

## Capital Investment in Saskatchewan

Research prepared for the:

**Saskatchewan Business Tax Review Committee**

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- 1: Summary Statistics for Capital Investment in Saskatchewan**
- 2: Interprovincial Comparison of Capital Investment**
- 3: Capital Investment by Industry Group**
- 4: Review of the KPMG Competitiveness Study**

### ■ Provincial Economic Accounts

- The provincial economic accounts published by Statistics Canada measure a variety of components of economic activity in the provinces and territories. Because of the longer time period available in the provincial economic accounts, this is the source used most often in the analysis that follows.
- This is the source for all of the information in Section 1 - Summary Statistics for Capital Investment in Saskatchewan - and Section 2 - Interprovincial Comparison of Capital Investment.
- The most recent release was in April 2005 and includes 2004 estimates (Provincial Economic Accounts, Annual Estimates 13-213). Data are available back to 1981.
- The values in the provincial economic accounts are routinely revised retroactively for several years so the statistics prior to 2002 are more reliable than those from 2002 to 2004.

### ■ Capital Investment Survey

- Statistics Canada also measures capital investments by business and governments in a semi-annual survey. The capital investment survey provides an industry breakdown that is not available in the economic accounts. This is the data source for the analysis in Section 3 - Capital Investment by Industry Group.
- The most recent release was in February 2005 and has 2004 estimates and intentions for 2005 (Private and Public Investment in Canada 61-205). Data using consistent industry definitions are only available back to 1991.

## Definitions

- **Gross Domestic Product (sometimes Gross Provincial Product) or GDP**
  - This is the measure of the overall size of the provincial economy - the value of goods and services produced. When measure in constant dollars (“real” GDP) it provides a measure of economic output that is not affected by price change.
  
- **Gross Fixed Capital Formation**
  - This is the proxy measure used for capital investment in the analysis.
  - Capital investments are gross expenditures on fixed assets for use in the operation of an establishment or for lease or rent to others. The figures include the cost of new buildings, engineering, and machinery and equipment (which normally has a life of more than 1 year) and are charged to fixed assets accounts. Capital costs such as feasibility studies and architectural, legal, installation or engineering fees and capitalized interest charges on loans with which capital projects are financed are both included.
  - Assets acquired for lease to others are included, but assets acquired as a lessee are not.
  - The investor is considered to be a government institution if the establishment is substantially funded by one of the three levels of government. Government capital investment includes the crowns.
  - Government subsidies for capital investment by private companies are recorded as part of the private sector investment.
  - These are capital investments in Saskatchewan not capital investments made by Saskatchewan firms.
  
- The terms capital investment and gross fixed capital formation are used interchangeably in this report.

## Definitions (continued)

### ■ Corporate Profits

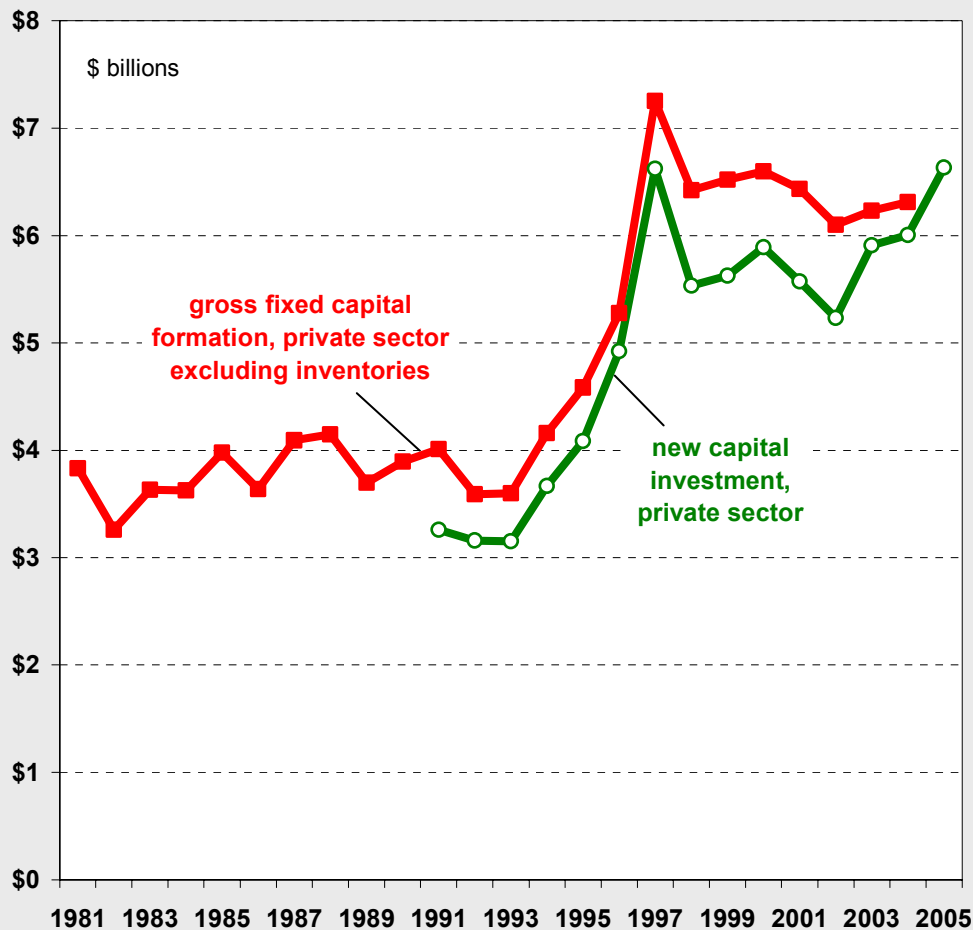
- The provincial economic accounts measure corporate profit before taxes at the establishment level. For corporations that span provincial or national boundaries, the “surplus” at each location - output less inputs - is used to allocate profit to the appropriate province. If the surplus cannot be determined, the distribution of profits as reported in tax returns is used instead.
- These are corporate profits arising from activities in Saskatchewan not profits made by Saskatchewan firms.

### ■ Corporate Taxes

- There are two kinds of corporate taxes in the economic accounts - direct taxes and indirect taxes.
- Direct taxes are largely income taxes obtained from both private corporations and crown corporations. (The latter pay very few direct taxes.)
- Indirect taxes include all other taxes including the corporate capital tax, business taxes paid to local governments, gasoline and other consumption taxes, motor vehicle and other licenses, excise duties, the GST, etc. The portion of indirect taxes paid by businesses is not reported although some are clearly only paid by businesses.

## Comparison of Two Sources of Data for Capital Investments

Gross Fixed Capital Formation Compared with New Capital Investment, Saskatchewan

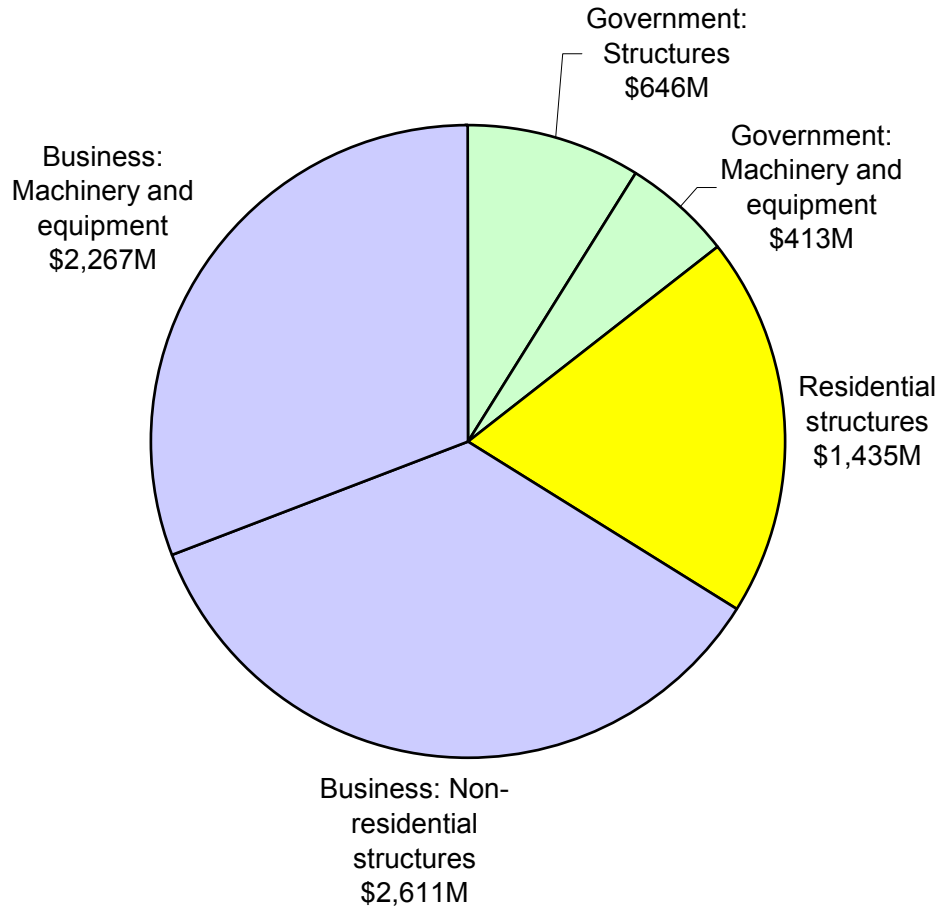


- The figure compares the data used in sections 1 and 2 from the provincial economic accounts with the data used in section 3 from the capital investment survey. In both cases, only the private sector is shown.
- There are differences between the two data sources but gross fixed capital formation by business tracks new capital investment by the private sector quite closely. Gross fixed capital formation has adjustments for defense spending, sales of used motor vehicles, scrap and salvage, and transfer costs of land and existing buildings.

# **Overview of Capital Investment in Saskatchewan**

# Gross Fixed Capital Formation by Type and Investor

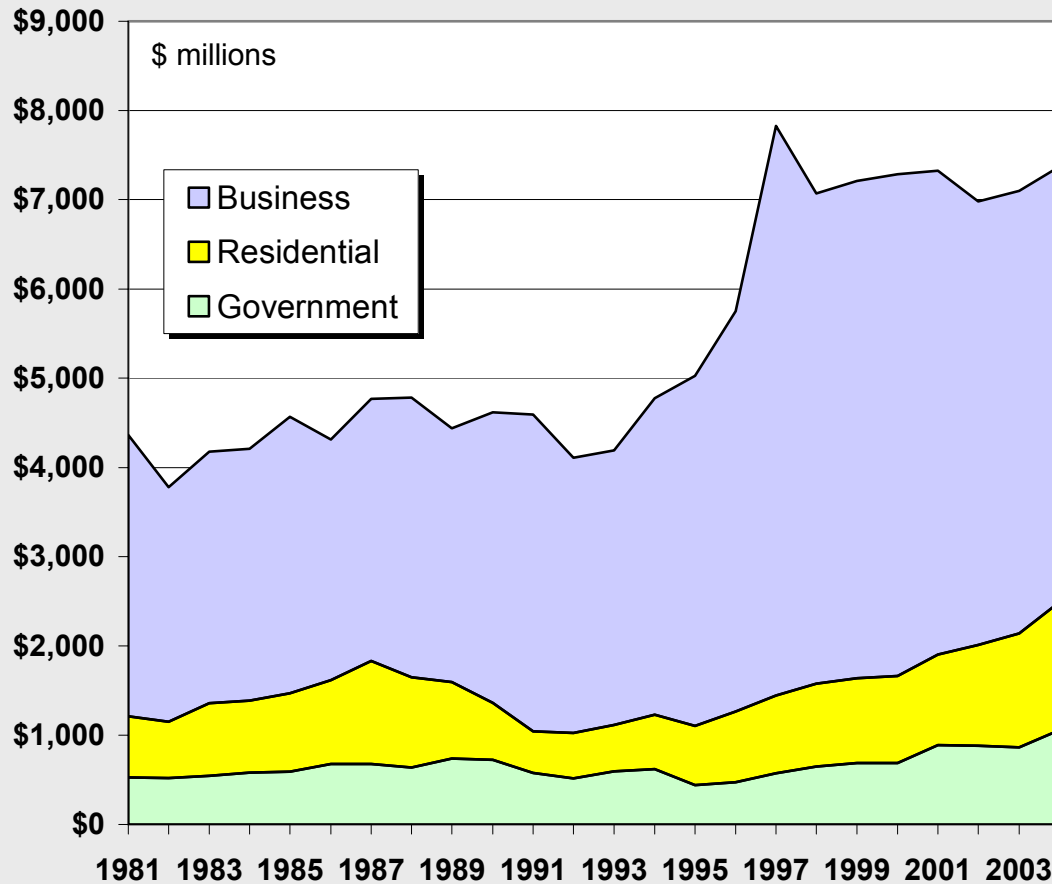
**Gross Fixed Capital Formation, Saskatchewan, 2004**  
(Total = \$7,372M)



- In 2004, Saskatchewan's gross fixed capital formation totaled \$7.4 billion in nominal dollars.
- Business investment accounted for two thirds of the total - \$4.9 billion out of \$7.4 billion.
- We are primarily interested in the capital investment that is made by businesses in non-residential structures and machinery and equipment.

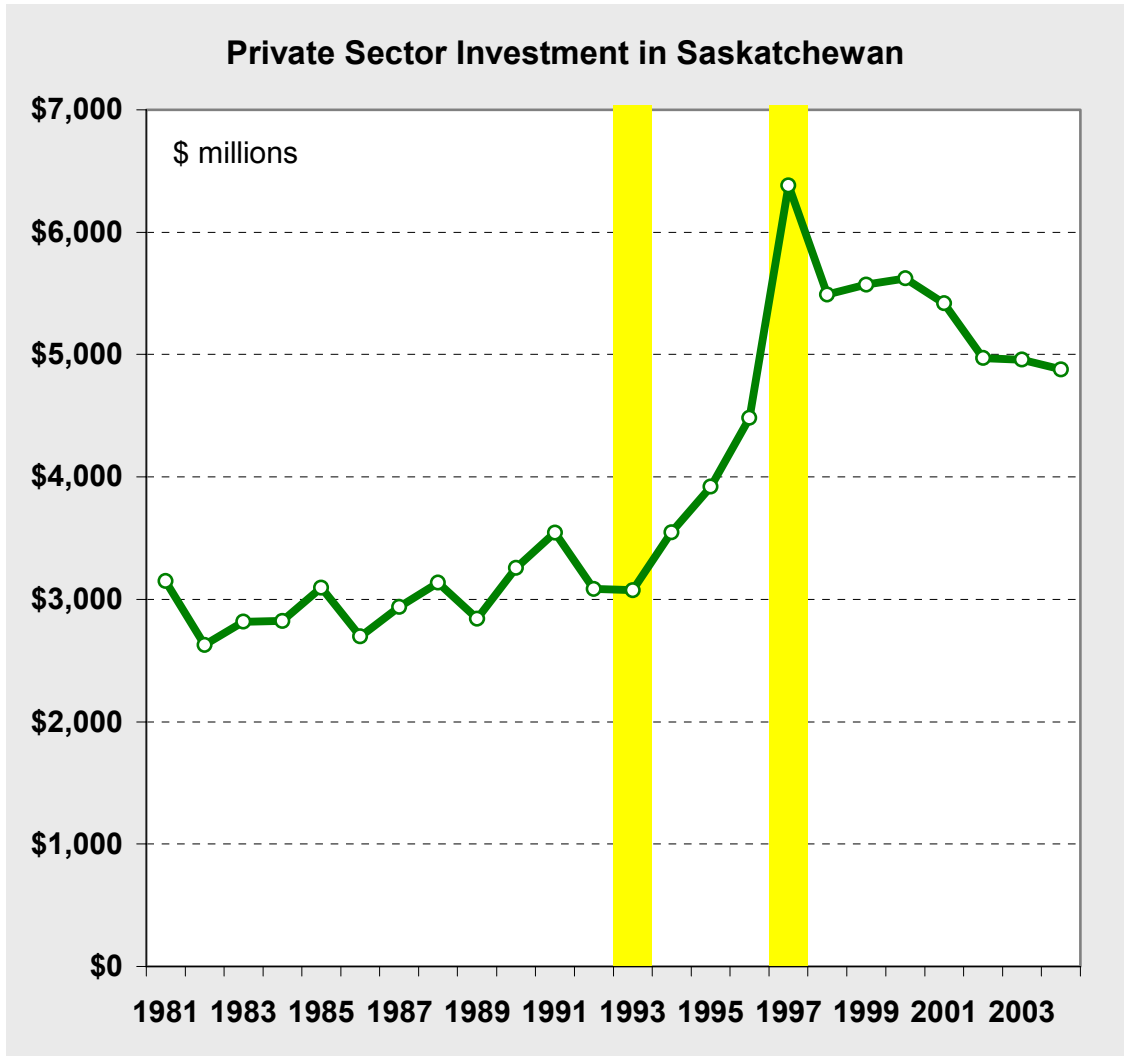
## Changes in Type of Capital Investment, Saskatchewan, 1981 to 2004

Gross Fixed Capital Formation by Sector,  
Saskatchewan, 1981 to 2004



- This figure shows how the relative shares of the pie on the previous page have changed over time.
- Residential investment has been as low as 10% of total capital investment in 1991 and as high as 24% in 1987. In 2004, it represented 19% of the total.
- The business portion is typically between 60% and 80% of the total. In 2004, it represented 66% of the total compared with 82% in 1997.
- The largest share of investment by governments was in 1989 and 1990 when it accounted for more than 15% of the total. In 2004, it represented 14% of the total.
- Unless otherwise specified, the information that follows is for the business portion of gross fixed capital formation.

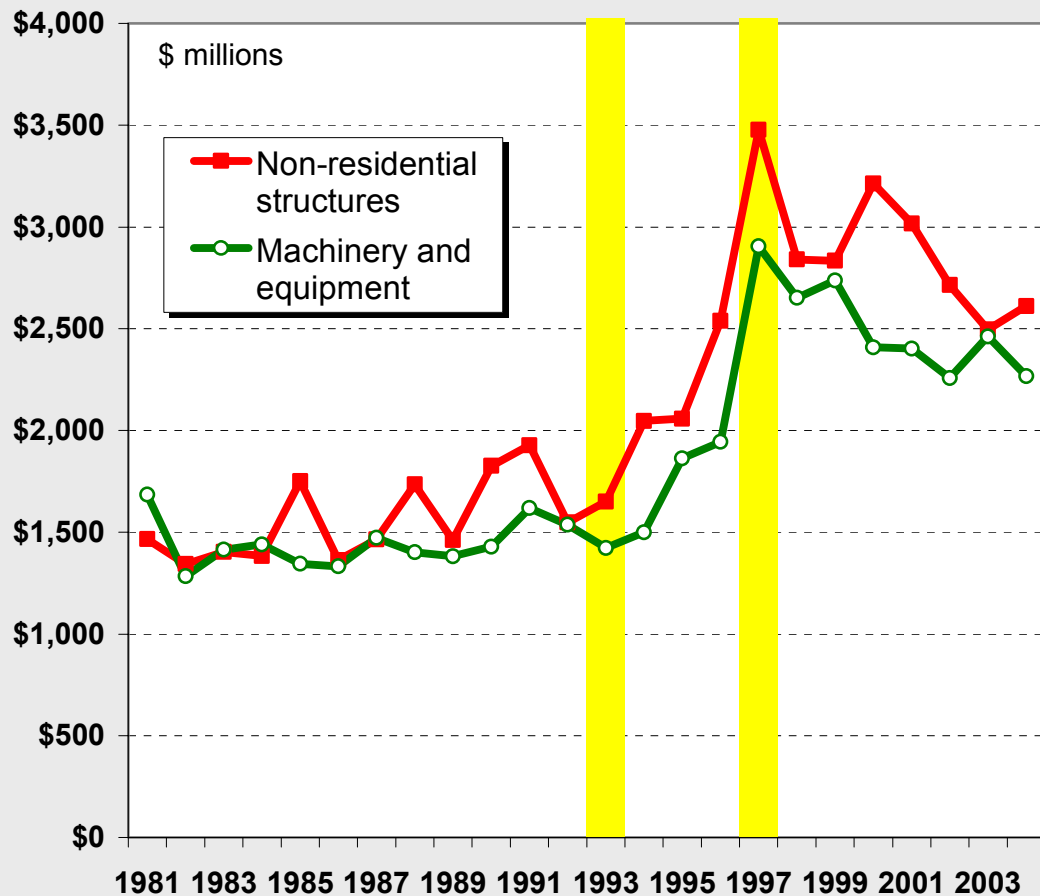
# Trends in Gross Fixed Capital Formation by Business, 1981 to 2004



- After languishing near \$3 billion throughout most of the 1980s, investment doubled from 1993 to 1997.
- Since then capital investment by businesses has declined, returning to an estimated \$4.9 billion in 2004.
- Average annual growth rates in total investment:
  - 1981 to 1993 = -0.2%
  - 1993 to 1997 = 20.0%
  - 1997 to 2004 = -3.8%

# Trends in Gross Fixed Capital Formation by Type of Investment

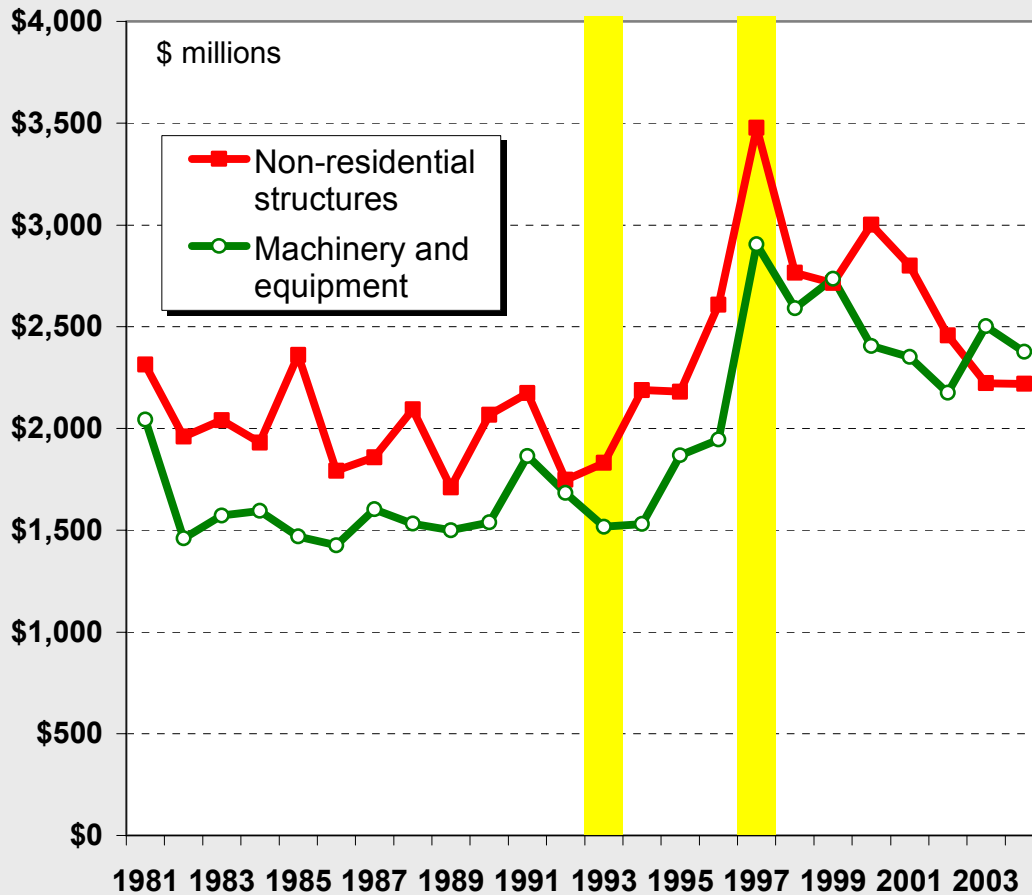
Business Investment in Saskatchewan



- Except for a period from 2000 to 2002, investment in the two components:
  - non-residential structures; and
  - machinery and equipment; have been approximately the same.
  
- In the analysis that follows, no distinction is made between the two categories. That is, total capital investment is used.

# Trends in Gross Fixed Capital Formation, Constant Dollars

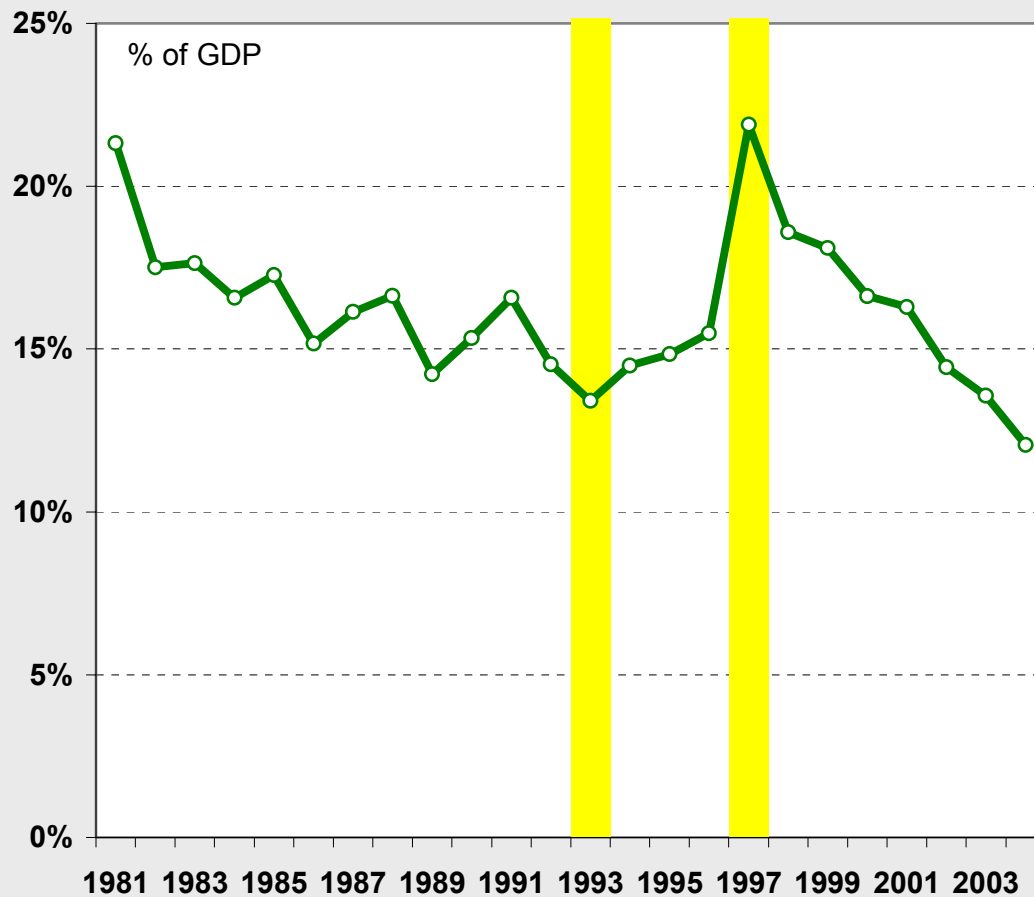
Business Investment in Saskatchewan



- Adjusting for inflation changes the absolute values but doesn't change the pattern either.
- This is largely because "inflation" in capital investment has been low, averaging 2.3% for structures in the past ten years and -0.3% per year for machinery and equipment.
- Average annual growth rates in total investment measured in constant 1997\$:
  - 1981 to 1993 = -2.2%
  - 1993 to 1997 = 17.5%
  - 1997 to 2004 = -4.6%
- For consistency, the balance of the analysis is in nominal dollars.

## Gross Fixed Capital Formation, Relative to GDP

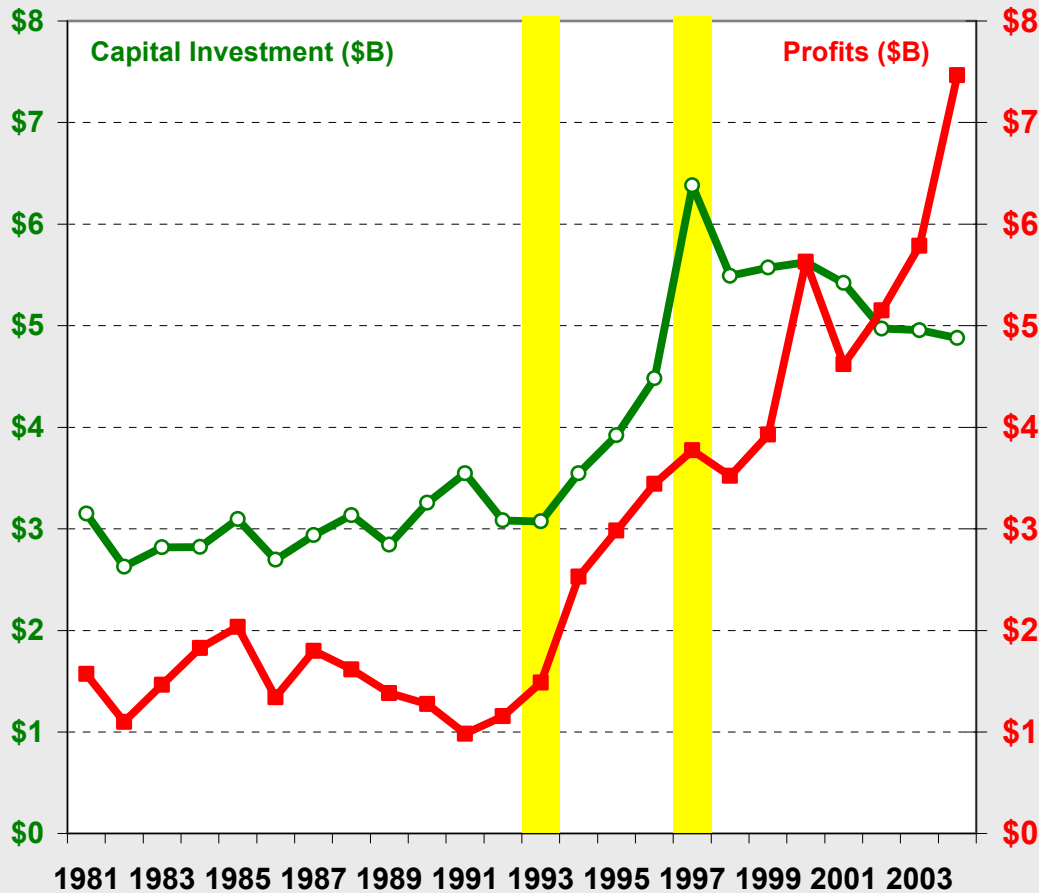
Business Investment in Saskatchewan as Percentage of Gross Domestic Product



- Relative to the size of the economy, as measured by gross domestic product, business investment declined throughout the 1980s to reach a low of 13% in 1993.
- The increase from 1993 to 1997 temporarily returned the proportion to more than 20%. Since then investment has continued to decline, reaching a low of 12% in 2004.

# Gross Fixed Capital Formation, Relative to Corporate Profits

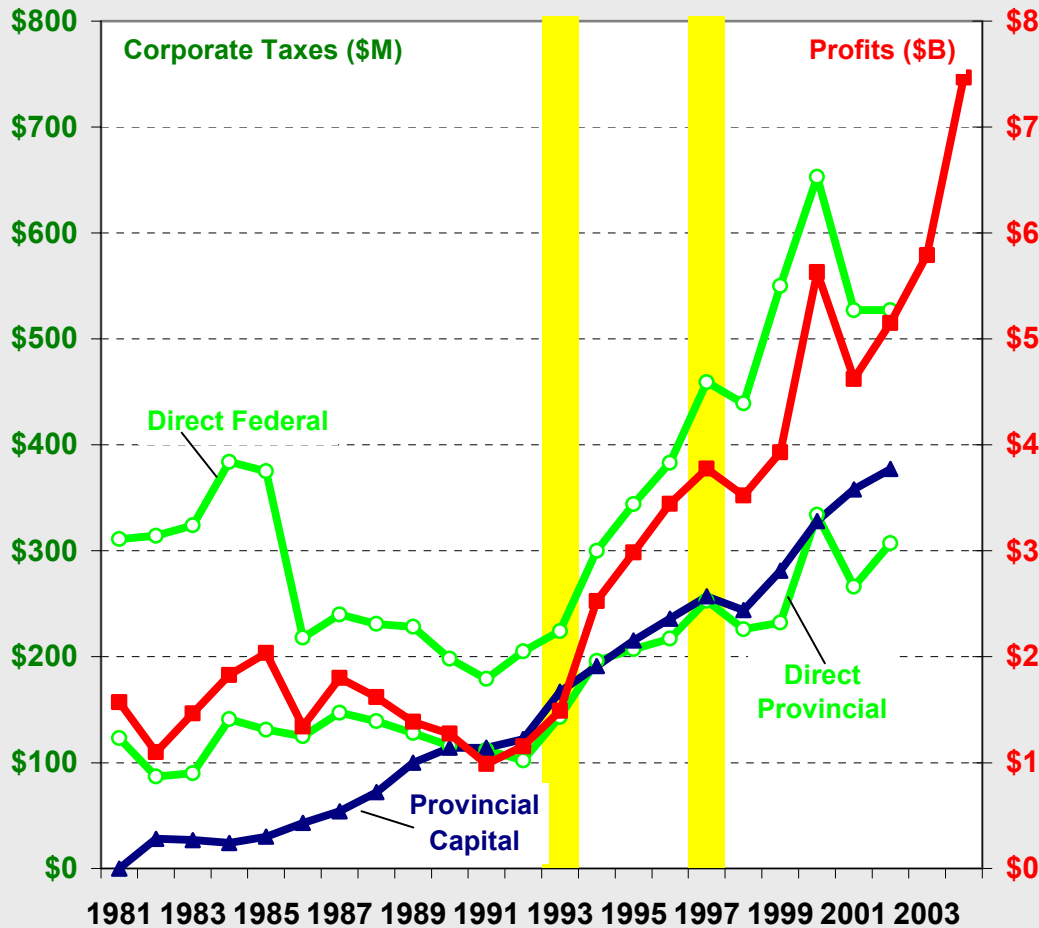
Business Investment Relative to Pre-Tax Corporate Profits



- The trend in capital investment relative to profits tells a different story. The investment increase in the 1993 to 1997 period occurred after a decade of stagnant profits.
- Investment growth tracked profit growth from 1993 to 1999.
- Since 1999, corporate profits have continued to grow at a robust pace while investment has stagnated. Business investment has been less than 100% of pre-tax profits for the past three years.

# Corporate Taxation and Corporate Profits

Corporate Profits and Corporate Taxation

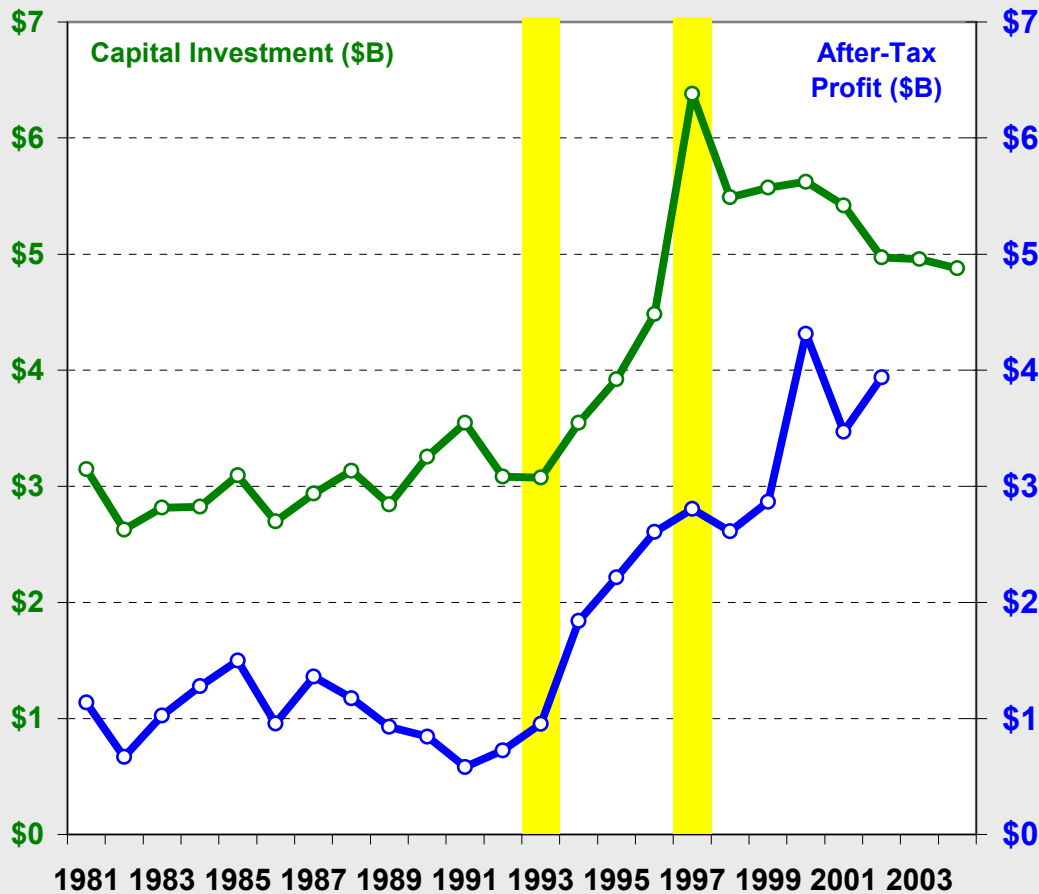


- With increasing profits, direct corporate taxes paid would be expected to increase from 1993 on and the figures show that they have done so.
- Both provincial and federal direct taxes (i.e. income taxes) track profits closely although federal taxes have grown more quickly than provincial ones. (Data only available to 2002.)
- The provincial capital tax has, however, increased steadily over the period. In 2002, with pre-tax corporate profits of \$5.15 billion:
  - direct federal taxes were \$527 million (10.2% of profits);
  - direct provincial taxes were \$307 million (6.0%); and
  - the corporate capital tax was \$377 million (7.3%).

[The public accounts for 2002-03 show corporate capital tax revenues at \$379 million and corporate income taxes at \$178 million.]

# Gross Fixed Capital Formation, Relative to Corporate Taxation

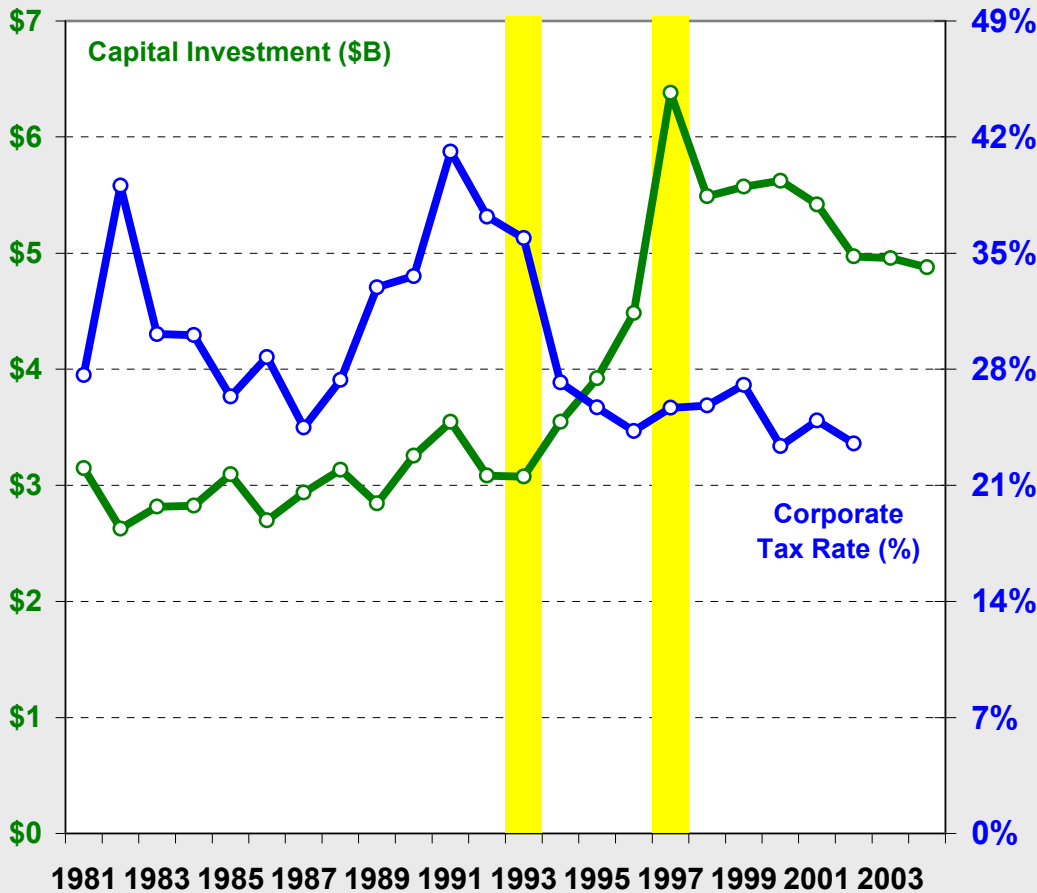
**Business Investment Relative to Corporate Profits after Direct Taxes and Capital Taxes**



- In this figure,
  - direct federal and provincial taxes and
  - the provincial corporate capital tax
 are subtracted from pre-tax corporate profits to arrive at a proxy for after-tax profits.
  
- This shows that corporations are still investing more than their net earnings. But the overall trend since 1997 is similar, namely continued increase in after-tax earnings coincident with declining capital investment.

# Gross Fixed Capital Formation, Relative to Corporate Taxation

Business Investment Relative to the Effective Tax Rate



- The effective tax rate (calculated as corporate capital taxes + direct taxes as a percentage of pre-tax profits) was typically 25% to 35% in the 1980s and early 1990s.
- Even with an increasing capital taxes, the overall tax rates is now typically 20% to 30%.
- The drop in corporate tax rates from 1991 to 1994 predated the increase in capital investment from 1993 to 1997 so there may be a relationship. But a similar drop from 1982 to 1987 had no effect on investment.

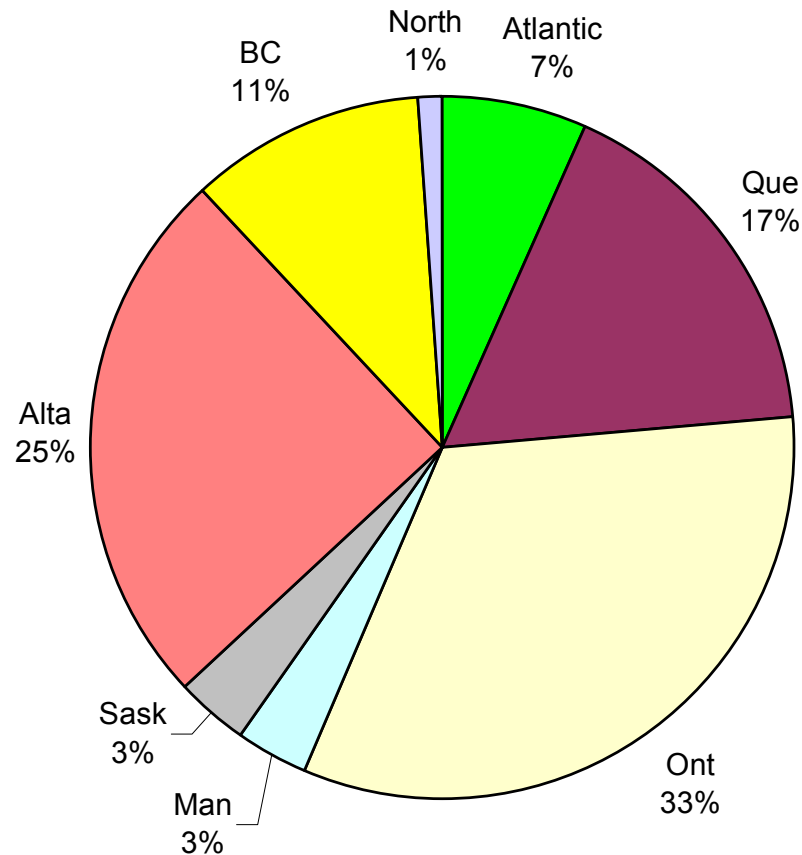
## Summary

- Capital investment in machinery and equipment and in non-residential construction is split on a 50:50 basis and the two types track one another quite closely.
  
- There are three distinctive periods in capital investment by Saskatchewan businesses and the patterns are evident in both nominal and inflation-adjusted figures.
  - From 1981 to 1993, investment was effectively flat, declining in real terms.
  - From 1993 to 1997, investment grew rapidly (20% per year on average).
  - Since 1997, investment has declined in both nominal and real terms.
  
- The periods of growth and decline have no direct correlation with any of:
  - the growth in the provincial economy;
  - corporate profits;
  - corporate taxes; or
  - corporation taxation rates.

# **Interprovincial Comparison**

# Capital Investment by Province

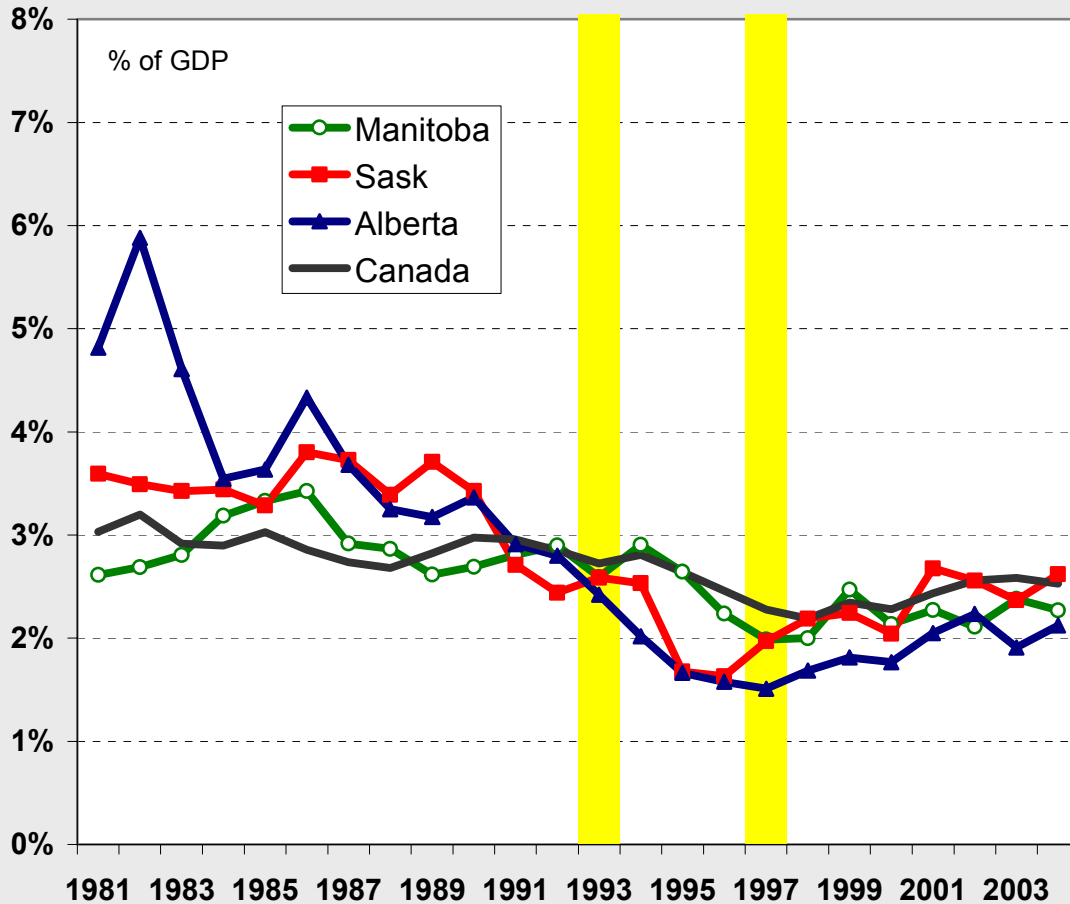
## Gross Fixed Capital Formation, Business Investment in Facilities and Equipment, 2004



- Alberta and Ontario accounted for 58% of capital investment in 2004 - 85% if Quebec and B.C. are included.
- Saskatchewan's share of capital investment in 2004 was similar to Manitoba's - 3% of the national total.

# Government Capital Investment in the Prairie Provinces

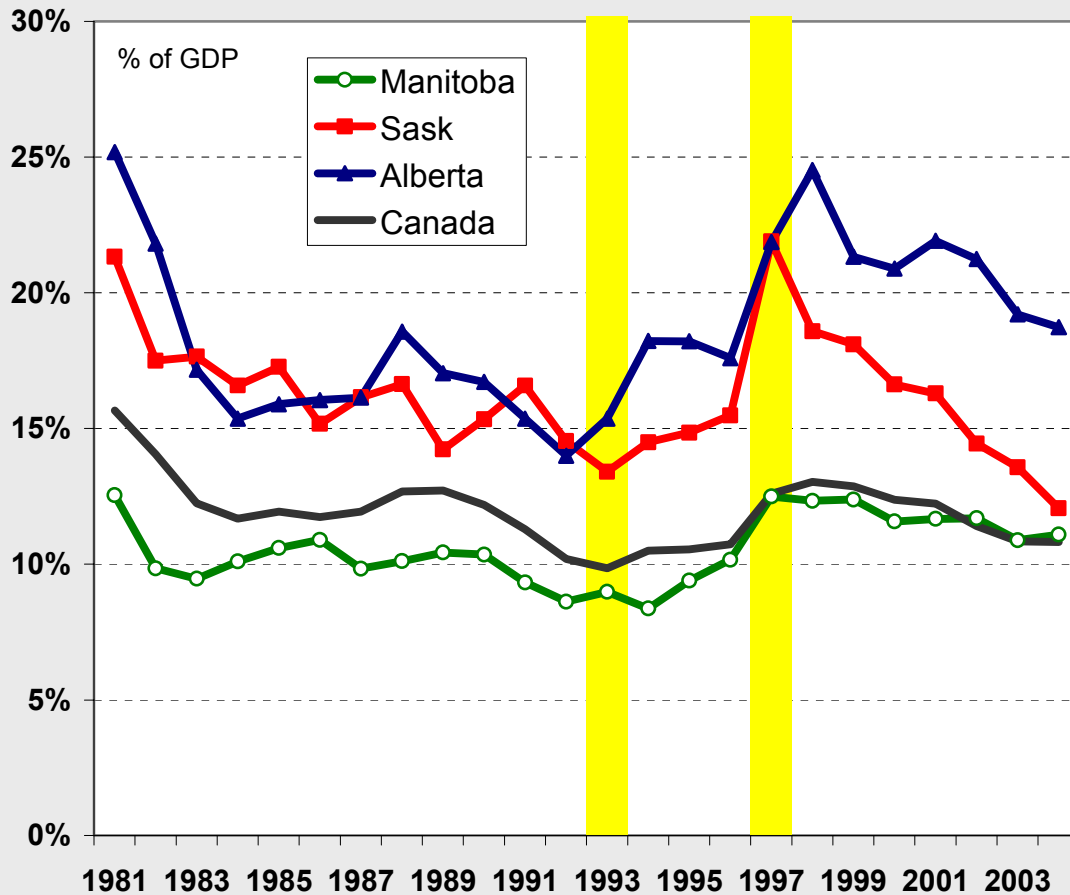
## Trends in Government Capital Investment Relative to GDP



- Relative to the respective sizes of their economies, governments in the prairie provinces typically invest the same amount as other provinces.
- The pattern over time - a general decline from the early 1980s to the mid 1990s followed by a gradual increase - is also similar.
- In the 1980s, Alberta and Saskatchewan were typically above the national average. In the 1990s, they were typically below the national average.

# Business Capital Investment in the Prairie Provinces, Relative to GDP

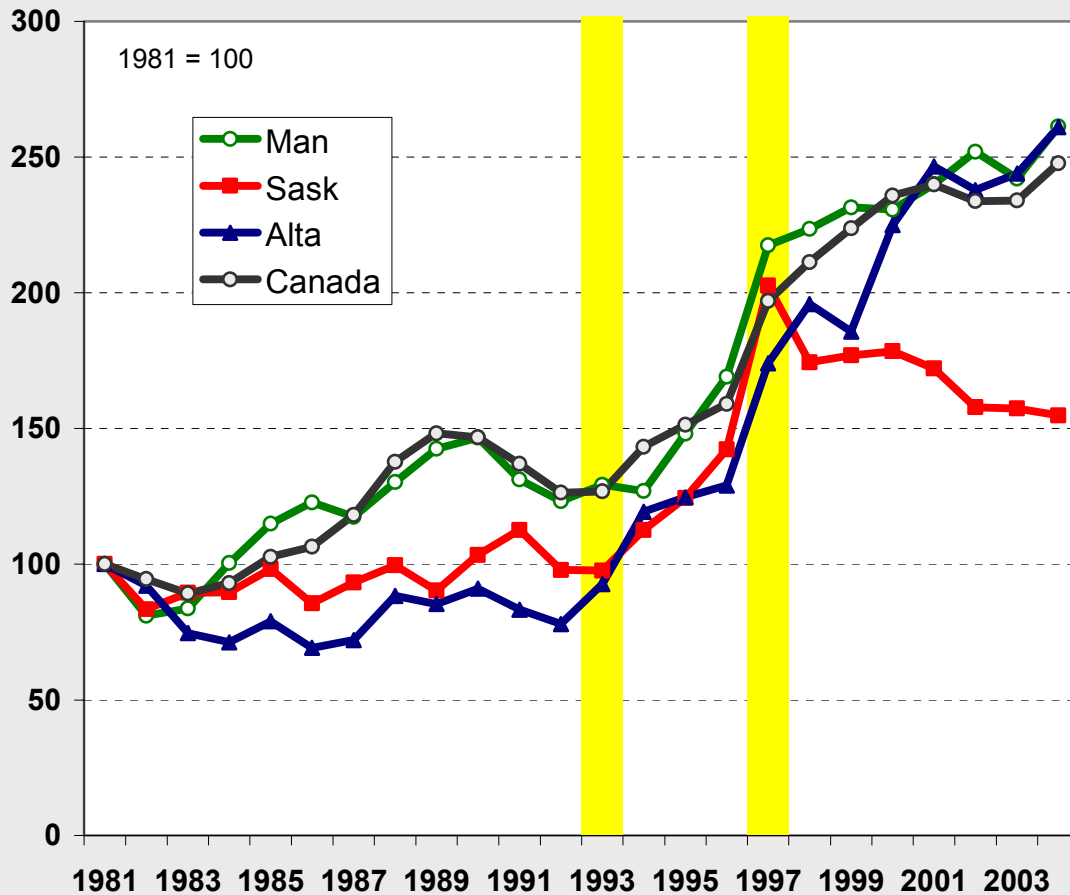
Trends in Business Capital Investment Relative to GDP



- Until 1997, capital investment by businesses in Alberta and Saskatchewan was above the national average and Manitoba was below. This is thought to be because the Alberta and Saskatchewan economies are more capital intensive than those in other provinces.
- Relative to the size of their respective economies, Canada and all the prairie provinces saw an increase from 1993 to 1997 and a decline from 1997 to 2004.
- The sharpest rise and the most pronounced drop, however, was in Saskatchewan. By 2004, the ratio of capital investment to GDP in Saskatchewan had dropped to near the national average.
- In absolute terms, the difference between the current 12% in Saskatchewan and the 19% in Alberta is \$2.7 billion.

# Capital Investment Trends in the Prairie Provinces

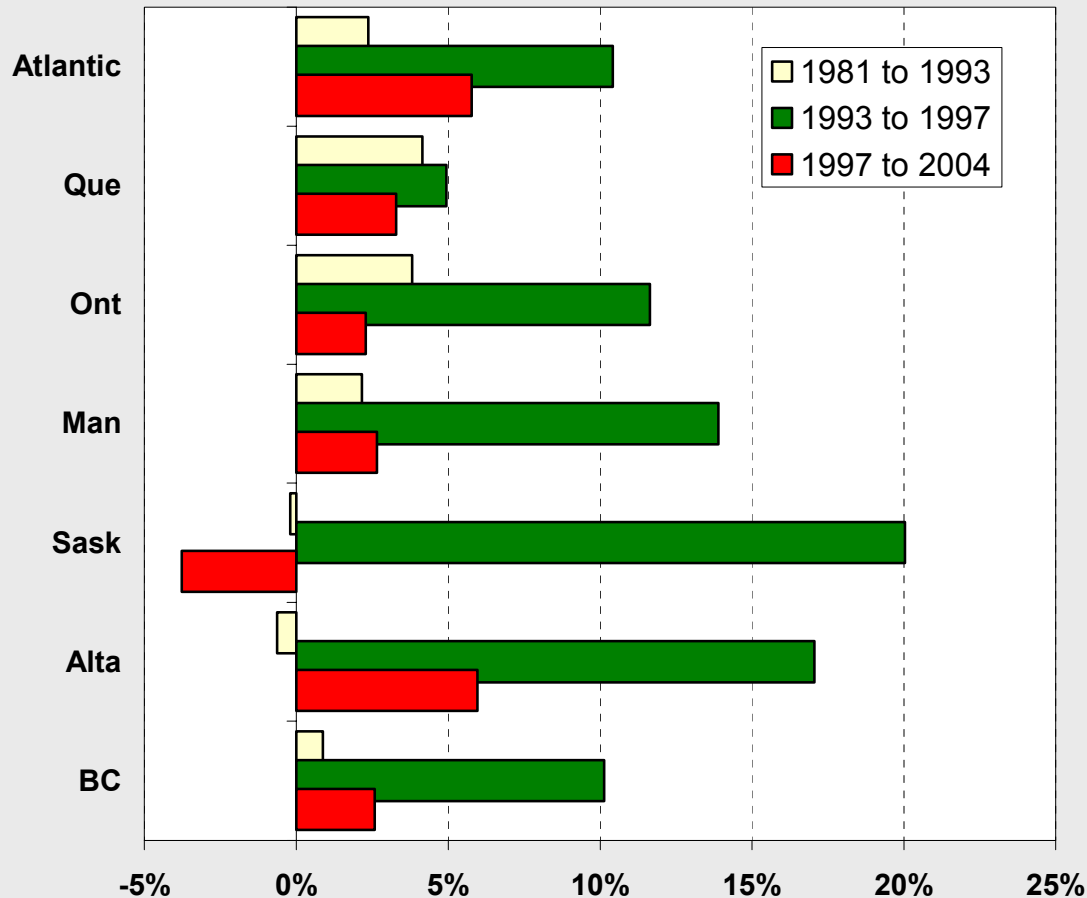
Trends in Business Capital Investment



- These figures look at trends over time without regard to the size of the GDP. The pattern is similar to the one shown on the previous page.
- In nominal terms, business capital investment did not grow in either Alberta or Saskatchewan during the 1980s. There were modest increases in Manitoba and in Canada as a whole.
- The increase from 1993 to 1997 that occurred in Saskatchewan also took place in the other provinces and in Canada although it was particularly strong in Saskatchewan and Alberta.
- The decline since 1997 is unique to Saskatchewan. Investment in the neighbouring provinces continues to grow, albeit more slowly.

# Business Capital Investment Growth Rates by Province

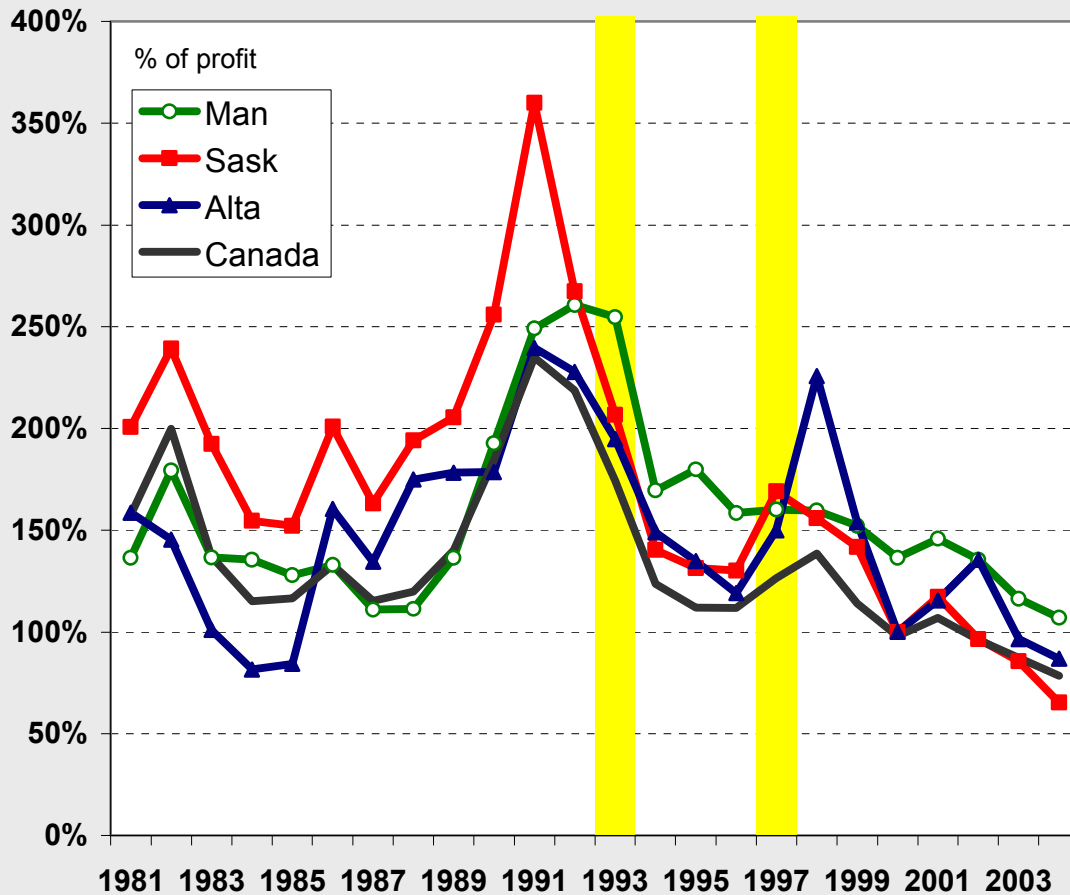
Average Annual Increase in Capital Investment



- In the 1980s, most of the investment growth was occurring east of the Saskatchewan border.
- The growth in investment from 1993 to 1997 that occurred in Saskatchewan was part of an increase throughout Canada although it was stronger in Saskatchewan than in other provinces.
- Since 1997, investment has slowed in every province but the decline in Saskatchewan is unique.
- In fact, the recent decline in investment is international in scope. In the July 9th 2005 edition, The Economist notes that “The economies of America and Britain have boomed, while those of Japan and the euro area have stalled, yet in all of them firms are now running a financial surplus, using their spare money to repay debts, buy back shares or build up cash.”

# Investment Relative to Corporate Profits

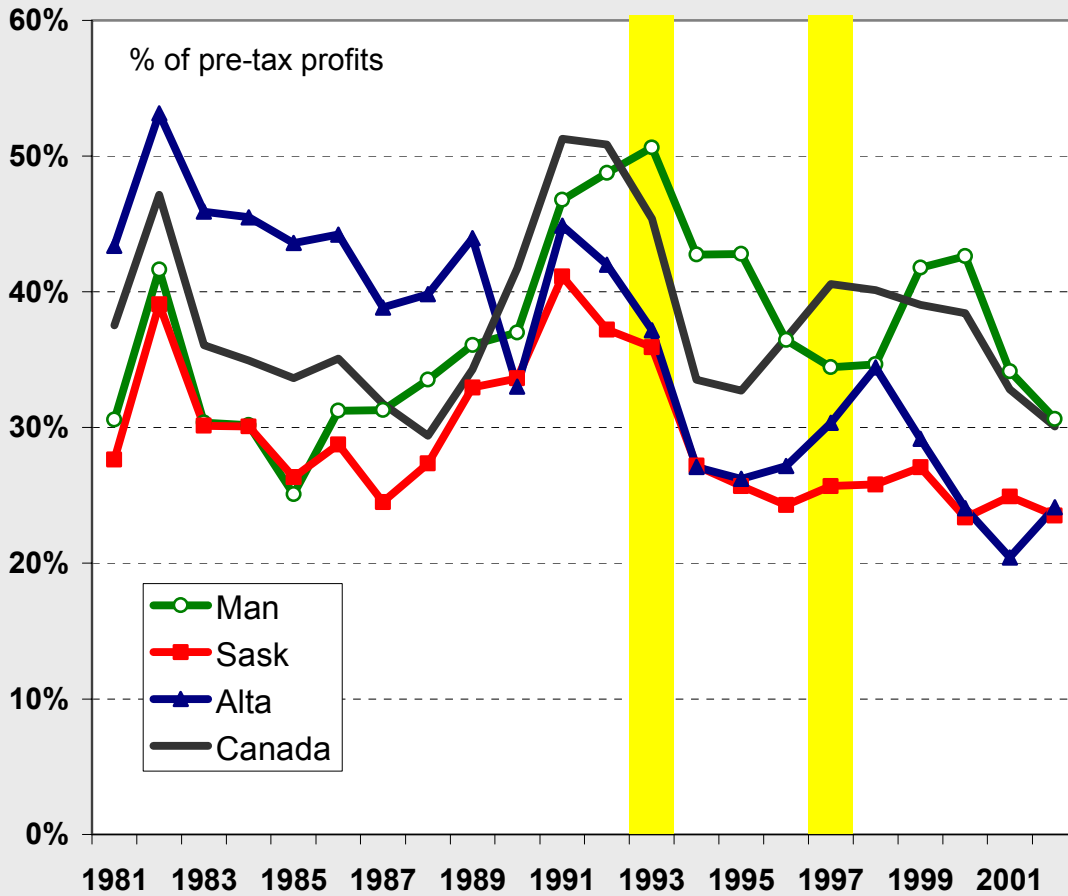
Trends in Business Capital Investment Relative to Pre-Tax Corporate Profits



- The relatively low level of capital investment relative to profits is also common across Canada.
- Saskatchewan and Ontario have had the lowest ratios in the past four years, Manitoba the highest. But all are well below the levels in the 1980s and 1990s.

# Corporate Taxation - Prairie Province Trends

**Trends in Corporate Taxation (Direct taxes + Capital taxes) as a Percentage of Pre-Tax Corporate Profits**



- These figures represent the effective taxation rate - the direct (income) taxes plus corporate capital taxes divided by pre-tax corporate profits.
- As a proportion of pre-tax profits, taxation of corporations in Saskatchewan has been consistently below the national average.
- Since 1990, both Alberta and Saskatchewan have shown declines in the effective tax rate.

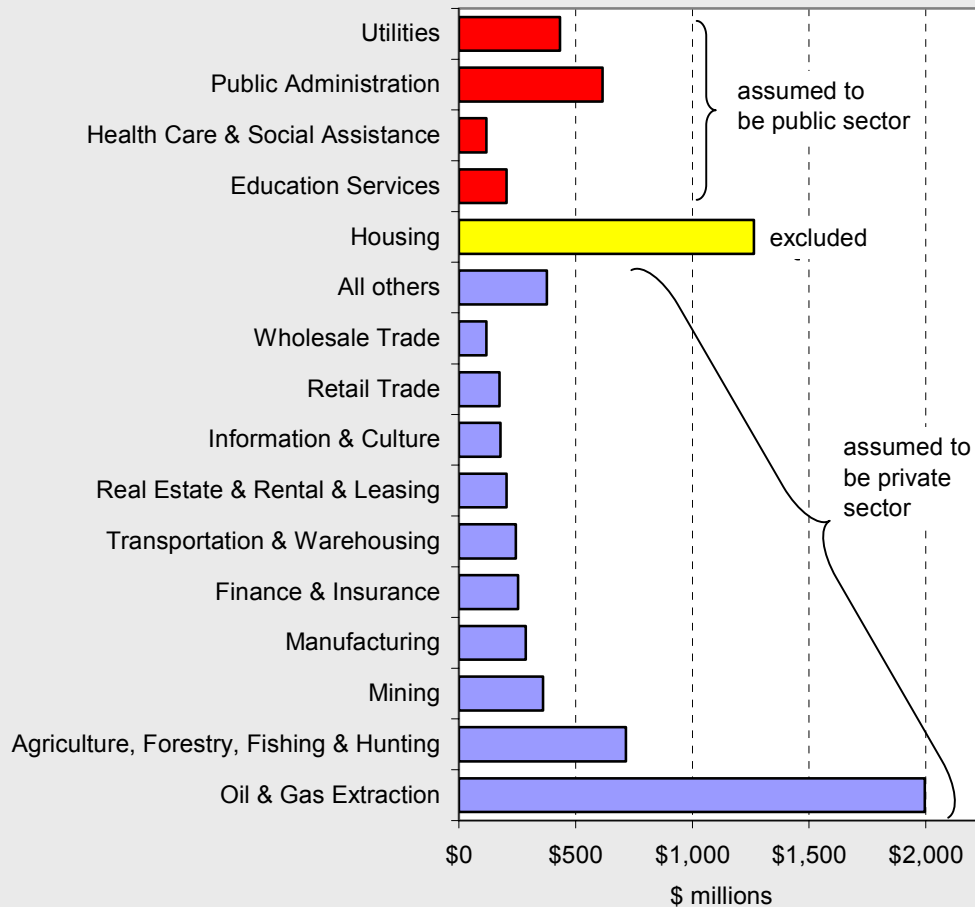
## Summary

- Saskatchewan's pattern of capital investment in the last twenty years is not dissimilar to the patterns in other provinces and even other countries.
- Notwithstanding the similarity, the recent decline in capital investment is more pronounced in Saskatchewan than in other provinces.

# Industry Breakdown

# Notes on Data Sources - Capital Investment Survey

**New Capital Investment by Sector, 2004, Saskatchewan**

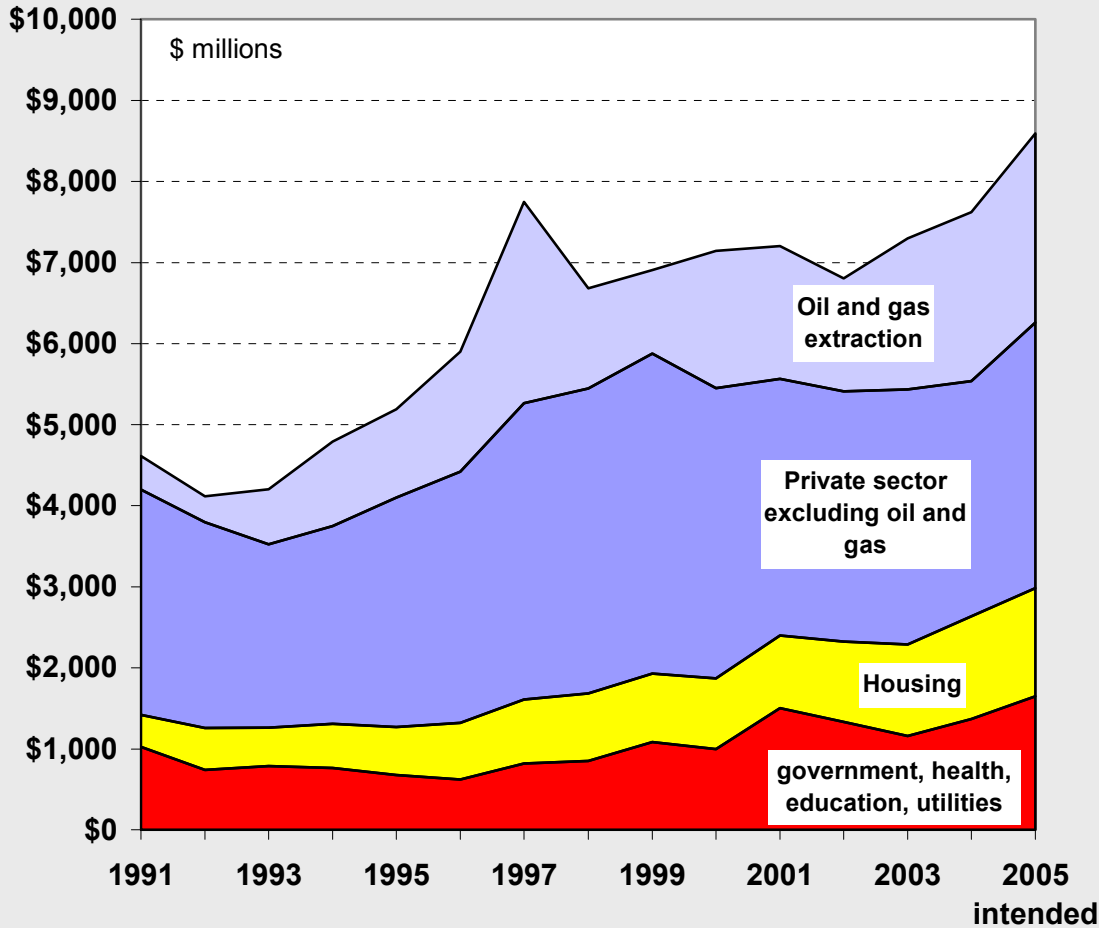


- Using the capital investment survey conducted by Statistics Canada, changes in new capital investment can be examined by industry group. These figures exclude investment in repair and renovation.
- The survey does not separate the private and public sectors. As a proxy for private sector investment, four industry groups were removed in the analysis that follows:
  - health and social services;
  - education services;
  - public administration; and
  - utilities.

This is in spite of the fact that these groups may have some private sector investment and there is public sector investment in the remaining industries. Residential housing was also removed in the analysis that follows.
- Total public sector investment in 2004 was estimated at \$1,528 million; total private sector investment was \$6,006 million. Removing the four sectors and housing leads to total private sector investment of \$4,901 million.

# Overview - Trends in Capital Investment

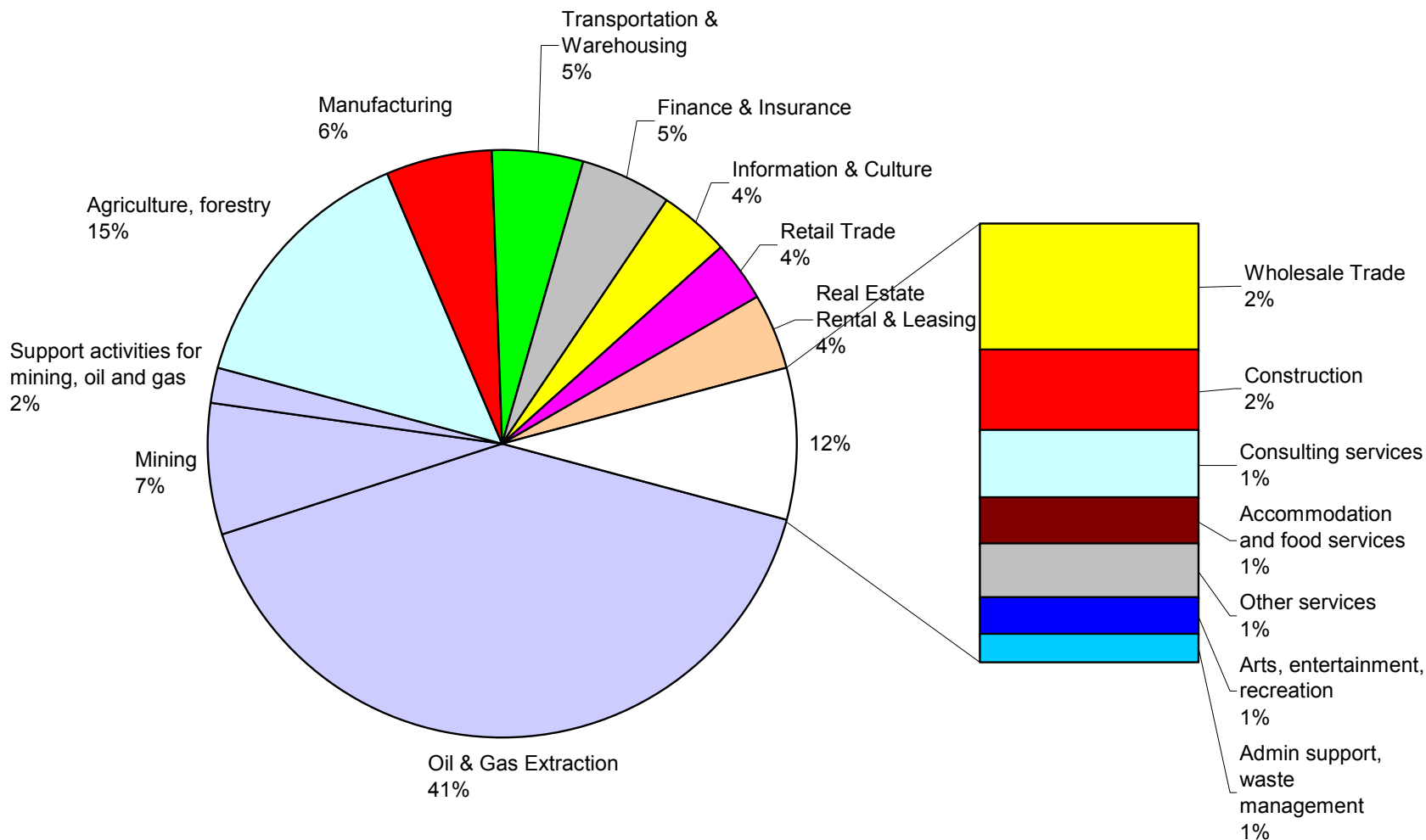
## New Capital Investment, Saskatchewan



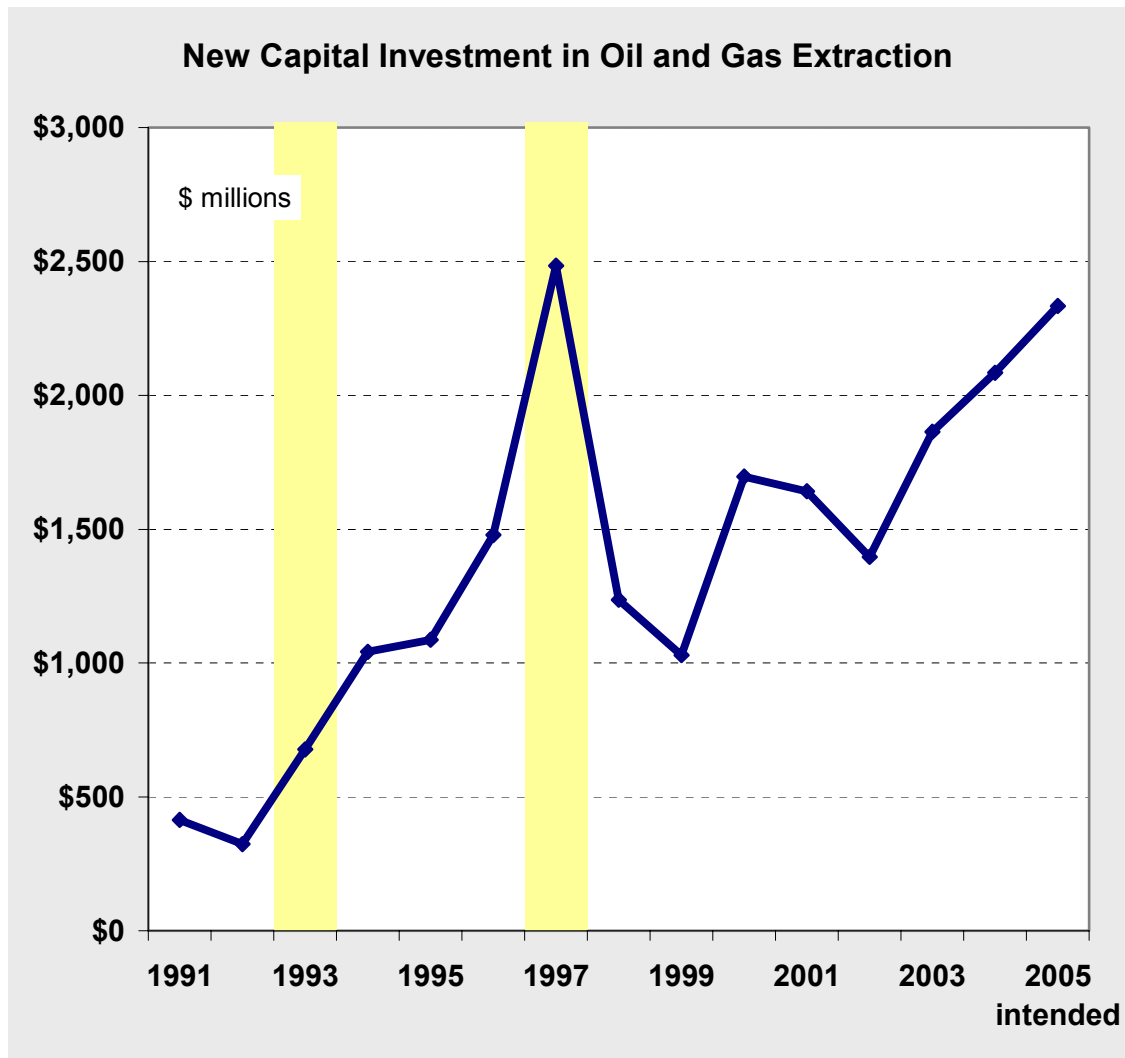
- This figure shows how the sectors on the previous page have changed since 1991.
- The growth in investment from 1993 to 1997 was occurring throughout the private sector but the spike in 1997 was because of a sharp increase in the energy sector that year.
- Since 1999, private sector investment has declined in the general part of the economy and increased in the oil patch. Investment in the housing market and by the public sector has increased.

# Share of Private Sector Investment, 2004

New Private Sector Capital Investment in 2004, Saskatchewan (Total = \$4.9 billion)



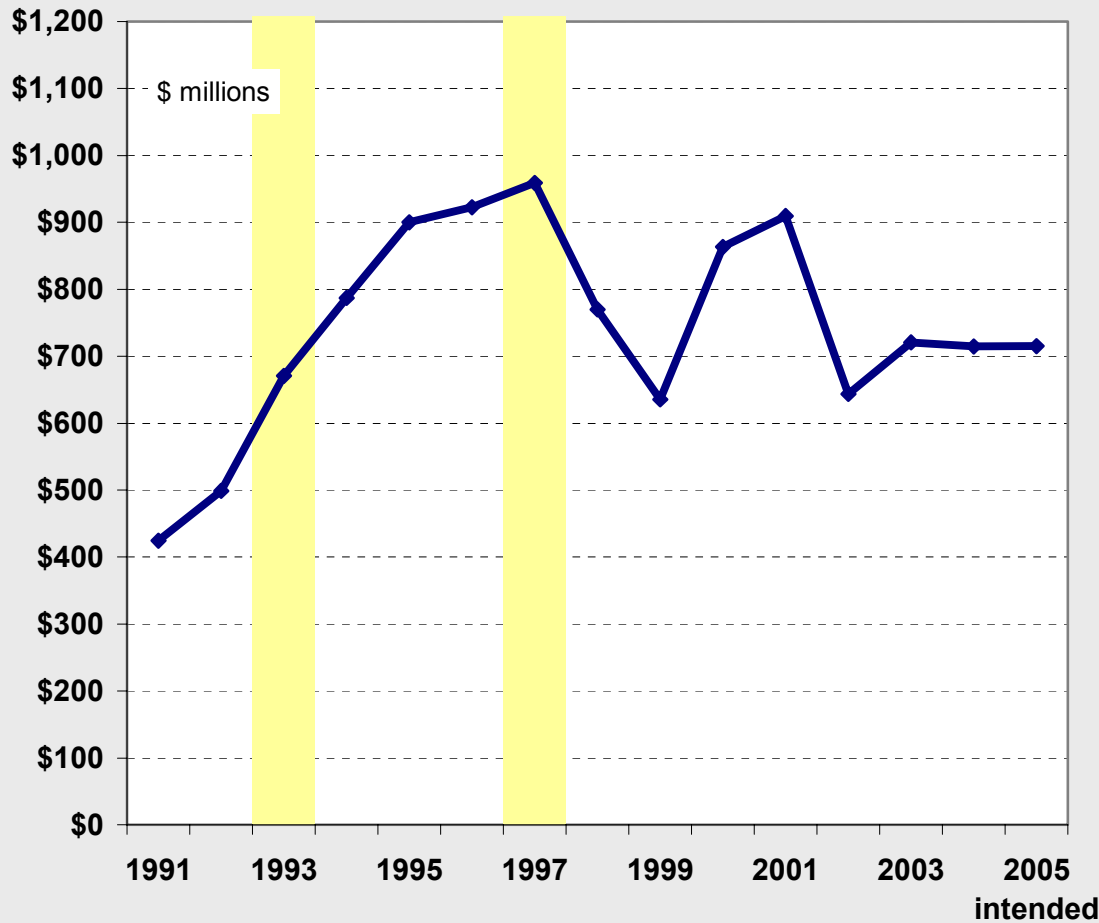
# Trends in New Private Sector Capital Investment - Oil and Gas Extraction



- Capital investment in the oil and gas sector is the largest among the industry groups, accounting for 38% of private sector investment since 2001.
- The sector includes oil and gas exploration and production and contract drilling for oil and natural gas. Support activities are also included. (Oil refineries are classified as manufacturing establishments)
- After falling from the peak in 1997 to \$1 billion in 1999, investment in oil and gas extraction has been on an upward trend.

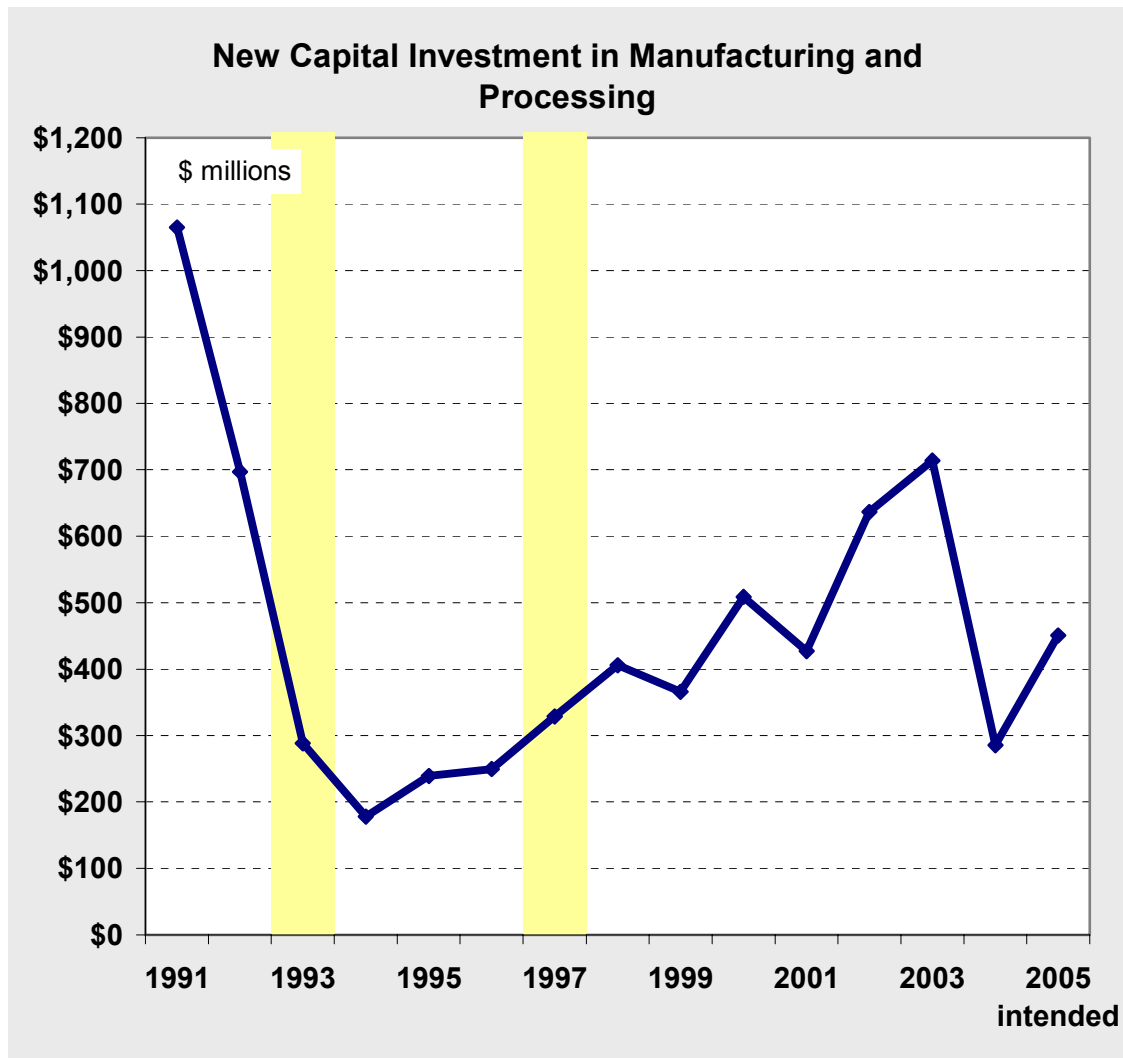
# Trends in New Private Sector Capital Investment - Agriculture and Forestry

New Capital Investment in Agriculture and Forestry



- Capital investment in the agriculture and forestry sector is the second largest among the industry groups, accounting for 15% of private sector investment since 2001.
- The sector includes primary agriculture only, that is, grain and cattle farming, market gardens, intensive livestock operations, and services related to agriculture such as crop spraying, custom harvesters, seed cleaning, and animal breeding services. Logging and forestry, commercial and sustenance fishing and trapping are included in this category. Note that the logging industry only measures activity in the forest (including silviculture), and doesn't include processing activities.
- After increasing from \$400 million to nearly \$1 billion in 1997, capital investment has been effectively constant since the late 1990s.

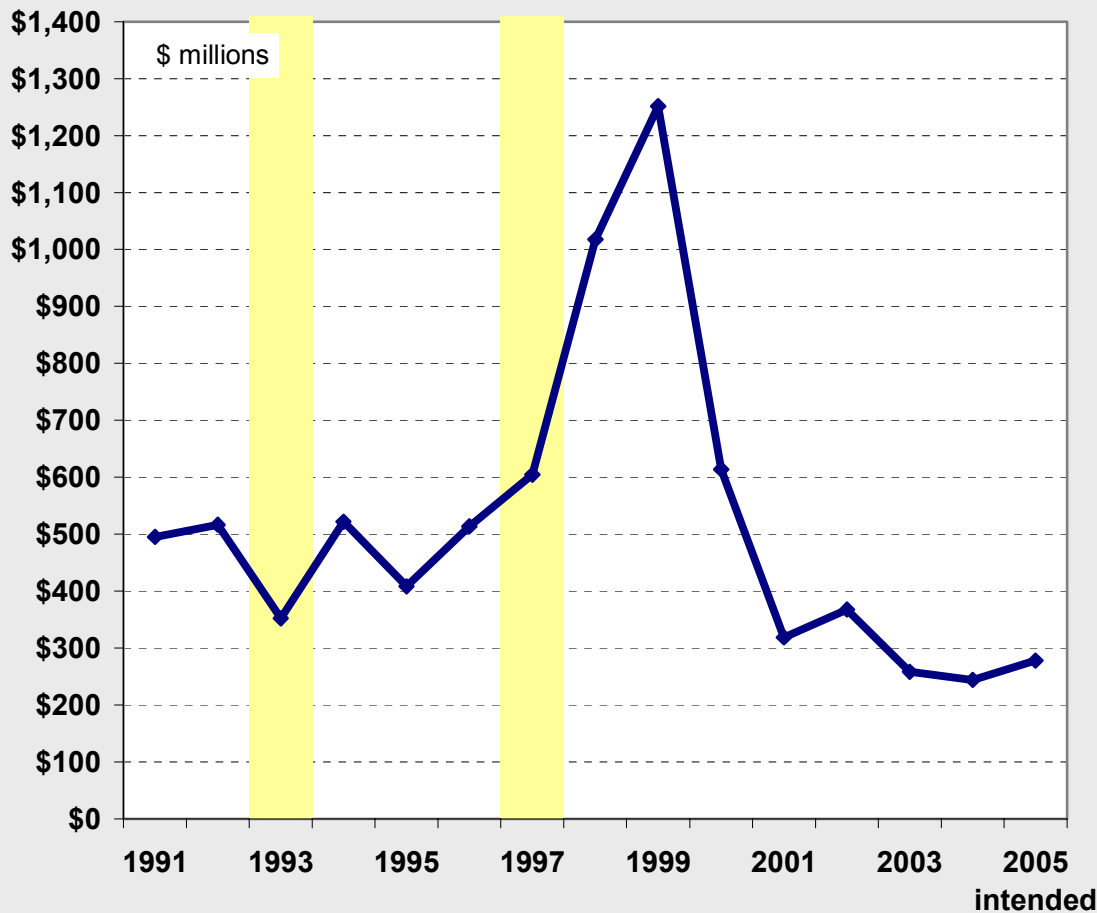
# Trends in New Private Sector Capital Investment - Manufacturing/Processing



- Capital investment in the manufacturing and processing sector is the third largest among the industry groups, accounting for 10% of private sector investment since 2001.
- In Saskatchewan, this category includes traditional manufacturing activities as well as food processing (meat processing plants and grain milling). Oil refineries are also considered as manufacturing establishments.
- New capital investment was high in the 1980s as the oil upgraders, Saskferco, and the paper and pulp mills were built.
- After falling to a low of less than \$200 million in 1994, investment increased to \$700 million in 2003. Preliminary estimates show a sharp drop since then.

# Trends in New Private Sector Investment - Transportation/Warehousing

**New Capital Investment in Transportation and Warehousing**

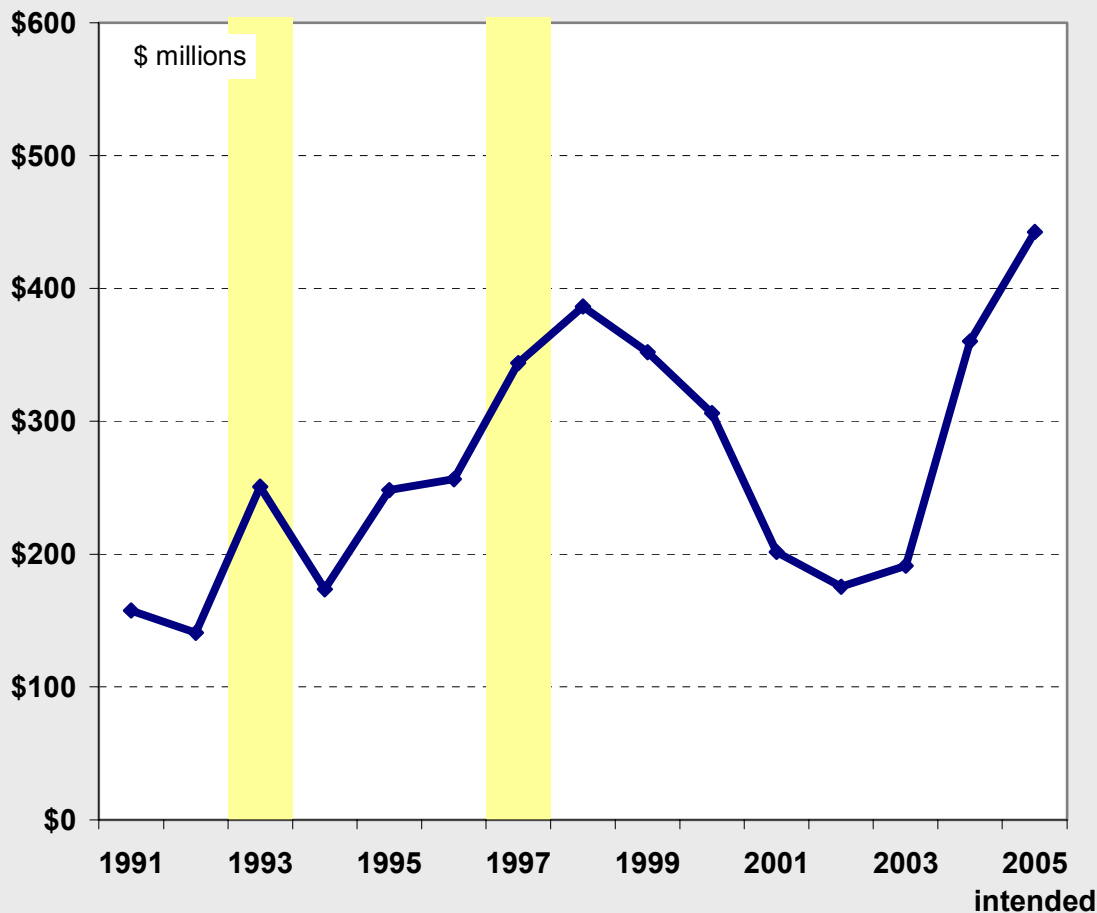


- Capital investment in transportation and warehousing sector accounted for 6% of private sector investment since 2001.
- Establishments in this category transport people or goods by rail, air, or road. Included are trucking companies, the post office, courier services, pipelines, grain terminals\*, airlines, taxis, and bus services.
- The peak in 1998 and 1999 was an effect of the construction of the Alliance Pipeline together with the surge in construction of inland grain terminals.\*

[\* The Saskatchewan Wheat Pool will be classified as a wholesale establishment on the basis of their revenues sources so SWP terminals will not be included here.]

## Trends in New Private Sector Capital Investment - Mining

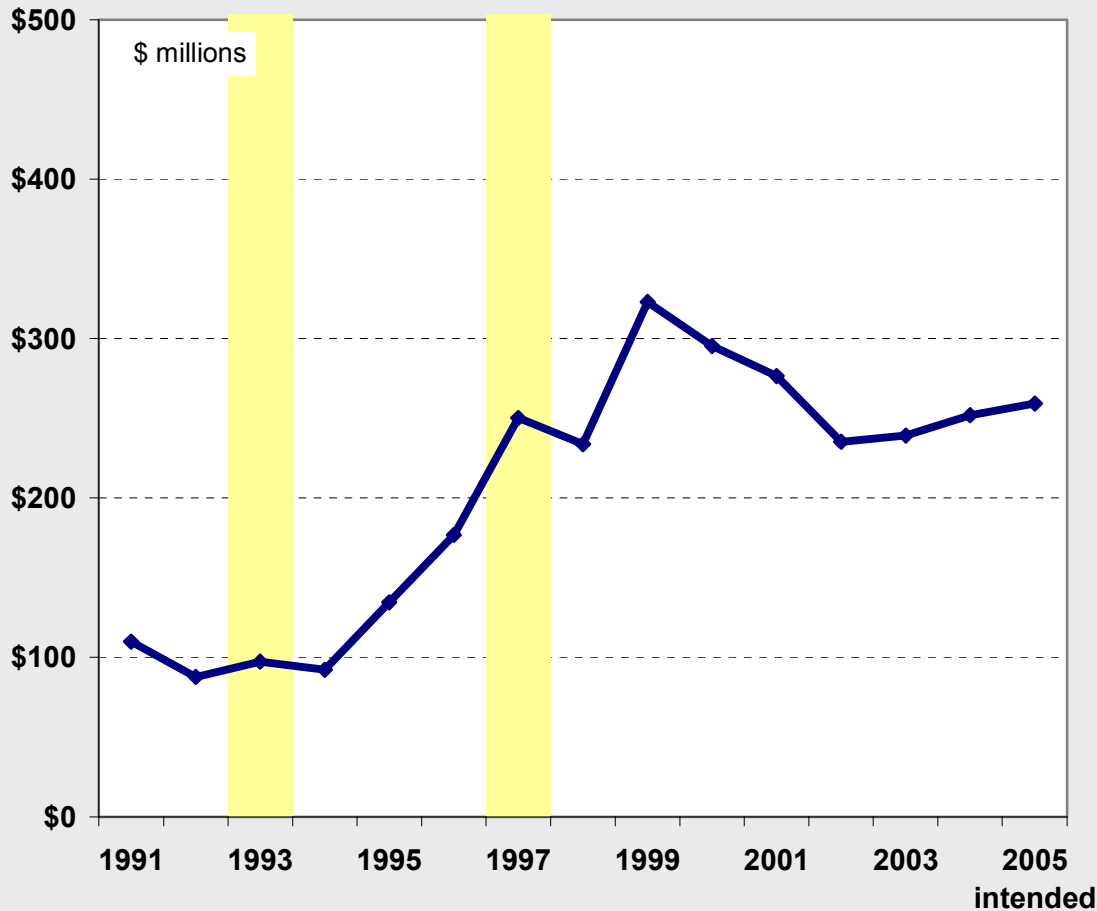
New Capital Investment in Mining



- Capital investment in the mining sector accounted for 6% of private sector investment since 2001.
- The sector includes both above and below ground mining activities including exploration. In Saskatchewan, the sector is dominated by uranium, potash, and coal mining.
- Capital investment increased from 1991 to 1998 before falling back to less than \$200 million in the early part of the decade. There was a sharp increase in 2004 that has continued into 2005.

## Trends in New Private Sector Capital Investment - Finance and Insurance

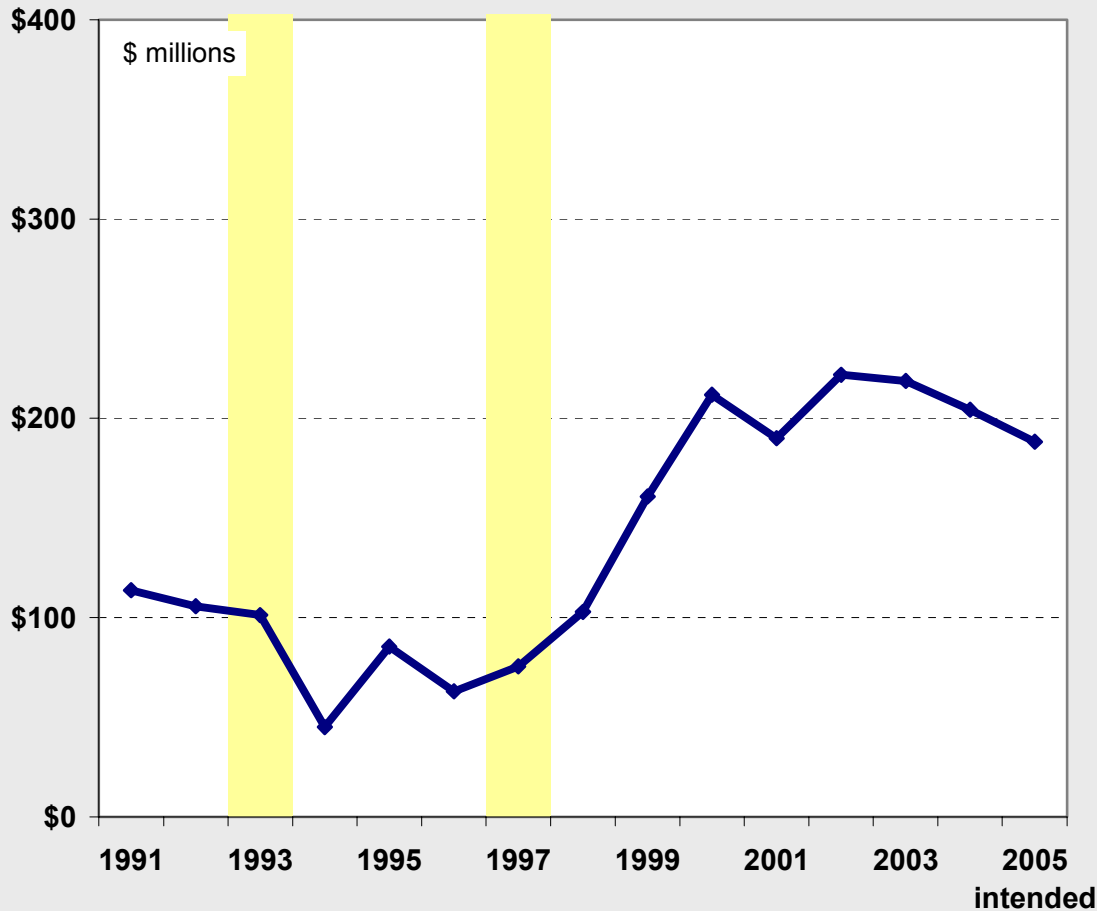
New Capital Investment in Finance and Insurance



- Capital investment in finance and real estate sector accounted for 5% of private sector investment since 2001.
- This category includes both deposit-taking financial institutions such as banks and credit unions as well as financial management firms. Insurance companies and insurance agencies are also included. Much of the capital investment in this sector will be for machinery and equipment rather than structures.
- The run-up to Y2K resulted in an increase in capital investment that peaked in 1999. Since then, capital investment has been effectively constant.

## Trends in New Private Sector Capital Investment - Real Estate/Leasing

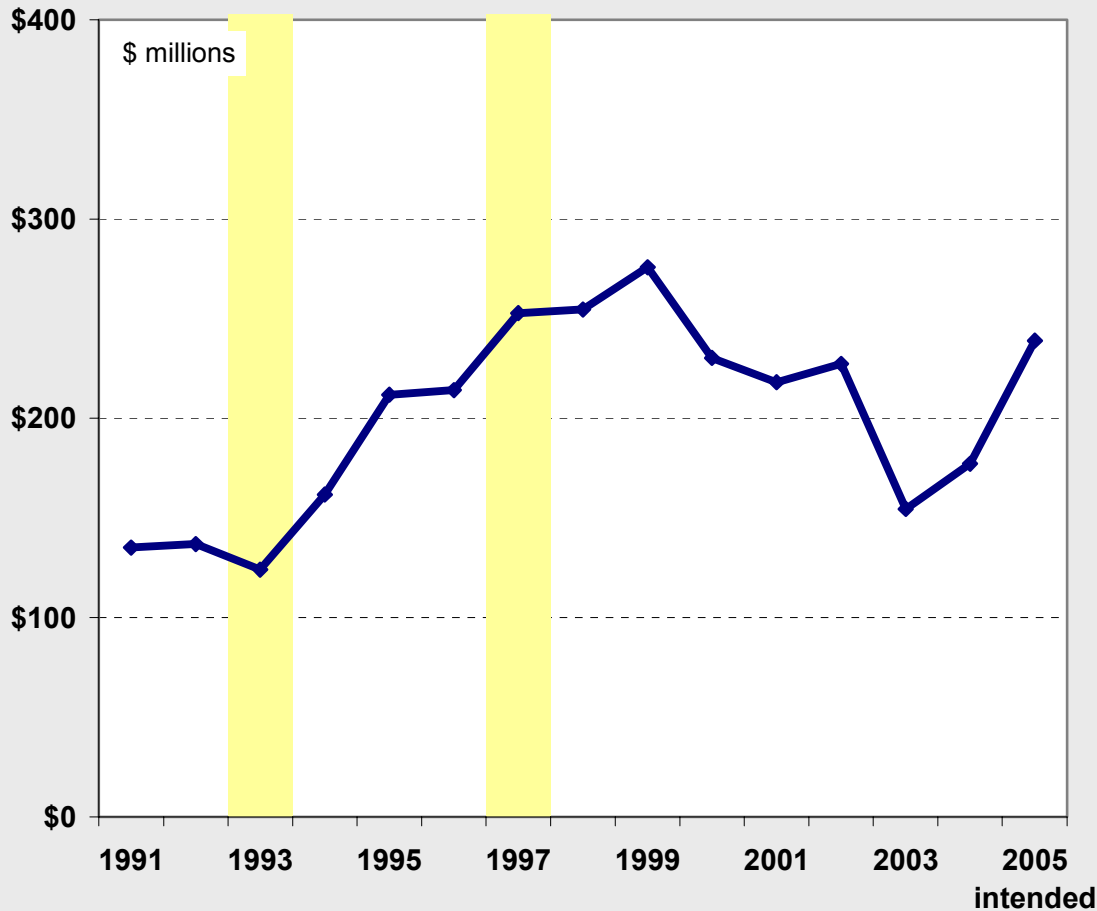
New Capital Investment in Real Estate and Leasing



- Capital investment in this sector accounted for 4% of private sector investment since 2001.
- This category is dominated by real estate agents although it also includes establishments that rent or lease equipment or vehicles.
- Capital investment increased from the early 1990s to the late 1990s and has stabilized since then.

## Trends in New Private Sector Capital Investment - Information/Culture

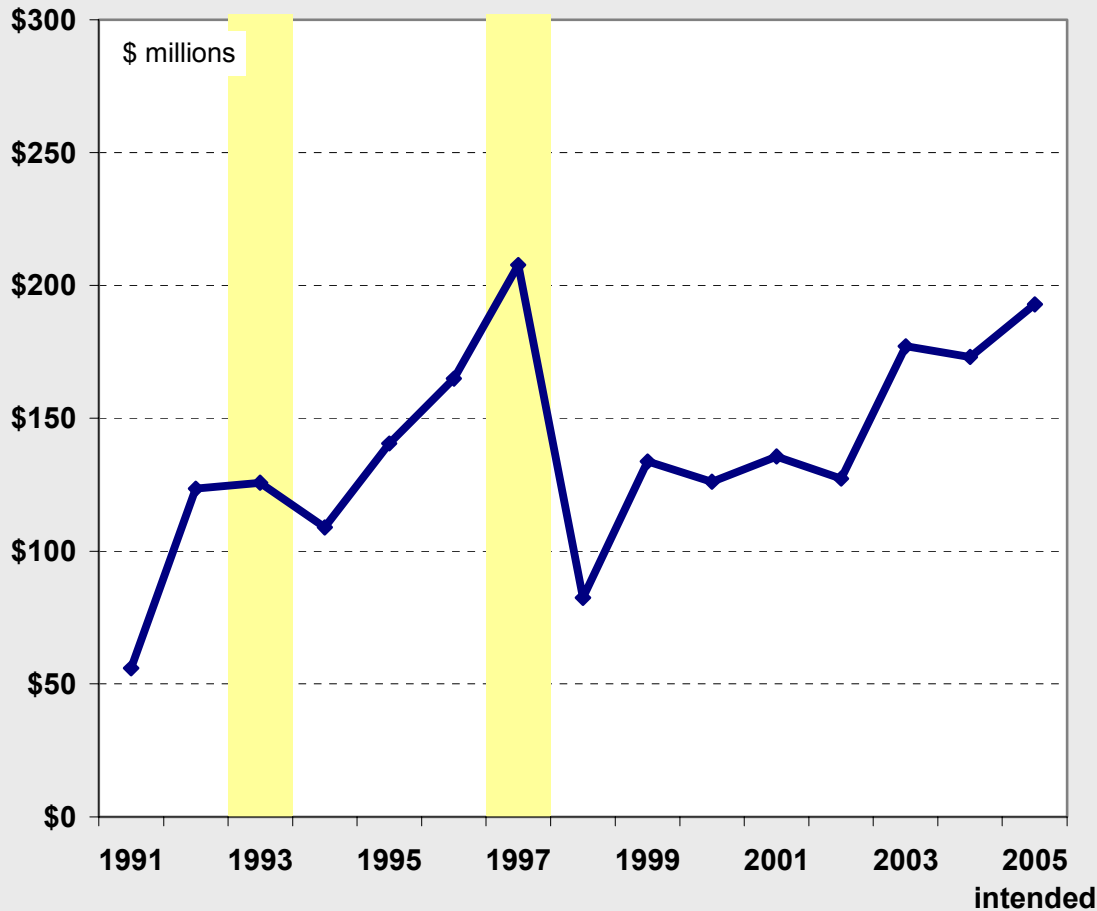
New Capital Investment in Information and Culture



- Capital investment in this sector accounted for 4% of private sector investment since 2001.
- This category includes information technology service providers and telecommunications companies as well as the traditional media. In Saskatchewan this sector will be dominated by SaskTel and so only part of the capital investment can be considered as “private sector”.
- Capital investment has averaged approximately \$200 million for the past 14 years with an upward trend early in the period.

## Trends in New Private Sector Capital Investment - Retail Trade

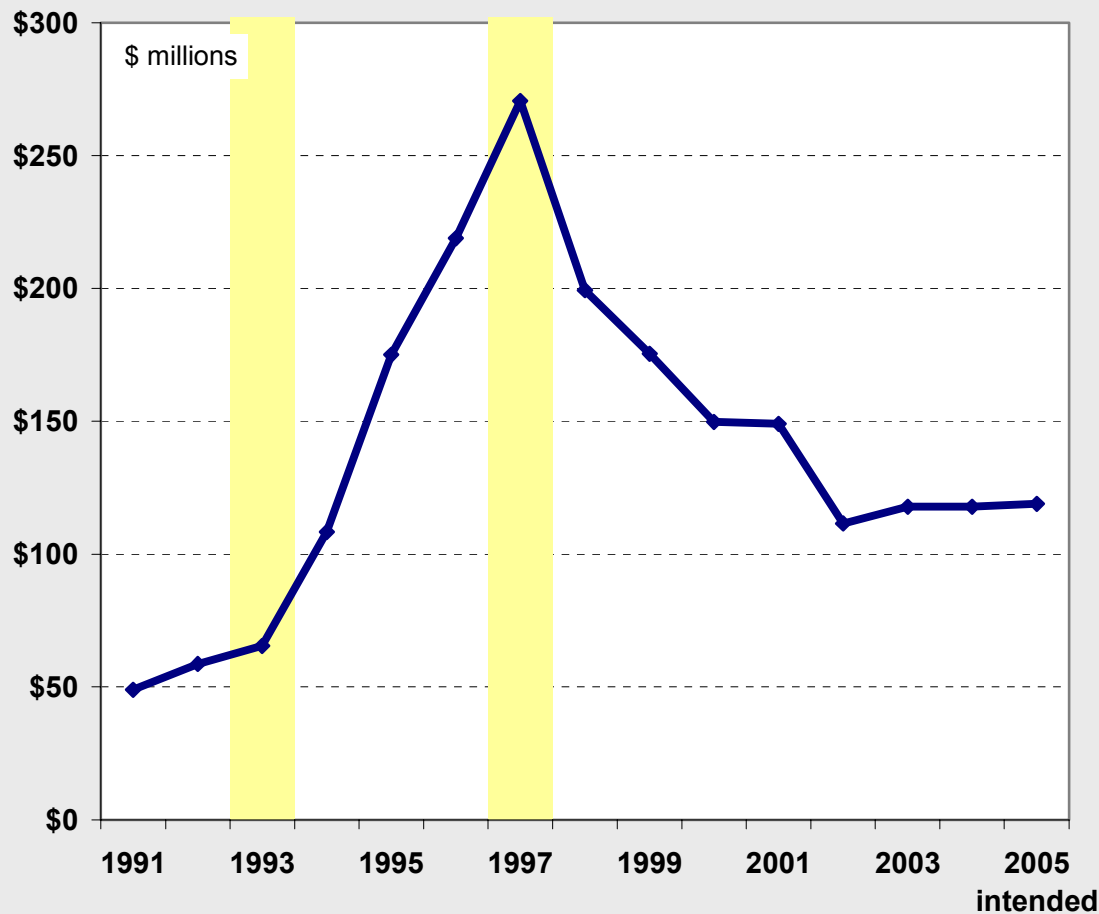
New Capital Investment in Retail Trade



- Capital investment in this sector accounted for 3% of private sector investment since 2001.
- The retail category includes establishments that sell merchandise (not services) to the general public. Non-store retailers such as vending machine operators are included as well.
- Capital investment increased from \$50 to \$200 million between 1991 and 1997. After falling off in 1998, it has grown steadily since then. Much of this will be the construction of new “big box” retail facilities.

# Trends in New Private Sector Capital Investment - Wholesale Trade

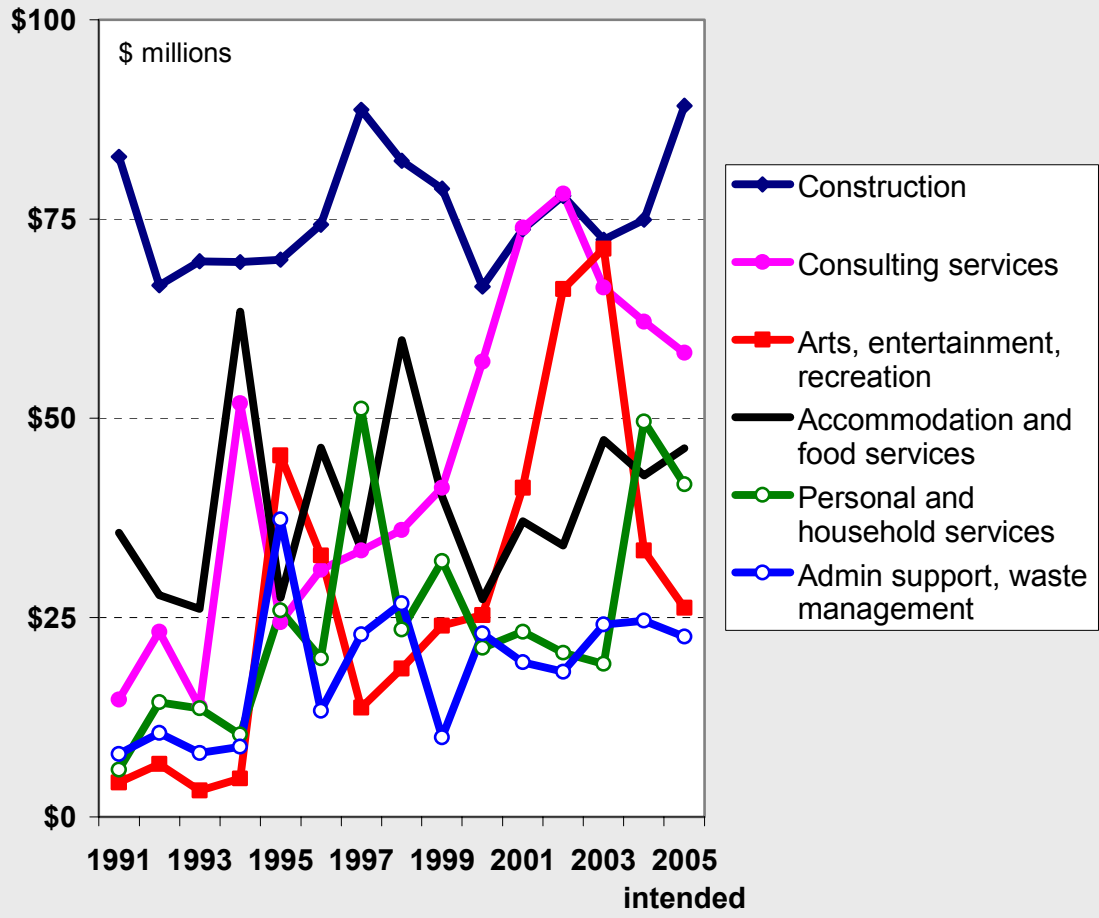
New Capital Investment in Wholesale Trade



- Capital investment in this sector accounted for 3% of private sector investment since 2001.
- The wholesaling process is generally an intermediate step in the distribution of merchandise; many wholesalers are therefore organized to sell merchandise in large quantities to retailers, businesses, and institutional customers. Some wholesalers, in particular those that supply non-consumer capital goods, sell merchandise in single units to final users. Farm machinery dealers and lumber yards are considered as wholesale establishments.
- The sharp rise in the 1993 to 1997 period may be partly the result of the Saskatchewan Wheat Pool's investment in inland grain terminals. SWP will be classified as a wholesale establishment on the basis of its revenue.

# Trends in New Private Sector Capital Investment - Other Small Sectors

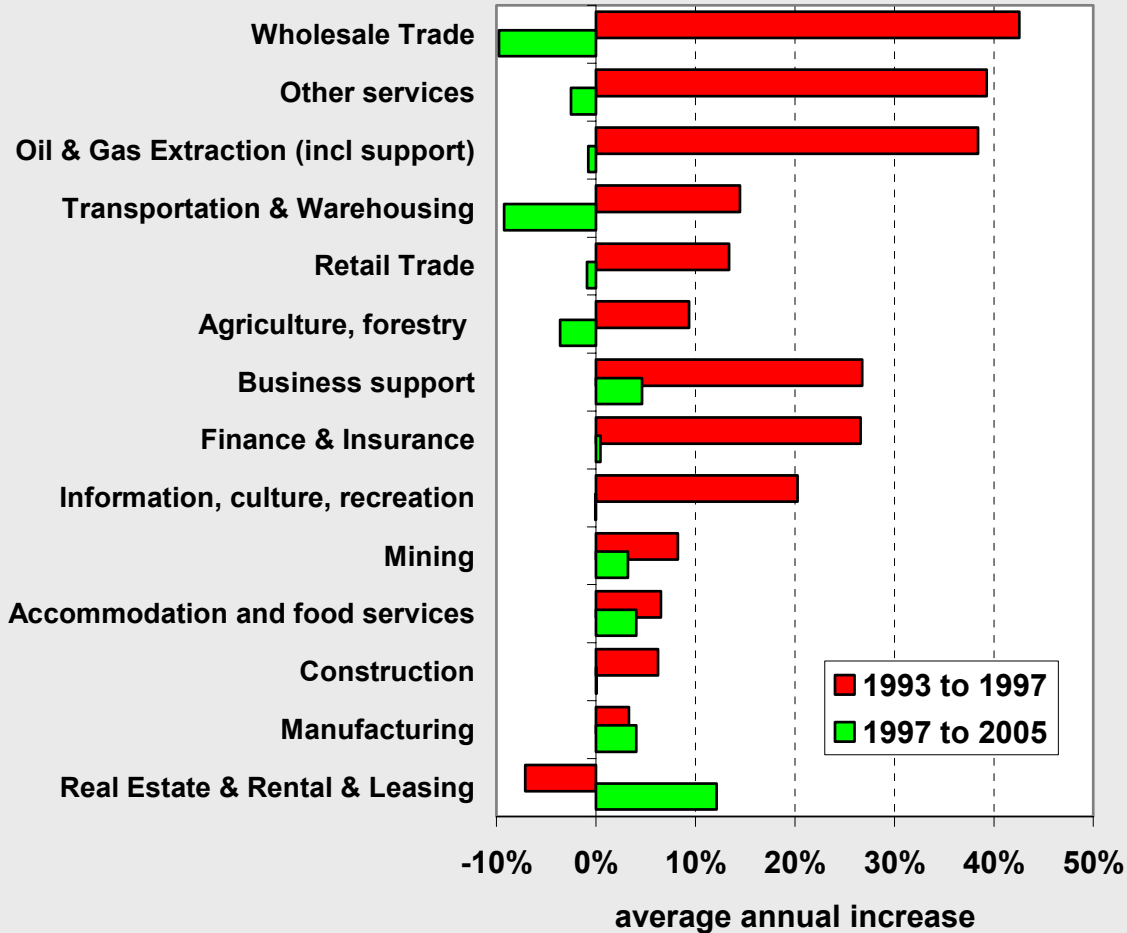
New Capital Investment in Small Sectors



- In aggregate these six sectors accounted for 6% of private sector investment since 2001.
- None have exceeded \$100 million in new capital investment since 1990s.

## Growth by Sector - Summary

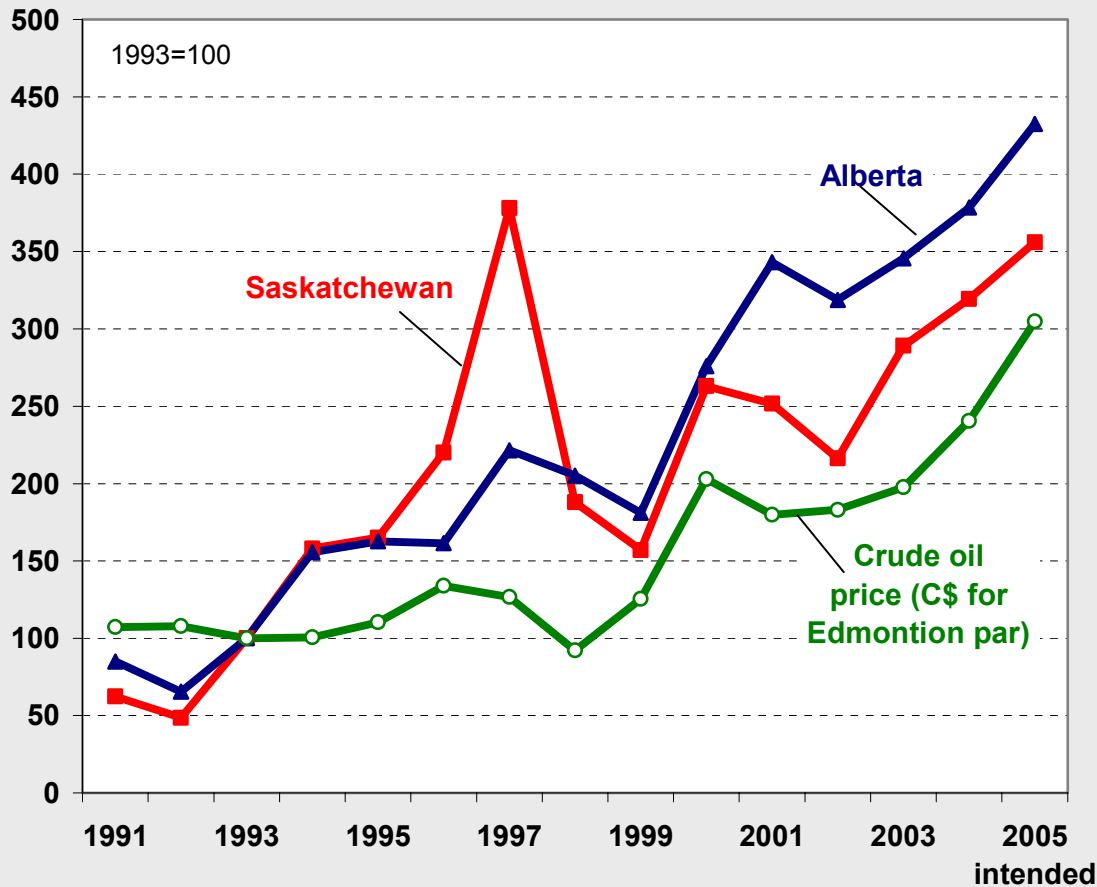
### Trends in New Capital Investment



- The growth in capital investment between 1993 and 1997 was broadly based with all but one of the fourteen sectors showing growth and eight showing average annual increases greater than 10%.
- Similarly, the decline since 1997 has occurred in most sectors with all but two showing slower growth and one half showing declines.
- The manufacturing and real estate sectors are exceptions to this pattern.

# New Capital Investment in Oil and Gas Extraction

Capital Investment in Oil and Gas Extraction



- Oil and gas extraction accounts for nearly 40% of capital investment in Saskatchewan and therefore determines much of the pattern for the province as a whole.
- Capital investment in Alberta's oil and gas sector dwarfs the amount invested in Saskatchewan. In 2004, for example, new capital investment totaled \$21 billion compared with \$2 billion in Saskatchewan, \$3 billion in B.C., and less than \$1 billion in Nova Scotia.
- Nevertheless, the chart shows that Saskatchewan's capital investment in this sector has kept pace with Alberta's. The 1997 spike in Saskatchewan is an anomaly with respect to both the pattern of capital investment in Alberta and the market price of crude oil.

# **The KPMG Study**

The 2004 edition of the Competitive Alternatives study

# Site Location Factors

	Cost Factors	Other Key Factors
Business	<b>Business Costs</b> <ul style="list-style-type: none"> <li>land/building/office</li> <li>labour costs</li> <li>transportation and distribution</li> <li>utilities</li> <li>financing</li> <li>taxes</li> </ul>	<b>Business Environment</b> <ul style="list-style-type: none"> <li>labour availability and skills</li> <li>access to markets and suppliers</li> <li>transportation infrastructure</li> <li>utility reliability</li> <li>suitable land sites</li> <li>regulatory environment</li> </ul>
Personal	<b>Cost of living</b> <ul style="list-style-type: none"> <li>personal taxes</li> <li>cost of housing</li> <li>cost of consumer products</li> <li>health care costs</li> <li>education costs</li> </ul>	<b>Quality of life</b> <ul style="list-style-type: none"> <li>crime rates</li> <li>health care facilities</li> <li>schools and universities</li> <li>climate</li> <li>culture and recreation</li> </ul>

- Business costs are one of the factors that influence a decision on where to locate a facility.
- The study's authors suggest that the first step in a site location decision is a high level analysis of business costs. Further analysis of the other three components of the matrix can occur after a "short list" of sites is obtained by looking at business costs.
- The study looks at business costs in 27 categories across 121 cities in 11 countries using 17 representative industry and business operations.

## Industries Examined in the Report

### Manufacturing

Aerospace  
Agri-food  
Automotive  
Chemicals  
Electronics  
Medical devices  
Metal components  
Pharmaceuticals  
Plastics  
Precision manufacturing  
Telecommunications

### Representative Industry

Aircraft parts  
Food processing  
Auto parts  
Specialty chemicals  
Electronics assembly  
Medical device manufacturing  
Metal machining  
Pharmaceutical products  
Plastic products  
Precision components  
Telecom equipment  
  
Biomedical R&D  
Clinical trials management  
Electronic systems development/testing

### Research and Development

Biotechnology  
Clinical trials  
Product testing

### Software

Software design  
Web and multimedia

### Corporate Services

Back office/call centers

Advanced software  
Content development

Shared services center

- The industries chosen are those that are relatively mobile. Manufacturing dominates.
- Much of the resource industry, for example, has limited flexibility in the choice of location. The same is true for agriculture and transportation.
- The industries covered by the study represent less than 10% of current capital investment in Saskatchewan.

## Cost Categories Examined in the Report

### Labour costs

- Salaries and wages
- Statutory plans
- Employer-sponsored benefits

### Facility costs

- Industrial land
- Industrial construction
- Office leasing

### Transportation costs

- Road freight
- Air freight
- Sea freight

### Utility costs

- Electricity
- Telecommunications
- Natural gas

### Depreciation Charges

### Financing costs (interest rate)

### Taxes other than Income Taxes

- Capital
- Property
- Sales and Transactions
- Land transfer
- Other

### Income taxes

- Federal
- Regional (state, provincial)
- Local

- Wages and salaries were examined for 22 representative occupations. Statutory benefits included workers' compensation, government pensions, unemployment insurance and medical plans. Employer-sponsored benefits included holidays, vacations, private health insurance and other discretionary benefits.
- According to the report, other cost factors such as input costs and major equipment purchases tend to be governed by world market prices and are therefore not "location-sensitive".
- All of the figures are expressed in US dollars.

## Sample of the Methodology: Food Processing Plant

### Assumptions for Food Processing Operation

#### Facility Requirements

Size of industrial site	5	acres
Size of factory built	50,000	sq ft

#### Initial Investment

Machinery & equipment	\$4,500,000	US\$
Office equipment	\$300,000	US\$
Inventory	\$1,500,000	US\$
Equity financing	33%	

#### Workforce

Management	6	
Sales and administration	12	
Production		
Professional/technical	7	
Operators	65	
Unskilled	17	
Other	<u>3</u>	
	110	

#### Annual Operating Statistics

Monthly electricity	370,000	KWH
Monthly natural gas	40,000	CCF
Sales at full production	\$28,000,000	US\$
Materials and direct costs	55%	% of sales
Other operating costs	7%	% of sales

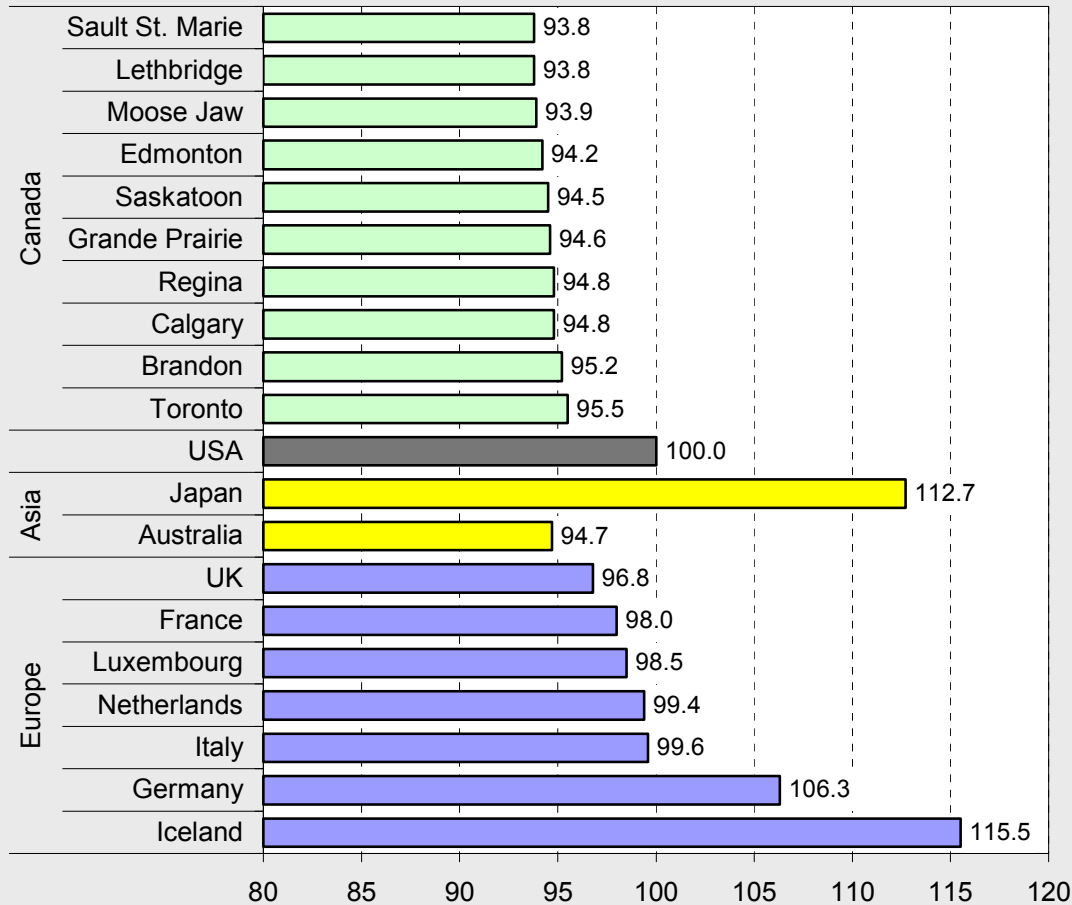
- Each of the industries has a profile used to represent it in the model.
- The “typical” agri-food industry chosen in the report is a relatively small food processing operation.
- The initial capital investment is US\$6.3 million with annual sales of US\$28 million and 110 employees.
- The new Maple Leaf hog processing plant in Saskatoon, for example, was announced as a \$110 million facility on 35 acres with employment of 300. The representative facility may be similar to the Natural Valley Farms processing plant in Wolseley rather than a larger operation.

# Food Processing Plant Sample - Detail (\$000 US)

	Lethbridge	Sault St. Marie	Moose Jaw	Edmonton	Saskatoon	Grande Prairie	Calgary	Regina	Brandon	Toronto
<b>Initial Investment</b>										
Land	\$338	\$170	\$376	\$694	\$376	\$413	\$844	\$328	\$189	\$1,617
Buildings	\$2,063	\$2,814	\$1,951	\$1,970	\$1,876	\$2,438	\$1,924	\$2,026	\$2,251	\$1,876
Cash	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100
Inventory	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Fixed assets	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>
	\$8,801	\$9,384	\$8,727	\$9,064	\$8,652	\$9,251	\$9,168	\$8,754	\$8,840	\$9,893
<b>Initial Financing</b>										
Debt	\$5,868	\$6,256	\$5,818	\$6,043	\$5,768	\$6,168	\$6,112	\$5,836	\$5,894	\$6,596
Equity	<u>\$2,933</u>	<u>\$3,128</u>	<u>\$2,909</u>	<u>\$3,021</u>	<u>\$2,884</u>	<u>\$3,083</u>	<u>\$3,056</u>	<u>\$2,918</u>	<u>\$2,946</u>	<u>\$3,297</u>
	\$8,801	\$9,384	\$8,727	\$9,064	\$8,652	\$9,251	\$9,168	\$8,754	\$8,840	\$9,893
<b>10-Year Average Profit &amp; Loss</b>										
<b>Sales</b>	\$26,384	\$26,384	\$26,384	\$26,384	\$26,384	\$26,384	\$26,384	\$26,384	\$26,384	\$26,384
<b>Location-sensitive costs</b>										
Salary and wages	\$3,084	\$2,862	\$3,008	\$3,214	\$3,205	\$3,137	\$3,412	\$3,227	\$2,911	\$3,695
Statutory plans	\$330	\$281	\$241	\$342	\$255	\$336	\$360	\$256	\$314	\$357
Other benefits	\$678	\$630	\$662	\$708	\$706	\$690	\$751	\$710	\$640	\$813
Road freight	\$838	\$771	\$1,083	\$823	\$1,058	\$1,073	\$734	\$1,119	\$1,335	\$425
Electricity	\$317	\$223	\$156	\$309	\$156	\$248	\$364	\$156	\$140	\$306
Gas	\$210	\$394	\$280	\$214	\$280	\$214	\$210	\$280	\$271	\$279
Telecommunications	\$19	\$19	\$19	\$18	\$19	\$19	\$18	\$19	\$19	\$18
Interest	\$62	\$79	\$61	\$80	\$72	\$91	\$96	\$80	\$88	\$134
Depreciation	\$738	\$788	\$730	\$732	\$726	\$764	\$728	\$736	\$750	\$726
Income tax, national	\$816	\$824	\$791	\$775	\$739	\$751	\$722	\$713	\$728	\$670
Income tax, regional	\$424	\$452	\$317	\$403	\$293	\$390	\$375	\$280	\$426	\$366
Capital tax, regional	\$0	\$9	\$32	\$0	\$29	\$0	\$0	\$27	\$62	\$9
Sales tax	\$0	\$116	\$127	\$0	\$127	\$0	\$0	\$127	\$177	\$116
Property tax	\$63	\$154	\$100	\$61	\$98	\$75	\$60	\$113	\$94	\$116
Business tax	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$19</u>	<u>\$0</u>	<u>\$0</u>	<u>\$25</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
	\$7,578	\$7,602	\$7,604	\$7,697	\$7,763	\$7,788	\$7,854	\$7,843	\$7,954	\$8,030
<b>Location-insensitive costs</b>										
Materials	\$14,512	\$14,512	\$14,512	\$14,512	\$14,512	\$14,512	\$14,512	\$14,512	\$14,512	\$14,512
Other operating expenses	<u>\$1,847</u>	<u>\$1,847</u>	<u>\$1,847</u>	<u>\$1,847</u>	<u>\$1,847</u>	<u>\$1,847</u>	<u>\$1,847</u>	<u>\$1,847</u>	<u>\$1,847</u>	<u>\$1,847</u>
	\$16,359	\$16,359	\$16,359	\$16,359	\$16,359	\$16,359	\$16,359	\$16,359	\$16,359	\$16,359
<b>Total costs</b>	<b>\$23,937</b>	<b>\$23,961</b>	<b>\$23,963</b>	<b>\$24,056</b>	<b>\$24,122</b>	<b>\$24,147</b>	<b>\$24,213</b>	<b>\$24,202</b>	<b>\$24,313</b>	<b>\$24,389</b>
Net profit after tax	\$2,447	\$2,425	\$2,420	\$2,327	\$2,262	\$2,237	\$2,170	\$2,182	\$2,072	\$1,995
<b>Overall index</b>	<b>93.8</b>	<b>93.8</b>	<b>93.9</b>	<b>94.2</b>	<b>94.5</b>	<b>94.6</b>	<b>94.8</b>	<b>94.8</b>	<b>95.2</b>	<b>95.5</b>

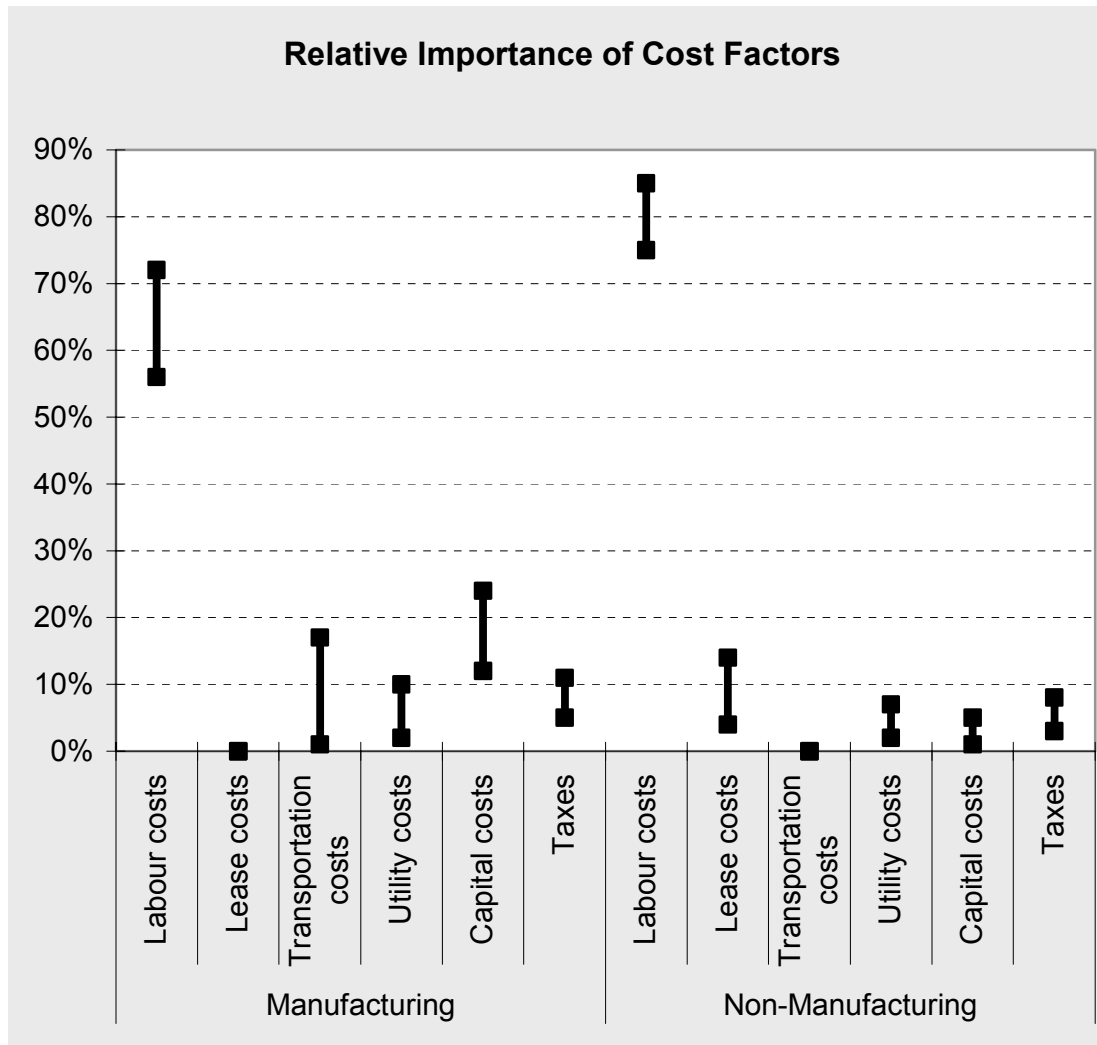
# Results for Food Processing Plant

Food Processing Plant: Location-Sensitive Costs (USA=100)



- Canada and Australia are the low cost centres for this kind of operation.
- Among Canadian cities, there are only marginal differences between high cost areas like Toronto and low cost ones like Sault St. Marie, Moose Jaw, and Lethbridge.
- Labour costs are the main reason for the difference - labour costs represent 50% to 60% of location sensitive costs for the representative plant. Saskatoon has labour costs 14% less than Toronto.
- Taxes represent 15% to 20% of location sensitive costs in Canadian cities.

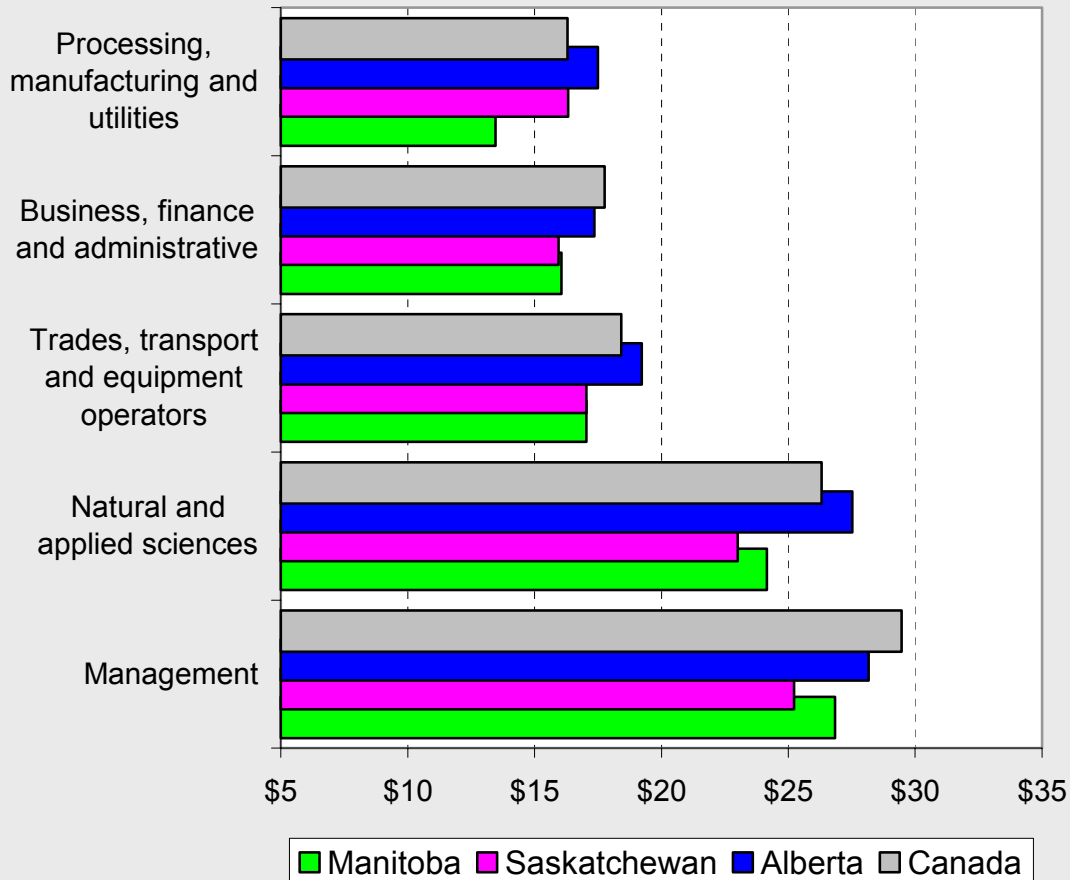
## Relative Importance of Cost Factors - All Representative Industries



- Wages and other labour costs are the most important component of the location-sensitive costs in the KPMG model.
- Wage and benefit costs typically account for two thirds of manufacturing establishments and 80% of the other industries examined.
- Taxes - income, capital, and local - account for 5% to 15% of costs for a manufacturing establishment and 3% to 8% for the other industries examined.
- Canadian cities are typically low in labour costs, utility costs, and transportation costs. They are average in financing costs and taxes.

## Wage Rate Comparisons in 2004

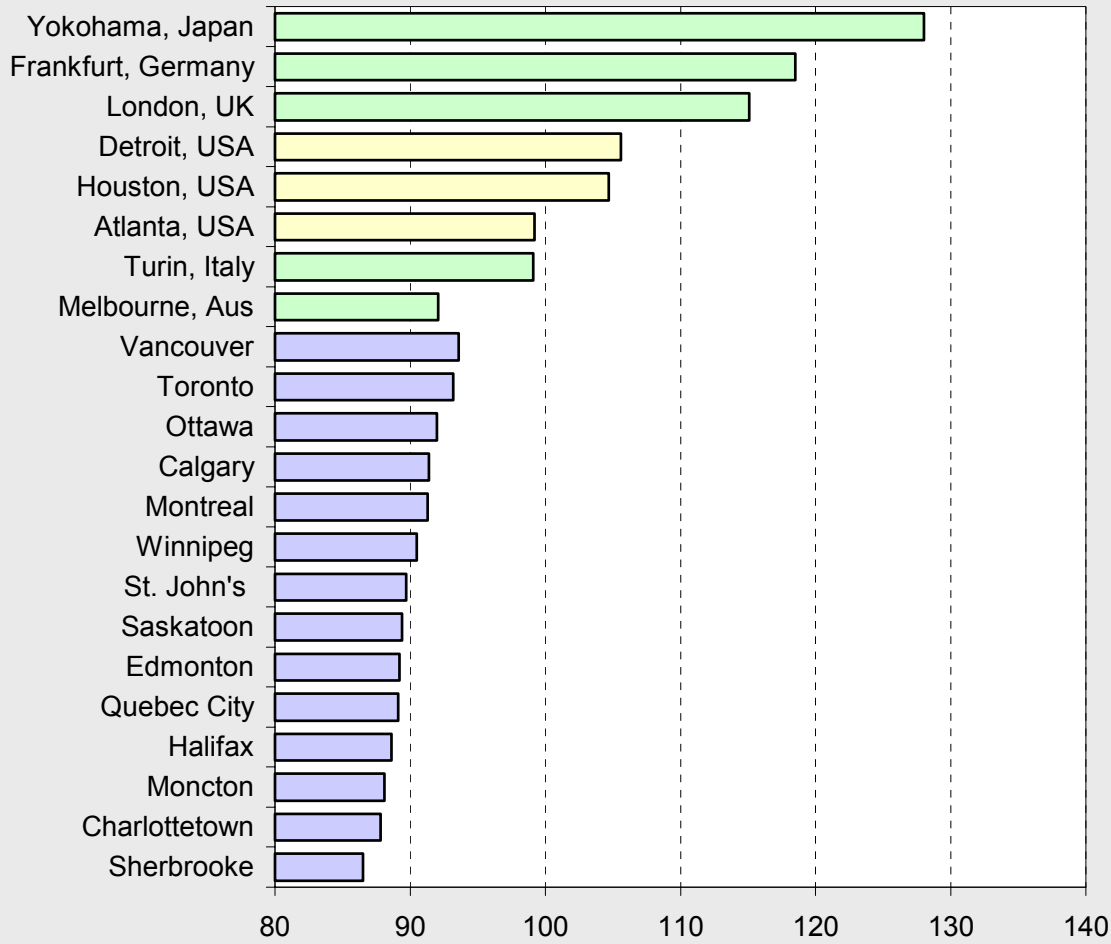
Average Hourly Wage Rates, Selected Occupation Groups, 2004



- Because wage rates are such an important factor in the KPMG cost model, a comparison of wage rates from the Labour Force Survey was examined.
- In occupations related to the industries in the study, Saskatchewan is typically the low cost province except for the Atlantic provinces.
- Benefit costs in Alberta and Manitoba increase the differential with Saskatchewan.

## Overall Results by City - All Industries

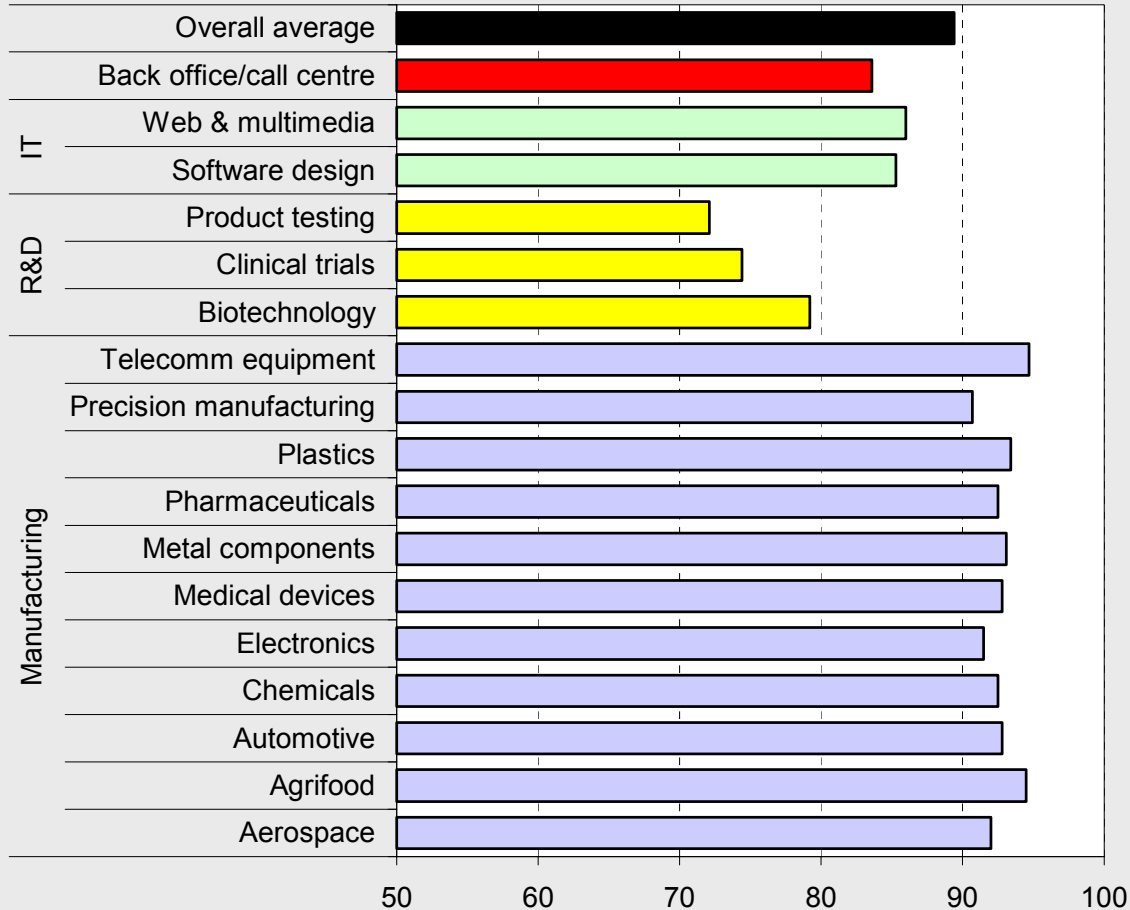
Selected Cities: Location-Sensitive Costs (USA=100)



- Canadian cities in general have lower overall cost factors than those in Europe or the USA.
- Location-sensitive costs in Australia tend to be similar to those in Canada.

## Results by Industry Group for Saskatoon

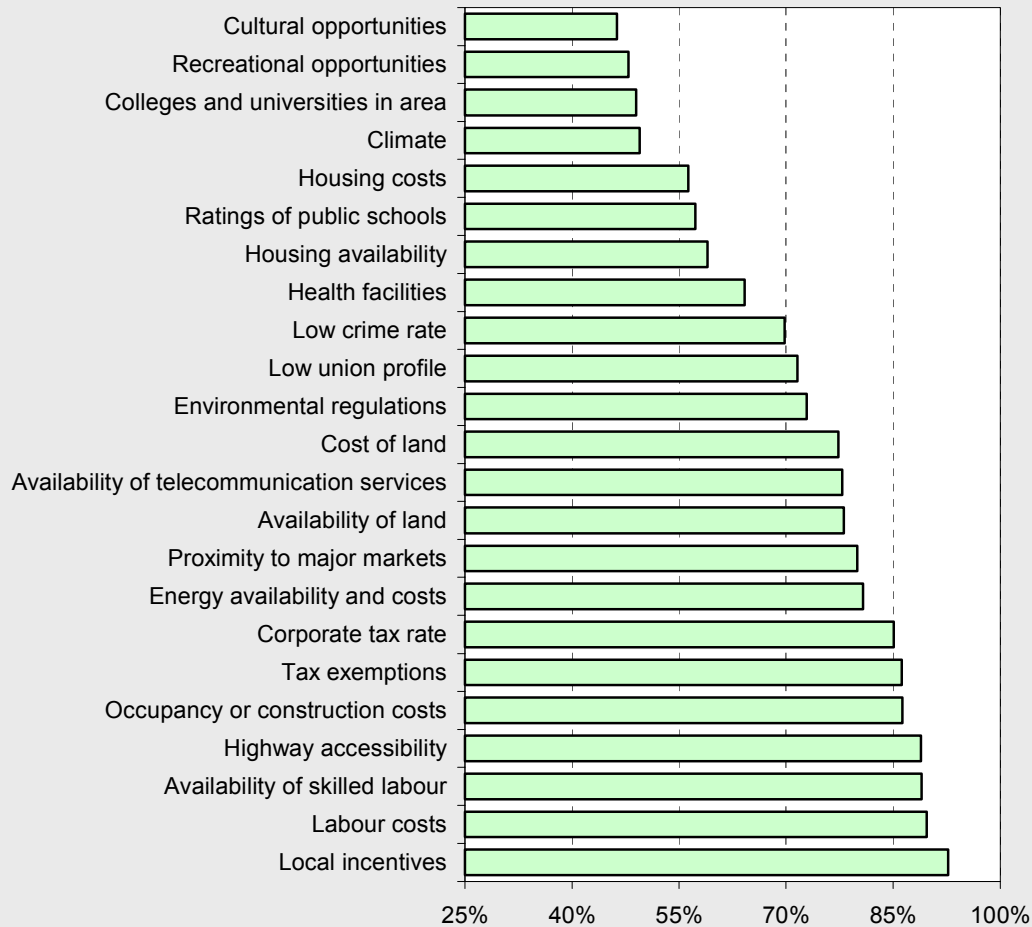
Saskatoon Location-Sensitive Costs by Type of Industry,  
(USA=100)



- The KPMG model yields similar results across major industry groups in Saskatoon.
- For example, Saskatoon has a lower index for R&D operations because
  - labour costs for research scientists are much lower than in other cities; and
  - the tax exemption for R&D activities.

## Factors Deemed to be Important in Site Selection

Site Selection Factors Deemed Important (Survey by Area Development Magazine)



- The KPMG also reports on the results of an annual survey of subscribers to Area Development magazine.
- Subscribers to the magazine and therefore survey respondents are typically senior executives and location consultants. Manufacturing dominates with two-thirds of subscribers in this sector.
- A survey of subscribers suggests that labour costs and availability, transportation, and taxes are an important consideration.

## Tax Rates Assumed in the KPMG Model

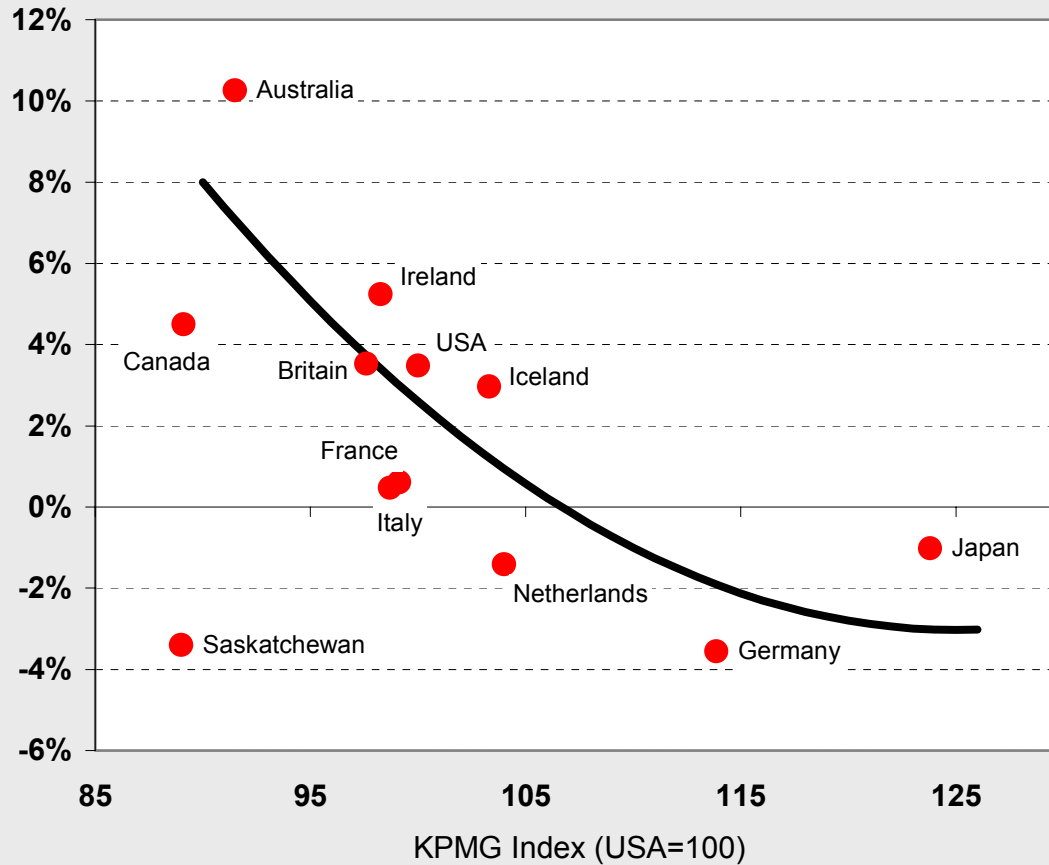
### Tax Rates Used in KPMG Study

	<u>Kelowna</u>	<u>Calgary</u>	<u>Saskatoon</u>	<u>Winnipeg</u>
Corporate Income Tax				
Federal	22%	22%	22%	22%
Provincial	16%	12%	17%	16%
Manufacturing tax rate reduction	...	...	7%	...
Capital tax				
Federal	0.20%	0.20%	0.20%	0.20%
Provincial	0.25%	...	0.60%	0.50%
Refundable GST/VAT				
Federal	7%	7%	7%	...
Provincial	8%	...	...	...
Non-Refundable Sales Tax				
Federal	...	...	...	...
Provincial	...	...	6%	...
Property Tax				
Land	5.6%	3.1%	4.3%	5.6%
Buildings	5.6%	3.1%	4.3%	5.6%

- Saskatchewan's manufacturing tax rebate has an undue influence in the KPMG study because so many of the representative industries are in the manufacturing sector.

## Does the KPMG Cost Index Predict Capital Investment?

Average Annual Increase, 2002 to 2004, Private Non-Residential Gross Fixed Capital Formation



- There does seem to be a relationship between recent growth in non-residential capital investment by the private sector and KPMG's cost index.
- Japan and Australia are "outliers" with higher growth than one would expect.
- Canada and most of the countries in continental Europe have lower growth than one would expect. Saskatchewan is well below the trend line.

Source for GFCF change: OECD

## KPMG Competitive Alternatives Report - Summary

- The methodology of the report is sound and the data seems to be accurate. An impressive database of typical industries and regional costs are used to drive the model.
- The report provides a reasonable comparison of location sensitive costs for manufacturing establishments. The report is not representative of the majority of current capital investment in Saskatchewan; the industries covered probably represent at most 10% of current capital investment in the province.
- Nevertheless, there seems to be a correlation with the index representing location sensitive costs and the recent rate of growth in capital investment in surveyed countries. Saskatchewan is experiencing much lower capital investment than one would expect from the KPMG index.
- The cost elements and industries considered are clearly not the only ones considered in locating a facility. Other factors, some that cannot be quantified, are also important.

## Summary

- There are three distinctive periods in capital investment by Saskatchewan businesses.
  - From 1981 to 1993, investment was effectively flat.
  - From 1993 to 1997, investment grew rapidly.
  - Since 1997, investment has declined in both nominal and real terms.

Both the growth between 1993 and 1997 and the subsequent decline have occurred in almost all industry sectors.

- Saskatchewan's pattern of capital investment in the last twenty years is not dissimilar to the patterns in other provinces and even other countries. Notwithstanding the similarity, the recent decline in capital investment is more pronounced in Saskatchewan than in other provinces.
- The periods of growth and decline have no direct correlation with any of:
  - the growth in the provincial economy;
  - corporate profits;
  - corporation taxation rates; or
  - business cost factors in the manufacturing sector.

The decline is not specific to any industry group.

- Some other factors are apparently the cause for Saskatchewan's relatively poor performance in recent years.