P R O D U C T I V I T Y

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PRODUCTIVITY IN CANADA

The Importance of Productivity

The annual rate of productivity change in Canada has not been good in recent years and is still declining. (see postscript) Maintaining and increasing productivity is of great importance to the economy of an industrial based province like Ontario. Poor productivity at home not only makes goods and services more expensive than they should be, but it also results in our goods being priced unfavourable in the world market place. This can only result in a decrease in our exports, increase in imports and the resultant economic woes and unemployment at home.

- Productivity improvement is basic to long term economic progress and is a key to a higher standard of living.
- Higher productivity can result in increased job security and better quality of work life.
- High productivity can help to ease inflationary pressures on the prices of goods and services.
- High productivity is a real alternative to wage and price controls.

What is Productivity?

Productivity has been a dirty word, largely because the word is misunderstood by many people. It does not mean "work harder".

Economists measure productivity in terms of output per unit of input employed in the production of goods and services. There can be as many measures of productivity as there are factors of production, eg., output per unit of labour, output per unit of capital investment, output per unit of energy conserved. All

these are partial productivity measurements. Conventionally output per unit of labour is used as a convenient measure of productivity, usually because the other measurements are not available. The use of this form of measurement (output per man hour) is the prime reason why the term productivity is often misinterpreted as being synonymous with job speed-ups, job eliminations, job combinations and in the final analysis "work harder", a counter definition could be "think smarter".

Productivity and Employment in the Long Run

Improvement in productivity is often associated in the minds of people with loss of jobs and widespread unemployment. Since the days of the Luddities, the introduction of machinery with consequent direct displacement of labour has been viewed with suspicion and resentment. This is not an unreasonable attitude if the volume of output remains unchanged. But if output increases, employment could be unchanged or even increased. The latter situation often occurs as productivity gains reduce the cost of units of output; and if demand for the product is responsive to falling prices, expansion of output and employment could be the direct outcome of productivity growth.

The effect of productivity growth on employment differs among industries. Agriculture is an example of an industry in which relatively rapid increases in productivity have been accompanied by absolute decline in employment. On the other hand, it has been observed that Japan and some European countries which have faster rates of productivity growth than Canada and the U.S., have much lower rates of unemployment. However, although technological change sometimes destroys jobs, it often creates many new jobs. These changes have been taking place at a rapid rate, quite unobtrusively since the end of the war. The ability to adjust to these changes without traumatic personal and social results has increased as the level of education has risen and transportation and communication systems have improved. The past

25 years have witnessed rapid technological advancement marked by wide diversification of the industrial sturcture as new industries and new types of occupations developed. This has been accompanied by large increases in total employment and by improvements in the standard of living of Canadians in general.

PRODUCTIVITY - CANADA AND U.S. COMPARED

Productivity in the total commercial economy in Canada measured as output per man-hour, fell by 0.5 per cent in 1974. This reflected the combined effect of a small increase in total output of 3.7 per cent and a relatively large increase in man-hours of 4.2 per cent. This negative performance in 1974 brought the 1971-1974 average annual rate of change down to 1.9 per cent, in sharp contrast with the secular trend which from 1946 to 1972 had been at an average annual rate of 4.3 per cent. From 1972 the growth rate began to slacken and has continued steadily downward to the recent negative rate. Table 1.

Table 1

Annual Average Productivity Change in Canada and U.S.
1961-1974 - All Commercial Industries

	Output Per Man-Hour	Output	Man-Hours	Unit Labour Cost	Compensation Per Man-Hour
1970-1974:					
Canada	4.2	5.0	0.8	2.2	6.5
U.S.	2.9	3.7	0.8	2.4	5.4
1961-1971:					
Canada	4.3	5.9	1.4	2.8	7.3
U.S.	2.6	4.1	1.4	3.3	6.0
1971-1974:					
Canada	1.9	5.5.	3.6	7.1	9.9
U.S.	1.1	3.6	2.4	6.7	7.9
1971-1972:					
Canada	3.4	5.4	1.9	5.4	9.0
U.S.	3.2	6.5	3.1	2.7	6.0
1972-1973:					
Canada	2.5	7.0	4.4	9.4	9.0
U.S.	2.2	5.9	3.6	5.8	8.2
1973-1974:					
Canada	-0.5	3.7	4.2	12.5	12.0
U.S.	-2.5	-2.2	0.3	12.3	9.5

Source: Statistics Canada Unpublished Data

Note: Canada data made consistent with U.S. data differ somewhat from those in Table 2.

The poor performance of Canadian output per man-hour in 1974 was matched or rather exceeded by that of the U.S. where for the first time in 25 years productivity in the economy as a whole fell by 2.5 per cent. This was associated with the general downturn which took place in the economy during the year, reflecting a 2.2 per cent drop in output and almost no change in man-hours.

However, whereas U.S. productivity fell in the 3rd and 4th quarters of 1974 and the 1st quarter of 1975 and picked up thereafter to a smart 4.2 per cent, and 11.0 per cent increase respectively in the 2nd and 3rd quarters of 1975, Canadian output per person employed continued right on down for 5 consecutive periods from 2nd quarter 1974 through to the end of June 1975; in the second half of the year growth increased marginally by less than one percentage point and the Conference Board's forecast for 1976 is for continued very slow growth to the end of the year.

Canadian Productivity and Cost Trends

All Industries

Table 2 shows the historical trend in productivity and costs in Canadian industry by major sector. Unit labour cost reflects the relationship between output per man-hour and compensation per man-hour. During the early seventies, wages rose at a rapidly increasing rate and by 1974 the growth rate was 12.1 per cent. In the same period, unit labour cost shot up by an unprecendented 12.6 per cent. However, the growth in compensation in that year was only 3.4 percentage points above the rate of growth in the preceeding year, and could not by itself have accounted for the doubling of the rate of increase in unit labour cost in that year. The latter was more likely due to a combination of the decline in the level of productivity and the escalating wage rate.

Table 2

Productivity and Cost Trends in Canadian Industries, 1961-1974

	Average Annual Percentage Change							
	1961-74	1961-71	1961-66	1966-71	1971	1972	1973	1974
All Commercial Industries								
• Output Per Man-Hour	4.1	4.4	4.5	4.3	5.4	3.6	2.4	-0.5
• Compensation Per Man-Hour	7.9	7.0	5.6	8.2	8.6	8.9	8.7	12.1
• Unit Labour Cost	3.6	2.4	1.0	3.8	2.9	5.3	6.1	12.6
Commercial Non-Agricultural Industries								
• Output Per Man-Hour	3.5	3.6	3.2	4.1	4.9	3.1	2.0	-0.4
• Compensation Per Man-Hour	7.3	6.4	4.6	8.0	8.7	8.1	7.7	11.6
• Unit Labour Cost	3.6	2.7	1.4	3.8	3.6	4.9	5.5	12.0
Commercial Goods-Producing Industries								
• Output Per Man-Hour	5.0	5.6	6.0	5.2	6.8	4.4	2.9	-1.5
• Compensation Per Man-Hour	8.2	7.5	6.6	8.3	8.5	9.6	9.6	12.6
• Unit Labour Cost	3.1	1.8	0.6	2.9	1.7	5.0	6.5	14.1
Commercial Non-Agricultural Goods-Producing Industries								
• Output Per Man-Hour	4.1	4.3	3.6	5.2	6.1	3.3	2.3	-1.1
• Compensation Per Man-Hour	7.5	6.6	4.8	8.3	9.1	7.9	7.6	11.7
• Unit Labour Cost	3.2	2.2	1.2	2.9	2.8	4.4	5.2	12.9
Commercial Service-Producing Industries								
• Output Per Man-Hour	3.0	3.0	2.8	3.2	3.9	2.9	1.8	0.4
• Compensation Per Man-Hour	7.4	6.3	4.4	8.2	8.5	8.4	7.7	11.6
• Unit Labour Cost	4.1	3.2	1.6	4.7	4.4	5.4	5.8	11.2
Manufacturing								
• Output Per Man-Hour	4.1	4.4	4.1	4.9	6.7	3.4	2.1	-0.3
• Compensation Per Man-Hour	6.8	6.0	4.5	7.5	7.0	7.2	7.0	11.2
• Unit Labour Cost	2.6	1.5	0.4	2.5	0.3	3.6	4.8	11.6

Source: Statistics Canada, Aggregate Productivity Measures, Cat. No. 14-201 (Ottawa: Information Canada).

Unit labour cost tends to rise when productivity increases more slowly than wages. If the money earned from the sale of the output exceeds the amount it costs to produce each additional unit of output, the price of the output must rise, or alternatively the wages paid must be reduced. This is the direct link between productivity and wages. If wages are rigid, either the price of the product must increase or there will be a loss of profit. To cut back profits will result in a flight of capital for investment in the industry, so the general procedure is to pass the additional cost on to the consumer in the form of higher prices, thus contributing to inflation.

Productivity in Manufacturing

Productivity in manufacturing industries has been increasing at a declining rate since 1972 and by 1974 it had dropped by 0.3 per cent. During the period from the early 1960's to the early 1970's, the gap in productivity differences in manufacturing between Canada and the U.S. began to narrow somewhat, stimulated by the greater annual increases in output per man-hour in Canada during that period. Occurring as it did in the late 1960's and early 1970's, the improvement is attributed in part to the trade liberalization and the specialization associated with the Automotive Trade Pact.[1]

As Table 3 indicates, real output per man-hour increased by 55.0 per cent in Canada and by 43.4 per cent in the U.S. between 1963 and 1974. But at the same time Canadian wage rates were catching up and by mid 1974, they had virtually reached parity.

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[1] Economic Council of Canada "Looking Outward", p.74.

Table 3

Indexes of Labour Productivity
Average Hourly Earnings, and Unit Labour Cost in Manufacturing
Canada and the United States, 1963-74

	Real Output Per Man-Hour		Compensation Per Man-Hour		Unit Labour[1] Cost	
	Canada	U.S.	Canada	U.S.	Canada	U.S.
	(1961=100)					
1963	109.4	110.1	106.7	109.0	97.6	97.8
1972[2]	159.7	149.7	195.1	175.0	122.2	117.3
1974 (est.)	169.6	157.9	242.5	202.0	143.1	128.4
Percentage increase, 1973-74	55.0	43.4	127.3	85.3	46.6	31.3

1. The original data are in terms of each country's national currency; that is, the series do not reflect exchange rate changes. Compensation figures do not include fringe benefits, and they cover production workers only.

2. Subject to revision.

Source: Economic Council of Canada, Looking Outward, p.74.

The 1974, real hourly wages (corrected for inflationary effects) of production workers in Canada manufacturing were only 4 per cent below the U.S. level. Table 4. Part of the narrowing of the gap in money and real wages is attributable to the narrowing of the productivity differentials between the two countries. Compensation per man-hour and unit labour cost having increased at a greater rate than in the U.S., has weakened Canada's competitive position in manufacturing industries with that country.

Table 4

Average Hourly Earnings[1] of Production Workers in Manufacturing
In Current and Constant (1961) Dollars
Canada and the United States, 1960,74

	Current Dollars			Constant 1961 Dollars[2]	
	Canada	Canada	U.S.	Canada	U.S.
	($ Can)	($ U.S.)	($ U.S)		
1960	1.79	1.85	2.26	1.80	2.28
1961	1.83	1.80	2.32	1.82	2.32
1962	1.88	1.76	2.39	1.81	2.36
1963	1.95	1.81	2.46	1.88	2.40
1964	2.02	1.87	2.53	1.92	2.44
1965	2.12	1.96	2.61	1.96	2.47
1966	2.25	2.09	2.72	2.00	2.51
1967	2.40	2.23	2.83	2.07	2.54
1968	2.58	2.39	3.01	2.14	2.59
1969	2.79	2.59	3.19	2.20	2.60
1970	3.01	2.87	3.36	2.30	2.59
1971	3.28	3.24	3.56	2.44	2.63
1972	3.54	3.57	3.81	2.51	2.73
1973	3.85	3.85	4.07	2.54	2.74
1974	4.39	4.49	4.40	2.61	2.73

1. Earnings figures do not include fringe benefits.

2. These are the current-dollar figures deflated by the consumer price index for each country. The Canadian figures have also been adjusted to allow for a slight difference in the average level of consumer goods and services in each country for a benchmark year (1965). See Appendix by E.C. West in Dorothy Walters, Canadian Income Levels and Growth: An International Perspective, Economic Council of Canada Staff Study 23 (Ottawa: Queen's Printer, 1968).

Source: Economic Council of Canada, Looking Outward, p.73.

Productivity Levels

The absolute level of productivity in Canada remains lower than that of the U.S. despite these recent changes. The index of

net output per man-hour deflated for price changes is taken as a measure of the level of productivity. By this scale, the level of Canada's productivity in manufacturing which was 72.8 per cent of that of the United States in 1963, and had risen to 78.2 per cent by 1972, has not shown much improvement since. By 1974, Canadian productivity was still estimated to be more than 20 per cent below the U.S. This is a reflection of the greater technological achievements of the American economy. Table 5

Table 5

Indexes of Real Net Output Per Man-Hour in Manufacturing Canada and the United States, 1963-74

	1963	1972[1]	Estimated 1974
(U.S. data for 1963=100)			
United States	100.0	136.0	143.5
Canada	72.8	106.3	112.9
Canada as percentage of United States	72.8	78.2	78.7

1. Subject to revision.

Source: E.C. West, Canada-United States Price and Productivity Differences in Manufacturing Industries, 1963, Economic Council of Canada Staff Study 32 (Ottawa: Information Canada, 1971), adjusted to a man-hour basis. The data were updated to 1972 for the Economic Council of Canada and the Ontario Economic Council, using data from Statistics Canada. The 1974 figures are estimated by the Economic Council of Canada, Looking Outward, p.75.

International Comparison

Comparisons of the rate of growth of productivity in manufacturing with Canada's major trading partners for the period 1966-1973, show Canada and the United States with the lowest rates

of growth in productivity in manufacturing, ranking far below countries like Japan and France.

Projections for 1970-1980 based on past trends do not substantially improve our relative performance with the possible exception of Japan and Italy whose average rates of growth are anticipated to decline. Table 6.

Table 6

Average Annual Rates of Growth of Output
Per Person Employed in Selected Countries
1960-1970 and Projected Rates in 1970-1980

	Actual	Projected
Japan	9.8	6.2
Italy	6.5	4.7
France	5.2	5.4
West Germany	4.4	4.4
Denmark	4.1	3.7
Netherlands	4.0	3.5
Belgium	3.9	4.1
Sweden	3.8	3.2
Switzerland	3.2	2.8
U.K.	2.5	2.9
U.S.	2.3	2.0
Canada	2.3	2.3

Source: Economic Council of Canada, Looking Outward, 1975, p.27.

Factors Underlying Productivity Change

Short Term

The factors which affect the level and rate of change of productivity are many and varied. Short term changes are generally associated with fluctuations in output and unemployment. It has been observed that industries with rapidly expanding output usually experience high rates of increase in output per unit of input. Generally speaking, productivity increases rapidly during the

early stages of an economic expansion as fixed capacity is more fully utilized, thus spreading out fixed cost over an increased volume of output. However, as optimum capacity utilization is exceeded and less efficient labour is added to the existing machinery, diminishing returns set in, and output per unit of labour begins to increase at a less rapid rate, and eventually ceases altogether. As the business expansion comes to an end, output is reduced more rapidly than employment as employers hoping for an early upturn, are reluctant to let many of their best workers go. The declining output is spread over a relatively large number of units of labour, and productivity growth tends to decline.

Long Term

The long run trend in productivity is important because it is the major factor which determines the growth of real earnings and the standard of living. The only practical way to offset the rising costs of energy and labour compensation is to increase the rate of growth of productivity.

Secular changes in productivity are influenced and affected by factors which are basic to the individual industries which make up the total economy. Such factors are the state of technology, the rate at which technological change is adopted, the amount of research and development, the size of the capital stock, the scale of production, educational attainment and the skill levels of the labour force, managerial skill, the climate of industrial relations, changes in the composition of the labour force, the amount of capital investment and shifts in the industrial structure. These factors can and do differ among the different industries that make up the total economy, and they affect the rate of growth of productivity of the individual industries in various ways.

Research and Development as Per Cent of G.N.P.

Expenditures on research and development both by government and by other sources have never been very great in Canada. In 1969 these expenditures represented 1.3 per cent of gross national expenditures, but they have declined steadily and in 1973 were only 1.1 per cent and for 1975 were reported to be 0.8 per cent.

Capital

One of the major factors which affect output per person employed is the amount and quality of machinery and equipment available. One measure of the intensity of capital in production is the capital-labour ratio. It measures capital stock per employee. Indications are that capital-labour ratio in the total economy has been increasing at a somewhat faster rate in the 1966-1972 period than it did in the preceeding period, but the nature of the data available make it difficult to assess the magnitude of the trend with any certainty. However, real fixed capital investment has been rising annually at increasing rates and in 1973 it had risen by 10.4 per cent. In 1974, however, the growth rate was more restrained, investment having risen by only 5.4 per cent in that year.

Labour's Share in Productivity Gains

Real hourly compensation which takes account of changes in the consumer price index has increased slowly and steadily since 1963 though not anything like the magnitude of these increases in terms of current dollars. Inflation has eroded sharply the value of earnings. To ascertain whether labour income is deeping pace with productivity growth, comparison is made between changes in real hourly earnings and changes in productivity over the period of 1961-1974, in manufacturing industries. Indications are that real earnings may not have kept pace with productivity growth, the latter being increased at an annual average rate of 4.1 per cent, the former at 2.7 per cent. However, in 1974, when

productivity dropped by 0.3 per cent, real hourly earnings increased by 2.8 per cent. Labour's share of output improved considerably in that period.

Regional Differences in Provincial Productivity

It is a well known fact that income levels differ widely among the five regions of Canada, and it is generally assumed that such differences are due to differences in the level of productivity. A study by the Economic Council of Canada, based on an analysis of eleven industries would seem to corroborate the conventional wisdom. The study compares employment income in each region with the average productivity level of a group of eleven industries. Productivity level, or output per person employed is defined as real value added, corrected for inflationary price effects. The result of the study shows that real output per person employed was highest in Ontario and lowest in the Atlantic Provinces; and employment income was similarly distributed. In Ontario productivity and income were nine and ten percentage points respectively above the national average; in the Atlantic Provinces, they were 16 and 20 per cent respectively below the national average. Table 7.

Table 7

Productivity and Income Levels, Canada, by Region, 1971

	Output Per Person Employed		Wages, Salaries, and Farm Income Per Person Employed	
	(Constant Dollars)	(Per Cent)	(Constant Dollars)	(Per Cent)
Atlantic Region	6,300	84	5,314	80
Quebec	6,751	90	5,969	90
Ontario	8,209	109	7,279	110
Prairie Region	7,406	98	5,854	88
British Columbia	7,980	106	6,540	99
Canada	7,526	100	6,629	100

Source: Economic Council of Canada, Twelfth Annual Review, p.31.

The regional differences are sometimes attributed to differences in the structure of the economy or in other words, in the "mix" of high and low productivity industries. The study found, however, that differences in industrial structure play a relatively small role in explaining differences in the level of productivity or in the rate of growth of productivity among the regions. Within the same sector there were important regional differences in productivity levels. For example, the level of productivity in manufacturing was 26.4 per cent below the national average in the Atlantic Provinces, and 11.2 per cent and 4.5 per cent below the national average in Quebec and the Prarie Provinces respectively. However, it was 9.5 per cent and 4.5 per cent above the Canadian average in Ontario and British Columbia respectively.

How can Productivity be Improved?

a) In the Work Place

It is now generally recognized that productivity can be improved by a number of factors that are generally grouped together and called "the Quality of Work". In general terms this can be interpreted that if labour management relations are good, if the worker is happy in his work, if the right environment exists, then people work better, there are less disputes, less absenteeisms, less industrial injuries, etc., hence output per man hour has to increase.

b) In the Board Room

Capital investment, modernization and a forward looking view of industrial relations are also a key to improving productivity. Old machinery, out of date technology, unsafe conditions, the fear of redundancy brought about by modernization will result in decreased productivity. Company policies with respect to retraining, redundancy early retirement, etc. are some of the keys to productivity improvement.

In Ontario on August 27, 1975, in a speech to the Ontario Chamber of Commerce the Premier of Ontario said, *"The rate of productivity improvement will play a considerable part in the more effective performance of our provincial economy. In the United States, and elsewhere, increasing emphasis is being placed on productivity improvement. The national Commission on Productivity has been established there to focus national attention on this aspect of the economy and the commission has been involved in a wide range of projects and studies.*

I propose that we establish such a body, through a series of task-forces for Ontario, representing government, labour and business, to deal specifically with the substantive matters relating to productivity.

Such task forces would concentrate on subjects by selective sectors of industry, including the service industries, and government at both provincial and municipal levels.

We would consider such an undertaking to be a partnership of effort, in which the Government of Ontario would pay for the administrative costs and one-half of the costs of research".

The government is currently studying the best ways of implementing this commitment.

Business itself has made isolated attempts to improve productivity by improving management/labour relationships by means of special management labour committees at the plant level. Usually these committees were formed for a special purpose -- to improve the collective bargaining process, improve communications, resolve grievances, reduce accidents. An evaluation carried out on these cases of the Federal Department of Labour shows that in most cases the mere fact that management and labour sat down together, the resultant communication and better understanding brought about increased productivity in the company or unit concerned.

What Has Been Done in The USA to Improve Productivity?

The productivity decline in the USA has been greater than in Canada. An unusually sharp cyclical drop started in 1973 and for the first time in 25 years and the second time in 40 years, the average output yielded by an hour of work in the private sector of the USA declined from one calendar year to another. Between 1973 and 1974 productivity fell by 2.7 per cent in the private economy as a whole.

In response to a growing concern about the importance of productivity to the nation, the U.S. Congress has now made it possible for labour, management, and government to meet on an official basis and discuss means of improving productivity as a national goal. The Congress recently approved a bill to establish a National Centre for Productivity and Work Quality. The objectives of the Centre are to increase the productivity of the American economy and to help improve the morale and quality of work of the American worker. The Centre will:

- encourage and assist the organization and work of labour-management committees on a plant, community, regional and industry basis.
- publicize, disseminate ideas related to its objectives
- advise the President and Congress with respect to government policy affecting productivity and the quality of work.
- co-ordinate, promote and provide research and technical assistance regarding productivity.

Areas to be concentrated on are:

- the morale and quality of work of the American worker
- the international competitive position of the USA
- the efficiency of government
- the cost of goods and services generally basic to the needs of Americans

Within this broader context there have been a number of significant individual, highly publicized successful "experiments" in productivity improvement. The USA steel industry was in a critical condition in 1971 with stagnating profits, over capacity, under employment, and intense foreign competition. The Union and Management recognized that a common programme was essential to improve productivity and that it was impossible to do this in an adversary context. Accordingly, a massive educational program was conducted throughout the industry jointly sponsored. Now there are 230 plant committees working in 10 companies. The activities of the plant committees are coordinated and supervised by a joint committee at the top level. The collective agreements stipulate that no matters will be discussed by the joint committees which will prejudice the position of the parties under the collective agreement. The steel workers are not engaged in productivity bargaining but are committed to productivity improvement. The steel workers do not support antiquated work rules and the collective agreements recognize the right to effect technological change with adequate provision for job security. The recovery of the steel industry may be attributed to three causes:

- a ten billion dollar expenditure in new and improved facilities
- the introduction of new technology and systems
- the effects of the joint labour management committees.

In 1971 the productivity growth was 2% per annum and in 1974 it had grown to 10.8% per annum.

Some areas where the union and its members may have had an impact on productivity in the Basic Steel Industry are:

- Full participation. All employees, Union and Management are expected to make the same contribution toward improving productivity.

- Using facilities and time more efficiently. This involves the possible reduction in delay time due to breakdowns of machinery and equipment, plus correcting such problems as the lack of available steel to process on a particular mill or other material shortages.
- Properly maintaining equipment to reduce breakdowns and delays.
- Quality Control. Paying strict attention to quality -- doing it right the first time -- to reduce the need for reprocessing orders.
- Eliminating waste and the inefficient use of material, supplies and equipment.
- Help to reduce absenteeism and the need for excessive overtime.
- Seek adequate training for employees who are utilized during periods of legitimate absenteeism.
- Help to improve the plant safety experience.
- Boosting employee morale.
- Focusing employee awareness on productivity problems and the real threat of foreign competition.

The other example, that of community involvement in productivity improvement can be cited by the "Jamestown Experiment".

As 1971 drew to a close, Jamestown's industrial economy was in deep trouble. Unemployment was reaching 10% of the work force. There had been a steady decline in the absolute number of manufacturing jobs for an 18 year period.

Industrial development efforts in Jamestown and Chatauqua Country had been largely unsuccessful. Efforts to attract new business had been rejected with the comment that the area had a "bad labour climate".

Based upon the advice of the Federal Mediation and Conciliation Service, Mayor Lundine called the executives of about 15 local manufacturing companies and the labour leaders representing workers in those plants into separate meetings in January 1972 to discuss the economic situation.

The chief executive officers of the manufacturing companies personally attended this first meeting. A combination of business representatives and presidents of local unions participated in the labour meeting. Both of these sessions were very constructive and resulted in separate determinations to meet together and attempt to discuss the mutual problems of labour and management and to see if some common goals could not be agreed upon.

Following the dialogue of the first meeting of the labour-management committee in the early spring of 1972 and the intensive investigation of common purpose which resulted, four principal goals were originally established for this newly formed organization:

1. improvement of labour relations
2. manpower development
3. assistance to industrial development program
4. productivity gains in existing industries.

Productivity was singled out as the most important objective of the committee from the earliest discussion. It was clearly stated that the productivity goal must be broadly defined and that there should be no job loss in any plant as a result of achieving productivity gains.

The breadth of the definition was the only factor which allowed labour leaders to accept this primary objective. For example, reduction in absenteeism or the elimination of waste of materials during the manufacturing of products were primary productivity objectives.

The program which was designed to achieve the broad productivity goal was a changing and flexible series of approaches based on input from inplant committees as well as the overall committee. Several components emerged with over-riding importance. Most important were:

1. Quality of work
2. Skill development
3. Leadership training
4. Improved labour relations
5. Industrial development

These five elements of the Labour-Management program were not the sole but were the most important aspects in the dramatic change which was occurring. They comprised the heart of the Jamestown experience.

The Jamestown Area Labour-Management Committee represents companies totalling a work force of more than 11,000 men and women. The membership and program has included 30 companies and 60 plants.

Not only has the unemployment rate been reduced, but the absolute number of manufacturing jobs in the Jamestown areas has increased significantly.

Productivity has increased in virtually every industry which has aggressively undertaken a new program. In Chatauqua Hardware Corporation for example, the productivity per employee has increased by more than 80% in the last two and a half years.

POSTSCRIPT

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"Productivity in Canada declined by 1.7 per cent in 1975 and 1.5 per cent the year before. The decrease in both years did not result from an actual decline in real GNP, but rather from a slower absolute increase in output than in the total employed persons."

While real GNP rose by 2.8 per cent and 0.2 per cent in 1974 and 1975, respectively, employment increased by 4.4 per cent and 1.9 per cent in these years.

The department says the 1974-75 recession was an important factor in the productivity drop, and productivity started to increase again in the second half of 1975 as the economy again began to expand.

The department says the two consecutive years of productivity decline leaves substantial under-utilized labour and machinery as the economy enters the recovery stage. Employers engaged in "substantial labour hoarding," whereby they kept workers on part time rather than lay them off as output dropped during the recession.

"Thus, during the initial period of recovery in output, firms can obtain increased in output without any increase in the number of workers by simply using them more extensively, while under-utilized plant and equipment are pushed toward better operating rates."

The department notes that U.S. productivity has declined by a larger amount--4.6 per cent--during the latest two years, as the recession there was much more severe.

But the U.S. economy has recovered faster than the Canadian economy in recent quarters and U.S. productivity growth has been faster.

The milder productivity drop in Canada in 1975 helped keep down unit labour costs (wage costs per unit of output), which rose at a slower rate than wages. The depreciation of the Canadian dollar also helped.

"However, these moderating elements were reversed in the latter part of 1975, with the result that the disparity in Canadian labour costs, compared with those in the U.S., grew progressively larger in relative terms as the year progressed," the department says.

"The relatively larger increases in negotiated wage settlements continue to jeopardize Canada's future international competitive position."

The department says the relatively sharp increases in U.S. productivity late in 1975 contributed significantly in reducing the rates of increase in U.S. unit labour costs.

A comparison of the manufacturing sectors in both countries shows that Canadian unit labour costs (expressed in U.S. dollars) rose last year by 9.6 per cent, compared with a higher increase of 11.1 per cent in the United States. But by the fourth quarter of 1975 the year-over-year increase was down to 3.3 per cent in the United States, while remaining high at 7.1 per cent in Canada. (If productivity gains do not offset rising wages, either prices must go up or profits must fall.)

On a sectoral basis in Canada productivity fell more sharply in export industries, mining, utilities, construction, forestry and agriculture than it did in manufacturing. And productivity fell in service industries less than in goods-producing industries.

The department says that while it is difficult to predict longer-run trends in productivity, there are "some tentative signs of a slowing down in Canada's productivity growth.

"For the economy as a whole, productivity growth was smaller than usual during the expansion period 1972 to 1973. After

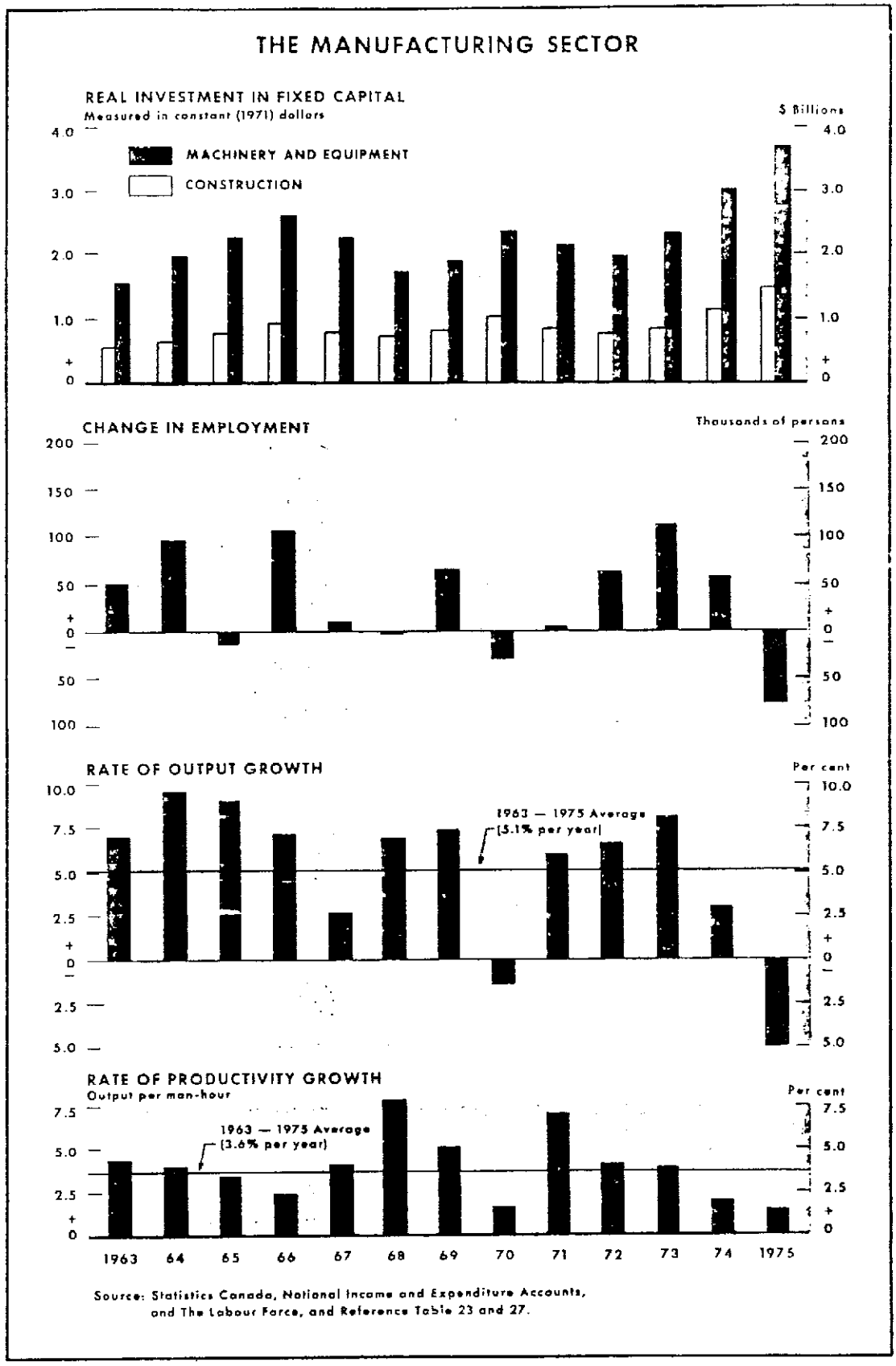
a quite strong growth of productivity in manufacturing in Canada in the 1960's, the growth in the 1970's has thus far been much smaller, and indeed below the trend in manufacturing in the last two decades.

"The growth in the service sector of the Canadian economy has increased rapidly in recent years. As productivity growth is generally lower in services than in the goods-producing sectors, a lower trend in over-all productivity growth has occurred."

But the department cautions against placing too much reliance on the numbers. Aside from the frequent statistical revisions that could change the picture, "there have been unusual changes in the structure and use of the labour force which may have reduced the aggregate productivity trend in recent years."

"The use of part-time workers has increased; the proportion of young people and adult females in the labour force has grown sharply."

"Unusually large labour hoarding has occurred in the recent recession, and the high level of strike activity in 1974 and 1975 has also made the measurement and interpretation of productivity changes in the last two years especially uncertain."

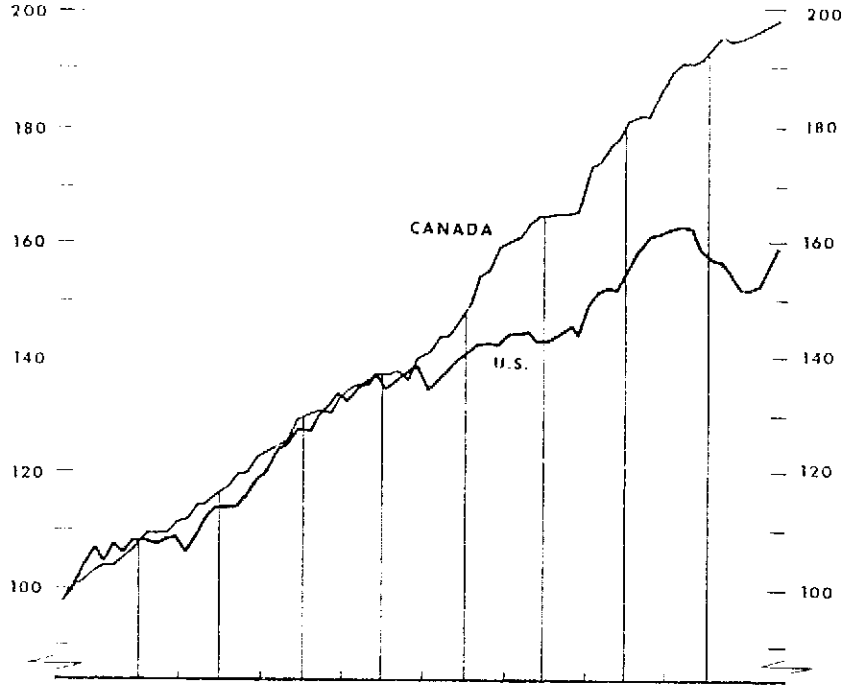


Source: Department of Finance Economic Review

CANADA – UNITED STATES
PRODUCTIVITY TRENDS IN MANUFACTURING

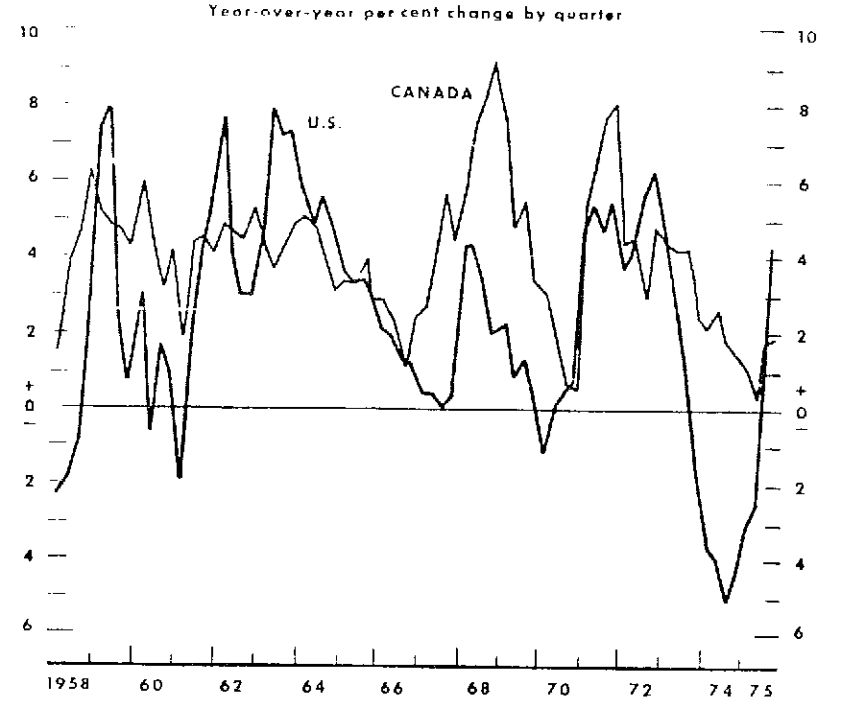
QUARTERLY INDEX OF MANUFACTURING OUTPUT PER MAN-HOUR

Seasonally adjusted, 1958:2 = 100



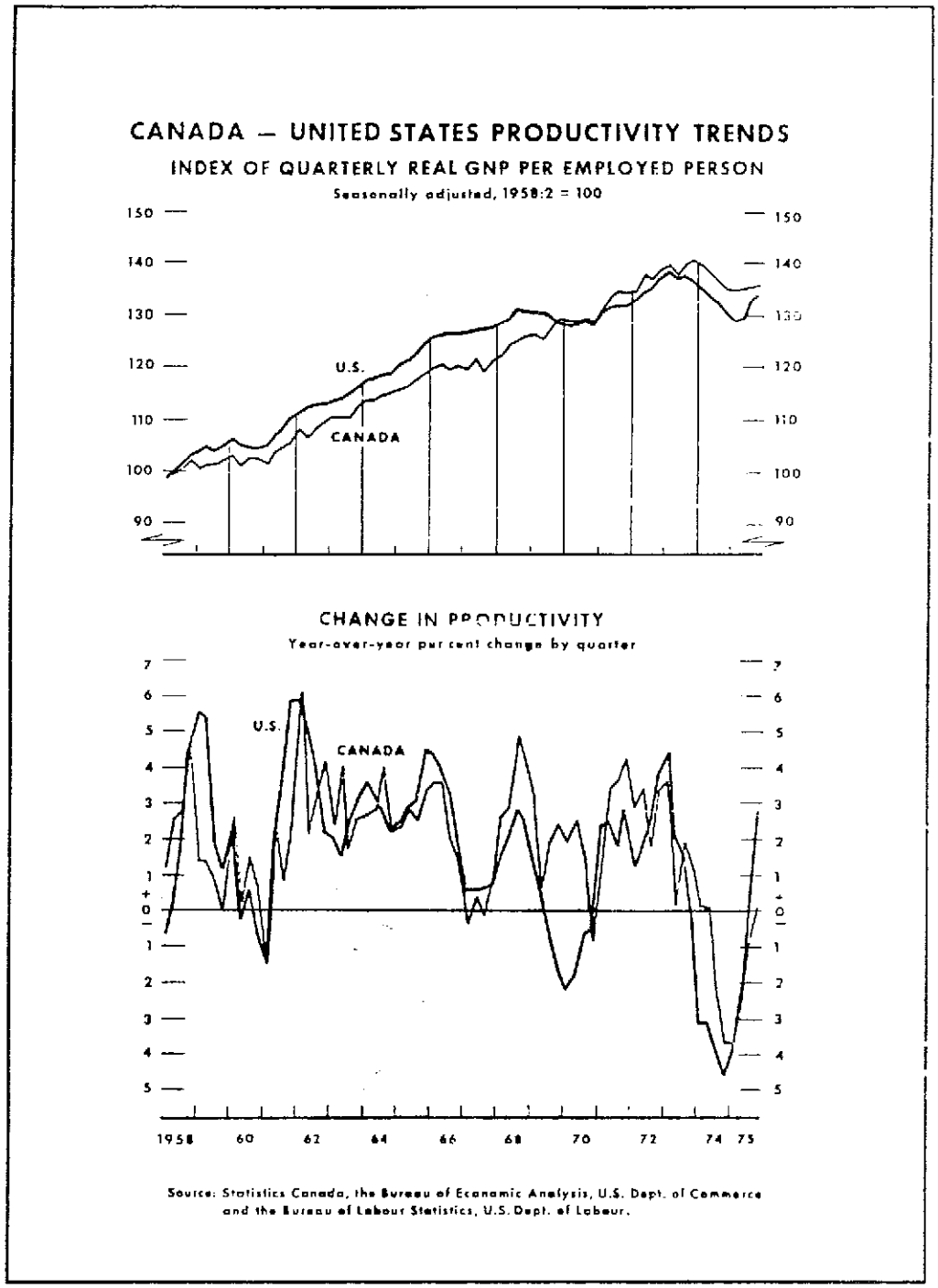
CHANGE IN PRODUCTIVITY IN MANUFACTURING

Year-over-year per cent change by quarter



Source: Statistics Canada, the Bureau of Economic Analysis, U.S. Dept. of Commerce and the Bureau of Labour Statistics, U.S. Dept. of Labour.

Source: Department of Finance Economic Review



Source: Department of Finance Economic Review