity value of the retractable preferred shares during the term of the swap are being determined based on changes in the average price of the outstanding 7% Senior Notes due 2005 and 7% Medium-Term Notes due 2006 issued by NOVA Chemicals.

If we default on other debt with an aggregate principal amount of \$25 million or more, or the closing price of our common shares is \$12.00 or less, and upon certain other credit events, the counterparty will have the right to sell the retractable preferred shares to a third party and terminate the swap. We would then owe the counterparty the difference between the actual sale price received by the counterparty and the most recent adjusted notional equity value of the retractable preferred shares (in the event the difference was negative).

Capitalization. At the end of 2004 our net debt to total capitalization ratio was at 42.9%, after deducting cash and cash equivalents from total debt. This is a decline from 32% at the end of 2003 due to the issuance of \$400 million in Senior Notes on January 13, 2004, which were used to redeem our 9.04% and 9.50% preferred securities. Our next debt maturity occurs in September 2005 for \$100 million. The Canadian Institute of Chartered Accountants (CICA) has adopted new rules regarding the accounting for certain financial instruments with characteristics of both liabilities and equity (see Accounting Standards on page 64). On January 1, 2005, we will be required to classify our preferred shares as debt rather than equity. We have amended our credit facility covenants accordingly (see Credit Facility on page 59).

# **Financial Ratios:**

DECEMBER 31 (MILLIONS OF U.S. DOLLARS, EXCEPT AS NOTED)	2004	2003	2002
Long-term debt (1)	\$1,516	\$1,101	\$1,215
Less: cash and cash equivalents	(245)	(212)	(14)
Total debt net of cash and cash equivalents	1,271	889	1,201
Shareholders' equity	1,691	1,890	1,561
Total capitalization (2)	\$2,962	\$2,779	\$2,762
Net debt to total capitalization (3)	42.9%	32.0%	43.5%
Interest coverage (deficiency) on long-term debt (4)	4.3x	0.9x	(0.1)x

<sup>(1)</sup> Includes current portion and bank loans.

<sup>(2)</sup> Total capitalization reflects shareholders' equity and total debt net of cash and cash equivalents (See Supplemental Measures on page 61).

<sup>(3)</sup> If cash and cash equivalents are not netted against long-term debt, the debt to total capitalization ratio would be 47.3% for 2004, 36.8% for 2003 and 43.8% for 2002. Reflects additional \$400 million of Senior Notes issued in 2004. See Senior Notes Offering on page 58. (See Supplemental Measures on page 61).

<sup>(4)</sup> Interest coverage (deficiency) on long-term debt is equal to net income (loss) before interest expense on long-term debt and income taxes divided by annual interest requirements on long-term debt.

Credit Ratings. Our current senior unsecured debt ratings are as follows: DBRS — BBB (low)(stable); Standard & Poor's — BB+ (stable); Moody's — Ba2 (stable); and Fitch Ratings — BB+ (stable). In January 2004, Standard & Poor's lowered its outlook from stable to negative coincident with the issuance of \$400 million of 6.50% Senior Notes due 2012. In December 2004, Standard & Poor's raised its outlook to stable. In July 2004, Moody's lowered its outlook from stable to negative coincident with the announcement of our share repurchase program. In January 2005, Moody's revised its outlook to stable on the announcement we will receive \$110 million cash from a tax-related settlement.

## Supplemental Measures

In addition to providing measures in accordance with Canadian GAAP, we present certain supplemental measures. These are net debt to total capitalization and total capitalization, which we define to be net of cash and cash equivalents in accordance with the debt covenants for our \$300 million revolving credit line and EBITDA (defined below); average capital employed (defined on pages 50 and 52); and after-tax return on capital employed (defined on pages 50 and 52). These measures do not have any standardized meaning prescribed by Canadian GAAP and are, therefore, unlikely to be comparable to similar measures presented by other companies.

EBITDA. This measure is provided to assist investors in determining our ability to generate cash from operations. Under our definition, EBITDA can be determined from the consolidated statements of income (loss) by adding back income taxes, interest expense, other gains and losses, equity in the earnings of affiliates and depreciation and amortization to net income (loss).

(MILLIONS OF U.S. DOLLARS)	2004	2003	2002
Net income (loss)	\$262	\$ 28	\$ (81)
Income tax expense (recovery)	83	(61)	(13)
Other (gains) losses	(177)	(92)	(59)
Equity in earnings of affiliate	· _	(39)	(5)
Interest expense (net)	96	89	87
Depreciation and amortization	297	298	266
EBITDA	\$561	\$223	\$195

Segment EBITDA is determined as segment operating income or loss before depreciation and amortization.

#### Dividends and Distributions

Common Share Dividends. We paid dividends on our common shares at the current rate of \$0.10 Canadian per quarter. In 2004, we paid \$28 million U.S. in dividends on our common shares. There are currently no material contractual restrictions on our ability to declare and pay dividends on our common shares. The declaration and payment of dividends is at the discretion of our Board of Directors, which will consider earnings, capital requirements, our financial condition and other relevant factors. It is, however, our intention to retain most of our earnings to support current operations, further reduce debt, buy back shares and continue to pay dividends.

Preferred Securities Distributions. On March 1, 2004, we redeemed our 9.50% and 9.04% preferred securities due in 2047 and 2048 respectively.

Retractable Preferred Share Dividends. We pay 2% annual dividends on the \$198 million retractable preferred shares. These dividends are deducted from income when determining earnings per share. Holders of the retractable preferred shares have the right to exchange the shares (retraction) for our common shares (plus our preferred shares if the market value of such common shares is less than \$198 million) after March 15, 2007.

If the retractable preferred shares are not retired or the conversion date is extended, the market-based exchange rate at which the retractable preferred shares may be retracted into our common shares (and accordingly the effective price at which the common shares would be issued) would be determined on March 15, 2007.

# Application of Critical Accounting Estimates

We believe the following represent the estimates most critical to the application of our accounting policies. Management has discussed the development and selection of these critical accounting estimates with the Audit, Finance and Risk Committee of our Board of Directors and the Audit, Finance and Risk Committee has reviewed our disclosure relating to such estimates in this Management's Discussion & Analysis.

Plant, Property and Equipment (PP&E). Judgmental aspects of accounting for PP&E involve estimates of the life of the assets, the selection of an appropriate method of depreciation and determining whether an impairment of our assets exists. These assessments are critical due to their potential impact on our earnings.

Canadian and U.S. GAAP require that if the sum of the future net cash flows, together with the residual value expected to result from a company's assets, undiscounted and without interest charges, is less than the reported value of the asset, asset impairment must be recognized in the financial statements by a charge to earnings.

Our Olefins/Polyolefins business has an established long-term record of profitability and, based on current asset carrying values and expected future cash flows, we have concluded the carrying value of its assets is appropriate. In 2003, we announced the shutdown of a single polyethylene line at our St. Clair River facility in Corunna. As a result, we wrote off the remaining assets, resulting in a \$6 million (after-tax) charge to earnings in the third quarter of 2003.

Our Styrenics business has not been as profitable, and in recent years we have reduced production capacity due to poor market conditions. In 2002, we temporarily idled Expandable Polystyrene (EPS) units at our Carrington, United Kingdom plant and shut down several reactors in Europe and North America. Despite these actions, we have determined that the undiscounted sum of the expected future cash flows from all of our Styrenics plants continues to exceed the recorded value of those plants and as a result there is no impairment under Canadian or U.S. GAAP.

Our estimate of future cash flows is based on historical operating performance and the assumption that the business cycle pattern will continue in the future. Historically, there have been peaks in earnings performance, characterized by a tight supply/demand balance and improving margins, followed by trough periods when supply exceeds demand and lower margins result. We have assumed that we will earn margins in the future that are similar to margins earned in the past and that we will have a similar cost structure.

In addition, we are able to choose from alternative methods of depreciation. We have chosen the straight-line method rather than other methods, such as unit of production, because the straight-line method is more conservative, requires less estimation and judgment, and is a systematic and rational basis reflecting the period over which the assets' benefit is realized.

Environmental Liabilities. Canadian GAAP requires companies to record liabilities associated with future plant decommissioning and site restoration costs on both active and inactive plants at their fair value based on a discounted value of the expected costs to be paid when the assets are retired. At December 31, 2004, we had \$27 million of accumulated reserve for these activities. This accumulated reserve is comprised of approximately \$4 million anticipated to be required for the decommissioning and site restoration of plant sites that have been divested or are no longer in use and approximately \$23 million for currently operating plant sites. During 2004, we reduced the reserve we had carried for inactive sites by \$5 million due to several projects either being completed or at a stage of completion that allows reassessment of the estimated costs to complete. From our review of these projects, it was determined that our accumulated reserve for inactive sites was too high.

In 2003, we undertook an evaluation of the costs to conduct decommissioning and site restoration required to satisfy our projected obligations under applicable environmental requirements upon termination of operations at currently operating plant sites. Canadian GAAP required that we record the present value of inflation-adjusted decommissioning and site restoration costs as increases to the carrying values of the assets at that time and depreciate this amount over the estimated remaining lives of the assets. We determined that \$112 million, at that time, may be required to decommission and restore operating plant sites. This amount does not include any deduction for salvage or land value that may be realized, however these will be taken into consideration as the assets are depreciated. Since these plants may be in operation in excess of 40 years, significant uncertainty exists concerning the nature of the decommissioning and site restoration activities that may be required. Furthermore, significant judgment is involved in the estimation process, since the value of salvage, degree of natural attenuation, evolution of new technologies and potential future land uses may mitigate future environmental liabilities and potential costs.

The amount of \$112 million was approximately \$225 million to \$250 million after adjusting for inflation as is required by Canadian GAAP. The present value of this future amount (using a credit-adjusted risk-free rate of 10.5% to discount the estimated future cash flows) was approximately \$19 million, and was accrued in 2003 in anticipation of these activities. This estimated liability of \$19 million will increase, or accrete, each year over the lives of the active plants until it reaches the \$225 million to \$250 million expected to be incurred on closure of the plants. The resulting expense is referred to as accretion expense and is included in operating expenses. For 2004, this expense was \$2 million. In addition, we have added to the active site reserves in 2004 due to additional amounts expected for dismantling of a polyethylene line at our St. Clair River site in Corunna. The liability recorded at December 31, 2004 is therefore \$23 million.

Pensions. Canadian GAAP requires that actuarial gains and losses be recognized in our income using a systematic and consistent methodology. We amortize such gains and losses over the estimated remaining service lifetime of the employee group to the extent these gains or losses exceed 10% of the greater of the accrued benefit obligation or market value of assets. This alternative avoids recognizing into income large unrealized gains or losses in individual years. Immediate recognition of such gains and losses would introduce significant volatility into our earnings. Cumulative unrealized actuarial gains and losses have ranged from a \$61 million gain at December 31, 1999 to a \$132 million loss at December 31, 2004.

We also make assumptions concerning factors such as mortality, termination, retirement and other rates as well as the expected return on plan assets, rate of increase in future compensation and discount rate. These assumptions can impact our pension obligations and pension expense. We use the latest published mortality rate tables and select other assumptions in line with our actual experience. The expected return on plan assets reflects our estimate of asset returns over the life of the pension plans, not our actual return in any given year. Changes in these assumptions would need to be dramatic to cause a material impact to our pension obligation or pension expense amounts. For example, a 1% change in the expected return on plan assets would impact earnings by approximately \$3 million after-tax and a 1% change in our discount rate would impact earnings by approximately \$8 million after-tax.

We contributed a total of \$26 million to all of our defined benefit pension plans in 2004. The contributions were based on the most recently filed valuations with pension regulators in various countries. Funding for our pension plans is largely driven by the North American pension plans, as they constitute the significant portion of our pension plan assets and obligations. For 2005, funding is expected to be approximately \$52 million as employees accrue additional pension benefits and special payments are made to cover the shortfall between assets and liabilities.

Income Taxes. The objectives of accounting for income taxes are to recognize the amount of taxes payable or refundable for the current and future years for events that have been recognized in our financial statements or tax returns. Judgment is required in assessing future tax consequences. Variations in the actual outcome of these future tax consequences could materially impact our financial position or results of operations.

We have a tax reserve that is available to settle periodic tax disputes and ongoing tax adjustments. We assess this reserve from time-to-time for adequacy and in 2003 and 2004 determined we were over-provided. During 2004, we reduced this reserve by \$11 million (\$20 million in 2003).

# **Accounting Standards**

Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity. The CICA implemented an amendment to Handbook section 3870 which harmonizes accounting for some types of mandatorily redeemable shares and other financial instruments with U.S. GAAP. These instruments will be required to be classified as liabilities beginning on January 1, 2005 rather than as equity. Our retractable preferred shares will be subject to this change in classification because they represent an obligation, which can be settled by a fixed sum of cash or equity shares. Consequently, on January 1, 2005, \$198 million of preferred shares will be accounted for as debt and related charges will be shown as interest expense. Comparative periods in the consolidated financial statements will be restated.

Comprehensive Income. Comprehensive income is defined as the change in equity of an enterprise during a period from transactions, events and circumstances from non-owner sources. It includes all changes in equity during a period, except those resulting from investments by owners and distributions to owners. The CICA has proposed implementation of this standard to harmonize U.S. and Canadian GAAP for interim and annual financial statements relating to years commencing on or after October 1, 2006. We currently provide such a statement on a U.S. GAAP basis in Note 25 to the Consolidated Financial Statements.

# Disclosure Of Market and Regulatory Risk

The Audit, Finance and Risk Committee of our Board of Directors regularly reviews foreign exchange, interest rate and commodity hedging activity and monitors compliance with our hedging policy. Our policy prohibits the use of financial instruments for speculative purposes and limits hedging activity to the underlying net economic exposure.

Foreign Exchange Hedging. We conduct business in various countries where certain revenues and expenses are determined in currencies other than the U.S. dollar. We have not hedged our exposure to fluctuations in any currency since our Canadian dollar-hedging program expired in March 2003.

Commodity Hedging and Feedstock Acquisition. We manage our exposure to fluctuating commodity prices on our physical feedstock requirements by varying our mix of fixed and floating price contracts and by entering into commodity futures contracts, swaps and options. The extent to which hedging instruments are used depends on market conditions and requires adherence to our hedging policy. We also limit our positions in futures markets to our feedstock requirements and do not use hedging instruments for speculative purposes.

Our feedstock acquisition team manages our exposure in the volatile natural gas, crude and benzene markets in an effort to moderate the risks of fluctuations in feedstock prices and to reduce overall feedstock costs. As a result of our hedging activities, after-tax earnings in 2004 increased by \$16 million compared to a decrease of \$5 million in 2003. On December 31, 2004, the mark-to-market value of all outstanding commodity positions was a net gain of \$8 million (\$5 million after-tax).

Interest Rate Hedging. We use interest rate swaps to manage our mix between fixed and floating interest rate exposure. In July of 2004, fixed-for-floating interest rate swap transactions on \$250 million of the medium-term notes were closed and not replaced. There was no gain or loss on the closing of these positions. This leaves interest rate swap positions outstanding on \$300 million of medium-term notes at December 31, 2004. As a result, at December 31, 2004, 79% of our debt had fixed interest rates averaging 7.2%, and 21% of our debt had floating interest rates averaging 6.7%. The remaining outstanding position had an estimated fair-market loss of \$2.4 million at December 31, 2004.

Credit Risk Management. We are exposed to credit risk on financial instruments given the possibility a counterparty to an instrument in which we are entitled to receive payment of an unrealized gain fails to perform. NOVA Chemicals has established a limit on contingent exposure for each counterparty based on the counterparty's credit rating. Credit exposure is managed through credit approval and monitoring procedures.

Concentration of credit risk can result primarily from our receivables, as certain customer groups are located in the same geographic area and operate in the same industry. We manage our credit risk relating to these receivables through credit approval and monitoring procedures. For further details on our hedging activities, please see Note 24 to the Consolidated Financial Statements.

# Summarized Quarterly Financial Information

THREE MONTHS ENDED (UNAUDITED;	2004			2003	)03			
MILLIONS OF U.S. DOLLARS, EXCEPT PER SHARE AMOUNTS)	DEC 31	SEPT 30	JUN 30	MAR 31	DEC 31	SEPT 30	JUN 30	MAR 31
Revenue	\$1,527	1,379	1,238	1,126	\$1,041	967	964	977
Operating income (loss)	\$ 51	96	76	41	\$ 3	(56)	(36)	14
Net income (loss)	\$ 164	57	29	12	\$ (8)	(58)	82	12
Net income (loss) per common share								
— Basic	\$ 1.91	0.64	0.31	0.08	\$ (0.18)	(0.75)	0.86	0.05
— Diluted	\$ 1.78	0.60	0.30	0.08	\$ (0.18)	(0.75)	0.79	0.05
Weighted-average common								
shares outstanding (millions)								
Basic	84.8	87.2	87.6	87.3	87.0	86.8	86.8	86.7
Diluted	92.4	95.9	96.9	89.2	87.0	86.8	96.0	87.4

# **Quarterly Earnings Trends**

NOVA Chemicals' revenues and earnings are affected by seasonal factors. Historically, sales volumes in the plastics and chemical industry during the last quarter of a calendar year are lower than the first three quarters. According to data from the American Plastics Council (APC) during a 5-year period (2000-2004), average North American polyethylene sales volumes for the fourth quarter were typically 2% lower than the annual average and approximately 3% below the third quarter. NOVA Chemicals' fourth quarter 2004 total polyethylene sales volumes fell 2% from the third quarter.

In this same time period, the APC data shows average North American polystyrene sales volumes for the fourth quarter were approximately 4% lower than the annual average and 5% below the third quarter. NOVA Chemicals' fourth quarter 2004 total polystyrene sales volumes fell 12% from the previous quarter.

#### O4 2004 Overview

Net income for the fourth quarter of 2004 was \$164 million or \$1.78 per share diluted. This is an increase of \$172 million from the fourth quarter a year ago. This increase was attributable to a \$110 million (\$91 million after-tax) gain on a tax related settlement as well as a \$53 million (\$40 million after-tax) gain on the sale of our investment in AEGS. In addition, earnings were higher in our Olefins/Polyolefins business by \$56 million over the same time last year and our Styrenics business improved \$13 million over the same period. Fourth quarter 2004 results were also impacted by increased charges of \$23 million after-tax over the same period last year, related to our two cash-settled stock-based incentive compensation plans that are marked-to-market with changes in the value of our common stock price, as well as our profit sharing program for most employees, which is based on the achievement of certain shareholder return on equity targets. We also recorded a restructuring charge in the fourth quarter of 2004 of \$5 million after-tax relating to the shutdown of one of our polyethylene production lines at our St. Clair River site in Corunna, Ontario.

The improvement in our Olefins/Polyolefins earnings was a result of a strengthening supply/demand balance which drove up polyethylene margins. As reported by the American Plastics Council (APC), industry operating rates for polyethylene in North America were 96% in the fourth quarter of 2004 versus 88% in the fourth quarter of 2003. Effective industry operating rates for ethylene in the United States, as reported by CMAI for the fourth quarter of 2004, were 95%, up from 94% in the fourth quarter of 2003. A tighter supply/demand balance allowed price increases to stay ahead of rapidly rising and volatile feedstock costs thereby increasing margins. Volumes remained essentially flat in the quarter over the same time last year, however the mix of polyethylene sales shifted to higher sales volumes of our Advanced SCLAIRTECH Performance Products versus our traditional polyethylene resins.

Our Styrenics business also improved in the fourth quarter of 2004 over the fourth quarter of 2003 primarily due to expanded styrene monomer margins and increased styrene monomer sales. Styrene monomer volumes increased 46% partly due to increased styrene production at Bayport, Texas, where capacity was constrained from a fire in 2003. Polystyrene sales volumes actually declined over the same period by 6% due to customers closely managing inventories. Weighted-average benchmark prices in both styrene monomer and polystyrene were up 70% and 55% respectively from fourth quarter 2003 to fourth quarter 2004, however these increases overall just kept pace with very high benzene feedstock costs.

Depreciation expense decreased \$6 million before-tax in the fourth quarter of 2004 over the fourth quarter of 2003 due to the expiration of the cost-of-service contract on our second ethylene cracker in Joffre, Alberta in June 2004. This facility was fully depreciated on the date the contract expired. Interest expense increased \$9 million from the fourth quarter of 2003 to the fourth quarter of 2004 due mainly to the issuance of \$400 million in 6.50% Senior Notes. Although this new debt increased interest expense over the period, we redeemed our \$383 million high-cost preferred securities with the Senior Notes proceeds, which allowed us to reduce our overall cost of financing by \$2 million for the quarter.

#### **Share Data**

Common Shares Issued and Outstanding:

(NUMBER OF SHARES)	AS AT FEBRUARY 14, 2005	2004	2003	2002
Beginning of period	84,268,293	87,099,781	86,527,812	85,778,788
Issued upon exercise of options	288,151	2,103,112	571,969	749,024
Repurchased	(159,700)	(4,934,600)	_	_
End of period	84,396,744	84,268,293	87,099,781	86,527,812

#### **Controls and Procedures**

#### Disclosure Controls And Procedures

NOVA Chemicals' management, with the participation of the Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness, as at December 31, 2004, of NOVA Chemicals' disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the U.S. Securities Exchange Act of 1934) and has concluded that such disclosure controls and procedures are effective.

# Management's Annual Report On Internal Control Over Financial Reporting

The following report is provided by management in respect of NOVA Chemicals' internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the U.S. Securities Exchange Act of 1934):

- 1. NOVA Chemicals' management is responsible for establishing and maintaining adequate internal control over financial reporting for NOVA Chemicals.
- 2. Management has used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework to evaluate the effectiveness of NOVA Chemicals' internal control over financial reporting. Management believes that the COSO framework is a suitable framework for its evaluation of NOVA Chemicals' internal control over financial reporting because it is free from bias, permits reasonably consistent qualitative and quantitative measurements of NOVA Chemicals' internal controls, is sufficiently complete so that those relevant factors that would alter a conclusion about the effectiveness of NOVA Chemicals' internal controls are not omitted and is relevant to an evaluation of internal control over financial reporting.
- 3. Management has assessed the effectiveness of NOVA Chemicals' internal control over financial reporting, as at December 31, 2004, and has concluded that such internal control over financial reporting is effective. There are no material weaknesses in NOVA Chemicals' internal control over financial reporting that have been identified by management.
- 4. Ernst & Young LLP, who has audited the Consolidated Financial Statements of NOVA Chemicals for the year ended December 31, 2004, has also issued a report on internal controls under Auditing Standard No. 2 of the Public Company Accounting Oversight Board (United States). This report is located on page 71 of this Annual Report.

# Changes In Internal Control Over Financial Reporting

There have been no changes in NOVA Chemicals' internal control over financial reporting during the year-ended December 31, 2004 that have materially affected, or are reasonably likely to materially affect, its internal control over financial reporting.

#### Additional Information

Additional information relating to NOVA Chemicals, including our Annual Information Form, is filed with Canadian securities administrators and can be accessed through the System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com. This same information is filed with the U.S. Securities and Exchange Commission and can be accessed via their Electronic Data Gathering, Analysis and Retrieval System (EDGAR) at www.sec.gov/edgar.shtml.

# Consolidated Six-Year Review

(MILLIONS OF U.S. DOLLARS, EXCEPT PER SHARE AMOUNTS, RATIOS AND MISCELLANEOUS DATA)	2	004	2003	2002	2001	2000	1999
Operating Results							
Revenue	\$5,2	270	3,949	3,091	3,194	3,916	2,808
Operating income (loss)	\$ 2	264	(75)	(71)	(195)	414	305
Net income (loss)	\$ 2	262	28	(81)	(128)	302	253
Total assets	\$5,0	)47	4,413	4,154	4,359	4,754	4,559
Capitalization							
Current bank loans	\$	_	_	3	14	28	_
Long-term debt	1,5	516	1,101	1,212	1,508	1,423	1,525
Less: Cash and cash equivalents	(2	245)	(212)	(14)	(10)	(27)	(59)
Net debt	\$1,2	271	889	1,201	1,512	1,424	1,466
Shareholders' equity	1,6	591	1,890	1,561	1,614	1,926	1,964
Total capitalization net of cash and							
cash equivalents	\$2,9	962	2,779	2,762	3,126	3,350	3,430
Cash Flow Data							
Plant, property and equipment additions	\$ 2	242	130	71	168	440	620
Cash from operations	\$ 3	346	15	359	278	351	395
Net debt additions (repayments)	\$ 3	398	(157)	(307)	68	(72)	219
EBITDA	\$ 5	561	223	195	35	602	460
Data per Common Share							
Net income (loss)							
— Basic	\$ 2	.91	(0.02)	(1.30)	(1.88)	3.00	2.35
— Diluted	\$ 2	.71	(0.02)	(1.30)	(1.88)	2.84	2.26
Common shareholders' equity at year-end (1)	\$19	.13	15.76	12.40	13.05	16.52	15.58
Ratios							
Return (loss) on average common equity (2)	1	9.1%	(9.8)%	(14.5)%	(13.2)%	18.1%	7.4%
Net debt to total capitalization	4	2.9%	32.0%	43.5%	48.4%	42.5%	42.7%
Funds flow coverage of financial charges (3)		5.0x	2.5x	2.7x	1.7x	6.0x	4.2x
Miscellaneous Data							
Employees at year-end	4,1	100	4,300	4,300	4,600	4,700	4,700
Closing share price							
— TSX (\$Cdn)	\$56	.70	35.04	28.89	30.75	28.10	28.25
— NYSE (\$U.S.)	\$47	.30	26.95	18.30	19.27	18.81	19.31
Dividends and distributions							
Common shares	\$	28	25	23	23	23	25
Preferred securities and shares	\$	10	29	31	33	36	36

<sup>(1)</sup> Assumes the retractable preferred shares were exchanged for common shares, to a maximum of 8.5 million.

<sup>(2)</sup> Net income (loss) to common shareholders divided by average common equity (excluding preferred securities and retractable preferred shares).

<sup>(3)</sup> Funds from operations plus interest expense (net) less interest income divided by gross interest expense.

# Management's Report

## To the Shareholders of NOVA Chemicals Corporation

The Consolidated Financial Statements and other financial information included in this annual report have been prepared by management. It is management's responsibility to ensure that sound judgment, appropriate accounting principles and methods, and reasonable estimates have been used in the preparation of this information. They also ensure that all information presented is consistent.

Management is also responsible for establishing and maintaining internal controls and procedures over the financial reporting process. The internal control system includes an internal audit function and an established business conduct policy that applies to all employees. In addition, the company has adopted a code of ethics that applies to its Chief Executive Officer, Chief Financial Officer and Corporate Controller. The code of ethics can be viewed on NOVA Chemicals' website (www.novachemicals.com). Management believes the system of internal controls, review procedures and established policies provide reasonable assurance as to the reliability and relevance of financial reports. Management also believes that NOVA Chemicals' operations are conducted in conformity with the law and with a high standard of business conduct.

During the past year, we have directed efforts to improve and document the design and operating effectiveness of internal control over external financial reporting. The results of this work have been subjected to audit by the shareholders' auditors. As at year-end, we have reported that internal control over financial reporting is effective and NOVA Chemicals has achieved U.S. Sarbanes-Oxley Act (SOX) 404 compliance one year in advance of requirements. In compliance with SOX 302, NOVA Chemicals' Chief Executive Officer and Chief Financial Officer will provide to the Securities and Exchange Commission a certification related to NOVA Chemicals' annual disclosure document in the U.S. (Form 40-F). The same certification will be provided to the Canadian Securities Administrators.

The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Board carries out this responsibility principally through its Audit, Finance and Risk Committee. The Committee, which consists solely of non-management directors, reviews the financial statements and annual report and recommends them to the Board for approval. The Committee meets with management, internal auditors and external auditors to discuss internal controls, auditing matters, and financial reporting issues. Internal and external auditors have full and unrestricted access to the Audit, Finance and Risk Committee. The Committee also recommends a firm of external auditors to be appointed by the shareholders.

Jeffrey M. Lipton

President & Chief Executive Officer

Larry A. MacDonald

Za Maclandol

Senior Vice President & Chief Financial Officer

February 16, 2005 Calgary, Canada

# Independent Auditors' Report on Financial Statements

Under Canadian Generally Accepted Auditing Standards and the Standards of the Public Company Accounting Oversight Board (United States)

# To the Shareholders of NOVA Chemicals Corporation

We have audited the Consolidated Balance Sheets of NOVA Chemicals Corporation as at December 31, 2004, 2003, and 2002 and the Consolidated Statements of Income (Loss) and Reinvested Earnings and Cash Flows for each of the years in the three-year period ended December 31, 2004. These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with Canadian Generally Accepted Auditing Standards and the Standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinions.

In our opinion, these Consolidated Financial Statements present fairly, in all material respects, the financial position of NOVA Chemicals Corporation as at December 31, 2004, 2003, and 2002 and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2004 in accordance with Canadian Generally Accepted Accounting Principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of NOVA Chemicals Corporation's internal control over financial reporting as of December 31, 2004, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 16, 2005 expressed an unqualified opinion thereon.

Ernst \* Young UP
Ernst & Young LLP

Chartered Accountants

February 16, 2005 Calgary, Canada

# Independent Auditors' Report on Internal Controls

Under Standards of the Public Company Accounting Oversight Board (United States)

# To the Shareholders of NOVA Chemicals Corporation

We have audited management's assessment, included on page 67 of this annual report, that NOVA Chemicals Corporation maintained effective internal control over financial reporting as of December 31, 2004, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). NOVA Chemicals' management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Corporation's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the Standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Generally Accepted Accounting Principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with Generally Accepted Accounting Principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that NOVA Chemicals Corporation maintained effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, NOVA Chemicals Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004 based on the COSO criteria.

We have also audited, in accordance with Canadian Generally Accepted Auditing Standards and the Standards of the Public Company Accounting Oversight Board (United States), the 2004 Consolidated Financial Statements of NOVA Chemicals Corporation and our report dated February 16, 2005 expressed an unqualified opinion thereon.

Ernst & Young LLP
Chartered Accountants

Ernst . young UP

February 16, 2005 Calgary, Canada

# Consolidated Statements of Income (Loss) and Reinvested Earnings

(MILLIONS OF U.S. DOLLARS, EXCEPT NUMBER OF SHARES AND PER SHARE AMOUNTS) YEAR ENDED DECEMBER 31	2004	2003	2002
Revenue	\$5,270	\$3,949	\$3,091
Feedstock and operating costs	4,380	3,476	2,668
Depreciation and amortization	297	298	266
Selling, general and administrative	273	190	169
Research and development	48	45	39
Restructuring charges (Note 16)	8	15	20
	5,006	4,024	3,162
Operating income (loss)	264	(75)	(71)
Interest expense (net) (Note 8)	(96)	(89)	(87)
Equity in earnings of affiliate (Note 5)		39	5
Other gains and (losses) (Note 17)	177	92	59
	81	42	(23)
Income (loss) before income taxes	345	(33)	(94)
Income tax (expense) recovery (Note 18)	(83)	61	13
Net Income (Loss)	\$ 262	\$ 28	\$ (81)
Reinvested earnings, beginning of year	584	605	740
Change in accounting policy (Notes 2 and 21)	(7)	5	
Common share repurchases (Note 12)	(155)		_
Stock options retired for cash (Note 14)	(13)	_	_
Common share dividends	(28)	(25)	(23)
Preferred securities dividends and distributions	(10)	(29)	(31)
Reinvested earnings, end of year	\$ 633	\$ 584	\$ 605
Weighted-average number of common			
shares outstanding (millions)			
— Basic	87	87	86
— Diluted	95	87	86
Net income (loss) per common share (Note 12)			
— Basic	\$ 2.91	\$ (0.02)	\$ (1.30)
— Diluted	\$ 2.71	\$ (0.02)	\$ (1.30)

See accompanying Notes to Consolidated Financial Statements.

# **Consolidated Balance Sheets**

(MILLIONS OF U.S. DOLLARS) DECEMBER 31	2004	2003	2002
Assets		_	
Current assets			
Cash and cash equivalents	\$ 245	\$ 212	\$ 14
Accounts receivable (Note 3)	567	316	249
Inventories (Note 4)	634	392	321
	1,446	920	584
Investments and other assets (Note 5)	147	157	537
Plant, property and equipment, net (Note 6)	3,454	3,336	3,033
	\$5,047	\$4,413	\$4,154
Liabilities and Shareholders' Equity			
Current liabilities			,
Bank loans	<b>\$</b> —	\$ —	\$ 3
Accounts payable and accrued liabilities (Note 7)	808	587	562
Long-term debt due within one year (Note 8)	100		1
	908	587	566
Long-term debt (Note 8)	1,416	1,101	1,211
Deferred credits (Note 9)	355	249	205
Future income taxes (Note 18)	677	586	611
	3,356	2,523	2,593
Shareholders' Equity			
Preferred securities (Note 10)	_	383	383
Retractable preferred shares (Note 11)	198	198	198
Common shares (Note 12)	499	493	484
Contributed surplus (Note 13)	8		
Cumulative translation adjustment	353	232	(109
Reinvested earnings	633	584	605
	1,691	1,890	1,561
	\$5,047	\$4,413	\$4,154

See accompanying Notes to Consolidated Financial Statements.

On behalf of the board:

Kerry L. Hawkins

Director

Jeffrey M. Lipton

Director

# Consolidated Statements of Cash Flows

(MILLIONS OF U.S. DOLLARS) YEAR ENDED DECEMBER 31	2004	2003	2002
Operating Activities			
Net income (loss)	\$ 262	\$ 28	\$ (81)
Depreciation and amortization	297	298	266
Future income tax expense (recovery) (Note 18)	38	(78)	8
Other gains (Note 17)	(177)	(92)	(39)
Stock option expense	4		
Equity in earnings of affiliate		(39)	(5)
Methanex dividends received	_	14	4
Asset writedowns		9	
Funds from operations	424	140	153
Changes in non-cash working capital (Note 19)	(78)	(125)	206
Cash from operations	346	15	359
Investing Activities			
Proceeds on sales of assets and investments and other capital transactions	225	564	82
Plant, property and equipment additions	(242)	(130)	(71)
Turnaround costs, long-term investments and other assets	(9)	(57)	(18)
Changes in non-cash working capital (Note 19)	(110)	7	
	(136)	384	(7)
Financing Activities			
Decrease in current bank loans	_	(3)	(11)
Proceeds on liquidation of swap positions		_	13
Long-term debt additions	400	_	
Long-term debt repayments	(2)	(152)	(2)
Decrease in revolving debt	_	(2)	(294)
Preferred securities redeemed (Note 10)	(383)		
Preferred securities dividends and distributions	(10)	(29)	(31)
Common shares issued for stock options	37	9	11
Common share repurchases (Note 12)	(188)	_	-
Stock options retired for cash (Note 14)	(18)		_
Common share dividends	(28)	(25)	(23)
Project advances from third parties (Note 19)	15	11	1
Changes in non-cash working capital (Note 19)		(10)	(12)
	(177)	(201)	(348)
Increase in cash and cash equivalents	33	198	4
Cash and cash equivalents, beginning of year	212	14	10
Cash and cash equivalents, end of year	\$ 245	\$ 212	\$ 14

See accompanying Notes to Consolidated Financial Statements.

# Notes to Consolidated Financial Statements

All amounts in U.S. dollars, unless otherwise noted.

#### 1. Basis of Presentation

NOVA Chemicals is incorporated under the laws of the Canada Business Corporations Act. Where used in these financial statements, "NOVA Chemicals" or "the Corporation" means NOVA Chemicals Corporation alone or together with its subsidiaries and affiliates, depending on the context in which such terms are used. The consolidated financial statements include the accounts of the Corporation, its subsidiaries and the proportionate share of the accounts of its joint ventures.

These consolidated financial statements have been prepared by management on the historical cost basis in accordance with Canadian generally accepted accounting principles (GAAP). These accounting principles are different in some respects from those generally accepted in the United States and the significant differences are described in Note 25, "United States Generally Accepted Accounting Principles" (U.S. GAAP).

The Corporation measures and reports its consolidated financial statements in U.S. dollars.

## 2. Summary of Significant Accounting Policies

## Changes in Accounting Policies

Stock-Based Incentive Plans. On January 1, 2004, NOVA Chemicals adopted a new accounting standard related to stock-based compensation as prescribed by the Canadian Institute of Chartered Accountants (CICA). The recommendations require that the fair value of stock options be expensed over their vesting period. Previously, NOVA Chemicals followed the intrinsic-value approach, where the granting and exercising of stock options was accounted for as equity transactions and no amounts were expensed. The Corporation adopted the accounting policy on a retroactive basis with no restatement of individual prior periods. Accordingly, on January 1, 2004, reinvested earnings was reduced and contributed surplus was increased by \$7 million to account for the stock option expense that would have been charged to earnings (loss) in 2002 and 2003 with respect to all options granted since January 1, 2002. NOVA Chemicals uses the Black-Scholes option valuation model to calculate the fair value of options at the date of grant.

Derivative Financial Instruments. Effective January 1, 2004, NOVA Chemicals adopted the Canadian accounting standard that requires all derivative positions, except those that qualify for hedge accounting treatment, to be marked-to-market at each period end with any resulting gains or losses recorded in earnings (loss). NOVA Chemicals adopted the new accounting standard on a prospective basis. In accordance with the transitional provisions of the new accounting standard, \$10 million of unrealized gains and \$18 million of crystallized losses that existed on January 1, 2004 have been deferred on the consolidated balance sheet. These amounts will be recognized in income over the remaining term to maturity of the previously hedged transaction.

#### Cost of Service

Under the terms of certain sales agreements, the Corporation sold ethylene on a take-or-pay basis, for a price determined by a cost-of-service formula that included the cost of fuel and feedstock, operating expenses, depreciation, income taxes, return on capital and realized foreign exchange gains or losses in respect of debt service. The return on capital included a 20% after-tax return on equity based on a deemed debt to equity ratio. NOVA Chemicals' cost-of-service agreements expired on June 30, 2004.

#### Cash and Cash Equivalents

Short-term investments with initial maturities not greater than 90 days are considered to be cash equivalents, and are recorded at cost, which approximates current market value.

## Foreign Currency Translation

The Corporation's foreign operations are considered self-sustaining and are translated into U.S. dollars using the current rate method. Resulting translation gains or losses are deferred in the cumulative translation adjustment account (CTA) until there is a realized reduction of the investment in the foreign operations.

#### **Hedging Activities**

The Corporation sells petrochemical products at prices denominated in various currencies, purchases energy commodities, invests in foreign operations and issues short- and long-term debt, including amounts in foreign currencies. These activities result in exposures to fluctuations in foreign currency exchange rates, commodity prices and interest rates. NOVA Chemicals may choose to modify these exposures by entering into contractual arrangements (derivatives), which reduce (hedge) the exposure by creating offsetting positions. Derivative instruments are used only for economic hedges of foreign exchange rate, commodity prices and interest rate risk. These derivative instruments are not utilized for trading or speculative purposes.

NOVA Chemicals has U.S., Canadian and European-based petrochemical operations. The Corporation periodically manages its exposure to fluctuations in these exchange rates by using forward exchange contracts.

NOVA Chemicals may choose to use commodity-based derivatives to manage its exposure to price fluctuations on crude oil, refined products and natural gas transactions. The instruments are used to moderate against adverse short-term price movements. Occasionally, longer-term positions will be taken to manage price risk for anticipated supply requirements.

When considered appropriate, NOVA Chemicals enters into interest rate swaps in order to manage the fixed and floating interest rate mix on its long-term debt portfolio. The interest rate swap agreements generally involve the periodic exchange of payments without the exchange of the notional principal amounts upon which the payments are based.

Unrealized gains or losses on derivative instruments that do not qualify for hedge accounting are reflected in earnings (loss) each period as a result of the derivatives being marked-to-market. Gains or losses realized on settlement of derivative instruments qualifying for hedge accounting are recognized in income in the same period and the same income statement line item as the revenues or expenditures arising from the hedged transaction.

Gains or losses on termination or liquidation of derivative instruments qualifying for hedge accounting are deferred as current or non-current assets or liabilities on the balance sheet, as appropriate, and are amortized to income in the period in which the underlying hedged transaction is recognized. Gains or losses on termination or liquidation of derivative instruments that do not qualify for hedge accounting are recognized in earnings (loss) on termination or liquidation.

#### Inventories

Inventories are carried at the lower of cost and net realizable value. Cost is determined on a first-in, first-out basis with no allocation of fixed production overhead.

#### Investments

Investments in affiliates, over which the Corporation exercises significant influence, but not control, are accounted for by the equity method. Under this method, the investment is carried at cost plus the related share of undistributed earnings, less dividends received. Other investments, except investments in joint ventures, are carried at cost.

#### Joint Ventures

NOVA Chemicals applies the proportionate consolidation method of accounting for its investments in joint venture operations. Under this method, NOVA Chemicals records, on a line-by-line basis within its financial statements and notes, its pro rata share of the joint venture's assets, liabilities, revenues, expenses and cash flows.

### Plant, Property and Equipment (PP&E)

NOVA Chemicals' PP&E consists primarily of manufacturing equipment, land and buildings for producing petrochemicals. PP&E are valued at historical cost. Financing costs incurred during major construction are capitalized as part of the cost of the asset until the asset is available for use. Costs related to turnaround activities are capitalized and amortized over the period remaining to the next turnaround activity, while maintenance and repair costs are expensed as incurred.

The Corporation periodically reviews the carrying value of PP&E for impairment when circumstances indicate an asset's value may not be recoverable. If it is determined that an asset's undiscounted cash flows are less than its carrying value, the asset is written down to its net realizable value.

#### Depreciation

Plant and equipment are depreciated on a straight-line basis at annual rates ranging from 3% to 40%. These rates are designed to write-off the assets to their salvage values over their estimated useful lives. The Alberta cost-of-service ethylene plants and the hydrogen plant were depreciated over the lives of the related sales agreements.

#### Deferred Start-Up Costs

Costs associated with start-up activities on constructed plants are deferred from the date of mechanical completion of the facilities until the date of commercial service. Any revenues earned during this period are recorded as a reduction in deferred start-up costs. These costs are amortized over a five-year period, commencing on the date of commercial service.

#### Income Taxes

Cost-of-service activities operated under billing structures that allowed NOVA Chemicals to recover related income tax costs from customers based on the taxes-payable method. NOVA Chemicals recorded income tax expense on these operations equal to recoverable amounts. All cost-of-service agreements expired on June 30, 2004.

For non-cost-of-service operations, the liability method of tax allocation accounting is used. Under the liability method, future tax assets and liabilities are determined based on differences between the accounting and tax basis of assets and liabilities and measured using the substantively enacted tax rates and laws that will be in effect when the differences are expected to reverse.

Under the liability method, future income taxes are also provided on the difference between the accounting and tax basis of equity investments. One of these differences results from recording equity earnings (losses) for accounting purposes. Accordingly, income tax expense (recovery) is provided on equity earnings (losses).

#### Asset Retirement Obligations

In 2003, NOVA Chemicals adopted the new accounting standard related to asset retirement obligations as prescribed by the CICA. The new recommendations change the method for recognition of liabilities associated with the retirement of plant, property and equipment. The liabilities are initially recorded at their estimated fair value, based on a discounted value of the expected costs to be paid when the assets are retired. The amount is added to the carrying values of the assets and depreciated over the estimated remaining lives of the assets. The liability increases each period as the amount of the discount decreases over time. The resulting expense is referred to as accretion expense and is included in operating expenses. The liability is also adjusted for any changes in the estimated amount or timing of the underlying future cash flows. The Corporation's asset retirement obligations are comprised of expected costs to be incurred upon termination of operations and the closure of active manufacturing plant facilities. Costs will be incurred for activities such as dismantling, demolition and disposal of facilities and equipment, and remediation and restoration of sites.

A change in accounting policy generally requires retroactive restatement of financial statements presented for prior periods, however, as the effect of these new recommendations was less than \$1 million for each prior period, reinvested earnings at January 1, 2003 was increased for the \$5 million cumulative effect on adoption.

### **Employee Future Benefits**

Pension Plans. NOVA Chemicals sponsors both defined benefit and defined contribution pension arrangements covering substantially all employees.

The cost of defined benefit pensions is determined using the projected benefit method prorated on employment services and is expensed as the employees provide services. Adjustments arising from plan amendments are amortized on a straight-line basis over the estimated average remaining service lifetime (EARSL). Adjustments arising from changes in assumptions and experience gains and losses are amortized over EARSL when the cumulative unamortized balance exceeds 10% of the greater of accrued obligations or plan assets. Gains or losses arising from plan curtailments and settlements are recognized in the year in which they occur. For purposes of calculating the expected return on plan assets, pension assets are revalued at fair value. Liabilities are measured at market discount rates.

The cost of defined contribution benefits is expensed as earned by employees. NOVA Chemicals makes contributions in accordance with all plan agreements.

Post-Retirement Benefits Other Than Pensions. In North America, NOVA Chemicals provides medical care and life insurance benefits to eligible retirees and their dependents. Post-retirement benefit costs are expensed as the employees provide service.

# Stock-Based Compensation

The Corporation uses the fair-value method of accounting for equity-settled stock-based compensation awards granted to employees, such as options, where compensation expense is measured and recognized based on the fair value of the stock-based award. Amounts related to compensation costs are initially credited to contributed surplus and then transferred to common shares upon exercise of options, or reinvested earnings upon cancellation or retirement of options.

The Corporation uses the liability method of accounting for cash-settled stock-based compensation awards granted to employees, such as equity appreciation units and restricted stock units. Units granted and vested are marked-to-market each period based on the value of NOVA Chemicals' common stock as reported on the Toronto or New York Stock Exchanges, as applicable. Changes in value are recorded through earnings over the vesting period, or for vested units as such changes arise.

# Deferred Share Unit Plans

Units issued under these Plans are calculated based on annual management incentive awards or director fees. The cost of the units earned is expensed as employees and directors provide service. Any adjustments to the value of the units as a result of expected changes in NOVA Chemicals' common stock value are amortized on a straight-line basis over the estimated average remaining service lifetime of individuals participating in the Plans.

### Earnings Per Share

The treasury stock method is used to calculate diluted earnings per share. Under this method, the incremental number of common shares outstanding for the diluted earnings per share calculation is determined assuming that the proceeds from exercise of dilutive options are used to repurchase common shares at the average market price during the period.

#### Securitizations

Accounts receivable securitization transactions are recorded as sales of assets based on the transfer of control to the purchaser. Transactions recorded in this manner result in the removal of the sold assets from the Corporation's balance sheet. Interest paid, net of servicing fees, on the portfolio of sold receivables is recorded as interest expense.

#### Revenue Recognition

The Corporation recognizes revenue when the earnings process is complete. This generally occurs when products are shipped to the customer in accordance with the terms of the sales agreement, title or risk of loss has been transferred, and pricing is fixed or determinable. The Corporation accounts for sales incentives as a reduction in revenue at the time revenue is recorded.

#### Research and Development

Expenditures associated with research and development activities are expensed as incurred.

#### **Investment Tax Credits**

The Corporation accounts for investment tax credits using the cost reduction approach. Investment tax credits related to the acquisition of assets are deducted from the related assets with depreciation calculated on the net amount. Investment tax credits related to current expenses are included in the determination of net income for the period.

#### Measurement Uncertainty

The preparation of these consolidated financial statements in conformity with Canadian GAAP requires management to make estimates and assumptions that affect amounts reported and disclosed in the financial statements and related notes. Actual results could differ materially from those estimates due to factors such as fluctuations in commodity prices, foreign currency exchange rates, interest rates, changes in economic conditions and regulatory changes.

#### Comparative Figures

Certain comparative figures have been reclassified to conform to the current year's presentation.

### 3. Accounts Receivable

DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Trade	\$382	\$239	\$173
Proceeds receivable (1)	110	_	_
Other	79	73	53
Allowance for doubtful accounts (2)	(10)	(7)	(8)
	561	305	218
Income taxes receivable	6	11	31
	\$567	\$316	\$249

<sup>(1)</sup> The Corporation recorded final resolution of a tax dispute related to the deductibility of foreign taxes in certain returns filed with the U.S. Internal Revenue Service prior to 1982. An amount of \$110 million will be received from an affiliate of a company in which the Corporation previously had an interest.

#### Accounts Receivable Securitizations

The Corporation sells undivided interests in certain trade accounts receivable pursuant to revolving securitization transactions in which the Corporation retains servicing responsibilities. The receivables are sold at a discount approximating the purchaser's financing cost of issuing commercial paper backed by the accounts receivable. The Corporation pays a fee on this same basis plus a margin that varies with the Corporation's credit rating. The sale of receivables is reflected as

<sup>(2)</sup> The Corporation's special purpose entity maintained an allowance for doubtful accounts of \$nil million at December 31, 2004 (2003 — \$5 million and 2002 — \$5 million) related to securitized trade receivables.

a reduction of accounts receivable and in operating cash flows. As collections reduce previously sold interests, new accounts receivable are sold, to a maximum amount equal to the lesser of eligible receivables or \$250 million (2003 and 2002 — \$195 million). Recourse on sold receivables is limited to the receivables and certain reserves provided to cover credit losses and dilution (such as discounts, rebates, and other non-cash reductions). During 2004, the Corporation amended its securitization program to extend the maturity to April 2007 and to increase the size of the facility from \$195 million to \$250 million.

Information regarding the Corporation's securitization programs is as follows:

DECEMBER 31 (MILLIONS OF DOLLARS, UNLESS OTHERWISE NOTED)	2004	2003	2002
Amount sold at end of year (1)	\$250	\$177	\$163
Loss, dilution and other reserves (as a % of eligible accounts receivable)	16%	18%	17%
Interest expense, net of servicing fees	\$ 4	\$ 3	\$ 4

<sup>(1)</sup> At December 31, 2004, \$nil million (2003 — \$nil million and 2002 — \$11 million) is reflected in accrued liabilities as an amount repayable under the facility due to decreases in accounts receivable balances (see Note 7).

One of the Corporation's securitization agreements involves the use of a special purpose entity (SPE). Information regarding the cash flows between the Corporation and the SPE are as follows:

DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Proceeds from (repayment of) new securitizations	<b>\$</b> 73	\$ 14	\$ (6)
Proceeds from collections reinvested in revolving period securitizations (1)	\$1,646	\$1,406	\$1,289
Servicing fees received	<b>\$</b> 2	\$ 2	\$ 2
Other cash flows received	\$ 452	\$ 306	\$ 74

<sup>(1)</sup> Collections received by the SPE on accounts receivable previously sold are used to purchase interests in new accounts receivable.

# 4. Inventories

DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Materials and supplies	\$ 47	\$ 46	\$ 39
Raw materials	255	170	121
Finished goods	332	176	161
	\$634	\$392	\$321

#### 5. Investments and Other Assets

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	200	)4	200	03	200	02
		EQUITY		EQUITY		EQUITY
	INVESTMENT	EARNINGS	INVESTMENT	EARNINGS	INVESTMENT	EARNINGS
Methanex Corporation (1)	\$ <del>-</del>	<b>s</b> —	\$ —	\$39	\$399	\$ 5
Other investments (2)	28	_	28		27	_
Other assets (3)	119		129	_	111	
	\$147	\$ —	\$157	\$39	\$537	\$ 5

<sup>(1)</sup> In 2002, equity earnings include a \$33 million before-tax charge, representing NOVA Chemicals' share of Methanex's restructuring charges.

And \$14 million of dividends received in 2003, and \$4 million received in 2002 were recorded as reductions in the Corporation's investment.

<sup>(2)</sup> Includes an investment of \$15 million (2003 — \$15 million and 2002 — \$15 million) in a special purpose entity with respect to the accounts receivable securitization program described in Note 3.

<sup>(3)</sup> See schedule of Other Assets on page 81.

## Methanex Corporation

In June 2003, the Corporation sold its equity investment in Methanex Corporation for net proceeds of \$441 million. This resulted in a before-tax gain of \$29 million and an after-tax gain of \$61 million. The sale was completed with no cash taxes payable and accordingly, a previously recorded income tax provision of \$32 million was taken into income at the time of the sale. The Corporation has no remaining equity interest in Methanex.

#### Other Assets

Other assets are comprised of the following:

DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Restricted cash on retractable preferred shares (Note 11)	\$ 65	\$ 65	\$ 45
Deferred debt issue costs (1)	20	18	17
Deferred start-up costs (2)	5	12	14
Prepaid pension	5	_	_
Other	24	34	35
	\$119	\$129	\$111

<sup>(1)</sup> Debt issue costs are amortized on a straight-line basis over the terms of the related debt instruments.

#### Petrochemical Joint Ventures

NOVA Chemicals owns a 50% interest in an ethylene plant and a 20% interest in a cogeneration facility located at Joffre, Alberta. Prior to December 2004, the Corporation also held a 33.3% interest in an ethane gathering system in Alberta.

The following is summarized financial information for NOVA Chemicals' interests in these joint ventures:

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Revenue	\$ 260	\$216	\$ 171
Operating expenses, depreciation and income taxes	(236)	(204)	(161)
Net income	\$ 24	\$ 12	\$ 10
DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Current assets	\$ 37	\$ 21	\$ 21
Plant, property and equipment and other assets	522	556	489
Current liabilities	(26)	(29)	(22)
Long-term liabilities	(33)	(33)	(28)
Venturers' equity	\$500	\$515	\$460
YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Cash inflows (outflows) from:			
Operating activities	\$43	\$51	\$34
Financing activities	\$ (2)	\$ (5)	\$ (1)
Investing activities	\$36	\$ (9)	\$ (8)

In December 2004, the Corporation sold its 33.3% interest in an ethane gathering system in Alberta for cash proceeds of \$78 million, resulting in a before-tax gain of \$53 million (\$40 million after-tax).

<sup>(2)</sup> Start-up costs consist of the unamortized portion of operating costs, net of incidental revenues, incurred during the pre-operating period on constructed assets, at Joffre, Alberta.

NOVA Chemicals also owned a 50% interest in the Fort Saskatchewan Ethylene Storage Limited Partnership, which was sold in June 2003 for net cash proceeds of \$123 million, resulting in an after-tax gain of \$64 million. The total before-tax gain on this transaction was \$114 million, of which \$38 million was deferred and is being recognized in earnings over the 20-year storage contract with the new owners.

The Corporation's 20% interest in the Cochin Pipeline was sold in January 2002 for cash proceeds of \$64 million, resulting in a before-tax gain of \$59 million (after-tax gain of \$36 million).

## 6. Plant, Property and Equipment

DECEMBER 31 (MILLIONS OF DOLLARS)	•	2004 <sup>(1)</sup>	2003	2002
Plant and equipment		\$5,962	\$5,638	\$4,847
Land		35	35	32
Under construction		351	169	55
		6,348	5,842	4,934
Accumulated depreciation		(2,894)	(2,506)	(1,901)
Net book value		\$3,454	\$3,336	\$3,033

<sup>(1)</sup> See Note 8 for discussion of security provided on the committed credit facility.

During the year, the Corporation sold its 100% interest in an ethylene delivery system in Alberta and entered into a pipeline transportation agreement to lease back the pipeline. Net cash proceeds of \$19 million were received from the sale, resulting in a gain of \$19 million. The gain realized on the sale has been deferred and is being amortized to income over the term of the pipeline transportation agreement, which expires in 2016.

During 2002, the Corporation sold and leased back certain buildings for total proceeds of \$13 million, resulting in an after-tax gain of \$3 million. The gain realized on the sale has been deferred and is being amortized to income over the remaining term of the lease, which expires in 2020.

# 7. Accounts Payable and Accrued Liabilities

DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Accounts payable			
Trade	\$581	\$406	\$350
Other	38	25	25
	619	431	375
Accrued liabilitites	•	•	
Pension and post-retirement benefit obligations	40	20	_
Interest	30	18	22
Dividends	7	6	6
Deferred gains on interest rate swaps (1)	7	7	
Site clean-up and restoration	4	4	3
Deferred commodity hedging gains (2)	2	9	8
Accounts receivable securitization programs (3)	<del></del>		11
Deferred credit on hedges of former economic exposures			3
Trade accruals and other	99	92	134
	189	156	187
	\$808	\$587	\$562

<sup>(1)</sup> Represents the portion of deferred gains realized on liquidation of floating-for-fixed interest rate swaps to be recognized within one year (see Notes 9 and 24).

<sup>(2)</sup> Represents the portion of deferred gains realized on liquidation of natural gas option positions to be recognized within one year (see Notes 9 and 24).

<sup>(3)</sup> Represents amounts repayable pursuant to the Corporation's accounts receivable securitization programs (see Note 3).

## 8. Long-Term Debt

DECEMBER 31 (MILLIONS	OF	DOLLARS,
LINESS OTHERWISE NOT	ED)	

UNLESS OTHERWISE NOTED)		2004 2003		2003	2002					
	MATURITY		DEBT	WEIGHTED- AVERAGE YEAR-END INTEREST RATE <sup>(1)</sup>		DEBT	WEIGHTED- AVERAGE YEAR-END INTEREST RATE <sup>(1)</sup>		DEBT	WEIGHTED- AVERAGE YEAR-END INTEREST RATE <sup>(1)</sup>
Unsecured debentures and notes	2005 – 2028	\$	933	7.1%	\$	518	7.5%	\$	633	7.3%
Medium-term notes	2006 – 2009		550	7.0%		550	4.7%		550	6.0%
Other (2)	2004 - 2020		33	6.2%		33	6.0%		29	6.2%
			1,516		•	1,101			1,212	
Less installments due within one ye	ar		(100)		_				(1)	
		\$	1,416		\$	1,101		\$	1,211	

<sup>(1)</sup> Weighted-average year-end interest rates include the effects of interest rate swaps (see Note 24).

#### **Unsecured Debentures and Notes**

On January 13, 2004, the Corporation issued \$400 million of 6.50% Senior Notes due 2012. The net proceeds were used to redeem the Corporation's preferred securities (see Note 10). On August 15, 2003, NOVA Chemicals redeemed at par its \$150 million of 7% debentures maturing August 15, 2026 from available cash, in accordance with the terms of the debenture.

The remaining debentures and notes are unsecured borrowings, which rank pari passu in all respects with other unsecured and unsubordinated debt of the Corporation. Terms of the outstanding unsecured debentures and notes are as follows:

DECEMBER	31 (MILLIONS OF	DOLLARS,

UNLESS OTHERWISE NOTED)	old no,	2004	2003	2002
MATURITY	STATED INTEREST RATE (%)			
2005 (1)	7.0	\$100	\$100	\$100
2010 (2)	7.85	208	193	158
2012 (3)	6.5	400	_	
2025 (4)	7.875	100	100	100
2026	7.0	**************************************		150
2028 (5)	7.25	125	125	125
		\$933	\$518	\$633

<sup>(1)</sup> Not redeemable by the Corporation or the holders prior to maturity in September 2005.

### Secured Loan

The Corporation has a committed credit facility from a syndicate of Canadian and U.S. banks. The facility provides for a floating-rate revolving line of credit and the issuance of letters of credit, to a maximum of \$300 million. At December 31, 2004, the Corporation had utilized \$57 million of this facility in the form of letters of credit. The facility expires in April 2007 and is secured by \$1.2 billion (2003 — \$1.2 billion) in net book value of assets in Canada, including real estate.

At December 31, 2004, NOVA Chemicals was in compliance with all required financial covenants under the credit facility.

<sup>(2)</sup> Composed primarily of non-recourse joint venture secured debt (2004 — \$33 million, 2003 — \$33 million, and 2002 — \$28 million). Security is limited to NOVA Chemicals' net investment in the Joffre co-generation joint venture.

<sup>(2) \$250</sup> million Canadian; callable at the option of the Corporation at any time.

<sup>(3)</sup> Callable at the option of the Corporation at any time.

<sup>(4)</sup> Callable at the option of the Corporation on or after September 15, 2005.

<sup>(5)</sup> Redeemable at the option of the holders on August 15, 2008.

#### Medium Term Notes

The notes are unsecured borrowings ranking *pari passu* with all other unsecured and unsubordinated debt of the Corporation. The \$300 million of 7% notes are due in May 2006 and are not redeemable by the Corporation or the holders prior to maturity. The \$250 million of 7.4% notes are due in April 2009 and are redeemable by the Corporation at any time. As described in Note 24, the Corporation has a floating-for-fixed interest rate swap on the \$300 million of 7% notes due in May 2006.

## Repayment Requirements

Repayment requirements in respect of long-term debt are as follows:

(MILLIONS OF DOLLARS)	
2005	\$ 100
2006	304
2007	2
2008	2
2009	252
Thereafter	856
	\$1,516

#### Interest Expense

Interest income	(6)	(3)	(3)
Interest capitalized during plant construction	(3)	_	
Gross interest expense	105	92	90
Interest on bank loans, securitizations and other	8		10
Interest on long-term debt	\$ 97	\$84	\$80
YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002

#### 9. Deferred Credits

DECEMBER 31 (MILLIONS OF DOLLARS)	2	004	2003	2002
Pension and post-retirement benefit obligations	\$	88	\$ 92	\$ 91
Equity appreciation plan obligations (Note 14)		87	12	1
Deferred income		31	12	1
Deferred gain on sale of investment (1)		38	37	_
Site clean-up and restoration		23	27	27
Deferred share unit plan obligations		23	20	16
Deferred gain on sale of asset (2)		20		_
Deferred gains on interest rate swaps (3)		9	16	31
Deferred gain on sale of railcars		9	9	10
Restricted stock unit plan obligations (Note 14)		3	_	
Deferred commodity hedging gains (4)		2	3	9
Other		22	21	19
	\$3	55	\$249	\$205

<sup>(1)</sup> Represents the long-term portion of a deferred gain realized on the sale of a 50% interest in Fort Saskatchewan Ethylene Storage Limited Partnership

<sup>(2)</sup> Represents the long-term portion of a deferred gain realized on the sale of an ethylene pipeline system (see Note 6).

<sup>(3)</sup> Represents the long-term portion of deferred gains realized on liquidation of floating-for-fixed interest rate swaps (see Notes 7 and 24).

<sup>(4)</sup> Represents the long-term portion of deferred gains realized on liquidation of natural gas options (see Notes 7 and 24).

#### 10. Preferred Securities

On March 1, 2004 the Corporation redeemed its \$172.5 million 9.04% and \$210 million 9.50% preferred securities, which were due March 31, 2048 and December 31, 2047, respectively. Net proceeds from the issuance of Senior Notes were used to redeem the securities (see Note 8).

#### 11. Retractable Preferred Shares

In connection with the acquisition of styrenics assets from Huntsman Corporation in 1998, a subsidiary of the Corporation issued retractable preferred shares with a liquidation preference of \$198 million as partial consideration. The preferred shares have a dividend rate of 2%. Holders of the retractable preferred shares have the right to exchange the shares (a retraction) for NOVA Chemicals' common shares (plus preferred shares if the market value of such common shares is less than \$198 million).

Pursuant to the terms of the retractable preferred shares and related stockholder agreements, the Corporation has the right to call the retractable preferred shares on or after December 15, 2001 and repurchase the retractable preferred shares prior to any retraction into NOVA Chemicals' common shares. If the Corporation does not exercise its repurchase rights prior to March 15, 2007 the market-based exchange rate at which the retractable preferred shares may be retracted into NOVA Chemicals' common shares (and, accordingly, the effective price at which the common shares would be issued) will be fixed on that date. The number of NOVA Chemicals' common shares issuable upon a retraction remains limited to a maximum of 8.5 million shares with the balance of the obligation, if any, met through the issuance of NOVA Chemicals' preferred shares.

NOVA Chemicals also entered into a total return swap, which terminates on March 15, 2007, with respect to the retractable preferred shares. Under the terms of the total return swap: (i) the counterparty pays NOVA Chemicals an amount equal to the fixed dividend on the retractable preferred shares; (ii) NOVA Chemicals pays the counterparty LIBOR plus a spread; (iii) NOVA Chemicals is obligated under the swap to provide initial margin (cash, government securities or a letter of credit) equal to 20% of the original notional amount of \$191 million, which is currently satisfied by a letter of credit issued by a third party for which we pay a fee; (iv) NOVA Chemicals is also required to provide maintenance margin in the form of restricted cash for any negative changes in the equity value of the retractable preferred shares; and (v) the counterparty pays NOVA Chemicals for any positive changes in the equity value of the retractable preferred shares.

NOVA Chemicals has provided \$65 million of restricted cash (see Note 5) to reduce the notional amount of the swap from \$191 million to \$126 million. As a result, prior to March 15, 2007, NOVA Chemicals can redeem the potentially dilutive security for an additional \$126 million.

Beginning in 2004, changes in the equity value of the retractable preferred shares during the term of the swap will be determined based on changes in the average price of the outstanding 7% Senior Notes due 2005 and 7% Medium-Term Notes due 2006 issued by NOVA Chemicals (see Note 8).

If NOVA Chemicals defaults on other debt with an aggregate principal amount of \$25 million or more, or the closing price of the Corporation's common shares is \$12.00 U.S. or less, and upon certain other credit events, the counterparty will have the right to sell the retractable preferred shares to a third party and terminate the swap. NOVA Chemicals would then owe the counterparty the difference between the actual sale price received by the counterparty and the most recent adjusted notional equity value of the retractable preferred shares (in the event the difference was negative).

Changes in Canadian accounting standards will require these preferred shares to be presented on the balance sheet as a liability beginning in 2005.

#### 12. Common Shares

#### Authorized

Unlimited number of voting common shares without par value, non-voting first preferred shares, and non-voting second preferred shares. Currently only common shares are issued and outstanding.

# Issued and Outstanding

2004		2003		2002		
SHARES	DOLLARS	SHARES	DOLLARS	SHARES	DOLLARS	
87,099,781	\$493	86,527,812	\$484	85,778,788	\$472	
1,917,735	37	571,969	9	749,024	12	
185,377	_		_	_	_	
	2		_			
(4,934,600)	(33)	<del>_</del>		_	_	
84,268,293	\$499	87,099,781	\$493	86,527,812	\$484	
	SHARES 87,099,781 1,917,735 185,377 — (4,934,600)	SHARES DOLLARS  87,099,781 \$493  1,917,735 37  185,377 —  2 (4,934,600) (33)	SHARES         DOLLARS         SHARES           87,099,781         \$493         86,527,812           1,917,735         37         571,969           185,377         —         —           —         2         —           (4,934,600)         (33)         —	SHARES         DOLLARS         SHARES         DOLLARS           87,099,781         \$493         86,527,812         \$484           1,917,735         37         571,969         9           185,377         —         —         —           —         2         —         —           (4,934,600)         (33)         —         —	SHARES         DOLLARS         SHARES         DOLLARS         SHARES           87,099,781         \$493         86,527,812         \$484         85,778,788           1,917,735         37         571,969         9         749,024           185,377         —         —         —         —           —         2         —         —         —           (4,934,600)         (33)         —         —         —	

<sup>(1)</sup> See Note 14.

### Shares Reserved for Future Issue

DECEMBER 31 (NUMBER OF SHARES)	2004	2003	2002
Under the employee incentive stock option plan (1),(2)	8,569,882	10,672,994	11,244,963
Under the director compensation plan	47,800	47,800	47,800
Under the terms of the retractable			
preferred share agreement (Note 11)	8,500,000	8,500,000	8,500,000
	17,117,682	19,220,794	19,792,763

<sup>(1)</sup> Under the employee incentive stock option plan, options are outstanding to officers and employees to purchase 5,849,131 shares at prices ranging from \$18.376 to \$37.51 (Canadian \$) per share with expiration dates between March 2, 2005, and July 15, 2014. A total of 2,720,751 common shares are reserved but unallocated. See Note 14 for further details regarding the plan.

<sup>(2)</sup> Under the fair value method of accounting for stock-based compensation, the compensation cost associated with options exercised is transferred from contributed surplus to common stock.

<sup>(3)</sup> The Corporation repurchased 4,934,600 of its common shares with a carrying value of \$33 million on the Toronto Stock Exchange for cash of \$188 million.

<sup>(4)</sup> Stated common share capital for legal purposes at December 31, 2004 is \$1,685 million.

<sup>(2)</sup> A total of 13 million common shares was initially approved by shareholders for issuance under the employee incentive stock option plan.

#### **Earnings Per Share**

The following table outlines the calculation of basic and diluted net income (loss) per common share:

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS, EXCEPT PER SHARE AMOUNTS)	2004 BASIC	2004 DILUTED	2003 BASIC	2003 DILUTED	2002 BASIC	2002 DILUTED
Net income (loss)	\$ 262	\$ 262	\$ 28	\$ 28	\$ (81)	\$ (81)
Preferred securities						
dividends and distributions	(10)	(10)	(29)	(29)	(31)	(31)
Net income (loss) available to common						
shareholders — basic	\$ 252	\$ 252	\$ (1)	\$ (1)	\$ (112)	\$ (112)
Add back preferred dividends		6		_		_
Net income (loss) to common						
shareholders — dilutive		\$ 258		\$ (1)		\$ (112)
Weighted-average common						
shares outstanding — basic	86.7	86.7	86.8	86.8	86.3	86.3
Add effect of dilutive securities:						
Stock options		2.6		_		
Retractable preferred shares		6.1		_		
Weighted-average common		-				
shares outstanding — diluted (1)		95.4		86.8		86.3
Net income (loss) per common share	\$2.91	\$2.71	\$(0.02)	\$(0.02)	\$(1.30)	\$(1.30)

<sup>(1)</sup> No retractable preferred shares and stock options have been excluded from the computation of diluted earnings per share for the year ended December 31, 2004 (2003 — 17 million, and 2002 — 17 million, as their impact would not be dilutive).

#### Shareholder Rights Plan

In May 1999, NOVA Chemicals' shareholders approved a shareholder rights plan where one right was issued for each outstanding common share. The rights remain attached to the shares and are not exercisable until the commencement or announcement of a takeover bid for NOVA Chemicals' common shares or until a person acquires 20% or more of NOVA Chemicals' common shares. The plan expires in May 2009, but is subject to shareholder re-confirmation at the sixth annual meeting following the date of approval.

# 13. Contributed Surplus

On January 1, 2004, the Corporation adopted new accounting recommendations related to stock options (see Notes 2 and 14). The recommendations require that the fair value of stock options be expensed over their vesting period, with a corresponding amount recorded to contributed surplus. On exercise of options for common shares, amounts previously recorded to contributed surplus for compensation costs are transferred to the common share account. On retirement or cancellation of options, amounts previously recorded to contributed surplus for compensation costs are transferred to reinvested earnings.

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Beginning of year	<b>\$</b> —	\$—	\$
Accounting policy change (Note 2)	7	_	
Stock option compensation cost	4	_	
Transfers on exercise, retirement or cancellation of options	(3)	_	
End of year	\$ 8	\$	\$-

## 14. Stock-Based Compensation

# Employee Incentive Stock Option Plan

The Corporation may grant options to its employees for up to 13 million common shares. The exercise price of each option equals the closing market price on the Toronto Stock Exchange of the Corporation's common stock on the date of grant. Options may be exercised over a 10-year period and generally 25% of the options vest at the grant date with further vesting of 25% in each of the next three years.

On January 1, 2004, the Corporation adopted new accounting recommendations related to stock options (see Note 2). The Corporation adopted the accounting policy on a retroactive basis with no restatement of individual prior periods. Accordingly, all options granted since January 1, 2002 are accounted for using the fair-value method. The recommendations require that the fair value of stock options be expensed over their vesting period and reflected in earnings as the related services are provided. The Corporation uses the Black-Scholes option-pricing model to calculate the fair value of options at the date of grant.

Generally, options are settled by issuance of common shares. Occasionally, options may be retired, whereby the option premium (the differential between the market price and the exercise price) is paid in cash. Amounts paid are recorded as a charge to reinvested earnings, net of related tax benefits. Options may also be settled periodically as share appreciation rights (SARs), whereby the option premium is settled by issuance of common shares. Options settled by issuance of shares are cancelled whereas options settled by other means are returned to the unallocated pool of options available for issue.

A summary of the status of the Corporation's employee incentive stock option plan as of December 31, 2004, 2003 and 2002, and changes during the years then ended is presented below:

YEAR ENDED DECEMBER 3'1	2004		2003		2002	
	OPTIONS	WEIGHTED- AVERAGE EXERCISE PRICE (CANADIAN \$)	OPTIONS	WEIGHTED- AVERAGE EXERCISE PRICE (CANADIAN \$)	OPTIONS	WEIGHTED- AVERAGE EXERCISE PRICE (CANADIAN \$)
Outstanding at beginning of year	8,822,440	\$26.791	8,625,532	\$26.662	8,558,109	\$25.648
Granted	271,300	\$36.526	999,700	\$25.788	855,900	\$34.319
Exercised — settled in shares	(1,917,735)	\$22.938	(571,969)	\$23.525	(749,024)	\$23.613
Exercised — retired for cash	(860,750)	\$26.161		_	_	
Exercised — settled in SARs (1)	(426,246)	\$25.682	_		_	_
Cancelled	(39,878)	\$30.284	(230,823)	\$25.723	(39,453)	\$30.713
Outstanding at end of year	5,849,131	\$27.952	8,822,440	\$26.791	8,625,532	\$26.662
Exercisable at end of year	5,054,171	\$27.613	7,414,052	\$26.448	6,116,910	\$25.159

<sup>(1)</sup> Total shares issued to settle as SARs in 2004 was 185,377.

The following table summarizes information about employee incentive stock options outstanding at December 31, 2004:

RANGE OF EXERCISE PRICES (CANADIAN \$)		OPTIONS OUTSTANDING			OPTIONS EXERCISABLE		
	NUMBER OUTSTANDING	WEIGHTED- AVERAGE REMAINING CONTRACTUAL LIFE (YEARS)	WEIGHTED- AVERAGE EXERCISE PRICE (CANADIAN \$)	NUMBER EXERCISABLE	WEIGHTED- AVERAGE EXERCISE PRICE (CANADIAN \$)		
\$18.376 - \$21.225	421,101	1.5	\$20.473	421,101	\$20.473		
\$24.950 - \$28.050	3,529,178	5.7	\$26.251	3,088,217	\$26.314		
\$30.750 – \$37.510	1,898,852	5.7	\$32.771	1,544,853	\$32.158		
	5,849,131			5,054,171			

In 2004, the Corporation recognized total compensation cost in income of \$4 million for stock-based employee compensation awards. Had compensation cost for stock options been determined and expensed based on the fair-value method in prior years, the following pro forma amounts would have resulted:

DECEMBER 31 (MILLIONS OF DOLLARS, EXCEPT PER SHARE AMOUNTS)	2003	
Compensation cost, net of tax	\$ 2	\$ 2
Net income (loss)		
As reported	\$ 28	\$ (81)
Pro forma	\$ 26	\$ (83)
Loss per share — basic and diluted		
As reported	\$(0.02)	\$(1.30)
Pro forma	\$(0.04)	\$(1.32)

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions used for stock options granted in 2004, 2003, and 2002:

WEIGHTED-AVERAGE ASSUMPTIONS		2004	2003	2002
Expected dividend yield	%	1.1	1.4	1.0
Expected volatility	%	34.0	36.7	39.1
Risk-free interest rate	%	2.70	4.20	3.38
Expected life	years	4.0	4.0	2.5
Fair value of options granted				
during the year	U.S.	\$8.43	\$5.34	\$5.57

# **Equity Appreciation Plan**

The Corporation has an equity appreciation plan in which units are granted to key employees. The redemption price of a unit is determined by the closing price of the Corporation's common shares on the date of grant. Units may be redeemed for cash over a 10-year period and generally 25% of the units vest at the grant date with further vesting of 25% in each of the next three years. The value of a unit on the redemption date is the difference between the price of the Corporation's common shares on that date and the redemption price.

At December 31, 2004, the mark-to-market value of the vested units was approximately \$87 million (2003 — \$12 million and 2002 — \$1 million).

YEAR ENDED DECEMBER 31	2004		200	3	20	02
EQUITY APPRECIATION UNITS	UNITS	WEIGHTED- AVERAGE REDEMPTION PRICE (U.S. \$)(1)	UNITS	WEIGHTED- AVERAGE REDEMPTION PRICE (CANADIAN \$)	UNITS	WEIGHTED- AVERAGE REDEMPTION PRICE (CANADIAN \$)
Outstanding at beginning of year	3,292,987	\$18.92	1,836,841	\$31.22	843,167	\$27.69
Granted	942,600	\$27.90	1,499,400	\$25.78	1,012,950	\$34.21
Redeemed	(410,694)	\$19.37	(18,166)	\$27.77	_	_
Cancelled	(23,750)	\$21.65	(25,088)	\$31.60	(19,276)	
Outstanding at end of year	3,801,143	\$21.08	3,292,987	\$28.76	1,836,841	\$31.22
Exercisable at end of year	2,149,390	\$20.06	1,554,934	\$29.22	751,210	\$29.74

<sup>(1)</sup> In February 2004 the definition of redemption price was amended to include New York Stock Exchange pricing, reflecting the intent and design of the plan to provide the value of the awards in U.S. currency for U.S. resident employees. Accordingly, the weighted-average redemption price at the beginning of the year has been restated to reflect the NYSE price.

The following table summarizes information about equity appreciation units outstanding at December 31, 2004:

EQUITY APPRECIATION UNITS	UNITS OUTSTANDING			UNITS EXERCISABLE		
RANGE OF REDEMPTION PRICES (U.S. \$)	NUMBER OUTSTANDING	WEIGHTED- AVERAGE REMAINING CONTRACTUAL LIFE (YEARS)	WEIGHTED- AVERAGE REDEMPTION PRICE (U.S. \$)	NUMBER EXERCISABLE	WEIGHTED- AVERAGE REDEMPTION PRICE (U.S. \$)	
\$17.42 - \$21.72	2,857,751	7.3	\$18.87	1,898,870	\$19.08	
\$23.49 - \$27.90	943,392	9.1	\$27.80	250,520	\$27.54	
	3,801,143			2,149,390		

#### Restricted Stock Unit Plan

The Restricted Stock Unit Plan is a phantom stock plan wherein the value of a restricted stock unit (RSU) is determined by the value of the Corporation's common shares on the vesting date and is paid to employees in cash. The value of the RSU is determined using the NYSE price for U.S. residents and the TSX price for residents of all other countries. The units vest and proceeds are distributed three years from the grant date. The value of any common share dividends declared during the vesting period is credited to each RSU account. The value of the RSU's is expensed over the vesting period and is marked-to-market.

At December 31, 2004, a total of 196,178 RSU's were outstanding (December 31, 2003 and 2002 — nil). The mark-to-market liability for the RSU plan was \$3 million at December 31, 2004 (\$nil million at December 31, 2003 and 2002).

#### 15. Deferred Share Unit Plans

Under the Corporation's Deferred Share Unit Plans (DSUP), key employees and non-employee directors may elect on an annual basis, prior to the relevant performance period, to receive all or a portion of their management incentive award or fees, respectively, in deferred share units (DSUs).

The amount of the management incentive award that a key employee elects to have participate in the DSUP will be converted to an equivalent number of DSUs based on the average closing price, on the TSX for Canadian employees and on the NYSE for U.S. employees, of NOVA Chemicals' common shares for the last five consecutive trading days of the month of December prior to the performance period.

The amount of fees that a non-employee director elects to have participate in the DSUP will be converted to an equivalent number of DSUs based on the average closing price, on the TSX, of NOVA Chemicals' common shares for the last five consecutive trading days preceding the end of each fiscal quarter in which the fees are earned.

The units are exercisable upon retirement or termination from the Corporation. A summary of the status of the Corporation's deferred share unit plans as of December 31, 2004, 2003 and 2002, and changes during the years ended on those dates is presented below:

YEAR ENDED DECEMBER 31	26	004	20	003	20	002
EMPLOYEE DEFERRED SHARE UNITS	UNITS	WEIGHTED- AVERAGE EXERCISE PRICE (U.S. \$)	UNITS	WEIGHTED- AVERAGE EXERCISE PRICE (U.S. \$)	UNITS	WEIGHTED- AVERAGE EXERCISE PRICE (U.S. \$)
Outstanding at beginning of year	434,243	\$17.29	379,114	\$16.97	352,393	\$16.52
Earned	116,116	\$27.27	55,129	\$19.44	65,622	\$19.14
Exercised	(41,766)	\$27.21		\$ —	(38,901)	\$16.53
Outstanding at end of year	508,593	\$18.75	434,243	\$17.29	379,114	\$16.97

YEAR ENDED DECEMBER 31	2	004	2	003	2	002
		WEIGHTED-		WEIGHTED-		WEIGHTED-
		AVERAGE		AVERAGE		AVERAGE
		EXERCISE PRICE		EXERCISE PRICE		EXERCISE PRICE
NON-EMPLOYEE DEFERRED SHARE UNITS	UNITS	(CANADIAN \$)	UNITS	(CANADIAN \$)	UNITS	(CANADIAN \$)
Outstanding at beginning of year	79,676	\$29.24	57,383	\$29.90	44,040	\$28.91
Earned	14,636	\$37.50	22,293	\$27.57	13,343	\$33.16
Exercised	(14,374)	\$34.57	_	\$ —	_	\$ <b>—</b>
Outstanding at end of year	79,938	\$29.80	79,676	\$29.24	57,383	\$29.90

The amount expensed in aggregate related to the award of units was approximately \$4 million (2003 — \$3 million, and 2002 — \$4 million).

# 16. Restructuring Charges

During 2004, the Corporation provided for an additional \$8 million before-tax (\$5 million after-tax) in restructuring charges for additional dismantling costs related to the closure of its oldest and highest-cost polyethylene production line at the St. Clair River site, announced in 2003. During 2003, NOVA Chemicals recognized \$15 million before-tax (\$10 million after-tax) in restructuring costs related to asset writedown, severance, and other costs associated with this closure. The Corporation expects the restructuring actions related to the St. Clair River site to be substantially complete by the end of 2005.

Restructuring charges in 2002 related to organizational changes involving plant closures and idling, capital project cancellations, writedowns of certain non-productive assets and severance activities. All actions related to these restructuring activities have been substantially completed.

# 17. Other Gains and Losses

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	20	04	20	03	20	02
	BEFORE-TAX	AFTER-TAX	BEFORE-TAX	AFTER-TAX	BEFORE-TAX	AFTER-TAX
Gain on sale of 33.3% interest in Alberta						
Ethane Gathering System (Note 5)	\$ 53	\$ 40	\$ <b>—</b>	\$	\$—	\$—
Tax related settlement (1)	122	101	_		_	_
Gain on sale of investment in Methanex						
Corporation (Note 5)			29	61	_	_
Gain on sale of 50% interest in						
Fort Saskatchewan Ethylene Storage						
Limited Partnership (Note 5)	-	_	. 76	64	_	_
Bayport charge (2)		_	(13)	(8)	_	_
Gain on sale of 20% interest in Cochin Pipeline (Note 5)		_	_	_	59	36
Other	2	2	_			_
	\$177	\$143	\$92	\$117	\$59	\$36

<sup>(1)</sup> The Corporation recorded a gain in 2004 related to the final resolution of a tax dispute. The dispute was related to the deductibility of foreign taxes in certain returns filed with the United States Internal Revenue Service prior to 1982. \$12 million was received in 2004 and an additional \$110 million will be received from an affiliate of a company in which the Corporation previously had an interest.

### 18. Income Taxes

Income tax expense (recovery) varies from amounts computed by applying the Canadian federal and provincial statutory income tax rates to income (loss) before income taxes as shown in the following table:

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Income (loss) before income taxes	\$ 345	\$ (33)	\$ (94)
Statutory income tax rate	33.87%	36.74%	39.24%
Computed income tax expense (recovery)	\$ 117	<b>\$</b> (12)	\$ (37)
Increase (decrease) in taxes resulting from:			
Manufacturing and processing deduction		(2)	3
Lower effective foreign tax rates	2	19	8
Lower effective tax rate on equity in earnings of affiliate	_	(12)	(2)
Lower tax rates and higher recoveries on asset sales	(5)	(56)	_
Non-provision of future income taxes on			
cost-of-service operations (1)	4	9	8
Reduction in tax reserve (2)	(11)	(20)	
Income tax rate adjustments (3)	(7)	15	_
Lower tax rate on gain related to tax settlement (4)	(21)	_	
Other	4	(2)	7
Income tax expense (recovery)	\$ 83	\$ (61)	\$ (13)
Current income tax expense (recovery)	\$ 45	\$ 17	\$ (21)
Future income tax expense (recovery)	38	(78)	8
Income tax expense (recovery)	\$ 83	\$ (61)	\$ (13)

<sup>(1)</sup> Certain agreements for cost-of-service operations provide for the recovery of income taxes from customers. These agreements expired June 30, 2004. While the agreements were in effect, the Corporation recorded income tax expense on these operations equal to the amounts recoverable under the agreements, resulting in no effect on net income. Some agreements limit the recoverable amount to current taxes payable. Accordingly, the provision for income taxes excluded future income tax recoveries relating to these operations. Cumulative unrecorded future income taxes payable amounted to \$nil million at December 31, 2004 (2003 — \$nil million and 2002 — \$6 million).

<sup>(2)</sup> NOVA Chemicals had an explosion, which resulted in a fire at its Bayport, Texas styrene monomer production facility and as a result, incurred a charge primarily related to the amount of property damage not covered by insurance.

<sup>(2)</sup> NOVA Chemicals has a tax reserve, which is available to settle periodic tax disputes and ongoing tax adjustments. NOVA Chemicals assesses this reserve from time to time for adequacy and in 2004 and 2003, determined that it was over-provided.

The principal temporary difference in calculating future income taxes relates to deductions for tax purposes in respect of plant, property and equipment in excess of depreciation provided for in the accounts. Future tax liabilities resulting from these temporary differences have been reduced by the tax benefits associated with unused tax losses.

The following table outlines the income tax expense (recovery) arising from Canadian and Foreign operations:

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Income (loss) before income taxes			
Canadian	\$480	\$ 98	\$(35)
Foreign	(135)	(131)	(59)
	\$345	\$ (33)	\$(94)
Current income tax expense (recovery)			
Canadian	\$ 44	\$ 14	\$(17)
Foreign	1	3	(4)
	\$ 45	\$ 17	\$(21)
Future income tax expense (recovery)			
Canadian	\$ 86	\$ (41)	\$19
Foreign	(48)	(37)	(11)
	\$ 38	\$ (78)	\$ 8
Total income tax expense (recovery)	\$ 83	\$ (61)	\$(13)

# 19. Changes in Non-Cash Working Capital

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Accounts receivable	\$(251)	\$ (67)	\$113
Inventories	(242)	(71)	(42)
Accounts payable and accrued liabilities	221	25	125
Changes in non-cash working capital	(272)	(113)	196
Reclassification and other items not having a cash effect	99	(4)	(1)
Changes in non-cash working capital having a cash effect	\$(173)	\$(117)	\$195
These changes relate to the following activities:			
Operating	\$ (78)	\$(125)	\$206
Investing	(110)	7	
Financing (1)	15	1	(11)
(Increase) decrease in working capital	\$(173)	\$(117)	\$195

<sup>(1)</sup> Changes in non-cash working capital related to financing activities include project advances of \$15 million (2003 — \$11 million and 2002 — \$1 million).

#### Interest and Income Tax Payments

Third-party interest payments were \$95 million in 2004 (2003 — \$100 million and 2002 — \$86 million). Income tax payments (receipts) were \$11 million in 2004 (2003 — \$(28) million and 2002 — \$(176) million).

<sup>(3)</sup> In 2004, the Alberta Government substantively enacted a tax rate reduction, which reduced income tax accruals for future tax liabilities by \$7 million. This one-time benefit has been recorded through a reduction of income tax expense. The Corporation recorded a similar item in 2003, however, rate increases resulted in a \$15 million additional accrual to income tax liabilities.

<sup>(4)</sup> The Corporation recorded a gain in 2004 related to the final resolution of a tax dispute. The dispute was related to the deductibility of foreign taxes in certain returns filed with the United States Internal Revenue Service prior to 1982.

# 20. Employee Future Benefits

#### Pension Plans

NOVA Chemicals sponsors both defined benefit and defined contribution pension arrangements.

Defined benefit pensions at retirement are mainly related to years of service and remuneration during the last years of employment with some plans having limited or conditional indexing provisions. Actuarial reports are prepared regularly by independent actuaries for accounting and funding purposes. The Corporation funds the plans using a valuation based on the projected unit credit method and the plans' assets consist primarily of publicly traded equity and fixed income securities.

Plan assets are measured at fair value while pension obligations are discounted using current yield rates of bonds with terms to maturity that approximate the duration of the Corporation's pension liabilities. The Corporation uses a measurement date of December 31 for its pension and post-retirement plans.

Pension and post-retirement expense (included in operating and selling, general and administrative costs) for all significant defined benefit plans consisted of the following:

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS) (1)	F	PENSION PLANS		PO	ST-RETIREMENT PL	ANS .
	2004	2003	2002	2004	2003	. 2002
Current service cost	\$24	\$21	\$16	\$2	\$2	\$2
Interest cost on projected benefit obligations	34	30	25	4	4	3
Actual (return) loss on plan assets	(45)	(50)	29	_	_	_
Prior service cost	_	_	1	_	_	_
Actuarial (gain) loss on accrued benefit obligations	25	25	2	(2)	9	
Costs arising in the period	38	26	73	4	15	5
Differences between costs arising in the period and						
costs recognized in the period in respect of the						
long-term nature of employee future benefit costs:						
Return on plan assets	14	24	(55)	_	_	_
Transitional (asset) obligation	(5)	(4)	(5)	1	1	_
Actuarial (gain) loss	(21)	(20)	(1)	3	(9)	1
Past service and actual plan amendments	2	1	1	_	_	_
Net defined benefit cost recognized	\$28	\$27	\$13	\$8	\$7	\$6

<sup>(1)</sup> Certain prior year amounts have been restated to conform with the presentation adopted in 2004 due to new Canadian GAAP disclosure requirements.

The status of all significant defined benefit pension and post-retirement plans is as follows:

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)		PENSION PLANS		POS	T-RETIREMENT PLAI	NS
	2004	2003	2002	2004	2003	2002
Change in benefit obligations						
Benefit obligation at beginning of year	\$ 569	\$ 430	\$ 388	\$ 69	\$ 53	\$ 50
Current service cost	24	21	16	2	2	2
Interest cost	34	30	25	4	4	3
Experience (gain) loss	25	24	(1)	7	10	_
Settlement/curtailment	_	(2)	(1)		(1)	_
Plan amendments	_		1		_	_
Business combination	_	_	2			_
Commuted value payments	(7)			<del></del>	_	
Employee contributions	5	5	9	1		_
Medicare Act subsidy effect		_	. —	(9)		_
Benefits paid	(21)	(20)	(19)	(3)	(2)	(2)
Foreign currency exchange rate loss	39	81	10	2	3	_
Net benefit obligation at end of year	\$ 668	\$ 569	\$ 430	\$ 73	\$ 69	\$ 53
Change in plan assets						
Fair value of plan assets at beginning of year	\$ 425	\$312	\$ 329	S	\$ —	\$ —
Actual return (loss) on plan assets	45	50	(29)	_		_
Employer and employee contributions	32	20	22	3	2	
Settlement/curtailment	_	(2)	(1)	_		
Benefits paid	(28)	(20)	(19)	(3)	(2)	
Foreign currency exchange rate gain	32	65	10			
Fair value of plan assets at end of year	\$ 506	\$ 425	\$ 312	\$ —	\$ —	\$ —
Funded status						
Plan assets in deficiency of benefit obligation	\$(162)	\$(144)	\$(118)	\$(73)	\$(69)	\$(53)
Unrecognized net transitional (asset) obligation	(47)	(49)	(44)	11	10	10
Unrecognized prior service cost	6	7	8	_	_	_
Unrecognized net actuarial loss	132	118	105	19	22	13
Net amounts recognized in consolidated						
balance sheets	\$ (71)	\$ (68)	\$ (49)	\$(43)	\$(37)	\$(30)
Weighted-average assumptions as at December 31:						
Discount rate	5.6%	5.9%	6.4%	5.8%	6.1%	6.8%
Assumed long-term rate of return on						
plan assets (1)	7.3%	7.3%	7.7%	_	_	_
Rate of increase in future compensation	3.2%	3.2%	3.1%		4.2%	3.7%
Long-term health care inflation (2)		_		5.0%	5.0%	5.0%

<sup>(1)</sup> NOVA Chemicals establishes an appropriate long-term rate of return for each plan's assets which reflects asset allocations within each plan as well as independent views of long-term rate of return expectations for each asset class.

Some of NOVA Chemicals' pension plans have accumulated benefit obligations that exceed the fair value of assets. The accumulated benefit obligation and the fair value of assets for these plans were \$306 million and \$255 million, respectively, at December 31, 2004 (\$549 million and \$425 million, respectively, at December 31, 2003 and \$426 million and \$308 million, respectively, at December 31, 2002).

<sup>(2)</sup> Ultimate trend rate, expected to be achieved between 2010 and 2012. The assumed health care cost trend rate used to measure the 2004 expected cost of benefits covered by the plan is 11% on average for the plans.

#### **Defined Benefit Plan Assets**

The Corporation's investment strategy for defined benefit plans is determined for each plan after taking into consideration the plan structure, nature of the liabilities, the funded status and cash flow requirements of the plan, the size of the assets, and the financial situation of the Corporation and its ability to withstand fluctuations in pension contributions. The assets of each plan are invested in a variety of traditional financial instruments such as equities and fixed income securities using a combination of active and passive strategies. Non-traditional assets such as real estate and venture capital may also be considered in certain situations. Although the Corporation does not consider derivatives a separate asset class, they are permitted in order to manage the allocation of investments across asset classes, markets and currencies. However, under no circumstances can they be used for speculative purposes or have the effect of leveraging the assets.

While most of the benefits of diversification are achieved by allocating across different asset classes, the Corporation also believes it may be appropriate to further diversify by using multiple investment managers employing different management styles within an asset class.

In Europe, the Corporation has pension plans in several countries that vary considerably in membership, liability structure, pension arrangement, and asset size. Given these differences, the asset allocation can vary significantly not only from the North American plans, but also by country. In addition, some European plans are re-insured with investment strategy and asset allocation determined or heavily influenced by the re-insurer.

The Corporation's Canadian and U.S. plans are the most significant to the Corporation with 79% of total pension assets and 89% of total plan members in these plans. The asset allocation for these pension plans at the end of 2004, 2003, 2002 and the target allocation for 2005, by asset category follows. This information has been aggregated within a geographic segment as asset allocations are similar for the Canadian and U.S. plans.

In 2005, NOVA Chemicals expects to fund its defined benefit plans by \$52 million.

#### North American Plans

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2005	2004	2003	2002
ASSET CATEGORY	TARGET ALLOCATION	PERC	ENTAGE OF PLAN ASSE	TS
Equities	60%	60%	61%	57%
Fixed income	40%	40%	39%	43%
Real estate	<del></del>	_		. —
Other	_	_		
Total	100%	100%	100%	100%

#### Post-Retirement Benefits Other Than Pensions

The Corporation provides medical care and life insurance benefits to eligible retirees and their dependents in North America. The Corporation accrues the cost of providing post-retirement benefits as the employees provide service. Post-retirement costs are funded as they are incurred.

A 1% increase in the health care inflation rate would have increased the accumulated post-retirement benefit obligation by an additional \$4 million at December 31, 2004 for Canadian plans and \$7 million for U.S. plans. A 1% decrease in the same health care inflation rate would have decreased the post-retirement benefit obligation by \$3 million and \$6 million for Canadian and U.S. plans, respectively.

### **Defined Contribution Arrangements**

NOVA Chemicals has a number of defined contribution arrangements providing pension benefits to certain groups of employees. The total expense for the Corporation's contribution to these plans in 2004 was \$7 million (2003 — \$6 million and 2002 — \$6 million). In 2005, NOVA Chemicals expects to fund its defined contribution plans by approximately \$7 million.

# 21. Asset Retirement Obligations

The Corporation's asset retirement obligations are comprised of expected costs to be incurred upon termination of operations and the closure of active manufacturing plant facilities. The total undiscounted amount of estimated cash flows expected to be incurred on closure of active plants in 25 to 40 years is between \$225 million and \$250 million. This amount is based on third-party cost estimates obtained from reputable sources after an in-depth review of active plant sites and required clean-up and restoration activities. In arriving at the estimated asset retirement obligation, a credit-adjusted risk-free rate of 10.5% was used to discount the estimated future cash flows. The estimated asset retirement obligation liability of \$23 million at December 31, 2004 will increase, or accrete, each year over the lives of active plants until it equals the \$225 million to \$250 million expected to be incurred on closure of the plants. In addition to the liability for active sites, the Corporation also has an asset retirement obligation liability for decommissioning and restoration costs associated with plant sites that have been divested or are no longer in use. The accrued liability associated with these sites is \$4 million and is considered to be adequate at this time.

#### 22. Contingencies and Commitments

Various lawsuits and claims are pending by and against the Corporation. It is the opinion of management that final determination of these claims will not materially affect the financial position or operating results of the Corporation.

The Corporation leases office space and transportation equipment under various operating leases. The minimum lease payments are approximately \$516 million in total with annual amounts of \$40 million in 2005, \$40 million in 2006, \$34 million in 2007, \$33 million in 2008, \$36 million in 2009, and \$333 million thereafter. Rental expense under operating leases was \$59 million in 2004 (2003 — \$53 million and 2002 — \$55 million).

The Corporation has entered into agreements for the purchase of minimum amounts of feedstock and other raw materials for short- and long-term supply. The resulting obligations, based on year-end market prices, are approximately \$9,793 million in total with annual amounts of \$3,223 million in 2005, \$1,721 million in 2006, \$1,275 million in 2007, \$886 million in 2008, \$657 million in 2009, and \$2,031 million thereafter.

# 23. Segmented Information

The Corporation determines its reportable segments based on the structure of its operations, which are primarily focused in two principal business segments — Olefins/Polyolefins and Styrene/Polystyrene (Styrenics). These operations involve the production and marketing of ethylene and polyethylene resins, and styrene monomer and stryenic polymers, respectively.

# Financial Information by Business Segment

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	. 2004	2003	2002
Revenue			
Olefins and polyolefins	\$3,230	\$2,559	\$1,930
Styrenics	2,324	1,579	1,305
Intersegment eliminations	(284)	(189)	(144)
	\$5,270	\$3,949	\$3,091
Depreciation			
Olefins and polyolefins	\$ 181	\$ 187	\$ 166
Styrenics	116	111	100
	\$ 297	\$ 298	\$ 266
Operating income (loss)			
Olefins and polyolefins	\$ 445	\$ 98	\$ 67
Styrenics	(71)	(147)	(118)
Corporate and other (1) .	(110)	(26)	(20)
	\$ 264	\$ (75)	\$ (71)
Net income (loss)			
Olefins and polyolefins	\$ 255	\$ 18	\$ (5)
Styrenics	(69)	(127)	(102)
Equity investments	_	37	5
Corporate and other (1)	76	100	21
	\$ 262	\$ 28	\$ (81)
Plant, property, and equipment additions (net)			
Olefins and polyolefins	\$ 127	\$ 74	\$ 43
Styrenics	115	56	28
	\$ 242	\$ 130	\$ 71
DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Assets			
Olefins and polyolefins	\$2,510	\$2,246	\$1,923
Styrenics	2,018	1,767	1,643
Investment in Methanex	_	_	399
Corporate and other (2)	519	400	189
	\$5,047	\$4,413	\$4,154

<sup>(1)</sup> Corporate and other operating income includes the mark-to-market changes for stock-based compensation liabilities, profit sharing and restructuring. Net income from corporate and other also includes other gains and losses.

<sup>(2)</sup> Amounts include all cash and cash equivalents.

# Financial Information by Geographic Area

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Revenue (1)			
Canada	\$1,706	\$1,414	\$1,081
United States	2,390	1,789	1,410
Europe and other	1,174	746	600
	\$5,270	\$3,949	\$3,091
Export sales from Canadian operations			
United States	\$1,393	\$1,054	\$ 748
Europe and other	248	148	113
	\$1,641	\$1,202	\$ 861
Operating income (loss)			
Canada	\$ 386	\$ 4	\$ 11
United States	(94)	(66)	(85)
Europe and other	(28)	(13)	3
	\$ 264	\$ (75)	\$ (71)
Equity in earnings of affiliates			
Canada	<u>s – </u>	\$ 39	\$ 5
DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Assets (2)			
Canada	\$2,943	\$2,600	\$2,055
United States	1,303	1,113	1,090
Europe and other	773	673	583
Investments	28	27	426
	\$5,047	\$4,413	\$4,154

<sup>(1)</sup> Based on location of customer.

# 24. Financial Instruments

## Financial Instrument Fair Values

Financial instrument fair values represent a reasonable approximation of amounts NOVA Chemicals would have received or paid to counterparties to unwind positions prior to their maturity. NOVA Chemicals has no plans to unwind these positions prior to maturity and has no significant exposure to any individual customer or counterparty.

The carrying amounts reported on the balance sheets for cash and cash equivalents, accounts receivable, bank loans, and accounts payable approximate their fair value. Fair values and carrying amounts for long-term debt are as follows:

DECEMBER 31 (MILLIONS OF DOLLARS)		ARRYING AMOUN	т	EST	IMATED FAIR VALL	E (1)
	2004	2003	2002	2004	2003	2002
Long-term debt (2)	\$1,516	\$1,101	\$1,212	\$1,607	\$1,163	\$1,134

<sup>(1)</sup> The fair value of long-term debt is based on guoted market prices, where available. If market prices are not available, fair values are estimated using discounted cash flow analysis, based on NOVA Chemicals' current incremental borrowing rates for similar borrowing arrangements.

<sup>(2)</sup> Based on location of the operating facility.

<sup>(2)</sup> Includes debt installments due within one year.

## Foreign Exchange Risk Management

NOVA Chemicals has U.S., Canadian and European-based petrochemical operations. As a result, a portion of the Corporation's expenditures are incurred in Canadian dollars and euros. Prior to April 2003, NOVA Chemicals managed its exposure to fluctuations in the Canadian/U.S. dollar exchange rate by using forward exchange contracts. At December 31, 2004, NOVA Chemicals had no foreign currency forward exchange contracts nor any plans to enter into any such contracts.

### Commodity Price Risk Management

NOVA Chemicals uses commodity based derivatives to hedge a portion of its exposure to price fluctuations on crude oil, refined products and natural gas transactions. The instruments are used to moderate the risk of adverse short-term price movements. Occasionally, longer-term positions will be taken to manage price risk for anticipated supply requirements.

At December 31, 2004, 2003 and 2002, the notional volume and estimated fair value of outstanding derivative contracts for natural gas are as follows:

DECEMBER 31		2004	2003	2002
Pricing swaps				
Notional volume	GJ millions	_	_	3.2
Weighted-average price per GJ	Cdn.	<b>s</b> —	\$ <del>-</del>	\$ 5.92(2)
Estimated fair value (1)	U.S. millions	<b>s</b> –	\$ <b>—</b>	\$ (2)
Mark-to-market	U.S. millions	<b>s</b> —	\$ <b>—</b>	\$ —
Term to maturity	Months			1–10
Basis swaps				
Notional volume	mcf millions	12.6	76.0	113.0
Weighted-average basis differential per mcf	U.S.	\$ 0.61 <sup>(3)</sup>	\$ 0.52(3)	\$ 0.47(3)
Estimated fair value (4)	U.S. millions	\$ (3)(4)	\$ (18)(4)	\$ (10)
Mark-to-market	U.S. millions	\$ <del></del>	\$ —	\$ <b>—</b>
Term to maturity	Months	1–3	1–15	1-34
Options				
Notional volume — calls	mcf millions	1.1	3.6	1.1
Notional volume — puts	mcf millions	8.6	33.5	68.1
Weighted-average price per mcf — calls	U.S.	\$ 5.05	\$6.27	\$4.10
Weighted-average price per mcf — puts	U.S.	\$ 2.50 <sup>(5)</sup>	\$ 2.42(5)	\$ 2.32(5)
Estimated fair value (1)	U.S. millions	<b>\$</b> 1	\$ 1	\$ (1)
Mark-to-market (6)	U.S. millions	<b>s</b> —	\$ <b>—</b>	\$ —
Term to maturity	Months	1-3	1–15	1-34

<sup>(1)</sup> Unrealized before tax gain (loss).

<sup>(2)</sup> The Corporation pays floating prices and receives a fixed price from the counterparty.

<sup>(3)</sup> The Corporation will pay or receive the difference between the NYMEX market price and the U.S. export market price, plus a fixed differential established in the contract.

<sup>(4)</sup> The Corporation has crystallized the losses on all of the basis swaps by placing offsetting positions. These crystallized losses will be recognized in income at their originally intended maturity dates.

<sup>(5)</sup> The Corporation will pay the difference between the NYMEX market price and the contract price (if contract is higher than market).

<sup>(6)</sup> Recognized before-tax gain (loss), equal to unrealized gain or loss less deferred transitional gain (loss).

At December 31, 2004, 2003 and 2002, the notional volume and estimated fair value of outstanding derivative contracts for crude oil, refined products, and alternative feedstock are as follows:

DECEMBER 31		2004	2003	2002
Notional volume	bbls millions	4.0	6.4	13.8
Weighted-average price per bbl (1)	U.S.	\$42.67	\$29.96	\$29.84
Estimated fair value (2)	U.S. millions	\$ 12	\$ 9	\$ 8
Mark-to-market (3)	U.S. millions	\$ 9	\$	\$ <b>—</b>
Term to maturity	Months	1-24	1–36	1-48

<sup>(1)</sup> Crude oil swaps and options.

At December 31, 2004, 2003 and 2002, the notional volume and estimated fair value of outstanding derivative contracts for benzene are as follows:

DECEMBER 31		2004	2003	2002
Notional volume	gls millions	0.2	_	
Weighted-average price per gl (1)	U.S.	\$3.05	\$ <b>—</b>	\$
Estimated fair value (2)	U.S. millions	\$ (2)	\$ <b>—</b>	\$
Mark-to-market (2)	U.S. millions	\$ (2)	\$	<b>\$</b> —
Term to maturity	Months	1-3		_

<sup>(</sup>i) Benzene swaps and options.

In addition to the crystallized and outstanding positions described in the tables above, the Corporation has liquidated certain natural gas and crude oil positions. Gains on these liquidated positions attributable to changes in value prior to January 1, 2004 were deferred and are being recognized in income at the original maturity dates. The unamortized portion of liquidated gains was \$3 million at December 31, 2004.

The Corporation has recognized a net gain of \$24 million from commodity risk management in earnings for the year ended December 31, 2004. This gain is the result of \$16 million of realized net gains from settled, crystallized, and liquidated positions and \$8 million of net mark-to-market gains on unrealized positions.

#### Interest Rate Risk Management

When deemed appropriate, NOVA Chemicals enters into interest rate swap agreements to manage its interest rate price risk exposure on certain fixed-rate debt. The agreements generally involve the receipt of fixed-rate amounts in exchange for floating-rate LIBOR based payments over the terms of the related debt. In 2004, the Corporation had floating-for-fixed interest rate swaps outstanding on \$300 million (2003 — \$550 million and 2002 — \$nil million) of medium-term notes. These positions had an estimated fair-market value of \$(2) million at December 31, 2004 (\$4 million at December 31, 2003 and \$nil million for 2002).

In prior years, a series of interest rate swaps on \$550 million of fixed-rate debt were liquidated, resulting in a before-tax gain of \$40 million in total. The gains have been deferred and are being recognized in income as a reduction of interest expense over the terms of the related debt instruments, which mature in 2005, 2006 and 2009.

## Credit Risk Management

Credit exposure on financial instruments arises from the possibility that a counterparty to an instrument in which NOVA Chemicals is entitled to receive payment of an unrealized gain fails to perform. NOVA Chemicals has established a limit on contingent exposure for each counterparty based on the counterparty's credit rating. Credit exposure is managed through credit approval and monitoring procedures. NOVA Chemicals does not anticipate any counterparties that it

<sup>(2)</sup> Unrealized gain.

<sup>(3)</sup> Recognized before-tax gain, equal to unrealized gain less deferred transitional gain.

<sup>(2)</sup> Unrealized loss.

currently transacts with will fail to meet their obligations. At December 31, 2004, 2003 and 2002, NOVA Chemicals' credit exposure was \$nil million for foreign currency instruments, \$nil million (2003 — \$4 million and 2002 — \$nil million) for interest rate instruments, and \$11 million (2003 — \$3 million and 2002 — \$4 million) for commoditybased instruments.

Concentration of credit risk relates primarily to the Corporation's receivables, as certain customer groups are located in the same geographic area and operate in the same industry. The Corporation manages its credit risk relating to these receivables through credit approval and monitoring procedures.

# 25. United States Generally Accepted Accounting Principles

## Reconciliation to Accounting Principles Generally Accepted in the United States

The Corporation prepares its consolidated financial statements in accordance with Canadian GAAP, which, in some respects, are different from GAAP used in the United States. The effect of these differences on the Corporation's consolidated net income (loss) and balance sheet are as follows:

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS, EXCEPT PER SHARE AMOUNTS)	2004	2003	2002
Net income (loss) in accordance with Canadian GAAP	\$ 262	\$ 28	\$ (81)
Add (deduct) adjustments for:			
Start-up costs (1)	5	4	3
Foreign exchange derivative instruments and hedging activity (2)	_	3	15
Other derivative instruments and hedging activity (2)	_	(7)	5
Inventory costing (3)	4	(1)	1
Preferred securities distributions (4)	(4)	(23)	(23)
Equity in earnings of affiliate (5)		(1)	(4)
Change in accounting policy (6)	(7)	5	
Other gains (7)		42	_
Other		1	1
Net income (loss) in accordance with U.S. GAAP	\$ 260	\$ 51	\$ (83)
Earnings (loss) per share using U.S. GAAP			
— Basic	\$3.00	\$0.52	\$(1.05)
— Diluted	\$2.73	\$0.51	\$(1.05)
Comprehensive income (loss) (net of tax) (8)			
Net income (loss) in accordance with U.S. GAAP	\$ 260	\$ 51	\$ (83)
Cumulative translation adjustment (9)	121	395	70
Less: reclassification of amounts included in net income (loss)	_	(54)	. —
Unrealized gain (loss) on cash flow hedging instruments			
(less tax of \$nil, \$(2), and \$(15)) (2)	_	4	26
Equity in comprehensive income (loss) of affiliate			
(less tax of \$nil, \$nil and \$(1)) (5)	_	(3)	7
Minimum pension liability adjustments			
(less tax of \$nil and \$2, and \$(1)) (10)	. 1	(3)	(1)
Comprehensive income in accordance with U.S. GAAP	\$ 382	\$ 390	\$ 19
Accumulated other comprehensive income (loss) (8)			
Cumulative translation adjustment (9)	\$ 332	\$ 211	\$ (130)
Unrealized loss on cash flow hedging instruments (2)	_	_	(4)
Equity in comprehensive income (loss) of affiliate (5)	_	<del></del>	3
Minimum pension liability (10)	(3)	(4)	(1)
Accumulated other comprehensive income (loss)	\$ 329	\$ 207	\$ (132)

DECEMBER 31 (MILLIONS OF DOLLARS)	2004	2003	2002
Balance sheet items in accordance with U.S. GAAP			
Current assets (2),(3)	<b>\$ 1,482</b>	\$ 959	\$ 626
Investment and other assets (1),(2),(5),(10)	139	157	492
Plant, property, and equipment (net) (1),(6)	3,429	3,311	3,007
Current liabilities (2)	<b>(893</b> )	(585)	(577)
Long-term debt:			
Preferred securities (4)		(383)	(383)
Other long-term debt (2)	(1,427)	(1,122)	(1,234)
Deferred credits (2),(3),(10)	(1,030)	(829)	(790)
Retractable preferred shares	(198)	(198)	(198)
Common shareholders' equity	\$1,502	\$1,310	\$ 943

- (1) Start-up Costs. Canadian GAAP provides that when an entity starts up a new facility, expenditures incurred during the pre-operating period may be deferred when certain criteria are met. Under U.S. GAAP, all costs (except interest on constructed assets) associated with start-up activities must be expensed as incurred. See Note 5 for information on the Corporation's start-up costs.
- (2) Derivative Instruments and Hedging Activities. Canadian GAAP does not require the recognition of derivative instruments on the consolidated balance sheet at fair values unless the derivative instrument does not qualify for hedge accounting under Canadian Accounting Guideline 13, Hedging Relationships (AcG-13). Non-qualifying derivatives are adjusted to fair value through income. Under U.S. GAAP, entities must follow the recommendations of Statement of Financial Accounting Standards (SFAS) No. 133, Accounting for Derivative Instruments and Hedging Activities, which requires the recognition of all derivatives on the balance sheet at fair value. Derivatives that are not hedges must be adjusted to fair value through income. If the derivative is a hedge, depending on the nature of the hedge, changes in the fair value of derivatives will either be offset against the change in fair value of the hedged assets, liabilities, or firm commitments through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. For derivatives that are designated and qualify as hedging instruments, the Corporation documents the hedging strategy, including hedging instrument and hedged item, based on the risk exposure being hedged. Based upon the designated hedging strategy, effectiveness of the hedge in offsetting the hedged risk is assessed at inception and on an ongoing basis during the term of the hedge. The ineffective portion of a derivative's change in fair value is immediately recognized in earnings.
  - The application of SFAS No. 133 for U.S. GAAP reporting results in differences related to foreign exchange, commodity based and other derivative instruments used by the Corporation. For information regarding the Corporation's use of derivatives and hedging activities under Canadian GAAP,
- (3) Inventory Costing. Canadian GAAP allows fixed overhead costs associated with production activities to be expensed during the period whereas U.S. GAAP requires an allocation of fixed production overhead to inventory.
- (4) Compound Financial Instruments. Canadian GAAP requires the classification and recording of a financial instrument, or its component parts, as a liability or equity in accordance with the substance of the contractual arrangements governing the instrument. U.S. GAAP requires that no portion of the proceeds from issuance of convertible debt securities be attributed to the conversion feature and classified as equity. Accordingly, the Corporation's preferred securities discussed in Note 11 are accounted for as debt under U.S. GAAP and the related distributions as interest expense.
- (5) Equity in Earnings of Affiliates. NOVA Chemicals' share of adjustments to financial information and results of operations of equity investments to comply with U.S. accounting principles.
- (6) Change in Accounting Policy. On January 1, 2004, NOVA Chemicals adopted the fair-value method of accounting for equity-settled stock-based compensation, as more fully described in Note 2.
  - On January 1, 2003, the Corporation adopted SFAS No. 143, Accounting for Asset Retirement Obligations. This standard and the CICA standard, also adopted on January 1, 2003, and discussed in Notes 2 and 21, are essentially the same. However, under U.S. GAAP, the cumulative effect of adopting a new standard is reflected in net income in the period of adoption, whereas under Canadian GAAP, it is reflected as a charge or credit to reinvested
- (7) Other Gains. Difference in gain on disposition of investment in Methanex resulting from different cost basis under U.S. GAAP.
- (8) Comprehensive Income. U.S. GAAP SFAS No. 130, Reporting Comprehensive Income, requires the presentation of a statement containing the components of comprehensive income and the accumulated balance of other comprehensive income. Comprehensive income includes all changes in equity during the period including items that are not in net income. This statement is not required under Canadian GAAP.
- (9) Cumulative Translation Adjustment. Unrealized gains (losses) resulting from translation of self-sustaining foreign operations are recorded in other comprehensive income until there is a realized reduction in the investment.
- (10) Minimum Pension Liability. SFAS No. 87, Employer's Accounting for Pensions, requires an employer to record an additional minimum liability (AML) if the unfunded accumulated benefit obligation exceeds the accrued pension liability or if there is a prepaid pension asset with respect to the plan. If an AML is recognized, an intangible asset, in an amount not exceeding the unrecognized prior service cost, is also recognized. The excess of the AML, over the intangible asset, if any, is charged to other comprehensive income, net of income tax effects. At December 31, 2004, an AML and an intangible asset, in the amount of \$4 million and \$1 million, respectively, have been recognized, resulting in a charge of \$3 million (net of tax) to other accumulated comprehensive income (loss).

#### Other Disclosures

Stock-Based Compensation. SFAS No. 123 Accounting for Stock-Based Compensation, defines a fair-value based method of accounting for employee stock options and encourages the use of this method to account for stock compensation plans. NOVA Chemicals adopted the fair-value method of accounting for stock-based compensation on January 1, 2004.

The following table outlines the impact on the Corporation's U.S. GAAP results of prior years, had compensation expense for the stock option plan been determined based on the fair-value method as prescribed under SFAS No. 123:

YEAR ENDED DECEMBER 31 (MILLIONS OF DOLLARS, UNLESS OTHERWISE NOTED)	2003	2002
Net income (loss) in accordance with U.S. GAAP		
As reported	\$ 51	\$ (83)
Pro forma	\$ 44	\$ (94)
Earnings (loss) per share — basic		
As reported	\$0.52	\$(1.05)
Pro forma	\$0.44	\$(1.18)
Earnings (loss) per share — diluted		
As reported	\$0.51	\$(1.05)
Pro forma	\$0.44	\$(1.18)

## U.S. Accounting Developments

FASB Statement No. 150, Accounting for Certain Financial Instruments with the Characteristics of both Liabilities and Equity, issued in May 2003, requires the classification of certain financial instruments, previously classified as equity, as liabilities. While Statement No. 150 has not had an impact on the current classification of the Corporation's financial instruments, the FASB intends to continue deliberations on this topic. Future recommendations by the FASB may have an impact on the Corporation's financial position and are not determinable at this time.

# nvestor Information

Annual Marking	
Annual Meeting	Share Registration
shareholders are invited to attend NOVA Chemicals'	NOVA Chemicals' common shares are listed on the New
mnual meeting on April 6, 2005, at 10:30 a.m. at The	York and Toronto Stock Exchanges under the trading
eronto Stock Exchange in Toronto, Ontario.	symbol "NCX." On the Toronto Stock Exchange (TSX),
Shareholder Information	NOVA Chemicals is listed and traded in both Canadian
for inquiries on stock-related matters, including dividend	and U.S. dollars. The U.S. dollar trading symbol on the
eayments, stock transfers and address changes, contact	TSX is "NCX.U." On December 31, 2004, approximately
NOVA Chemicals' Shareholder Relations, toll free, at	84 million common shares were outstanding and there were some 12,700 registered shareholders. NOVA
<del>-8</del> 00-661-8686 or via e-mail to:	Chemicals' common shares are transferable at the
shareholders@novachem.com.	ancouver. Calgary, Regina, Winnipeg, Toronto, Montréal
Requests for Additional Information	and Halifax offices of CIBC Mellon Trust Company. The
er copies of NOVA Chemicals' quarterly reports, additional	common shares are also transferable at Mellon Investor
en copies of NOVA Chemicals duarterly reports, additional	Services LLC, New York, New York.
thareholder information package, please send an e-mail	
e: publications@novachem.com.	Non-Resident Investors
DUDICATIONS HOVACHEII.COM.	Dividends paid to non-resident shareholders are subject
Rapports annuels en français	to Canadian withholding tax, generally at the rate of 15%
On peut obtenir un exemplaire de ce rapport en français	for the United States and other countries where Canadian
aupres du service des affaires publiques ou du service	tax treaties apply, and 25% for non-treaty countries.
des relations avec les investisseurs au (403) 750-3600	Certain exemptions or refunds may be available to
<del>====</del> (412) 490-4000.	residents of the United States and other countries where
<b>Corporate Contact Information:</b>	Canadian tax treaties apply. Under regulations in effect in
NOVA Chemicals Corporation	<u>— the United States, the Company is generally subject to</u>
1000 Seventh Avenue S.W.	the U.S. back-up withholding rules, which would require
<b>■20</b> . Box 2518	<u>withholding</u> at a rate of 28% on dividends and interest
≡Calgary, Alberta, Canada T2P 5C6	paid to certain U.S. persons who have not provided the
	Company with a taxpayer identification number. Please
NOVA Chemicals U.S. Operating Center  550 Coraopolis Heights Road	consult your tax advisor for more information.
■ So Coraopolis Heights Road  Meen Township, PA 15108 USA	Trademark Information
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===Mail: invest@novachem.com	ARCEL®; DYLARK®; DYLITE®; NAS®; and ZYNTAR® are registered  ***Agemarks of NOVA Chemicals Inc.
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■600 The Dome Tower	authorized use/utilisation autorisée.
➡33 Seventh Avenue S.W.	STYROSUN® is a registered trademark of NOVA Chemicals Inc. in the
Calgary, Alberta, Canada T2P 2Z1	<ul> <li>United States and Mexico and of NOVA Chemicals (International)</li> <li>S.A. elsewhere.</li> </ul>
<b>⊉</b> bone: (403) 232-2400	
■oll free: 1-800-387-0825	—SURPASS® is a registered trademark of NOVA Chemicals Corporation in Canada and of NOVA Chemicals (International) S.A. elsewhere.
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==-mail: inquiries@cibcmellon.ca	autorisée.
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	Producers' Association in Canada and is a registered service mark of
	American Chemistry Council in the United States.

