Foresight

Making the future work for you

The Future of Financial Services

Financial Services Panel

“To illuminate choices of the present in the light of possible futures”

GODET 1996

Contents

A more comprehensive Foresight report on **Financial Services for SMEs - "Financing the Enterprise Society"** is also available from:
Foresight Directorate, Office of Science & Technology,
Department of Trade & Industry, 1 Victoria Street, London, SW1H 0AT.
Or via the Foresight Web site at **www.foresight.gov.uk**

Chairman's Foreword

Tim Jones
Chair,
Financial Services Panel

The Financial Services panel was convened to explore the factors that are likely to shape the industry's future and to raise important issues that will help both UK-based consumers and providers of financial services to participate successfully in an increasingly global industry. In order to deal with the industry's different sectors, the panel commissioned four sub-groups to look at the future of:

- Personal and consumer financial services
- Financial services for small and mid-sized enterprises (SMEs)
- Corporate and institutional markets
- The infrastructure that forms the industry's transactional backbone

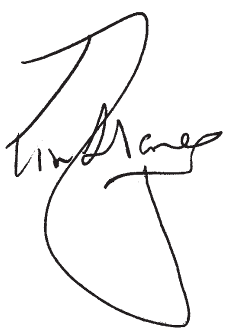
The infrastructure sub-group was given its own brief, namely to suggest what a successful system might look like in 2010. The remaining sub-groups addressed a common group of issues:

- What demands will customers make in the future?
- How will provision of services change to meet these demands?
- What range of services might be provided?

The sub- groups launched their consultation documents in June and have undertaken a broad consultation process in order to prepare their final report and recommendations. This publication includes a **panel overview** of the findings of the four Foresight sub-groups, along with **sub-group reports and recommendations** for Government, business and consumers.

The essence of our message is that the UK's financial services sector will see dramatic changes over the next ten years as powerful forces sweep through the market: technology, entrepreneurship, and competition. These have the potential to make the UK financial services industry much more efficient and diverse. But there are also risks: that the benefits will be unevenly spread, that they will fail to support the emerging enterprise culture, and that the UK will fall behind in global markets.

Foresight is about raising awareness of important issues in time for something to be done. This publication sets out the key issues for the UK identified by the panel (pages 13-15) and the sub-group recommendations for action that we believe will improve the of the financial services sector. As a panel we will continue to track progress on the sub-group recommendations. I hope that you in your turn will play your part by helping to give effect to these recommendations.



Financial Services Panel Overview

Financial Services Panel – Overview

THE MARKETS IN 2010 - A VISION OF THE FUTURE

Corporate and institutional

The 24-hour global market is at hand. The top end of the finance business will increasingly be dominated by a handful of giant institutions serving markets which know no geographical boundaries. Mergers among corporations and stock exchanges will proliferate, distinctions between markets will vanish. Half the stock market's value will lie in the TMT (technology, media, telecommunications) sector.

But there will also be opposing trends:

- Technology will allow institutions to segment their markets more finely and this will encourage the growth of specialised firms catering to very specific needs.
- The large money institutions will find their position increasingly challenged by the rise of the private investor.
- Some big intermediaries could be cut out of the loop altogether by technology which links the providers and users of capital directly.

The structure of finance will also change. The growing equity culture will lead to more capital being provided by the markets than by banks. The nature of investment flows will change as well: more will come from individuals and more of it will go into financing entrepreneurship and ethical objectives.

Small business

Over the next ten years, small and mid-sized enterprises will become the main drivers of economic growth in the UK. Their numbers could rise from today's 3.7m to possibly 4.5m, and their influence on the volume and pattern of demand for financial services will be considerable.

Many forces will contribute to this.

- Advances in computing and communications will reduce the advantages of large corporations over small.
- Access to capital will improve.
- Start-up costs will fall.
- The rising generation will increasingly be attracted by the greater personal satisfaction and money-making opportunities that small business offers.
- Economic and regulatory conditions should favour entrepreneurship.

This shift will create demand for new products and services to finance small business and support an entrepreneurial culture. The traditional role of banks as lenders and hand-holders will decline as more financial needs are met through the investment markets, by business angels, specialised stock exchanges, etc.. But SMEs will continue to rely on banks for overdrafts and secured loans, as well as for advice and administrative support. Technical literacy will therefore be vital otherwise technology will act to socially and financially exclude rather than include.

Consumer

Big changes will also occur on the consumer side. In the more competitive, less paternalistic environment that evolves over the next ten years, the private individual will take on more responsibility for his/her financial affairs, for example in investment and retirement provision. This will require greater financial sophistication and better sources of advice. But technology will help here by providing the consumer with greater choice, better access to information, personal finance software etc..

The market will become more polarised with a wealthy segment demanding the highest quality banking and investment services at one end, and the less well off looking for simple, low-cost savings and loan products at the other. However growing market segmentation could also lead to more people finding that no one wants to serve them at all.

The providers of financial services will increasingly use electronic means to reach their customers, and may themselves become more “virtual” as they contract out all but a central operating core. Those who work in financial services will have to become highly adaptable and technology-minded to handle the business’ growing diversity.

Payment systems

Payment systems will make huge advances in the next ten years, to become secure, fast, global, simple and cost effective. Electronic invoicing and payment will become universal, cash will go into slow decline, and cheques will head for extinction.

The demands of e-commerce will be a powerful driver. But the needs of the hitherto neglected small payments markets will also be a major force. Access to these systems will become easier with the spread of PCs, mobile phones and other devices, meaning that individuals will be able to make instantaneous payments for virtually any amount anywhere in the world.

The payment systems of the future will be based either on movement of money between accounts or on the direct transfer of electronic money (smart cards), and the suppliers of these services need not just be banks: new entrants are likely to compete for them too. Since more people will be dealing electronically with unknown counterparties, there will also be fast-growing demand for trust services to provide safeguards and guarantees.

THE FORCES FOR CHANGE

Technology. The new decade will see the completion of the current internet revolution - and the start of the next. Massive increases in telecommunications bandwidth, in processing power, and in the supply of online services will transform the financial services marketplace at all levels. For the supplier of financial services it means new power to reach markets, to handle data, to gain competitive advantage. For the user it promises unprecedented access to information and services, the convenience of "any time, anywhere", and a new world of "do-it-yourself" finance.

But the impact of technology will not be confined to electronics. In a world of burgeoning small business, breakthroughs in other areas like materials science and biotechnology will also be powerful commercial drivers.

Globalisation. Worldwide 24-hour dealing will very soon produce a global, virtual marketplace which is accessible to anyone with a mobile or a PC. This will lead to huge international flows of capital, ideas and technology, and much tougher competition. The concept of nationally-based investment will fade, to be replaced by global choice. These pressures will speed up the cross-border consolidation of companies and stock exchanges. The process will also spread down the scale to spawn multinational SMEs, and companies occupying "global niches". The emergence of B2B markets will open up a new world of global, low cost procurement. Private investors will increasingly invest globally.

Geography will also die in a local sense. The growth of remote trading and banking through the internet will lead to a reduction in the physical presence of banks: of branches, of face-to-face service.

Rise of the individual. The growing importance of the individual - as entrepreneur, investor, consumer - will mark one of the big changes of the coming decade. Improved market access, better technology and information, and growing financial sophistication will allow him/her to participate directly in markets rather than via institutions. This will impact the nature of demand for financial services, as well as market behaviour.

As entrepreneur: more individuals will set up their own businesses, more professional people will quit large organisations to go it alone, more people will work at times and places to suit themselves.

As investor: growing private wealth and improved market access will make the private individual an expanding source of capital. Much of this money will reach the market by conventional means: through stockbrokers or managed funds. But a growing portion will flow directly from individuals to users, e.g. sophisticated investors dealing direct with corporate treasurers, or via business angels. At the top end of the market, there will be a growing segment of super-wealthy needing top quality service.

The growth of the private investor will lead to changes in investment behaviour. More people will make investment decisions. There will be greater fragmentation of investment choice, by regions, themes and new drivers such as ethics and sustainable development issues. Private investors are also more likely to take the long view. This means less herd behaviour, and less volatility.

As consumer: as the individual takes more control over his/her financial affairs such as pensions, he/she will want a fuller range of financial products. People will become more discerning, more ready to shop around; this means less inertia, but also less loyalty. In many cases, the distinction between the retail customer and small business customer will become quite blurred.

But a more financially active consumer will also need more help and **advice:** better price information, clearer choices, regular financial health checks. Some of this will come from familiar sources (e.g. independent financial advisers, the Press). But more will be delivered by technology (search engines, electronic decision-makers, ready reckoners), and there will be a growing role for Government and employers to help consumers handle their new financial responsibilities.

The increasingly complex financial environment will also strengthen demand for simple products and clear standards, such as the Government's Cost, Access, Terms (CAT) standards (which may also be extended to cover advice as well).

TRENDS

The economic outlook. The next ten years are likely to be good, with steady interest rates, low inflation and rising markets thanks to the emphasis on sound fiscal and monetary policies. This will encourage the spread of new technology and business entrepreneurship. But a recession is not unthinkable, and any downturn would deal a big blow to the budding new businesses and private investors on whose vigour much depends.

Diversity. The period ahead will see a marked growth in diversity: in markets, products, consumers and suppliers. New delivery channels and business models, greater market segmentation, more active individuals and small businesses - all will add to the "richness" of the financial scene. But diversity will also make life harder, by confusing consumers and business strategists, and by presenting Government and regulators with more complex challenges.

Social trends. Many of the recent trends will continue, such as the growth in home ownership, single person households, and the rising role of women. But attitudes towards business failure - and money making - will become more tolerant, which will favour a stronger enterprise culture. The nature of employment will also change: there will be more self- and part-time employment, and more job insecurity.

By 2010 one of the most noticeable trends will be an **ageing population**. This has obvious implications for the pensions market, as well as for health provision and geriatric care. But ageing will also impact lower down the demographic scale: declining numbers in the traditionally entrepreneurial 30-40 age bracket could hold back the creation of new businesses.

Regulation. Regulators will promote competition and transparency. But the regulatory regime will also have to accommodate greater diversity: more players in the market, more non-banks, more private individuals. It will also have to cope with innovations such as electronic money, trusted third parties and borderless e-finance.

THE IMPACTS

The shape of the finance industry

Financial institutions will have a huge range of strategic choices: to be broad or narrow, high or low added value, multi-line or specialist. Divergent trends will therefore emerge.

On the one hand, globalisation and economies of scale will encourage the growth of super-large institutions geared to compete in all markets, armed with globally competitive skills. This consolidation will spread across business sectors, for example by bringing banking and insurance together. But even as the big get bigger, there will be a proliferation of new competitors at the small end, exploiting low-cost delivery channels, and targeting selected markets. Some institutions will choose to be leaders in low cost products, others will move up the value chain to escape the margin pressures of commoditisation.

The structure of institutions will also change. The growth in outsourcing will lead to more networking: a large bank may only employ a few dozen people at the centre, having contracted out all its operations.

This will not be a market where the winner takes all. The pace of change and the ease of market entry mean there will be a succession of winners - and losers. The winning strategies will be those that aim to satisfy an increasingly discerning business and retail market.

Sources of finance

The balance between the main sources of finance - banks, stock exchanges, private investment - will change. The fastest growing types will be equity and asset-backed debt, reflecting the rise in entrepreneurship. And since new technology will allow providers and users of finance to deal directly with each other, a growing portion will bypass today's markets and institutions altogether.

Stock markets are already playing a growing role in raising finance for new companies, and this trend will intensify. At the international level there will be more mergers between exchanges, eventually leading to a single globalised stock exchange. But this will not prevent the emergence of smaller specialised stock exchanges serving the needs of specific industry sectors and small businesses. The "funding gap" - funds of up to £1m to launch new companies - will be met by new vehicles to tap venture capital and wealthy private investors: pooled funds, syndicated financing.

Bank-sourced finance will continue its decline, though overdrafts will remain an important source of working capital for smaller businesses.

Products

The changing financial marketplace will create a need for more varied and flexible products: loans to suit different types of businesses and consumers, from the most sophisticated to the most straightforward: wealth management and advisory services, services for the sub-prime market. But though many of these will have to be newly-designed, there will continue to be demand for traditional products and delivery channels, such as face-to-face banking.

The shift of financial responsibility from company and Government to the individual, along with the proliferation of small businesses will stimulate demand for **risk management**: insurance against e-commerce risk (hacking, pirating, e-fraud) and "social" risks (old age, unemployment and ill-health).

Another fast-growing area will be **security:** the provision of trust and guarantee services in the payments markets.

The **pricing** of products will become much sharper in a marketplace that will be increasingly price-driven. Greater transparency also means less cross-subsidisation within institutions, which could spell an end to "free" banking. Bankers will need to acquire finer credit skills to differentiate new types of business, and value companies whose assets are increasingly intangible: knowledge and intellectual property.

KEY ISSUES FOR THE UK

The UK is well, though not perfectly, placed to take advantage of all these changes. It has a strong financial services industry and, in the City, the world's largest international financial centre. It also has a rapidly growing e-commerce sector. The economy has good prospects and there is a commitment at Government level to enhance the UK's international competitiveness.

But the UK is not at the forefront of either the entrepreneurship or the e-commerce races. Individual enterprise is still stifled by a cautious culture and unfriendly tax and regulatory regimes. The country also lags behind the US and some Continental countries in adopting the e-economy. Although the **euro** is an important factor, many of the trends in the report will occur regardless of the UK's position on the single currency.

Enterprise culture. Popularising entrepreneurship is a top priority. The objective must be to make the UK a highly attractive market to launch and locate enterprises, not just those originating in Britain but also from abroad. This means;

- encouraging the formation of small businesses, particularly by creating good conditions for venture capital,
- making it easier for large companies to consolidate into groups able to compete on a global scale,
- improving the flow of skills through education and training, and
- facilitating the growth of "clusters" - financial and business communities - where entrepreneurship can thrive.

E-commerce. Electronic commerce is central to what lies ahead, and the way should be cleared to allow it to evolve as rapidly as possible. As with the enterprise culture, this means creating friendly tax and regulatory conditions. **But it also means creating a framework within which the infrastructure of the new economy can be built and made available. If motorways were key to the last century, then broadband networks are key to the next. Government should work strenuously to help enable the rapid deployment of affordable broadband services.**

The individual. Public services should encourage greater self-determination in the individual, at several levels:

- by providing better - and more relevant - education,
- by creating new sources of advice and information to help the individual handle his/her finances and business affairs,
- by ensuring that all have the skills and access to make the most of the broadband networks and,
- by reshaping the tax system to encourage personal investment and retirement savings.

One of the effects of a more enterprising culture could be to increase the unevenness of wealth distribution, leading to greater **financial exclusion**. The closure of branches and the shift to electronic delivery will also deprive parts of the population of access to financial services, not just the less well off but also the technically illiterate. However these trends present a business opportunity for firms seeking out new areas of the market.

The **financial services** sector is key to the UK's outlook because it is both an important industry in its own right, and the means by which others will grow. The current wave of change has put much of the sector on the defensive. Also, the market pressures on the sector to continue to deliver high returns makes it difficult for banks to respond to change as quickly and imaginatively as they might. The years ahead will see new patterns emerge as the new jigsaw pieces come together.

The City is in a strong position to profit from all these changes, particularly the globalisation of markets and its unique place at the hub of the European, American and Asian markets. But to maintain that position, it must be at the head of moves to liberalise financial markets and modernise the infrastructure of cross-border trading.

Regulation must emphasise transparency and competition, for example by lowering entry barriers into financial services. But this will be a period of rapid, even turbulent, change that will require deft handling. The financial regulators will need to maintain sufficient profile to reassure markets and help confused consumers without becoming heavy-handed. The competition authorities will have to accept the need for greater consolidation to allow global leaders to emerge.

The information age. An increasingly information-driven world will need new rules to protect it: greater **patentability of ideas** and intangible products, for example. The growing threat of **computer crime** also calls for new measures to combat it: a clearing house where banks can anonymously share information about security breaches would be a start.

Social. The more challenging environment of 2010 will place heavy demands on the **education** system.

- Suppliers will need technical skills such as IT, but also training in the complexities of e-commerce.
- Consumers will have to acquire the financial sophistication to manage their financial affairs at a time of bewildering change; technical literacy will be vital to guide them through the dense jungle of information and advice.
- The enterprise culture will need to be underpinned by stronger business management skills.
- In general, financial education needs to start sooner, and to have more practical relevance both to business and to individuals' financial planning.
- More encouragement should be given through the tax system and the workplace for financial education.

Despite the priority now being given to education, the UK faces a serious **skills gap** which may have to be filled from abroad. One way of catching up might be to rechannel an excess of resource from legal, accounting and administrative training, into management, technology and finance. **The internet itself offers a powerful channel for financial education**.

Personal and Consumer Financial Services in 2010

Personal and Consumer Financial Services in 2010

The sub-group explored how the industry had evolved over the last twenty-five years. This evolution has lead to a situation today where there is widespread use of basic banking facilities (with over 85% of the adult population having access to a current account), but relatively low levels of personal savings and non-occupational pensions provision.

FORCES FOR CHANGE TOWARDS 2010

In the future there will be a variety of different **forces for change** which will shape the world of personal financial services in 2010. These will include political, economic, social and technological forces.

The **political** forces for change are likely to include:

- The gradual transfer of responsibility from the state to the individual for the provision of pensions and welfare benefits.
- Continuing trends away from "old style" regulation and mutuality, towards new regulatory structures which emphasise competition and transparency in charging and product information.
- Further developments of CAT (cost, access and terms) standards for financial products, leading to more commoditisation.
- Greater impact from the euro, which, coupled with the growth in e-business, will stimulate the demand for "offshore" financial services, whether the UK enters EMU or not.

Turning to the **economic** forces for change, we foresee:

- A continuing low inflation environment which will favour equity-based products.
- The danger of further growth in income and wealth inequalities, which, coupled with the increased requirement for individuals to arrange their own financial provision, increases the need for financial products and advice suitable for those threatened with social exclusion.
- Trends away from defined benefit/final salary pension arrangements towards defined contributions schemes, transferring the investment risk to the individual.
- New entrants into financial services provision, able to utilise state of the art systems and processes and direct distribution methods, forcing existing providers to re-think their traditional approaches.

The **social** trends are likely to include:

- A continuation of the existing demographic move to an ageing society, with more people living in one person households, and more varied working lives with longer periods of formal education; the implications of these trends for the "pensions time bomb" as the baby boom generation retire implies further falls in the value of the basic state pension relative to earnings.
- Increased divergence will lead to challenges for financial service providers to meet the needs both of wealthy but time-starved professionals and of those facing social exclusion.
- Changing lifestyles will place a premium on product flexibility (such as variable-repayment loans and mortgages) and on value-added services such as financial planning and "guaranteed" investment performance.

Technological change is also likely to continue apace:

- Cheap computing and communications will disperse back office operations, pushing some forward to sales forces' laptops and others towards centralised data processing warehouses; few processes will be left at the intermediate staging post of a local "branch".
- Distribution will develop further to provide customers with a choice of remote access channels (both telephone and screen-based); behind this, customers will increasingly expect to see real-time processing of their funds transfer or investment instructions.
- Smart card technology will provide a viable alternative to cash, and could also be developed to facilitate account portability.
- These developments will however pose challenges for the nature and scale of existing branch networks.

These forces for change will interact to create a different landscape in 2010 to that which exists today - one which exhibits much more "biodiversity" both with regard to consumers, providers, and products than is the case today.

ACHIEVING THE VISION - THE RECOMMENDATIONS

FINANCIAL SERVICE PROVIDERS

THE PROBLEM	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
The provision of financial service products and advice has not evolved fast enough to meet the wider range of customer needs that now exist.	▪ **Simple, low-cost products** should be developed which directly meet the need of different consumer segments. ▪ **Better consumer information** should be provided giving a clear explanation of the costs and benefits of standard financial service products. ▪ **Customer specific advice** should be available for more sophisticated products which takes account of an individual's personal circumstances; this should include an easy to use **Pensions Ready-Reckoner**. ▪ **More innovative, flexible products and services** should be developed to help individuals manage their lifetime financial needs, including a trusted home equity release product.	Many of these recommendations can be taken forward by financial services providers themselves. New entrants, in particular, have a good track record in developing flexible products to meet emerging customer needs (for example, the Virgin One account, or the "Australian" style mortgages developed by Standard Life Bank and others). In addition, a number of banks and building societies now have basic bank accounts available. As far as customer advice and information are concerned, industry-wide bodies, the regulatory authorities (such as the FSA) and Government will all have roles to play.

GOVERNMENT

THE PROBLEM	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
As financial markets have become more innovative and competitive, consumers need better information on which to take informed decisions.	- The **provision of information** should allow consumers to make informed choices - **CAT standards should be developed and refined** to apply not only to products but also to the provision of financial information - **Regulation** should permit markets to operate efficiently and provide a level playing field for both incumbents and new entrants	As information is a "public good", the Government should take a leading role in ensuring this provision occurs, following consultation with the financial services industry. Provision of the information, and the regulation of financial providers, can however be delegated to regulatory bodies.

CONSUMER ADVISERS

THE PROBLEM	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
Inertia is one of the greatest problems to be overcome in making individuals more responsible for their own financial well-being. Employers, Independent Financial Advisers (IFAs), the press and media all have a role to play in encouraging individuals to act now to provide for their long-term future.	- **Employers should be encouraged to contribute to an individual's pension** - **Small & medium-sized enterprises should make stakeholder pensions readily available to their employees** - **IFAs** should move to a fee-based structure, and make greater use of automated processes in their dealings with consumers - **The press and media** should emphasise the changing role of the state and the responsibility on individuals to provide for their pension needs, and to take up new technology	There is already active debate and discussion among employers' associations and in the press and media about these issues. Through the publication of the Foresight report, and similar initiatives, the Government should aim to keep this issue in the public eye. Government also needs to ensure that there are no tax disincentives to the provision of fee-based advice by IFAs. Employers could reinforce these messages by giving greater emphasis in their recruitment literature to the pensions benefits they provide.

EMPLOYEES IN FINANCIAL SERVICES

THE PROBLEM	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
The rapid pace of change in financial services and the development of new distribution channels such as the internet will require employees to acquire new skills and changes in working practices.	Employees should become more **multi-skilled and customer focused** They should **embrace technology....** and **negotiate best practice flexible working arrangements**	Employers would be expected to take the lead in training provision, encouraged by Government schemes such as Investors in People. Trade Unions have an important role to play in negotiations with employers on flexible working practices.

CONSUMERS

THE PROBLEM	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
Many individuals do not plan adequately for their retirement. This includes individuals at both ends of the income distribution.	individuals should become **more sophisticated** in determining their financial requirements... ...and should take (and encourage their peers to take) **regular financial health checks.**	These recommendations are primarily for individuals to act upon themselves. However, they will be greatly facilitated if recommendations to other stakeholder groups are fully implemented, particularly those addressed to financial services providers and Government.

Each section above details what problem(s) our recommendations seek to address, the recommendations themselves, and how they should be implemented. In practice, of course, many of the recommendations will require co-operation between different stakeholders. For example, whilst it is recommended that employers should be encouraged to contribute to an employee's pension, the individual will need to accept the prime responsibility for his own retirement planning, using advice and guidance from Government, the financial services industry and consumer advisers.

Financial Services for Small and Mid-sized Enterprises in 2010

Financial Services for Small and Mid-sized Enterprises in 2010

Of all the customer groups served by financial institutions, SMEs will probably undergo the most dramatic changes over the next 10 years. Financial institutions that aim to serve SMEs in the future must change dramatically to respond to these changes, or lose out.

FORCES AT WORK DRIVING DRAMATIC CHANGE

Structural forces at work in the economy will create an explosion of SMEs. In the UK there are about 3.75 million SMEs today. Rapid growth and change will be driven by:

- Revolutionary advances in computing and communications technologies, especially the internet. And over the next 3 - 5 years, broadband communications and digital convergence will revolutionise access to data and online services.
- Advances in other technologies such as materials science and biotechnology.
- Growth in knowledge-intensive work supplanting labour-intensive industries.
- Rise of intellectual capital as the key to value creation.

These changes will create many **new opportunities** for SMEs:

- Many more SME start-ups in technology intensive sectors.
- New SME opportunities arising from large corporations outsourcing, unbundling, or taking equity stakes in start-ups.
- Parallel opportunities in the public sector - e.g., in health, and caring services for the elderly and disabled.

E-commerce will fundamentally change most traditional SMEs, through:

- Improving basic business processes, e.g. reducing costs through e-procurement, remote training of staff.
- New models for capital raising. Already we see internet sites matching entrepreneurs with venture capitalists and ‘business angels’.
- Ease of access to information, advice, business education, distribution.

A more stable macro-economic environment will aid SMEs. We expect less severe interest cycles over the next decade. Consequently, SMEs will be able to put in place longer term financing and be less vulnerable to the fluctuations in the business cycle.

Social trends are favouring more rapid SME formation. These trends include:

- More part-time workers and more self-employed.
- More SMEs owned by women and ethnic minorities.
- Business success and business failure both more socially acceptable.

- Increasing numbers of people taking responsibility for making their own decisions.
- Greater commercial relevance in education.
- Greater demand for caring services.
- Wave of available, experienced managers on early retirement.

Governments have recognised the importance of SMEs, encouraging SME formation and survival through various programmes. We expect continuing fiscal incentives favouring SMEs. However, we have two major areas which need continued focus:

- reducing the 'red tape' burden on SMEs.

There will be an increased role for **private investment in SMEs**. To date, private investors have not filled the 'funding gap' for investments that are too small and uneconomic for institutional investors. This looks set to change in the next decade.

- More helpful - though still complex - regulatory regime through the new Financial Services & Markets Act.
- Emerging generation of more risk-seeking private investors.
- Likely emergence of new mechanisms for syndicating private investment.

SMEs will have a critical role in **rural development and job creation**. However, there will be potential conflicts between economic objectives, which require better transport infrastructure and more land for expansion, and environmental objectives.

Globalisation will force SMEs to be more competitive and innovative in the home market, and will open new opportunities abroad, arising from reduced trade barriers and global standards.

WHAT WILL SMEs LOOK LIKE IN 2010?

The size of SME population will have grown to at least 4.5 million. The majority of today's SMEs will not exist in 2010, and the majority of SMEs that will exist in 2010 do not exist today.

Other characteristics of the 2010 SME population should include:

- New ownership patterns, i.e. more SMEs owned by women, minorities, people in their 20s and in their 60s and 70s.
- Intangible assets as the main drivers of value.
- SMEs acting in collaborative groups, in procurement for example.
- Access to more financing options.
- Proportionately more SMEs trading internationally.

POTENTIAL THREATS AND CONSTRAINTS

There are some major threats to this optimistic vision of the SME landscape:

- Severe skill shortages in technical, engineering, business management, and entrepreneurial skills. Average education provision inadequate across the economy.
- Risk aversion in enterprise at corporate and individual levels and in investment at institutional and private levels.
- Macro-economic shocks and/or a prolonged recession, which cannot be ruled out.
- Demographic pressures, if low investment returns and the increasing longevity of pensioners combine to create burdensome costs of providing pensions.
- Inadequate physical infrastructure, especially transport, already under great pressure could worsen and further hamper economic growth and efficiency, worsening regional disparities.
- Legal and regulatory complexity could stifle SME formation and job creation.
- Difficulty of protecting the commercial value of ideas may hamper investment in knowledge-based R&D.
- Environmental and climate change will increase the level of uncertainty and risk in the economy.

FINANCIAL SERVICES FOR SMES

Today, the supply of financial services to SMEs is relatively concentrated:

- Leading four banking groups supply nearly 90% of banking services to SMEs today.
- Top four insurance groups have nearly 50% market share of total general commercial insurance.

However, we expect there to be major changes:

E-commerce will accelerate the change in mix of payments media and open up new models of financial interaction:

- Rapid shift to electronic media for nearly all B2B transactions.
- Accelerating displacement of cheques with electronic payments in B2C.
- More gradual shift from notes & coins, possibly to m-payments using mobile phones.
- Many SMEs will stop being dependent on bank branches, moving to remote banking via the internet.

New models will emerge for matching users and providers of funds, and in the value chain for credit.

- Banks' traditional intermediation role will be undermined by extremely low search and interaction costs on the internet.

- Roles in the value chain for credit will be unbundled.
- Lending institutions will have to learn how to value intangible assets when looking for security.

Bank borrowing will continue to decline in relative terms and be replaced by a wider range of debt financing techniques.

- Greater use of asset based finance by SMEs - i.e. venture leasing and venture factoring.
- Greater use of equity capital: from private investors, new internet based forums matching venture capital and business ideas, new electronic markets, and major pan-European or global exchanges.

There will be very significant opportunities in the **wealth management** arena

- Government initiatives for stakeholder pensions will increase individuals' role in their provision for retirement.
- Pension and other wealth management services for SME owners are potentially attractive growth markets.

Protection & Risk Management products will also undergo change:

- Distribution of general insurance to SMEs will be revolutionised by the internet, with most commercial lines being placed and serviced electronically.
- There will be rapid growth in policies to cover the risks of e-commerce.
- As society becomes more litigious, SMEs will face rising liability insurance premiums.
- SME use of financial risk management products will increase.

Provision of advice and administrative support could be revolutionised by **new technologies**.

- Internet and multi-media delivery of advisory services will be increasingly viable, especially with widespread access to broadband.
- New businesses will arise providing administrative support services for SMEs, including outsourced provision of full back office services.

Business education will grow, and will increasingly be delivered remotely through the internet or digital TV.

STRATEGIC OPTIONS FOR FINANCIAL SERVICES PROVIDERS

There is the prospect of new ‘business models’ competing against - and in time supplanting - current ways of doing business. The financial landscape in 2010 will be more varied, and some possible strategies follow.

Multi-line full service	Offers full set of products with high service standards and through a wide range of channels. Vulnerable to specialists and cost-cutters.
Low-cost & no frills	Competes on very low prices, with ultra low cost operating platforms for basic banking or insurance delivery.
Micro-segmenter	Provides full product range, outsourced from other providers, to narrowly defined customer segments.
Category killer	Focuses on a single product segment, with sophisticated technology-based delivery.
Portal	Provides SMEs structured access to information and electronic marketplaces.
Trusted adviser	Offers advice on tax, accounting, business management etc.. Advisory firms both traditional ‘face-to-face’ and over broadband.
Technology & operations provider	Provides low cost IT and back office functions.
‘Infomediary’	Builds proprietary databanks about SMEs from which they can develop information based products.

ACHIEVING THE VISION- THE RECOMMENDATIONS

THE PROBLEM	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
Innovative delivery of new financial services to SMEs depends on universal, low cost internet access.	All SMEs need to have low cost access to narrowband internet services today. Within 3-5 years, SMEs must have low cost access to broadband internet service	**The Government should review whether cost, access and service levels for SME internet access are as good as or better than those available in any other EU country**; if not, Government should explore options to reduce this competitive disadvantage for U.K. SMEs. **The Government should urgently review the costs and benefits of ensuring universal (or near-universal) low cost access to broadband internet service for all SMEs within the next 5 years.** **Financial services providers** should develop strategies to exploit the full power of broadband to deliver financial services and advice to SMEs.
There is a 'gap' in the availability of equity finance for SMEs seeking funding below £1 million	New vehicles need to be created to provide cost efficient equity financing for SMEs seeking less than £1 million.	**We recommend the formation of venture capital vehicles to address this market failure, providing venture capital between £100,000 and £1 million. Specifically:** - Mainstream venture capital providers might allocate funds to match commitments of existing providers of small scale venture capital, leveraging their commitments with no administrative costs. Some of these small scale providers will be incubators. Venture capitalists might allocate discretionary money to incubators to leverage incubators' own funds - A variant of this would be leveraging investment activities of business angels with matching discretionary funds from venture capitalists & institutions.

THE PROBLEM	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
		- The Government should concentrate on encouraging, supporting and leveraging existing and innovative high risk equity capital provision rather than set up competitive services at considerable administrative expense - Means should be found to allow pension funds to invest a small percentage of their funds in this market without prejudicing their minimum funding requirements
Investors in early stage companies suffer from a lack of liquidity	New market mechanisms need to be created to bring liquidity to investment in early stage companies by venture capitalists and business angels.	**Government policy should explore options to address this problem.** This could involve matched bargain facilities to buy and sell shares, releasing funds for further early stage investments. Regional exchanges could be created. These markets could be restricted to experienced investors if regarded as too risky. Companies would benefit from having an objective price for their shares - to be used as currency for takeovers, staff options, etc.
An on-going need to reduce the burden of red tape on SMEs	SMEs need to have stronger start-up and first 3 year support to enable them to fit in to their appropriate regulatory framework	**Small Business Services (SBS) should explore ways to provide more support in first few years: - mentoring - 'grace period' on regulation**
	There needs to be a radical simplification of regulation.	**Government should establish an independent task force to develop a thorough & objective analysis of the regulatory burden on SMEs,** identifying the root causes, and analysing the relative burden on UK SMEs vs our major trading partners. This taskforce should recommend specific actions to reverse the current trend.
	The complexity of modern regulation itself, in addition to the rules and regulations they enact is a major restraint on the modern economy.	**The Government should initiate a substantial research programme** to seek long term disciplines and procedures to address this growing problem

THE PROBLEM / THE SITUATION	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
By 2010 workplace marketing should have become a large market channel for financial services, starting with the current proposal for the Government's programme on stakeholder pensions.	In the SME market place the owner managers need to be **encouraged** to develop these mechanisms for promoting long term personal financial provision by people at work. Current approach is more 'stick' than 'carrot' for SME owners.	**The Government should explore options, based on the successful US experience, to provide tax incentives to business owners to support the provision of long term savings schemes to employees.**
The 'enterprise society' needs a culture that is pro-business and pro-risk taking. This will require a greater level of education about business.	Business education needs to be instigated in schools from as early an age as possible. The model could perhaps be the Schools Enterprise programme in Scotland, which encourages children from as young as 5 to 'think business'.	**DfEE should investigate the feasibility of increasing the level of business education in England & Wales, examining specifically lessons from Scottish experience.** **Financial service providers** should explore opportunities to expand business education in schools through sponsorship and/or scholarship awards. **Broadcasters** should explore opportunities for using digital TV as a channel for business education.
Universities can be a major source of initiatives to fund technology spinouts - e.g., university challenge. This is well recognised as a virtuous circle: successful technology spinouts fund further research as well as enhancing growth of U.K. Plc's SME sector, and can increase the funding available to universities and academics	Current successes need to be expanded rapidly.	**Universities** should explore mechanisms to accelerate the flow of technology into commercial ventures. **DTI** could sponsor a study of global best practice (especially in the U.S.) in building links between universities and technology start-ups.
Businesses owned by ethnic minorities could be a rapidly growing proportion of the SME population.	Financial service providers and Government programmes for SMEs need to ensure that they are easily accessible to minorities, and are supportive of their growth.	**SBS** should examine whether there are any barriers to SME formation among minority communities. **Financial services providers** should explore opportunities targeted at minority-owned businesses, including micro-financing, new funds for businesses in deprived areas, establishment of banks who follow the rules of Shariah and other religions, etc..

Corporate/Institutional Financial Markets in 2010

Corporate/Institutional Financial Markets in 2010

The Corporate / Institutional Markets sub-group focused on analysing the current situation, identifying key factors for change, describing a set of potential (future) scenarios, and providing recommendations on responding to the challenges implied by these scenarios.

SO WHAT WILL THE CORPORATE/INSTITUTIONAL FINANCIAL MARKETS OF 2010 LOOK LIKE?

The Corporate/Institutional Financial Markets in 2010 will be dominated by a relatively small number of global scale institutions, primarily due to: the power of trusted brands, the cost of investing in new technology and pressures on profitability leading to intensified consolidation.

We will almost certainly see a single European and possibly global equities exchange, especially for the largest multinational and, probably still separately, for growth companies. Existing electronic infrastructure, including trading, clearing and settlement, will have been rationalised on a pan-European basis and possibly globally, permitting seamless, paperless and cost-efficient, 24-hour trading for institutions and individuals.

Developments in telecommunications bandwidth combined with further advances in processing power will have reduced the cost of most information and electronic processing to zero. Technology will also permit greater customer segmentation, with high quality services flowing to the most attractive and profitable corporate customers.

Individuals in the UK will have more weight in the financial markets in 2010 due to: the increasing entrenchment of equity culture, direct easy low cost access to the market, the progressive withdrawal of the state from retirement pension provision and an increasing shift of responsibility for long-term savings from corporations to individuals. This will have boosted both the development of broader based, individual-focused, packaged wealth management services and transaction only services.

GLOBALISATION AND EUROPEAN INTEGRATION ARE UNAVOIDABLE

By 2010 there will be truly global and more efficient financial markets, with global financial institutions having extended their business models beyond national markets to the major European centres. Capital will flow freely and cost effectively to its highest value use, including to both established companies as well as to the funding of new enterprises.

For the UK, the significant presence of the key international financial institutions in London will have enabled a reinforcement of its leading position in many of the major international financial markets, building on strengths, which have been fundamental to many of the markets where the UK has a lead position. These include: the trading of international bonds, over-the-counter derivatives, foreign exchange and non-UK equities, all of which depend on robust electronic systems for trading and settlement.

However, to continue to compete successfully on a global scale, UK firms will need to have leveraged these strengths to develop a bigger "home" market . This could involve, for example, managing the supply and demand for capital on a more pan-European basis, including pan-European pension and individual wealth management, extending to the Continental technology-based business models and to exploit/leverage existing UK attributes (e.g. position as the 'hub' for financial services between the US and Europe, physical infrastructure, lifestyle attractions, language etc.).

Regulatory barriers currently limiting the roll-out of pan-European business models will have been materially eased, with commensurately reduced barriers to entry both for UK, US and new entrants generally.

TECHNOLOGY WILL ACCELERATE MARKET EFFICIENCY AND ACCESS TO INFORMATION

By 2010 technology will have enabled widespread and low cost distribution of financial service product offerings. New, electronic-based entrants will have emerged such as have successfully already occurred in Germany, permitting wider and more cost effective access to capital markets for both suppliers and consumers of capital. This should enable more transparent and frictionless movement of capital, albeit reducing scope for inefficiencies or excess profitability within existing business models, further increasing pressure on established participants but better serving the wealth creation process. In addition, the electronic infrastructure, particularly clearing and settlement, will have been rationalised into a pan-European and paperless platform.

The regulatory and compliance burden associated with providing financial services to individuals will have been rationalised to contain the financial burden on the firms which will have grown to serve this expanding market.

NEW AND DIFFERENT FORMS OF CAPITAL TO DOMINATE WEALTH CREATION

This will include greater mobilisation of individual wealth, including instruments to release housing-related equity, asset-based financing including debt securities backed by pools comprising different asset classes, private equity to fund the development of industries or purchase of companies no longer suitable for public market ownership, more widely accessible start-up capital for new business ventures, more widespread use of index tracking investment products (eg. Index-based mutual funds) and more readily available and less expensive risk management tools designed to provide synthetic exposure to institutions and individuals as well as to manage individual risk positions.

The rapid growth and development of different forms of capital will have the potential to erode the position of established providers of more traditional capital. Underscoring the importance for the UK wholesale sector to retain here the competencies and value added, even if the destination for much of the capital lies outside the UK, for example financing continental infrastructure, LBOs or new business formation (ie. start-ups destined for exit through the Neuer Markt).

ENTREPRENEURSHIP IS ESSENTIAL TO SUSTAIN FUTURE WEALTH CREATION

A substantial proportion of the wealth in 2010 will derive from new businesses and industries which do not exist today. The frictionless and cost efficient flow of information and capital will permit easy withdrawal of capital from low growth enterprises and redeployment in faster growth, more entrepreneurial businesses. The critical ingredients which will have facilitated this include: a pan-European growth company exchange to provide a reliable capital markets exit, thereby stimulating the supply of venture capital, more rational taxation treatment of share options, IPO flexibility (for example, the historical track record requirements and the percentage of a company which needs to be made available to the public), more flexible bankruptcy regimes and more information standardisation, transparency and shareholder protections across the main European markets.

INCREASING ROLE OF INDIVIDUAL INVESTORS

Greater labour mobility and individual choice, together with companies' desire to reduce the asymmetric burden of pension obligations (i.e. if deficit, the company pays, if surplus, the company is usually unable to capture), have combined to shift the burden of retirement savings more towards individuals away from companies and the state.

Mobilisation of individual saving through more cost-effective distribution of equity and pooled equity products (e.g. mutual funds), together with pan-European paperless trading and settlement and harmonised investor protection regime, will facilitate this entrepreneurial development.

IMPORTANCE OF EDUCATION

Continued vibrance of the wholesale UK markets will have been facilitated by increased investment in financial education. This will have two main components: greater financial literacy, including financial planning, investment tools and asset allocation; and greater access to financial training to develop high quality human capital to participate fully in the UK financial services sector.

ACHIEVING THE VISION - THE RECOMMENDATIONS

THE CHALLENGE	WHAT NEEDS TO HAPPEN
Pressure on small home market from globalisation and technology	**Intensify pressure on barriers to pan-European expansion (i.e. local restrictions)**. UK antitrust authorities to recognise global dimension and reduced entry barriers in financial services and be more flexible regarding domestic consolidation. This will facilitate emergence of more UK-based European and global leaders.
Accelerated integration of UK and European capital markets	**Address such key issues** as creation of European-wide clearing and settlement, ease regulations favouring pension and insurance investment in 'national' assets, and facilitate UK transition to paperless settlement.
Make UK most attractive capital raising/listing destination for European growth companies	**More flexible listing requirements to widen choice of growth investments and further investment in electronic distribution** (e.g. Permitting greater individual access to IPOs). A UK-based growth company exchange would enjoy investor confidence across Europe, stimulating supply of venture capital to entrepreneurs and growth enterprises.
Facilitate increased weight of individuals in UK equity market	Tax changes to "level" the playing field in favour of individuals', including: introduction of US-style personal pension plans (including corporate matching contributions), elimination of stamp duty on individual share trades, and lower capital gains tax.
Increase financial education	**Matching programme for financial education,** tax deductible tuition fees and encouragement/subsidisation of workplace sponsored education.

The Future of Financial Services Infrastructure

The Future of Financial Services Infrastructure

The remit of the Infrastructure sub-group was to ‘deconstruct existing banking infrastructure and look at creating an infrastructure relevant to the banking mechanisms that might exist in 2010’.

The sub-group focussed on exchange of value systems, essentially payment systems involving the exchange of money for goods and services, and the issues surrounding delivery versus payment.

KEY MESSAGES AND DRIVERS

SO WHAT WILL THE PAYMENT WORLD OF 2010 LOOK LIKE?

The payments world of 2010 will offer a richer array of payment products. It will have developed further, faster than in any past decade. Existing payment products will have adapted and evolved to the world of the internet, mobile communications and electronic commerce and new payment products will have been created to plug the major gaps in the market.

In 2010 we will see payment systems that:

- Are secure, fast, global, simple and cost effective
- Take advantage of the available technology and security mechanisms
- Address the emerging needs of a range of markets including e-markets and consumer-to-consumer and small value payments markets
- Offer users the option of traditional payment products or a range of electronic payment products
- Are offered by a range of new players as well as traditional players, such as banks.

CUSTOMERS’ (BUSINESS AND CONSUMER) PERSPECTIVE

In the world of the internet and e-commerce individuals and businesses exchange messages, enter into agreements and place orders, irrespective of national boundaries, all within minutes. By 2010 there will be global payments systems able to support this activity cost effectively, for small as well as large payments, domestic as well as cross border. Customers will be able to choose from a range of payment products that will meet the needs of almost all payment circumstances. This range will include same-day, fast account-to account payment products with global reach and global electronic purse products which will allow them to transfer electronic money almost instantaneously.

Individuals and businesses will be able to initiate payments conveniently and securely, using PCs, mobile phones and other devices for communicating their instructions to banks. They will also be able to receive notification of incoming payments on these devices and will have access to account information.

Cheques will be a threatened species, heading for extinction. Cash will be in slow decline but still with a ten to twenty year future.

BUSINESS CUSTOMERS' PERSPECTIVE

Trade payments will be integrated in a seamless way into the transaction chain of enquiry, negotiation, order, invoice etc. between the trading partners.

Trading with unknown counterparts will be facilitated by trust services, which will provide counterparties with safeguards and guarantees. The payment will be embedded within this "trusted framework". Retailers trading over the internet will be able to receive guaranteed funds for their goods. There will also be cost effective global payment products to support very small value payments for example for items of information delivered over the internet.

CONSUMERS' PERSPECTIVE

Individuals will be able to make same day, fast account-to-account (to a person or a business) payments, domestically and globally. They will be able to receive notification of regular payments (telephone, gas, mortgage, etc) on a range of terminals, will be able to call up details of bills, query items and initiate payments, all with the minimum of "clicks" and a maximum of security and convenience.

In 2010 multifunction smartcards (or other devices, such as mobile phones, which contain chips) will have replaced magnetic stripe cards. Consumers will use them to make "traditional" plastic card payments, across the counter or remotely over the Internet from a range of devices - mobile phones, PCs ATMs/kiosks. The chip will provide security, binding the cardholder's identity to the transaction. Small value transactions, including purchases from vending machines, will be made quickly and conveniently using the electronic purse functionality. And there will be smartcards holding "real electronic money" which will be instantaneously transferable to individuals or businesses, face-to-face or remotely.

Smartcards will also hold a range of tokens issued by retailers, telephone companies and transport operators. They will also be used to sign electronic documents.

WHAT WILL THE INDUSTRY LOOK LIKE?

A much more diverse cast of players will populate the payments scene of 2010. The role of the traditional "bank" will change as new players emerge to offer alternative payments systems, clearing arrangements, deposit facilities and loans. The regulatory authorities will need to respond with a deft touch to maintain the integrity of payment and related systems and customer confidence but avoiding over regulation which could stifle change, innovation and new market entrants.

DELIVERY VERSUS PAYMENT (DVP)

By 2010 remote, electronic trading will be common. Trust and confidence in trading and settlement systems will be vital. Solutions will be found to the DVP problem which occurs when a buyer pays but does not receive the assets or a seller delivers the assets but does not receive payment. The role of trusted third parties will be at the core of these new systems.

Their roles will include:

- Identity checking: Is the counterparty who he says he is?
- Integrity checking: Has the message been compromised?
- Information: Has my counterparty got a track record?
- Privacy safeguards: Are addresses, accounts, and messages safe from eavesdroppers?
- Delivery versus payment: Manage the risk of counterparty failure.

ACHIEVING THE VISION - THE RECOMMENDATIONS

There are no major obstacles to achieving the 2010 scenario but there are factors which will hinder or promote the necessary developments.

- There is an increasing dependency of payment systems, value exchange systems, trusted third party systems and, generally, electronic commerce on **security mechanisms** based on cryptography. The possibility of a radical attack on this cryptographic cornerstone, which could undermine financial and e-commerce structures, is very small but cannot be discounted.
- More broadly, there is a need to analyse a range of issues (fraud, money laundering tax evasion, legal and tax arbitrage between countries, the means and cost of law enforcement) **in a co-ordinated, consistent way** in order to identify longer-term risks and potential avoidance strategies. Taking just one example, globalisation and technology, together with growth in e-commerce and securities trading, mean that tax arbitrage between countries will be an increasingly important and dynamic problem. Today’s trickle of examples (UK residents buying cars or alcohol on the continent; CDs and books being ordered from the US; the growth of offshore betting) could become a flood.
- The area with greater potential than any other to hinder or promote the development of financial services infrastructure is regulation. There is a difficult balancing act facing regulators between over-regulating and stifling change and under-regulating and encouraging a free-for-all. In a global world, regulatory arbitrage is a real factor. It is vital to the interests of the UK and of London as a major financial centre that “the UK should be the best place for investing in, developing and operating UK domestic, European and global financial services infrastructures”.
- Finally, the development of financial services infrastructures, including value exchanges, payment systems, trusted third party systems and other building blocks

supporting electronic commerce will require significant skilled resources. The skills required extend well beyond technical disciplines such as IT and security. There is an increasing demand for individuals with an understanding of how electronic commerce and its supporting infrastructures operate in the multi-dimensional world of inter-related commercial, regulatory, legal, technical and security factors and drivers. It is vital that these human resource needs are recognised and that the education system - at all levels - is geared to meeting this already urgent and rapidly growing demand.

These issues must be taken forward actively if the financial services infrastructure is to continue to provide a sound, cost-effective spring board for the financial services industry in the UK, to the benefit of both suppliers and business and personal customers. Specific recommendations for action are given below.

THE PROBLEM	WHAT NEEDS TO HAPPEN	HOW THIS SHOULD BE DONE
The possibility of a radical attack on security mechanisms based on cryptography, which could undermine financial and e-commerce structures, is very small but cannot be discounted.	Market participants and regulatory authorities should take further steps to understand and evaluate the problem.	The Foresight Financial Services Panel and infrastructure security experts should hold discussions with the relevant bodies with a view to initiating the suggested action.
Lack of a clear framework for mapping and analysing a broad range of fraud, legal, taxation and regulatory issues from a comparative UK/global perspective.	An active, co-ordinated programme aimed at maintaining UK as a prime location for both suppliers and customers of financial services.	Foresight Financial Services Panel should initiate dialogue with Government to develop a co-ordinated programme of action.
There is an increasing demand for individuals with an understanding of how e-commerce and its supporting infrastructures operate in the multi-dimensional world of inter-related commercial, regulatory, legal, technical and security factors and drivers.	More co-operation between the financial services sector and the education sector to consider and shape the training and qualifications required to address the demand for these skills.	The Foresight Financial Services Panel should work with the Financial Services NTO to produce guidance for the DfEE.

OTHER ISSUES RAISED DURING CONSULTATION

- The issue of the monitoring of computer crime was raised. The view was expressed that there is no objective register of computer crime, including "hacking", that would enable the financial community to determine the scope and scale of the problem, ways in which crime is developing and appropriate counter measures. The Financial Services panel should consider whether the present arrangements are adequate and if not suggest appropriate action.
- Further work on developing the two basic payment models (account-based credits and electronic money) was suggested as a useful exercise for the Financial Services panel. The basic payment models developed by the Infrastructure sub-group should be further developed in terms of potential costs, trade offs (settlement times, coverage) speed of development and likely players. The work thus far provides a good base for developing fleshed-out scenarios of global payment systems in 2010.
- Similar suggestions were made in terms of taking forward the work on exchanges, developing global scenarios and identifying practical cost, liquidity and regulatory issues.

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The Foresight Programme

The UK Foresight programme brings together the voices of business, government, the science base and others to look at what might happen in the future and what we need to do now to secure long-term competitive advantage and enhanced quality of life for all.

The programme was launched in 1993 following the Government White Paper on science, engineering and technology, Realising our Potential. It has a panel-based structure and operates on a five-year cycle. The current round of Foresight began in April 1999 and work has been carried forward through three thematic and ten sectoral panels.

Each Foresight panel looks at the future for a particular area, identifying the challenges and opportunities that the country is likely to face over the next ten to twenty years and beyond. In doing so, Foresight aims to bring about a culture change for the better in the way organisations relate to each other and to the future.

All panels consider the implications of their conclusions for education, skills and training and sustainable development.

This report - and those of the other panels - represent the culmination of over a year's intensive research, debate and discussion. They provide the basis from which panels and others will work to help turn the recommendations into action.

FORESIGHT PANELS:

- Ageing Population
- Crime Prevention
- Manufacturing 2020
- Built Environment & Transport
- Chemicals
- Defence, Aerospace & Systems
- Energy & Natural Environment
- Financial Services
- Food Chain & Crops for Industry
- Healthcare
- Information, Communications & Media
- Materials
- Retail & Consumer Services

A further industry-led panel is looking at Marine issues and there is a task force addressing the impact of E-commerce on business processes and supply chains.

Copies of the full reports for all panels are available from the Foresight web site at **www.foresight.gov.uk** or by sending a fax to the Office of Science and Technology on: 020 7215 6715.

Foresight also supports an ever-increasing programme of activities for younger people. Further details can be obtained via the fax number above or at **www.youngforesight.org** and **www.visionsonline.org**

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