

# Public Affairs

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## Horizons of Tomorrow's Wealth

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**S**OME of us, who made contact first with Dalhousie's energetic Institute of Public Affairs by means of *Ideas in Action*, recall that brochure as an eminently "quotable" document. Nor can I now begin better than by repeating one of its earlier paragraphs:

"Three changes of great importance to industry have occurred during the last fifty years. One is the new role of government in the national economy and its impact upon free enterprise. A second is the emergence of new concepts with respect to the role of government and of industry in relation to social services. A third is the impact of organized labour upon the managerial functions of our industrial economy.

"These three changes challenge business executives and others..."

Indeed they do. But there are two more changes, just as recent, whose claim for attention we cannot ignore.

The three changes listed above are

basically changes in the direction of social policy. The two changes which I desire now to mention are of a very different order: newly created tools which have been placed at our disposal—not new social purposes.

One says *mere tools*, as if the tools were passive instruments. But just as ordinary tools, employed in the craftsman's hands, through those hands of his insensibly condition the craftsman's mind, so do these new tools (though not directed manually, but intellectually) while serving certain practical ends, also tend to condition, and influence the minds of their users. Therefore, let me suggest, we cannot but regard them as being, in some sort, new social forces.

First there has been, within the past half century, so great a growth in the means of measuring change statistically, that in many spheres of collective action, heretofore uncharted, we now for the first time can think in objective, quantitative terms

about the current trend of change—without being called absurd for doing so.

Second (because we tend increasingly to follow this new fashion of meeting economic problems—because we grow daily more familiar with measured economic fact) we tend also to recognize in the warp and weft of our social fabric, certain patterns of economic change which recur, time after time persistently.

These patterns of statistical record, emerging from our knowledge of yesterday's and today's events, will of course partly guide (and I doubt not, increasingly guide) our choice between conflicting policies tomorrow. But we need not await tomorrow's decisions, and ponder the slow results of making them, in order to find what benefits are to be got from knowledge of the fact-patterns. Already man's capacity to recognize them begins to be mirrored in his choice of policy. For some of the consequences, we need not wait very long.

**M**ORE than most other folk, this generation of economists ought to be gladdened by the prospect before them. Too long have they laboured under a cloud. Too long have their conclusions, and their methods of arriving at conclusions, been made occasions of reproach, by their friends in the physical sciences.

I scarcely need repeat here the charge brought against economists so many times, by research men in other fields who complain—

“You men fail to be scientists, because you cannot meet two simple tests.

“In the first place, you can make no controlled experiment. Therefore your disciples, unable to test your conclusions as our students continually test the results which we get, never can establish, and put firm faith in your conclusions.

“Secondly (doubtless, because of this dreadful handicap) you spend your own time in the making of syllogistic deductions, about an imagined economic world.

“Not even the most conscientious of economists can reproduce by means of stated postulates and hypotheses, the realities of economic life in all their infinite variety. Therefore the conclusions drawn

from these postulates and hypotheses (all other considerations inferentially being excluded—for this imagined economic universe is of course a closed system) though doubtless valid for the limited purposes of the classroom, never can be taken safely for guidance by the statesman, the business executive or the trade union leader.

“Because the consequences of acting at large on an economist's conclusion, whose validity does not extend into the market place, may be very serious—and because these consequences may be visited on every man, woman and child among us—never with a completely clear conscience can you base action on conclusions drawn from economic theory.

“That is, till you can change the method of Economics: make an objective attack instead, on actual, contemporary problems”.

Legend attributes the remark to that great Frenchman, George Clemenceau, that warfare is much too serious a business for generals to be put in charge of it.

One of these fine days some other cynic (in whom The Tiger of France would recognize a kindred spirit) may be tempted, in parallel, to tell us that the production, distribution and exchange of wealth are much too serious a business for economists—or indeed, for anyone else—to direct and plan.

That in a nutshell is the gospel of *laissez-faire*: despised and rejected by most of us, while we were busy getting ourselves into the sad mess which we still are in, but not any longer so confidently derided, even by the Bright Young Things whose delight it was not long ago, daily to launch their shafts at it for target practice.

In somewhat the same spirit as George Clemenceau, no doubt my good friend Stephen Leacock turning to me once demanded, “Jackson, do you realize what Economics is?” When I confessed I did not know, that Ishmael among economists, grinning the grin which of old endeared him to thousands of students in McGill, said, “My dear chap, Economics is the Idiot Boy among the Sciences”. Still comes from somewhere the sound of his infectious chuckle. Doubtless across the Styx, old friends of ours, having departed



hence and being no more seen among us, are still being delighted by the newest Leacockian jest.

Meanwhile, by those of his professional colleagues who survive him, this forthright comment on some of yesterday's research methods in Economics need not be taken amiss.

**W**E cannot contract out of the Laws of Thought, or treat as without meaning for ourselves the severe discipline of the physical sciences. Most of us would be better men in our own profession, if we were to read again, and as economists take inspiration from, the life of Henri Fabre.

His factual patterns, of the bee's and the spider's life, antedated and played no small part in creating the Science of Ecology. Similarly woven patterns of the life of man, laboriously produced with the patience of a Fabre, may do just as much to give us, one of these days, a Science of Economics as well.

My present task is to discuss the question: What limit is there to the betterment of the standard of living in Canada?

But need we particularise thus narrowly? Can we not think of it in better terms than this?

Your faith and mine is, that no land on earth has a better prospect before it than Canada. Nevertheless, whatever general observations on this question we now can make with truth about Canada, can be made with equal truth about any land with a vigorous population and resources not yet fully developed: provided, of course that the citizens of that country still are free men.

**P**ERHAPS at this point I may digress briefly, to say something deliberate about freedom.

The literature of the laissez-faire school of thought does contain an effective, though by now mostly forgotten, pragmatic defence of economic freedom. But champions of freedom in the very broadest sense of that word—not freedom qualified by means of adjectives as religious, cultural, political or economic, but just FREEDOM unqualified—seldom rest the case for it on practical grounds.

Men have lived and worked and fought

for freedom: have died under torture for freedom: have sung songs about freedom which are now part of Everyman's inheritance. Men like the late Lord Acton literally devoted their lives to the subject of freedom, conceived of it broadly—wrote about it lyrically. Men like Thomas Carlyle, though less firmly rooted in the faith than Acton, were no less eloquent in its behalf.

But except for John Stuart Mill, can we now recall anyone in the nineteenth or twentieth centuries who, largely conceiving the scope and possibilities of freedom, has based his justification of it on the plain commonplace ground that freedom is good for us and, in an age of peril, helps us to survive?

The late Lord Keynes wrote at various times two pamphlets with like names—both of them, in their own seasons, best sellers. His "Economic Consequences of the Peace" dates from 1919, his "Economic Consequences of Mr. Winston Churchill" from 1925. No person has yet evaluated in like terms the Declaration of Independence or the Bill of Rights. But I think we might properly do so. No person has yet measured the writings of Thomas Jefferson by their supposed economic consequences. But let us in all seriousness ask ourselves whether anyone could have made such an impact on the minds of his own and later generations, as Jefferson undoubtedly did make, without affecting and energizing their economics as well.

We study the tremendous Industrial Revolution of the past two centuries and enquire, "What can have brought this about?"

Learned men discourse of water wheels and coal deposits, of mechanical inventions, the building of roads, the drainage of land and the creation of a banking system. Credit is given to the great inventors, from Trevithick to Thomas Edison; to the pioneers of science, from Ampere to Lord Rutherford; to the tycoons in business who created mass merchandising and assembly lines.

But in assessing what these and other individuals contributed, to the great result we commonly forget the basic truth about this transformation: that in detail as well,

as in gross *it was originated, and achieved by men acting in freedom.*

Let us not suppose it an accident in time, that Jefferson and his great eighteenth century peers in the realm of the spirit (including of course, outside America, such men as Voltaire and Adam Smith) were contemporaries, or near contemporaries, of those who, from James Watt, Fulton, and George Stephenson onwards, were the technicians of the Revolution.

Can we be sure that there would have been an Industrial Revolution at all, without the liberation of men's minds and bodies which, in Europe and America, these men vindicated? And if in the clash of great historic forces, this liberation of men's minds and bodies, which did occur from 1776 onwards, had been long postponed—if in our western world the system for which King George the Third so firmly stood, had not been overthrown, what grounds are there for thinking that these immense, recorded economic changes could and would have been brought about, even as late as in our own time?

**T**HESSE observations, alas, take us from our main business, which is to discuss patterns of economic change.

Remember that the recording and analysis of them is only just begun, that these tasks themselves are endless, and that we still are obliged to make progress in them, largely by the method of trial and error. Under these conditions, we scarcely can hope in our own working lives to do more than make a sound initial attack on them.

Not the least of our handicaps, in attempting to collect and study these fact-patterns and read meanings in them, is the likelihood facing us in each case that, while time passes, the pattern itself gradually shifts and changes. For instance, the measurement of normal seasonal fluctuations in economic life (statistically, by no means a difficult undertaking) looked at one time, not long ago, like a net contribution to knowledge. Plot the seasonal patterns of change (one was tempted to suppose) and each contemporary deviation from it will then assume significance. We shall have made ourselves that much wiser.

Unfortunately, no sooner did the serious analysis of seasonal changes begin, than the conception of a "normal" seasonal change broke down: for what is "normal" in a time of prosperity may be far from "normal" in a time of depression. The seasonal patterns, even of good and bad times, may be noticeably different. Again, each improvement in our technology modifies, to some extent, the seasonal pattern of change: so that apart from alternations of good and bad times (or if you like, oscillations in the weather pattern, equally disturbing) the variation which we may be tempted to talk of as a "normal" seasonal variation, when more fully studied is likely to become not a standard, but a shifting seasonal variation.

Thus the result of much well intentioned research in this field is likely to prove useful only for quite a short time—after which, a waste paper basket may be the very best place for it.

The question will confront us, always, What in these changing patterns (if anything at all) has permanent significance?

And here of course, one matches the length of a man's life, against the speed of change in one's fact-patterns.

The fruit fly, destined in a few days to complete its entire life cycle, no doubt very properly regards as permanent the season within which it is born, and dies. By fruit fly standards, the season *is* permanent. Not so the position of the clock, which will make several revolutions in a fruit fly's life, as the daylight alternates with darkness.

With reference to the length of their very different lives, man and the fruit fly face very much the same question: in today's crude, conversational slang, How long is the long run?

For instance, from twentieth century man's standpoint, is the present life-and-death struggle against Marxism to be regarded as permanent, or not? *Sub specie aeternitatis*, probably not. But if, cold or hot, this duel is destined to last for the next couple of centuries (as any serious student of Marxism knows that it is quite likely to do) perhaps we men of this generation should lay plans, and behave, as if it *were* permanent.



In the same spirit I propose now to discuss three features in the contemporary pattern of economic life, among the still free nations, which (though not necessarily fixed) I think we may legitimately treat as if they were permanent—just as the denizens of Naples transact business with their fellow-Neapolitan on the tacit, provisional assumption that their city's life is destined to continue smoothly: knowing nevertheless (the smoke plume of Vesuvius, their daily reminder) that one of these days the fate, which befell Pompeii, might with scant warning also befall Naples.

**B**Y the term *Industrial Revolution* we nowadays connote a period of technological change which, beginning imperceptibly somewhat more than two centuries ago, since then has been transforming continuously both western man's techniques of production and his techniques of consumption, and style of life, as well.

Therefore, while we speak of the Revolution as having a beginning—even though there be no determinate date of that beginning—we do not even think of it as having an end, but rather, conceive of it as a continuous process of creation. In this, it may be that we resemble (more or less) the most up-to-date of today's physicists, who themselves seem to conceive of the universe as being created continuously.

The first of these three features in the contemporary pattern of economic life, which I desire now to place alongside one another, is the fact of technological progress.

The second is the fact that, in order to facilitate and bring about technological progress, we must continuously produce, and put into service, great quantities of new capital equipment.

The third is the fact that our income is currently being distributed, in Canada, some 90 per cent as payment to producers, for their services, and some 10 per cent otherwise, in a nearly constant ratio.

The third is the fact that our collective income is currently being distributed, in Canada, some 90 per cent in the form of payments to producers, for their services;

and some 10 per cent, otherwise, in a nearly constant ratio. For some details of this relationship, my readers may wish to look into *Wages and Wage Rates* (Gilbert Jackson and Associates; September, 1948), or better still—for those prepared to do the necessary work on their own behalf—*National Accounts, Income and Expenditure* (Dominion Bureau of Statistics, Ottawa).

**A**T this point, there is a vital factor we should consider, before discussing methods of procuring new capital equipment—and, thus, coming close to the basic difference between today's mutually destructive ideologies. We shall do something at least to fill out the fact-pattern here needed, if we can approximate a quantitative relationship between *the growth in the volume of national production* which current technological developments permit at any given time, and *the volume of new capital equipment which is likely to be necessary* for the purpose of achieving that growth.

Let us, in this connection, ask ourselves three questions, which we can formulate quite simply.

*First:* What is in these days the ratio, between our society's capital equipment at any given time, and our society's current annual volume of production?

*Secondly:* What is the ratio between our society's current volume of production—that is, in statistical terms, the Gross National Product—and the current volume of Gross Private Home Investment?

*Thirdly:* What figure best approximates the general rate of increase from one year to the next, percentage-wise, in the physical volume of our Gross National Product?

Of course, there are no general answers to these questions. They can only be stated in reference to place and time. The resulting figures are not likely to be the same for any two countries, at any given moment—nor are they likely to be the same for any two decades, within a given country.

Moreover it is obvious, with reference

to the first and second of these questions, that comparisons can only be made in monetary terms, by reference to the purchasing power of some unit of currency, which itself in these days fluctuates continuously. But there need be no great handicap in consequence of this. For if *both* capital equipment and current volume of product *and* the current rate of investment are valued at the same time and in terms of the same unit, there may be not merely satisfaction of casual curiosity, but also some practical assistance to be gained, as the result of comparing them with one another.

The means at my disposal, for dealing with the *first* of these three questions, do no more than hint at the situation which doubtless, in due time, will be studied properly by someone other than myself (and I hope, better qualified). Here I merely quote from a series of studies made in Ottawa, where estimates of our National Wealth and Gross National Product have been published, in juxtaposition with one another, from time to time.

Representative figures (such as those given in the Canada Year Book), for conditions of business which were in sharp contrast with one another, are as follows:

DOMINION OF CANADA	1929	1933
National Wealth—		
in billions of dollars.....	\$31.28	\$25.77
Gross National Product—		
in billions of dollars.....	\$ 5.96	\$ 3.47
Product as Percentage of Wealth... ..	19.1%	13.5%

Thus, as of course we should expect, under conditions of approximate Full Employment, the percentage of Gross National Product to National Wealth is considerably greater, than under conditions of severe depression, such as those of 1933.

Actually, *Product as Percentage of Wealth* declined between 1929 and 1933 by 29.3

per cent—faster than the rate of 23.3 per cent, apparently, at which the proportion of wage-earners in active employment, to the total of the country's industrial working force, declined during this four-year period.

What seems to me the most significant element in these figures is the conclusion, as of 1929, that we then were producing in the form of Gross National Product, during a single twelvemonth, almost one-fifth as much wealth as Canada's entire accumulation of the good things of life, in all their many forms, between the date in 1535 when Cartier first sailed up the St. Lawrence, and 1929. In other words, our entire domestic investment, in the course of a very little less than four centuries, amounted to scarcely more than five times our production during a single twelvemonth, in 1929.

WITH reference to the *second* of our three questions, it should be noted that the Dominion Statistician has not claimed, on behalf of these laboriously gathered figures, that they do more than illustrate an approximate relationship. We cannot assume that, in a comparison between our own and other countries at any given moment of time, the same proportionate relationships would be found elsewhere.

But in terms of our own generation, let us for a moment look at the relation between Gross National Product (valued in current dollars) and Gross Private Home Investment, including depreciation (valued on the same basis), during another spell of approximate Full Employment. 'Gross Private Home Investment' covers all additions to capital (new buildings, including dwelling, equipment, inventories) on the part of private individuals and firms and also of businesses which are owned publicly—but not of governments themselves.

DOMINION OF CANADA	1947	1948	1949	Aggregate
Gross National Product—				
in billions of dollars.....	\$13.66	\$15.50	\$16.07	\$45.23
Gross Private Home Investment—				
in billions.....	\$ 2.96	\$ 3.27	\$ 2.93	\$ 9.16
Approximate Ratios—				
Private Home Investment as Percentage of Product.....	21.7%	21.1%	18.2%	20.3%



It seems that under conditions of Full Employment, in Canada, we can invest something like one-fifth of the current Gross National Product. We need not be detained here by the question as to whether it is a necessary condition for the maintenance of Full Employment that we *should* support this scale of investment indefinitely. Nor need we speculate here on the degree to which narrower circumstances may limit and restrain the possibilities of investment in free countries with a lower standard of living than ours.

**W**ITH reference to the third question: so much have the conditions of business varied from time to time, during the past few decades, that it is not easy to select individual years (or even groups of years) between which there is a long enough interval for convenience of measurement and which nevertheless lend themselves to comparison with one another.

We face also the question as to how to measure at any given time the shortfall of business activity, below that conventional optimum which we now call Full Employment. Our lack of the means of measurement, today, makes this an almost unanswerable conundrum.

But on rare occasions—we can reasonably say that within such and such a period things were so prosperous, that we may fairly describe ourselves as then having experienced Full Employment. Such an observation might (I think) not unreasonably be made about the brief period from 1927 to 1929—that is, till shortly before the cataclysm in the Stock Market that Fall, which is doubtless destined to remain the most memorable event in the latest of these years. Such an observation seems equally just, in reference to the latest years of our experience, from 1947 to 1949.

Thus we may be justified in comparing with one another these two brief prosperous periods, exactly two decades apart. But let us not interpret rigidly the conclusions which we may be tempted to draw, from a comparison between them.

It does seem reasonable to conclude that, during those two decades in Canada, the physical volume of the Gross National Product was almost exactly doubled. The

respective averages were \$4,766 millions (measured in 1935-39 dollars during 1927-8-9) and \$9,573 millions (similarly calculated, during 1947-8-9).

Expressed in terms of geometric increase, this corresponds with an annual rate of 3.55 per cent.

Actually, there are two main factors contributing to this result, each of which needs to be scrutinized separately.

First, we should expect the physical volume of production per individual person gradually to become enlarged, in consequence of successive technological improvements, coupled with a progressively more adequate provision of tools and equipment, per individual.

Reckoned on a per-head-of-adult-population basis (again, in terms of geometric increase), on an average in Canada the volume of production, as here measured, grew by 2.03 per cent annually.

DOMINION OF CANADA	1927-29	1947-49
Gross National Product—		
in millions of dollars.....	\$ 5,796	\$15,078
Cost-of-Living Index, excluding		
Rents (1935-39=100).....	121.6	157.8
Gross National Product—		
adjusted to 1935-39 dollars.....	\$ 4,766	\$ 9,573
Adult Population (ages 14 to 65)—		
in millions .....	6.349	8.534
Gross National Product—		
in 1935-39 dollars—per Adult....	\$ 751	\$ 1,122
Annual increase in Gross National Product, after correction. For adult population growth and retail price changes: 2.028 per cent.		

Note: An exactly parallel calculation, based on U. S. records in the same two periods, gives us a corresponding annual increase of 2.009 per cent.

Second (and quite apart from this expression of technological progress), because the numbers of Canada's population and of the country's working force, were increasing steadily during these two decades, we should expect a substantial enlargement in the physical volume of the Gross National Product on that account, anyway.

The numbers of our adult population were increasing on an average, during the period now being reviewed, at a geometric rate of 1.49 per cent annually.

The combination of these two figures—of course—is what produces the “global” rate of increase in Canada’s Gross National Product, amounting to 3.55 per cent annually, which has already been recorded, above.

**F**AITHFULLY, the calculating machine grinds out its answers to the second or third place of decimals. We, for our part, are not in quest of any spurious precision. What then, in more general terms, is the fact-pattern which our answers to the three questions, at which we have just been looking, may be judged to give us?

(a) Perhaps we may conclude, on a rule-of-thumb basis, that about \$5 of judicious investment are now needed by Canadians, in order to facilitate an increase, at the rate of \$1 annually, in the physical volume of their Gross National Product.

(b) Perhaps the current rate of technical progress in Canada, together with the current rate of growth in our adult population (if indeed, these are going to persist for awhile) permit of an increase in the physical volume of our Gross National Product, at the rate of somewhat less than 4 per cent annually.

(c) Perhaps, in order to bring about this rate of increase in the physical volume of our Gross National Product, we should invest in buildings, equipment and inventories (using the very best of our judgment) about 20 per cent of the Gross National Product (or in more cautious terms, somewhat less, but not much less, than 20 per cent of it) annually.

My personal faith is that, as approximations only, the figures just quoted here may reasonably be regarded by Canadians,

in the terms of their own present, as genuinely conditioning one another. In other words, in the sense that if any single one of the constituent elements in our calculation is destined, in a significant degree, to fall short of the *desideratum* here expressed then the annual rate of increase in our Gross National Product will inevitably fail, also, to realize these expectations of ours.

Of course, the faster the rate of increase in the numbers of our total population, the greater will be the need for new current investment. Moreover, within a given structure of economic organization, the faster the growth in the numbers of our working population, the greater will be both the demand for, and the possibilities of, new current investment.

The future numerical strength of our population is perhaps the most important of our unknown variables. For even today, not much is known about the factors which regulate the rate of population increase, accelerating or de-celerating it from time to time.

(d) But of the figures at which we have just arrived, perhaps the most interesting, from our present standpoint is the potential annual increase in the physical volume of production *per head of adult population*—here placed at about 2 per cent, provisionally.

If (subject to the conditions here stated—and no doubt, others not yet explored) this rate of increase can be maintained for a long time together, it follows that there is virtually no limit to the potential betterment of living conditions among all classes and improvement of their comfort, in a land like our own.

At least, here is a challenge, which none of us dare disregard.

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“HORIZONS OF TOMORROW’S WEALTH” IS THE FIRST OF TWO ARTICLES BY GILBERT JACKSON TO BE PUBLISHED IN PUBLIC AFFAIRS. THE SECOND WILL APPEAR IN OUR NEXT ISSUE.