Professor Dr. F. de Vries

LECTURES IN ECONOMICS 6

Theory, Institutions, Policy

POST-WAR ECONOMIC GROWTH REVISITED

G. BOMBACH

North-Holland

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Professor F. de Vries (1884–1958) became the first professor of economics at the Netherlands School of Economics (Rotterdam), which was founded in 1913. In 1945 he accepted an offer of the University of Amsterdam to teach economics in its Faculty of Law. On the occasion of his 70th birthday, May 2, 1954, his pupils created the Professor F. de Vries Foundation to honour a most influential teacher and a scholar of outstanding theoretical and practical wisdom.

The aim of the foundation is to regularly invite prominent economists from abroad for a series of lectures on theoretical subjects, as a stimulus to theoretical work in economics in the Netherlands.

PREFACE

Exactly two decades ago, Professor Robert M. Solow held the de Vries Lectures; this was at the prime of neoclassical growth theory. I greatly benefited from this work; it was compulsory reading for my students. Today I shall take a retrospective look at growth during the postwar epoch. This cannot be completely detached from the question of what the theory helps us to understand and interpret, what has occurred and how future prospects appear. I hope Robert Solow will forgive me that my present approach to neoclassical growth theory is more critical, and I am pretty sure that his view is also somewhat different today.

I regard the invitation to give the de Vries Lectures as a great honour with so many distinguished scholars having joined the list of lecturers. This is to a certain extent tempered by my concern as to whether I shall fulfil others' expectations of me.

Basle has been my centre of activity for a quarter of a century, and it is more than just the Rhine which connects Rotterdam and Basle. We in Basle associate Rotterdam first of all with the great scholar and humanist Erasmus, who spent many happy years in our city in a small house quite near our Institute. After the exciting times of the Reformation, he returned to Basle where he stayed for the rest of his life.

It was a pleasant gesture of Robert Solow to dedicate his Lectures to the eminent Dutch econometrician L. M. Koyck. My dedication goes to Professor Jan Tinbergen. As a Kiel student in difficult times, earning some money transporting institute books which were being evacuated in the war, I discovered his famous essay on economic growth from 1942. For years his ideas shaped my research. Later, during my teaching in Brügge, I often had the opportunity for discussions with Professor Tinbergen and for learning from him. His efforts to help those who suffer and to achieve a more just distribution of wealth worldwide and within countries, were always an example for me.

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CHAPTER 1

GROWTH AND ANTI-GROWTH

Desirability and Measurement of Growth

"Growth and anti-growth" is the title of a paper by Sir John Hicks (1966) which is worth rereading almost two decades later. The same formulation has been used by E.J. Mishan (1973) for his statement in a symposium when economists were shocked by the message of the Club of Rome. Hicks set out that between Old Growth Economics and New Growth Economics there was just one full century without growth theory, mainly due to the overwhelming influence of J.St. Mill's book. For Mill, the stationary state was no longer a horror but rather an objective for sound economic policy and he was convinced that considerable improvements are possible without further growth of material wealth. What Mill had in mind sounds extremely modern. He shows much sympathy with those who dislike "struggling to get on ... trampling, crushing, elbowing and treading on each other's heels". In particular, he was sure that technical progress will go on so that one major good will be available in ever increasing quantities, namely leisure.

Hicks believes that economists bear a high degree of responsibility for the growthmindedness of the post-war period. Statesmen, political parties, interest groups and the public have been influenced by their ideas and by the fact that during a period of more than ten years hardly a single issue of any economic journal in the world could be found without at least one article on growth theory, measurement and growth promoting policies. He might be right, but obviously there was an interdependence between the growth of growth theories and growth in the real world. Economists did not cause economic growth. They even had the greatest difficulty in explaining why exceptionally high growth rates were experienced after World War II and why a slowdown followed in the 1970s, and this will be the main concern of these lectures. Without this unforeseen development and with mass unemployment instead, as it was expected by outstanding economists by the end of the war, the trend of economic research would have followed quite different lines. The early contributions of Harrod and Domar needed an echo in the real world in order to start that fantastic development which followed. About ten years later, John Hicks (1974, p. 1) takes up this line of thought. For him the third quarter of this century was the "age of Keynes", and he thinks it is not impossible it will come to an end with that epoch, as will economic growth. We would be back to J. St. Mill and managing the stationary state would be the main concern.

Three questions were in the centre of the 1973 symposium referred to above: (1) Is continued growth possible? (2) Is continued growth necessary? (3) Is continued growth desirable, i.e. is it needed to make people "happy"? I shall be rather brief on (2) and (3) in the following and shall concentrate on (1) thereafter. I shall not discuss the question of the cost of economic growth in general and the environmental problems in particular. Pollution is not so much a function of actual growth rates but rather of the high level of production we have already attained. Resources are required to avoid pollution and break down that accumulated in the past, and as long as people are not prepared to lower their living standards, "quality of life" can mean more growth instead of less. I developed a model along these lines in the heyday of that discussion (1972). The same holds for energy consumption which has grown by a factor of 25 to 30 within the last century. Zero economic growth would contribute very little to solving the problems we are confronted with, and these problems are the consequence of the high **level**. And as regards the doomsday speculations of Forrester and Meadows, the reaction of the economic system to the oil crisis has shown that market signals are powerful enough to make a "soft landing" (i.e. a logistic curve development in the very long run which is outside our speculation) more plausible than a collapse.

When concluding the report on the Specialized Sessions of the 1977 World Congress of the International Economic Association in Tokyo which was devoted to economic growth and resources, H. Giersch (1979, p. 243) stated that "slower growth in the advanced countries will reduce the pressure on natural resources and may give rise to an accelerated flow of mobile resources to the Third World. This may contribute to reducing the great inequalities which exist on a world-wide scale ...". L. Day's view (1973, p. 137), understandable for a member of the Demographic Board of the United Nations, is that with modern communications systems, large international differences in living standards will be a source of frustration and political disruption in the less industrialized countries. "A zero economic growth rate offers the possibility of a better life in the currently industrialized countries; and certainly conditions in these countries have already reached a point beyond which the possibilities for improvement by means of further economic growth are virtually nil."

Is the marginal utility of continued growth in rich countries really close to zero? This will be the first question. The second is, can we help the Third World by growth restraint? A third and largely neglected argument will follow from this. The desirability problem can be approached from two sides. One may ask directly what welfare gains can be expected from further growth. Much easier to answer, however, is the question why it is so difficult to live without growth, and we shall mainly follow these lines. It is, of course, naive to expect constant welfare returns through further GNP growth. Pessimistic estimates of the elasticity of net welfare in respect of real GNP came out at one third, optimistic ones as high as three quarters. There is no doubt that Day is overpessimistic and that he entirely ignores the troubles of zero-sum redistribution which have so lucidly been described by L. Thurow (1980) and which are evident since the slowdown in the 1970s.

As early as 1966 W.A. Eltis (pp. 166-170) speculated as follows. Even if the slow United Kingdom growth with rates of 2% were to continue for a century the result would be a real product more than six times as high as it is now. In pure arithmetics, this should enable workers, a century later, to live as rich people do now: to have a house with a large garden, to employ a gardener, to have household staff, etc. But of course this dream could not be realized because all workers have largely the same dream. There is not enough land, and gardeners will no longer be gardeners but rather employ gardeners themselves. Eltis was already close to the more elaborate concept of **positional goods** and positional competition launched by Fred Hirsch (1977, p. 27) which came at just the right time and had an enormous response. I think there is much truth in all that, but no reason for extreme pessimism as regards the possibility and desirability of further growth during a rather lengthy period. Even in the richest countries, a large part of the population is still far below saturation levels, and poverty in an absolute sense has not yet disappeared. Moreover, possibilities of product innovation have always been underestimated.

The most recent statistics of personal income distribution for a very rich country like Switzerland (Ernst, 1983, p. 312) allows the following very rough exercise. About 50% of all incomes fall between 25,000 and 40,000 Sfr. per annum. No more than 7.6% of wage earners reach an income of 60,000 to 80,000 Sfr. With a view to the living standard of that bracket, which is far below that of a university professor, I cannot see any Eltis or Hirsch boundaries which would make it impossible for the 50% low income receivers to catch up with the higher bracket referred to or perhaps even with the next higher one.[1] This means just doubling real income or 2% growth for a whole generation. Arguing in terms of saturation levels often enough simply means that people have not the least idea of how a pyramid of personal income distribution looks and where their own place in such a pyramid is.

Can we help the poor countries by growth restraint? This was the next question. In his 1966 paper, Hicks established a balance of positive and negative arguments. The high income elasticity of imports of industrial countries for typical low income country products is an undeniable fact and the adverse effects of stagnation on the terms of trade have been experienced meanwhile.[2] Taking all arguments together, Hicks came to the conclusion that the income gap can be greatly reduced by growth restraint efforts but that in absolute terms the poor countries could be worse off afterwards. The alarmingly high rate of indebtedness of some large low-income countries is nothing but the symptom of the problem of growth retardation, and this brings us to the next and final point.

An old wisdom is that growth and debt go together. Their formal interdependency is well-known since the early work of Domar (1957). The 1944 article tackled the question of how to get rid of the burden of public debt accumulated during the war. "**The problem of the debt burden is a problem of an expanding national income**" (p. 57, italics original), he concluded, and this made him ask: How can a rapidly rising income be achieved? But what applies to the burden of government debt which causes so much worry at present is equally true for any debt relationship within a country and **between** countries, for the indebtedness of the business sector to the private sector and for the rather complicated debt structure between generations.[3] Social security systems have expanded rapidly in the post-war period, and quite independently of their modus operandi (wealth accumulating pension funds or pay-as-you-earn systems), the worrying problem of a transfer of real resources between generations in the face of the highly disturbed age structure of the population raises the growth or no-growth question. Independent estimates both for Germany and Switzerland produced practically the same result. If one capitalizes the claims of the future generation of pensioners, one arrives at the equivalent of total productive capital. Without growth, nothing would remain for the rest of the population. Or in other words: Growth is needed because a good deal of an expanded national product is already distributed in a legal sense. Astonishingly, those in favour of a further expansion of social systems are not seldom identical with the zero-growth adherents.

The critical constellation, according to the formula in footnote (3), is when the interest rate equals the rate of growth. This results in a constant relative burden. A constant share of net borrowing with an interest rate above the rate of growth, however, must end in financial collapse. Hence we are back to A. Smith: it is hard in the stationary, and miserable in the declining state. We have the sad experience of shorter periods of decline, but to get an impression of how life could be in longer stationary epochs we have to look back to the societies of medieval times which were characterized by rigid hierarchical structures with little opportunity for individual advancement and fixed consumption patterns for all classes.

Problems of **measurement of economic welfare** were again discussed at the Tokyo Congress (Beckerman, 1980). Among the old quarrels of counting input instead of output in the government sector and how to avoid large scale double counting, some new questions were under consideration such as the impact on wealth of the large increase in the length of life which reduces the depreciation rate on human capital, and the idea of supplementing static inequality measures with a dynamic measure which mirrors the time span it takes for a lower income group to catch up with a higher one. No satisfactory solution, however, was found to evaluate the welfare gains through increased leisure.

There are still considerable differentials in the average length of the working day and participation rates. Taking the 16 countries included in our studies, the number of hours worked per person is 18% higher in Japan and Switzerland than in the United States (1977). However, it is almost impossible to distinguish between a voluntary reduction of working time or participation rates (i.e. the true trade-off between leisure and material wealth) and involuntary developments in consequence of slackening business activity. Quality changes are a recurring difficulty for index statisticians. They gain more weight with the increasing share of durables and technological progress which enables more efficient goods to be produced with less physical input. Nonetheless, the often assumed one percentage point downward bias per year for not taking into account improved quality appears exaggerated.

There was certainly considerable disappointment when the new United Nations "A System of National Accounts" came out in 1968 just at a time when there was so much enthusiasm about more ambitious attempts at welfare measurement, social indicators and Net Economic Welfare of the Tobin/Nordhaus type. I still think it has proved better to leave things as they developed in the 1950s and even to eliminate some minor imputations. Social indicators may be helpful as a sub-system to reproduce the welfare implications of activities which are not accessible to valuation in money terms, like the health and educational system and defence. There is, however, one major regrettable development which was not foreseen when the modern accounting schemes were set up. This is the large - and from country to country largely differing - growth of the secret sector, underground economy, or whatever the nomenclature.[4]