Recent innovations in international banking

A sharp acceleration in the pace of innovation, deregulation and structural change in recent years has transformed the international financial system in important ways. The causes and implications of these changes were considered by a study group established by the Group of Ten central banks, whose report was published in April by the Bank for International Settlements. Its main points are summarised here. Some of the policy implications of financial innovation are also discussed in the speech by the Governor on pages 225–9.

The securitisation of lending . . .

In the last five years an increasing proportion of international flows of credit have been in marketable form. The arrangement of syndicated eurocurrency loans fell from $100 billion in 1981 to $20 billion in 1985, while issues of international bonds and floating-rate notes rose from $40 billion to $160 billion.

This trend has been in part a response to the changing position of banks within the financial system: technological improvements to communications have weakened the banks' comparative advantage in access to financial information and the perceived creditworthiness of some banks has declined relative to that of prime non-bank borrowers, in part because of concerns about their exposure to heavily indebted developing countries. The emphasis placed by banking supervisors on strengthening capital ratios has encouraged the banks to meet their customers' demands for credit in ways that avoid disclosure on their own balance sheet.

The securitisation of lending has thus led to some disintermediation of international lending away from banks. In addition, however, where credit has still been intermediated through banks, it has increasingly taken a marketable form: banks' holdings of long-term marketable securities have increased (see table), loans have been made transferable and there has been some limited selling or swapping of participations in existing syndicated loans.

An example of the process of securitisation is the note issuance facility. This technique enables a borrower to issue a stream of short-term notes over a medium-term period, with a commitment from a group of underwriting banks that they will buy any notes that cannot be placed elsewhere. In this way the technique separates the functions performed in the traditional syndicated credit and allows them to be performed by different institutions. The credit risk is shared between those holding the notes at any given time and the underwriting banks (which face the prospect of having to take up the notes of a borrower in whom investors have lost confidence). The underwriting banks also face a liquidity risk in that they may be called upon to take up these notes at short notice.

Banks' holdings of international bonds and other long-term securities

$ billions

End-years	1981	1982	1983	1984	1985
Estimated total holdings(a)	46.7	59.2	76.7	99.5	157.7
Holdings of banks in the United Kingdom	16.8	22.9	32.4	41.7	64.6

(a) Based on holdings of banks in Belgium, Canada, France, Germany, Italy, Luxembourg, the Netherlands, Sweden and the United Kingdom and the consolidated holdings of Japanese banks.

More recently, facilities have increasingly taken the form of eurocommercial paper facilities, which dispense with the underwriting commitment.

. . . and the creation of new hedging instruments . . .

The higher volatility of interest and exchange rates during the 1970s and 1980s has created a demand for instruments which enable exposures to be hedged. These instruments have generally been in a form that does not appear on banks' balance sheets.

Financial futures were first introduced in the mid-1970s in response to this demand. In recent years, eurodollar interest rate futures, in which banks' participation is larger than for other contracts, have been among the fastest-growing. Forward rate agreements are a form of over-the-counter interest rate futures contract, traded principally among banks in London.

Interest rate and currency swaps are agreements under which two parties exchange streams of payments on different interest rate bases or in different currencies. When first developed in 1981, swaps were mainly arranged in conjunction with capital market transactions, but more recently they have come to be traded in their own right. By the end of 1985 over $200 billion of swaps were estimated to be outstanding. They are used to create high-yielding assets or low-cost liabilities, to change the interest or currency structure of existing liabilities or to gain indirect access to markets not otherwise accessible.

Currency and interest rate options have grown in the 1980s in response to customer demand. Unlike other financial instruments, options give an asymmetrical pattern of risk. The buyer of the option has the right, but not the obligation, to buy (call option) or sell (put option) a financial asset at a predetermined price. Thus buyers are able to take advantage of favourable price movements, but their losses are limited to the size of the premiums paid initially. For the writers, or sellers, of options their profits are limited to the initial premiums, but their potential losses are unlimited. This asymmetry makes it very complex for them to measure their exposures and to hedge them.

... have led to the global integration of financial markets

It is now possible to discern the outlines of what could be called truly global markets for certain financial instruments. This process of integration has been greatly helped by—and has itself greatly contributed to—the tide of deregulation and dismantling of domestic and international controls that most industrial nations have experienced in the past decade. Technology has made this high degree of integration possible by cutting transactions costs drastically, by facilitating the prompt dissemination of information and by linking different exchanges and markets. The borderlines between international and individual domestic markets are becoming increasingly blurred. Securities markets as well as the banking sector are becoming globally integrated, fostered in part by the growing international diversification of investment. The high degree of integration is leading to alternative sources and methods of finance becoming close substitutes, with the result that differences in real returns between various financial markets tend to be rapidly offset by capital flows.

These developments raise issues for macroprudential policy ...

In future a greater share of credit for prime quality borrowers is likely to flow through capital market (rather than bank) channels. The average quality of banks' remaining assets may tend to decline and the distinctions between banks and other financial institutions may progressively become blurred. The business relationships between debtor and creditor in the bond markets are more distant than in the international banking system, which, with a narrower base, may become less able to respond to sudden liquidity needs. Thus while the consumers of financial services benefit from wider choice and lower cost there is a risk that the vulnerability of the system as a whole may have increased.

One effect of many of the new instruments is to separate—or 'unbundle'—the different elements of risk present in traditional instruments. This however can make it more difficult to observe the size and interaction of risks, and these may as a consequence be underestimated. This may lead to underpricing of new instruments, particularly in highly competitive markets. The transfers of risk through these new instruments often create credit exposures, increasing the ways in which the default of one borrower can affect others. The presumed superior liquidity of securitised assets has not yet been tested, but there is a danger that it may disappear when it is most needed.

Many innovations have reduced the cost of financial transactions, with the result that the volume of transactions has grown considerably. This increases the risk of congestion or failure in the settlement systems.

Two unresolved questions concern the effect of innovation on volatility in financial markets and on the growth in overall credit. There is some evidence that hedging instruments may cause short-term volatility in certain circumstances, but increase stability in the long term. However, it is difficult to establish a causal connection between financial innovation and increased credit flows, at least outside the United States.

... monetary policy ...

Monetary policy is being influenced—in some countries more than others—by the effects of innovation, deregulation and structural change. The scope for monetary policy to operate through changes in the availability of credit is being reduced relative to the role of interest and exchange rates; in some countries the exchange rate has increased in importance as a channel of monetary policy as a result of the rise in the international mobility of capital; the many new instruments and hedging techniques available can make the timing and incidence of monetary policy less certain; and innovation is changing the meaning and may erode the usefulness of monetary and credit aggregates as indicators of monetary policy.

The growing importance of the exchange rate relative to credit allocation techniques has tended to shift more of the incidence of monetary policy to the export and import-competing sectors. Many of the new instruments concentrate risk in the financial sector and this, together with the generally increased degree of competition in financial services, could make it more vulnerable to unexpected changes in the macroeconomic environment.

... and financial reporting

Many of the new instruments make it more difficult to assess the financial position of those companies making significant use of them, and in particular of banks. Being off balance sheet they have generally fallen outside the existing requirements for reporting to supervisory authorities or for disclosure in published statements; and their complexity makes it more difficult for bank managements to measure and control their banks' risk exposures.

The monitoring of international capital flows has also been made more difficult by innovation and structural change. Securitisation of credit flows has reduced the coverage of existing statistics by taking a growing proportion of transactions off banks' balance sheets, by giving a larger role to institutions outside the present reporting system and by making it more difficult to keep track of the ownership of assets.