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KEYNES AND INFLATION

by Arthur Pedoe

Rarely a day passes without the name of Keynes being mentioned in the financial press. We now have President Nixon's announcement of the price and wage freeze, the cutting loose of the American dollar from gold, etc. Reading the comments on the President's action, one seems to be reading again the discussions and criticisms of John Maynard Keynes' theories and suggestions. Keynes died 25 years ago.

In the February 1971 issue of *The Actuary*, Keynes name is mentioned in a review by Ed Wells of my text on life insurance and pensions. I quoted Keynes' views on debauching the currency as a heading to the chapter on Inflation. Ed Wells thought it curious that Keynes got a peerage for pressing views on government expenditures resulting in the debauching of the British pound which he had so strongly condemned. A re-examination of Keynes' idea is important in view of President Nixon's action, particularly to actuaries.

The quotation is from *The Economic Consequences of the Peace* in which Keynes, attached to the British delegation involved in the Treaty of Versailles following World War I, attacked the Treaty. It was prophetic about the evils of inflation:

> "Lenin is said to have declared that the best way to destroy the Capitalist System was to debauch the currency. By a continuing process of inflation, governments can confiscate, secretly and unobserved, an important part of the wealth of their citizens . . . Lenin was certainly right. There is no subtler, no surer means of overturning the existing basis of society than to debauch the currency. The process engages all the hid-

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WELCOME

We welcome to the Chicago Office, Mr. Bernard A. Bartels who took office on January 1 as Administrative Officer of the Society.

ACTUARIAL SCIENCE PROGRAM AT GEORGIA STATE UNIVERSITY

by Robert W. Batten

Georgia State University in Atlanta has been the center of actuarial education in the Southeast since 1958. Aided by both the financial and moral support of the Southeastern Actuaries Club, the University's program at present includes approximately 80 students working toward a Bachelor's, Master's, or Doctor's degree.

The actuarial science program is part of the Department of Insurance in the School of Business Administration. An advantage of being a part of the Business School is that an actuarial science student is able to enroll in courses in insurance, economics, finance, accounting, business law, computer sciences, management, marketing, international business, and real estate—courses not provided in the School of Arts and Sciences. However, the student takes all of his basic mathematics courses from the Department of Mathematics and takes about one-third of his total course work in other departments of the School of Arts and Sciences. So he has the best of both worlds.

The undergraduate student's program consists of background courses in the humanities, social sciences, and business-related disciplines, and of 45 quarter hours in actuarial science courses covering basic actuarial principles and all ma-

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CONSUMERISM IN CINCINNATI

by Thomas Mitchell

Three topics on the relationship of consumerism and life insurance were discussed by a panel at the Oct. 6 meeting in Cincinnati of the Actuaries Club of Indiana, Kentucky and Ohio. Panel members were Kenneth E. DeShelter, Director of Insurance for the State of Ohio, Dale R. Gustafson, and Abbas Yoursi, Ph.D., Chairman of Insurance Department at the University of Concinnati.

Judge DeShelter suggested the areas where the life insurance industry was most vulnerable to attack from consumer advocates were: (1) misrepresentation of product (basically advertising and sales presentations); (2) inability to find a legitimate basis of cost comparison; and (3) failure to bring pressures to bear in controlling medical costs.

Mr. Gustafson mentioned four areas of vulnerability, but made it clear that vulnerability does not imply guilt. Three areas are the size and accumulation of assets and economic power by the industry, aloofness and slowness to change in the past, and the public image of the insurance industry. The public does not distinguish between the various kinds of companies, auto, life, health, etc. but sees the industry as a whole and transfers criticisms of one branch indiscriminately to all.

The fourth area is our distribution system. Insurance is a "highly touted socially desirable product that nobody wants to buy." This results in an adversary sale situation, which in turn gives rise to higher distribution costs and makes it more difficult to control sales excesses.

Professor Yousri pointed to the unmet needs for useful social investments, particularly in urban real estate, and also mentioned the accumulation of wealth.

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Finally, it is worth repeating that, if the execution parameters of any ACT function are set to be compatible ranges of values, the corresponding complete range of results will be returned simultaneously.

Future Extensions

The basic portions of the ACT language which have already been implemented are concerned primarily with single-life annuity and assurance functions using ultimate mortality. Other features available are sets of pure interest functions, mortality functions, and valuation functions, together with the facility to use projected mortality and interest rates varying with duration.

The basic work necessary to extend the ACT language to use select mortality has also been completed. The notation adopted to indicate the use of select mortality makes use of another feature of APL, namely, the facility to underscore any letter of the alphabet, the resulting composite symbol being treated as unique. Thus, while we would have l_x written as LX in the ACT notation, the expression $l_{[x]+t}$ becomes simply $L\underline{X}$. This beautifully simple device (admittedly artificial and unique at present to an APL implementation of the notation) preserves the one-to-one correspondence of the programming and publication notations as already described, at the same time indicating the use of select mortality. The basic indexing procedures are easily derived, interpreting the $\underline{X}$ parameter as a vector of (x_i, t_i) elements and operating on tables which are now partly matrices.

Future extensions to the incorporation of multilife functions and multiple decrement functions and to areas such as group and health insurance are more than feasible. While the notation development will follow naturally from the guidelines already established, the programming of the macro functions desired will be greatly facilitated by APL's unique handling of arrays.

Editor's Note: *Mr. Jamieson is a student of the Society, and he very kindly responded to our invitation to tell us about ACT, a new programming language which he developed.*

Keynes and Inflation

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den forces of economic law on the side of destruction, and does it in a manner which not one man in a million is able to diagnose . . ."

The book made Keynes' name famous. After five years Germany obtained far more lenient terms, but in the long drawn out agony of those five years the value of the German mark was reduced to zero and brought on Hitler and World War II. I have met some who treat this German experience of inflation as a myth of little bearing on present day affairs.

Keynes was consultant to the British Treasury throughout World War II, making six journeys to the United States in connection with financial matters of the greatest importance; his peerage, awarded in 1942, was for this public service.

In May and June 1971 the Canadian Senate had a Committee on National Finance examining economic trends. Thirty briefs were submitted by leading experts from the United States, Canada, Britain, Germany, and Japan; the result was 30 individual viewpoints. The academic economists argued, generally, that control of prices and wages would be ineffective and difficult to administer. A concluding comment by the Governor of the Bank of Canada was: ". . . economics is not yet and probably never will completely be an exact science." One professor of economics (Chicago and London School of Economics) is quoted as stating that a more or less steady rate of inflation of 15—30% or more can be tolerated. After all, some South American countries experience this and survive! The average annual rate of depreciation of money in the ten years 1960-1970 in Argentina was 17.5%; in Brazil 30.6%.

The serious point is that the rate of depreciation of money is quickening in many countries: in the U.S. during the first half of the 1960s, the dollar lost only 6% of its buying power, whereas during the second half of that decade it lost 19% of its domestic value. In most countries 1970 was definitely worse than the average for the decade 1960-70, and in many countries 1971 is worse than 1970. The historical development of this trend is important in watching developments arising from President Nixon's move.

In the 1920s in England prices were falling, unemployment was severe; the government followed a policy of deflation to restore the Gold Standard, which it did in 1925 at the pre-war parity. As a result, the large coal export trade suffered, miners wages were cut followed by a coal miners strike and a general strike. In 1923 Keynes had published *A Tract on Monetary Reform* which would contradict the charge that he was a congenital inflationist. He stresses the necessity for a stable value of money and challenged the role of the Gold Standard in providing stable prices and stable rates of exchange. As stated, his views were ignored. Keynes continued to attack the classical economic theory that the trade cycle was the automatic control of the economic system; that governments should not interfere and wages and prices and unemployment would all adjust themselves—*laissez faire*; the Gold Standard was part of this system. Keynes wanted government direction of the economy, not *laissez faire*.

During the 1920s other countries were prospering. In the United States the general well-being led to the boom when people would borrow at any rate of interest to buy shares or increase money-making facilities in an increasing prosperity which would go on forever! The crash came in October 1929 and not only ruined many Americans but spread ripples of disaster over the entire world. By 1932 the value of world trade had fallen to one-third of the 1929 level and unemployment was calamitous—in the U.S. about 25% and in Britain 22%. The situation was extremely grave in Britain with a serious outflow of gold, and in September 1931 Britain left the Gold Standard. Keynes' advice had been ignored and it was realized what a disastrous mistake had been made.

A Commission appointed by the Labour Government in Britain to advise on government policy reported in 1931. It recommended increases in taxation, drastic cuts in government expenditures such as unemployment benefits and civil service salaries. The whole point was to get a balanced budget. It was the reverse of what Keynes had been urging. Keynes referred to this May report as "The most foolish document I have ever had the misfortune to read." May was an actuary in the service of the Prudential of England, who made his way to the top through the investment side and for his public service was awarded a knighthood, then a baronetcy and finally a peerage. Is he the only actuary to have

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[redacted] become "My lord"? One should realize the extraordinary times in which Keynes worked and the acute problems for which he sought to find answers.

President Roosevelt in his 1932 election campaign made a strong commitment to have a balanced budget and reduce government expenditure and began his Presidency with an economy drive and a slash in public pay. This was before the inauguration of the New Deal in 1933.

In 1936 Keynes published *The General Theory of Employment, Interest and Money*. It has been described as one of history's major intellectual achivements and largely revolutionized economic theory. It is basically an analysis in terms of fundamental economic principles of the causes of unemployment. It was addressed to his professional colleagues and is a difficult book to read. Keynes sought to show governments how, by controlling the level of demand, they could ensure "full employment." This may be defined as when reasonably efficient workers willing to work at current [redacted]ailing wage-rates do not find them[redacted]es unemployed as a result of too little demand.

Keynes was confident that by government action one could cure the great social evils of unemployment and poverty without the alternative of state socialism. In the years since Keynes outlined his theories the very success of the action has created conditions from which has sprung another problem: rising prices, against which the action is largely ineffective. Apart from the problem of controlling demand, there are the problems of labour union power challenging that of management and the state, profit levels in industry, and prices set by huge concerns which dominate an industry and are in effect a monopoly although subject to anti-trust laws. Any government attempt to control these factors is called a "Prices and Incomes Policy."

One may ask what Keynes had to say about these emerging problems, particularly rising prices and inflation.

In 1937 Keynes suffered a severe heart attack. When war broke out in 1939 he [redacted]ttached as a consultant to the Bri[redacted]Treasury, which used him as an emissary to the United States in the many financial problems arising out of armament purchases and war finance.

Keynes was a man who got involved in a multitude of tasks little related to those mentioned here. He was a master of detail and took charge of most operations with which he was connected. One is astonished at the burdens permitted to fall on the shoulders of a man subject to recurrent heart attacks. After the war ended (1945) he was the emissary arranging a major loan from the United States to restore Britain's shattered finances. He died early in 1946. Lord Keynes' reputation as one of the greatest Englishmen of his age has increased as the years have passed. The world has been moving Keynes' way.

The question arises what would Keynes have done facing the problems of our day. He believed that the state would have to intervene at many points, yet he was essentially, an individualist. President Nixon is preparing to face a major world problem and it is to be hoped that he will succeed. Inflation is destructive of saving—in particular of long-term saving; life insurance and pensions are particularly vulnerable. □

Actuarial Meetings

Feb. 15, Actuaries Club of Philadelphia
Feb. 15, Chicago Actuarial Club
Feb. 16, Seattle Actuarial Club
Feb. 16, Nebraska Actuaries Club
Feb. 16, Actuaries Club of Des Moines
Mar. 9, Baltimore Actuaries Club
Mar. 15, Actuaries' Club of Des Moines
Mar. 15, Seattle Actuarial Club; Portland Actuarial Club (Oregon)
Mar. 20, Chicago Actuarial Club
Mar. 22, Nebraska Actuaries Club, Omaha
Mar. 28, Actuaries Club of Hartford

SOCIAL SECURITY NOTES

Marice C. Hart and Jane M. Ceccarelli.—"History of the Provisions of Old-Age, Survivors, Disability, and Health Insurance." Social Security Administration, June 1971.

This 10-page booklet traces major legislation for the OASDHI system from 1935 to the present replacing legislative histories published earlier. The arrangement is by topic. The section about the benefit formula gives by implication the rationale for the seemingly clumsy formula now in effect.

Free copies may be obtained from the Office of the Actuary, Social Security Administration, Washington, D.C. 20201.

Georgia State

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terial included in the first three Society examinations.

An exceptional high school graduate could pass Part 1 as a freshman and thus be able to complete the courses in life contingencies as an undergraduate. Most students, however, do not attempt Part I until sophomore year and, take the probability and statistics courses as juniors and the numerical analysis, interest theory courses as seniors.

The candidate for the Master of Actuarial Science degree completes courses in life contingencies, graduation, demography, construction of tables, and administrative practices, and several elective courses from areas such as social insurance, group insurance, pensions, life insurance accounting, operations research, and insurance law. In addition, the Master's candidate takes an actuarial science seminar course in which he makes an in-depth study of some actuarial topic included on the Fellowship Examination syllabus.

Actuarial science is one of the fields of study which may be chosen by a candidate for the degree of Doctor of Philosophy in Business Administration (Ph. D.) or Doctor of Business Administration degree (D.B.A.).

Georgia State also conducts actuarial seminars at various times during the year for Parts 1 through 7. These seminars have helped actuarial students who have been preparing through self-study while engaged in full-time employment. Advance testing permits the student and his employer to assess his readiness to benefit from the seminar, as the seminar can do no more than help with the student's final preparation. Marginally prepared students are discouraged from attending. During the last six years, more than 170 students have been successful on actuarial exams taken immediately after attending a preparatory seminar at Georgia State.

Persons desiring further information may contact Robert W. Batten, Department of Insurance, Georgia State University, 33 Gilmer Street, S.E., Atlanta, Georgia 30303. □

ERRATUM —

On page 1, third column, 1st paragraph, mispelling of Cincinnati.

Our apologies,
THE PRINTER