

2 March 1981

PRIME MINISTER - HIGH TECHNOLOGY AND INVESTMENT

BACKGROUND

On 27 February I escorted the Prime Minister on a visit to Genex Corporation, a genetic engineering company in Rockville, Maryland. After touring the laboratories, the Prime Minister had a discussion with the President of Genex, Dr. J Leslie Glick and his Scientific Director, Dr. David A Jackson. Sir Robert Armstrong, Secretary to the Cabinet and Derek Thomas, Commercial Minister, British Embassy, were also present. I have recorded highlights of the discussion since it related to high growth - high technology industry and constraints on investment and growth; subjects of special interest to the Prime Minister.

STARTING UP

Dr. Glick described how he formed Genex in 1977 while still working as an academic. He raised some of the money himself and obtained the rest from a venture capital company. Once the company had started and had shown its ability to develop new products there was no shortage of further venture capital. The venture capital companies are primarily looking for growth in the equity value, i.e. in capital gains.

INVESTMENT

Since high technology inevitably goes with high risk less than one in ten of the new ventures survive and succeed. Thus any investment in a new venture has to take account of this large number of failures. The investment capital companies are looking for a twentyfold gain in capital value over five years, because of this. The Prime Minister appreciated the point and said "but it is exciting, and better than backing horses." Dr. Glick stressed that because in the United States the aim is to get capital appreciation, there is a need for reduced taxes on this. The capital gains tax in the US was reduced from 48% to 28% in 1978, and this led to a big increase in the flow of venture capital. The Prime Minister pointed out that in Britain, due to changes in last year's Budget, the top rate of capital gains tax is only 30%, so this should not be a constraint. But she informed Dr. Glicks that his message was "received and understood."

STOCK OPTIONS

Dr. Glick explained that he has managed to recruit very high grade staff mainly by offering stock options. This is more important than high salaries, but requires a low level of tax to get the maximum leverage.

HARNESSING ACADEMICS

It is difficult to recruit the very best academics from universities to get them to work full-time in industry. If they are tenured and in the best universities, they do not want to leave a comfortable and rewarding existence. If they are not tenured, it is easier to attract them by offering financial rewards in the form of equity participation. Dr. Jackson pointed out that he is one of the few tenured academics who have been recruited to industry in the US by this means. He believes that it is not possible for a good scientist to remain in a university and give a full contribution to a company.

PUBLIC FUNDING

Dr. Glick stressed that there is a necessity for considerable public funding in genetic engineering. He believes that this should be concentrated on fundamental research in the universities and elsewhere. He showed figures indicating that the return to the public of such public investment is very large. He claimed that this return comes "in the shape of great reductions in the cost of pharmaceutical products and in a yield to the Government in corporate taxes. He gave the Prime Minister a copy of a chapter he has written for a book on the subject of the economics of genetic engineering. The chapter is entitled "Impact of Recombinant DNA Technology on the Economy" and the book is Volume II of "Biomedical Scientists and Public Policy" to be published later this year by Plenum Press, Editor Dr. H Hugh Fudenberg. Since this book has not yet been published, he asked us to restrict circulation of his text until publication. Dr. Jackson gave the Prime Minister a copy of his latest book which deals with the social aspects of genetic engineering, entitled "The Recombinant DNA Debate."

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