

Employment Stability: The Private Sector of the Canadian Economy

La stabilité de l'emploi: le secteur privé de l'économie canadienne

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[Aller au sommaire du numéro](#)

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Résumé de l'article

Le plein emploi accompagné de revenus croissants est le produit d'une population croissante, de changements technologiques rapides, de vastes développements de ressources, et de marchés en expansion. Comme résultat des forces dynamiques qui agissent sur l'économie aujourd'hui, le changement est inévitable. Ceci peut être constaté particulièrement dans les industries en expansion, telle l'industrie chimique. Elle est caractérisée par le développement de produits nouveaux et meilleurs, des méthodes plus efficaces de production, et un haut niveau de productivité. Comme c'est toujours le cas là où le changement est rapide, un risque élevé est associé à la plupart de ces nouvelles entreprises. Les fruits de cette activité innovatrice et de ce développement technologique rapide retournent à la nation sous la forme de meilleurs produits à des prix relatifs plus bas, de plus amples possibilités d'emploi, de meilleur équipement de production, et de débouchés plus larges pour les produits des mines, des forêts et de l'agriculture.

Selon les pronostics les plus sûrs, le produit national brut est appelé à doubler au cours des vingt prochaines années. Le taux de croissance de l'industrie chimique est même plus rapide. En se basant sur la tendance croissante de la productivité, sur une évaluation sobre des développements technologiques futurs, ainsi que sur l'étude des marchés, l'on estime que la production de l'industrie chimique sera de trois fois et demie son volume actuel d'ici vingt ans. Afin de réaliser ce but, le nombre de travailleurs attachés à l'industrie devra doubler. L'ampleur de cette tâche est encore plus frappante si l'on se rend compte que la main-d'œuvre du pays n'augmentera vraisemblablement pas de plus de cinquante pour cent au cours de la même période. Il est certain que le problème fondamental au cours des années à venir n'en sera pas un de chômage, mais bien de pénurie chronique et sérieuse de travailleurs.

Il y aura cependant des peines de croissance. En longue période, les changements structurels fondamentaux rendront certaines industries désuètes et les ressources productives de certaines régions moins utiles. Même dans une période plus courte, les développements technologiques peuvent donner lieu à un rythme élevé de vétusté des produits et des processus de production. Il y a aussi des mouvements cycliques et saisonniers de la demande de travail. Les rigidités de l'économie peuvent intensifier les effets de telles perturbations quand elles retardent les adaptations nécessaires aux conditions nouvelles. Les hommes d'affaires sont préoccupés des perturbations économiques, même temporaires, et pour de saines raisons commerciales, doivent essayer d'en minimiser les effets. Les fluctuations de la production et de l'emploi sont coûteuses, et les marchés déprimés non seulement ne sont pas profitables, mais ils retardent la marche du progrès. Les industries chimiques et autres ont essayé d'atténuer les variations saisonnières et d'amortir les baisses en produisant pour le stock. L'effet sur l'emploi de déclin temporaire de la demande a été mitigé en permettant des reculs temporaires de la productivité. Pour autant que les conditions de marché et les ressources financières le permettaient, certaines compagnies ont même essayé une politique contracyclique d'investissement. En outre, la prévision et la planification des ventes, productions et investissements pour des périodes aussi longues que dix ans, ont donné lieu à de meilleures décisions de gestion, et ont par là même diminué la fréquence des perturbations dues aux erreurs de jugement et d'exécution dans le temps. Le succès de ces politiques ne peut être observé ni mesuré facilement, il n'en est pas moins réel. Les ressources sont appliquées à leurs usages les plus productifs, et la force ascendante de l'économie est telle que le cycle économique est devenu moins sévère. Les variations saisonnières s'atténuent alors que l'économie devient plus industrialisée.

Afin de minimiser l'ampleur et la durée des perturbations temporaires, il est nécessaire d'encourager la mobilité et de réduire les frictions et rigidités. Il est également important de se rendre compte que la croissance continue de l'emploi et des revenus dépend de l'encouragement à un croissance encore plus rapide de l'industrie manufacturière.

Employment Stability: The Private Sector of the Canadian Economy

R. B. MacPherson

In this article, the author gives a special attention to the problem of employment stability in the private sector of the Canadian economy. Before elaborating this theme, he considers the importance of a growth industry and the problems associated with it; he then suggests some solutions and draws some personal conclusions.

When I was approached to write a paper on the experience of the Canadian private sector of the economy in the field of employment stability, I was a little surprised at the subject chosen. Why, I wondered, talk about unemployment when our present concern is avoiding inflation rather than preventing recession. However, I saw on reflection, the wisdom of attacking the problem now when it is possible to discuss it dispassionately and objectively.

May I say that such soundness of thought at the Laval Industrial Relations Department has been demonstrated on many other occasions as well as this one. Du Pont Company of Canada has followed with interest the activities of this group since its inception. It is a great honor and pleasure for me to give our interpretation of this problem and to suggest solutions to it. May I first, however, insert a word of qualification on my position in the Company. As Company Economist, my position is that of an advisor to management, and not that of a member of the decision-making group. The opinions I express are widely held but not necessarily official policy in the Company.

Progress and Stability Defined and Described

In his opening remarks at Laval University's Eleventh Annual Industrial Relations conference, Professor Lemelin stated

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that stability of employment is not necessarily the same thing as security of employment. As I understand it, the stability we are discussing at this conference is the kind that is created by opportunity, growth and progress, and not the kind that is associated with stagnation and the maintenance of the status quo. The lessons of the post-war period surely teach that full employment and rising incomes are the products of a growing population, great technological changes, vast resource developments, and the other dynamic factors that make up our economy today. I would like to elaborate this theme and to support the conclusions reached by observations from experience in the chemical and other rapidly developing industries.

Characteristics of a Growth Industry

One of the outstanding features of a growth industry is its high rate of innovation. Such an industry develops new and better products, uses new and better methods of production and management, and often sells in new markets. It is a high productivity industry and one which grows because of its continuing search for new and better ideas to put into practice. Good examples are artificial fibres such as nylon or "Orlon", and plastics such as polythene or the vinyls. These products were invented in the laboratories of chemical companies, their potentialities were recognized as time went on, and factories were built and markets created for them — all at the cost of millions of dollars. Had they been failures, the money spent would have been lost; as successful ventures, they add to the country's prosperity.

Qualities of the Innovators

The pre-eminent quality of an innovating industry is the high degree of risk involved. Its managers must have the foresight to see the need for new products or the application commercially of the technical developments achieved by research. They must have great confidence in themselves and perseverance in reaching their objectives and in seeking new ones. At no point can they feel satisfied that the end has been reached because competition, either actual or potential, is always present. Even in the case of the so-called monopolies, substitute products are usually available, and a new and better product is always just on its way. This requires businessmen to be highly flexible, willing to experiment, and able to make the utmost use of

opportunities. The atmosphere in which they work is one of challenge and change.

Rewards of Progress

The success of firms and industries which have these qualities and characteristics can be measured by their growing sales, assets, and, not that least, by the growth in the number of their employees. To illustrate, chemical production in Canada rose from \$152 million in 1926 to over \$1 billion in 1955 and will likely reach \$3¾ billion in 1975. This is a growth of some 7% a year compounded, or a total increase of over 3½ times in the next 20 years. This means that, from amounting to roughly 1½% of gross national product in 1926, chemical production rose to 4% in 1954 and will reach 6½% in 1975. Thus, it grows more rapidly than the whole economy and acts as a buoyant factor in it. In order to produce this value of product, new investment in the industry since the war has totalled \$600 million and it is expected \$175 million will be spent in 1956 to add to plant and equipment. Employment in the chemical industry in 1926 amounted to 14,000 people; in 1954, the industry employed 52,000 and by 1975 there will be more than 100,000 employees.

The country as a whole benefits also. Firstly, consumers benefit from the new products appearing on the market. Secondly, they can buy more for the higher incomes since incomes over the long run rise faster than prices because of the greater productivity. The very expansion which must take place to produce these goods means money spent and re-spent as goods are made for and sold to the growing firms. Finally, the people who took the chance in the first place are rewarded by the profits they receive even apart from the satisfaction they get out of success itself.

It must, nevertheless, be kept in mind that ours is a high *productivity* industry, and therefore at the same time a small employer relative to output, when compared to the average use of labor by industry. For every million dollars of value added to goods produced by all manufacturing industries in 1954, 153 employees were needed. By comparison, chemical firms required only 104 employees, were as textile needed 217. Agriculture needed 387 for every million dollars worth of value added.

Problems Associated with Growth

These, then are the characteristics and rewards of a progressive economy. There are, however, growing pains to be contended with. Over the long run, basic structural changes take place. Certain industries become obsolete and the resources of certain areas become less useful. Carriage makers were put out of business by the invention of the automobile; the Maritimes 75 years ago suffered from the replacement of wooden sailing ships by steel steamships, and currently by the replacement of coal by oil.

In the short run, technological developments make products or processes obsolete. Changes in production or distribution methods lead to temporary frictional disturbances in the economy as do business cycles and seasonal changes. Rigidities in prices and wages intensify their effects as adjustments are not made quickly enough.

Effects of Disturbances Arising Out of Growth

The nature of these disturbances is such that they lead to both unemployment and labor shortage. In the cyclical and seasonal swings, labor surpluses and shortages alternate over time. In the structural and frictional categories, employees of declining industries or areas are put out of work while the growing innovating industries are experiencing labor shortages. GNP is expected to more than double over the next 20 years. In the same period, the working force will increase by only 45%, including immigrants. Since the gross national product estimate is based partly on the expected work force and partly on increased productivity, our economic growth is restricted by our population growth. Our difficulties in Canada will not be how to support the population but how to obtain sufficient manpower to avoid delaying achievement of our potentialities or limiting our living standards. The direction is upwards, the problem is how to follow it at the best speed and with the least dislocation.

Business Concern with Disturbances

Although businessmen in dynamic industries operate on the principle that it is through change that the economy grows and prospers, they are not unconcerned with the temporary disturbances or growing pains that result. There are sound commercial reasons for their interest.

Unemployment is not associated with prosperity and profit. It is most economical to use equipment fully and steadily rather than have to shut down and start up again. Labor-turnover costs and overtime pay are avoided and there is the added advantage of better morale among employees.

Suggested Solutions

The problem of growth basically is to get workers with the necessary skills to the machines they operate and at the time when they are needed. One way to do this is to bring the manufacturing facilities to the places where labor is available. There is growing recognition in business of the advantages in moving to smaller cities where labor and other resources are available. Du Pont of Canada plants are all located in or near such communities. The newest is at North Bay in the centre of the mining district, the oldest is at Shawinigan Falls where power and labor were plentiful. Although this solution to labor surplus and shortage is found, it is often not feasible since such factors as technical advantages for manufacturing, transportation, and nearness to markets, must also be considered and balanced.

The other possibility, then, is labor, and the questions of its supply, mobility and quality arise. Since we expect that there will be a chronic shortage of labor over the next two decades, the apparent answer is to increase the population by immigration. The greater the work force in Canada, the more prosperous the economy will be. The major complication in labor mobility is the geographical shifts in population which are often necessary in the course of filling labor requirements. Here the businessman offers the incentives of better wages and frequently, since the plants are new, attractive working conditions.

The second aspect of the problem is labor quality or versatility. By this I mean the education and skills acquired by labor which makes it qualified to move to the more complex high-productivity industries. In the long run problem of structural change, the task is really one of education. Let me confine my remarks on this difficult subject to saying that our quality needs far exceed those of quantity and point out the extent to which businessmen are recognizing their responsibility in assuring themselves the people they need. Du Pont Company last month announced a scholarship plan designed to encourage brilliant young people not to enter industry or do advanced research but to become high school science teachers.

In the short run frictional, cyclical and seasonal categories, the matter of training labor is really paramount. Everyone who has been an employee in business can affirm the extent to which training takes place at all levels. Our firm trains everyone whether they are Ph.D.s in chemistry, business administration graduates, machinists, machine operators, or stock clerks. Even economists are trained. The enormous school program begins the day the employee is hired and continues throughout his employment. Many are even trained as instructors. If we need skills which are not available, we set up a school. One such school was made necessary when we found ourselves unable to hire any instrument technicians for one of our new automatic plants. While the plant was being designed, we trained 20 recent local high school graduates. As they completed their course, they began installing the instruments by which the plant is run and subsequently maintained them.

As the economy becomes more complex, the qualities of the innovator, which I described earlier, must be supplemented by careful and detailed business forecasting and planning. It is apparent that decisions must be made on estimates of the future which can be accepted with some confidence. Based on these forecasts decisions regarding expansion can be made. In this fashion plant sites can be chosen and construction can be started during a recession in anticipation of the next boom. Inventories can be built or depleted with greater confidence if future demand can be anticipated. Attempts are made to produce at an even rate throughout the year and, even if this is not possible, over-compensating swings in production are reduced. Errors in judgement can never be eliminated, but they can be minimized by planning ahead to avoid missed opportunities.

In talking about seasonal and cyclical variations, however, it is essential to consider the composition of the labor force. During seasonal and cyclical highs, people, such as housewives and students, are drawn into the labor force temporarily. It is evident that full employment is never really reached since the line between workers and non-workers does not remain the same. Once the need for labor diminishes, these temporary workers revert to their original status in the non-working segment. Permanent employment, therefore really fluctuates less than statistics would indicate.

This changing work-force offers an opportunity to management to soften the effects of seasonal employment patterns. If it becomes

apparent that significant changes in production rates will have to be made, they can be scheduled to coincide with the hiring and termination of summer replacement help — some of which normally become part of the regular payroll at the end of each summer anyway.

In order to alleviate the labor shortage and generally to increase productivity, more and more industries are introducing automatic production methods. A by-product of this process is to make employment more stable since in an automatic or semi-automatic plant, labor becomes a fixed element of costs. It takes the same number of operators to turn valves or read gauges whether the plant is operating at capacity or below. We found this to be true as we have modernized our plants. Under the old systems requiring a high labor content, employment was quite sensitive to production. It no longer is, yet the work force has not been reduced but has grown.

Success of Solutions

The success of these attempts with respect to the long run cannot be seen or measured readily, yet they are effective in hastening the natural processes of economic adjustment to the country's advantage. With movements in the labor force and additions to it, and improvements in labor's skills and abilities, adaptation to structural and technological change does take place.

It may be rash to predict it, but I feel that we may eventually see the cycle disappear or at least become unimportant. For one thing, the upward momentum of the economy is sufficiently great to reduce the magnitude and duration of recession. Another reason is that various industries seem to be developing independent and complementary patterns resulting in a smoother over-all growth.

As the economy becomes more and more industrialized, the size of seasonal swings diminishes. For example, in the chemical industry during the period 1947 to 1951, the average yearly difference between high and low periods of employment was only 2½%. This compares to 4% for all manufacturing and 7% for all industries.

Conclusions

There are two conclusions which can be drawn from this evidence. The first is that we must encourage mobility in time and space and

reduce frictions and rigidities. The second is that we must encourage dynamic manufacturing industries. These are the most productive and, more and more, the least subject to variations in employment. Full employment opportunities are found in a growth economy, and that is the type of economy we are expecting in Canada.

Conférence prononcée lors du 11e Congrès des Relations Industrielles, Université Laval, 17 avril 1956.

SOMMAIRE

LA STABILITE DE L'EMPLOI: LE SECTEUR PRIVE DE L'ECONOMIE CANADIENNE

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