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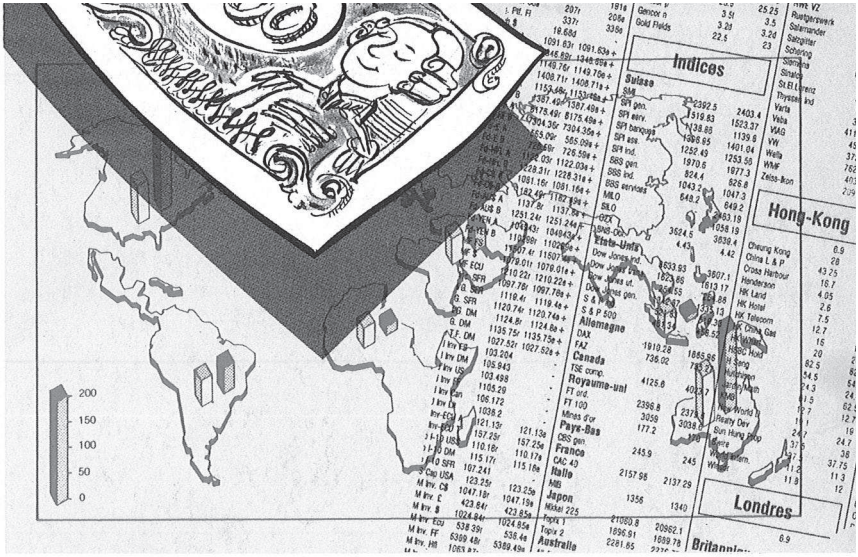

financial markets: impossible mission?

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Eco'Diagnostic

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DOSSIER POUR UN DÉBAT
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The *Fondation pour le progrès de l'Homme* (FPH) is a Swiss foundation that was established in 1982. Its activities and thinking are focused on the links between the accumulation of knowledge and human progress in seven specific areas: the future of the planet; promotion and meeting of cultures; innovation and social change; relations between state and society; peasant farming and modernisation; fighting against social exclusion; peace building. Together with a varied range of partners (including associations, administrations, companies, researchers and journalists), the FPH is coordinating a debate on the production and mobilization of knowledge for the benefit of those whith least access to it. In this connection, it encourages meetings and joint projects, proposes a standardized system of information exchange, supports efforts to capitalize on experience and publishes or co-publishes documents, reviews and special features.

The aim of the FPH's *Future of the Planet* programme is to pool, patiently and methodically, the experience and ideas of theses countless individuals, groups and movements which -each within their own cultures and traditions, and subject to their own specific institutional constraints- are seeking, by their thoughts and actions, to shape tomorrow's world. We are convinced that this project cannot be coordinated by a single group or institution. The Future of the Planet programme is therefore organizing meetings and research in order to take advantage of the wealth of study and thought on crucial topics of our age and to suggest possible new approaches to the future of the planet on the eve of the 21st century.

The research carried out under this programme is based on the Appeal for Proposals (published in June 1990) concerning the Twelve Work Programmes of the Vézelay Group. Together, these *Twelve Work Programmes* form a vast project that embraces the following topics: (1) social, economic and political logics; (2) value systems; (3) analysis of complex systems; (4) alternative development models; (5) conversion of the arms industry; (6) technologies which respect the global environment; (7) negotiations and standards; (8) financing, accounting and taxation; (9) law and liability; (10) politics; (11) education; (12) and a network for the exchange of experience.

Financial markets: mission impossible?, by Paul Dembinski and Alain Schoenenberger, is a contribution to Chapter 8 of the Twelve Work Programmes (financing, accounting and taxation). Eco'Diagnostic is an independent economic research institute based in Geneva, Switzerland.

Translation: Kevin Cook

SERIE DOSSIERS POUR UN DEBAT

CONTENTS

PART III

SYNTHESIS BY THE WAY OF INTRODUCTION

1. THE APPROACH

In autumn 1991, the Fondation pour le Progrès de l'Homme asked the independent economic research institute Eco'Diagnostic to investigate the role and functioning of financial markets in today's economy. Some months later, a preliminary report entitled "La bourse : une vocation trahie?" ("Stock exchanges - mission impossible?") was discussed by a group of professionals, academics and users of financial systems meeting in Geneva. The report aroused such interest that it was decided to launch a broader discussion and exchange of information on the subject.
In September 1992, an introductory booklet entitled "Financial markets - mission impossible?", published in French and English, was sent free of charge to some 10,000 people all over the world. It included a questionnaire on which readers could record their opinion of the arguments put forward in the booklet. Over the next three months, some 250 replies were received (in various forms) from users of financial systems, from experts in finance and financial regulation, and from academics with an interest in the subject.
The views they expressed served to confirm our initial impression, namely that financial markets were changing without anyone really trying to find out why. The replies emphasized the relevance of our enquiry and encouraged us to proceed further with it. The introductory booklet, reproduced in Part 1 below, merely outlined the process of "financial globalization" and its implications. Even at this basic level, differences in terminology became very apparent. Those who replied to our questionnaire included very few bankers - the implication being that this topic was not a matter of concern to them, or that the terminology used in the booklet had failed to strike a chord with them. In contrast, there were numerous replies from regulatory authorities, businesses and academics.
Following a critical analysis of the replies, personal contacts with some readers and detailed discussions with others, we were able to refine our survey by focusing on the relationship between financial markets and productive investment. As a result, a second booklet (reproduced in Part 2) appeared in April 1993. Our purpose this time was to seek answers to

the questions raised earlier. Since the issues covered by our enquiry were usually studied by different disciplines (finance, macroeconomics, business economics), the main problem was to establish links between fields which, although closely related, had difficulty in communicating with one another, to identify common ground, and to enhance the quality of the analysis with the help of new data.

This second booklet, which was sent to only 1500 people, was more specifically targeted than its predecessor. It also contained a questionnaire - a more detailed one this time - which was to prove an excellent means of creating a worldwide network of correspondents. This booklet elicited over a hundred responses, with a fuller amount of information, proposals and suggestions. Apart from establishing contacts, these responses marked the beginning of a real debate on the functioning and the future role of financial markets.

Finally, in September 1993, a third booklet (Part 3 below) examined what are known as "emerging" financial markets in 19 countries, the majority of which are just beginning to "take off" economically. This third booklet also outlined the specific problems facing post-Communist countries, with reference to the Warsaw stock exchange.

In addition to contacts by mail, the project team had formal and informal meetings with various people in Switzerland, France and the United Kingdom, as well as in Poland and Romania. These meetings were invaluable in that they enabled us to test our preliminary hypotheses concerning specific aspects of how financial markets function. Informal contacts with experts in international organisations, both governmental (such as the World Bank, UNCTAD and the OECD) and non-governmental, gave us an opportunity to identify the prevailing concerns, as well as any parallels between them. As we progressed, it became increasingly apparent to us how unique this enquiry on behalf of the Fondation pour le Progrès de l'Homme really was. This was due to a combination of two factors which are seldom found together: a naïve (and therefore irreverent) approach; and freedom from outside influence. In an academic world which is sharply divided into clans, each with its own set ways of doing things, a naïve approach is a rare luxury. Such an approach disregards the well-trodden paths of economic "science", and does not automatically defer to supposedly "scientific" evidence. Its only concern, its only purpose, is to find out the truth about how today's financial markets actually operate.

Freedom from outside influence is not in itself unusual - the same can be said of all truly academic research. But here, in combination with the naïve approach we have just mentioned, the term "freedom from outside influence" takes on their full meaning. In this case, it includes freedom from the influence of dogmatism, which is always inclined to draw conclusions first and ask questions afterwards; from the influence of particular financial centres or groups of financial experts; and from the influence of government policy.
There is no universal, unchanging answer to the question "Financial markets - mission impossible?". Indeed, if our enquiry is to be relevant, it must take full account of the experiences of financial markets all over the world. From this point of view, we can now divide the countries of the world into four basic groups: OECD countries; "emerging markets"; "emerging market economies" (i.e. post-Communist countries); and the rest of the world. Accordingly, our original question can now be rephrased as follows: "What are the roles of the stock market, and what kinds of stock markets can fulfil these roles?"

2. FINDINGS

The process of research and enquiry described above has produced a number of findings which, although not firmly established by scientific methods, are nevertheless well substantiated and should not be confused with mere hypotheses.

2.1. General findings

Financial markets are institutions which, like any other institution, perform a number of functions in society. Their characteristics and functioning are ultimately shaped by context and external pressures. Financial markets should not, therefore, be idolised or treated as though they were an entirely separate entity.
Over the past twenty years, finance has grown far more rapidly than other sectors of the economy. Its contribution to employment and value-added in developed countries is still growing. However, although a source of income, finance is also a source of rising costs to other sectors of the economy.

Over the same period, finance has come to play a dominant part in all developed societies, with financial dealings constantly extending to new kinds of assets.

The process of "financial globalization" began even before the expression was coined. International integration has increased the power of financial markets, and on a number of occasions they have forced governments to alter their policies.

The financing of production and trade is a matter of purely marginal concern to financial markets. Instead, they are chiefly concerned with managing previously accumulated wealth. It is only a slight exaggeration to state that a society of producers is gradually making way (at least in people's imagination) for a society of interest-earners.

Despite their geographic range, international financial markets are relatively small in terms of the numbers of operators, intermediaries, and listed companies involved.

Financial markets have never been convincingly shown to be efficient, especially when it comes to allocation. It is impossible to tell whether they significantly help to improve the allocation of resources within an economy and thus increase production or whether, on the contrary, they are a source of additional costs.

The growth of financial markets has seriously reduced the effectiveness and relevance of the classic precepts of monetary policy. In this new setting, monetary authorities are going to be forced to rethink their entire approach to the problem.

Monetary authorities have allowed share prices to explode without taking action, whereas monetary controls have been systematically relaxed whenever stock markets have been threatened with collapse.

There is fierce competition between financial centres. This may tempt local supervisory authorities to engage in competitive deregulation in order to attract more business.

2.2. Stock markets in OECD countries

From a purely financial point of view, stock markets are at the heart of developed economies, even though they only involve a small number of enterprises.

Use of the capitalization system as the predominant method of financing pensions has led to the collectivization of savings, which have

abandoned more traditional domains in favour of pension funds. The latter show a marked preference for investment in financial assets.
Self-financing continues to be the main means of financing production. Throughout the OECD, the contribution by financial markets to the financing of production has either stopped increasing or is actually falling.
The part played by financial markets in domestic financial systems has clearly increased over the past twenty years while at the same time banks have become intermediaries in financial dealings rather than lenders. As for the international financial system, it is clearly dominated by the markets.
Since the beginning of the 1980s, security prices ceased to reflect returns on other economic assets (as the lack of correlation with GDP growth rates makes clear).
The growth in capitalization needs to be financed (assuming that the securities actually change hands). The financial system responds to this need both by creating new methods of financing and by diverting resources originally intended to finance production.
Less than 5% of stock-market trading involves new share issues. In other words, the financing of production has become a marginal activity on today's stock markets.
During the 1980s, shares in the better-known enterprises were in very great demand, leading to the emergence of a "liquidity premium" which was solely related to the breadth of the market.
Stock markets are an extremely cheap source of financing for blue-chip companies. Such privileged access to financing gives these major companies a potentially decisive competitive advantage over small and medium-sized enterprises (SMEs).
Listed companies produce between 10 and 15% of GDP, whereas they appear to mobilize a far greater proportion of the available capital stock within the economy. The implication is that listed companies are not the most efficient.
Although institutional investors now hold an increasing proportion of shares, they are still reluctant to become actively involved in the policies of the companies whose shares they hold. This gives management considerable room for manoeuvre in determining company strategy.
Through share prices, financial markets can exert considerable pressure on company performance, thereby inducing enterprises to go for

short-term financial results rather than long-term competitive advantage.

2.3. Stock markets in developing countries

The so-called "emerging" stock markets (in 19 countries) grew stronger during the 1980s. However, only in a few cases was stock-market capitalization higher than 10% of GDP.
In 13 of the 19 countries, the discrepancy between the cumulative increase in the stock-market index and cumulative GDP growth was greater than in the United States.
The relative proportion of new issues is slightly higher on emerging stock markets than on those in developed countries. However, expansive growth in capitalization has more often been associated with changes in the stock-price index than with the number of listed companies.
Although the volume of trading is very unstable, more than three-quarters of new issues are made by already-listed companies. The number of listed companies on emerging stock markets is very small and relatively stable.
The contribution that stock markets make to development cannot be determined unless we know the contribution made by listed companies to GDP and the extent to which this changes over time.
The expansion of financial markets has had a definite effect on local financial systems. However, in the absence of comparable statistics, it is impossible to tell what this effect has been.
Conditions governing the admission of foreign capital vary from one emerging market to another. Over the last five years or so, emerging markets as a whole have received considerable foreign inflow in the form of portfolio investment. This inflow has helped to boost prices and has reduced the amount of resources diverted from local financial systems by booming markets.
This inflow of foreign capital is chiefly due to diversification strategies adopted by investors in OECD countries. There is always the risk that such capital may be repatriated without warning, with serious consequences for local financial systems.
Multinational companies create a link between the major financial centres where they raise capital and the developing countries in which they make direct investments.
Since the debt crisis, direct investment has taken over from bank loans to developing countries.

The proportion of direct investment, expressed in terms of the internal investment capacity of the host economies remains low (in most cases less than 10%).
The net effect of the expansion of the emerging stock markets is uncertain. Even if the effect is beneficial, the only beneficiaries are listed companies (which are few in number) and intermediaries.

2.4. Stock markets in countries in transition

With the possible exception of the Warsaw stock exchange, stock markets in post-Communist countries are still in their infancy.
The supply of securities is only increasing very slowly, owing to the difficulties involved in privatizing State enterprises. This means that the market is very narrow, and thus potentially very unstable.
Practically all listed companies are enterprises that have been sold off by the State. The stock market is therefore not a source of company financing, but merely a source of income for the State.
Serious problems have arisen in setting issue prices, owing to the absence of methods of valuation that are appropriate to transitional economies. The initial blunders committed in this area have dealt the fledgling post-Communist stock markets a serious blow from which they have not yet recovered.
The Warsaw stock exchange has taken a full 24 months to get over its teething troubles, and is now experiencing a boom which could destabilize the entire financial system.

3. THE STAKES

Finance is playing an increasingly dominant part in market economies. This trend is accompanied by a more general shift towards intangibles (services, know-how, etc.) which some would say typifies post-industrial society. What is clear is that new financial assets have been growing increasingly dissociated from material reality. Since the end of the Second World War, this trend has led to an astonishing increase in per capita income in the OECD countries, but at the same time it has left society increasingly vulnerable.
The operation of financial markets and the directions in which they

develop are matters of crucial importance to society. An ever-expanding network of financial relationships is influencing the lives of more and more people. Today, in the OECD countries, a major change in interest rates or a stock-market crash will sooner or later affect every member of society. In developing countries, the impact of financial variables is not yet so marked. In any case, the supervision and regulation of financial markets can clearly no longer be left entirely to the specialists - the social implications are too great.

Faced with the ever-increasing integration (globalization) of the international financial system, domestic monetary authorities have found they have far less room for manoeuvre, for two interconnected reasons. First, no central bank possesses the necessary resources to stand up to "the market" for any length of time; second, the proliferation of financial assets and the dematerialization of money have reduced the relevance of central banks' issuing policies. In short, the instruments that domestic monetary authorities have traditionally used appear to be largely ineffective in the present circumstances. The only way for governments to regain control of the situation may, in fact, be to regulate financial systems more strictly.

Financial markets are merely a secondary source of capital for enterprises as a whole, whereas for listed companies they are the favourite source. It seems likely that the cost of capital is lower for listed companies than for others, giving listed companies a significant competitive advantage. One result of the explosive growth of financial markets has been a tendency towards industrial concentration.

Financial institutions are gathering together an increasing volume of savings, but are finding it more and more difficult to invest these savings outside the purely financial sector. The growing tendency of banks to act as intermediaries rather than lenders suggests that the financing of production - and especially SMEs - may suffer. This may mean that the financial system is developing in a manner that is harmful to the real economy, rather than - as has generally been assumed - beneficial to it.

The financing of pensions for today's working population is increasingly coming to depend on the performance of financial markets. However, the latter must be considered an intangible factor rather than part of the "real" economy, given that financial investment is more often based on

changes in the prices of financial assets than on increases in the productive capacity of the economy. This means that the system is inherently vulnerable.

Developments affecting financial markets have a direct impact on the internal functioning of listed companies. Increasingly, shareholders are impermanent, scattered groups of individuals who are more concerned with the short-term financial performance of their shares than they are with the economic potential and strategy of the companies that they partly own. The result is that company managers are not subject to supervision of any kind, provided financial performance remains satisfactory. Managers of listed companies thus tend to become as short-sighted as financial investors, which in the long run weakens the economic fabric.

Institutional investors are starting to become leading financial operators, and are already majority shareholders in numerous listed companies. However, they have so far proved reluctant to become actively involved in running the companies whose shares they hold.

The expansion of financial markets in countries outside the OECD is evidence both of the vigour of the economies concerned and of their appeal to international financiers. However, even if such expansion is a sign of economic strength, it may also be a source of weakness: the stock market may undermine the banking sector, and the inherent impermanence of foreign portfolio investment may expose domestic financial systems to shocks which they cannot absorb without putting local institutions and currencies at risk.

Assuming that financial dealings do generate income - and there is no doubt that they have been a major source of growth over the past twenty years - financial centres may start competing more fiercely to attract more business. This could lead to competitive deregulation of the financial sector, making the system more vulnerable still.

4. FIRST STEPS TOWARDS MEETING THE CHALLENGE

As we have seen, the recent growth in financial markets has wideranging implications, each representing a major challenge to society. These challenges can only be identified and faced if the diagnosis outlined

above is acknowledged as correct. This diagnosis can be summed up as follows.

Finance is coming to play an increasingly predominant role in global society, and this development is making the economic and social fabric more and more vulnerable. Rather than attempt to reverse this trend, the challenge is to find ways of controlling it so that it does not produce the damaging effects we have described.

Keeping control of the financial system, whether domestic or international, is no longer solely a matter for the financial sector - the implications for society are too great. It is therefore essential for more people to take an active part in the debate on the development of financial systems, in order that far-reaching decisions on the subject are not taken by small groups of specialists. Such active involvement is required at both domestic and international level (for example, through a non-governmental organization set up for the purpose).

In its current state the financial system offers various opportunities, particularly for establishing new kinds of institutions which could channel financing into productive investment. Pension funds, and institutional investors in general, now appear to be in the best position to stimulate such a development. However, the necessary contacts and channels of communication must also be established to ensure that experience acquired in one field can be put to use elsewhere.

Given the dependence of small and medium-sized enterprises on bank loans, and the reluctance of banks to become more deeply involved in this area, fiscal measures must be taken to discourage households from keeping their savings in bank accounts and to encourage direct investment in new or developing family businesses.

The collectivization of savings is a clearly discernible trend in the OECD countries. There must be a frank public debate as to the long-term viability of pension systems based on such savings, and whether such a trend is beneficial. This is a matter of the utmost priority. If the trend towards collectivization of savings were called into question, this would affect the role of finance in society.

Although rising stock-market prices have traditionally been considered a blessing, this is not necessarily so. Monetary authorities should therefore base their policies not only on the relative stability of the consumer price

index, but also on the stability of the stock-exchange index (which is basically a price index for financial assets).

In developing and post-Communist countries, finance has not yet come to dominate the economy as it has in the OECD. Before joining in with the prevailing trend, these countries (and the organizations that advise them) should take a good look at how financial systems in the OECD actually operate, and then ask themselves the following key question: does development depend upon finance, or is it the other way around? Financial transfers in the form of aid (during the 1960s) and loans (during the 1970s) were unable to create a basis for healthy growth. Why should portfolio investment succeed where both aid and loans have failed?

Today's shareholders seem only interested in how their securities are behaving. As a result of this attitude, the internal equilibrium that operates among the various groups concerned is altered in favour of company management. In order to curb any tendency on the part of managers to kowtow to financial markets, the other social groups that are involved in companies must introduce various safeguards. This means reconsidering how, in the current situation, responsibilities can best be distributed and assumed within listed companies.

Paradoxically, financial globalization has led to fierce competition between international financial centres. With a foreign exchange system verging on chaos, such competition is potentially dangerous. The situation can only be stabilized by an international convention to combat unfair competition and underbidding. Better still would be a convention on "non-proliferation of financial centres", but the discrimination that this would involve would be difficult to justify.

PART I

GLOBALIZATION OF FINANCIAL MARKETS

1.1. Foreword

"Mission impossible?" - surely an unnecessary question, given the extraordinary growth in financial markets over the past twenty years and the contribution which finance has made to domestic product in the major developed countries. Nevertheless, it is a question which must be answered if we are to understand or influence the course of events, rather than simply watch them unfold. The Fondation pour le Progrès de l'Homme has therefore decided to get the ball rolling by commissioning an in-depth survey on the subject. The survey will be carried out by the Geneva-based consultancy Eco'Diagnostic.

The purpose of the survey is twofold: first, to determine the precise role of stock exchanges (and financial markets in general) in the world economy, and in particular the degree to which they contribute to productive investment and strengthen the fabric of small and medium-sized businesses in both rich and poor countries; and second - in the event that this initial analysis reveals harmful developments which may put human progress at risk - to propose corrective measures.

Whereas the traditional role of stock markets has been to provide businesses with the liquid assets they need for productive investment, and at the same time to transfer some of the gains and some of the associated risks to "financial investors", the main function of today's financial markets is to ensure the constant redistribution among financial investors of risks and returns linked to individual firms and peculiar to specific markets, sectors and currencies. Financial markets are nowadays more concerned than before with maintaining the financial value of wealth accumulated by previous generations, and less concerned with increasing the productive capacity of the economy. Stock markets may thus have become ends in themselves, no longer directly related to the actual state of trade and industry.

The costs of managing accumulated wealth are paid by asset holders whenever a transaction is carried out on their behalf. Such costs represent the receipts of the financial sector which carries out the

transaction, thereby increasing value added and thus also GNP. Yet this may simply mean that a large proportion of savings is being diverted from productive investment in order to protect earlier investments against changing risks.

At first sight, the expansion of financial markets over the past fifteen years may seem entirely due to technical developments intrinsic to the financial sector. Ultimately, however, such technical developments - which include risk diversification and financial innovation - are the result of deeper forces which reflect not only business conditions and behaviour by shareholders and investors, but also the attitudes of regulatory agencies, macroeconomic policy decisions, and existing global communication, transport and data exchange facilities. Each in their various ways, these forces constantly influence the economic and social role and functioning of stock exchanges and financial markets. Accordingly, when it comes to analysis, it is extremely hard to tell what is intrinsic to the financial sector and what is not. A comprehensive investigation of the issues is therefore only possible if a multidisciplinary approach is adopted.

Economics is nowadays a highly specialised science, in which every speciality - however small - has evolved a paradigm of its own that marks it off from all the rest. Hence there is a methodological gap separating the fields of finance, macroeconomics, microeconomics and business economics. Yet the issues raised by changes in the nature of financial markets concern all of these fields. The methodological pitfalls are compounded by the discrepancy between economic reality and the distorted image of it which is conveyed by economics. It is not, therefore, our intention to collate the previous opinions of economic and financial specialists on stock exchanges and financial markets. Instead, we want to discover the true nature of current changes in the role and position of financial markets. To do this, we need access to the knowledge, experience and expertise of people who use, manage, observe and analyse world financial markets on a daily basis.

1.2. Globalization of the financial system

In its broadest sense, the term "globalization" refers to the fact that frontiers have ceased to be barriers to economic activity. In other words, location - i.e. the specific place from which economic agents conduct

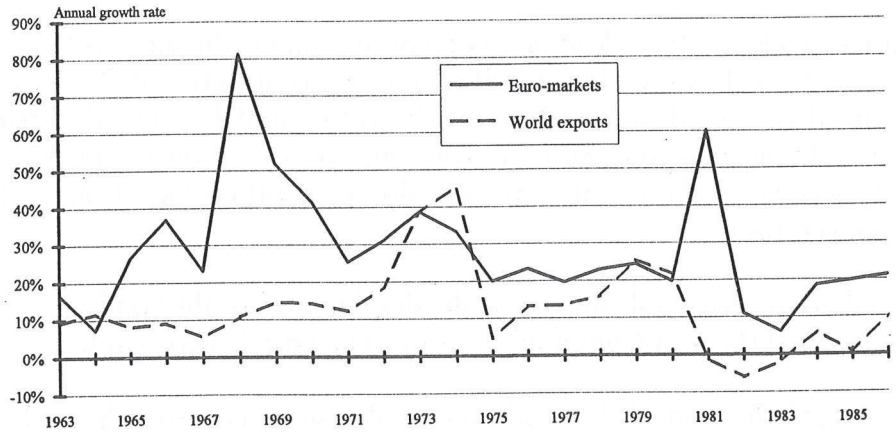
their activities - determines the geographic range of their operations far less than it used to. Globalization of the financial system has been going on ever since the 1960s, and there is as yet no sign of an end to the process.
If an international financial system could be said to exist at all at the beginning of the 1960s, it chiefly consisted of an umbrella of agreements between the central banks, each presiding over its own separate domestic financial system. The prevailing system of fixed exchange rates provided only limited scope for currency arbitrage, and international movements of capital were controlled by national regulations. By the nature of things, international financial transactions catered almost entirely to the needs of trade in goods and services; only in exceptional cases were financial assets involved.

Globalization is due to inadequate or inconsistent regulation, financial innovation and the revolution in communications technology.

The roots of the globalization process are deep, many-faceted and, above all, interconnected. Globalization is ultimately due to constant exploitation by economic agents of the opportunities occurring around them. At first, the inadequacy of domestic financial regulations and their inconsistency at international level led to the emergence of new financial instruments which domestic regulations were even less able to cope with. Thus the explosive growth in international transactions of a purely financial nature - mainly involving (Euro)currency - rapidly put paid to fixed exchange rates. Central banks had no option but to let exchange rates be decided by the market. All of this went hand in hand with a revolution in both communications and data transmission and processing technology, which led to a dramatic fall in distance-generated costs. This reduction in the effective distance between economic agents eventually allowed domestic financial systems to merge into a single world-wide system.
The emergence of new markets and products greatly increased both the volume and the value of transactions, thereby spurring on the phenomenal growth in the influence of the financial sector on the world economy. This was made possible by the almost simultaneous explosion in the supply of, and demand for, financial transactions (both domestic and international). The debts incurred by the developing countries

during the 1970s have become a classic example of this. Quite apart from purely quantifiable changes, globalization of the financial system brought about a fundamental change in the collective consciousness of developed society: the variety of opportunities now seems infinite, and financial gain appears to be within everyone's reach.

EURO-MARKET TRANSACTIONS AND INTERNATIONAL TRADE



Sources: BIS and GATT Annual Reports

Figure 1

Globalization means increasingly unmanageable complexity ...

The globalization process continues to have a profound impact on the way in which financial markets currently operate. Economic agents thus find themselves confronted daily with an ever more complex world financial system, brimming with increasingly numerous but at the same time - probably - increasingly deceptive opportunities. Choices and decision-making mechanisms must adapt accordingly, thus also becoming more complex and unmanageable.

... greater potential risks ...

Together with the increase in opportunities - particularly owing to the greater interdependence of financial centres - the range of potential risks has broadened. A shock in any of the financial centres is instantly

transmitted to all the others, and is therefore a potential threat to the entire global system. The interdependence and complexity of the world financial system thus confronts regulatory and supervisory agencies with ever-increasing challenges which, since they are no longer confined to the domestic context, tend to be unfamiliar. Keeping alert for signs of an imminent breakdown in the system is one such challenge.

... greater competition between financial centres ...

Paradoxically, far from leading to decentralisation of financial activities, globalization has merely intensified competition between the major financial centres (London, New York, Tokyo and Frankfurt). Apart from fighting to capture business from one another through regulations and concessions, these centres are also siphoning off business from more minor centres.

... and an unpredictable impact on the development of the South and the transition of the post-Communist countries to a market economy.

While globalization of the world financial system has certainly made a major contribution to the growth of the OECD countries over the past twenty years, it is by no means clear whether it has strengthened or, on the contrary, weakened the foundations of their economies. It is likewise difficult to tell to what extent it has contributed to the development of the South or the transition of the post-Communist countries to a market economy.

1.3. Innovations in financial products

The changes in basic conditions that have occurred over the last thirty years have led to a large number of innovations in financial markets. Not only financing procedures but also financial instruments and portfolio management techniques have undergone radical changes. The effects of these innovations, particularly on the global stability of the financial system and productive investment, are now starting to become apparent.
The inflation triggered off by the first oil shock in the 1970s, together with the greater instability of interest and exchange rates following the

end of the system of fixed exchange rates, changed the way in which the economy was financed. At the same time, the increasingly international nature of trade and capital flows and the recycling of petrodollars (which reversed current account balances in favour of the oil-producing countries) led to a large number of innovations in financial markets. This development was also made possible by the emergence of more efficient communication and data processing and storage technologies, which reduced the unit costs of transactions.

Financial innovation has given rise to new financing procedures such as securitization of debts and loans ...

At the beginning of the 1960s, changes in financial management methods within major firms - particularly multinationals with substantial liquidity - led to financial innovation. However, it was only later that securitization of debts became more widespread, in response to fluctuating interest and exchange rates. To shield themselves against these, both firms and governments ceased to rely on bank loans (whose availability was no longer predictable) and instead obtained financing directly from financial markets by issuing negotiable securities. This reduced the cost of refinancing by cutting out the middleman.
Credit institutions have chosen to securitize their loans for a quite different reason, namely risk-spreading. Credit institutions do this by inducing the public to invest in securities representing shares of a portfolio of previously granted loans. In the event that a debtor defaults, the loss is borne not by the credit institution but by the security holder, whose securities (i.e. assets) collapse in value. This change in the role of banks is known as disintermediation. Firms and governments securitize their debts, and banks securitize their loans. What this means is that economic agents incur reciprocal debts and use the market to spread credit risks among themselves. Securitization is thus visible evidence of the shift from a bank-oriented economy to a market-oriented economy.

... as well as derivative financial instruments such as options and futures.

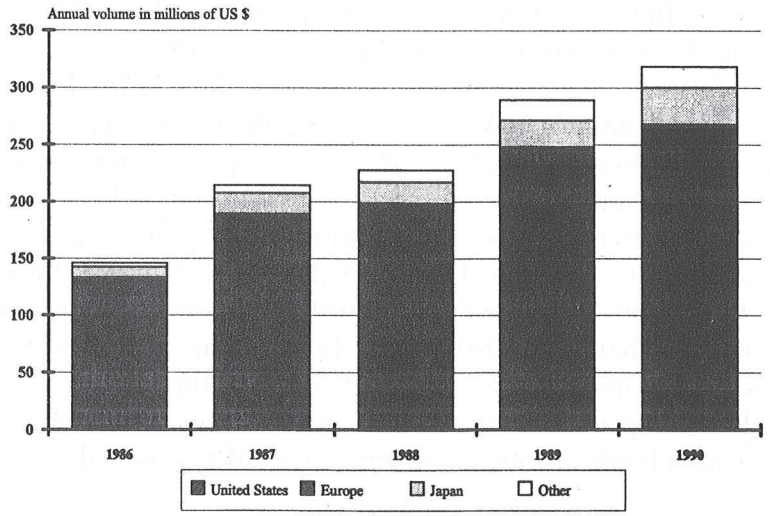
Exploitation of loopholes, risk management and competition with other financial centres are all good reasons for creating and using new financial instruments. Two such instruments from the forward market

- options and futures - have now become classic. These enable investors to hold securities without bearing the associated risks and, by extension, to be involved in a market without running the usual monetary risks. In return, another agent bears the risks while making only a minimal financial commitment in respect of the security concerned.

In abandoning the long-term view, is financial innovation becoming an academic exercise?

As derivative instruments grow more and more artificial and complex, their relevance to economic reality has become increasingly remote and abstract, and they can only be fully understood by financial experts. One cannot help wondering whether such developments have really occurred in response to demand from firms, or whether the experts are simply creating new financial instruments in order to deal with one another, outside the economic context. If so, financial innovation is in danger of becoming an academic exercise.

DÉRIVATIVE FINANCIAL INSTRUMENTS



Source: BIS

Figure 2

In this connection, the portfolio theory advanced by Markovitz (winner of the 1990 Nobel Prize, together with Sharpe and Miller) represents a

total revolution. The main idea is that it is possible, by means of geographical and sectoral diversification, to shield oneself against currency or sector-based risks. Thus, says the theory, investors' choices of particular securities will be determined not so much by fundamental analysis of the companies concerned, as by how the securities relate to other securities in their portfolio. If a present-day financial analyst is asked whether he considers Fiat or Bayer a better investment, he will reply that it entirely depends on the current make-up of your portfolio.
Given the opportunities for risk transfer offered by futures and options, and also the growing number of short-term transactions, fundamental analysis of a company - in other words, the long-term perspective - is no longer the only factor which determines market demand for securities. It is thus by no means certain that the price of a security reflects expectations regarding the company's future value.

1.4. Bank-oriented and market-oriented systems

According to one standard definition, financial systems are intended to procure payment services, to mobilize savings, to distribute credit, and to limit and determine the prices of risks, and classify and negotiate them. In the dynamic context of financial systems over the last thirty years, the basic problem is knowing which method of financing is most likely to achieve this aim.

Bank versus market intermediation.

Leaving aside the diversity of national situations, there are basically two ways of running financial systems so as to achieve the above aims: the bank-oriented economy and the market-oriented economy.
In a purely bank-oriented economy, financing is dominated by the banks, which play a central part in all financial transactions. The economic circuit starts and ends with the banks: these gather in savings from households and grant loans to the government and to firms, which generate income for households, which in turn invest their excess liquidity in the banks.
The "universal" bank - which can provide all the financing services required by economic agents - is most suited to this method of financing. Although a purely bank-oriented economy does not exist anywhere,

some market economies come closer to it than others - examples being Germany, Switzerland and, to some extent, Japan.
The second method of financing involves all financial flows passing through the financial market. Firms obtain financing by issuing negotiable securities for purchase by households, which thus hold their savings mainly in the form of securities. At the same time, the government meets its financing needs by issuing bonds or treasury bills. The market acts as the intermediary between economic agents and thus plays the same part as the banks in bank-oriented economies, with the notable exception of risk, which in market-oriented economies is spread among the various agents by the banks. Examples of this type of economy are the English-speaking countries, headed by the United States and the United Kingdom.

The global financial system increasingly tends to favour the market-oriented approach.

During the 1980s, the rapid rise of finance was accompanied by the phenomenon known as securitization. This term refers to the replacement of non-negotiable debts and loans by negotiable securities. Securitization is a symptom of the change in the structure of the financial system. World-wide, the financial system appears to be shifting towards the market-oriented type. This development has had noticeable effects on risk-spreading, financial institution profiles and creation of money. The latter factor has major monetary policy implications: securitization blurs the distinction between financial assets and cash, since any asset can be rapidly converted into cash and vice versa. This undermines the effectiveness of monetary policies based on growth in monetary aggregates.
Such data as are available make it quite clear that domestic financial systems are increasingly tending to favour the market-oriented approach. This is illustrated by the growing reliance on securities for both company and government financing in Japan, France, the United States and Germany. In the United States and France, for instance, securities were used for more than 50% of net borrowings on the capital market during the 1980s. The change was particularly marked in France, where net borrowings in the form of securities increased from an average of 27% of the total between 1972 and 1980, to 53% in the period from 1980 to

1987. Germany and Japan still favour loans as a means of raising capital, but a comparison between the 1960s and the 1980s shows that, even in what some think of as the realm of universal banks, the use of securities is increasing. They now account for nearly 40% of the total in both countries.

Are market-oriented economies better resource allocators than bank-oriented economies?

The change in the nature of financial systems in recent years raises a number of issues - in particular, the question of whether the change has led to greater economic efficiency. Are market-oriented economies better resource allocators than bank-oriented economies?
To answer this question, a comparative analysis must be made of each system's ability to procure means of payment, to mobilize savings and contribute to productive investment which is directed towards socially worthwhile goals, and to manage risks.

1.5. The Macroeconomic role of financial markets

Where firms seek financing directly from the capital market and households keep their savings in the form of securities, the invisible hand of financial markets becomes responsible for allocating savings to productive investment.

The main activity of financial markets is not to finance productive investment.

In addition to managing financial flows, i.e. new issues and increases of capital, the markets manage the stock of previously accumulated shares, bonds and other securities. A succinct analysis of market operation and agents' behaviour suggests that the main activity of financial markets is to manage the existing stock rather than to generate a financial flow which would boost productive investment. Unfortunately, such stock transactions undermine the quality of the resulting allocation.

The short-term perspective of financial markets reflects the short-sightedness of economic agents...

The first reason for this is the innate short-sightedness of economic agents. With the exception of institutional investors, which by their very nature must take a long-term view, the great majority of agents appear to base their decisions on short-term criteria. Technical analysis, which emphasises opportunities for short-term buying and selling, is more common than fundamental analysis, which assesses a company's long-term potential. In this connection, a recent study of the Swiss market is instructive. The study takes major companies quoted on the Swiss stock exchange and classifies them from a fundamental point of view, i.e. in terms of their long-term potential. Only 30% of these companies turn out to have been correctly evaluated by the market; the remaining 70% are either overvalued or undervalued. These findings challenge the hypothesis that all available information is reflected in the market. In actual fact, buying and selling is motivated by the hope of capital gains rather than dividends. This means that dealings in a security are motivated not so much by the company's potential productivity as by the fact that the security has been incorrectly evaluated by the market. There is nothing irrational about such behaviour. One way to beat the market is, after all, to take advantage of fluctuations around the trend. One can improve the profitability of one's portfolio by buying or selling the right securities at the right time - something every agent believes he is capable of doing.

... to whom there is no such thing as the long term.

The fact that stock-market prices give only a scant indication of companies' long-term potential seriously undermines the hypothesis of market efficiency, and thus challenges the assumption that financial markets ensure optimal resource allocation. Admittedly, given that prices are constantly being adjusted, securities cannot remain overvalued or undervalued indefinitely; in the long term, their prices will reflect the company's potential. In practice, however, there is no such thing as the long term, since the economy in general and financial markets in particular are caught up in a process of endless adjustment, i.e. they are constantly in motion. Countless transactions will take place between now and the hypothetical long term, and during this adjustment phase prices will fluctuate around a trend (which will be affected accordingly) without any change in the intrinsic value of the company. Far from being an absolute value, the trend is determined ex post on the basis of daily or weekly fluctuations.

A wave of buying will drive a price up until the security is no longer undervalued and, conversely, a wave of selling will drive down the price of an overvalued security. If the price rises, the security holder's wealth will increase even though there has been no increase in physical capital stock. This phenomenon is tantamount to inflation which, for once, agents will welcome rather than deplore - a paradox which is due to the fact that the price rise benefits security holders, assuming they bought the security at a lower price.

Seen in this context, the commissions and profits accruing to the financial sector represent so much investment lost to productive investment.

A considerable proportion of savings and human resources are thus put into obtaining an accurate assessment of markets and firms. The commissions earned by intermediaries reflect the systematic discrepancy between the market price and the intrinsic value of securities, as well as the fact that each stock-market investor believes he is better informed than the rest. The commissions and profits generated as securities change hands again and again are in fact costs which represent a net loss to productive investment. Moreover, the instability thus created (and maintained) is particularly damaging to firms in that it raises the costs of refinancing (share premiums are calculated according to the degree of instability).

Thus the hypothesis that, by virtue of their liquidity and their constant price adjustments, financial markets are bound to ensure optimal resource allocation cannot be accepted unqualified. It is only true in the long term, which is a mere theoretical abstraction. Although in the short term, day after day, prices do attempt to reflect companies' future potential and to anticipate future market responses, they never actually succeed in doing so. This continuing gap between the short and the long term is the bread and butter of the financial sector.

1.6. The size of the financial sector

The role and development of stock markets are rooted in the activities of the financial sector. As a generator of value added and employment, finance is thus a key element in present-day economic activity.

Market economies are now predominantly tertiary: the service sector accounts for an ever-increasing number of jobs and generates income which, in relative terms, exceeds two-thirds of GDP. The chances of an American being employed in services rose from just over 50% in the 1960s to almost 70% by the end of the 1980s, and similar increases occurred in other developed countries. This development has enabled the financial sector to take a leading role in present-day economic activity.

The financial sector accounts for an increasing share of value added ...

According to the International Standard Industrial Classification (ISIC), the financial sector includes banks, finance houses, insurance, property companies, consultancies, business services, etc. As thus defined, the financial sector accounts for more than 20% of value added in both the United States and the United Kingdom. In France and Japan the sector is somewhat smaller, representing 15-20% of economic activity. Among the major economic powers, only Germany's financial sector contributes less than 15% of value added. In all developed countries the financial sector is growing faster (in both absolute and relative terms) than the rest of the economy.

... and also employment.

As for employment, more than 10% of the working population of both the United States and the United Kingdom are employed in the financial sector. At the other end of the scale, this sector provides less than 7% of total jobs in Germany and just over 5% in Switzerland.

Depending on the country concerned, financial activities may either reinforce or, on the contrary, reduce the impact of the business cycle. No common trend is detectable among the main industrialised countries. In Germany and the United States, for instance, financial institutions (banks and insurance companies) have a stabilising effect on overall employment: during recessions, even when overall employment is shrinking, employment in both of these segments continues to expand (albeit more slowly than usual). In both countries the same also applies to growth in value added in the financial sector, which tends to cushion the impact of cyclical fluctuations. In France and Japan, on the other

hand, fluctuations in the rate of economic growth are magnified by the financial sector: in both cases the slowdown in financial activity during recessions is greater than in the rest of the economy.

The past twenty years have seen a huge increase in stock-market capitalization.

As with rates of employment and value added in the financial sector, stock-market capitalisation in modern-day economies is also increasing in both absolute and relative terms. From the beginning of the 1970s to the end of the 1980s, the total value of shares more than tripled in Switzerland, quadrupled in the United States and Germany, increased more than eightfold in the United Kingdom, and more than twelvefold in Japan and France. Over the same period, this enormous absolute increase in capitalisation was accompanied by an increase in its relative share of GNP. By the end of the 1980s, share capitalisation (as a percentage of GNP) had reached some 19% in France and Germany, 48% in the United States, some 70% in Switzerland and the United Kingdom, and over 100% in Japan.
Finance thus has a twofold function in modern-day economies: it underpins economic activity, but at the same time it is a sector of the economy just like any other. Accordingly, it is hard to tell whether the explosion in financial activity can be attributed to real economic activity or instead reflects the growing autonomy of the financial sector.

1.7. Stock markets and the business cycle

According to the theory of efficient markets, financial markets (and, more specifically, movements in stock-market indexes) are supposed to anticipate the business cycle, i.e. changes in GNP.

The theory of efficient markets is not necessarily reliable.

The hypothesis of efficient financial markets is based on three assumptions. First, efficiency of information: every agent must have access to all the information he needs to evaluate an asset (forecasts concerning the business cycle, the sector, firms and interest rates). Second, rational behaviour: prices must entirely reflect investors' rational

expectations as to their future income. Third, efficiency of organization: the market as a whole must channel savings towards the most productive sectors. The result should be perfect equivalence between financial and productive investment.

Neat though it is, this theory raises a number of problems. Empirical tests have invalidated the theory quite as often as they have confirmed it. The assumptions made are too inflexible to account for major price fluctuations and bursts of speculation. Such a highly controversial issue cannot be dismissed simply by repeating that markets are theoretically efficient.

In the long term the business cycle very probably influences stock-market prices ...

In the long term, however, it seems extremely likely that there is a causal link between the business cycle and the stock market - a security cannot remain overvalued or undervalued indefinitely. The same is surely even more true of entire markets and the global network of stock exchanges - as witness Black Monday, when the world market readjusted the prices of its overvalued securities in one fell swoop. Yet in the short term, which is when transactions take place, things are very different: prices may deviate considerably from their long-term levels (i.e. the levels at which they reflect companies' potential for growth). Here, in the incurably myopic world of trading, is where fortunes are made and lost.

... but the converse is probably also true: the stock market influences the business cycle.

At the same time, it is a reasonable assumption that speculation in turn influences the business cycle. The total world-wide contraction in stock-market capitalisation that followed the crash of October 1987 has been calculated at $ 2 trillion. The historic scale of the crash led to the direst predictions about what would happen to the world economy. Yet, in the light of the satisfactory performance achieved in 1988 in terms of both employment and growth, these predictions were revised, and experts are now agreed that the crash has had no lasting economic effects. However, this statement needs to be qualified.

The mechanisms that transmit shock waves within an interdependent system are complex, nor do we know how long it actually takes for shocks to work their way through the system. Analysis is made all the harder by the fact that central banks have responded with massive injections of liquidity, thereby delaying adjustments. At the moment, in any case, we are witnessing a crisis in the financial sector and a general slowdown of the economy. We cannot dismiss the possibility that the recession which first hit the United States in 1990 is directly linked to the crash of 1987.

Is the current crisis due to the excesses of 1987?

Western economies are now facing a crisis in real estate and banking, both vital sectors by virtue of their relative share of GNP and their key role in the economy. The banking crisis is a crisis of credit. More and more debtors are defaulting, forcing the banks to make substantial provisions. This crisis is partly due to over-generous lending policies back in the days of easy money, the full effects of which are only now becoming apparent. Banks have already failed in the United States and even Switzerland, while in Japan the first signs of such trouble are just starting to appear. What this means to households and businesses is only too obvious: the former may lose their savings and the latter - especially small and medium-sized enterprises - may find their sources of finance drying up. Likewise, the current crisis in the housing sector may very well be due to excessive speculation in the period leading up to 1987.
Stock-market prices cannot remain indefinitely disconnected from reality. Yet, if there is a causal link, where does it originate? Today the risk of world-wide financial collapse appears to have been increased by globalization, technology and widespread securitization of assets. Since the majority of assets (businesses as well as real estate) are now securitized, any financial shock wave must inevitably affect the entire economy. Nevertheless, in putting an end to speculation, Black Monday has also had some positive effects. Throughout the period of booming markets (1982-1987), liquidity was being withdrawn from productive investment and industry, and channelled instead into finance, since the return on financial investments was much higher. The trauma of Black Monday may have started the pendulum swinging back in the other direction. The implication - though still a premature one at this stage - is that stock-market prices influence the business cycle.

1.8. Discrimination against small and medium-sized enterprises

Changes in the way financial systems operate have led to an increase in the number of small and medium-sized enterprises (SMEs) traded on second markets. This has enabled some SMEs to issue shares (if only to a limited extent) and so increase their own capital at minimum cost. However, only a very few have been in a position to take advantage of issuing premiums. One effect of disintermediation on financial markets has thus been to underscore the hierarchy among small and medium-sized businesses by differentiating their access to sources of finance.

The expanded role of financial markets has benefited multinationals and major firms.

The expanded role of financial markets has benefited multinationals and major firms by allowing them to increase their own capital in the wake of stock-market price increases and to reduce their indebtedness to the banks. Globalization of the financial system has thus enabled them to make financing arrangements that are more suited to their operations.
The new role of financial markets has likewise benefited large domestic firms by enabling them to sell shares to the public. However, such firms have mostly remained outside the bond market, since they are smaller and have more modest financing requirements than is normal for that market. Thus, except for funds raised in order to increase capital, they continue to finance their investments either by self-financing or via bank loans.
At the bottom end of the scale are the SMEs, defined by the European Community as businesses employing 500 people or less. The great majority of these are very small family businesses with limited own capital and equally limited opportunities for self-financing. The expansion in financial markets has done little to increase the range of financing available to such firms, which are still almost entirely dependent on bank loans.
As far as investment is concerned, each type of business has its own specific features. Multinationals can have the degree of risk quantified by specialized firms, while the number of securities in circulation ensures that investments remain highly liquid. This is not true of the more minor quoted firms, whose risk assessment is less well organized and whose

share prices may be subject to considerable fluctuations owing to the narrowness of the market. Nevertheless, such firms are still large enough and possess sufficient assets for banks to be prepared to lend to them on favourable terms.

Things are very different for SMEs ...

Things are very different for SMEs in general, and for small businesses in particular. First of all, if only by virtue of their close economic and social ties with their local community, such businesses have traditionally been clients of local banks. Secondly, they are by definition a highly unstable group and as such are considered by banks to be a high lending risk. Since it is difficult for banks to assess with any accuracy the risks attaching to any given specialized SME, their lending policy towards all SMEs remains extremely cautious, particularly during recessions. For their part, SMEs overcome banks' reluctance by agreeing to strict lending limits and interest rates which include a risk premium. SMEs are thus at a twofold disadvantage compared with larger businesses, in that it costs them more to borrow less.

... which continue to have financing problems ...

Changes in financial systems have opened up capital markets to shares and bonds issued by large firms, and - not surprisingly - this in turn has influenced firms' financing structures. The result has probably been a fall in demand for bank loans by such firms. At the same time, a proportion of households' savings has been diverted from bank accounts into securities. Instead of seeking to make up for the loss of large customers by granting more loans to finance-hungry SMEs, banks have chosen to increase the share of commissions in their revenues. Thus, despite the relative fall in demand for loans by large firms, the financing of SMEs is still a problem. Worst hit are the smallest and newest firms. Since the costs of managing a loan are not directly proportional to its size, banks continue to treat small customers with caution. New businesses suffer most of all, as banks will tend to refuse them loans simply because they have no previous history - and the financial community still considers a company's previous history the most reliable pointer to its future performance.

... especially in the South.

It seems very likely that globalization of the world financial system has underscored the hierarchy among firms seeking finance. Firms with quantifiable risks have found funds easier to obtain, whereas with SMEs the reverse is true. This particularly applies in developing countries, where savings - already scarce - are all too readily diverted from domestic firms into international blue chips. Thus, in the South, it would seem that globalization has merely reinforced existing discrimination against SMEs.

1.9. Regulation and financial markets

The countries of the world display a wide variety of traditions, doctrines, practices and structures which they have inherited from the past. So far, regulation has not always kept pace with the explosive developments in the financial sector. The rapid changes that are taking place are a constant challenge to regulatory agencies, requiring sustained reforms which retain their relevance over time.

Existing regulatory systems date from the days when financial markets were far less complex and interdependent than they are now. Some countries continue to rely on agents' self-discipline. Traditionally, measures to supervise the securities market (and in particular the stock exchange) and to regulate banking were adopted in order to protect investors against fraud and market-rigging, and to guard against insolvency of financial intermediaries.

Today's new risks ...

Financial innovation has led to more efficient financial markets in that it allows better allocation of risks among market agents. However, in altering the very nature of the world financial system, globalization has also increased the risks inherent in financial activities:
Risks associated with the (increased) instability of stock-market prices, particularly affecting the value of derivative securities such as options.
Risks associated with the complexity, legal compatibility and management of proposed financial instruments (financial innovation).

Risks associated with the opaqueness of transactions and agents' financial circumstances (e.g. off-balance-sheet transactions).
Risks associated with the fact that financial markets have merged into a single global network (e.g. transmission of shocks).
Not only do these new risks require agents to have a thorough knowledge of market mechanisms and of security evaluation methods, but the increase in instability (which some empirical evidence tends to dispute) boosts speculation and encourages the emergence of new instruments.

... are a challenge to government regulation.

Government regulation and such codes of ethics as exist concern the behaviour of specialized agents operating on financial markets, product definition and overall market operation. Few industrialized countries have reasonably comprehensive regulations to control the new financial instruments (options, forward deals, etc.), but now - in the aftermath of 1987 - a number of them are revising their supervisory mechanisms and procedures so as to eliminate any awkward loopholes.
International harmonisation of capital ratios (the work of the Cooke Committee, and effective as of 1992) is a recent example of a consistent attempt at reform. Introduction of the "Cooke ratio" will limit the growth of bank assets, thus curbing unbridled competition.

A need for new legislation?

The potential field for regulation is broad, ranging from minimum conditions for product launches to rules on information, as well as classic measures to protect investors. The emergence of new products and the process of concentration which is now commencing in the financial sector are additional challenges to regulators.
Firstly, we need to know whether new legislation on financial innovation is really necessary, and to what extent self-regulation by market agents will work instead. It is well known that regulation may itself give rise to new instruments and refractory behaviour.

There is a risk that supervisory powers may become fragmented, both domestically and internationally.

Secondly, there is a risk that supervisory powers may become fragmented among the various categories of agents (commercial banks, private banks, brokers, etc.) or the various financial markets segments (shares, bonds, derivatives, etc.). Coordinated action by supervisory agencies is essential, since it is always possible to change agents or products, and since agencies may otherwise take conflicting action.
Finally, there is uncertainty at international level as to how regulatory powers are to be distributed. Some international harmonisation of financial-market regulation may be required in order to prevent supervisory measures being undermined by competition between countries. In this connection, a multilateral approach is surely preferable to the now common bilateral arrangements.

1.10. The role of financial markets in development and transition

Can financial markets serve as an instrument for economic development in the developing countries and in Eastern Europe? In other words, can the introduction of stock markets be expected to solve the problem of financing productive investment in these countries?

Both in the developing countries ...

The developing countries are faced with two different but complementary problems: the low rate of net transfers in their favour, and the flight of domestic savings by various channels to international financial centres. At least in theory, the creation of domestic financial markets could help the developing countries to solve both problems at once, by stopping the flight of domestic capital and attracting capital from abroad. According to the International Finance Corporation (IFC), the emerging economies (countries which have a high growth rate and are more advanced than developing countries) are already using stock markets as a tool to promote industrialisation. Indeed, the IFC has advised all developing countries to set up stock markets. The experience of the emerging economies provides plenty of arguments to support this: opportunities for major firms to raise capital on both domestic and foreign markets, influx of capital in the form of portfolio investments (since the rate of return in Southern countries is considerably higher than in the developed countries), greater economic efficiency through

liberalisation of financial systems, and encouragement of domestic savings.

... and in Eastern Europe, stock markets are often seen as the key to development ...

In Eastern Europe, the establishment of a stock market is often seen as the key to successful privatisation of the State sector. Whatever technical arrangements are made for the transfer of State property to the private sector, thereafter the stock market is expected to perform a dual function. Its first function - by far the most important in the initial stages of privatisation - is to allocate former State assets on the basis of economic efficiency. Its second function - comparable with the anticipated role of stock markets in developing countries - is to generate a flow of both foreign and domestic capital which will boost growth in the post-Communist economy.

... with the concomitant risk of discrimination against SMEs - the very firms which provide the main stimulus for development and transition.

Nevertheless, various conditions need to be fulfilled if financial markets are to provide an effective stimulus for development or transition to a market economy. First, SMEs need to be shielded against discrimination in access to financing. Indeed, a growing number of development aid agencies and transition experts consider a vigorous private sector - which necessarily includes a flourishing web of SMEs - an essential condition for sustainable development. Second, it is essential to ensure that foreign capital actually finds its way to productive investment. Third, national financial markets must not only encourage domestic savings but also increase the proportion of savings channelled into productive investment. In most developing and transitional economies, the initial signs are that none of these conditions are being met.

What counts in the end is productive investment.

Over the past few years, the performance of stock markets in the emerging economies has often been spectacular. Yet, after the first flush of enthusiasm among both investors and international development

agencies, doubts are now setting in. According to a former World Bank official, investments on these stock markets have not benefited companies, but simply reflect arbitrage as investors' demand moves from asset to asset. Such misgivings are borne out by the fact that stock-market prices fluctuate more wildly, and share ownership is on average four times more unstable, than in the industrialised countries. Instances of failure are easy to find: the stock markets in both Warsaw and Budapest - whose inauguration was proclaimed as a crucial stage in the transition to a market economy - have already been the scene of numerous fiascos. The argument that stock markets lead to greater efficiency is largely invalidated by the inadequate legal systems and rights of ownership that prevail in most Southern and Eastern European countries, allowing insiders to rig prices with ease. Lastly, although satisfactory performance by stock markets in emerging economies is undoubtedly a valid criterion in assessing their appeal, another factor is the lack of correlation - not to say the inverse correlation - between these markets and those in the developed countries. Investors can thus use stock markets in the emerging economies to diversify their portfolios and so protect themselves against setbacks in Tokyo or New York.
What ultimately matters, both in the South and in Eastern Europe, is to what extent the development of stock markets is linked to industrial development of the economy.

PART II

FINANCIAL MARKET AND PRODUCTIVE INVESTMENT

2.1. Foreword

What contribution do financial markets in general - and stock markets in particular - make to productive investment and the creation of new wealth? How is the increasing detachment of financial markets from economic reality to be explained, and how should we respond to it? Is this simply a natural development in post-industrial society, or is it a morass into which the world economy - absorbed as it is by short-term concerns - is sinking unawares?
Although these fundamental issues may appear mainly of interest to the financial world, in fact they directly concern every sector of the world economy: industry or services, OECD countries or those struggling desperately to join the rich men's club.

Almost imperceptibly, an economy of producers is being replaced by an economy of interest-earners; if this shift is taking place more in people's imagination than in reality.

The analyses which follow break new ground in the sense that they attempt to link up events that are usually observed in isolation - some from the world of finance, others from the "real" economy. Two examples will suffice by way of illustration. Multitudes of financial analysts are employed to monitor the day-to-day fortunes of companies quoted on the stock market. The slightest clue to company performance or medium-term prospects triggers an almost Pavlovian response. Panic breaks out if a major international stock market falls by 10%. Yet the actual contribution that listed companies make to national product is unknown, as is the actual effect of a fall in share prices on the performance of listed companies.
While some of the brilliant minds on the planet are kept busy following day-to-day developments in financial markets, the question of how their performance is related in the long term to growth in national product appears only to interest a handful of visionaries - despite the astonishing,

and as yet unexplained, boom in financial markets during the 1980s.

2.2. The investment dilemma

Since stock markets are now only a marginal source of business financing in the major developed countries,...

The original purpose of stock markets was to finance business. Companies could raise the capital they needed for expansion by going public or by increasing their capital on the stock exchange. Nowadays, the world's leading stock markets have almost entirely abandoned this role. Firstly, new issues have become a marginal activity, accounting for less than 5% of all transactions. Secondly, firms nowadays are very seldom financed by share issues, or even bond issues. Paradoxically, the more important a stock market is, the smaller its contribution to company financing.

...their role as "managers of wealth" has taken priority over their role as allocators of resources within the economy.

Since the proportion of new issues or newly-listed firms is so small, it is clear that changes in stock-market capitalization in the leading financial centres are mainly due to shifts in the prices of already listed stocks. Variations in capitalization thus reflect (notional or actual) variations in security-holders' wealth and are mainly of concern to the latter. They are only of interest to listed firms insofar as fluctuations in prices affect the conditions under which new issues of securities can take place.

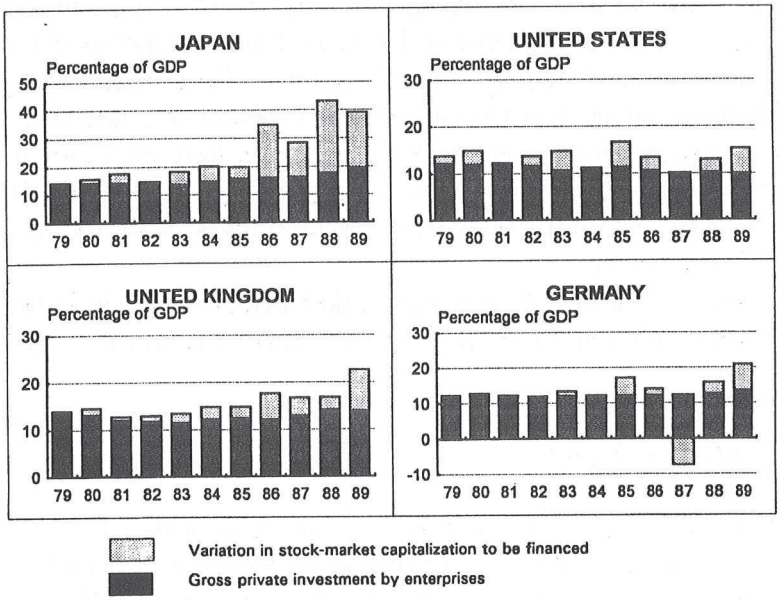
Increases in stock-market capitalization are only partly financed by financial markets; the rest is obtained by diverting financial resources from elsewhere, especially from productive investment.

Financial markets are not self-sufficient. Since variations in wealth have to be financed, at least to some extent, the necessary resources must be "siphoned off" from elsewhere. How can the additional financing needs that result from variations in stock-market capitalization be quantified? All we need to do is multiply the year-to-year variation, in current values, by the turnover rate, i.e. the percentage of securities on the

market that have actually changed hands during the year. It is only when actual transactions take place that the difference between the old and the new price needs to be financed, by drawing on the financing capacity of the economy. When stock-market capitalization increases, the increase, multiplied by the turnover rate, is financed by an increase in the funds provided by the banking sector. However, the coverage is only partial. The remainder is obtained by reallocating means of payment that are available elsewhere in the economy. In other words, an increase in capitalization has a twofold effect: first, it is "self-financed" by the subsequent creation of monetary resources, and second, it diverts some of the thus mobilized resources away from other possible uses. This diversionary effect is enhanced by the fact that the expectation of gain, with allowance made for risk, is greater on the stock market than it is in productive investment.

A decrease in capitalization is only partly absorbed by financial markets - the rest must be absorbed by a decrease in available financial resources.

FINANCIAL INVESTMENT VERSUS PHYSICAL INVESTMENT



Sources: OECD, FIBV, own calculations

Figure 3

When capitalization decreases, the resulting destruction of wealth, multiplied by the turnover rate, is only partly absorbed by destruction of the financial resources created earlier in order to finance its increase. The remainder is financed by siphoning off financial resources available elsewhere, particularly for productive investment. In the event of a crash, the monetary authorities tend to increase the money supply in order to prevent the stock exchange or the market from dragging the real economy down with it. Although ad hoc government intervention can protect physical investments when prices are falling, things are different when prices are rising. There is then no obvious monetary policy for governments to follow.

In the late 1980s, the investment capacity of the Western economies did not decrease, yet an increasing share of it went into financing explosive growth in capitalization, at the expense of productive investment.

The additional financing absorbed by the historic stock-market boom during the 1980s needs to be compared with developments in private company investment. The results speak for themselves: the investment capacity of the Western economies in terms of GDP - if taken as the sum of (gross) physical investment and financial investment (used to finance the increase in stock-market capitalization) - did not decrease. Yet the volume of resources devoted to physical investment stagnated, whereas financial investment boomed. This indicates that increases in stock-market prices are diverting a large (and growing) share of the financing capacity of the economy away from physical investment and into purely financial investment.
Ultimately, any variation in stock-market prices which is lastingly and significantly different from the trend in GNP is harmful to productive investment.

An extreme case: Japan

A particularly striking illustration of this is provided by Japan. The increase in capitalization to be financed was almost $600 billion in 1987, $640 billion in 1988, and "only" $260 billion in 1989, equivalent respectively to 21%, 22% and 9% of Japanese GDP. The increase in capitalization was of no direct benefit to productive investment, since it

was mainly due to a boom in prices; in 1988, for example, non-financial Japanese firms obtained only 11% of their overall financing from share and bond issues. However, this admittedly extreme situation must be qualified by the astonishing degree of interlinkage and solidarity among Japanese financial institutions and firms, something which outsiders may not be fully aware of.

The extent to which unconsumed income is diverted towards financial investment is disguised by national accounting.

It seems that finance in general, and financial markets in particular, serve to attract - and absorb - GNP just as physical investment does. The financing of physical investment, which is intended to increase the production capacity of the economy, is thus in direct competition with the financing of purely financial investment. This analysis - which is of course preliminary - conflicts with classic national accounting, which takes no account of financial investment. In national accounting terms, the impact of financial markets can only be expressed by stating that part of unconsumed income does not go directly into investment (as defined for the purposes of national accounting) but instead is channelled through financial markets, which mostly redirect it to consumption (the "golden boys"). Financial markets are thus contributing to inflate the artificially consumption by channelling into it part of the national income entrusted to them in order to cover an apparent increase in wealth. In that case - contrary to the impression given by national accounting - part of national income is neither invested nor consumed, but used to finance increases in stock-market capitalization.

Is such diversion a necessary evil?

The hypothesis that financial markets divert some of the financing capacity of the economy illustrates the paradoxical position of stock markets, which were originally set up to channel capital towards the most profitable firms and to reward risk. However, this hypothesis needs to be put in perspective. In order to attract the financial resources which firms initially require, stock markets have had to offer financial investors some guarantee of liquidity. A secondary market is thus needed if new

issues are to find a purchaser (see Section 2.7 below). This is all a matter of proportion. The question is whether, under today's conditions, the diversionary effect created by the volume of secondary transactions is justified by the number of new issues. Given the extent of self-financing and the minor role of financial markets in financing investment (see Section 2.8), the answer to this question would appear to be no.

2.3. Share prices and growth: a parting of the ways?

The link between stock-market performance and the business cycle is not a "law of economics"

Traditionally, the stock market has been seen as a sort of "cyclical barometer": a lasting price rise is supposed to presage economic recovery, while a fall in prices warns of an imminent slump. Yet the link between stock-market performance and the business cycle has never been demonstrated sufficiently clearly for it to be considered a "law of economics".
The cumulative performance of a stock index can be compared - for the United States over a thirty-year period, for example - with the cumulative nominal rate of GNP growth (and also, as an additional indicator, with the cumulative yield of bonds and Treasury bills). Why should we compare the cumulative performance of a stock index with the rate of GNP growth? The reason is that they represent the yields on two kinds of investment - one financial (the stock index), the other physical - which in principle are representative of the production capacity of the economy as a whole. Logically speaking, since both are expressions of the same economic reality, they ought to behave similarly.

Since 1983-1984, the performance of the American stock market has ceased to reflect cumulative GNP growth. Why has this happened?

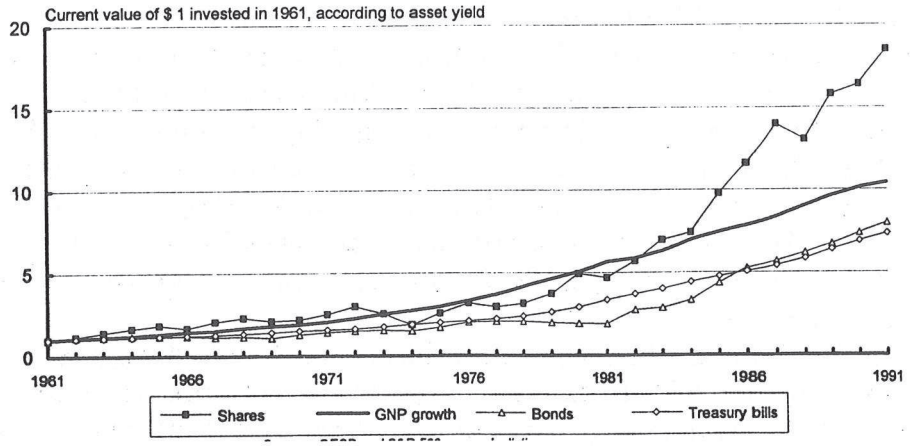
The Standard & Poors (S & P 500) index is made up of America's 500 largest listed companies; its performance should therefore be a reliable indicator of the health of the American economy. Yet, as shown by the graph covering the period 1961-1991, this only remained true up to 1983-1984, at which point there was a parting of the ways: the stock market boomed, while (nominal) growth continued unchanged. Why

did this happen? And what are the implications in the medium and long term?

Is the S & P 500 untypical of the American economy?

One possible explanation for the loss of correlation between the stock index and nominal GNP growth in the USA may be that the 500 companies listed are not a cross-section of the economy. Most of them are multinationals, whereas small and medium-sized enterprises (SMEs) make up the bulk of the American economic fabric. Activities outside the United States matter more to the S & P 500 companies than they do to the remainder of the American economy. While it is possible that the most efficient firms are over-represented in the S & P 500, it is hard to see why the American economy should suddenly (1983-84) have become less competitive.

CUMULATED RETURNS FOR THE UNITED STATES



Sources: OECD and S&P 500, own calculations

Figure 4

Or has the greater liquidity of securities led to a boom in their prices?

Apart from the suggestion that the S & P 500 may be untypical, an alternative - or possibly additional - explanation may lie in the particular financial-market mechanisms that developed in the 1980s. Demand for

shares, especially for those listed in the stock index, may have grown because of the greater liquidity offered by financial investments compared with any other kind of investment. However, there is a price to be paid for such liquidity!
The stock market is a flexible instrument for the management of wealth. Securities - shares and bonds - enable portfolio managers to spread their assets in such a way as to find the return-to-risk ratio that best suits each investor's preferences, on the basis of the latest information. A pre-condition for this ceaseless pursuit of the optimum investment is liquidity, i.e. the possibility of turning the securities into cash without delay or excessive cost.

Liquidity increases the return on financial investments, and thus...

This need for liquidity is nothing new - in fact, as we have seen, it is one reason why stock-markets were set up in the first place. However, the price of liquidity may well have shot up in the wake of deregulation and financial globalization in the 1980s. These were also years in which, under the powerful influence of institutional investors and investment funds, savings were diverted away from bank accounts and into more profitable forms of investment. The resulting increase in demand for securities led to what may be termed the "liquidity premium", which has come to distinguish easily negotiable securities from others with the same return-to-risk ratio. Assuming that liquidity did become more attractive during the 1980s, this may mean that stock-market prices rose for purely financial reasons, unrelated to the economic performance of listed companies.
Sections 2.4 and 2.5 below provide evidence which indeed suggests that the differing trends in the cumulative performance of stock markets and GNP growth are ultimately attributable to the emergence of the liquidity premium rather than to company performance.

...it encourages the diversion of financing capacity towards stock markets, at the expense of productive investment.

All other things being equal, the incorporation of an ever-increasing liquidity premium in the prices of securities has led to an increase in the differential between the return to risk ratios of financial and productive

investment, in favour of the former. Not surprisingly, economic agents have been quick to respond to this increased differential by putting more of their savings into purely financial, rather than physical, investment.

2.4. Stock-market concentration

Stock-market activity has constantly increased over the past fifteen years, in terms of both capitalization...

According to figures issued by the Fédération Internationale des Bourses de Valeurs (FIBV), stock-market capitalization in the world's leading financial centres has risen constantly since 1978. However, there are considerable differences in level and rate of growth. In relation to gross domestic product (GDP), stock-market capitalization in Germany and France is relatively low compared with the United Kingdom, the United States or Japan. In each of the centres studied, capitalization moved into a period of marked growth from 1983 onwards; in Japan, this trend changed after reaching a climax in 1989.
Variations in stock-market capitalization occur either because of changes in the prices of securities, or because the quantity of listed securities changes as new issues are made or companies cease trading. As yet, there is not sufficient information to determine the relative contributions of "price" and "quantity" to variations in stock-market capitalization. Yet, as Section VI shows, the impact of new issues is in any case marginal, whether as a source of company financing or in relation to the total volume of stock-market transactions. In other words, increased stock-market capitalization is essentially due to rising prices.

...and turnover rate...

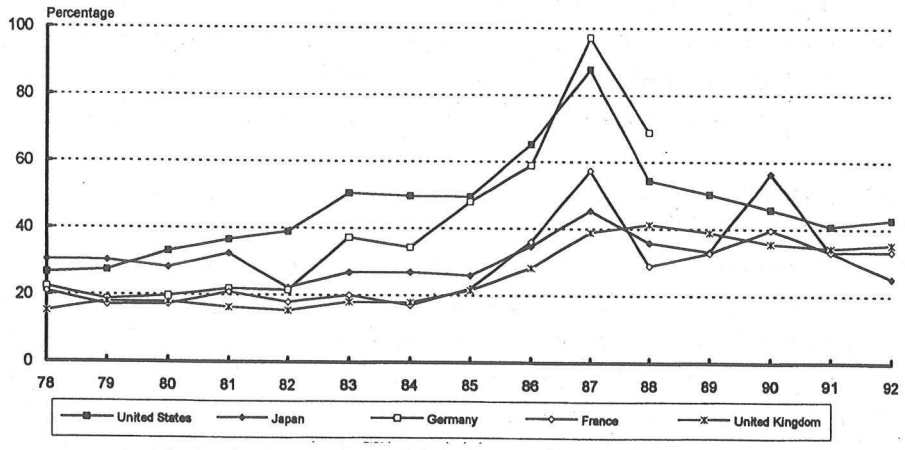
The turnover rate (the ratio between the value of stock-market transactions and capitalization) indicates how often, on average, a share changes hands during the year. The turnover rate is an indicator of the stability of shareholdings in listed companies. In the five centres studied, the turnover rate regularly increased from the beginning of the 1980s, reaching a peak in 1987. The American and German stock markets had a particularly high turnover rate (almost 100% in 1987, subsequently falling to around 40%). Elsewhere, the turnover rate also reached its

peak in 1987, the year of Black Monday; however, the subsequent fall was less marked in countries such as France. Even disregarding the 1987 peak, the turnover rate on the leading stock markets can be seen to have almost doubled over the period 1978-1991, ending up between 33% and 43%.
The turnover rate is relatively low on the smaller stock markets, whereas on the so-called "emerging" markets it is high. In 1991, the two extremes were 1.2% for Luxembourg and over 290% for Taiwan.

...but blue chips may have a decisive influence.

To avoid possible misinterpretation, stock-market capitalization and the stock turnover rate need to be analysed in the light of the distribution of transactions per listed security. The point is that transactions tend to be concentrated on the most sought-after securities. The world record for concentration is held by the London stock exchange, where 5% of listed companies account for some 70% of total capitalization. Levels of concentration vary from country to country, but in most of the devloped countries 5% of enterprises account for more than 50% of the capitalisation The concepts of stock-market capitalization and turnover rate must be seen in this perspective.

TURNOVER OF DOMESTIC SHARES



Source: FIBV, own calculations

Figure 5

The same disproportion between the most active securities and the stock market as a whole can be seen in the turnover rate. According to figures collected by the Oslo stock exchange, Germany is exceptional in that 5% of companies account for 80% of transactions (i.e. of turnover), with a turnover rate of 101.2% for the market as a whole in 1991. Accordingly, and despite what the latter figure may suggest, most German securities only change hands once every five years, since their turnover rate is 20%. The situation in Japan is quite the opposite: the most active securities account for only 40% of total turnover. This may mean that there are few, if any, blue chips on the Tokyo stock market, or again that Tokyo actively promotes all listed securities and companies. In general, shareholdings on the Tokyo stock market appear decidedly more unstable than in Germany.

2.5. The contribution of listed companies to GNP

The contribution of listed companies in the leading financial centres to the total added value created in the economy can be estimated...

The companies within an economy may be divided into two groups: listed and unlisted. We can then determine how much each group contributes to GNP. The apparently mundane question of how much added value listed companies actually create does not appear to have aroused the interest of researchers, since neither economists nor financial analysts have seen fit to tackle it.

...but it is an exercise that involves serious problems of methodology.

Despite the lack of estimates, the question remains a relevant one. However, answering it raises a host of methodological problems. In particular, since the activities of the largest listed companies are frequently international, the added value that they create contributes to the national product of more than one country. Thus we cannot learn a great deal by directly comparing, say, the value added by the S & P 500 companies with total American GNP. The same applies if we compare the value added by Royal Dutch with Dutch GNP, since most of Royal Dutch's activities are carried on outside the Netherlands. In other words, although Royal Dutch is the largest Dutch company, its actual

contribution to Dutch GNP is small in comparison with its total activities - whereas this one company accounts for some 70% of capitalization and 60% of the turnover rate on the Amsterdam stock exchange. When assessing the position of international and multinational companies, the frame of reference must therefore be global. Quite apart from the geographical frame of reference, estimating how much listed companies contribute to GNP raises a problem of data, since most business classifications do not include total wages - an essential factor when calculating the value added by a company.

The world's 1000 largest (industrial) companies generate some 10% of gross world product.

The awkward problem of which geographical frame of reference to choose can be avoided by estimating the value added to gross world product by the 1000 largest listed industrial companies. Although an approximation, such an estimate provides a fairly accurate picture of world stock-market capitalization. It reveals that the 1000 largest listed companies create a mere 10% of global added value and just under 14% of added value in the OECD countries.

In Spain, listed companies contribute 11.4% to GNP

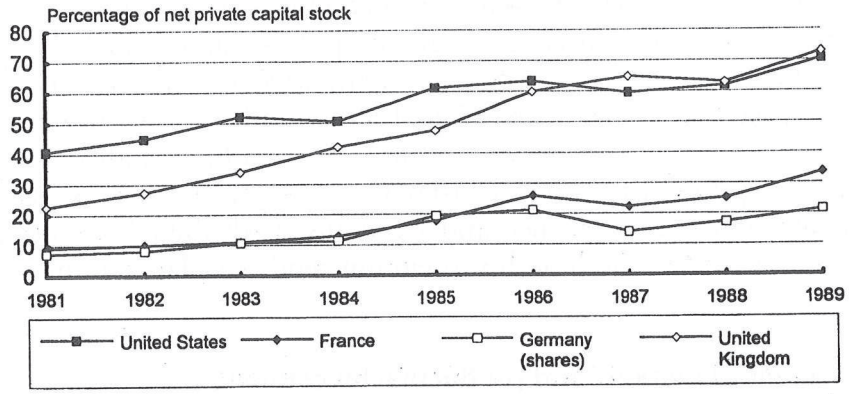
This global estimate is confirmed by a more accurate calculation, which concerns Spain. In 1991, the National Stock Market Commission in Madrid set up a data bank on the profit and loss accounts and balance sheets of all listed companies; the available data cover 95% of stock-market capitalization in Spain. On the basis of listed companies' net operating income (pre-tax and pre-dividend profits) and wage costs, the value added by those companies has been calculated at 11.4% of GNP. These results go to show the disproportionate significance attached to financial information concerning listed companies, considering their actual contribution to the creation of wealth.

Companies' stock-market performance bears no relation to the value of their physical capital.

Oddly enough, despite their limited contribution to GNP, listed

companies appear to be attracting a large (and increasing) share of the stock of physical capital (equipment and plant) in the economy. If stock-market capitalization is an expression of the value of companies - i.e. the value of their assets - it may be compared with the stock of physical capital in the economy as assessed by domestic accounting. The ratio of stock-market capitalization to capital stock has been rising ever since 1981. In the United States and the United Kingdom it has reached a level of around 70%, as compared with 20% in Germany and 30% in France. This means that listed companies in the United States and the United Kingdom "own" nearly three-quarters of the total productive capital in the economy, whereas their contribution to added value is barely 15%.

MARKET CAPITALISATION
(DOMESTIC SHARES AND BONDS)



Sources: FIBV, and OECD, own calculations

Figure 6

The fact that between 20% and 70% of capital stock produces barely 15% of added value suggests that listed companies are exceptionally unproductive. Can this really be true?

If confirmed, this ratio underline the astonishingly low productivity of the listed companies. However, various factors may account for this inconsistency between companies' capital stock and the added value they produce:

Method of measurement. A company's stock-market capitalization may

exceed its stock of physical capital (machinery, buildings, etc.) because, in assessing the company, the stock market takes account of such intangible assets as reputation, goodwill, patents and registered trade marks.

Listed companies are more capital-intensive than average. It may be that listed companies mainly come from capital-intensive sectors. If so, the stock-market capitalization of service companies - which are highly labour-intensive - ought to be relatively low.

The "liquidity premium". The price of a share is not only determined by the intrinsic value of the company (whatever that is), but also by the fact that the share can be converted into cash at any time. Although the level of the "liquidity premium" may change in the course of time, it should not be seen as an additional cost to be borne by the purchaser, but as a kind of "deposit" which he recovers when the share is resold. It is only at macroeconomic level that this "liquidity premium" causes problems.

Of these three factors, the liquidity premium is particularly attractive, since the discrepancy between listed companies' capital stock and their contribution to GNP can then be explained by the nature of the financial system. Thus in the United States and the United Kingdom, where the discrepancy is most blatant, the size of the liquidity premium can be explained by the fact that the financial system is market-oriented, whereas in France and Germany, with their bank-oriented financial systems, the liquidity premium tends to play a more minor part.

2.6. Financial markets and productive investment

The managerial and economic variety of investment is reflected in the various ways that it is measured...

In the broad sense of the term, productive investment means any expenditure designed to increase a company's future productive capacity. While balance sheets do provide evidence of certain types of investment expenditure, they do not take account of all its various economic and managerial aspects. Investment decisions are typically microeconomic, and cannot easily be aggregated at macroeconomic level. Yet, without such aggregation, the contribution of financial markets to productive investment cannot be assessed.

...which take little account of intangible investment.

In the industrial era, production capacity was synonymous with physical capital (machinery, furniture and fittings, industrial and commercial premises). At that period - at least as it is usually perceived today - a company's balance sheet provided an aggregated picture of the value of its existing equipment and infrastructure. In the so-called post-industrial era, the emergence of non-physical economic factors has given the concept of "productive capacity" a new meaning by extending it to include such intangible assets as skills or human capital, patents, trade marks, or even research and development. This emphasizes the difference between investment as measured in accounting terms and investment as companies experience it in reality. Balance sheets take very little account of intangible factors, whereas the very future of many companies will depend on how much money they devote to such factors. At the same time, the value of expenditure on research and development, like other intangible investment, is not always fully appreciated by markets, which are tempted to see it simply as a source of costs, which reduce profits.

As a result, theories of growth are no longer so relevant.

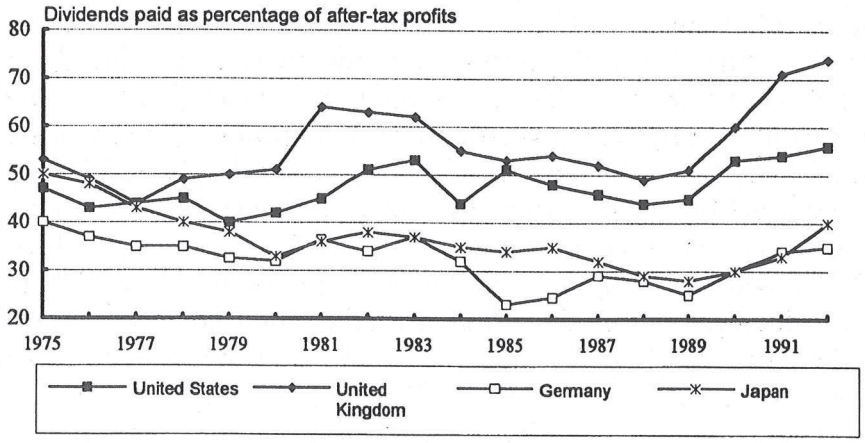
During the 1980s, a period in which financial markets boomed, the rate of investment as measured by domestic accounting began to revive from mid-decade onwards. This was mainly due to the improved economic situation, but also to the increased productivity and reduced cost of capital. However, in the OECD countries, the correlation between such variations in physical investment and economic growth has been diminishing. Up to the time of the second oil shock, physical investment as measured by national accounts showed a strong, positive correlation with economic growth. In the period 1974-1979, for example, there was a 2.3% increase in physical investment, corresponding to a 2.7% rise in GNP. However, during the 1980s this correlation broke down, so that by 1987-1989 an 8.7% increase in physical investment was only generating a 3.8% rise in GNP. One possible explanation for this discrepancy is the increasing contribution made to growth by non-physical investment and expenditure on training, research and development. According to a study by the OECD, investment as defined

in national accounts now only accounts for one-third of economic growth. The "left-over" two-thirds must be attributed to either increased employment and efficiency, or technological change. Recent developments in economic theory of growth have attempted to take account of non-physical investment and of all expenditure - whether by companies or by public bodies - which increases the long-term productive capacity of the economy. However, the investment strategies of listed companies are quite definitely influenced by financial markets.

Company strategy changes under pressure from...

Assuming that payment of dividends means giving up a certain amount of productive investment and some R & D expenditure, then strategic choices by companies may come under pressure from financial markets. A study commissioned by the British Department of Trade and Industry sheds some interesting light on the impact of financial markets on productive investment. The purpose of the study was to determine what share of their turnover the ten largest firms in the United Kingdom, France, Germany, the United States and Japan devoted to R & D in 1991 - in other words, to examine companies' specific choices between long-term survival and short-term financial performance.

DIVIDEND POLICIES



Source: The Economist

Figure 7

The study showed that British and American firms gave dividends priority over R & D, whereas German and Japanese firms did the opposite, with French firms somewhere in between.

...short-sighted financial markets

Companies pay out dividends under pressure from financial markets, even if their profits do not necessarily justify it. The size of British company dividends, for example, appears not to be based on after-tax profits: dividends increased during the recessions of the early 1980s and 1990s, and fell during the recovery in mid-decade.
Up to the mid-1970s, dividend policies were similar in each of the countries studied, with some 40-55% of profits being distributed. Since then, however, differences between countries have become increasingly apparent, and by 1992 British companies were distributing 74% of their profits, American companies 56%, Japanese companies only 40% and German companies 35%. These differences may be attributable to the type of financial system in the countries concerned. British and American companies, surrounded by financial markets clamouring for a share of the profits, are forced to become equally short-sighted, whereas German and Japanese companies can - thanks to a bank-oriented financial system - afford to put more of their resources into long-term strategy.

2.7. How are companies financed?

Whatever type of financial system a country has, self-financing is the main source of enterprise financing...

Investment, which is the result of long-term calculations by enterprises, must therefore be financed by relatively long-term funds. In theory, enterprises have a number of alternatives to choose from: self-financing, which depends on the enterprises' ability to generate a cash flow; bank loans, which are often short-term; bonds; and, finally, issues of shares and other rights of ownership.
In 1988-1989, according to OECD figures on the sources of funds of non-financial enterprises, issues of securities accounted for 8.1% of all financing of company investment in the United States, 12.5% in Japan and France, and over 17% in the United Kingdom. In all four countries,

self-financing is still the main source of financing and, curiously enough, the percentage of self-financing is highest in the United States. Bank loans are resorted to less often in the United States and France than in the United Kingdom and Japan.

...and stock markets are merely used as a back-up.

Other studies confirm the above tendency. According to Jenny Corbett (European Economy, March 1990), for example, stock markets financed only 3% of physical investment in Japan and 5.2% in France over the period 1970-1985. In Germany, the net contribution by stock markets to investment financing was almost nil (0.1%), and in the United States and the United Kingdom it was actually negative (-1.5% and -3.6% respectively). In the United States the percentage financed by bonds was particularly high (around 12%), but in the remaining countries this figure was low or even negative. Self-financing thus accounts for a very sizeable proportion of financing, of which it is the main source (60-100%).

SOURCES OF FUNDS OF NON-FINANCIAL ENTERPRISES

In percentage	United States 1989	United Kingdom 1989	Japan 1988	France 1988
Securities	8.1	17.4	12.5	12.5
Bank loans	8.9	19.8	23.3	-1.2
Commercial loans	5.9	18.3	16.1	11.8
Self-financing	73.8	36.1	32.1	36.2
Other	3.3	8.3	16.0	40.7
	100.0	100.0	100.0	100.0

Source: OCDE, Non-financial enterprises financial statements

Figure 8

Three conclusions may be drawn from these figures:

1. Undistributed profits are the main source of enterprise financing in each of the countries studied.

2. Banks loans are the main external source of financing in each of these countries.

3. Capital markets in general, and stock markets in particular, play a very minor part in the financing of companies.

New securities are issued on the primary market, whereas existing securities are traded on the secondary market. The sums traded on the primary market (less the often quite considerable commissions paid to intermediaries) are thus connected with company financing, via financial markets, whereas those traded on the secondary market reflect the redistribution of securities among the various portfolios. Indeed, in order to clarify the link between the stock market and enterprise financing, it is essential to know which of the various stock-market transactions actually channel funds to companies and which merely redistribute securities among portfolios - in other words to distinguish primary-market transactions from the rest. Analysis of new issues and of the stock-market values of share transactions in 14 countries over a four-year period (1988-1991) allows us to formulate various hypotheses as to the changing role of stock markets in the context of development.

The primary market is increasingly overshadowed by the secondary market

The percentage of transactions capable of financing enterprise investment is determined by calculating the ratio between the volume of gross share issues and the annual value of stock-market transactions. The countries studied can be divided into three groups, according to the relative importance of the primary market. The first group consists of countries where the primary market accounts for less than 5% of all transactions, and the second those where the primary market accounts for 8-23% of transactions. The third group is a handful of countries with anomalous results that do not fit in anywhere else.

The first group consists of the pace-setters of the world economy, the "core" countries of the G-7: France, Germany, Japan, the United States and the United Kingdom. Here the proportion of new issues is extremely low: in these countries the primary market accounts on average for a mere 2.9% of stock-market transactions.

The second group is mainly composed of European countries: Finland, Italy, Norway, Spain and Sweden, with Mexico as the only non-European member. In all six countries new issues account for a relatively high proportion of transactions, averaging 12.6% a year. In other words, the secondary market accounts for 87% of all transactions in this group, as opposed to 97% in the first group.

The third group in our sample of countries consists of Argentina, Belgium and the Netherlands. Although the proportion of new issues (averaging 14.8%) is comparable to that of the second group, the countries in this third group display extremely fluctuating, disparate trends (with a high standard deviation between observations). During the 1980s Argentina suffered from galloping inflation, which profoundly affected its financial system. Belgium has a small market which was shaken up during the 1980s by the problems affecting the Société Générale. Finally, the stock market in the Netherlands is entirely dominated by Royal Dutch, which accounts for some 70% of total capitalization.

Direct financing of enterprises appears to be a secondary - not to say marginal - function of present-day stock markets.

These results show that, over the period 1988-1991, new issues accounted for an average of 1.7% to 4.8% of all stock-market transactions in the economically most developed countries. In each of the remaining countries the proportion was less than 20% (the exception being Spain, with 23%). **The functions of stock markets appear to change in the course of time, in accordance with both the state of development of the economy concerned and the needs of financial investors. In the early stages the proportion of new issues tends to be high, but it subsequently falls as the stock market "matures". Evidence for this hypothesis can be found in the discrepancy between the Spanish and American stock markets.**

GROSS ISSUES OF SHARES AS %
OF ALL STOCK MARKET TRANSACTIONS, 1988-1991

	Average	Standard deviation
Group 1		
Japan	1.72	1.14
United States	1.93	1.06
Germany	2.08	1.19
France	3.73	0.96
United Kingdom	4.78	0.78
All countries	**2.85**	**1.03**
Group 2		
Norway	8.36	3.97
Sweden	8.68	2.92
Mexico	10.06	6.67
Finland	10.52	1.61
Italy	14.55	4.97
Spain	23.36	8.99
All countries	**12.59**	**4.86**
Group 3		
Argentina	9.12	9.88
Belgium	17.02	12.71
Netherlands	18.11	17.86
All countries	**14.75**	**13.48**

Source: FIBV

Figure 9

2.8. The purpose of stock markets: managing wealth or allocating resources?

The insights presented above allow us to draw two preliminary conclusions:

1. Listed companies create less than 15% of GNP, which is why...

All available estimates indicate that listed companies account for no

more than 15% of GNP in the various different countries or regions. Thus, from the point of view of firms, the stock market only concerns a "happy few". Although it offers firms affordable access to financing, it also exerts pressure on them - through dividend policy - to give priority to the short term, at the expense of long-term investment (particularly intangible investment).

...stock markets only make a minor contribution to company financing in the major developed countries.

The analyses contained in this booklet show that stock markets, and financial markets in general, currently have only a secondary role in company financing in the world's leading developed countries. In contrast, they are a more important source of direct company financing in countries with less highly-developed financial systems. There is thus no single, universally applicable answer to the question "Financial markets - mission impossible?", since the economic and institutional context has to be taken into account in each case.

2. The boom in stock-market prices in the most highly-developed countries...

The boom in stock-market prices and, as a result, in capitalization is essentially due to two related events of a purely financial nature. The first is growth in demand for financial assets, mainly caused by the institutionalization of savings. The second is a general and profound change in the way share values are assessed: so-called fundamental analysis, which directly examines the company concerned, has made way for a type of analysis based on previous variations in price, as advocated by present-day portfolio theory. Decisions to buy and sell are thus motivated by variations in prices rather than by absolute price levels. This twofold change, which has come about during the past ten to fifteen years, explains the explosive growth in stock-market performance as compared with GNP. The question remains whether this is a lasting change in the relationship between the real and financial spheres of developed economies, or merely a temporary departure from the norm which will soon be rectified.

...has partly been financed by diverting considerable financial resources away from productive investment.

Stock markets, and financial markets in general, currently have a crucial part to play in distributing financial flows within the economy. Variations in stock-market capitalization influence both financing needs and financing capacity, and so any significant variation leads to a diversion of financial resources, at least partly at the expense of productive investment. Our analyses indicate that this has created pressure whose effect at macroeconomic level is quite considerable, and which has been increasing in recent years.

Paradox: The direct impact of stock markets on enterprises is insignificant whereas their indirect impact on productive activity is immense.

According to our analysis, stock markets have a fundamental impact on the distribution of financial resources within the economy, and thus influence productive investment.

PART III

THE ROLE OF FINANCIAL MARKETS IN DEVELOPMENT AND TRANSITION

3.1. Foreword

The provisional conclusions were summed up in the following paradox: "Although, from the point of view of companies, stock markets are insignificant, their impact on the distribution of financial flows within the economy is considerable". The stock market has an undoubted influence on a country's financial system and thus on its economic structure. What we now need to discover is what form this influence takes, and whether it should be considered positive or, on the contrary, potentially harmful.

These questions acquire additional relevance once we look beyond the industrialized countries that belong to the OECD (Organization for Economic Cooperation and Development) and examine the role of stock markets in developing countries and countries in the process of transition to a market economy. Whereas stock markets have been part of the financial scene in the OECD countries for many decades, elsewhere they have only come into being fairly recently or have yet to do so. This situation gives the governments concerned considerable latitude in determining the rules whereby the new exchanges are to operate. In such a context, the question of whether, and to what extent, stock markets can contribute to economic development and to the transition to a market economy is clearly a question of great practical relevance. If future disillusionment and disappointment are to be avoided, it is vital, during the period in which stock markets are being set up, to identify the concomitant risks and to devise ways of limiting those risks.

Legitimate though such questions are, they can only be answered in a fragmentary, limited way. The purpose of the present analyses is to provide insights and identify areas of inquiry suggested by the experience of the OECD countries and those developing countries where stock exchanges have already been operating for some time.

In order to keep the discussion well-focused, we will not examine the

admittedly fundamental issue of whether local financial systems cater to development needs, and the implications this may have for monetary policy. Accordingly, the relationship between financial markets and development will be analysed from three distinct angles:

1. One of the primary roles of any stock market is to finance enterprises. Financing obtained through the stock market allows the creation of additional "value-added", and the stock market thus makes an indirect contribution to development. However, this only remains true if, at the same time, the stock exchange avoids generating negative effects which limit, counterbalance or even outweigh the initial positive impact.
2. Some emerging stock markets have been opened up - under conditions of varying latitude - to financial investments from abroad, which indirectly alter the behaviour of the markets concerned and have an indirect impact on development. At the same time, stock markets in developing countries offer international investors new opportunities. In order to assess such financial relationships, we therefore need to consider both dimensions: the change brought about in the behaviour of the local market, and whether such exposure leads to a continuous flow of capital or, on the contrary, merely results in intermittent inputs which can be reversed at a moment's notice for reasons that have nothing to do with local economic conditions.
3. Through multinational firms, developing countries are able to take advantage of the financing capacity of international stock markets. These markets are often used by multinationals to acquire own capital as well as external capital. Since they are also the main vehicles for direct investment in developing countries, multinationals provide a significant link between financial markets and development.

The complex nature of the relationship between stock markets and development makes it difficult to draw general conclusions. Tempting though they may be, statements such as "stock markets depend upon development" or, on the contrary, "development depends upon stock markets" are untenable in the light of current knowledge, primarily because of the greatly differing circumstances that prevail in the various countries. These comments are based on observations covering a relatively short time span, concerning 19 developing countries which all have stock markets but differ in terms of per capita income, economic potential, size, culture and geographic location.

Stock markets in countries in the process of transition to a market economy need to be considered separately from "emerging" stock exchanges, not only because such markets have only been established very recently (during the last two or three years), but also because stock markets in such countries have a specific part to play in the context of transition and the accompanying privatisation process. The experience of the Warsaw stock exchange is reported below as an illustrative example.

3.2. Emerging financial markets

During the 1970s and 1980s, financial markets started to play an ever greater part in the financial systems of the OECD countries, while the contribution of bank credit to the financing of economic activities diminished. In other words, the financial systems of these countries have become less bank-oriented and more market-oriented. This general trend has affected, or been copied by, certain developing countries. According to data compiled by the International Finance Corporation (IFC), the so-called "emerging" stock markets are currently 24 in number. Whereas, in the OECD countries, the shift to a more market-oriented financial system has been largely spontaneous, in some developing countries stock markets have been (or will shortly be) established in a deliberate effort to compensate for the shortcomings of the banking sector.

There are currently 24 "emerging" stock markets.

Governments in developing countries tend to assess the value of any institution in terms of its contribution to development, which is their primary concern. At the same time, governments in such countries are more directly involved in regulating the financial system than they are in OECD countries, and views expressed by international financial institutions such as the IMF and the World Bank (of which the IFC is a part) tend to have considerable influence. Whereas national income levels in developed countries are such that their financial systems can accommodate superfluous or even counterproductive elements, developing countries cannot afford any wastage of resources (the same is true of post-Communist countries in the process of transition). Stock markets in developing countries must therefore be analysed in terms of their role as instruments of development.

Some believe that any new financial market will improve the allocation of assets and contribute to economic development; others believe it is preferable to make the banking system more efficient.

Opinions on the subject are distressingly varied, since they tend to be based on ideological preconceptions rather than careful analysis of the facts. There are two conflicting schools of thought. At one extreme, the liberal-monetarist doctrine asserts that - like any new market - stock exchanges improve the allocation of financial assets and thus the overall efficiency of the economy. The interventionist doctrine states the opposite view, namely that development depends upon close involvement of the State in economic and financial affairs. Both doctrines have their supporters at international level. On the one hand there is the International Finance Corporation, which stated in its 1991 Emerging Stock Markets Factbook: "The 1990s will see them play an increasingly strong role as a tool for economic development". On the other, the United Nations Conference on Trade and Development (UNCTAD) suggested that it may be better to increase the efficiency of the banking system than to try to implement an Anglo-Saxon system.

The conflict persists, because no factual analysis is sufficiently convincing to settle the matter one way or the other. Moreover, it may well be that the question is too broad, and that in some circumstances stock markets can contribute to growth and development more easily than they can in others. However, the overall issue of the relationship between stock markets and development has to be tackled, even if this means analysing the widely differing group of countries defined as "emerging" by the IFC. Some of the stock markets concerned are also members of the Fédération Internationale des Bourses de Valeurs (FIBV), which also publishes stock-market data that facilitate comparisons with financial centres in OECD countries. For this reason, the statistics set out here concern countries in which stock markets have been operating for some time and which also possess comparable data.

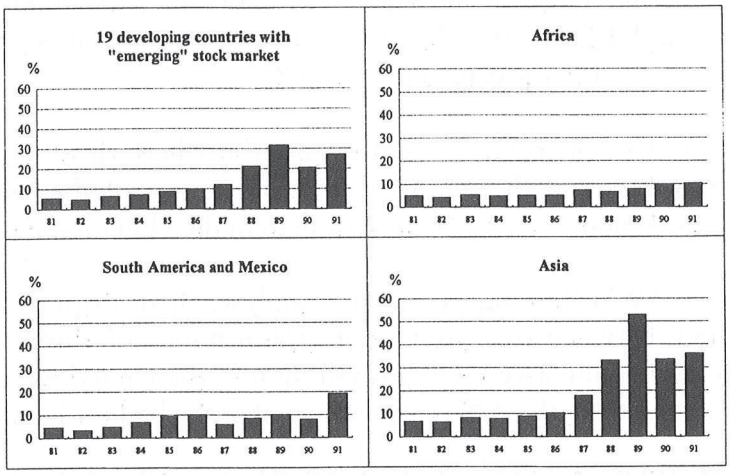
Stock markets in countries in the process of transition cannot yet be described as "emerging", since their impact has so far been insignificant.

The post-Communist countries in the process of transition are not included in this sample, for two reasons. First, their stock markets cannot yet be described as emerging, since their impact has so far been insignificant. Second, the problems of transition are quite different from those of development. To avoid confusing unrelated issues, a distinct section is devoted to the analysis of the Warsaw stock exchange , which offers some lessons as to how stock markets could contribute to the transition process.
The contribution that stock markets make to development will be discussed from three quite different angles: their growth and macroeconomic significance since the beginning of the 1980s; their contribution to the financing of enterprises; and, finally, any negative effects they may have.

Stock markets appear to play a far more modest role in developing countries than in industrialised countries, and yet there is a striking difference between GDP growth and the performance of the stock-market index.

In developing countries, the ratio of stock-market capitalisation to GDP was relatively low, with the exception of Malaysia, Taiwan and...Jordan. In most remaining countries, capitalisation was no more than 10% of GDP. In developing countries we also find considerable differences in stock-market capitalisation in relation to the size of the national economy, usually measured in terms of the country's GDP (added value). In France and Germany, for example, the value of listed shares averaged somewhat less than 20% of GDP during the 1980s. Over the same reference period (1981-1991), this figure was over 50% for the United States, around 70% for the United Kingdom and Switzerland and, in 1990-1991, almost 90% for Japan. This suggests that, at the strictly macroeconomic level, stock markets play a far more modest role in developing countries than in OECD countries, especially since the absolute amounts involved are not very high in global terms, given these countries' relatively low standard of development. However, in the same countries, there is a striking difference between GDP growth and the performance of the stock-market index.
The respective behaviour of cumulative GDP growth in the United States and the Standard & Poors 500 index was compared in Section 2.3.

MARKET CAPITALISATION, AS % OF GDP BY REGIONS



Source: International Finance Corporation, Emerging Stock Markets, Factbook, 1991/92

Figure 10

STOCK MARKET GROWTH Averages 1981-1991

	Capitalisation in percent of GDP	Cumulated growths: stock index/GDP
Jordan	52.4	0.4
Ivory Coast	4.6	0.7
Malaysia	75.0	0.7
Morocco	2.6	0.7
Colombia	3.4	0.9
Korea	24.8	1.1
Indonesia	1.5	1.5
Nigeria	3.4	1.7 (a)
Zimbabwe	13.7 (b)	1.7
Pakistan	6.2	2.0
Thailand	14.4	2.2
Argentina	3.5	2.7 (c)
India	7.4	2.7
Taiwan	52.0	3.3
Philippines	9.9	3.9
Brasil	9.3	4.4 (c)
Chile	30.4	6.3
Venezuela	7.9	10.0
Mexico	8.1	10.5

Source: Eco'Diagnostic, own calculation IFC et FMI
(a) since 1984, (b) since 1982, (c) calculated from data expressed in dollar

Figure 11

Over the period 1961-1991 the cumulative performance of the Standard & Poors 500 index was equivalent to 171% of cumulative GDP growth. For the period 1981-1991, this figure was 214%, and if we limit our analysis to 1985-1991 it was "only" 135%.

Half of the 19 "emerging" countries analysed here display a greater discrepancy between the cumulative performance of the local stock exchange and cumulative GDP growth than in the United States.

Half of the 19 "emerging" countries analysed here display a smaller discrepancy between the cumulative performance of the local stock exchange and cumulative GDP growth than in the United States. In the remaining countries, the differences are greater, the highest being 1000%

NUMBER OF FIRMS QUOTED ON THE STOCK EXCHANGE, STOCK INDEX AND MARKET CAPITALISATION

	Numbers of firms on the stock exchange in 1981	Average yearly growth rate, in percent	Correlations between market capitalisation and...	
			number of films	stock index
Argentina	263	-4.7	0.13(a)	0.76 (a)
Brasil	477	1.9	-0.18 (a)	0.94 (a)
Chile	242	-0.7	0.44	0.50
Colombia	193 (c)	-7.7	0.49	0.97
Korea	343	7.6	0.59	0.95
Ivory Coast	23	0.1	0.41	0.48
India	1031	9.7	0.05	0.85
Indonesia	8	40.7	0.75	0.26
Jordan	72	3.7	-0.11	0.57
Malaysia	187	5.6	0.19	0.91
Morocco	75	-1.1	-0.43	0.25
Mexico	229	-0.3	0.16	0.87
Nigeria	93	4.5	0.11	0.02 (b)
Pakistan	311	5.8	0.40	0.99
Philippines	190	-1.0	0.08	0.82
Taiwan	107	7.6	0.35	0.96
Thailand	80	13.7	0.40	0.95
Venezuela	98 (c)	-5.8	0.48	0.97
Zimbabwe	62	-0.3	0.37	0.96

Source: Eco'Diagnostic, IFC, FIBV et FMI
(a) Correlations calculated from data expressed in dollars, (b) since 1984, (c) since 1982

Figure 12

or more in Mexico and Venezuela, followed by over 600% in Chile and 440% in Brazil. One is struck by the fact that the differences are generally lower in Asian countries than in Latin America. Thus it can be seen that, during the second half of the 1980s, the performance of stock markets in certain developing countries ceased to reflect GDP growth.

Stock markets in many developing countries, in the wake of those in wealthier countries, became unusually active at the end of the 1980s, possibly owing to the elimination of the serious monetary and financial problems that had affected some of these countries (particularly those in Latin America). In addition to this factor, Section 2.3 outlined various possible explanations for the loss of correlation between cumulative GDP growth and stock-market indexes: massive expansion of the financial sector, liquidity premiums, growth of institutional savings. These explanations probably also hold true for the emerging stock markets, although less so in the case of institutional savings.

Increases in stock-market indexes have been impressive, ranging from an annual average of 100% in Mexico and Venezuela to only 5 or 6% in Jordan, Morocco, Nigeria and Pakistan. Stock-market capitalisation has followed in the wake of stock-market indexes: the behaviour of the index correlates extremely well with the behaviour of capitalisation (between 0.7 and 1) in each of the countries examined except Indonesia, Morocco, Nigeria, Ivory Coast and Chile.

Except in Indonesia, indexes in all of these countries increased greatly, and in some cases massively, over the period in question. This increase in the prices of financial assets cannot be ascribed to inflation: in every country, the correlation between increases in the index and the rate of inflation was very low indeed.

A macroeconomic approach does not allow us to assess the impact of the stock market on growth (i.e. on the amount of added value in the economy). In order to answer this question conclusively, we would need to analyse the contribution made by listed companies to a country's added value. If, for example, we could determine that the added value of listed companies had increased more rapidly than GDP, we could deduce that the stock market had indeed made a contribution, if only indirectly. However, such information as is currently available does not allow us to carry out such an analysis either for developing or for OECD countries. We must therefore rely on indirect methods, which are merely makeshifts.

In the developing countries the number of newly-listed companies has not been particularly high, and in some countries it has actually decreased.

In the developing countries, the number of newly listed companies has not been particularly high, except in Indonesia, where it has increased by an average of 40% a year, having started from a relatively low level. In the remaining countries this figure was less than 10%, except for Thailand (14%) and India (10%). In eight financial centres the number of listed companies actually decreased; the exact reasons for this are not clear.

In Indonesia, the increase in stock-market capitalisation is mainly due to an increase in the number of listed companies rather than an increase in share prices.

The case of Indonesia deserves closer examination. There has been a veritable explosion in the number of listed companies, together with an average annual increase of over 150% in stock-market capitalisation. Not surprisingly, therefore, the correlation between the increase in the number of listed companies and stock-market capitalisation (0.75) is higher than between the increase in stock-market capitalisation and the index (0.26). This suggests that in Indonesia the horizontal impact of the stock market (newly-listed companies) has been greater than its vertical impact (increase in the index). In Indonesia, the liberalisation of financial markets at the end of the 1980s encouraged more enterprises to take advantage of opportunities for stock-market financing than was the case anywhere else. The number of listed companies rose from 24 in 1988 to no fewer than 141 in 1991! In Chile and Ivory Coast, on the other hand, the rates of correlation seem to indicate that the horizontal impact was similar to the vertical impact.
Of the indirect indicators of the possible impact of stock markets on developments, the volume of new share issues seems the least questionable. Through the stock exchange, enterprises - major local companies and (possibly) local subsidiaries of multinationals - can increase their own capital, which should strengthen their balance sheets by reducing their debt-to-equity ratio. For such enterprises, this

improvement in the structure of their financing leads to a reduction in the cost of capital and/or an increase in production capacity or added value.
Analysis of the relationship between the primary market (new share issues) and the secondary market (total volume of stock-market trading) has already shown that in the most highly developed countries - those with the largest markets - the proportion of new issues averages around 3%. In industrialised countries with less economic influence, this figure rises to around 12%.

The volume of new stock-market issues in developing countries is very unstable.

A superficial analysis of the emerging stock markets for which data are available allows us to make a number of comments. The volume of new stock-market issues is extremely unstable in developing countries, and their volume relative to the total volume of trading is not particularly high in comparison with OECD countries. In terms of GDP per country, the amount of new financing also remains modest, which suggests that the role of stock markets as a source of financing for enterprises is universally marginal.

IMPORTANCE OF PRIMARY MARKET

	1984-1991 (a)				1989-1991	
	Primary Market as % of secondary market		Primary Market as % of GDP		News entries as % of primary market	
	Average	Rank	Average	Rank	Average	Rank
Argentina	8.4	3	0.1	7	0.0	7
Brasil	3.8	6	0.1	6	2.2	6
Korea	4.3	5	1.8	3	18.2	5
Malaysia	24.5	1	2.9	2	22.7	2
Mexico	7.1	4	0.5	5	21.2	3
Taiwan	0.5	7	1.8	4	26.3	1
Thailand	22.0	2	4.2	1	19.7	4

Source: Eco'Diagnostic, own calculation, FIBV (yearly statistics)
(a) Mexico since 1985, Thailand since 1987, Taiwan since 1988

Figure 13

Already-listed companies account for more than three-quarters of new issues. This means that only a very limited number of companies take advantage of the stock market.

If new issues are broken down into issues by newly-listed companies and new acquisitions of capital by already-listed companies, it will be found that it is mainly the latter that take advantage of this method of financing. Already-listed companies account for at least 75% of new issues. This clearly shows that, even though the stock market allows enterprises to increase their own capital on attractive terms, only a very limited number of them take advantage of this. Pending a closer study of the amount of value added by listed companies, this suggests that the direct contribution of the stock market to growth should not be overestimated.

3.3. Local stock markets and development - a questionable contribution

The purchases of securities may be financed either by hitherto idle money balances, or from savings accounts, or by foreign capital.

The establishment, development and growth of a stock market each affect the structure of the local financial system. In addition to a direct impact on development, the presence of a stock market also has an indirect impact which, even if it cannot be measured, may prove decisive. The issue needs to be approached from two angles: how dealings in securities are financed, and how stock-market financing of certain enterprises influences other sources of financing of economic activity. The purchase of securities may be financed either by hitherto idle balances, or from savings accounts, or by foreign capital, some of which is "returning home". Two of these three methods of financing the purchase of securities (idle balances and foreign capital) are likely to have a positive impact on growth and development, but the effect of resorting to bank loans cannot be determined with any accuracy.

Purchases of securities financed by hoarded capital have a beneficial impact on growth and development.

In developing countries, money plays a different role in day-to-day life than it does in wealthier countries. Although studies on the subject are rather scarce, in general it would appear that a large proportion of cash circulates wholly outside the banking system. Part of this cash is held by the population for transactional and precautionary purposes, while another part is simply hoarded. In macroeconomic terms, this cash is temporarily withdrawn from circulation and thus constitutes financially idle savings. Apart from the state of development of the financial system, this situation can be explained by other factors, including the large proportion of illicit cash transactions. Where there is a large illicit sector, many financial flows occur outside the banking system. The establishment of a stock market may - provided the stock-market regulations ensure sufficient discretion - attract temporarily idle capital into the financial system. If purchases of securities are financed by hoarded capital, the establishment of a stock market will increase the financing capacity of the economy, and in the long run this should have a beneficial impact on growth and development.

With the liberalisation of international economic and financial relations, financial centres in developing countries (which traditionally pursued restrictive policies) have been opened up to foreign capital. In one way or another, these markets are nowadays accessible to foreign investors. As long as this foreign capital is used for subscriptions to new share issues on local stock markets, it will help increase the financing capacity of the local economy.

The behaviour of holders of foreign capital will vary according to whether the capital is of foreign origin or is flight capital from the local economy.

In some developing countries, the national economy is seriously undermined by the flight of capital abroad. A stock market may provide attractive investment opportunities for local capital and so keep such capital within the country. In that case the stock market will have a major beneficial impact, either directly upon growth and development, or at least upon the macroeconomic stability of the local economy. Things are different if - as appears to have occurred in some Latin

American countries - flight capital returns home via the stock market. In economic terms, this is a portfolio investment, whose potential impact on development will be discussed later on.
Securities are also purchased, at least to some extent, by using funds previously entrusted to the banking system. If a saver purchases securities, the effect is to reduce total bank deposits, forcing the bank to cut back its lending elsewhere. If financed in this manner, the establishment of a stock market may - all other things being equal - reduce the financing capacity of the banking system. The impact of such redistribution on growth and development depends on the relative efficiency of bank-oriented and market-oriented financing.

As a competing system of financing, the stock market may induce the banking system to become more efficient,...

The establishment of a stock market as a competing system of financing may induce the banking system to become a more efficient provider of financing. If, on the other hand, the financing capacity of the banking system diminishes after the stock market is established, we still need to discover how this affects the various types of financing provided by the banking system.
There are four possible scenarios:
1. banks reduce their commitments by ceasing to finance listed companies, without altering their policy in other fields;
2. banks compensate for the loss of good debtors (listed companies) by lending to their remaining debtors on stricter terms;
3. the stock market enables listed companies to reduce their debt-to-equity ratio, making them better risks from the point of view of the banking system. Banks can therefore lend to their other debtors on more generous terms;
4. basically, nothing changes - major enterprises are still the banks' only debtors.

...but the banks can also decide to lend to small and medium-sized enterprises on stricter terms.

Do stock markets create new sources of financing, or do they simply distribute the financing that exists? The basic question is whether funds are

created or merely diverted. In developing countries, the banking system plays an important part in the distribution of wealth, since "whenever a bank or other financial institution accepts deposits from a poor depositor, however, typically this money is not recycled back into the economy in which the poors live." (G. Remenyi, Where credit is due, 1991, p. 45). Indeed, there is an inherent lack of symmetry between the creditors and the debtors of the banking system. Depositors are probably less wealthy than debtors, whose wealth or income act as security for the banking sector. If the best depositors and the best debtors desert the banking system and put their money on the stock market, banks suffer in two ways: their lending portfolios are at greater risk, and their lending capacity is reduced. The banks pass this increased pressure on to their remaining debtors, increasing the price of loans by limiting their quantity (rationing).

A major proportion of economic activity takes place in small enterprises, most of which remain outside the banking system.

In developing countries, a major proportion of economic activity takes place in small (in some cases pocket-sized) enterprises, most of which remain outside the banking system. Thus, by definition, stock markets will at most have an indirect impact, through the larger enterprises on which many smaller ones are dependent. Things are different for medium-sized enterprises that have development plans and need loans to finance them. These will probably suffer from the fact that the banking system has been deserted by its best clients. In that case, the establishment of a stock market may well reduce the prospects of economic growth. However, in order to determine whether this is really true, a study of changes in bank assets and in added value produced, broken down according to size of enterprise, is absolutely essential. In practice, the establishment of a stock market could just as well have a beneficial impact on financing terms for medium-sized enterprises, but not on the amount of credit available. If listed companies become better risks from the point of view of the bank and if they continue to borrow, the bank's lending risk will diminish, and it can offer its other customers more generous terms. Moreover, as in the OECD countries, the stock market may provide local banks with an attractive source of financing; however, the precise data needed to prove this are unavailable.

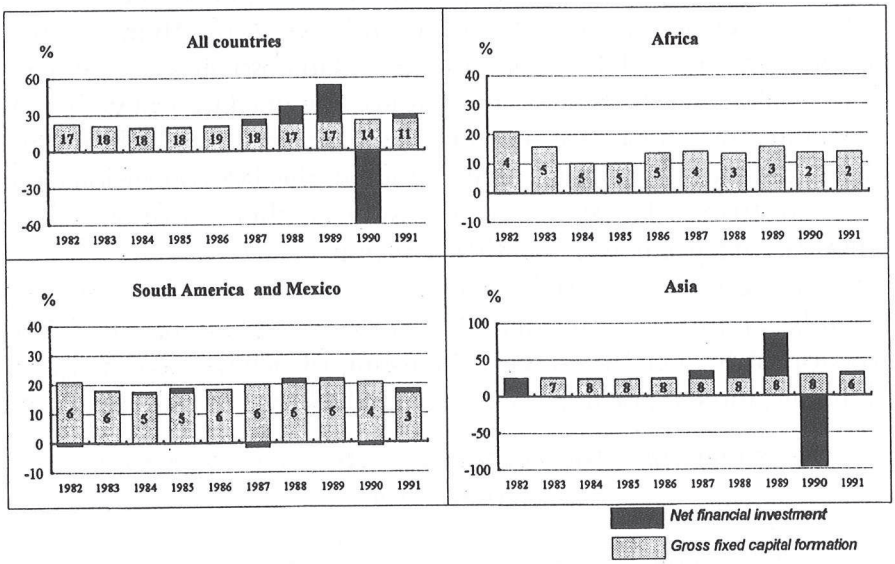
Stock markets lead to polarisation in the development of enterprises.

It seems very likely that issues of securities lure away the banks' best debtors and force the banks to introduce stricter terms for small and medium-sized enterprises. Stock markets encourage the polarisation of the economy into two groups of enterprises: listed companies, which have access to cheap capital and almost unlimited credit, and companies which are faced with rationed lending but at the same time have to pay heavier financial charges. It seems a reasonable conclusion that the former will grow rapidly, while the latter will stagnate. Such a situation undoubtedly has major implications for income distribution, which is an essential factor in development and human progress. However, this topic lies beyond the scope of our discussion.
Quite apart from the issue of securities on the primary market and the possible impact of purchases of securities on the local financial system, the establishment of a stock market raises the question of how growth in stock-market capitalisation is to be financed. Therefore, as in the OECD countries, we need to examine the relationship between financial investment (implicit in trading on the secondary market) and productive investment in the economy.

The proportion of resources diverted in order to finance stock-market trading is considerably less in developing countries than in OECD countries.

During the period under study, stock-market capitalisation in the developing countries increased very greatly, especially in Asia and certain South American countries. These increases did not occur merely in accounting terms, since the rates of security turnover in the countries concerned were relatively high. Taiwan had a record average rate (1986-1991) of 323%, followed by South Korea (80%), Thailand (70%), Mexico (65%), India (57%) and Brazil (48%). In other words, the increase in capitalisation caused a "narrowing of margins" within the economy, allowing existing financial resources to be diverted. Instead of serving to finance productive investment (loans to SMEs), these resources were used to finance increases in share prices, and bypassed enterprises altogether. The result was a reduction in available financing resources, which has hit medium-sized businesses particularly hard.

FINANCIAL AND PRODUCTIVE INVESTMENT, AS % OF GDP (with indication of the number of countries)



Source: Eco'Diagnostic, FIBV et IMF, own calculation

Figure 14

Expressed in terms of GDP, the average proportion of financial resources diverted annually to stock markets in developing countries is considerably less than it is in OECD countries. In only four countries did the proportion of resources diverted exceed 1% of GDP over the period 1982-1991. Elsewhere it was barely perceptible in macroeconomic terms.

Since financial systems in developing countries are less extensive and less stable than in OECD countries, any diversion of resources to the stock market, even though smaller than in industrialised countries, may have more serious consequences.

If we reduce our observation period to five years (1986-1991), the proportion of resources diverted (financial investment) increases: from 5 to 8% of GDP for South Korea, from 3 to 5% for Thailand, and from 2 to around 3% for Mexico and Malaysia. As the graph shows, the change was considerably greater in the Asian countries analysed here than in Latin America. Such wide variations can mainly be explained by

the differing influence of national stock markets in terms of GDP and by the greatly differing rates of turnover from place to place and from year to year. However, since financial systems in developing countries are far less highly developed, less extensive and less stable than in OECD countries, even a small diversion of resources in absolute terms may have serious implications for a system that is not equipped to deal with it. The first victims, of course, are medium-sized enterprises, which are faced with scarcer, more expensive credit. Although this last conclusion cannot yet be confirmed by quantitative analysis, there is quite a lot of qualitative evidence pointing in that direction.

Stock markets thus contribute to development via three different channels: changes in the distribution of internal financial flows (diversion of financial resources); financing of newly-listed companies; and, finally, foreign portfolio investment, which makes additional capital

NET FINANCE ABSORBED BY THE STOCK MARKET, 1985-1991

	Financial investment required by stock market (1)	Primary market (2)	Foreign portfolio investment (3)	Net effect of stock market (4)=(1)-(2)-(3)	Net finance as % of foreign direct investment (5)
Argentina	0.0	0.1	-0.8	0.7	57.8
Brasil	-0.3	0.1	-0.1	-0.3	-77.4
Korea	8.4	2.4	0.4	5.7	1388.9
Malaysia	2.3	2.8	0.7	-1.3	-32.7
Mexico	2.7	0.6	-0.2	2.3	147.3
Taiwan	-7.4	1.8	nd		
Thailand	5.1	4.2	0.9	0.1	5.2

Source: Eco'Diagnostic own calculation, World Bank, IFC and IMF

Figure 15

available to the markets. The overall impact can be determined by adding up these various effects, expressed in terms of a single unit (GDP), and subtracting foreign portfolio investment.

In South Korea and Mexico, the diversion of resources to the stock market outweighed direct investment, which was thus entirely absorbed by the financial markets.

The table compares seven countries. The net impact was most marked in South Korea, where the primary market and the inflow of foreign investment were far from sufficient to make up for the diversion of resources caused by the boom in share prices. Next come Mexico, Argentina and Thailand; in Malaysia and Brazil, the net impact was negative, which means that the impact of the stock market on financing resources was outweighed by the primary market and foreign portfolio investment.
The last column of the table expresses the net impact in terms of direct investment in various countries. The results show that, in South Korea and Mexico, the diversion of resources to the stock market was considerably higher than the inflow of direct investment. In other words, from a purely financial point of view, direct investment would appear to have been entirely absorbed by the financial markets in both countries. If this analysis is correct, this would mean that a boom in share prices has a considerable negative impact - one that is greater than its expression in terms of GDP would suggest. In other countries (particularly Brazil and Argentina), the diversion of resources to the stock market was a cause of instability in the financial system, which found itself exposed to differing, conflicting pressures from one year to the next. Was this the effect, or one of the causes, of the financial upheavals which both countries suffered during the 1980?

3.4. Portfolio investment in emerging stock markets - a blessing or a burden?

Portfolio investments are not determined by their intrinsic attractiveness, but by the fact that the associated risks are qualitatively different from the risks incurred on Western markets.

The opening-up of stock markets in developing countries to foreign capital has allowed the development of portfolio investment in these markets. What this means is that securities are purchased on local stock markets with the help of capital from abroad (including local flight capital). The various developing countries prescribe greatly varying conditions for portfolio investment, particularly as regards access. In many cases, foreigners are only allowed to purchase selected stocks or parts of investment funds. Access to information is more difficult,

repatriation of profits may be restricted, and the international fiscal regulations applying to dividends and capital gains are extremely complex and vary from country to country. All of this affects the risks (from the point of the view of the foreign investor) that are associated with the various financial centres. However, according to most recent portfolio management practice, the individual risk of each investment matters less than the risk arising from the portfolio as a whole. Paradoxical though this may seem, even a high risk may turn out to be worth taking, provided it is qualitatively different from the remaining risks in the portfolio. This is quite simply the equivalent, in terms of modern portfolio theory, of the maxim "Don't put all your eggs in one basket".

The interest that Western financial centres are now showing in emerging stock markets essentially stems from the fact that the economies in question are relatively unintegrated into the world economy and thus respond differently to international economic and financial fluctuations. Moreover, some of these economies are extremely dynamic - although they are often unstable, owing to their dependence on a single sector -

CORRELATION BETWEEN NET PORTFOLIO INVESTMENT AND STOCK INDEX

	Correlation	Number of observations
Venezuela	0.97	4
Nigeria	0.66	4
Philippines	0.42	10
Argentina	0.36	10
Chile	0.35	10
Mexico	0.17	10
Colombia	0.14	8
Thailand	0.11	10
Zimbabwe	-0.05	7
Malaysia	-0.13	10
Indonesia	-0.16	8
Brasil	-0.34	9
Pakistan	-0.36	7
Korea	-0.57	10
Ivory Coast	-0.61	8

Source: Eco'Diagnostic own calculation, World Bank and IFC

Figure 16

and provide astonishingly attractive rates of return. It is therefore no surprise to find capital from wealthy countries being invested in emerging markets in developing countries.

Portfolio investment has undoubtedly had an impact on local share prices, since it represents an additional - in some cases quite considerable - demand for securities. Even if this effect has not always been convincingly confirmed by statistical evidence, it should not be disregarded. Assuming a constant turnover rate, an increase in share prices will divert more financial resources from the economy, which in turn will make it harder for medium-sized enterprises to obtain financing. However, a booming stock market will make any new share issue more profitable. Portfolio investment thus helps to reduce the cost of own capital for listed companies.

Portfolio investment influences share prices and causes inflows and outflows of capital which bear little relation to fundamental economic determinants.

Provided there is a regular inflow of portfolio investment, it may be expected to compensate for the additional diversion of resources that it causes, so that the local financial system ultimately remains unaffected. This will be true if the inflow not only is continuous, but also grows at the same rate as share prices are rising and in accordance with the turnover rate. In practice, however, this seldom happens. Migratory capital may come and go without warning (unless exchange and investment regulations determine otherwise), for reasons which do not necessarily bear any direct relation to the performance of a given security or stock exchange. What this means is that financial systems in developing countries are exposed to inflows and outflows - and thus also to market manipulations - which are difficult to control. The result is not only a major diversion of resources, but above all an extremely unstable stock market. This does nothing to improve financing conditions for small and medium-sized enterprises.

The risks incurred on emerging markets are seldom fully covered.

The ratio between average price variations and the standard deviation of these variations - the Sharpe ratio - indicates the degree of risk coverage

for each investment. If the ratio is greater than one, the risks are fully covered; if not, they are only partially covered. Applied to annual observations of emerging markets between 1982 and 1991, this technique shows that investment risks were only fully covered in the case of India, Chile, Mexico and Nigeria. However, even then, the degree of coverage may be inadequate if we include exchange risks (which the Sharpe ratio does not take into account).

SHARPE RATIO

	Ratio
Ivory Coast	-0.31
Jordan	-0.04
Malaysia	0.25
Indonesia	0.39
Argentina	0.39
Morocco	0.50
Colombia	0.51
Korea	0.55
Brasil	0.56
Venezuela	0.57
Zimbabwe	0.58
Taiwan	0.61
Philippines	0.62
Thailand	0.62
Pakistan	0.67
India	0.84
Chile	0.98
Mexico	1.27
Nigeria (a)	2.25

Source: Eco'Diagnostic, IFC
(a) since 1984

Figure 17

3.5. The contribution made by OECD stock markets to direct investment

Transnational enterprises from wealthy countries are firmly established in developing countries.

According to United Nations estimates, at the beginning of the 1990s there were some 35,000 transnational enterprises (TNEs) in the world,

with some 150,000 subsidiaries (these figures necessarily represent a very approximate order of magnitude, given the problems of definition and data collection). Slightly less than 90% of TNEs are from OECD countries, and slightly more than 10% from developing countries, while TNEs from post-Communist countries account for less than 1% of the total. The percentages are very different when it comes to the geographical distribution of the subsidiaries: 42% are located in developing countries, 50% in OECD countries, and approximately 8% in post-Communist countries. These figures demonstrate how firmly TNEs from OECD countries have become established in developing countries.

The volume of direct foreign investment throughout the world in 1990 was approximately US$200 billion, of which only one-sixth went to developing countries.

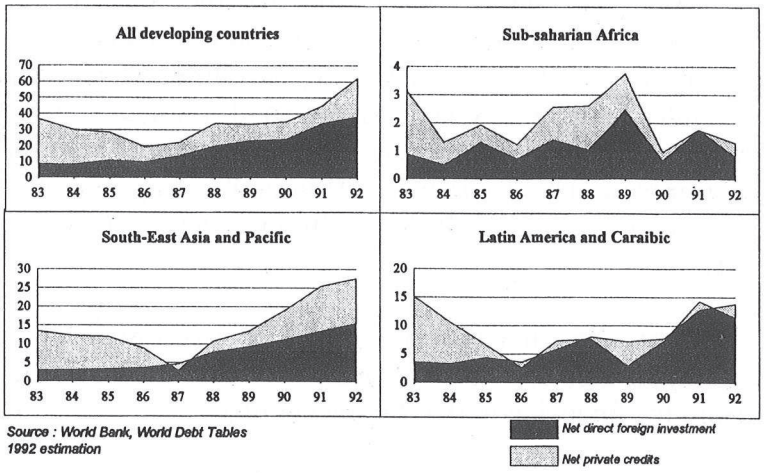
Again according to United Nations estimates, the total volume of direct foreign investment in 1990 (figures for all countries) was approximately US$200 billion. Of this, the developing countries received some $32 billion, while their own investments abroad amounted to $8 billion. Obviously, the main vehicles for these investments are TNEs from OECD countries. The 1000 to 2000 largest enterprises in the world account for an estimated 90% of direct investment in developing countries.

Since the debt crisis in 1982, direct private investment has, in global terms, compensated for the withdrawal of the international banking sector from the financing of developing countries.

Measured in net terms (taking account of repatriated profits), direct foreign investment in developing countries has been constantly increasing since the beginning of the 1980s. In the host countries, this influx of capital takes the form of either newly-established enterprises or take-overs of existing ones, although statistically it is not possible to determine with any accuracy the relative proportions of these two kinds of investment. The increase in direct investment in the second half of the 1980s can be attributed to two trends. Firstly, as soon as the international debt crisis erupted in 1982, a wave of panic spread among

financial intermediaries, which ever since then have been seeking ways to limit their exposure to developing countries. Secondly - seemingly in response to the drying-up of the source that had financed them for almost a decade - the developing countries relaxed their regulations on foreign investment. The spectre of nationalisation, which had haunted the TNEs during the 1970s, now receded. During the 1980s the nature of the flow of private finance into developing countries changed fundamentally. In global terms, the reduction in net bank loans was counterbalanced by the growth in direct investment. The contribution by financial markets in OECD countries - through the TNEs - to the flow of resources into developing countries thus greatly increased, while the input from the banking sector correspondingly diminished.

EVOLUTION OF CREDITS AND PRIVATE FOREIGN INVESTMENT (billions of current dollars)



Source: World Bank, World Debt Tables
1992 estimation

Figure 18

To meet their need for capital and to manage their liquid assets, TNEs are increasingly resorting to financial markets.

World Bank data reveal that what is true globally is not necessarily true of each separate region. Thus, for example, the debt crisis put an end to

all private financing - whether investment or bank loans - in sub-Saharan Africa. In Asia, particularly Southeast Asia, the situation is quite the reverse, with both bank loans and direct investment constantly expanding. It is in Latin America that the private financing situation most resembles the global situation: while bank loans have collapsed, direct investment has greatly increased.

The stock-market boom in the mid-1980s enhanced the propensity of TNEs to invest, including in developing countries.

The world's largest TNEs are thus contributing to both world savings (through their self-financing capacity) and world investment. To meet their need for capital and also to dispose temporarily of their excess liquidity, TNEs are busily resorting to financial markets. Through new issues on financial markets in OECD countries (loans and increases in capital), the world's largest 2000 enterprises are acquiring capital which is partly invested in developing countries, although for the time being it is impossible to assess to what extent. With their reliable reputation, TNEs are succeeding in raising capital on extremely favourable financial terms, better than they would be for any enterprise (whether public or private) from a developing country. This is particularly true of the increases in capital during the stock-market boom in the mid-1980s.
The stock-market boom in the OECD countries considerably reduced the cost of capital for listed companies, and this very probably enhanced their propensity to invest in general, and to invest in developing countries in particular. This suggests that financial globalization encouraged the industrial and commercial globalization of enterprises in the OECD countries. The slowdown in the growth of stock-market capitalisation (linked to the general economic slowdown) observed in recent years may therefore - in the short term - mean a slowdown in direct investment in developing countries. Such a trend can already be detected among Japanese and German companies.

Direct investment flows are concentrated on a number of countries that already have a vigorous private sector and a satisfactory infrastructure.

The traditional factors that attracted direct investment in the 1970s and early 1980s - such as the availability of raw materials and unskilled but cheap labour - have become less relevant. This is because, in most sectors, technological progress has reduced the relative importance of labour costs. In this new environment, flows of direct foreign investment have become concentrated on a group of countries that already have a relatively vigorous private sector, a satisfactory infrastructure, and a labour force which, besides being cheap, is above all relatively skilled and motivated. Another positive factor that attracts investors is, of course, economic and political stability.

The United States and Japan accounted for 70% of direct investment in developing countries in 1990.

Direct investment is concentrated on a small number of both investing countries and host countries. In 1990 the world's two leading economic powers, the United States and Japan, accounted for 70% of the total flow of direct investment into developing countries. This upstream concentration recurs in the host countries, creating what is known as the "Triad Pattern" of direct investment. North American investment mainly goes to Latin America; investors from Japan and the newly industrialising countries of Southeast Asia are the main source of direct investment in Asia; and Europe, while certainly present in Asia and Latin America, is a major source of direct investment in the post-Communist countries. Direct investment in Asia goes mainly into setting up new enterprises, while in Latin America and the post-Communist countries most investment is used for take-overs of existing enterprises, particularly under privatisation schemes.
In balance-of-payment terms, bank loans and direct investment can be seen as substitutes. However, their economic use is very different. Loans entail a purely financial flow whose use will depend entirely on the debtor's objectives, whereas direct investment immediately serves to increase either productive capacity or, in the case of take-overs of State enterprises (privatisation), government receipts.

In order to indicate the extent of this input, direct investment flows can be expressed as a percentage of gross fixed capital formation in the host country. As a yearly average over the period 1981-1991, this percentage

NET DIRECT FOREIGN INVESTMENT, 1981-1991

	% of GDP	% of gross fixed capital formation
Argentina	0.94	5.84 (b)
Brasil	0.51	2.77
Chile	0.96	6.04
Colombia	1.25	7.48
Korea	0.12	0.43
Ivory Coast	0.59	3.35 (c)
India	0.00	0.00
Indonesia	0.53	4.33
Jordan	0.93	2.59
Malaysia	3.82	11.19 (b)
Mexico	0.87	3.87 (d)
Morocco	0.47	1.53 (e)
Nigeria	1.52	15.83
Pakistan	0.38	2.25
Philippines	0.76	3.90
Taiwan	1.08	5.27
Thailand	1.26	4.20 (b)
Venezuela	0.25	1.47
Zimbabwe	0.07 (a)	-0.38 (d)

Source: own calculation, IMF and World Bank
Notes : until (a) 1988, (b) 1990, (c) 1986, (d) 1987, (e) 1989

Figure 19

has varied considerably in the 19 countries for which data are available. In Nigeria, direct investment has accounted for some 16% of gross fixed capital formation over the last twelve years, followed by Malaysia, where this figure is approximately 11%, and four other countries where it is between 5% and 8% (Argentina, Chile, Colombia and Taiwan). In the remaining countries the figure is less than 5%. However, it is not enough to observe changes in direct investment flows; in addition, we need to know whether direct investment has had an impact on growth in the host country. This is scarcely confirmed by statistics: the correlation between changes in direct investment and GDP growth is positive and significant in Zimbabwe, Malaysia, South Korea, Pakistan and Thailand - all countries (except for Malaysia) in which, paradoxically, the foreign contribution to investment has been rather low. This result may, of course, indicate that the economic growth of these countries has provided profitable opportunities for foreign investors.

What little statistical evidence is available suggests that direct investment has a slight but positive impact on economic development.

Statistical data suggest that investment by OECD countries in developing countries has a positive, albeit slight, impact on GDP. However, statistical evidence of long-term correlation is inconclusive, and is insufficient to explain the entire phenomenon, since the very presence of TNEs may have a lasting booster effect upon host economies. This may be due to a combination of various different mechanisms, such as technology transfer (which usually takes place within TNEs, between the parent company and the local subsidiary), the contribution that TNEs make to local training of human capital and improvement of managerial skills, the multiplier effect upon local incomes through local expenditure by TNEs and their orders from local suppliers, and finally an increase in exports by the host country.
TNEs have frequently been criticised for the allegedly negative social, regional and cultural impact of their presence and their activities in developing countries. These are serious problems, but ones which are probably inherent in the economic contribution that direct investment makes to host countries. This contribution is by no means unselfish: by establishing branches in developing countries, TNEs not only improve their performance, but also become more globalized and can extend their influence to increasingly remote regions.

3.6. The stock exchange in the context of transition: the experience of the Warsaw

The experience of the Warsaw stock exchange during its first 24 months of operation illustrates the peculiarities and weaknesses of financial systems in post-Communist countries. An analysis of the performance of the financial market in terms of its contribution to financial stability, resource allocation and privatisation has enabled us to identify the main implications of this experience and to state six lessons that can be learned from it.

The re-opening of the stock exchange was profoundly influenced, whether consciously or otherwise, by symbolic and educational considerations.

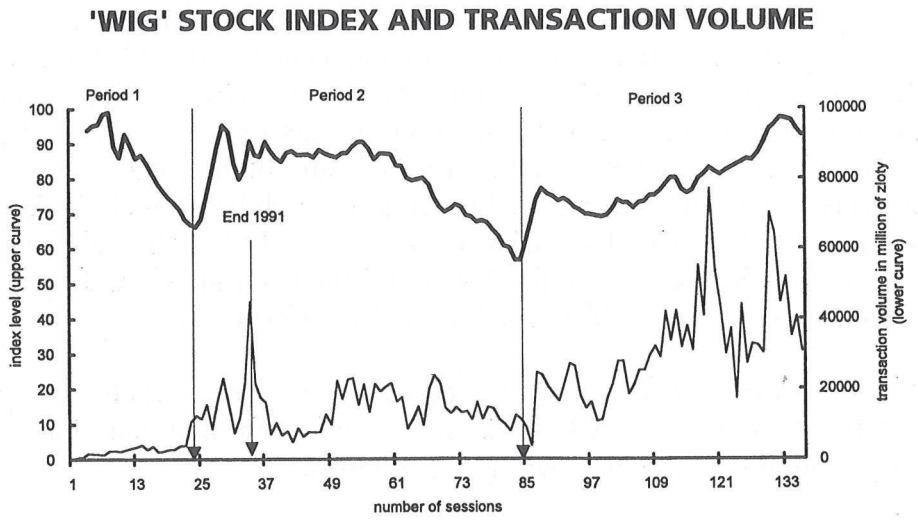


Figure 20

From the very beginning of the transition period, the stock market was seen as a crucial element in the new, market-oriented system, although few people had a clear idea of its practical meaning. In particular, the stock market was expected to help citizens, as shareholders, to get used to the unfamiliar laws of the market economy. It was also supposed to attract both domestic and foreign investors and to provide the State with the capital required for the privatisation process. These various expectations show that the stock exchange was to be one of the main factors that would help to create a market economy and activate the transition process.

The performance of the stock market has failed to come up to initial expectations.

Trading on the Warsaw stock exchange began on 16 April 1991, involving the shares of five carefully selected industrial enterprises - medium-sized exporting companies with relatively modern technology and good prospects. By the end of 1992 the number of listed companies had risen to 16. The graph shows how the WIG (Warszawski Indeks Gieldowy) and the volume of trading behaved during the first 20 months. On this basis, the movement of the WIG can be divided into

three periods. The first, characterised by a fall in the index to 66.9 (a 28.8% loss) and a stable volume of trading, ended at the 23rd session. The second period extended from the 24th to the 85th session. During this period of relative stability, the stock market only fell by a further 6.3%, while the volume of trading and the degree of instability increased considerably. Finally, during the third period, which began with the 86th session, the WIG rose by 36.3% to the end of 1992. The volume of trading thus increased steadily. This trend then continued, and by the end of August 1993 the WIG reached the level 700 points.

The recent experience of the Warsaw stock exchange teaches us six lessons which may clarify how the stock market can best contribute to the privatisation and restructuring of businesses.

The first 16 months of the re-opened Warsaw stock exchange were unimpressive, with a negative return on investment. This trend has since been reversed, and the stock exchange has entered a phase of apparent over-reaction. In fact, it has taken 24 months for it to recover from its initially disappointing performance. It was only in May 1993 that the value of the WIG, in real terms, more or less returned to its initial level. The satisfactory performance observed since July 1992 is due to the fact that by mid-1992 the index had almost reached rock bottom, thereby reviving investors' interest. Such a situation is scarcely compatible with the intended role of the Warsaw stock exchange, or indeed of any other post-Communist stock market.
There are several various explanations for the poor performance by the Warsaw stock exchange during its first 16 months of operation. Six lessons can be learned regarding the ways in which governments should manage stock markets in order to maximise their contribution to the privatisation and restructuring of businesses.

Lesson 1: The volume of trading must be stimulated by an adequate supply of securities.

According to the prevailing consensus, there is an inversely proportional relationship between the level of risk and the volume of trading. A low volume of trading increases the risk inherent in a financial investment. Conversely, an increase in the volume of trading reduces the risk of non-

fulfilment of contract. However, a sudden increase in the volume of trading would, if it occurred alone, lead to an explosion in prices which could threaten the entire financial system. In countries in the process of transition, the State is the most important, if not the only, supplier of securities. The volume of shares on offer will depend on its willingness and ability to use its various powers simultaneously and coherently. The most natural way to increase the supply of shares is to increase the number of listed companies. Any company that has been fully privatised ought therefore to be listed, even at a relatively low price.

In addition to these measures, the proportion of share capital quoted by privatised companies (bearer as well as registered shares) should be maximised. It is also important to avoid making initial offers by public subscription. Instead, shares should be auctioned directly on the stock exchange, so that it can fulfil its natural role as a primary market, rather than remain confined to secondary-market trading. To increase the volume of trading still further, foreign securities should be quoted. Thus, for example, foreign companies taking a controlling interest in former State enterprises could be required to quote a proportion of the parent company's shares on the local market. This would give financial investment an additional boost by offering new openings for diversification strategies.

In conclusion, the range of measures designed to increase the supply of securities means that the currently very complex relationship between the State and businesses will gradually become clearer and that eventually they will become entirely separate. This is a crucial aspect of the transition process, the purpose of which is to release businesses entirely from State tutelage by replacing hierarchical links with financial ones.

Lesson 2: Trading must be carried out efficiently, so that prices immediately reflect equilibrium conditions.

According to recent research, the "double-sealed auction" system adopted by the Warsaw stock exchange is the optimal trading system. This system seems particularly well suited to transitional economies, because it imposes standards of transparency from the very outset. Such standards are essential for building up people's confidence in new institutions. When using this system, the only way to increase the speed

at which prices reach equilibrium is to raise the number of sessions per week progressively to five. At the same time, complete computerisation of all trading operations (clearing) would make for greater efficiency. This entails a considerable investment which, however, can only be financed if the volume of trading increases.

Lesson 3: From the very beginning, the stock market must offer enterprises an alternative source of financing to bank loans.

The prohibitive nominal interest rates prevailing in post-Communist countries cut off enterprises from bank credit, which seriously reduces the speed at which they can be restructured and their possibilities for investment. On top of this, stock exchange regulations should take account of the fact that successful new enterprises cannot reasonably comply with restrictive listing conditions. Since the access of such new enterprises to the stock market is an essential part of what is known as "privatisation from the bottom up", governments in post-Communist countries should either be less restrictive or else establish from the very outset a secondary market geared to the needs and capabilities of these enterprises. When using the stock exchange as an instrument of privatisation, the State should take account not only of its own budgetary requirements, but also of investors' and companies' expectations. For instance, proceeds of auctions could be split between the State budget and the privatised company, so as to allow the latter to restructure itself rapidly and improve its performance.

Lesson 4: The stock market should be one of the main instruments used in the privatisation of State enterprises.

Until now, only a tiny proportion of State enterprises that are ready for privatisation have been listed on stock exchanges in post-Communist countries. Refusal by the State to issue stocks at prices that it considers too low may not only endanger its medium-term budgetary receipts, but also result in greater future expenditure, for instance on unemployment benefit. The State might conceivably save money by allowing certain enterprises to be quoted on the stock market at a token issue price, rather than simply wind them up. In the absence of economic arguments

justifying the State's reluctance to increase the supply of securities, socio-political arguments are often put forward, such as the alleged need to avoid "selling off national assets too cheaply". Yet such arguments are based on an assessment of companies' "intrinsic value" which financial markets obstinately refuse to acknowledge as being accurate. In transitional economies, paradoxically enough, the stock market is the only institution capable of assessing on the basis of prevailing macroeconomic conditions the value of hitherto "unpriced" assets. It should therefore be used as such. For instance, a given proportion (10%) of all enterprises still in State hands could immediately be put on the market. This would not only increase the volume of trading but also provide the State with a yardstick for assessing the value of the enterprises concerned and at the same time create a new source of income for the State budget.

Lesson 5: The emergence of a market for corporate control could significantly speed up the restructuring of post-Communist countries.

Governments and their Western advisers have been constantly devising new institutional solutions that are supposedly geared to the requirements of transition. From Polish or Czech-style investment funds to sectoral restructuring agencies, what all such solutions have in common is that they bypass the stock exchange. They all represent an attempt to reconcile, on the one hand, the State's urgent need for new sources of income and its wish to be relieved of direct responsibility for enterprises with, on the other hand, the enterprises' need for restructuring. This need for new institutional solutions is based on the assumption - which is probably incorrect - that financial investors operating through the stock exchange would be less capable of forcing businesses to restructure themselves than the State would. From the point of view of the stock exchange, the proposed investment and mutual funds are pernicious, since they deprive it of a unique opportunity to increase the volume of trading and play a leading part in the transition process.

Lesson 6: A narrow stock market may put the stability and, ultimately, the viability of the entire financial system at risk.

In the context of transition to a market economy, the financial system is still in its infancy, and is weak and unstable. A shock to any one of its components could be enough to bring down the entire system, triggering off a major financial crisis. Thus, for example, the stock market may suddenly attract a large additional volume of trading for reasons totally unrelated to the performance of listed companies. If the market is narrow, this will drive share prices to unprecedented heights and leave agents facing unmanageable financial risks. A fall in prices caused, for instance, by political changes (such as the 30% fall on the Warsaw exchange at the beginning of June 1993) could easily destabilize a poorly capitalised banking sector. The constant goal of post-Communist governments should therefore be to broaden the market by launching new companies in response to any increase in demand for shares. This would keep share prices within reasonable limits, increase the volume of trading, stabilise the market, and provide an additional source of income for either the State or the enterprises concerned, or both.

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