

Dr Vary T. Coates, the author of this article, was at the time a Project Director at the Office of Technology Assessment, US Congress, in Washington DC, and among her tasks had been an assessment of the impact of electronic information technology on the world's stock exchanges. In her first contribution in 1991 on this subject [ISR.16/3], she considered "Securities Markets—Global and Perpetual." In that review she emphasised the internationalisation of securities trading around the clock, overcoming the different time zones. It was in early 1998 that the Asian Financial Crisis, spreading rapidly from country to country, proved her assessment of 1991 to be a very accurate one.

By the time her second article appeared in 1992, Vary, the wife of Joseph Coates, a Member of the Editorial Board of ISR, had become a good friend and I had learnt to appreciate her great gifts of communication. I reviewed all articles I published in ISR and selected a few for inclusion in this book, and her contribution about "US Stock Exchanges" deserves the title *La crème de la crème*. Its subject was the old and well-known conflict between modern technology replacing human performance sanctioned by tradition and hence bitterly resented, particularly so in this case, because the human practitioners lost great financial benefits.

The scene of the conflict described by Vary Coates is principally the New York Stock Exchange with its complex variety of actors and its explosive growth in recent times, which the human practitioners could no longer master after the late 1960s. The human agents, the 'specialists', endeavoured to follow their 100 year-old tradition with a variety of computer-aids, like NASDAQ, to transact the blocks of a million shares offered and bought by large institutional investors, for example pension plans, mutual funds and insurance companies.

On 19 October 1987, more than 600 million shares were to be traded, but the orders could not be executed by the specialists because of lack of capital and a Crash resulted. Five future alternatives were outlined in the article, all based on better and bigger electronic information exchanges, aided by international telecommunication networks.

This brilliant interdisciplinary contribution about the impact of the Scientific Temper was clearly understandable by non-financial experts, and the brief summary here should encourage the reading of the original articles in ISR, or better still the two full Office of Technology Assessment, OTA, Reports published by the US Government Printing Office in July and September 1990.