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THE ECONOMY, SOCIETY AND THE ACTUARIAL PROFESSION 1856-2006

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ABSTRACT

The paper identifies two major trends in the economic and social history of the last 150 years, and discusses their effect on the actuarial profession. The major economic trend is *globalisation*, with which is associated specialisation of function. The major social trend is the gradual *collectivisation* of society. Neither of these trends has developed monotonically. Both have developed in a ratchet-like movement over time. Globalisation is reflected in the overseas expansion of British life assurance companies up to 1914, followed by an extended period of retrenchment before expansion was resumed in the last quarter of the 20th century. The effect of the collectivisation of society on the actuarial profession has been felt most acutely in an intensification of the regulation of financial services.

KEYWORDS

Globalisation; Collectivisation; Economy; Society; Actuarial Profession

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1. INTRODUCTION

It is an honour as well as a privilege to have been invited to contribute, in however small a way, to the celebrations marking the 150th Anniversary of the formation of the Faculty of Actuaries. The Faculty represents one of the major professions for which Scotland is justly renowned. It is through its great professions of medicine, engineering, the law, accountancy, education, divinity and actuarial science that Scotland has given so much to the world. Perhaps because of its relatively small size, as well as the natural reticence of its members, the actuarial profession may be less widely recognised than some of the others; but it has just as much of which to be proud. The fact that so much has been achieved by so few people is a measure of the high level of their individual productivity.

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The Scottish tradition in working out the mathematics which underlies actuarial science goes back even further than 1856. More than 100 years earlier, in the 1740s, the Scottish Ministers' Widows' Fund was established, almost certainly the first actuarially-based fund anywhere in the world; and the minister-mathematicians who worked out the Fund's principles were building upon the work of still earlier Scottish mathematicians like John Napier of Merchiston, while their calculations were checked by yet another eminent Scottish mathematician, Colin Maclaurin.

In this paper I am not going to attempt an account of the development of the actuarial profession in Scotland, partly because I am not qualified to do so, but mainly because it has already been expertly done by Davidson (1956) and by Forfar (1998). Nor am I going to offer a detailed account of the legislative and market developments in the life assurance industry in the last 150 years. It would be impossible to do justice to such a large topic within the confines of a single paper, and, in any case, it is ground that has been well trodden. Instead, I will pick out two major trends in the economic and social history of the century and a half since 1856, and relate these trends to some episodes in the development of the actuarial profession. My approach is necessarily selective and subjective, and may therefore not command universal approval, but, if it stimulates thought, I hope that it will be considered to have achieved its purpose.

I shall begin with some economic trends. The most important of these has been, I believe, the increase in globalisation and in the specialisation of functions; processes which are intimately connected. These major trends have not proceeded in any monotonic fashion; rather there is a ratchet effect over time. When viewed from the perspective of globalisation, the last 150 years fall naturally into three phases. The first phase began well before 1856, intensified after 1870, and came to an abrupt end with the outbreak of the First World War in 1914. The second phase, which was one of retrenchment behind national frontiers, lasted from then until about the fourth quarter of the 20th century. The third phase, which can be described as an attempt to recover the worldwide single market which was lost in 1914, is still under way.

In the third section I shall look at some social trends, of which the dominant one is the gradual collectivisation of society. This, too, began before 1856, and it has accelerated since then. As with globalisation, there have been brief periods during which its progress has been halted, and even temporarily reversed, before resuming once more. For most of the 20th century, both the proponents and opponents of collectivisation believed that its progress should be measured by the extent to which ownership of productive capital was in the hands of the state. The experience of public ownership having proved unsuccessful, however, we are now living through a period where the extension of state control is taking a different form, that of a greater degree of regulation. This is not

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confined to just one or two industries, like life assurance; it is a society-wide phenomenon.

The last two sections discuss the impact on the actuarial profession of these major social and economic trends.

2. Economic Trends: 1856 to 2006

2.1 *Output*

The process of economic growth in the last 150 years has been largely the result of the cumulative interaction of three sets of factors: progress in pure science; progress in technology; and progress in the methods of organisation of production and distribution. The rate of growth was fastest between 1870 and 1900. In those three decades British industrial production doubled, while world industrial production nearly quadrupled. Whereas in the period 1850 to 1880 real income per head in Great Britain rose by 10% per decade, from 1880 to 1900 it rose at around 20% per decade, despite continuing increases in population. Output grew rapidly in both the First and Second World Wars. Between the wars, however, growth was sluggish: from 1919 to 1938 per capita GDP grew at an average annual rate of only 0.6%, (Floud & McCloskey, 1994a, p296). After the Second World War, growth averaged 3% p.a. in the 1951 to 1973 period, and 1.5% for the rest of the 1970s, before returning to a figure of over 2% for the 1980s and 1990s. (Floud & McCloskey, 1994b, p98)

2.2 *Population*

In 1850 the population of the world is thought to have been about one billion. By 1930 this had doubled to two billion, and reached three billion in 1962. It is currently around six billion. The increases in food supplies required to support such a rapid growth in population have, in part, been made possible by the use of fertilisers and pesticides which may have damaged the environment. On the other hand, progress in biology and in genetics has not only enabled the limiting of population increases; it now permits the moulding of the physical characteristics of future generations of human beings and their creation by artificial means.

2.3 *Life Expectancy*

In 1853 the average expectation of life at birth in England was 40 years for males and 42 years for females. During the 60 years up to 1914, the expectation of life in England and in some of the other advanced countries increased by about 2 years each decade. From 1914 to 1950 this rate of improvement accelerated to about 3.5 to 4 years per decade. In a hundred years a full generation was added to the average length of life in Western countries. By 1985, average life expectancy in England had reached age 84

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for males and age 88 for females, allowing for expected future mortality improvements. Today it is age 87 for males and age 90 for females.

2.4 *Globalisation and Specialisation*

2.4.1 'Globalisation' refers to the evolution of a single world market, i.e. the reduction or removal of barriers to trade and to the movement of capital and labour between countries. Globalisation and specialisation are intimately related, since the progress of specialisation within any industry is limited by the size of its market. The larger the market the greater is the degree of possible specialisation; and, since productivity (output per worker) is also associated with the growth of specialisation, it follows that increasing globalisation should lead to increases in real income.

When looked at from the perspective of economic history, the century and a half from 1856 to the present day appears to fall into three distinct phases:
(1) 1856 to 1914;
(2) 1914 to c1980; and
(3) c1980 to the present.

The first phase was characterised by the acceleration of certain trends in science, technology, and the organisation of industry and society, which had been in existence for at least 100 years, and whose origin is captured in the phrase 'the industrial revolution'. Equally distinctive, if less well-known, were corresponding changes in population, social behaviour and ideas. Together, they resulted in the evolution, in the second half of the 19th century and in the first decade of the 20th century, of a worldwide single market for many commodities, with virtually unhindered international movements of capital, labour and commodities, facilitated by the existence of a single universally accepted medium of exchange — gold.

The outbreak of the First World War destroyed this economic system, and set in motion forces leading individual nations to retreat behind protective trade barriers, restricting movements of goods, capital and labour between themselves and their neighbours. The inevitable consequences followed. Between the Wars, rates of growth of trade, production and living standards slowed throughout the Western world, and in some cases fell. This *second phase* continued for about three decades after the end of the Second World War.

The beginning of *the third phase* is not well-defined, but the period can be characterised as one in which there began a re-globalisation of economic activity. In this process, successive international trade agreements negotiated under the auspices of GATT (later the WTO) came to play a decisive part.

Let us look at each of these phases in a little more detail.

2.4.2 *First phase: 1856 to 1914*

The period from the middle of the 19th century, and especially from 1870

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until the outbreak of the First World War, can be seen in retrospect to have been a period of economic stability as well as of growth. At the time its permanence was taken for granted, evidence of the inevitability of progress.

The character of economic life in this period rested on a number of special features:

— the free movement overseas of workers and capital;
— the spread of machine-based industries throughout Europe and, after 1870, the United States of America and Japan;
— the continuing growth of population in Europe, especially in Central Europe;
— the development of worldwide, efficient networks of communication, banking and insurance services; and, especially,
— the expansion, via specialisation, of multilateral trade.

Only after the war were these arrangements perceived to be not general and permanent, but rather "intensely unusual, unreliable and temporary" (Keynes, 1919). Right up to its outbreak in 1914, the idea of a war between the major European Powers seemed unthinkable to informed opinion (Angell, 1933). In the wreckage of its aftermath, Keynes (1919, p6) looked back with nostalgia to that pre-war golden age when:

> "The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages; or he could decide to couple the security of his fortunes with the good faith of the townspeople of any substantial municipality in any continent that fancy or information might recommend. He could secure forthwith, if he wished it, cheap and comfortable means of transit to any country or climate without passport or other formality,...(he) could proceed abroad to foreign quarters without knowledge of their religion, language or customs, bearing coined wealth upon his person, and would consider himself greatly aggrieved and much surprised at the least interference. But, most important of all, he regarded this state of affairs as normal, certain and permanent, except in the direction of further improvement, and any deviation from it as aberrant, scandalous and avoidable. The projects and politics of militarism and imperialism, of racial and cultural rivalries, of monopolies, restrictions and exclusions, which were to play the serpent to this paradise, were little more than the amusements of his daily newspaper, and appeared to exercise almost no influence at all on *the ordinary course of social and domestic life, the internationalisation of which was nearly complete in practice.*" (emphasis added)

Before 1914, London was more of a world financial centre than it was a national centre for investment. The City had connections worldwide, not just throughout the Empire. To its clients all over the world it supplied long-term capital through the new issues market, and short-term capital through the bills market. Sterling, backed by gold, acted as the common currency for international trade. London's competitive advantage in financial services

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depended on cheapness and security, and this encouraged international dealings.

It was not just the existence of the gold standard or its rules that maintained stability before 1914; it was the conditions in which it was applied. Great Britain did not exploit its position as the world's largest creditor nation to accumulate too large a stock of gold. Instead, it acted, in Keynes' phrase, as 'the conductor of the orchestra'.

However, even before 1914 forces could be discerned which were gradually undermining the freedom of markets. They included a growing dissatisfaction with the distribution of income and wealth, with the impersonality of market forces, the cycle of family poverty, and the conditions of industrial work.

2.4.3 *Second phase: 1914 to c1980*

The First World War had the effect of accelerating the movement in all the participating states in the direction of collectivist economic planning; but much of economic policy from the First World War to the end of the third quarter of the 20th century was devoted to responding to adverse economic events. In Britain, there was a severe slump in output after the end of the war. Following the Wall Street Crash of 1929, the Great Depression produced a remarkable and general fall in prices. In the United Kingdom, the wholesale price index fell from 100 in 1929 to 72 in March 1933. In the U.S.A., the fall in a similar index over the same period was even more severe: from 100 to 63. The consequence was a prolonged fall in the levels of output and employment in many Western countries.

Britain left the gold standard in 1931. From 1933 to 1937 the country enjoyed a modest economic recovery, albeit more marked in the south than in the industrial heartlands of the north of England and the west of Scotland. The recovery was attributed to the devaluation of sterling, the 'rationalisation' of industry, an increase in protective tariffs and quotas, and the availability of 'cheap' money. Although the U.S.A. abandoned the gold standard in April 1933, devaluing the dollar by 41%, the depression in that country persisted, with widespread and high levels of unemployment continuing right up to the outbreak of the Second World War.

In the inter-war period, the protectionist trade practices adopted by the leading countries helped to spread and to prolong the Depression. At the time these policies were thought to be a temporary response to abnormal conditions. However, in the immediate aftermath of the Second World War a return to the pre-1914 trading and financial arrangements seemed out of the question. Instead of the international interdependence which had prevailed before 1914, the strict controls on the movements of goods, labour and especially capital between countries, which had been introduced during the war, were carried over into peacetime. Within countries, the tradition of privately owned businesses operating in unregulated markets gave way to

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nationalisation, high taxation and planning controls. For 30 years after 1945, it was widely believed that management of the economy through central planning would prove superior to the 'anarchy' of the market.

2.4.4 *Third phase: c1980 on*

Needless to say, trends in the economy and in politics and social behaviour do not fit neatly into discrete time periods. So, I cannot exactly date the start of the last phase. What I can state with certainty is its characteristic feature, namely the restoration of a belief in the superiority of markets rather than government control in realising a satisfactory economic performance. This restoration was due, above all, to the actual experience of public ownership, high taxation and detailed controls in the early post war period. These measures were widely perceived to have failed.

I have dated this third phase as beginning in 1980, the year in which Ronald Reagan was elected U.S. President and one year after Lady Thatcher became Prime Minister. The policies which these two political leaders inaugurated, notably the abolition of controls on international capital movements, the privatisation of the major state-owned industries (in the case of the U.K.), and deregulation (in the U.S.A.) accelerated a return to what we now call the 'globalisation' of economic activity. However, the beginnings of this return can be traced as far back as the 1950s, with the introduction, under the auspices of GATT, of successive rounds of multilateral tariff reductions. Contemporary globalisation can be seen as an attempt to return to the international trading and financial arrangements which prevailed in the pre-1914 era. It is true that, in those days, the international trading and investing community represented a smaller part of the world economy, but the pre-1914 world economy was more tightly knit than that of today.

2.4.5 *Summary*

If I were to summarise the history of the last 150 years, I could do so in the following terms. The early part of the first 50 years represented the high point of the Victorian age. Confidence in orderly and inevitable progress in all spheres of human activity — not just in economic activity — was widespread. This outlook was underpinned by an equally unquestioned belief in the existence of God, a belief which helped to maintain social cohesion.

By the end of the 19th century belief in God had waned amongst the intellectual classes in England. To many such people growing up in the Edwardian era, the 'death of God' meant a liberation from false beliefs and irksome duties; but they could still look forward with some confidence to a future in which human society would continue to evolve in the direction of increasing civilisation.

The First World War destroyed all this. It was not just the huge loss of life, the material destruction or the break-up of the international trading and

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financial system; it was the destruction of the belief in the inevitability of progress and in civilisation itself. The late Victorian fear about the social consequences of a Godless society gave way, after the War, to a growing concern about the possible collapse of capitalism. By the 1920s and 1930s the vanished certainties of the 19th century seemed at the same time both comforting and unattainable.

3. Social Trends: 1856 to 2006

3.1 The last century and a half has been an era of profound social change, not only in Scotland and England, but throughout the entire Western world. Everywhere people have been uprooted from village life and rural occupations and concentrated in towns and cities, where they have found themselves subjected to the disciplines of factory work and office hours.

There have also been changes to the family. As population movement destroyed the old basis of neighbourhood, the nuclear family gradually became more important than the extended family, and the nuclear family itself changed. Whereas, in the late 19th century a mother could spend up to 15 years in pregnancy, today the corresponding figure would be four years or less. Nowadays, the typical family is much more likely to own property (specifically, its house and car), than it would even 50 years ago.

3.2 *The Gradual Collectivisation of Society*

Throughout the last 150 years, the role of government in social and economic life has steadily increased. This has come about in three main ways: through the expansion of the public sector, i.e. state ownership of productive assets; through increased regulation; and through higher and more extensive rates of taxation. It has been accompanied by the growing acceptance, from the first half of the 20th century, of new purposes for the state. It was no longer enough for the state to provide for the defence of its citizens; it must also provide social security and 'social justice'. When, in 1918, women over the age of 30 were granted the vote, it reinforced existing tendencies towards the collective provision of welfare by means of pensions, health services and family allowances.

While the prospect of the collapse of capitalism was never seriously entertained by ordinary people, the proposition that capitalism would eventually be replaced by socialism was one which had captured the imagination of increasing numbers of the thinking classes from the late 19th century onwards. Although the idea of socialism has a long pedigree (Gray, 1963), its popularity amongst intellectuals in the 20th century can be attributed to its systematisation by Karl Marx (Marx, 2000; Marx & Engels,

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1955). In his reformulation of the theory of socialism, Marx focused exclusively on the *ownership of capital*. Since then, it is the extent of state ownership of assets in the economy which has been the accepted measure of the degree of collectivisation of a society. Hence, nationalisation of an industry was seen as a movement toward socialism, and privatisation as the reverse.

However, this preoccupation with ownership has caused many commentators to overlook the fact that state ownership is not the only instrument by which state control, or collectivisation, of an economy can be extended. Equally important is regulation, as well as the redistribution of income through taxes and subsidies.

One hundred years ago, redistribution was a policy which was openly and even aggressively advocated by politicians on the left, who recognised that the then distribution of both income and wealth was highly skewed. In 1920, the French ambassador to London wrote to Churchill that:

> "In the twenty years that I have been here I have witnessed an English revolution more profound than the French Revolution itself. The governing class have been almost entirely deprived of political power, and to a very large extent of their property and estates; and this has been accomplished almost imperceptibly, and without the loss of a single life."

By 1937, eight years before the first majority Labour Government came to power, it has been calculated that 5% or 6% of national income was being redistributed from rich to poor. Today, redistribution is the political practice which dare not speak its name. Perhaps this may be because a majority of the population now possesses significant wealth, even if only in the form of entitlements to pensions and other state benefits.

The major social trend of the period 1856 to 2006 on which I should like to focus attention is, therefore, *the growth of state control*, or *the collectivisation of society*, to give it another name. It is a phenomenon common to all the 'advanced' countries of the Western world, these countries being generally held to be congruent with the 30 member states of the OECD. In 1856 government intervention in economic activity and in society was minimal; today it is pervasive. This trend, however, has not shown a monotonic increase. As with globalisation, there have been periods of temporary reversals, followed, after a while, by a resumption of the long-run trend.

After the First World War, the popularity of collectivist political parties, whether of the Left or the Right, increased, while the defence of individualism was left to the parties of the Centre. The Great Depression of the 1930s, especially marked in the U.S.A., appeared to many as the harbinger of imminent capitalist collapse. Stalin certainly thought so. When his economic adviser Kondratieff suggested, instead, that it was no more than another downturn in one of capitalism's long business cycles, Stalin had him shot. (Other politicians since Stalin have sometimes wished to do the

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same to their economic advisers, but none, so far as I am aware, has actually succeeded.)

In the 15 years after the Second World War, collectivism took huge forward strides throughout the Western world. In Britain, industries like electricity, gas, telecommunications, transport, coal and steel were taken into state ownership, as was the Bank of England. The insurance industry only narrowly escaped. Wartime controls were kept in place, while other regulations were extended.

This economy of mixed private and public ownership remained broadly unchanged for a further 20 years. The election of Lady Thatcher in 1979 and President Reagan in 1980 ushered in a new period, characterised by a retreat from state control. In the U.K. this was marked by the abolition of exchange controls, which, as we have seen, are an important factor in globalisation, but, most notably, by the reversal of nearly all of the post-war nationalisations under the name of privatisation.

At the same time, limited efforts began to be made to substitute competition for regulation, a process known as *liberalisation*, not to be confused (although it frequently is) with *privatisation*, which simply means a change of ownership. Together, de-regulation, privatisation and liberalisation resulted in a period of improved productivity and output growth in the British economy, the fruits of which continue to be enjoyed to the present day.

The acknowledged failure of the nationalised industries in Britain to perform adequately from the 1950s to the 1970s represented only a temporary setback for those who were anxious to see the state acquire control of the 'commanding heights' of the economy. Although there may be, amongst many voters today, a disenchantment with privatisation, there is little appetite for re-nationalisation. (Perhaps significantly, the one example, the railways, has been conducted with stealth.) Further redistribution of income through higher rates of taxation proving equally unpopular, collectivists have now fallen back on Plan C, control of the economy via extended or intensified regulation.

Thus, despite a continuing emphasis on the importance of competition, we have seen, in the last decade, a resumption of the trend towards collectivism. This has been marked by a significant extension of the range of means-tested taxes and subsidies, but, above all, by an increase in the degree of regulation across all industries.

3.3 *Society-Wide Extensions of Regulation*

While some pervasive forms of regulation have been justified on very broad criteria (health and safety, environment), others appear to be industry or profession-specific. However, when one looks more closely at recent extensions of regulation in particular industries, like life assurance, accounting, law and medicine, a common pattern can be seen. A minor

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'scandal' is given prominence in the media, and the Government responds with an inquiry or review which identifies some faults amongst suppliers. These deficiencies are interpreted as a failure of professional self-regulation. It is then proposed, as a remedy, that self-regulation should be replaced by an 'over-arching framework' which will provide 'independent oversight'.

Take, for example, the medical profession. Following a 'scandal' at the Children's Heart Surgery Unit at Bristol Royal Infirmary in 1995, the report of the subsequent public inquiry, the 'Kennedy Report', recommended the establishment of a new regulatory body, the Council for the Regulation of Health Care Professionals (CRHP), which would 'over-arch' the nine existing self-regulatory professional bodies in the health sector. The new body "should ensure that there is an integrated and co-ordinated approach to setting standards, monitoring performance, and inspection and validation." In its consultation document 'Modernising Regulation in the Health Professions', August 2001, the Government accepted the report's proposals. CRHP was established on 1 April 2003, to "strengthen the framework of professional self-regulation, to make ....(the self-regulatory bodies).... more consistently accountable and more responsive to the increasing pace of change in the delivery of health services." Some of these phrases may have a familiar ring.

Why have such similar regulatory developments taken place across several professions at the same time? We must look for an explanation, not to events in the individual industries concerned, but to a common societal factor. The most likely explanation is to be found in the growing collectivisation of society, in particular in the evolution of society-wide expectations for Government to provide solutions for every problem. At the present time, this expectation seems to take the form of a belief that human errors can be prevented by the imposition of a suitable framework of regulation.

The long-term nature of a life assurance contract means that it is necessarily fraught with uncertainties. For a contract to be credible, policyholders must trust that the company to which they have handed over their savings has the competence and the integrity to keep its promises. Historically, two approaches to resolving the problem of trust in life assurance can be distinguished. (There is also a third, the emergence of mutual organisations, see Simpson (2001).)

First, there is the acquisition by some suppliers of a reputation for trustworthiness. Such a reputation used to be, and to some extent remains, a competitive asset in the market. Ironically, its importance has been diminished by the extension of regulation, which, for the consumer, creates the illusion that all suppliers are equally trustworthy. In general, competition, rather than regulation or monopoly, promotes commercial probity.

The imposition by the state of tight regulation of the suppliers, their

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finances, their products and the way they conduct their business is the second method by which a solution to the problem of trust in the life assurance market has been attempted. It is, unfortunately, a method which undermines the very objectives which it tries to achieve. This is because trustworthy companies have an internal discipline and standards which embody their culture. By the imposition of procedural rules, external regulation generates a different kind of culture. "It's alright if we can get away with it" replaces "Our reputation is at stake". It externalises the discipline, laying off the responsibility of being honest to an outside inspector.

The same principle is expressed more generally by Lady O'Neill when she writes:

> "We may constantly seek to make others trustworthy, but some of the regimes of accountability and transparency developed across the last 15 years may damage rather than reinforce trustworthiness." (O'Neill, 2002, p99)

4. The Impact of Social Trends on the Actuarial Profession

4.1 The developments in the economy and in society which I have just outlined have been reflected in corresponding developments in actuarial practice. If we look, first of all, at the impact of social trends, then we can see that the steady growth of the influence of government in society since 1856 has been reflected in the gradual replacement of, first, individual, and then later, group professional, judgements by standards imposed by government via legislation and regulation.

4.2 *From Entrepreneurship to Corporate Governance*

The beginnings of the Faculty of Actuaries can be found in the origins of the Scottish life offices. In many respects the Association of Managers of Life Offices in Scotland, formed in 1833, and which became the Associated Scottish Life Offices (ASLO) in 1841, was the forerunner of the Faculty. Its formation even preceded the founding of the Institute of Actuaries in 1848.

What is noticeable about the origins of each of the Scottish life offices in the 19th century is that, in almost every case, their foundation and/or their early development was dominated by one single individual who exercised unfettered control over his company, someone whom we should nowadays recognise as the classic example of an entrepreneur.

For example, the direction of Scottish Provident was 'almost from its foundation' in the hands of James Watson, who remained manager from 1838 to 1890. Scottish Life was founded in 1881 'thanks to the vision and energy' of one individual, David Paulin, then aged 33, who was the Manager for 37 years and was later knighted. He had the distinction of being elected

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a Fellow of the Faculty in 1893 without being required to pass any examinations. Scottish Mutual was founded in 1883 by Adam Rodger, then aged only 27. He was Manager of the company for 50 years. Finally, William Thomson, who became Manager in 1837, and was succeeded by his son Spencer in 1874, was chiefly responsible for raising Standard Life to 'the front rank of British insurance companies' (Forfar, 1998).

Such developments were entirely in keeping with the individualistic spirit of the age. How very different that was from the arrangements for corporate governance which preoccupy us today!

4.3 *The Regulation of Life Assurance*

The gradual intrusion of the state into what had hitherto been a private agreement between a company and an individual policyholder has been reflected in the accelerating volume of legislation involving the work of the profession. For many years, however, legislation left substantially unabridged the responsibility of the individual actuary for professional judgements about the solvency of a company. Only in very recent years has government regulation insisted on replacing the subjective judgement of the actuary with the rules of the lawyer and the accountant.

Although the earliest legislation to regulate the insurance market in Britain has been attributed to 1601 (Raynes, 1948), it would be fair to say that it was not until the middle of the 19th century that state regulation of the industry really took off. The Friendly Societies Acts of 1846, 1855 and 1858 were followed by the Life Assurances Act of 1870, which required regular investigations to be carried out into the financial condition of a company by an actuary. Later, the passing of the National Health Insurance Act of 1911 led to the establishment of a government actuarial service (Forfar, 1998). Pension legislation was reformed in 1921, 1947 and 1952. In 1956 a Finance Act created the pension annuity fund and self-employed pensions. The Social Security Pensions Act of 1975, which came into effect in 1978, introduced contracting out and led to a further growth of pensions. There was the introduction of mortgage interest relief at source (MIRAS) in 1978 and the abolition of exchange controls in 1979 (Froggatt & Iqbal, 2002).

All these were major legislative milestones in their day, but from about 1980 onwards there has been a step change in the pace of the regulation of the life assurance industry, culminating in the most recent developments.

4.4 *Penrose's Complaint*

The report of Lord Penrose's inquiry into the Equitable Life affair, commissioned by H.M. Treasury, was published in March 2004. It contained a number of general criticisms of the practices of the actuarial profession, while stopping short of actually blaming the profession for all of the problems created by the judgment of the House of Lords of 20 July 2000.

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This criticism of the actuarial profession was consistent with the Treasury's apparent desire to extinguish all professional self-regulation.

Penrose's principal complaint about the profession seemed to be that its technical standards left too much discretion to the judgement of individual actuaries. He seems to have been particularly upset by the absence of comprehensive professional guidance on how policyholders' reasonable expectations (PRE) should be interpreted (Penrose, 2004, p453).

4.5 *Professional Conduct: Rules or Discretion?*

However, as the professional bodies have repeatedly emphasised, the nature of actuarial work does not lend itself to prescriptive rules.

For example, in 1964 the Faculty Yearbook stated clearly:

> "The Council of the Faculty *does not lay down any rigid rules governing professional conduct and practice* but relies on the judgement of its members in upholding the dignity and integrity of the profession." (emphasis added) (Faculty of Actuaries, 1964, p117)

A year later the Institute issued a booklet entitled 'Memorandum on Professional Conduct and Practice', containing the following passage:

> "The Council of the Institute *...has never sought to incorporate in the Charter or the bye-laws a comprehensive Code to regulate its members' professional conduct*, but *relies upon the conscience of each individual member and the collective conscience of the whole profession*." (emphasis added) (Institute of Actuaries, 1965)

The message of the 1965 Institute Memorandum is underlined by the contents of the first Guidance Note, issued ten years later to help Appointed Actuaries. In the light of the recent withdrawal from the profession of the responsibility for setting technical standards, there are two particular passages in this first Guidance Note which may be worth quoting:

> "This can be no more than a guide because, in the final analysis, and in addition to the exercise of proper professional care and competence, matters of judgement are involved, and *no absolute rules are possible.*" (emphasis added) (Faculty and Institute of Actuaries, 1975, ¶1.3)

and

> "The statement that a premium rate will be sufficient cannot in fact be an absolute statement — it is inevitably a probability statement because it depends on ... future events ... *The adequacy or otherwise of premium rates cannot, therefore, be other than a matter of judgement*. It is the responsibility of the Actuary to exercise this judgement." (emphasis added) (Faculty and Institute of Actuaries, 1975, ¶5.1)

4.6 *Technical Standards and Ethical Standards*

4.6.1 The phrase 'professional conduct' can be subdivided into the maintenance of: (1) technical standards; and (2) ethical standards. Most of

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the recent criticism of the profession has focused on its alleged lack of comprehensive technical standards. As we have seen, this was Penrose's principal complaint.

4.6.2 *Technical standards*

The Penrose Report was followed by the Morris Review, also commissioned and published by the Treasury, whose recommendations fitted exactly into the framework of 'independent oversight' which had earlier been imposed on other professions. The traditional role of the Appointed Actuary having been abolished by the FSA in 2005, and the Pensions Regulator having been established by the Pensions Act of 2004 as the new regulator for pension schemes, Morris recommended that regulation of the actuarial profession should be handed over to the Financial Reporting Council (FRC). In particular, Morris recommended that an Actuarial Standards Board should be set up within the FRC, while another operating body of the FRC — the POBA — should be expanded to include oversight of the profession's role in administering education systems and CPD.

4.6.3 *Ethical standards*

Morris recommended that, while technical standards for the profession should be set by the FRC, actuaries should continue to set their own ethical standards. Notwithstanding the Government's emphasis on technical standards, my belief is that the reputation of the actuarial profession depends even more importantly on the maintenance of its ethical standards. Certainly that has been true of the past 150 years. How else could the profession for so long have been able to get away with the notorious lack of transparency in its practices? Generations of clients have willingly entrusted their life savings to an actuary, not understanding what was happening to them, but confident that the actuary would invariably act in their best interests. Such clients have remained unmoved by suggestions that "actuarial discretion is really a black tent under which actuaries practise their evil sorcery for the benefit of management and shareholders"! (Froggatt & Iqbal, 2002)

Very seldom has it been demonstrated that this longstanding trust of clients in actuaries has been misplaced. Despite the conflicts of interest to which actuaries are continuously exposed, not least the peculiar anomaly, in many companies, of the interpolation of self-employed salesmen between themselves and their clients, there seems to be less evidence of a slippage in ethical standards in modern times within the actuarial profession than in any other profession.

Nevertheless, there is a view that attitudes to risk within the profession have shifted significantly in the last two or three decades. From having been very conservative in terms of both provisioning and the setting of customer expectations, it has been suggested that the profession has moved to the other

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end of the spectrum, for example in such practices as the heavy discounting of maturity values, a high exposure to equities, and sometimes the lack of specific provision for guarantees.

If it were the case that such a shift took place purely in response to commercial pressures, then questions about ethical, as well as technical, standards might arise. However, it seems to me that, in the life assurance industry, changes in commercial pressures can frequently be traced, directly or indirectly, to prior changes in regulation. Either a tightening of regulation reduces the sense of individual responsibility, or an ill-designed loosening of regulation sets off inappropriate or even perverse incentives.

To the extent that the actuarial profession in Scotland has historically enjoyed a premium of esteem over its southern counterpart, this may be attributable, at least in part, to the relatively greater importance that it has traditionally attached to ethical behaviour. This, of course, must be largely a matter of conjecture, but it is interesting to note that, in the accountancy profession, a similar situation prevails. In that profession there is not much doubt about the existence of a premium of esteem, and, according to no less an authority than Sir David Tweedie, it cannot be attributed to superior technical standards, since, in his own words: "accountancy is not rocket science." (Tweedie, 2004, p39)

In this connection, it may be worth noting that there is an interesting and, perhaps, significant difference of emphasis in the choice of mottos by the respective professional bodies north and south of the border. The Faculty's motto is the rather ethical *Fidelis ad Finem* whereas the motto of the Institute is the more technical *Certum ex Incertis*. Likewise, the motto of the Institute of Chartered Accountants in England and Wales is the technical injunction *Recte Numerare*, whereas the motto of the Scottish Institute is the more ethical *Quaere Verum.*

4.7 *Pension Schemes*

It is difficult to escape the impression that the real political background to the Penrose Report is not so much the Equitable Life affair, where those who lost out were, for the most part, well-off, and many were in the legal profession. It was rather the contemporaneous emergence of significant deficits in defined benefit pension schemes which have had widespread repercussions, especially worrying to large numbers of people on modest incomes.

Final salary pension schemes expanded rapidly after the Second World War. At that time it came to be accepted that employers owed a duty to their former employees, so final salary schemes became the norm for 'good' employers. Actuaries were needed to advise on the appropriate contribution rates, but different actuaries would provide different recommendations, because there are no 'right answers' to the solvency and contribution rate questions.

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Over time, however, continuing changes in social attitudes gradually altered the balance of obligations between employer and employees. Pensions became less of a moral obligation on the employer, and more of an entitlement to deferred pay. At the same time an 'entitlement culture' was evolving in the Welfare State; but, despite increasingly onerous regulation, pension funds survived the fluctuations of investment fortunes until the end of the 1990s. Then came three years of falling equity values, lower real interest rates, (both short and long term), and a projected increase in longevity. As a result, deficiencies were projected in many pension funds.

Additional factors contributing to the pensions fund deficit issue included the removal of ACT relief on dividends from U.K. shares in July 1997, and the introduction of the new accounting standard FRS 17 for reporting pension costs in company accounts. FRS 17 required disclosure in a Note to the Accounts of the fund deficit or surplus, calculated on the market value of the assets and a discount rate for valuing liabilities based on the yield on AA corporate bonds, (Pomery, 2004, pp18-19). At the same time, there came a demand from the public for exact answers to the funding level and contribution rate questions. This seems to reflect a wider social demand for certainty in human affairs, for example in cases of food safety, cot deaths and allegations of child abuse, which, in turn perhaps, reflects an expectation that economic and social life should be controllable and predictable.

In the face of these demands for certainty and the associated implicit aversion to risk, actuaries appear to be losing the battle for credibility to accountants, who have been not at all reluctant to say that they know the answer to the solvency and contribution rate questions. Pension funds have shifted into less volatile, but low-yielding, assets, and the stage appears to be set for a return to individual responsibility for the risks of retirement saving. Unfortunately, the informal understanding of how to cope with this type of responsibility has largely been lost, and may only be rediscovered by people making mistakes from which others will learn.

Suspicion that it is really the pension fund problem for which actuaries are being held responsible is supported by the Morris Review's Interim Assessment (Morris, 2004, p13, ¶¶1.20 to 1.21). Here, the suggestion is made (¶1.21) that actuaries were guilty of failing to forecast correctly recent changes in inflation and in the rate of interest, as well as the fall in the stock market. In fact, it is my experience, and I am sure that it is widely shared by those who have some acquaintance with economic forecasting — that, of all the occupations and professions which operate in and around the financial services industry, accountants, economists, 'investment professionals' and journalists, actuaries are among the least willing to forecast publicly the future of particular financial markets. When they do, their forecasts are likely to be among the most cautious.

What the work of the actuarial profession *has* been able to achieve are outcomes, whereby, even in the most recent adverse financial conditions,

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there have been no instances where guaranteed benefits have failed to be paid, "and only two minor instances in living memory" (Pomery, 2004, p32).

5. The Impact of Economic Trends

5.1 *Globalisation*

The rise, fall and then eventual recovery of the trend towards the globalisation of economic activity in the last 150 years is reflected in the history of the overseas operations of Standard Life.

Beginning with Canada in 1833 and the West Indies in 1847, the company's rate of expansion accelerated, with the opening of offices in Norway, Belgium, Sweden, Egypt, Hungary and China in the last decade of the 19th century. By 1914 the company conducted its business in no fewer than 30 countries worldwide. Nor were these token presences; in 1905, the Budapest branch alone accounted for some 15% of the company's new business that year.

Then, in the second phase, over the 60 to 70 years from 1914, all of these businesses, except for Canada, were wound down, the last one, Jamaica, being closed in 1971.

Now, Standard Life has begun to re-globalise, with businesses being opened in Spain (1993), Germany (1996), India (2000) and China (2003). A similar pattern can be observed in the histories of other British life companies (Raynes, 1948, p278).

Today the market for the services of certain types of actuaries has become a global one. The chief executive of Standard Life's U.K. and European insurance business today is an Australian, who previously worked for a Canadian company in Japan. The chief actuary of the Dutch company ING is an American.

However, governments everywhere are reluctant to surrender control of their national life assurance markets, originally acquired because of a desire to obtain household savings on terms favourable to themselves, and pensions actuaries remain tied to domestic markets by the reluctance of national governments to harmonise their pensions arrangements. Since 1914 companies who wished to expand abroad have, therefore, been compelled to establish businesses in every market into which they wish to sell.

To overcome this problem, and to explore ways in which international trade in insurance, including life assurance, between European countries might be encouraged, the OEEC (later the OECD) set up an insurance sub-committee in the 1950s. In November 1956 the sub-committee commissioned a report from the Chairman of the Netherlands insurance supervisory authority, Professor Campagne, on whether it might be possible to establish common minimum standards of solvency for insurance firms, (Daykin, 1992). The ensuing Working Party concluded that 25% of premium income

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should be regarded as a reasonable minimum margin of solvency for non-life businesses. For life assurance, 4% of the mathematical reserves was agreed as the recommended level of the solvency margin. This initiative can be seen as paving the way for the European single market in financial services which, under the auspices of the European Union, began to emerge some 50 years later.

5.2 *Specialisation*

From 1856 to 1914, the growing affluence of British society was reflected in an increasing specialisation in the range of products on offer. There was a widening range of insurances to protect against the effects of fire, death, illness and other accidents. This increase was most strikingly demonstrated in the growth of industrial insurance, where modestly valued policies offered cover to working men against their inability to work through illness or retirement. By the 1880s, the Prudential had over seven million policies in force, with a combined value of £66 million. Prior to 1914 most policies paid a benefit on the death of the person insured, and the premiums were collected door-to-door. From the 1880s onwards, rising real incomes encouraged a shift to endowment policies (Floud & McCloskey, 1994a, pp127-8).

In the 1960s, the development of unit-linked insurance products brought the insurance industry and the business of savings together in a much more transparent way. In the late 1960s and early 1970s, the profession was instrumental in developing performance measurement for pension funds, and, in this way, actuarial firms were able to move into investment consultancy.

The emergence of derivatives is, perhaps, the most spectacular example of product specialisation in recent times. As a result, a branch of financial economics has evolved devoted to the calculation of how options should be priced. The actuarial profession has been accused of paying insufficient attention to these theoretical developments. This accusation has been used to advance the proposition that the profession has been too narrow and inward-looking, and that in Scotland, in contrast to the accountancy profession, it has failed to keep its educational curriculum abreast of the most recent developments in related fields.

I am not in a position to evaluate the latter proposition, but, as an economist, perhaps I may be allowed to say something about financial economics. Like Clarkson (1996), I think that the actuarial profession should treat with caution the approach which financial economics typically adopts to the treatment of risk in financial markets. It is questionable, to say the least, whether financial economics possesses an adequate model of investor behaviour in difficult market conditions. In particular, assumptions of the existence at all times of continuous linear functions, rational behaviour, full information and willing and solvent counterparties appear less than satisfactory.

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In his 2004 Presidential Address to the Institute of Actuaries, Pomery (2004) identified some significant changes in society over the previous 25 years affecting the actuarial profession, notably a move to more openness and transparency, and a greater willingness to question authority. These changes, he believed, explained, at least in part, the declining popularity of both with-profits savings schemes and final salary pension schemes, both of which had been a source of employment for actuaries. People today are apparently less willing to accept the opacity of the processes by which such schemes were managed, so we have had an 'unbundling' of products, another word for specialisation.

Increasing specialisation throughout the economy as a whole has led to longer chains of interdependence between firms and industries, with a consequent increase in the complexity of business processes, and therefore greater vulnerability for individual firms. This may, perhaps, account for the rapid spread throughout all industries of the practice known as 'risk assessment'. This should provide further opportunities for actuaries, who are more experienced than most other professionals in the calculation and management of risk.

The movement of actuaries into general insurance may, perhaps, be seen as an example of the growing awareness by businessmen of the importance of risk. Although professional examinations in general insurance were instituted as long ago as 1966, the demand for actuarial advice in general insurance really took off in the late 1980s, when Lloyd's introduced formal requirements for actuarial reports, following severe losses experienced on certain kinds of business with long-tailed liabilities.

At the same time, specialisation of function within the profession has proceeded apace. There is now a gap between the 'pension scheme actuary' and the 'life office actuary', which can lead them, seemingly, to take opposing views on the same issue.

6. Conclusions

The century and a half of the Faculty's existence has been marked by huge, perhaps unprecedented, economic and social change. It would have been possible to discuss a large number of particular changes, but the paper has focused, instead, on two major and fundamental trends discernible throughout the period. One of these trends is economic and the other social.

The economic trend is the increasing globalisation of economic activity, associated with an increasing specialisation of function. The social trend is the growing collectivisation of society. These trends are not completely independent, because economic activity cannot, in the long run, be separated from the society in which it takes place. Neither of the identified trends has proceeded in a straight line. In both cases the pattern has been similar: a

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forward movement, followed by a temporary reversal of the trend, then a further forward movement.

Developments in the work of the actuarial profession have, as with other institutions, been affected by the evolution of these trends. Increasing globalisation and specialisation have been reflected in the location of business activity, as well as in continuous changes in the range and nature of products demanded, and in the specialisation of tasks within the profession. More recently, there has been the emergence of a global market for certain categories of actuarial services.

The impact of the increasing collectivisation of society has been felt most notably in the area of government regulation. For most of the period under review, life assurance has been quite heavily regulated relative to other businesses; but, within the last two decades, the degree of regulation has been sharply increased, to the point where responsibility for setting technical standards has been taken out of the hands of the profession. It is the contention of the paper that such developments are not in the interests of the consumers who they are supposed to serve, and will eventually be reversed.

Fortunately, responsibility for the maintenance of ethical standards remains in the hands of the profession. It is to the maintenance of those ethical standards over a century and a half of changing social and economic conditions that the Faculty of Actuaries owes the esteem in which it is widely and deservedly held today. Technical standards may come and go, but I am confident that the success of the profession over the next century and a half will continue to be based, as it has been in the past, on the solid foundation of its ethical standards.

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