BANK FOR INTERNATIONAL SETTLEMENTS

BIS Quarterly Review

March 2001

International banking and financial market developments

BIS Quarterly Review
Monetary and Economic Department

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I. Overview of developments: Signs of a slowdown cast a shadow over markets

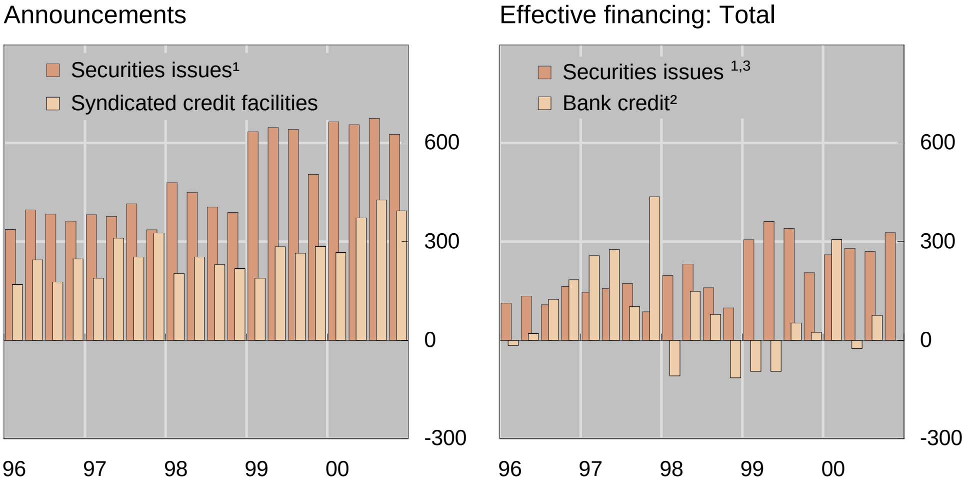
During the fourth quarter of 2000, investors' expectations of a slowing global economy contributed to a downward shift in yield curves, a widening of credit spreads and further declines in already weak equity markets. Market attention focused on the United States, where macroeconomic data reinforced the view that a slowdown was likely in the first half of 2001. Profit warnings and credit downgrades also weighed heavily on the equity and debt markets and signalled problems of excessive leverage in the corporate sector. Even the normally stable commercial paper markets experienced unusually wide and volatile credit spreads.

Market movements also revealed the extent to which the US outlook led to a re-evaluation of growth prospects in other regions. An appreciation of the euro suggested that investors viewed the European economy as likely to maintain momentum, although a downward shift in the euro swaps curve also indicated a potential exposure to the impact of a US slowdown. A depreciation of the yen and a decline in the Tokyo stock market reflected perceptions of a return to weaker growth in Japan. Divergent sovereign spreads corresponded to distinctions investors made in their judgments about the outlook for the emerging economies, with some countries seen as facing severe challenges and others as experiencing an uneven but persistent recovery from recent crises.

Markets in general turned around in January 2001. A surprise 50 basis point reduction in the Federal Reserve's target for the federal funds rate on 3 January, followed by a further 50 basis point cut on 31 January, buoyed both the equity and bond markets, at least temporarily. A steepening of yield curves, a strong initial rally in equity markets and a narrowing of credit spreads all suggested that market participants expected any slowdown to be relatively brief. The easing of market conditions revived debt issuance by low-rated borrowers and emerging economies. However, equity markets gave up many of their gains in February, amidst new evidence of weakness in the earnings of technology firms.

Despite the adverse market conditions, cross-border financing through the international securities and credit markets remained strong in the fourth

Activity in cross-border bank loans and securities markets
In billions of US dollars



[1] Includes both money market instruments and long-term bonds and notes. [2] Exchange rate adjusted changes in cross-border bank loans. Data for bank loans are available only up to 2000 Q3. [3] Gross issues minus repayments.

Sources: Bank of England; Capital DATA; Euroclear; International Securities Market Association (ISMA); Thomson Financial Securities Data; national data; BIS. Graph I.1

quarter (Graph I.1). Both banks and bond investors, however, showed a preference for higher-rated borrowers. There was a decline in net international securities issuance by non-financial corporations, particularly those from the United States, but government agencies and financial institutions continued to be active issuers. Overall net issuance by developing countries fell sharply as broad indices of emerging market credit spreads rose. Yet among these borrowers as well, both credit spreads and the ability to access markets varied significantly between higher- and lower-quality issuers.

Yield curves and exchange rates move to reflect a changing outlook

US data point to a slowdown ...

After several months when markets reflected uncertainty over the near-term course of the US economy, a series of data releases in November and December served to convince market participants that the economy would slow significantly from its rapid growth rates of the last few years. The weak numbers culminated in the National Association of Purchasing Management (NAPM) survey announced on 2 January 2001, which suggested a sluggishness in industrial activity. Later figures indicated an annualised GDP growth rate of 1.4% in the fourth quarter of 2000.

... but the yield curve suggests it will be short-lived ...

Movements in the US dollar swaps yield curve signified shifting views as to the likely depth and length of the slowdown. The mounting evidence of economic weakness and anticipations of policy easing led to parallel downward shifts in the curve in November and December. A relatively flat curve during this period suggested expectations of an extended slowdown. After the cut in the federal funds target rate from 6.5% to 6% on 3 January, a steep slope beyond the two-year maturity indicated a new perception that the slowdown would be of relatively short duration (Graph I.2). A sharp dip near the short end of the curve incorporated a forecast of up to 100 basis points of Fed easing by the third quarter of 2001.

... though its steepness also reflects mortgage hedging

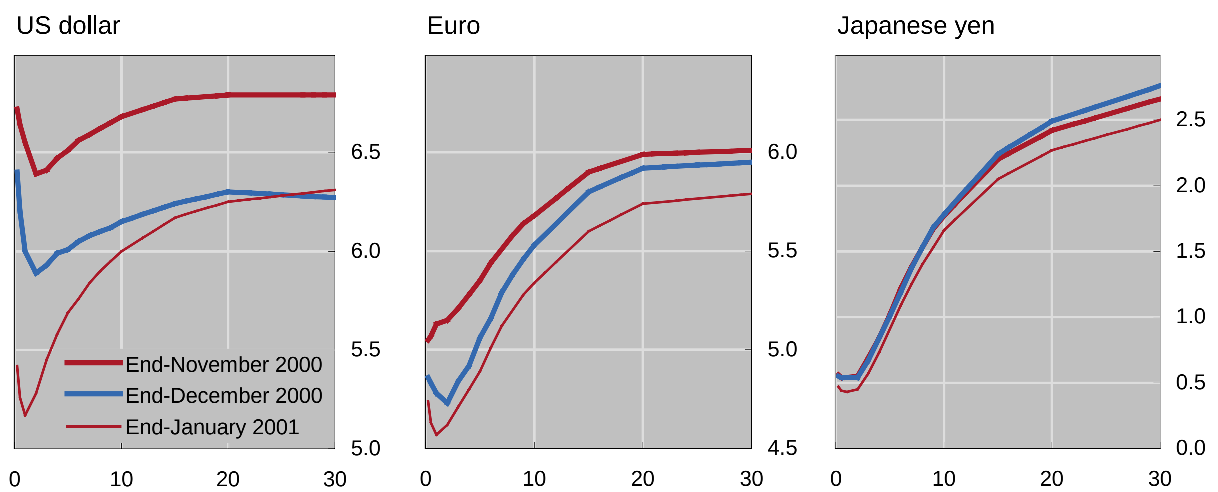
Besides the economic and monetary policy outlook, another factor influencing the shape of the US dollar yield curve was the shortening of the effective duration of mortgage portfolios and the accompanying change in dealers' hedge positions. As in other recent episodes of declining interest rates, an increase in mortgage refinancing activity reduced the effective duration of securities that are constituted from streams of mortgage repayments. Dealers responded by adjusting the duration of the positions with which they had hedged their inventories of mortgage-backed securities. Whereas previously dealers might have effected this adjustment through shifts in short positions in US Treasury securities, the lack of liquidity in the Treasury market led them to perform these operations in the swaps market. This contributed to the steepness of the swaps yield curve in the two-year to five-year range and the flattening of the curve for longer maturities. It may also have helped to keep swap spreads low, at a time when other credit spreads were increasing (see below).

Yields also decline in the euro area ...

Markets also priced expectations of lower short-term rates into the euro-denominated swaps curve, even though the Eurosystem did not reverse its tightening moves of the first half of 2000. The euro curve shifted down about half as much as the US curve. Declining oil prices (Graph I.3) and the strengthening of the euro were thought to have reduced the danger that the Eurosystem would exceed its stated inflation objective in the coming year. Expectations of lower rates seemed to derive less from the direct impact of a US slowdown on European net exports, which was expected to be limited, than from the potential impact of faltering US growth on investment returns and

Yield curves for swaps at different dates

In percentages



Source: Bloomberg.

Graph I.2

business confidence in Europe reflecting, among other things, the recent large number of European acquisitions of US companies. Nonetheless, future policy moves were expected to be measured given the essentially steady growth forecast and declining unemployment in the euro area.

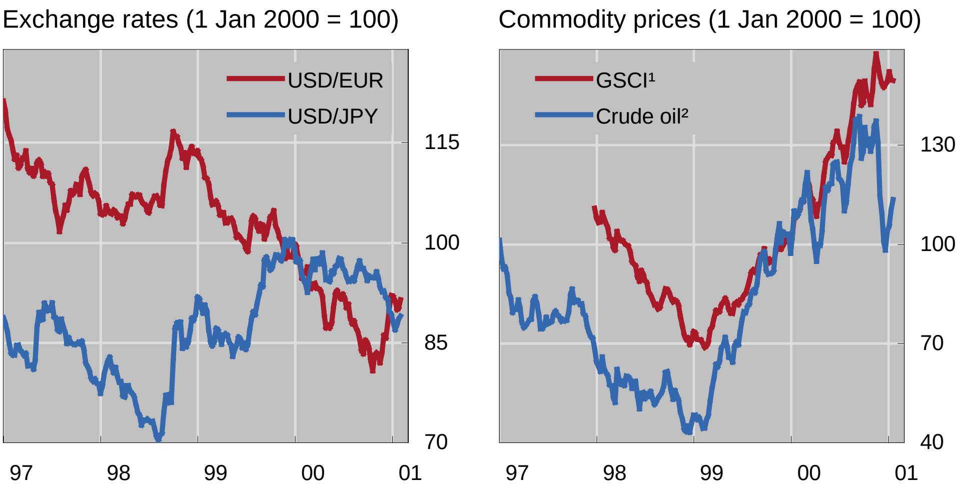
… and, to a limited extent, in Japan

In Japan, the yen swaps curve shifted down only slightly, reflecting the fact that interest rates were already very low. A flattening of the yen curve towards the long end suggested a judgment by market participants that prospects for a sustained recovery had receded, given the slow pace of structural reforms and continued weaknesses in the banking sector. There were concerns that a slowdown in the United States would hurt demand for Japanese exports and business investment in technology, at a time when the impact of earlier fiscal packages on domestic demand was seen to be fading. Concerns were also expressed at the consequences of a fall in the stock market for Japanese banks, many of which were thought to carry substantial exposures to equity price movements on their balance sheets.

The evolving growth outlook of the three leading economic zones was reflected in their currencies, with the euro rallying strongly against the US dollar from early November into the new year and the Japanese yen weakening against both the euro and the dollar in December and the first half of January (Graph I.3). The euro's rally was accompanied by increased net issuance of euro-denominated securities, confirming a pattern observed in previous quarters whereby issuance is concentrated in relatively strong currencies (see "The international debt securities market" on pages 25-30).

Exchange rates and commodity prices

Weekly averages



[1] Goldman Sachs Commodity Index. [2] Unweighted average of the price of Dubai Fateh, UK Brent and West Texas Intermediate.

Sources: Bloomberg; Standard and Poor's DRI; national data. Graph I.3

Profit warnings depress equity markets

Weaker earnings cause stock prices to fall in the technology sector …

The correction in global equity markets that had begun in April gathered pace in the fourth quarter (Graph I.4). The declines tended to be led by the technology sector, where a succession of negative profit warnings, weak sales figures and downgrades by analysts of bellwether stocks continued to depress market valuations. In October, such technology firms as AT&T, Cisco and Lucent warned about disappointing profits. In November, unexpectedly weak sales by a leading internet toy retailer served to reduce the company's market capitalisation by half. The Nasdaq 100 fell 34% during the quarter. As has often been the case in recent quarters, the technology sectors of European markets declined with the US market, the Euro Neuer Markt index falling 45% and the FTSE TechMARK 100 retreating by 32%.[1] Nevertheless, price/earnings ratios in these markets remained substantially above historical levels. While market valuations adjusted to the fall in recent earnings, the persistence of high price/earnings ratios suggested that market participants expected high growth rates of earnings to resume in the near future.

… and the broader market

Broader markets were also affected by the steadily worsening outlook for corporate earnings. The fourth quarter saw 744 US companies announce negative profit warnings and only 161 announce positive ones. The Standard & Poor's 500 index registered a decline of 8% during the quarter, while the Dow Jones STOXX 50 index of large European companies was down by 5% and the Japanese TOPIX index fell 13%. One consequence of the equity market turbulence was an increase in the turnover of equity derivatives, as market participants sought to protect themselves against increased volatility (see the discussion of global derivatives markets on pages 33-36).

Equity offerings slow …

The poor performance of equity markets in the fourth quarter, and particularly the losses in high-tech shares, led to a significant slowdown in initial public offering (IPO) activity in the United States. However, this was not clearly the case in other major markets (Graph I.5). International equity issues (both initial and seasoned offerings) also remained steady in the fourth quarter. A few companies had borrowed heavily with the intention of later using the equity markets to raise funds for the repayment of their debt. The difficult market conditions prevented these offerings from materialising, in some cases leaving banks with unintended exposures.

… as markets react to economic news …

As was the case for most of 2000, the technology sector of the US equity market reacted forcefully to news about macroeconomic conditions. Some of the sharpest declines in the Nasdaq index took place on release days for the non-farm payrolls and NAPM numbers in October and December. At the same time, participants in the US Treasury market tended to respond more to anticipated flows from investors getting in and out of the equity market than to

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[1] The recent tendency for similar sectors to move together across equity markets is documented for the euro area in the box "Market practice ahead of institutional structures in pricing euro area equities", on pages 13-14.

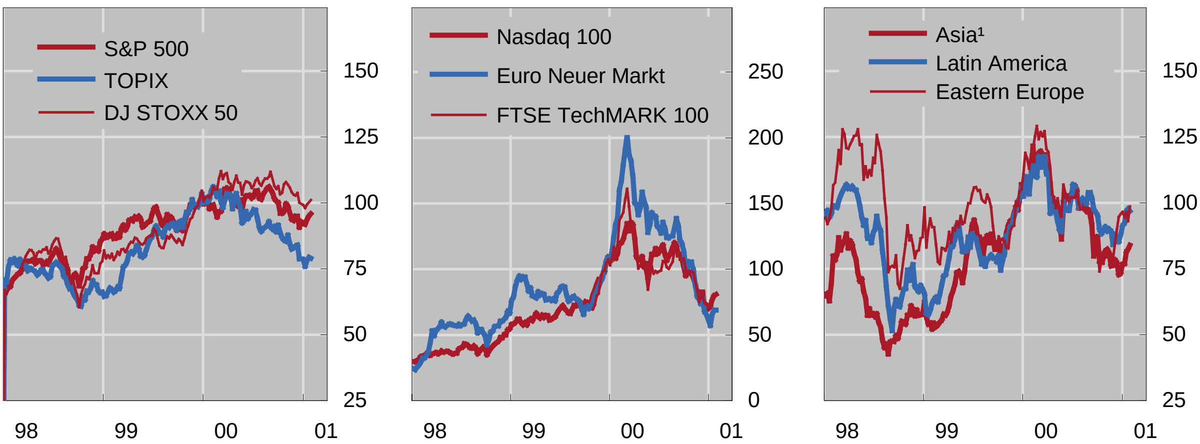
the implications of macroeconomic developments for the yield curve. On the day of the Fed's surprise policy rate cut, for example, five-year and 10-year Treasury yields actually rose, as investors unwound safe haven positions to reinvest in the stock market. The yields fell only the next day to reflect the revised policy expectations.

... but stabilise after the Fed's rate cut

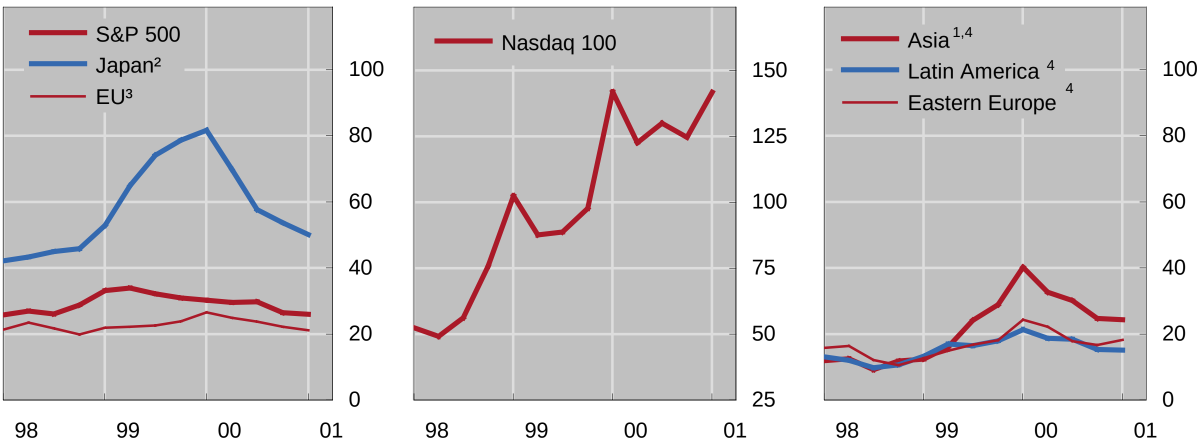
Equity markets seemed to regain confidence after the Fed's rate cut on 3 January. In its single largest daily gain ever, the Nasdaq 100 rose 19% on the day of the cut. The index swung wildly for several days, but then began a steady rise, finishing 11% higher over the month. The S&P 500 jumped 5% on the day of the cut and rose 3% for the month as a whole. The European exchanges followed a similar pattern of initial volatility followed by a steady upswing, though the Japanese market was essentially flat. Just as the technology sectors had led the market's decline in 2000, they were at the head of the January rally. Emerging equity markets, particularly in Taiwan and

Stock market indicators

Equity indices (weekly averages; end-December 1999 = 100)



Price/earnings ratios (quarterly averages)

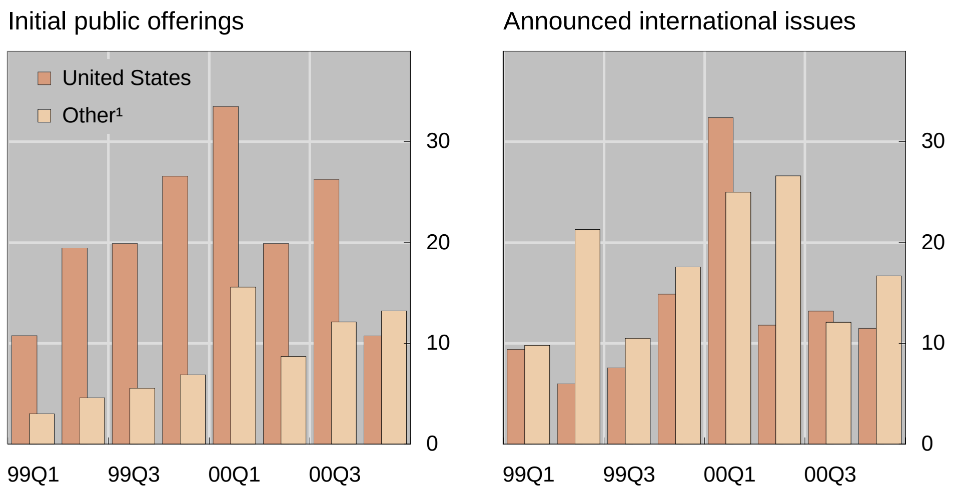


[1] Excluding Japan. [2] P/E ratio of total market index (Datastream calculated). [3] Weighted average of the major EU countries. [4] IFC investable indices.

Sources: Bloomberg; Datastream; IFC; national data.

Graph I.4

Equity issues for selected countries
In billions of US dollars



[1] Germany, Japan and the United Kingdom.

Sources: Bloomberg; Capital DATA; BIS. Graph I.5

Korea, broadly tracked technology stock indices in the industrial countries, with a sharp fourth quarter decline followed by a rally at the beginning of 2001. Further reductions in earnings forecasts in the technology sector led global equity markets to give up many of these gains in early February.

Leverage contributes to wider corporate spreads

As investors worry about leverage, credit spreads widen ...

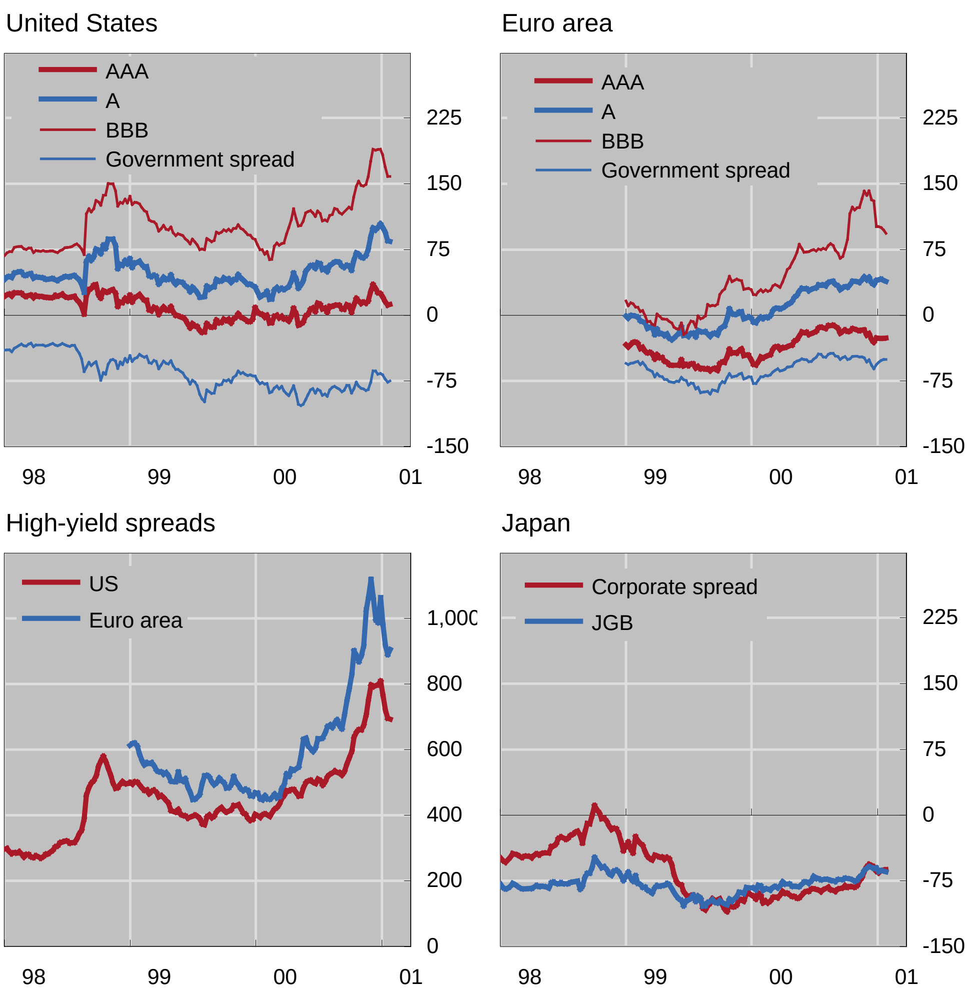
The signs of an economic downturn in the United States led to a sharp widening of credit spreads on several debt classes in the closing months of 2000 (Graph I.6). Having financed a substantial expansion in corporate borrowing, bond investors appeared to become increasingly concerned about excessive leverage. These concerns came to the fore when doubts emerged about the sustainability of corporate earnings growth. While spreads had started to widen with turbulence in the stock market during the spring, the widening trend in the autumn was especially pronounced. The deterioration in the economic outlook towards the end of the year not only reinforced investors' scepticism about the leverage-driven strategies of telecommunications companies but also raised concerns about other companies that had borrowed heavily. Sector-specific problems, such as the difficulties faced by electrical utilities in California, reminded investors that even apparently safe credits can be subject to sharp changes of fortune.

... especially on high-yield bonds ...

The widening of corporate spreads in the fourth quarter showed a clear tiering of credit risks. Spreads on high-yield instruments rose the most. As measured by the Merrill Lynch US High Yield Master Index, spreads of high-yield US dollar instruments over swap rates rose from roughly 530 basis points at the beginning of September to nearly 800 basis points by year-end. Spreads

Corporate and government bond spreads[1]

In basis points



[1] Weekly averages of Merrill Lynch bond index yields against 10-year swap rates.

Sources: Bloomberg; Merrill Lynch. Graph I.6

on a comparable euro-denominated index widened from 670 to almost 1,000 basis points over the same period, spurred by the default of Esprit Telecom on 15 December. Spreads did not widen as much on investment grade issues. Those on US dollar BBB-rated bonds increased by about 70 basis points, while those on AAA-rated bonds rose only slightly. A similar tiering pattern held in the euro-denominated market, where spreads had already risen sharply earlier in the year and stabilised at historically high levels over the summer.

… but also on lower-rated investment grade credits …

Concerns about corporate credit quality also beset the market for commercial paper (CP). In part, these concerns reflected a shift by some borrowers towards the short-term money markets (documented below for the international debt securities market) at a time when banks were unwilling to increase their credit exposures. The fourth quarter also saw rating agencies downgrade the debt of Xerox, a major CP issuer, forcing it to draw on its backup line from banks, which were reportedly reluctant to take on the

… and commercial paper

exposure. In January, two large California power utilities defaulted on their CP issues.

While an end-of-year widening of the yield gap between the highest-rated (A1/P1) and less highly rated (A2/P2) US dollar issues has been common in recent years, the fourth quarter witnessed an unusually large increase (Graph I.7). The gap was briefly wider than those seen in the aftermath of the Russian debt moratorium and LTCM episode of 1998 and in the run-up to the millennium changeover in 1999 (when interbank interest rates had risen even more sharply than CP rates).

The Fed's rate cut and the subsequent equity market rally led to a narrowing of both high-yield and investment grade spreads during January 2001, albeit to levels that were still very wide by historical standards. After falling to previous levels in early January, commercial paper spreads rose again towards the end of that month, as investor nervousness about lower-quality borrowers continued.

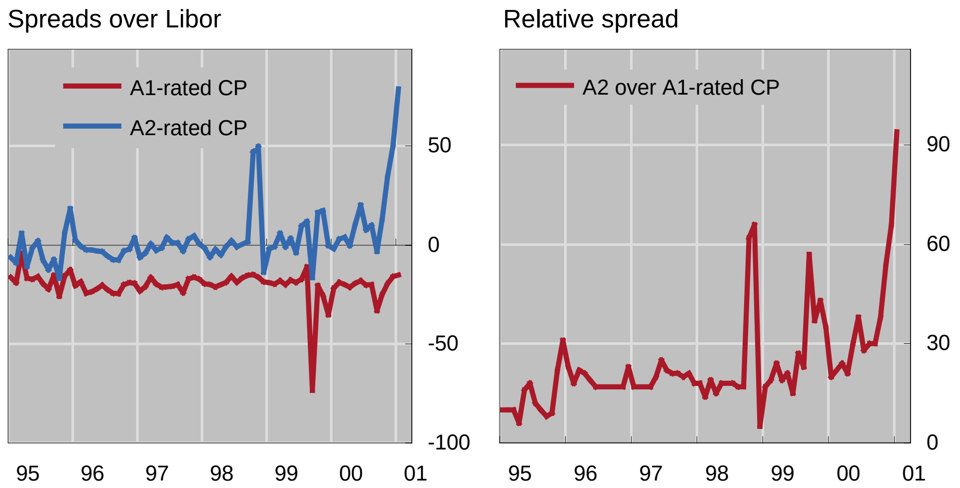
Net issuance of bonds slows

The wide spreads contributed to a slowdown in net issuance on the international debt securities market by entities based in the United States and the developing economies, particularly of long-term fixed rate bonds. Overall net issuance still rose because of increased activity by banks in the money market and by European borrowers and international institutions in the bond market. In January, issuance by US and emerging market entities began to revive, encouraged by narrower spreads and the more optimistic tone in these markets following the Fed's rate cut. The high-yield market saw an especially sharp resumption of issuance, with B+/B2-rated Charter Communications raising $1.75 billion on the US domestic market on 5 January.

While the deterioration in perceived corporate credit quality at the end of 2000 had its greatest impact on credit spreads in debt securities markets, there

US commercial paper spreads[1]

In basis points

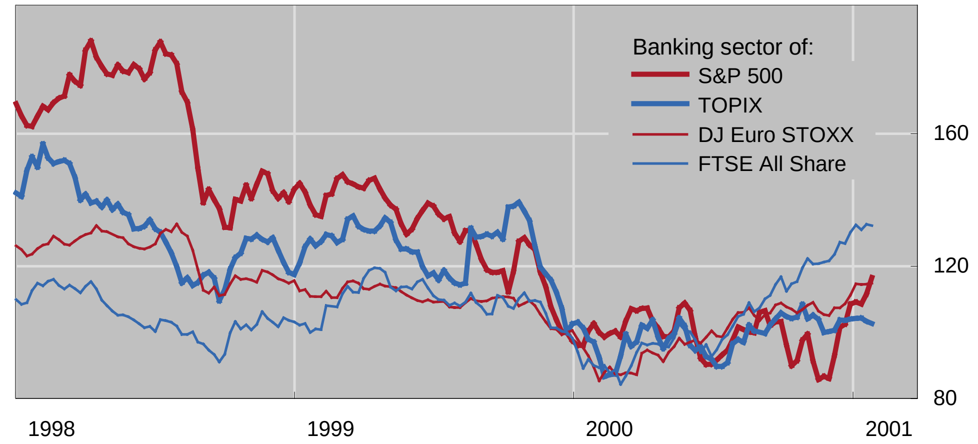


[1] 90-day CP rate and Libor.

Source: Bloomberg. Graph I.7

Equity indices of the banking sector

Ratio to broad equity indices; weekly averages, end-December 1999 = 100



Sources: Datastream; national data. Graph I.8

were some concerns that increased credit risk would eventually spill over to the banking sector. Several banks, especially in Europe, were thought to be excessively exposed to the telecommunications industry (see the discussion of the syndicated loan market on page 20). On top of this, it was anticipated that lower-rated borrowers unable to raise funds on the turbulent CP market might soon start to draw on their backup credit lines with banks, leading to a further increase in the riskiness of bank portfolios. Such backup lines have grown strongly in recent years: in 2000, banks arranged $92.4 billion of international syndicated credit facilities to support CP programmes, compared with $59 billion in 1999 and an annual average of $42 billion in 1992-98.

Concerns emerge about the banking sector …

Judging the extent of these perceived risks is not straightforward. But a look at market valuations of the banking sector in the advanced economies during the past year would suggest that these risks were not seen as that significant (Graph I.8). Indeed, banks' stocks in the United Kingdom outperformed other UK equities in 2000, while those in the United States, Japan and the euro area essentially tracked the wider market. However, it should be noted that banking sectors had previously tended to underperform broader markets, and that the broad equity indices themselves declined substantially during 2000.

… but bank equity valuations track broader markets

Emerging market debt issuance slows amidst divergent performance

The outlook for growth in the emerging economies was clouded during the fourth quarter by worries about the impact of weaker US demand on exports and investment flows. In addition, financial instability in Argentina and Turkey offered a reminder that recoveries in many countries remained fragile and subject to possible reversals in market confidence. The wider credit spreads in the corporate credit markets spilled over to emerging market sovereign debt. Even so, investors were careful to make distinctions across countries according to their perceived credit quality (Graph I.9). While the spread of the broad

Emerging market spreads also widen …

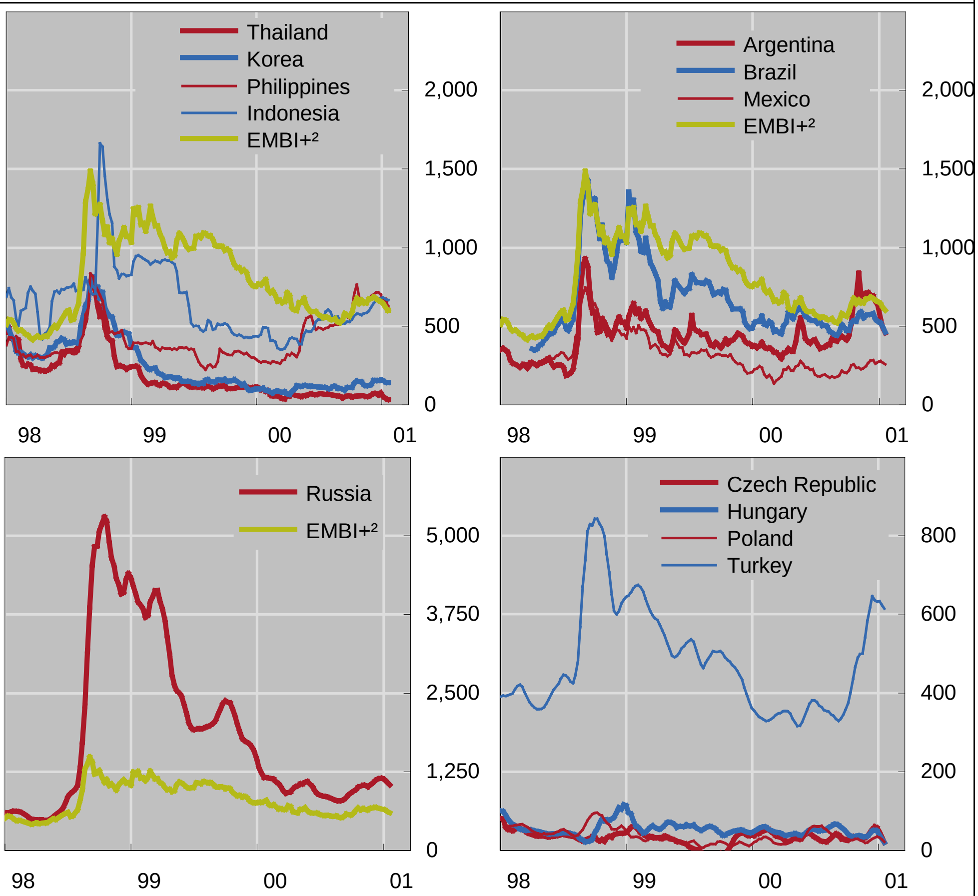
... but investors make distinctions across borrowers

EMBI+ index over comparable US dollar swaps widened from 560 basis points in October to 680 basis points at year-end, spreads on large borrowers such as Mexico, Brazil, Thailand and Korea were little changed. Central European sovereign spreads remained low, reflecting satisfactory economic performance and continued progress towards the eventual eastward expansion of the European Union.

Investors moved swiftly to reprice the debt of countries facing specific challenges. Spreads doubled on Argentine debt when doubts emerged about the government's ability to carry out needed fiscal reforms. Turkey faced financial turbulence when funding problems at a fast-growing local bank triggered broader concerns about the stability of the financial system. The two countries had been among the leading borrowers on the international banking market in the third quarter (see "The international banking market" on pages 15-22). In both cases, an IMF support package averted a more serious crisis and provided a breathing space for longer-term restructuring. Other countries facing reduced access to international capital markets included

Spreads of US dollar sovereign bonds over US swap rates

Weekly averages,[1] in basis points

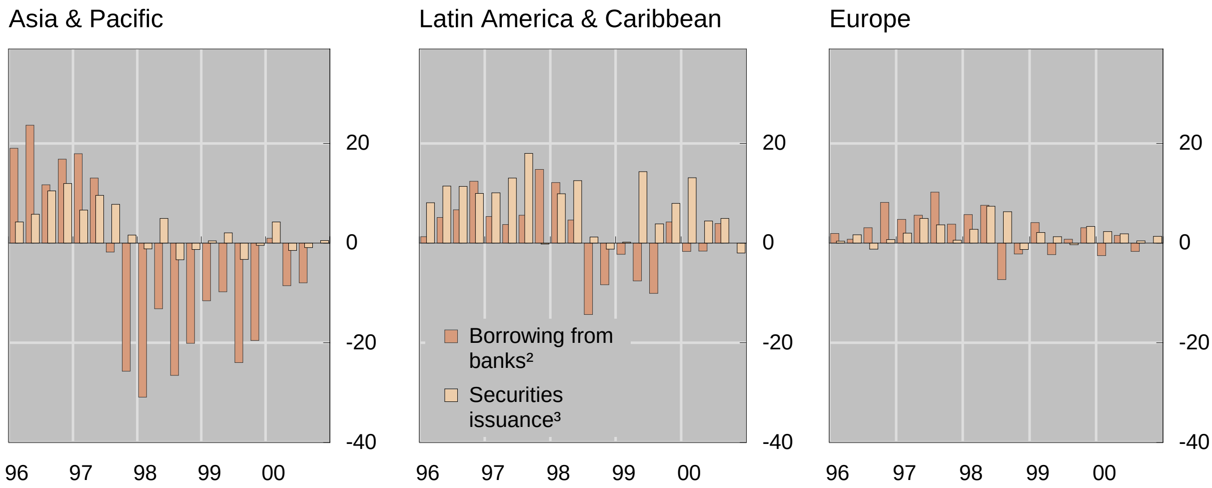


[1] 10-year swap rates. For the bottom right-hand panel, four-week moving averages. [2] JP Morgan's Emerging Market Bond Index (EMBI+) spread over 10-year US swap rate.

Sources: Bloomberg; Datastream. Graph I.9

International bank and securities financing in developing countries[1]

In billions of US dollars



[1] See Annex Table 9 for a list of the countries included in each region. [2] Exchange rate adjusted changes in cross-border loans of BIS reporting banks. Data on bank lending are not yet available for the fourth quarter of 2000. [3] Net issues of international money market instruments, bonds and notes.

Sources: Bank of England; Capital DATA; Euroclear; ISMA; Thomson Financial Securities Data; national data; BIS. Graph I.10

Indonesia and the Philippines, both of which were beset by political difficulties, although the change of government in the Philippines in late January subsequently contributed to an improved outlook for that country's debt.

Some borrowers turn to syndicated loans

As spreads widened and uncertainty grew about the global outlook, issuance declined sharply for virtually all emerging market borrowers in the fourth quarter (Graph I.10). Some borrowers turned to the syndicated loan market, which saw $34 billion of new facilities, mostly to borrowers considered better credit risks. Other potential borrowers, such as many of the Asian economies, had little need for international financing because of their ability to maintain current account surpluses. In January 2001, capital markets were again more willing to accept emerging market debt, in part because the Fed's rate cuts led to renewed interest in higher-yielding investments. Brazil and other countries successfully brought several large issues to market in the first weeks of the new year, while Argentina exchanged some $5 billion of short-term debt for longer-term bonds in early February. Reflecting the improved climate, the EMBI+ spread over swap rates fell to 590 basis points by the end of January.

Market practice ahead of institutional structures in pricing euro area equities

Country versus sector effects

Kostas Tsatsaronis

The establishment of a unified equity trading infrastructure in Europe remains an elusive objective for the region's organised stock exchanges. Stubborn national institutional structures and local interests have thwarted repeated efforts to create a harmonised trading environment. The recent unravelling of the proposed merger between the London Stock Exchange and the Deutsche Börse is a case in point. In contrast, demand by market participants for such an environment has intensified with the advent of the euro. In the months before the introduction of the single currency the majority of institutional investors, investment banks and asset managers started to disband their country desks and organise equity analysis and trading operations on an area-wide basis along sectoral lines.

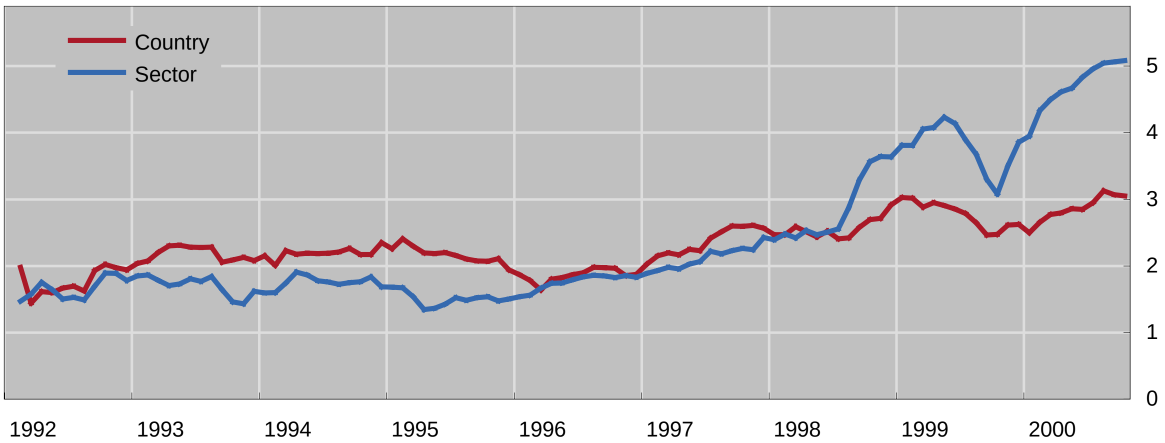
This reorganisation reflects the impact of economic developments that brought about a reduction in the relative importance of country-specific macroeconomic factors affecting euro area equity prices. The trend towards economic integration within the European Union has proceeded gradually since the 1960s as trade barriers have been lifted and cross-border commercial activity has continuously expanded. The introduction of the single currency boosted this process by eliminating the exchange rate risk across the EMU economies. In addition, the creation of the Eurosystem has established a fully unified monetary policy stance across these economies while the provisions of the Maastricht Treaty promote the cohesion of fiscal policies.

As economic conditions have become more synchronised across countries, the pricing of equity risk focuses increasingly on factors that are specific to industrial sectors from a pan-European perspective. Recent surveys of market participants indicate that about 75% of managers of European equities currently believe in the superiority of portfolio allocation strategies based on industrial sectors, while only 10% of managers think that country factors are still dominant. Indicative of the importance of the euro in ushering in this shift is the fact that these proportions were 20% and 50% respectively as recently as 1997.

The graph provides evidence of this shift in the relative weight of country and sector factors for the pricing of equity risk. The monthly stock price returns for a number of the largest euro area firms are decomposed into an aggregate market risk component, country-specific effects, industrial sector specific effects and an idiosyncratic risk component.[①] The firms are those of the FTSE Eurotop

Average country and sector effects in European equities: 1992-2000

Excess return in percentage points



Sources: Datastream; BIS calculations.

① The decomposition is based on a regression technique described in S L Heston and K G Rouwenhorst, "Does industrial structure explain the benefits of international diversification?", *Journal of Financial Economics*, vol 36, no 1, August 1994, and K G Rouwenhorst, "European equity markets and the EMU", *Financial Analysts Journal*, May/June 1999.

300 index from nine euro area countries, and are grouped into 10 sectors based on the FTSE classification system. By construction, the estimated country and sector effects can be interpreted as the excess return that one could achieve by investing in a balanced portfolio with a "tilt" towards the specific country or sector, as compared to the return to a portfolio invested in each country and sector in proportion to their market capitalisation. The graph plots measures of total country and sector impact on returns, which are calculated as the market capitalisation weighted averages of the absolute individual country and sector factor loadings respectively. The graph shows that the combined effect of sectoral factors came to outweigh the impact of country factors in the few months before the formal introduction of the single currency, and its importance has been increasing over the course of the last two years.

This evidence highlights the importance of streamlining the process of equity trading in the euro area, which is currently characterised by legal, institutional and technical structures based on national markets. Asset managers eager to pursue investment strategies on an area-wide basis are currently obliged to confront a variety of market practices and conventions and deal with the idiosyncrasies of a multitude of trade execution and settlement systems because the national exchanges remain the natural trading environments for individual stocks. In this context, the institutional infrastructure seems to be lagging behind the invisible hand of the market in their evolutionary dialectic.

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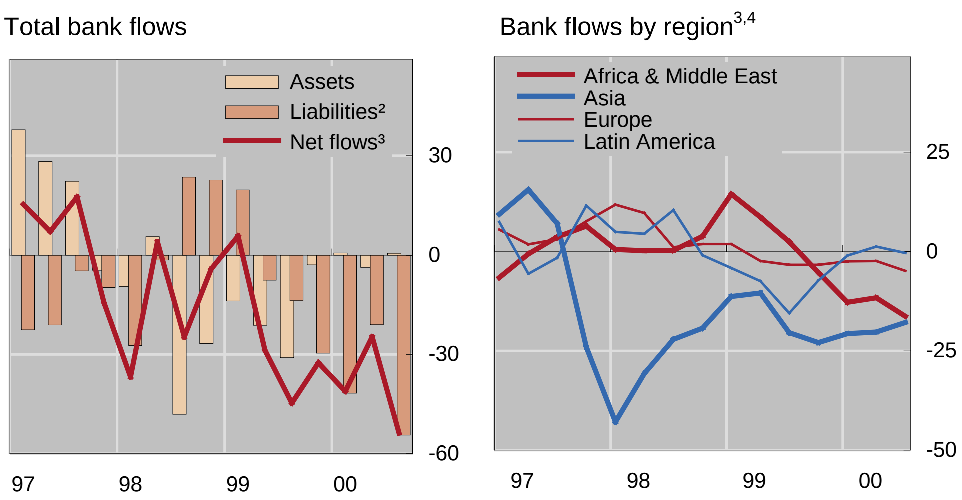
II. Highlights of international financing

1. The international banking market

The third quarter of 2000 saw a large flow of funds from oil-exporting countries and other developing countries to commercial banks in the reporting area. Indeed, net flows to reporting banks from developing countries as a group exceeded quarterly outflows during the financial crises of 1997-99 (Graph II.1.1). In contrast to the earlier period, however, outflows in the third quarter arose from a surge in deposits rather than a reduction in claims. Cross-border claims on developing countries remained broadly unchanged, with further repayments from Asia offsetting modest amounts of credit extended to Argentina, Brazil, Turkey and a few other developing countries.

According to the latest locational banking statistics, the surge in deposits from developing countries accompanied a substantial increase in overall activity in the international banking market. Interbank loans expanded by $68 billion as funds were rechannelled through various banking centres to

Banks' external positions vis-à-vis developing countries[1]
In billions of US dollars



[1] Exchange rate adjusted changes in amounts outstanding. [2] A negative (positive) value indicates an increase (decrease) in liabilities. [3] Changes in assets minus changes in liabilities. [4] Two-quarter moving average.
Graph II.1.1

borrowers in developed countries. Cross-border loans to non-bank borrowers in developed countries rose by $15 billion, boosted by drawdowns of syndicated credits arranged for European telecommunications companies. Banks, especially Japanese banks, continued to purchase substantial amounts of debt securities and other assets issued by US and European residents.

Deposits by developing countries surge

Record deposits from developing countries ...

Flows between banks and their customers can reflect changes on either side of the balance sheet: changes in assets, such as new loans and securities purchases, or changes in liabilities, such as increases in deposits. Changes on the assets side of banks' balance sheets had accounted for most of the net outflows from developing countries to banks in the reporting area between 1997 and 1999, ie loan repayments had exceeded new credit by a large margin (Graph II.1.1). In recent quarters, banks' assets vis-à-vis developing countries have more or less stabilised. Nevertheless, owing to changes in liabilities, in particular a sharp rise in deposits by oil-exporting countries, substantial amounts of money continued to flow from developing countries to commercial banks abroad.

... boost net outflows to international banks

Deposit flows from developing countries to banks in the reporting area have picked up steadily since mid-1999, and reached a record $54 billion in the third quarter of 2000 (Table II.1.1). This surge in deposits, coupled with negligible changes in banks' claims on developing countries, boosted net outflows from developing countries to banks in the reporting area to $120 billion during the first three quarters of 2000, equivalent to 2% of developing countries' GDP. By comparison, net outflows from developing countries to banks abroad had totalled $61 billion in 1998 as a whole, and $100 billion in 1999.

The largest deposits are made by oil-exporting countries ...

Members of the Organization of the Petroleum Exporting Countries (OPEC) accounted for one third of the deposit flows from developing countries in the third quarter. Saudi Arabia alone deposited more than $7 billion, after reducing its deposits with international banks in the first half of 2000. Iran, Kuwait, Libya and Venezuela continued to place substantial sums with reporting banks.

... and by Taiwan and mainland China

Among developing countries outside OPEC, the largest deposits were from Taiwan and mainland China, of $6.4 billion and $5.1 billion respectively. For Taiwan, this represented a record increase in deposits with reporting banks. In both Taiwan and mainland China, foreign currency deposits in the local banking system have been growing rapidly in recent quarters, owing in part to a negative interest rate differential between local currency deposits and

Banks' external positions vis-à-vis developing countries[1]

In billions of US dollars

	1998	1999			2000			Stocks at end-Sep 2000
	Year	Year	Q3	Q4	Q1	Q2	Q3	
Total claims	–78.7	–68.9	–31.0	–2.9	0.6	–3.7	0.5	898.9
Africa & Middle East	21.8	0.1	2.2	5.3	–6.3	–1.0	–0.6	148.6
Saudi Arabia	6.4	2.0	2.0	0.9	–1.2	–0.1	0.1	24.7
Asia & Pacific	–96.3	–61.8	–24.4	–17.6	2.8	–7.3	–5.8	299.7
China	–10.1	–17.1	–7.3	–5.7	0.1	–3.4	–1.7	60.4
Taiwan	–0.5	–3.3	–0.6	0.7	1.3	–0.1	–0.8	20.0
Europe	3.8	8.9	2.0	4.8	–0.6	2.6	1.4	158.9
Russia	–6.1	–6.5	–1.7	–1.4	–1.4	–1.4	–3.2	35.3
Turkey	2.8	5.8	1.4	1.3	2.7	2.6	2.5	45.0
Latin America	–8.0	–16.1	–10.9	4.5	4.7	1.9	5.5	291.7
Argentina	0.6	0.7	–2.0	1.1	–1.3	–0.1	2.1	48.3
Brazil	–10.2	–8.9	–3.3	3.9	1.4	0.1	3.1	90.7
Total liabilities[2]	–17.3	31.3	13.8	29.6	41.7	21.0	54.4	1,014.7
Africa & Middle East	13.6	–6.9	0.8	17.2	7.3	8.7	22.4	302.1
Saudi Arabia	13.3	–17.9	1.2	1.2	–0.4	–0.9	7.2	54.6
Asia & Pacific	3.6	4.8	3.8	0.0	26.5	9.5	13.0	341.9
China	5.4	–4.0	5.6	–0.2	12.0	10.4	5.1	94.1
Taiwan	1.1	7.5	3.5	2.8	–0.1	0.6	6.4	51.9
Europe	–19.3	20.1	6.1	7.4	1.8	4.9	8.7	115.5
Russia	–2.3	3.7	0.9	0.9	2.4	3.4	3.2	24.9
Turkey	–7.2	3.3	0.4	1.9	0.0	–0.6	0.3	17.8
Latin America	–15.2	13.3	3.2	5.1	6.2	–2.1	10.2	255.2
Argentina	1.2	0.0	–2.0	3.7	0.4	0.1	3.4	41.4
Brazil	–8.4	2.2	3.4	–2.0	1.2	–8.9	3.1	48.5
Net flows[3]	–61.4	–100.2	–44.8	–32.5	–41.1	–24.7	–53.9	–115.8
Memorandum item:								
OPEC members' deposits	*19.5*	*–19.9*	*–0.2*	*14.1*	*1.9*	*9.5*	*18.0*	*222.3*

[1] Exchange rate adjusted changes in amounts outstanding. [2] Mainly deposits. Other liabilities account for less than 1% of the total liabilities outstanding. [3] Total assets (claims) minus total liabilities. Table II.1.1

foreign currency deposits.[2] At the same time, foreign currency lending to residents by local banks has been weak, leaving local banks with surplus foreign exchange. This surplus appears to have been placed with commercial banks abroad.

[2] For a discussion of the growth of foreign currency deposits in the Chinese banking system, see the special feature by R N McCauley and Y K Mo, "Foreign currency deposits of firms and individuals with banks in China", in the August 2000 issue of the *BIS Quarterly Review*.

Claims on developing countries remain broadly unchanged

In contrast to the 1970s, when petrodollars deposited with international banks had supported an increase in cross-border lending to developing countries, recent deposit flows were not recycled back into developing countries. Banks' claims on developing countries have remained approximately unchanged since the final quarter of 1999. Claims increased by a very modest $0.5 billion in the third quarter of 2000 – only the second quarterly increase in assets since mid-1998 (Table II.1.1). Banks continued to increase their exposure to a few countries in Europe and Latin America. But these increases were largely offset by further repayments from developing countries in Asia.

Deposit flows are not recycled back into developing countries

According to the locational banking statistics, three countries received the bulk of new credit extended by banks in the reporting area to emerging market countries in the third quarter: Brazil $3.1 billion, Turkey $2.5 billion and Argentina $2.1 billion. In the first three quarters of 2000, cross-border claims on Turkey rose by substantially more than claims on any other developing country. A little less than half of the funds went to banks in Turkey and the remainder was split more or less evenly between corporations and the public

Claims on Turkey continue to increase

Main features of cross-border claims of BIS reporting banks[1]

In billions of US dollars

	1998	1999			2000			Stocks at end-Sep 2000
	Year	Year	Q3	Q4	Q1	Q2	Q3	
Claims on developed countries	564.9	458.6	191.4	95.7	481.1	112.4	147.4	7,842.5
of which: intra-euro 11	*296.7*	*252.1*	*84.7*	*– 1.3*	*107.2*	*–13.5*	*26.1*	*1,474.5*
Interbank loans[2]	286.1	29.6	125.1	– 1.1	334.1	8.0	55.6	4,628.7
Loans to non-banks	21.4	114.8	2.5	25.4	40.9	–13.1	15.4	1,349.7
Securities[3]	257.4	314.1	63.7	71.4	106.1	117.6	76.4	1,864.1
Claims on offshore centres	–172.5	–102.3	–26.0	35.1	–51.3	5.9	29.4	1,180.1
Interbank loans[2]	–166.9	–139.7	–47.0	36.9	–64.0	–17.1	14.2	790.9
Loans to non-banks	– 26.7	9.3	12.9	– 9.5	– 0.9	12.6	– 1.6	234.4
Securities[3]	21.1	28.2	8.1	7.8	13.6	10.4	16.8	154.8
Claims on developing countries	– 78.7	– 68.9	–31.0	– 2.9	0.6	– 3.7	0.5	898.9
Interbank loans[2]	– 63.4	– 58.6	–22.4	– 4.6	5.9	– 9.8	– 7.1	347.7
Loans to non-banks	– 8.9	– 16.8	– 8.6	– 2.1	–16.2	– 0.2	0.0	404.3
Securities[3]	– 6.4	6.5	0.0	3.7	11.0	6.3	7.6	146.9
Unallocated	– 33.5	– 23.9	– 4.3	–12.0	11.3	– 2.2	6.2	203.3
Total	280.1	263.5	130.1	116.0	441.7	112.4	183.6	10,124.8
Interbank loans[2]	32.1	–218.0	42.6	2.0	281.5	–24.0	67.6	5,838.0
Loans to non-banks	– 26.8	104.0	9.5	22.3	25.9	– 1.4	8.4	2,017.5
Securities[3]	274.8	377.5	78.0	91.6	134.3	137.7	107.5	2,269.4
Memorandum item: Syndicated credits[4]	*905.3*	*1,025.9*	*265.4*	*286.2*	*267.5*	*372.3*	*426.6*	

[1] Exchange rate adjusted changes in amounts outstanding. [2] Including inter-office transactions. [3] Partly estimated. The data include other assets, which account for less than 5% of the total claims outstanding. [4] Signed new facilities.

Table II.1.2

sector. More recent data on syndicated credits suggest that reporting banks' claims on Turkey continued to increase in the fourth quarter of 2000 despite heightened concern about the stability of the Turkish financial system (see page 20).

Lending to Argentina and Brazil picks up

Diverging from the overall trend in bank claims on developing countries, the rise in claims on Brazil and Argentina in the third quarter took the form of bank lending rather than securities purchases. In particular, banks in the United States transferred substantial sums to their subsidiaries in Brazil and moreover lent near record amounts to non-banks in Argentina. Argentine corporations faced an unusually heavy schedule of international bond repayments in the fourth quarter of 2000, and some may have lined up funding from international banks to help them meet these payments.

Debt restructuring reduces claims on Russia

Russia experienced the largest contraction in claims among emerging market countries in the third quarter, over –\$3 billion. Most of this was related to the finalisation of a debt restructuring agreement between Russia and its commercial bank creditors rather than a cutback in credit; cross-border lending to Russia fell as German and other banks wrote down their Soviet-era loans, while securities holdings increased as loans were exchanged for international bonds.

Deposits and inter-office transactions boost interbank activity

The majority of new deposits are placed with banks in Europe

The process of recycling the large deposit flows from developing countries contributed to a \$68 billion expansion of interbank loans in the third quarter (Table II.1.2). Banks in the United Kingdom received approximately one third of the deposit flows from developing countries, and banks in the euro area another quarter. The remainder was split between banks in the United States and offshore centres. These funds were then rechannelled to borrowers in the developed countries as well as branches in offshore centres.

Inter-office transactions boost interbank loans

Interbank activity in the third quarter was also boosted by Swiss and US banks' transactions with their offices abroad. Swiss banks channelled substantial amounts into their subsidiaries in the United States, which then onlent the funds to US corporations. According to the consolidated banking statistics, Swiss banks' exposure to non-bank private sector borrowers in the United States increased by \$10 billion in the third quarter, accounting for half of the total increase in reporting banks' exposure to US borrowers.

Lending to European non-banks rebounds

Banks lend to non-bank borrowers in Europe ...

Direct loans to non-bank borrowers in the developed countries increased by \$15 billion in the third quarter after contracting in the second (Table II.1.2). Cross-border loans to non-banks in the United States, which had been among the largest non-bank borrowers in the second quarter, fell by \$11 billion.

Syndicated credits in the fourth quarter of 2000

Blaise Gadanecz

Activity in the international syndicated credit market remained strong in the fourth quarter of 2000, with $394 billion worth of new facilities signed. On a seasonally adjusted basis, however, announcements declined quarter-over-quarter for the first time in two years. For 2000 as a whole, activity reached record levels: $1.5 trillion worth of facilities were announced, up by 42% from 1999.

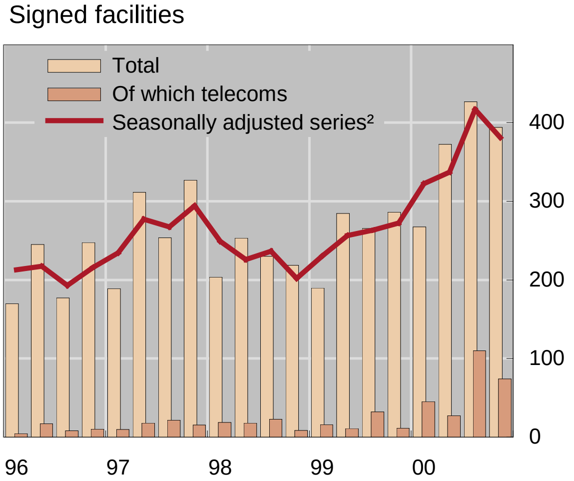
Telecommunications firms tapped the international syndicated loan market for $74 billion in the fourth quarter. In contrast to a third quarter dominated by European firms, North American companies were the most active telecoms in the fourth. The largest syndicated loan announced in the fourth quarter was a $25 billion facility arranged for AT&T, as backing for its commercial paper programme. Syndicated credits arranged for telecoms firms totalled $256 billion in the whole of 2000, a more than threefold increase over 1999. Syndicated lending to telecoms companies in the first quarter of 2000 had been followed in the second by a surge in bond issuance as telecoms refinanced those loans. In the second half of the year, however, securities issuance by telecoms slowed while syndicated lending reached record levels.

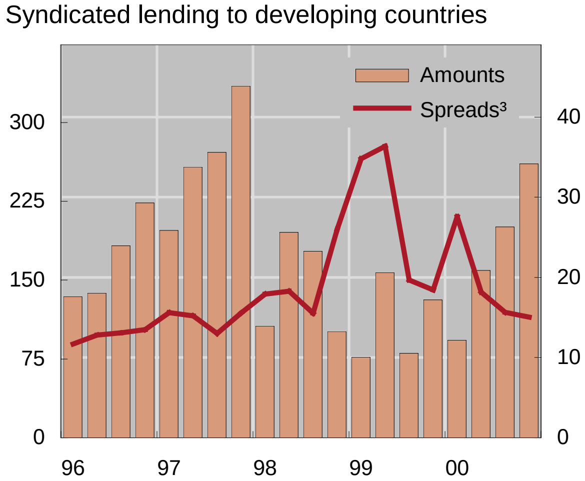
Even though the pace of mergers and acquisitions (M&As) in developed countries, especially the United States, appears to have subsided in recent quarters, substantial amounts of syndicated credits continue to be arranged to support such activities. Indeed, announcements related to M&As and buyouts increased by 22% in 2000 over the previous year, to $214 billion. The poor performance of equities during 2000 may have prompted firms to turn from stock markets to the syndicated loan market to finance M&As.

Developing countries' access to the international syndicated loan market continues to improve, especially for those countries considered better credit risks. Spreads on newly signed US dollar facilities fell to 115 basis points in the fourth quarter of 2000 from a peak of nearly 280 basis points in the early part of 1999. Facilities arranged for developing country borrowers rose to $34 billion in the fourth quarter, the most active quarter since 1997. Borrowers from Chile raised the most, $4.7 billion, followed by Turkey, with $4.4 billion. Despite the emergence of strains in Turkey's banking system, Turkish banks were still able to arrange a number of syndicated loans in the fourth quarter.

Activity in the international syndicated credit market[1]

In billions of US dollars (rhs) and basis points (lhs)





[1] The methodology used to compile the syndicated loan statistics has been modified in order to bring the coverage closer to that of the BIS international banking statistics. Please refer to the notes at the end of the statistical annex for an explanation of the changes. [2] Adjusted using the US Census Board's X11 Arima seasonal adjustment process. [3] Spreads over Libor on newly signed US dollar facilities priced over Libor. Spreads are weighted by the face value of the facility.

Sources: Capital DATA; BIS.

Lending to Japan declined by a further $13 billion, largely because of continued unwinding of loans to Japanese residents booked through Japanese banks' offices in Hong Kong and other offshore centres. By contrast, lending to non-bank borrowers in Europe turned positive, increasing by $38 billion.

... including telecoms firms

Much of this lending to Europe was related to telecoms financing. In the third quarter of 2000, large syndicated loans were arranged for telecommunications firms in several European countries.[3] According to the locational banking statistics, non-bank borrowers in these same countries – in particular France, the Netherlands, the United Kingdom and Finland – were the largest recipients of cross-border loans in the third quarter, suggesting that the syndicated credits were at least partially drawn down.

These loans are denominated mainly in euros ...

Banks resident in the United Kingdom provided half of the cross-border loans to European non-banks, the remainder coming from banks in the euro area, especially Germany. While banks in these countries were among the principal recipients of deposit flows from developing countries, these funds do not appear to have been used to support lending to non-banks in Europe in the third quarter. Most of the deposits by developing countries were denominated in US dollars, with the euro a distant second, accounting for less than 15% of deposits. By contrast, most of the cross-border loans to non-bank borrowers in the euro area in the third quarter were denominated in euros. So too was a

Currency breakdown of cross-border claims of BIS reporting banks[1]

In billions of US dollars

	1998	1999			2000			Stocks at end-Sep 2000
	Year	Year	Q3	Q4	Q1	Q2	Q3	
US dollar	121.7	28.6	23.8	96.0	113.7	68.7	79.1	4,177.4
Euro[2]	415.8	487.1	159.3	8.2	240.5	41.6	63.2	2,724.5
of which: intra-euro 11	*160.7*	*352.1*	*87.8*	*7.3*	*104.0*	*– 9.3*	*20.8*	*1,199.9*
Japanese yen	– 24.8	–198.8	–25.8	27.7	11.7	28.6	– 8.1	876.2
Pound sterling	44.0	12.8	7.6	–15.4	46.3	3.0	20.8	449.0
Swiss franc	4.5	20.1	6.2	– 0.4	28.9	–30.5	7.7	227.1
Other and unallocated	–281.1	– 88.0	–40.8	– 0.1	0.6	1.0	20.8	1,670.6
Total cross-border claims	280.1	261.8	130.1	116.0	441.7	112.4	183.6	10,124.8
Memorandum item: Foreign currency claims on residents[3]	*– 9.1*	*45.9*	*28.2*	*–26.5*	*128.2*	*29.0*	*9.0*	*1,284.6*

[1] Exchange rate adjusted changes in amounts outstanding. [2] The data include cross-border transactions in euros between residents of the euro area. For 1998, the data relate to five euro legacy currencies (BEF, DEM, FRF, ITL and NLG) and the ECU, which were reported separately. Changes for 1999 Q1 are adjusted on an estimated basis to exclude the data for six euro legacy currencies (ATS, ESP, FIM, IEP, LUF and PTE) that were previously not reported separately but included under "Other and unallocated". [3] See Table 5D in the statistical annex for a currency breakdown of foreign currency claims on residents.

Table II.1.3

[3] See the box "Syndicated credits in the third quarter of 2000" in the November 2000 issue of the *BIS Quarterly Review*.

substantial part of the lending to non-banks in the United Kingdom (with the remainder denominated mainly in sterling).

... in part reflecting round-tripping through London

Instead of coming from developing countries, the euros lent to European non-banks in the third quarter originated mostly within the euro area. Banks in the euro area had transferred large amounts of euros to their offices in the United Kingdom in the second quarter, and some of these funds appear to have been onlent to non-bank borrowers in the third quarter. This round-tripping of funds was responsible for much of the expansion of euro positions in the international banking market in the second and third quarters (Table II.1.3).

Purchases of US and European securities remain strong

Banks continued to purchase substantial amounts of debt and equity securities in the third quarter (Table II.1.2). The historical pattern of purchases reasserted itself, with European securities accounting for the largest share of purchases after being surpassed by US securities in the second quarter. Banks' cross-border investment in securities issued by European residents totalled $43 billion, compared to $31 billion invested in US securities.

Japanese banks buy US agency and corporate bonds ...

As in the second quarter, banks resident in Japan were the largest purchasers of securities in the third, investing $39 billion. Purchases of US securities accounted for two thirds of this amount. Japanese banks were especially active buyers of US agency and corporate bonds. According to the US Treasury International Capital reporting system, Japanese residents, mainly banks, invested a record $8 billion in US agency securities in the third quarter, nearly one third of their net purchases of US debt and equity securities.

... but reduce their purchases of euroyen bonds

Purchases by banks in Japan of securities issued by European residents totalled $12 billion, in line with their investment in the second quarter. A significant proportion of this amount was invested in German bunds and Pfandbriefe. Purchases by trust accounts – as opposed to banks' own accounts – of yen-denominated international bonds, including bonds issued by telecommunications firms, had contributed to a significant increase in Japanese claims on European non-banks in the second quarter.[4] However, purchases of euroyen bonds slowed markedly in the third, as indeed did issuance of such bonds. This contributed to a $8 billion contraction in cross-border yen positions after several quarters of expansion (Table II.1.3).

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[4] In the BIS international banking statistics, the positions of Japanese banks include investments by bank-administered trust accounts. Although reported as claims of Japanese banks, the positions of such trust accounts are not in fact direct exposures of Japanese banks; the risk is retained by the beneficiary of the trust account. See *Guide to the International Banking Statistics*, available on the BIS website (www.bis.org), for further discussion of the treatment of trust accounts in the BIS international banking statistics.

A new focus for the BIS consolidated banking statistics

Ingo Fender and Allen Frankel

Over the years, the Committee on the Global Financial System (CGFS) has been the oversight body for the BIS international banking statistics. A guiding presumption of the CGFS is that the statistics should be revised from time to time so as to ensure that they remain a key source of public information on international financial market developments. Good financial statistics are a necessary if not sufficient requirement to support informed decision-making by both the private and public sectors. Against this background and following up on earlier work carried out by the CGFS in the wake of the Asian financial crisis, the Committee established, in the autumn of 1999, a working group with the task of examining the desirability of modifying the current BIS international banking statistics. The Committee was particularly interested in extending the statistics so as to capture derivatives exposures, which have expanded rapidly in recent years and are now thought to constitute a significant proportion of banks' total cross-border exposures.

This working group on the BIS international banking statistics, chaired by Satoshi Kawazoe of the Bank of Japan, has recently released the results of its deliberations in a report.[①] The group concluded that, where feasible, consolidated banking data should cover all relevant aspects of financial institutions' exposures – including guarantees by third parties, undrawn contingent credit facilities and off-balance sheet financial contracting. In addition, the group proposed that the focus of the consolidated statistics should be changed so as to adopt detailed reporting of data collected on an ultimate risk basis, ie net of guarantees by third parties, with a view to developing a statistical system consistent with commercial banks' own risk management practices. At the same time, because such information is crucial to enable cross-checks on country-level compilations of external debt statistics, the working group underlined the continuing importance of banking information on the basis of residence of the immediate borrower. Based on these considerations, the working group recommended the following actions:

- (i) the BIS consolidated banking statistics should be restructured to present data on an ultimate risk basis, while the BIS should also continue to compile and publish key statistics on an immediate borrower basis;
- (ii) the target date for the new data series should be set at year-end 2004; and
- (iii) the BIS should revise its presentation of the commitment data to emphasise their interpretation as a measure of a contingent source of borrower funding and hence credit risk.

The Kawazoe Report also called for an expert group of central bank statisticians to deal with the practical issues of the report's recommendations. The inaugural meeting of this group was held at the BIS in October 2000. At this meeting, group members had a preliminary exchange of views on a plan detailing the data to be collected and focusing on the detail of disaggregation to be provided.

It is worth noting that the suggestions of the working group are in full agreement with the recommendations of other international bodies, such as those of the Banking Supervision Committee of the European System of Central Banks and those issued by the Financial Stability Forum. The recommendations are thus a welcome step towards the development of consolidated banking statistics as a consistent source of aggregate information compatible with banks' own internal risk measurement procedures. In this sense it is hoped that the improvements to the statistics will support the efforts being undertaken by a wide range of national and international bodies to heighten transparency in support of international financial stability, while maintaining the status of the BIS international banking statistics as a key data source for participants in international financial markets.

[①] See Report of the Working Group on the BIS International Banking Statistics (Kawazoe Report), Committee on the Global Financial System, Basel, September 2000 (available at www.bis.org).

Possible presentation of ultimate risk data as suggested by the Kawazoe Report (compared to current presentation of contractual data)

A. *Current presentation of immediate borrower data (as of November 2000)*	B. *Possible presentation of ultimate risk data (from end-2004)*
Consolidated cross-border claims of BIS reporting banks	*Consolidated international exposures of BIS reporting banks*[1]
Cross-border contractual claims reported on an immediate borrower basis.	International claims reported on an ultimate risk basis. By sector.
A1. Maturity breakdown ➢ - 1 yr, 1 - 2 yrs, 2 yrs+, unallocated	*B1. Banks* ➢ maturity breakdown
A2. Sectoral breakdown ➢ banks, public sector, non-bank private sector, unallocated	*B2. Non-bank private sector* ➢ maturity breakdown
A3. Total	*B3. Public sector* ➢ maturity breakdown
	B4. Market value of OTC derivatives (reported on an ultimate risk basis)
A4. Undisbursed credit commitments and backup facilities	*B5. Baseline measure of reporting banks' exposures* (sum of lines B1, B2, B3 and B4)
A5. Local currency positions of reporting banks' foreign affiliates with local residents ➢ claims and liabilities	*B6. Contingent facilities* (possible sectoral breakdown)
A6. Banks' net risk exposure[2] (memorandum item, ultimate risk basis)	*B7. Baseline measure of reporting banks' exposures to exceptional circumstances* (sum of lines B5 and B6)

[1] Item B5 is broadly equivalent to item A6 in the present statistics, with the addition of banks' derivatives exposures (as indicated by position B4). Item B6 aims to collect more consistent data than the current line A4, while position B7 is meant to reflect the importance of contingent claims. [2] Item A6 in the present statistics is derived from the contractual total, position A3, by subtracting net guarantees by third parties.

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2. The international debt securities market

As credit spreads continued to widen in the fourth quarter of 2000, patterns of fund-raising in the international debt securities market adjusted to the difficult borrowing conditions. Aggregate net issuance in the market reached $328 billion (Table II.2.1), an increase of 21% from the previous quarter. This increase, however, was concentrated in the money market segment, as issuance of long-term fixed rate instruments declined significantly. Moreover, investors showed a preference for higher-rated borrowers. Net issuance by developing countries also fell. That issuing activity in the long-term market did

Main features of net issuance in international debt securities markets

In billions of US dollars

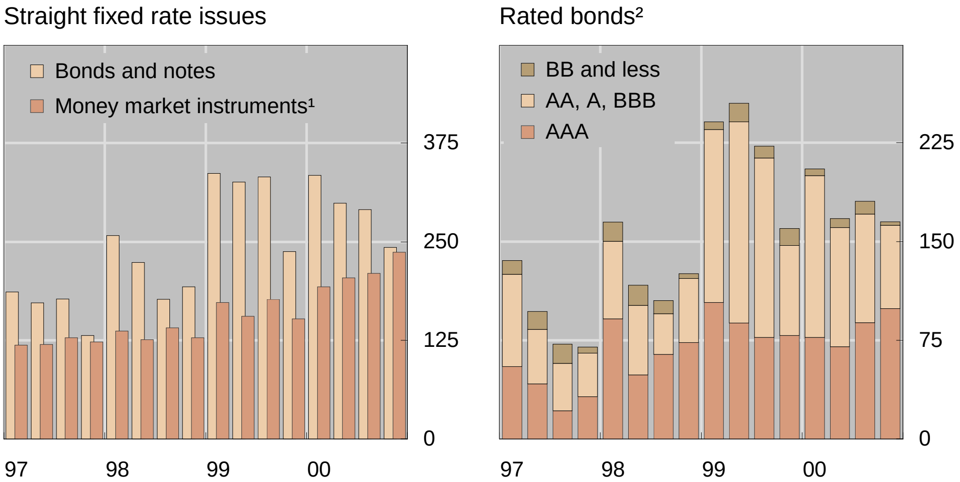
	1999	2000	1999	2000				Stocks at end-Dec 2000
	Year	Year	Q4	Q1	Q2	Q3	Q4	
Total net issues	1,215.1	1,138.2	205.5	260.5	280.3	269.8	327.7	6,277.8
Money market instruments[1]	66.4	122.0	17.3	1.2	24.4	14.9	81.6	370.1
Bonds and notes[1]	1,148.8	1,016.2	188.3	259.3	255.9	254.9	246.1	5,907.7
Floating rate issues	*333.1*	*333.2*	*72.0*	*78.1*	*91.5*	*78.0*	*85.6*	*1,521.0*
Straight fixed rate issues	*784.5*	*674.5*	*110.4*	*180.6*	*163.0*	*176.4*	*154.6*	*4,151.7*
Equity-related issues	*31.1*	*8.4*	*5.9*	*0.7*	*1.4*	*0.5*	*5.9*	*235.0*
Developed countries	1,136.5	1,065.6	191.6	232.6	267.5	252.8	312.6	5,363.8
Euro area	*490.6*	*535.0*	*93.4*	*115.3*	*139.1*	*121.8*	*158.9*	*2,181.7*
Japan	*2.7*	*– 34.6*	*– 6.7*	*–13.2*	*– 2.7*	*–11.7*	*– 6.9*	*281.6*
United States	*481.8*	*407.5*	*82.1*	*86.3*	*92.2*	*124.5*	*104.5*	*1,703.6*
Offshore centres	13.0	16.1	3.0	1.6	3.2	6.7	4.6	77.1
Developing countries	41.0	34.1	12.2	22.2	3.1	8.0	0.8	454.8
International institutions	24.6	22.4	– 1.3	4.1	6.4	2.2	9.7	382.0
Private sector	996.5	894.2	173.0	194.8	238.2	202.1	259.1	4,652.9
Financial institutions[2]	*645.0*	*622.3*	*114.9*	*159.2*	*159.6*	*116.2*	*187.3*	*3,079.4*
Corporate issuers	*351.6*	*271.9*	*58.1*	*35.6*	*78.6*	*86.0*	*71.8*	*1,573.5*
Public sector[3]	194.0	221.6	33.8	61.6	35.7	65.4	58.9	1,242.9
Central government	*36.0*	*26.4*	*10.7*	*14.5*	*10.1*	*2.6*	*– 0.9*	*469.0*
State agencies and other	*158.0*	*195.2*	*23.1*	*47.1*	*25.5*	*62.7*	*59.8*	*773.9*

[1] Excluding notes issued by non-residents in the domestic market. [2] Commercial banks and other financial institutions. [3] Excluding international institutions.

Sources: Bank of England; Capital DATA; Euroclear; ISMA; Thomson Financial Securities Data; BIS. Table II.2.1

Announced issuance by maturity and credit rating

International issuance, in billions of US dollars



[1] Excludes issues redeemed in the same quarter. [2] Includes bonds issued under EMTN documentation.

Sources: Bank of England; Capital DATA; Euroclear; ISMA; Thomson Financial Securities Data; BIS.

Graph II.2.1

not weaken more was due to the fact that highly rated European banks and US agencies maintained a strong presence in the primary market. Also, there was apparently some front-loading of issuance by large borrowers who thought credit conditions might worsen further. The comparative strength of fourth quarter activity took total net issuance last year to $1,138 billion, only slightly less than in 1999. Gross announced issuance in the international bond and note markets for 2000 as a whole, at $1,778 billion, actually exceeded the previous year's total (Table II.2.2), but heavier repayments in 2000 kept the net figure lower.

Wide credit spreads send borrowers to the short-term market

A decline in long-term issuance is more than offset by money market borrowing

Wide credit spreads on long-term debt drove borrowing activity towards the short end of the maturity spectrum, where spreads did not widen as much. Net issuance of straight fixed rate bonds and notes declined from $176 billion during the third quarter of 2000 to $155 billion during the final quarter, the weakest of the year. The decline in long-term issuance in the fourth quarter was more than offset by a surge in net issuance in the money market to $82 billion, more than five times as much as during the previous quarter. This rise resulted from an increase in gross issuance to $237 billion (left-hand panel of Graph II.2.1) and reduced repayments, suggesting that some issuers have been rolling over short-term obligations rather than refinancing them with long-term debt. The shift to short-term financing observed in the final quarter determined the year-on-year pattern: net issuance of money market instruments almost doubled during 2000 from 1999, while that of long-term straight fixed rate debt declined markedly.

The rise in money market fund-raising corresponds to a resurgence in bank intermediation. Commercial banks remained the largest issuers in the money market, accounting for 55% of gross issuance in the money market in the fourth quarter. These funds are likely to have supported the extension of bank loans to other borrowers. Nonetheless, some firms turned directly to the money market, and particularly the eurocommercial paper market, where gross corporate issuance rose from $49 billion in the third quarter to $57 billion in the fourth. Two of the largest issuers, GE Capital and GMAC International Finance, relied on euro-denominated paper, allowing them to avoid difficulties in the US dollar commercial paper market in December.

The slowdown in long-term issuance was most apparent for lower-rated borrowers. Among rated issues, gross issuance in the non-triple-A investment grade class fell from $82 billion during the third quarter to $64 billion in the final quarter (right-hand panel of Graph II.2.1). There was an even sharper contraction in announcements in the speculative grade category, which fell during the fourth quarter to a mere 27% of the previous quarter's amount. At the same time, gross issuance by triple-A companies rose from $89 billion to $99 billion. The slowdown would have been more pronounced had some borrowers not advanced their plans to the fourth quarter for fear of still worse conditions in early 2001. Citigroup, for example, floated two-year, five-year and 10-year fixed rate debt amounting to over $4 billion in December, reportedly to avoid the risk of wider spreads later.

Gross issuance by triple-A companies rises ...

US agencies remain active while telecoms shy away

The strength of issuance in the top rating category during the fourth quarter of 2000 was accounted for largely by the activity of state agencies. These borrowers raised a net $60 billion, nearly as much as the record third quarter amount. Gross issuance by the US housing agencies alone was $48 billion, with Fannie Mae placing $25 billion of bonds and notes and Freddie Mac $23 billion.[5] The latter tapped the euro-denominated market by issuing a €5 billion bond maturing on 15 January 2006. Total net issuance by state agencies during 2000, at $196 billion, was 28% higher than in 1999. Highly rated European banks were also active in the market. KfW International Finance, a US subsidiary of a triple-A German development bank, launched several fixed rate issues in dollars and sterling amounting to over $10 billion.

... as US housing agencies issue heavily

Issuing activity by telecommunications firms, on the other hand, continued to slow as investors remained unreceptive and spreads wide. After peaking in the second quarter, gross issuance by telecoms during the fourth quarter of 2000 was the weakest of the year; even so, the $19 billion of announcements represents a 22% increase over the fourth quarter of 1999. More than half of

[5] US agencies have enjoyed strong demand for their issues, in part because they are perceived to be close substitutes for Treasury securities. See the box "How active are central banks in managing their US dollar reserve portfolios?" on pages 31-32.

Gross issuance in the international bond and note markets In billions of US dollars	1999	2000	1999	2000			
	Year	Year	Q4	Q1	Q2	Q3	Q4
Total announced issues	1,768.5	1,777.6	352.3	471.5	451.8	464.9	389.4
Floating rate issues	484.9	564.2	102.2	125.6	143.6	157.7	137.2
Straight fixed rate issues	1,231.5	1,166.4	237.5	333.9	298.5	291.1	242.9
Equity-related issues[1]	52.1	47.1	12.6	12.1	9.6	16.1	9.3
US dollar	775.4	752.2	132.0	198.2	183.1	210.8	160.1
Euro	676.5	607.4	139.5	170.9	147.4	145.5	143.5
Yen	118.9	201.9	36.7	48.8	75.6	49.7	27.9
Other currencies	197.7	216.2	44.2	53.7	45.6	58.9	57.9
Private sector	1,373.9	1,372.7	279.7	355.0	366.9	350.4	300.5
Financial institutions[2]	*896.8*	*932.0*	*184.7*	*262.5*	*230.8*	*228.3*	*210.4*
Corporate issuers	*477.1*	*440.7*	*95.0*	*92.4*	*136.1*	*122.1*	*90.1*
of which: telecoms	*84.3*	*113.8*	*15.7*	*24.7*	*46.7*	*23.2*	*19.2*
Public sector	316.8	335.3	57.7	96.9	64.7	100.0	73.7
Central government	*94.2*	*66.8*	*17.1*	*27.3*	*16.2*	*18.0*	*5.3*
State agencies and other	*222.6*	*268.5*	*40.6*	*69.5*	*48.6*	*81.9*	*68.5*
International institutions	77.8	69.6	14.9	19.7	20.1	14.5	15.2
Completed issues	1,773.0	1,776.7	387.1	448.9	445.4	466.5	415.9
Repayments	624.2	760.6	198.8	189.6	189.5	211.6	169.8

[1] Convertible bonds and bonds with equity warrants. [2] Commercial banks and other financial institutions.

Sources: Bank of England; Capital DATA; Euroclear; ISMA; Thomson Financial Securities Data; BIS. Table II.2.2

the gross issuance in the fourth quarter of 2000 was due to the floating of $10 billion of bonds by British Telecom. The figure also includes $4.6 billion of issuance by France Telecom to refinance short-term debt in Europe. Gross issuance by telecoms for the whole of 2000, at $114 billion, was 35% higher than the 1999 amount and represented some 6% of the total gross issuance for the year.

Issuers continue to favour the US dollar

Euro-denominated issuance rebounds

Continuing the trend documented in earlier issues of the *BIS Quarterly Review*, issuers tended to favour the US dollar over the euro as the currency of denomination, although by a narrower margin than before. Net dollar issuance during the fourth quarter was $153 billion, a slight increase from the previous quarter's amount (Table II.2.3). At the same time, there was a significant rebound of euro-denominated issuance from $86 billion in the third quarter to $128 billion in the fourth, coinciding with the strengthening of the currency. This surge was due in part to the fact that European borrowers accounted for the lion's share of fund-raising in the fourth quarter and issued largely in their home currency.

For 2000 as a whole, net issuance in the US dollar, at $543 billion, was essentially unchanged from the previous year. Net issuance in the euro, on the other hand, declined from $571 billion in 1999 to $441 billion in 2000. The strength of the dollar over the course of the year, particularly vis-à-vis the euro, was a contributing factor as issuers reverted to their usual pattern of issuing in the strong currency. They had deviated from this behaviour in 1999 by relying more heavily on the euro than the dollar, perhaps out of a desire to establish a market presence in the new currency.

Emerging market borrowers cut back

Net issuance falls to less than $1 billion

As discussed in the Overview section, while indices of emerging market debt indicated an overall rise in sovereign spreads in the fourth quarter, spreads for individual countries diverged significantly. This suggests that investors have been careful to distinguish between various emerging markets in their judgments regarding creditworthiness. In these conditions, net issuance of international debt securities by developing countries fell from $8 billion in the third quarter of 2000 to less than $1 billion in the fourth quarter (Table II.2.1). A few countries came to the market despite facing wide borrowing spreads, while others stayed away even though they might have benefited from favourable borrowing conditions. Net issuance for the year as a whole declined to $34 billion, 17% less than in 1999, with the first quarter accounting for the bulk of the funds raised in 2000.

For countries facing relatively wide spreads, one way to reduce borrowing costs was to seek funds in a currency for which interest rates were low. Two

Net issuance of international debt securities by currency and region[1]

In billions of US dollars

		1999	2000	1999	2000			
		Year	Year	Q4	Q1	Q2	Q3	Q4
Europe	US dollar	54.9	176.6	0.5	33.1	35.9	40.3	67.2
	Euro	488.5	378.5	98.9	100.7	98.7	68.9	110.2
	Yen	6.2	43.6	2.5	3.7	31.1	7.6	1.2
	Other currencies	77.7	87.5	12.0	19.5	14.6	22.0	31.3
North America	US dollar	435.5	320.5	72.9	67.9	71.4	102.6	78.7
	Euro	45.6	47.7	7.4	8.9	8.7	15.0	15.0
	Yen	– 1.3	16.0	0.3	5.2	4.6	2.5	3.8
	Other currencies	15.1	14.6	2.5	2.3	0.8	3.4	8.0
Others	US dollar	54.5	45.7	2.0	21.8	11.1	5.6	7.2
	Euro	36.9	14.8	9.3	5.2	4.8	1.6	3.3
	Yen	–12.1	–21.0	– 4.3	–10.5	– 3.8	– 3.4	– 3.3
	Other currencies	13.5	13.7	1.4	2.6	2.5	3.5	5.1
Total	US dollar	545.0	542.7	75.4	122.8	118.4	148.5	153.1
	Euro	571.0	441.0	115.7	114.8	112.1	85.5	128.5
	Yen	– 7.2	38.7	– 1.6	– 1.6	31.8	6.7	1.7
	Other currencies	106.3	115.9	15.9	24.5	17.9	29.0	44.4

[1] Based on the nationality of the borrower.

Sources: Bank of England; Capital DATA; Euroclear; ISMA; Thomson Financial Securities Data; BIS. Table II.2.3

countries in particular turned to the samurai market. The Republic of Turkey was able to issue ¥50 billion of three-year debt with a fixed coupon of 3.0%, while the Federative Republic of Brazil issued ¥60 billion for over five years with a fixed coupon of 4.75%. Unless hedged with currency swaps, these transactions will carry some currency risk to the extent that the yen appreciates against the currencies in which these countries receive their export earnings.

Brazil and Turkey turn to the samurai market

Developing countries in Asia continued to run current account surpluses and thus governments had little interest in international financing in spite of relatively attractive spreads. A notable exception among sovereign borrowers in this region was the Federation of Malaysia, which floated €650 million of five-year paper. Other large issuers in the region tended to be telecommunications firms, including China Mobile for $690 million and Telekom Malaysia Global for $300 million. While countries such as Thailand have recovered from the 1997 crisis, some of their companies are still struggling with a debt overhang and are not able to come to the capital market.

How active are central banks in managing their US dollar reserve portfolios?

Ben S C Fung and Robert N McCauley

Central banks hold almost half of the US$ 1.2 trillion US Treasury securities held by non-US residents and over a tenth of the total amount outstanding. While central banks are reducing the share of dollar reserves held in this instrument,[①] they will remain significant holders for some time. At the same time they are shifting to US agency securities.

Given the prospect of a shrinkage of outstanding US Treasury securities, how actively central banks manage their portfolios may have implications for market liquidity. A central bank that buys a US Treasury note at an auction and sells it only at maturity, thereby pursuing a strict buy and hold strategy, can have a similar impact on market liquidity to a US Treasury buyback. How active are central banks in managing their portfolios compared to other non-resident investors? Are central banks becoming more or less active over time?

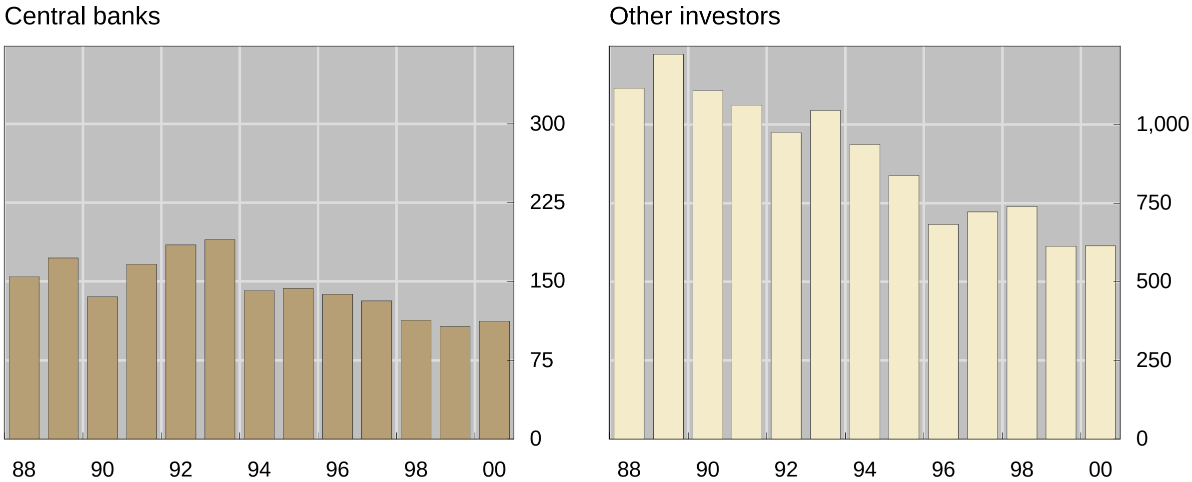
Turnover in US Treasury securities

In the aggregate, while central banks do not follow the buy and hold strategy described above, they are much less active in managing their Treasury portfolios than other foreign investors. The graph below shows non-US resident investors' annual turnover ratio, defined as the ratio of the average of gross sales and purchases to the outstanding stock, in trading their US Treasury securities between 1988 and 2000.[②] The average turnover for central banks over this period is 145% with a range from just above 100% to 190%, suggesting that central banks do not hold all their Treasury securities to maturity. This is much lower than the average turnover of 900% for other non-residents. Since hedge funds are among the non-resident investors, the growth over the decade of this class of investors has tended to boost turnover. Nevertheless, central banks have a turnover ratio of only about one sixth of that of other non-residents.

In recent years, central banks have become less active in managing their Treasury portfolios. The turnover ratio displays an inverted U-shaped pattern over the 1990s, with a peak around 1993. There appears to be a positive relationship between turnover and the trend of bond prices; for instance, 1994's decline in turnover was associated with the sell-off in the US bond market that year. Since

Turnover ratio of US Treasury securities held by investors outside the United States

In percentages

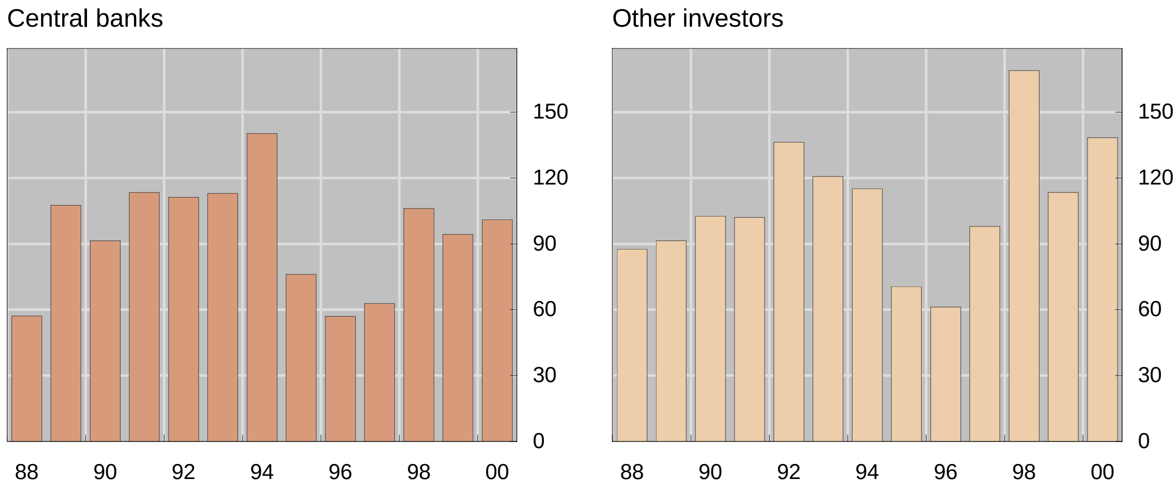


Source: US Department of the Treasury.

[①] See Fung and McCauley, "Composition of US dollar foreign exchange reserves by instrument", *BIS Quarterly Review*, November 2000, pp 59-60. [②] For 2000, data are available only for the first six months and so the turnover ratio is calculated on an annualised basis.

Turnover ratio of agency securities held by investors outside the United States

In percentages



Sources: US Department of the Treasury; US Department of Commerce; authors' calculations.

peaking in 1993, turnover of central banks' Treasury portfolios has dropped by almost half to slightly above 100% in the last few years.

Currently, other foreign investors are divesting themselves of Treasury securities faster than central banks. This change in the mix of non-resident holders towards the less active central banks accentuates the decline in turnover. Taken together, these factors may further reduce market liquidity in an environment of a declining supply of US Treasuries.

Turnover in US agency securities

Central banks are slightly less active in managing their agency securities than other non-residents. The graph above shows the turnover ratio for US agency securities held by all non-resident investors. The average turnover ratio for central banks is just below 100% with a range between 50% and 140%. This is slightly lower than the average turnover of 108% for other non-residents.

In recent years, central banks have become more active in managing their agency portfolios after slowing down in the mid-1990s. Turnover increased almost threefold from 1988 to 1994. It peaked at around 140% in 1994, when the US Federal Reserve began to tighten monetary policy. In the following three years, it dropped by half to around 60%. Since 1998, turnover has increased to levels that are close to those of the early 1990s. Turnover of agency securities held by other non-residents displays a similar pattern and varies within the same range, albeit with a later and larger peak. It peaked at around 170% in 1998 after the LTCM episode. As turnover of agency securities held by central banks and other non-resident investors has been increasing in recent years, holdings of these securities are also rising steadily. Both factors may help improve the market liquidity of agency securities.

In conclusion, if the trends for the turnover of US Treasury and agency securities continue, official monetary institutions may soon become more active managers of their holdings of agency securities than of their holdings of Treasury securities. Although central banks still hold a small stock of agency securities compared to Treasury securities, they have purchased more agency securities than Treasury securities in recent years. At end-1999, US Treasury data show that central banks held $422 billion of Treasury securities and only $51 billion of agency securities.[3] While central banks purchased $20 billion of agency securities in 1999, they sold a net $10 billion of Treasury securities. Such developments might signal that central banks have been increasingly using their portfolio of US agencies to manage the duration of their overall portfolio. Heretofore this had been managed by adjusting the mix of US Treasury holdings.

[3] Central bank holdings of agency securities are likely to be higher owing to purchases of agency debt marketed through eurobond channels that are not necessarily captured in the US Treasury statistics as a sale to a central bank.

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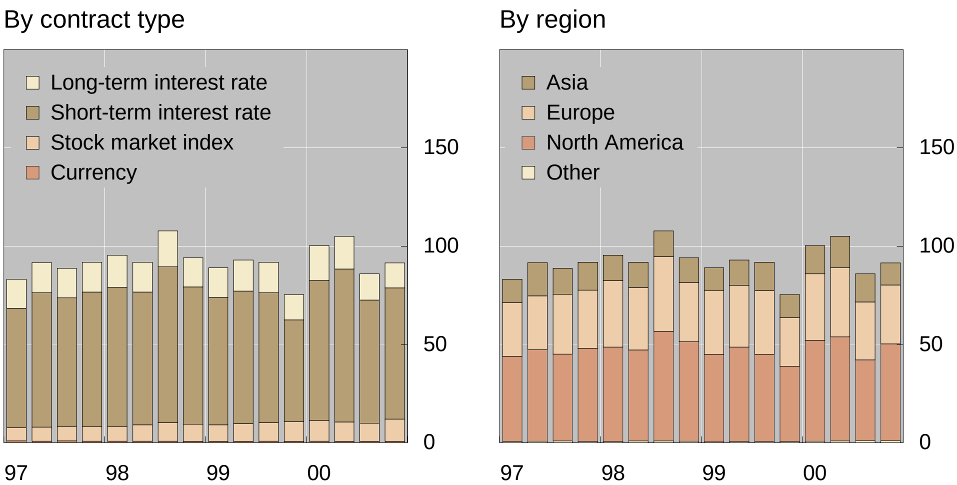
3. Derivatives markets

The dollar value of exchange-traded activity increased moderately in the fourth quarter of 2000, with equity contracts leading the expansion. In the fixed income segment, an increase in the turnover of money market contracts more than offset a decline in government bond contracts, leading to a modest increase in business. Aggregate activity in fixed income instruments seems to have remained on a plateau since the third quarter of 1998, with some benchmark contracts gaining at the expense of others. Activity for the year 2000 as a whole shows a recovery in turnover following a slowdown in 1999.

Exchange-traded activity rises moderately

Activity in exchange-traded markets expanded in the fourth quarter, with the dollar value of turnover of contracts monitored by the BIS rising by 6%, to $91.5 trillion. While this increase followed a sharp contraction in the third quarter, such a pattern of activity contrasted with that of the previous two years, when activity had tended to decline in the fourth quarter.

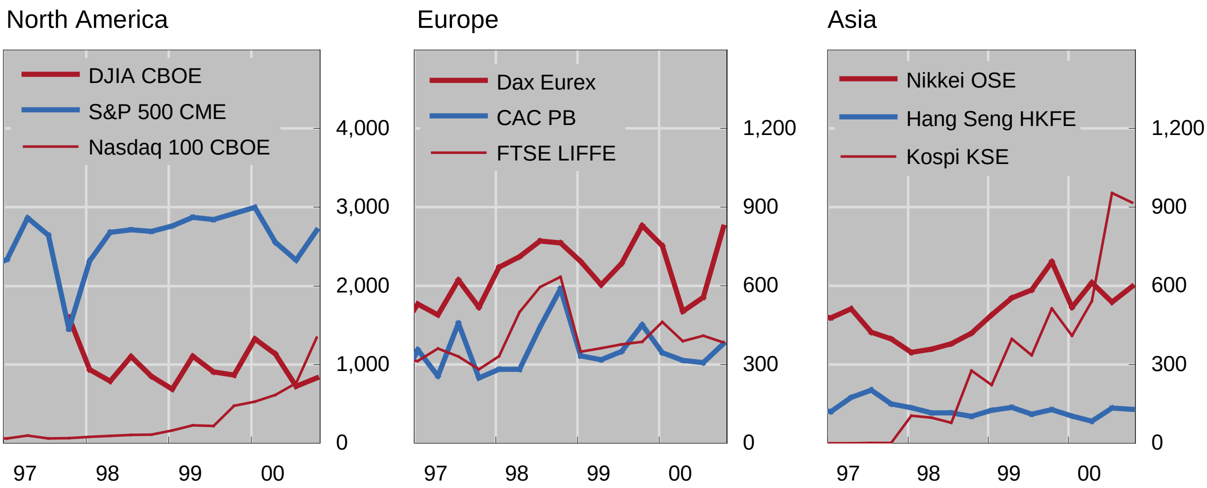
Turnover of exchange-traded futures and options
Quarterly data, in trillions of US dollars



Sources: FOW TRADEdata; Futures Industry Association; BIS calculations. Graph II.3.1

Turnover of major equity futures and options

Quarterly data, in trillions of US dollars



Sources: FOW TRADEdata; Futures Industry Association. Graph II.3.2

Equity index contracts lead growth

Developments in global equity markets appear to have been a major factor in the quarter's upswing. Indeed, much of the overall increase in the dollar value of turnover was accounted for by equity index contracts (up by 22%, to $11.4 trillion), as sharp rises in North American and European turnover more than offset declines in other geographical areas. Renewed downward pressures in global equity markets lifted actual and implied volatilities, apparently prompting investors to hedge their positions (see the Overview section for a more detailed analysis).[6] Such pressures were related to market participants' concerns about an economic slowdown in the United States and evidence of less favourable earnings and growth prospects for technology firms. Within the equity-related market, trading in technology stock indices was particularly buoyant. For example, the value of turnover on the CBOE's Nasdaq 100 contract (which tracks technology stocks) expanded by 77% in the fourth quarter. In addition, business grew briskly on some recently established derivatives marketplaces such as the Korea Stock Exchange.

Weak equity markets prompt investors to hedge

Money market contracts show strength

Meanwhile, there was a less pronounced increase in the turnover of fixed income instruments (by 4%, to $79.4 trillion), with a fairly substantial expansion in North America counterbalancing declines in Europe and Asia. A reduction in

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6 Overall activity in equity-related instruments could well have been higher than reported in the BIS aggregate statistics because trading in options on single equities is not included in the aggregates. Such activity represents a growing proportion of trading in equity-related instruments but the lack of data on their dollar values precludes the inclusion of these instruments in the BIS statistics.

the value of transactions on government bonds (down by 5%, to $12.7 trillion) was more than offset by stronger activity in money market contracts (up 6%, to $66.7 trillion). Here again, evidence of a US economic slowdown strengthened expectations of US monetary easing, leading to lively trading in US money market contracts (with a rise of 20%). Trading in money market instruments is also likely to have been supported by the continued expansion of the interest rate swap market, since eurodollar futures and options, the most actively used short-term contracts, are commonly used in the hedging of interest rate swaps and swaptions.

Expectations of US monetary easing lead to lively trading in money market contracts

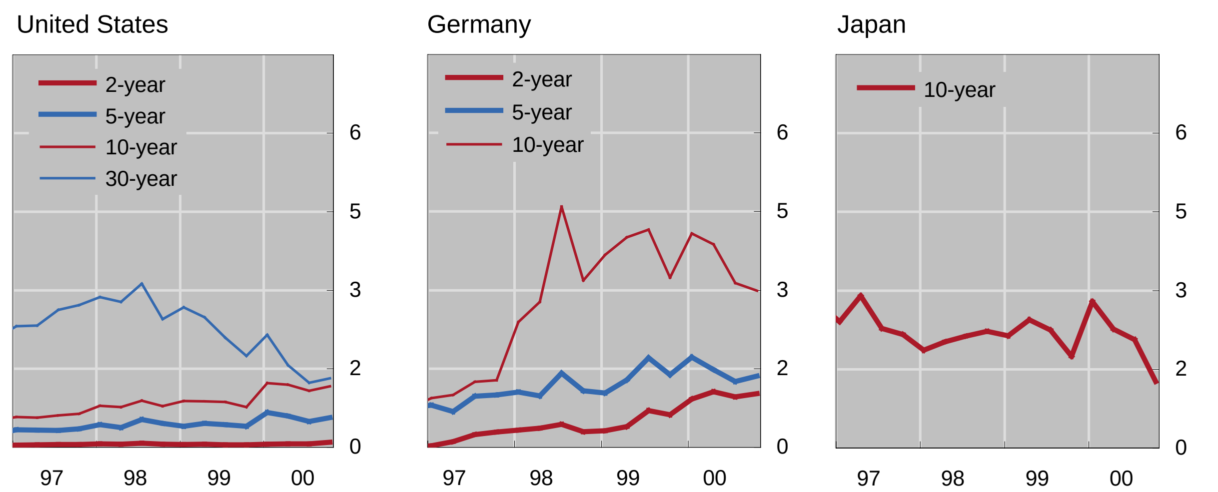
Benchmarks shift in fixed income instruments

Faced with strong competition from the OTC market, fixed income business on exchanges appears to have remained on a plateau since the record volume of activity seen in the third quarter of 1998.[7] Few of the contracts introduced by established marketplaces in recent years have met with an enthusiastic response and the gains enjoyed by some contracts have largely reflected a reallocation of business away from traditional benchmarks. This has been particularly true of the US market, where net repayments of government debt combined with a shift of issuance to intermediate maturities have affected the liquidity of the Treasury bond contract, leading to its near displacement by the 10-year Treasury note contract (see the special feature "Benchmark tipping in the money and bond markets" on pages 39-45 for a more detailed discussion of changing benchmarks in bond and money markets).

Some contracts gain from a reallocation away from traditional benchmarks

Turnover in government bond contracts

Quarterly futures contract turnover, in trillions of US dollars



Sources: FOW TRADEdata; Futures Industry Association.

Graph II.3.3

[7] See the November 2000 issue of the *BIS Quarterly Review* for a more detailed treatment.

A reallocation of activity also took place in Europe in the late 1990s, with Eurex capturing business in the long-term segment of the euro yield curve and LIFFE achieving domination in the short-term area. The gains recorded by the two exchanges in their respective niches have reflected the broad-based acceptance of their contracts as euro zone benchmarks. Moreover, a reallocation similar to that seen in the US market seems to have been taking place on Eurex in recent periods, with growth in the short-term euroschatz contract partially offsetting a decline in the eurobund contract.

Buybacks of government debt in North America and lower net issuance in Europe, combined with growing parastatal and private sector financing, are likely to have further implications for activity in fixed income instruments. First, the growing weight of non-government issuance is likely to encourage exchanges to introduce contracts based on underlying assets such as corporate and asset-backed securities. For example, in September 2000 the US Bond Market Association formed a task force to develop proposals for a corporate bond futures contract, while the CBOT announced the forthcoming introduction of contracts on mortgage-backed securities. Second, exchanges might attempt to introduce instruments based on broader fixed income indices rather than on specific government or corporate securities. Investment banks have introduced a large number of such indices in recent years. Broad indices on US securities have existed since the 1980s, but the new indices offer global coverage.

Reduced issuance of government securities leads to innovation

In contrast, no such reallocation of business has been observed or seems likely in Asia. Activity in Japanese fixed income instruments has remained concentrated in the 10-year Japanese government bond contract, with very modest business in other government bond instruments. Activity in Japanese government bond contracts has been flat in recent years, perhaps owing to the fairly widespread view that long-term interest rates will evolve in a narrow range.

Activity in Japanese government bond contracts remains concentrated

Exchange-traded activity recovers in 2000 as a whole

For the year 2000 as a whole, the aggregate value of turnover in exchange-traded financial products monitored by the BIS recovered relative to 1999, with a 10% rise, to $383 trillion. Of this total, business in equity index contracts expanded the most rapidly (by 12%, to $41 trillion). It should be noted that data on the turnover of equity index contracts are likely to understate the overall expansion of equity-related business because the BIS value data do not capture all market activity (eg the turnover of commodity contracts and of options on single equities is not included). Meanwhile, the value of transactions in interest rate products also grew at a strong pace (by 10%, to $339 trillion). Much of this increase was accounted for by money market contracts. In contrast, activity in currency contracts continued its long-term decline, with the value of turnover falling by 8%, to $2.6 trillion. With currency risk management remaining the preserve of the over-the-counter market, such business accounts for only a marginal share of exchange-traded activity.

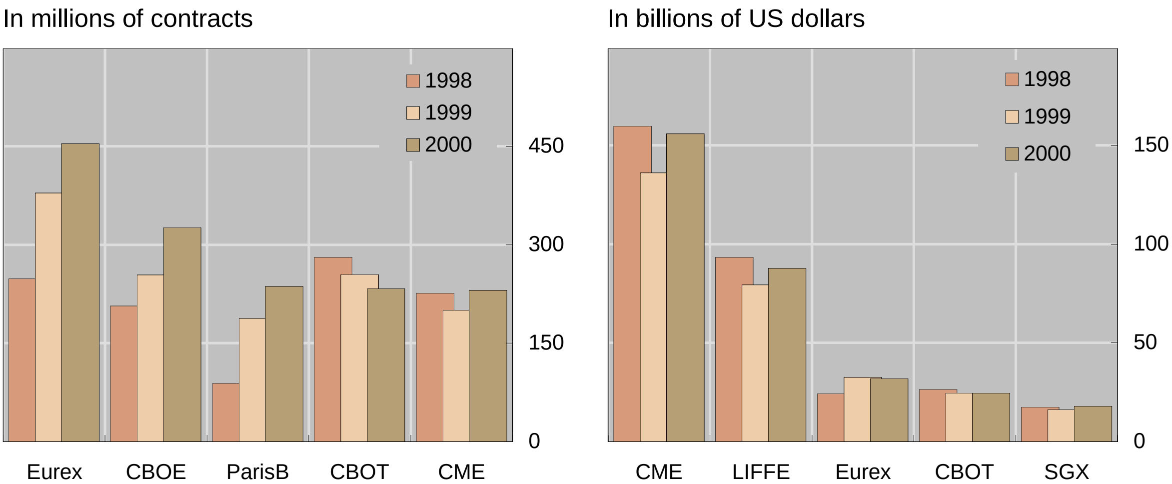
Activity on the major exchanges in 2000

Serge Jeanneau

Comparing activity between exchanges is not straightforward since business can be measured in terms of both the number of contracts traded and the dollar value of transactions. Most exchanges tend to report market activity in number of contracts traded. This is the simplest way of establishing the relative levels of activity on exchanges but it is also somewhat imprecise since the size of contracts can vary significantly within exchanges, between them and over time. In contrast to the section on derivatives markets in the main text, much of the analysis in this box follows industry practice, focusing on the number of contracts traded rather than on the dollar value of turnover. This permits a cross-market comparison with contracts for which no value calculations are readily available (principally options on single equities and commodity contracts). However, an attempt is also made to compare value-based activity between exchanges. Such a comparison reveals a very different pattern.

One of the most notable features of 2000 was the further strengthening of Eurex's position as the most active marketplace in the world, with business rising by 21%, to 445 million contracts. The exchange greatly benefited in 1999 from the introduction of the euro, which led to a concentration of liquidity in German government bond contracts. More recently, it has also capitalised on the growing weight of retail participation in European equity markets by launching new equity index contracts and a variety of new single equity options on German and other European companies. Moreover, Eurex's creation out of the merger of the Deutsche Terminbörse and SOFFEX in autumn 1998 resulted in larger aggregate activity in that marketplace. Meanwhile, the CBOE replaced the CBOT as second most active exchange in the world. Rapid growth in options on single equities helped boost the CBOE's turnover by 28%, to 326 million contracts.

Volumes on major exchanges



Sources: FOW TRADEdata; Futures Industry Association; BIS calculations.

The MATIF/ParisBourse became the third most active exchange in 2000, from fifth in 1999, with turnover rising by 26%, to 236 million units. Much of the increase in turnover seen in Paris in recent years stems from a consolidation of local marketplaces into a single entity and from a reduction in the nominal size of equity contracts. Activity on the exchange was also boosted by the recovery of its euronotionnel futures contract, partly in the wake of efforts by French banks to revive it from the weak levels of activity observed in 1998 and 1999.

The CBOT remained to be the fourth most active exchange in terms of turnover, albeit by a narrow margin, despite a second consecutive year of declining activity, with a fall of 8%, to 233 million contracts. The CBOT's Treasury bond contract, the exchange's long-standing flagship instrument, was affected by the combined impact of a reduction in net issuance of US Treasury securities and a policy shift to intermediate maturity issues. Meanwhile, the CME was the fifth most active exchange globally, with turnover rising by 15%, to 231 million contracts. The recovery of activity on that exchange was related to uncertainty over the course of US economic activity and monetary policy, which led to brisk turnover in its key eurodollar contract. The continuing growth of the interest rate swap market may well have been an additional factor supporting turnover in that contract. Turnover was also boosted by the exchange's retail-targeted equity contracts.

An analysis based on the dollar value of transactions changes the picture radically. While there is currently no such comparison of the relative volume of activity on exchanges, the BIS does compile value-based data on a subset of financial contracts, specifically interest rate, stock index and currency contracts.[①] These numbers reveal that overall turnover on exchanges active in trading money market instruments is much higher than on those specialising in government bonds or equity indices. Thus the CME and LIFFE were by far the first and second most active exchanges in the world in 2000.[②] Such a difference in relative size is explained by the fact that money market contracts tend to have larger notional values than government bond contracts or equity instruments. In common with other aspects of contract specification, the nominal value of a contract is designed by exchanges to create as large a market as possible for the instrument and reflects a judgment about market participants' hedging and risk-taking behaviour as well as the cost of transacting a given amount. Because the impact of a given change in interest rates is smaller on the price of short- than long-maturity securities, the less volatile short-term futures are generally crafted to have larger nominal amounts than futures on long-term assets.

It should be noted, however, that a move to value-based reporting would not necessarily facilitate the comparison of activity between exchanges. As the discussion of contract design in fixed income instruments shows, wide differences in the duration of underlying assets mean that, even within a broad market risk category, contracts cannot simply be compared or summed up in dollar terms. Comparisons of activity across exchanges should probably focus on similar types of contracts.

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① These numbers do not include contracts on single equities or commodities. ② In contrast, Eurex and the CBOT were only third and fourth respectively, while the MATIF was ninth. The Singapore Exchange (SGX) ranked fifth on the back of active trading of money market instruments.

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III. Special features

Benchmark tipping in the money and bond markets

The possibility that the stock of outstanding US Treasury securities may shrink significantly raises the question of how the broader US dollar fixed income market might operate in their absence. Market participants have come to rely heavily on US Treasury securities as benchmarks for pricing other securities, as means of hedging and positioning in both duration and volatility, as bases for futures market contracts and as collateral for secured borrowing.

One approach to answering this question reaches back almost a century: to examine the workings of the US bond market in the period before the First World War when there was little in the way of government debt. This earlier era, however, lacked many features that are now important to the functioning of financial markets, such as mortgage-backed securities, futures and options. As a result, it may be hard to draw reliable inferences from this earlier experience. This special feature approaches the question by examining the changing roles of Treasury and other obligations in the dollar *money market* over the last generation for clues as to how their relative roles might evolve in the dollar *bond market*. This approach considers a time when the modern instruments of finance were in use.

The dollar money market followed a “tipping” process …

… in which participants shifted to another benchmark

The principal finding of this special feature is that private instruments eclipsed government paper as a benchmark in the dollar money market over the last two decades even as government debt grew rapidly. The shift followed a “tipping” process in which market participants found it advantageous to use first one, and then another, instrument in line with the preponderant choice of other market participants. More recently, the bond market has shifted away from its reliance on government securities and might well have continued to do so even had there been no reduction in the stock of outstanding US government paper. On this view, therefore, any sustained reduction in the supply of the US Treasury’s obligations would only accelerate this shift.

Benchmark tipping in the money market

In the dollar money market, the US Treasury bill once enjoyed a pre-eminent role as a basis for pricing, as a means of hedging and positioning, and as a basis for futures contracts. Twenty-five years ago, on top of a well developed cash market for Treasury bills, a futures contract on three-month Treasury bills was introduced. This contract proved a great success and by the summer of 1982 daily volume in bill futures exceeded cash market transactions in Treasury bills by reporting dealers.

In 1981 a futures contract on a so-called “run” of large US bank certificates of deposit was introduced. The contract called for cash delivery of the certificates of any of the top 10 banks. This contract enjoyed initial success but, after August 1982, fell victim to investors’ drawing sharper credit distinctions among banks in the wake of the developing country debt crisis. A variant of Gresham’s law set in, whereby the certificates of the worst considered banks could be bought most cheaply and were thus routinely delivered. As a result of this process in which bad credit drove out good credit and events in Latin America influenced contract pricing, the contract fell out of use.

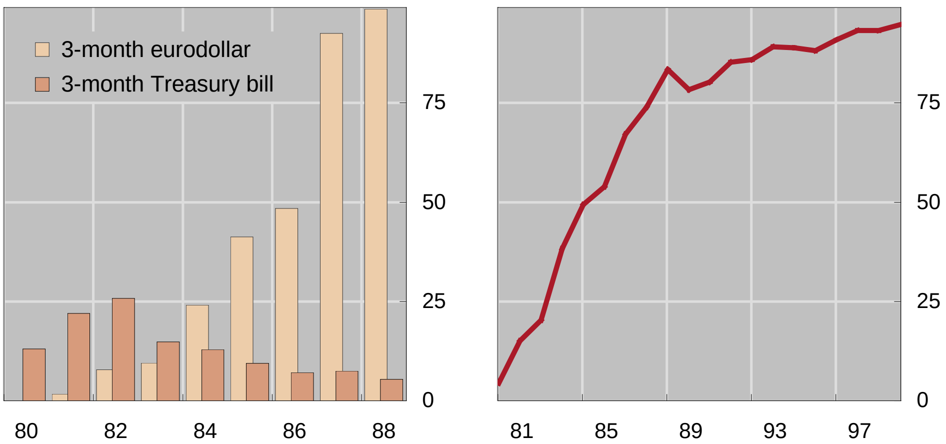
Trading in a eurodollar contract began in Chicago in 1982 ...

In the spring of 1982, however, trading in a better designed futures contract on bank rates began in Chicago. Based on a trimmed average of posted rates of a panel of top-quality international banks located in London, the eurodollar contract allowed for cash settlement. In September 1982 a similar contract began to be traded in London, albeit with a provision for delivery at settlement as well as cash settlement (to keep from running afoul of UK gaming laws). Trading in these contracts grew slowly, boosted in the case of the Chicago contract by the proximity of its trading pit to that of the Treasury bill contract. This proximity eased the trading of the so-called TED spread, the spread between the Treasury bill rate and the eurodollar rate. But trading in the eurodollar contract took off in 1984, and that year it surpassed trading volume in the Treasury bill contract (Graph 1, left-hand panel).

... surpassing the Treasury bill contract two years later

US Treasury and private instruments in the dollar money market

Daily average transactions, in billions of US dollars and percentages

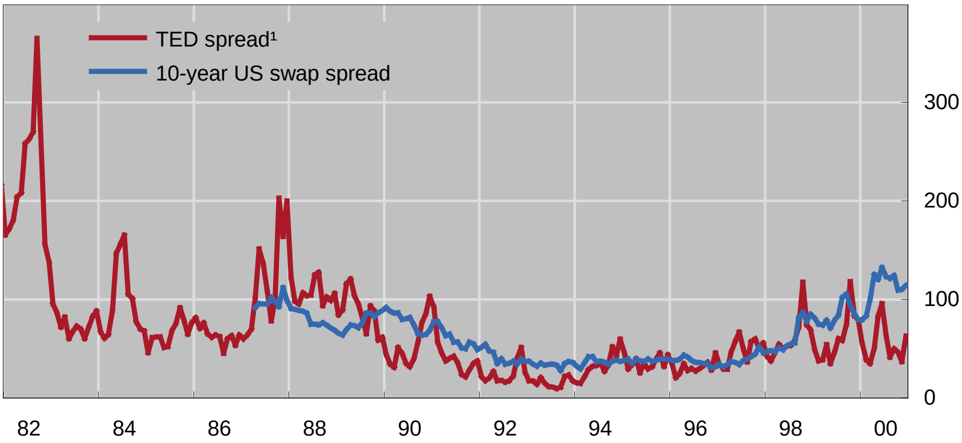


[1] Including cash market transactions in Treasury bills.

Sources: Federal Reserve Bank of New York (FRBNY); FOW TRADEdata; BIS calculations. Graph 1

Spread between US Treasury and private yields

In basis points



[1] Measured as the monthly average of the spread between the three-month Treasury bill and eurodollar rates.

Source: Datastream; BIS calculations. Graph 2

The eurodollar rate tracked interest rates on private securities better

This overtaking was particularly surprising in that the Treasury bill contract benefited, unlike that for the eurodollar, from having an actively traded underlying asset. Moreover, the bill contract possessed a stronger credit grounding in the US Treasury's tax receipts and had already established itself before the appearance of its competitor. What factors then accounted for this eurodollar contract displacing the gilt-edged US Treasury bill as the most used reference rate in the dollar money market? The answer seems to be that the unique credit standing of the Treasury bill ultimately worked against it. A bank seeking to manage its short-term match of assets and liabilities, or to position vis-à-vis general interest rate expectations, found in eurodollar rates a much closer approximation of its own marginal borrowing costs and lending rates than US Treasury bill rates could provide. Similarly, a dealer seeking to hedge the value of a portfolio of short-term instruments like certificates of deposit, banker's acceptances and commercial paper realised that the eurodollar rate tracked interest rates on these private securities better than the Treasury bill rate. Hedging a portfolio of private securities with a short position in Treasury bill futures exposed the dealer to so-called basis risk, that is, to a widening of the TED spread.

A flight to quality in 1984 caused hedges using Treasury bills to fail

Traumatic episodes in the money market highlighted the risk of using a government rate as a proxy for private rates. In the spring of 1984, the run on Continental Illinois provoked a flight to quality that led to a sudden widening in the TED spread (Graph 2). At that time, long positions in private paper approximately hedged by a short position in Treasury bills misfired and produced losses on both sides as the price of private paper fell while that of Treasury bills rose.

Sudden large jumps in the Treasury-eurodollar spread could also reflect demand and supply imbalances. In the spring of 1987, a strong bid for bills, from central banks that had just intervened to support the dollar, met reduced supply from the US Treasury in response to unanticipated strength in tax collections. Episodes of this sort forced market participants to re-examine their traditional practices to such an extent that it undermined the strong liquidity advantage of the established Treasury bill contract.

The dynamics of benchmark tipping

This substitution of a private for a government instrument tended to reinforce itself in a process that can be termed "benchmark tipping". Tipping denotes a strategic situation in which the benefits of a given choice to one player depend in a positive manner on a similar choice by other players.[8] In this case, as each bank or dealer switched from using the Treasury bill contract to the eurodollar contract, the latter gained depth and liquidity and became more attractive for other players to use. This process stopped short of going all the way, in the sense that the eurodollar contract superseded the Treasury bill in the futures markets but did not drive it entirely out of existence (Graph 1, right-hand panel).[9]

An interesting question is to what extent this coexistence should be viewed as a market outcome or as the result of legal and institutional impediments that favour the Treasury bill. For instance, student loans supported by the US Student Loan Marketing Association continued to be priced off Treasury bill rates until as recently as 1999, when banks finally prevailed on the US Congress to base the student loan rates on a private rate.[10]

Benchmark tipping in the bond market?

Tipping in the bond market requires a robust private benchmark

Should one expect the benchmark in the bond market to tip towards a private rate? The discussion above suggests that the answer to this question depends on the availability of a robust private benchmark and on the occurrence of traumatic movements in Treasury-private spreads.

There would be little prospect of a private instrument displacing Treasury notes and bonds if there were no standardised private rate. What is needed is some convention for the longer end of the yield curve, akin to a trimmed

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8 Thomas C Schelling, *Micromotives and Macrobehavior* (New York: Norton, 1978). See also BIS, *70th Annual Report* (Basel, June 2000), pp 116-118.

9 Marcia Stigum, *The Money Market*, 3rd ed (Homewood, Illinois: Dow Jones-Irwin, 1990), page 757, posed the question "Bill Futures: A Dying Contract?".

10 In response to requests from banks, the US Congress included in the Higher Education Amendments Act of 1998 a directive to the Congressional Budget Office to study a change in the benchmark rates on student loans from Treasury bills to the eurodollar (Libor) or another private rate. Then, in 1999, in the Ticket to Work and Incentives Improvement Act, Congress enacted a temporary change in the benchmark until 2003 to the three-month commercial paper rate, which tends to track Libor closely. See Congressional Budget Office, "A Framework for Projecting Interest Rate Spreads and Volatilities", Memorandum, January 2000. The choice of the three-month commercial paper rate as the base rate for student loans was an odd one. That the three-month commercial paper rate tracks Libor is about the best that can be said for it: Stigum, op cit, page 728, notes that "a futures contract for 90-day, A-1, P-1 commercial paper never attracted much interest because the real market in commercial paper is for paper with an original maturity of 30 days or less…".

average of three-month rates posted by a panel of banks, which offers a homogenised, high-quality private credit benchmark to the dollar money market. Long-available averages of yields on outstanding private high-quality bonds do not quite measure up. Since the mid-1980s, however, the over-the-counter derivatives market has provided an attractive alternative: the fixed rate that major banks are willing to trade against eurodollars in an interest rate swap.

The interest rate swap rate has advantages over an average of bond yields

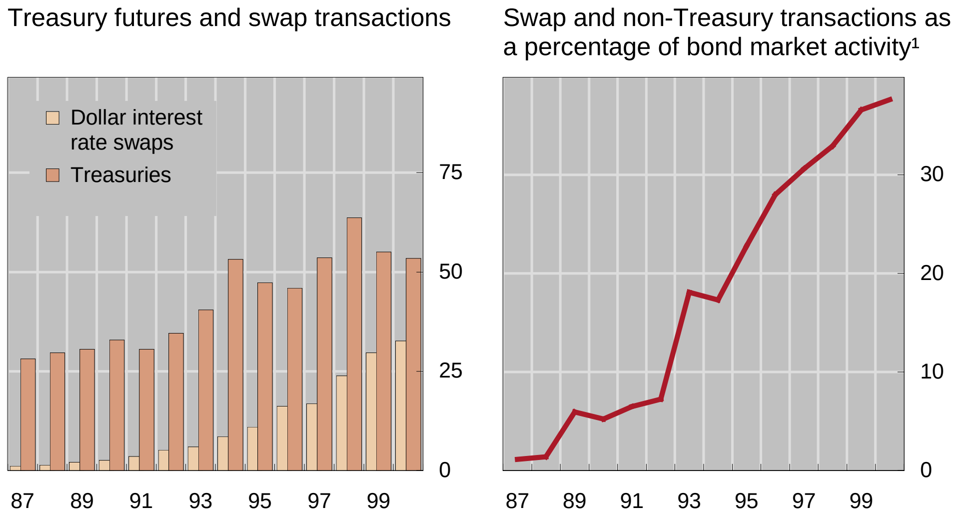
The interest rate swap rate has several advantages over an average of yields on outstanding bonds. Since new swaps of a given maturity are traded every day, their maturity is constant from day to day, unlike the variable average maturity of any index of outstanding bonds. Likewise, new swap rates are quoted at par and thus are spared the tax and accounting effects that enter secondary market prices for bonds as they come to trade at a discount or premium.

The LTCM episode highlighted the risk of hedging with Treasury contracts

Recent years have also seen episodes in the bond market analogous to the Continental Illinois trauma in the money market. In particular, the Long-Term Capital Management episode in 1998 delivered a body blow to the practice of hedging private instruments, like mortgage-backed securities or corporate bonds, with short positions in Treasury notes or bonds, whether in cash or futures markets. Once again, with the hedge being only approximate, such portfolios ran up losses on both the long position in private securities and the short position in government securities. More recently, announcements of Treasury buybacks have also tended to widen spreads, just as demand and supply imbalances earlier altered spreads in the money market.

US Treasury and other instruments in the dollar bond market

Daily average transactions, in billions of US dollars and percentages



[1] Bond market activity includes swap transactions, Treasury cash and futures turnover and turnover of US dollar-denominated agencies, eurobonds and global bonds.

Sources: Cedel; FRBNY; national central banks; Euroclear; FOW TRADEdata; ISDA; BIS estimates.

Graph 3

Benefiting from a serviceable benchmark and episodes of traumatic spread widening, private instruments are gaining on US Treasury securities in the bond market. In other words, there are signs that the benchmark is tipping from Treasury paper to the swap. Trading in swaps (and options based on them, or "swaptions") has risen relative to futures and options trading in Treasury notes and bonds (Graph 3, left-hand panel). Widening the net to include cash market transactions gives qualitatively similar results (Graph 3, right-hand panel). It is particularly noteworthy that transactions in coupon-bearing US Treasury securities peaked in 1998, while those in private instruments have continued to rise. Comparing the left-hand panels of Graphs 1 and 3, on the one hand, and the right-hand panels, on the other, suggests that the process in today's bond market has reached a stage similar to that in the money market in the early- to mid-1980s.

There are signs that the benchmark is tipping from Treasury paper to the swap

As in the money market, bond market players want to trade where others trade.[11] Each market participant who gives up using US Treasuries to hedge private instruments subtracts liquidity from the Treasury market and adds it to the swap market, raising the incentives for other market participants to do likewise.

Each participant who shifts raises the incentive for others to do likewise

Looking forward, private instruments in the bond market may still labour under a greater disadvantage than did private instruments in the money market in the early 1980s. In particular, despite some initiatives to trade swaps on an organised exchange, swaps are still traded over the counter. One explanation is that the customer demands the bespoke quality of tailor-made swaps. While there is truth in this explanation, there is no doubt that better rated banks have also resisted moving swap trading from a decentralised telephone market to a centralised exchange. A centralised market structure would homogenise the credit standing of traders and thereby erode the competitive advantage of the better rated, that is the current preference of customers for a few relatively high-quality counterparties given that many contracts run for years. (The most active swap dealers may also benefit from proprietary information on order flows.) Despite the spread of collateral requirements that allow lesser credits access to the market, the swap market probably labours under higher transaction costs and remains less liquid than it might be were swaps traded on an exchange.

Swaps are still traded over the counter ...

Ongoing global consolidation in banking may, however, make it harder to keep swaps traded strictly over the counter. Credit-conscious customers are losing their ability to diversify counterparty credit risk, particularly in their

[11] The overview paper to the CGFS report, *Market Liquidity: Research Findings and Selected Policy Implications* (Basel, 1999) discusses the tendency for liquidity in government bond markets to be concentrated in benchmark issues (see especially pp 15-16). In one of the papers forming part of that study, Michael Fleming and Asani Sarkar, "Liquidity in U.S. Treasury spot and futures markets", examine the concentration of liquidity in specific maturities in the US Treasury markets, while Hideaki Higo, "The change of liquidity in the life cycle of Japanese government securities", finds that Japanese government bonds that started their lives as benchmarks continue to enjoy higher turnover well after losing benchmark status.

... but global consolidation in banking may lead to trading on an organised exchange

derivatives transactions. The increasing concentration of swap books may, ironically, result in strong pressure for that ultimate concentration of trading – an organised exchange. In such exchange arrangements, counterparty risk is of course taken by the exchange itself subject to sharing arrangements with all the exchange's participants.

Conclusion

Any sustained reduction in government debt would only increase the reliance on private benchmarks

The concern that modern bond markets cannot function efficiently without government securities, including those of the US Treasury, is probably misplaced. The US Treasury bill has already yielded its pre-eminence in the money market to bank liabilities, and the same process may be in train in the bond market. The central role of government debt may prove no more than a legacy of wartime finance as peacetime markets naturally tip towards reliance on private benchmarks. Viewed in this manner, any sustained reduction in the stock of government debt would only accelerate a process already well under way.

Even if this view is accepted, however, difficult questions remain. Could a flight to quality in an environment of a much reduced supply of government securities lead to a more exaggerated widening of public-private spreads, with adverse implications for the solvency of portfolios still exposed to this spread risk? And in the event of a disappearance of government securities, would the modern run from private to public paper revert to the previous pattern of a run from private paper to currency or specie?

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Implementing international standards for stronger financial systems

A broad strategy

International standards can help make domestic financial systems less crisis-prone

In the wake of recent financial crises, the international community has emphasised the need for concrete steps to make domestic financial systems less crisis-prone. The development and implementation of standards to promote sounder policies and stronger institutional and market underpinnings has been central in this effort to safeguard national and international financial stability.

Broad strategy for fostering implementation of standards framed

The various initiatives taken by the international community involved in the standards area effectively form the building blocks of a broad strategy to help foster standards implementation. Drawing on this work, an Implementation Task Force was brought together last year by the Financial Stability Forum (FSF) comprising standard-setting bodies, supervisory agencies, national authorities from emerging and developed countries as well as international financial institutions and groupings. In framing such a strategy,[12] the Task Force articulated the need to:

- foster a sense of ownership among countries on the need to implement standards;
- set priorities for the implementation of standards taking account of individual country circumstances;
- develop methodologies to provide practical guidance in assessing compliance with the core standards;
- undertake assessment exercises coordinated by the IMF and the World Bank to help identify vulnerabilities, implementation priorities and technical assistance needs;
- provide adequate official and market incentives for implementing standards; and
- mobilise the necessary international resources to provide technical assistance and training to foster capacity building for effective and durable implementation.

[12] The Task Force on Implementation of Standards was chaired by Andrew Sheng, Chairman of the Hong Kong Securities and Futures Commission. See www.fsforum.org/reports/ for the group's report, which was endorsed and issued by the FSF in March 2000.

This special feature provides more detail as to how each of these requirements for a successful implementation strategy might be met.

Ownership

Country ownership – with domestic consensus and political commitment – is critical for success

A strong sense of country ownership – including domestic consensus and political commitment – is critical for fostering successful implementation of international standards. Given the complexity of financial systems, a large number of domestic agents will be involved and many entrenched interests may be affected in the course of implementing the standards. This can raise difficult issues for domestic officials responsible for aspects of financial stability, many of whom would like to implement standards and already know where improvements need to be made. Generating an adequate domestic political consensus on the need for implementation can help overcome these issues. External assessments, by providing an objective outside view on weaknesses, may help muster the domestic political consensus required to push forward changes that are necessary and desirable. The international community also has a keen interest in the implementation of sound practices given that the impact of financial crises can be felt in other countries. But international "pressure" needs to be sensitively applied so as not to hinder efforts to put together the necessary domestic consensus. A key challenge is striking an appropriate balance between the pace of implementation dictated by domestic ownership and capacity considerations and that desirable from a global perspective.

Priorities

Priorities for implementing standards need to be set depending on country circumstances

Implementation of all the various standards (some 60 plus are available in the FSF compendium) would be an arduous task and more than most economies could reasonably achieve in the foreseeable future. Thus, it is clear that priorities will need to be set on a country by country basis, while recognising that many standards are interdependent (for example, the effectiveness of supervision and regulation depends on the quality of the underlying accounting practices and legal framework). To help facilitate implementation, a set of 12 key standards for strengthening financial systems has been suggested by the FSF as deserving priority implementation, depending on specific country circumstances (see the box on pages 51-53). These key standards fall into three main categories: macroeconomic policy and data transparency, institutional and market infrastructure, and financial regulation and supervision. These standards are highlighted in the compendium of standards available on the FSF's website (www.fsforum.org).

Assessment methodologies

Assessment of current practices vis-à-vis standards can assist implementation

In order to establish implementation priorities, it is important to know where there may be material gaps in an economy's current practices vis-à-vis international standards. Most standards are in the form of fairly general principles. In consequence, significant expertise will be required with respect both to the standard itself and to an economy's actual practices, if adequate assessments of adherence to standards are to be made. To assist in implementation, many standard-setting bodies have developed, or are in the process of developing, well defined criteria or methodologies to provide practical guidance in assessing observance of their standards. By using the methodologies, an overall profile of strengths and weaknesses in the assessed system can be obtained.

Assessment framework

Regular assessments of progress towards implementing standards can play an important role in developing action plans to enhance implementation and to identify technical assistance and training needs. Assessments can be carried out in various ways: by self-assessment, by peers, or by hired experts. The assessment methodologies developed by the standard-setting bodies should serve as useful guides in this regard.

IMF-World Bank initiatives: FSAP aims to assess financial sector vulnerabilities ...

While beneficial as an initial stocktaking exercise, experience has generally shown that it is important that self-assessments be complemented by an independent external check on compliance with standards. The IMF and the World Bank have recently developed an organising framework for assessing observance of standards and relevant policies in cooperation with national authorities and other international bodies. One of the most important initiatives in this area is the joint IMF-World Bank Financial Sector Assessment Programme (FSAP) aimed at assessing financial sector vulnerabilities and identifying development priorities. The FSAP involves, inter alia, an assessment of financial sector standards and is a collaborative effort involving a range of national agencies and standard-setting bodies. Another important initiative has been the experimental IMF-World Bank Reports on the Observance of Standards and Codes (ROSCs). This is a vehicle for assembling summary assessments of an economy's progress in observing internationally recognised standards and codes across a range of areas. These assessments currently include financial sector standards evaluated in the context of FSAPs[13] as well as those covering data dissemination and fiscal transparency. In addition, corporate governance, accounting and auditing standards are also being assessed.[14]

... while ROSCs provide a vehicle for public information on implementation

Incentives

Self-interest should be the key motivation for implementing standards. Given the costs of financial crises, countries have an interest in making their economy

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[13] All FSAPs include assessments of the Core Principles for Effective Banking Supervision and the Code of Good Practices on Transparency in Monetary and Financial Policies. Depending on country circumstances, assessments may also be prepared on the implementation of the core principles for securities regulation, insurance supervision and payment and settlement systems.

[14] For more information on ROSCs and the ROSC modules that are available for a number of economies, see the IMF's website at www.imf.org/external/standards/index.htm.

Self-interest a key motivation for implementing international standards …

less crisis-prone. Moreover, a strong, healthy financial system contributes to faster growth in per capita income through higher savings rates, better resource allocation and the more efficient provision of financial services.

While self-interest should be a key motive, official and market incentives can help foster implementation. Following the report of the FSF's Implementation Task Force, a follow-up group was asked to consider the range of incentives that might be used to encourage countries to implement international standards.[15] The incentives covered included those that could be provided by market participants as well as those that could be provided by supervisory, regulatory and market access-type means.

... supported by official incentives …

Given that standards can help strengthen both national and international financial systems, the official sector has an interest in providing incentives to foster implementation. Incentives provided by the international community include encouraging countries to undertake and disclose assessments, to engage in policy dialogue with the IFIs and to participate in peer review discussions. Such encouragement needs to be supported by the provision of technical assistance and resources, where needed. Some official financing has also been made specifically conditional ex ante on progress towards implementing standards such as the IMF's Contingent Credit Line. Domestic supervisors and regulators could also provide incentives: for example, by encouraging the use of information on standards observance in financial institutions' risk assessment processes, and in considering decisions about market access.

... but market incentives are likely to be the most effective over time

While self-interest and official incentives have a role in fostering implementation, they are unlikely to be sufficient. Market incentives – the reflection of observance of standards in asset pricing and allocation decisions – are likely to be most effective over time. For market incentives to work, however, a number of preconditions need to be met. Market participants need to be familiar with international standards and must consider them to be relevant to their risk assessments. In addition, market participants must have access to credible and timely information on the observance of standards, and reflect this information in their asset pricing and allocation decisions.

Further efforts needed to realise the potential of market incentives

The follow-up group conducted an informal dialogue with a variety of market participants from major financial centres (covering more than 100 financial institutions from 11 jurisdictions) to assess the degree to which these preconditions are met. From the outreach efforts that have been undertaken by the FSF, the IMF and the World Bank to date, it has become clear that the potential for market incentives to work is there. Nevertheless, it is also clear that significant efforts are still needed on many fronts to raise market awareness of international standards and to foster their reflection in pricing and

[15] The Follow-up Group on Incentives to Foster Implementation of Standards is chaired by Axel Nawrath, Director General of the German Ministry of Finance. See www.fsforum.org/reports/ for the group's report, which was endorsed by the FSF in September 2000.

allocation decisions. Efforts to this end are being continued by national authorities, the IMF, the World Bank and standard-setting bodies, as well as the FSF, including through publications, conferences, seminars and further outreach sessions. In addition, several complementary private sector initiatives are under way. Further analytical work on the relevance of standards implementation to risk assessments as well as efforts to enhance the presentation of information on economies' progress in implementing standards useful for risk assessments are also desirable to help foster market incentives.

Resources

IFIs, standard-setting bodies and national authorities supporting implementation efforts

The implementation of standards is a highly resource-intensive activity, and many countries face serious practical constraints. Capacity building efforts are a key success factor for a durable strengthening of financial systems. To this end, national authorities, international financial institutions such as the BIS, the IMF and the World Bank, and standard-setting bodies are all supporting implementation efforts through technical assistance and training. For its part, the FSF has sponsored the creation by the BIS, the IMF and the World Bank of a global directory of training opportunities that provides online information about the courses available through relevant bodies to enhance the quality of financial supervision.[16] While initially focused on banking supervision, the directory will be enlarged to reflect training opportunities across a broad spectrum of financial activities, including insurance supervision and payment and settlement systems. The Financial Stability Institute, associated with the BIS in Basel, is working with the Basel Committee on Banking Supervision and increasingly other standard-setting bodies to provide in-depth training for supervisors to improve and strengthen their financial systems.

Resource constraints entail effective targeting of assistance

The potential demands for assistance in standards implementation are very large and, inevitably, the international community will also face resource constraints. To ensure that resources are effectively employed, it will be important for technical assistance to be well targeted and durably utilised in the countries where it is received.

Conclusion

Standards not a panacea but a means to promote sound financial systems

The implementation of standards in itself is not sufficient to ensure financial stability. Nor are standards an end in themselves, or some kind of magic "cure-all". Instead, they should be viewed as a means for promoting sound financial systems and, in turn, sustained economic growth. In particular, by helping to improve the functioning of the financial sector, the implementation of standards can help minimise the build-up of risks and vulnerabilities in the financial system that can lead to crises with significant costs in terms of output and employment.

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[16] See www.fsforum.org/training/home.htm.

Key standards for sound financial systems

The 12 standards below have been highlighted by the FSF as being key for sound financial systems and deserving of priority implementation depending on country circumstances. While the key standards vary in terms of their degree of international endorsement, they are all broadly accepted as representing minimum requirements for good practice. Some of the key standards are relevant for more than one policy area (see www.fsforum.org/standards/keystds.htm).

Subject area	Key standard	Issuing body
	Macroeconomic policy and data transparency	
Monetary and financial policy transparency	Code of Good Practices on Transparency in Monetary and Financial Policies	IMF
Fiscal policy transparency	Code of Good Practices on Fiscal Transparency	IMF
Data dissemination	Special Data Dissemination Standard (SDDS)/General Data Dissemination System (GDDS)[1]	IMF
	Institutional and market infrastructure	
Insolvency	[2]	World Bank
Corporate governance	Principles of Corporate Governance	OECD
Accounting	International Accounting Standards (IAS)	IASC[3]
Auditing	International Standards on Auditing (ISA)	IFAC[3]
Payment and settlement	Core Principles for Systemically Important Payment Systems	CPSS
Market integrity	The Forty Recommendations of the Financial Action Task Force on Money Laundering	FATF
	Financial regulation and supervision	
Banking supervision	Core Principles for Effective Banking Supervision	BCBS
Securities regulation	Objectives and Principles of Securities Regulation	IOSCO
Insurance supervision	Insurance Core Principles	IAIS

[1] Economies that have, or might seek, access to international capital markets are encouraged to subscribe to the more stringent SDDS and all other economies are encouraged to adopt the GDDS. [2] The World Bank is coordinating a broad-based effort to develop these principles and guidelines. The United Nations Commission on International Trade Law (UNCITRAL), which adopted the *Model Law on Cross-Border Insolvency* in 1997, will help facilitate implementation. [3] The International Accounting Standards Committee (IASC) and the International Federation of Accountants (IFAC) are distinct from other standard-setting bodies in that they are private sector bodies.

Major standard-setting bodies

Basel Committee on Banking Supervision (BCBS)
The BCBS, established by the G10 central banks, provides a forum for regular cooperation among its member countries on banking supervisory matters. The BCBS formulates broad supervisory standards and guidelines and recommends standards of best practice in banking in the expectation that bank supervisory authorities will take steps to implement them (www.bis.org).

Committee on Payment and Settlement Systems (CPSS)
The CPSS, established by the G10 central banks, provides a forum for regular cooperation among its member central banks on issues related to payment and settlement systems. It

monitors and analyses developments in domestic payment, settlement and clearing systems as well as in cross-border and multicurrency netting schemes. It also provides a means of coordinating the oversight functions to be assumed by the G10 central banks with respect to these netting schemes. The CPSS formulates broad supervisory standards and guidelines and recommends standards of best practice in the expectation that the relevant authorities will take steps to implement them (www.bis.org).

Financial Action Task Force (FATF)
The FATF, established by the G7 summit in Paris in 1989, set out an initial programme of 40 recommendations to combat money laundering. These recommendations were modified in 1996 to take into account recent money laundering trends and potential future threats. Comprising 26 member countries, the FATF monitors members' progress in implementing measures to counter money laundering. It relies on an annual self-assessment together with a more detailed mutual evaluation. In addition, the FATF reviews money laundering trends, techniques and countermeasures and their implications for the 40 recommendations, and it actively promotes the adoption and implementation of the FATF recommendations by non-member countries (www.oecd.org/fatf).

International Accounting Standards Committee (IASC)
The IASC is an independent private sector body, formed in 1973, with the objective of harmonising accounting principles used for financial reporting by businesses and other organisations around the world. The Board of the IASC is responsible for developing and approving international accounting standards. To date, a total of 40 international accounting standards have been promulgated by the IASC (www.iasc.org.uk).

International Association of Insurance Supervisors (IAIS)
The IAIS, established in 1994, is a forum for cooperation among insurance regulators and supervisors from more than 100 jurisdictions. It is charged with developing internationally endorsed principles and standards for effective insurance regulation and supervision. After having developed the IAIS Core Principles, Insurance Concordat and several other standards, the IAIS's recent work on standard-setting has focused on solvency, the provision of cross-border services, asset risk management, oversight for financial conglomerates, reinsurance, market conduct and electronic commerce (www.iaisweb.org).

International Federation of Accountants (IFAC)
IFAC comprises national professional accountancy organisations that represent accountants employed in private practice and the public sector, as well as some specialised groups that interface frequently with the accounting profession. IFAC strives to develop the accounting profession and harmonise its standards worldwide to enable accountants to provide consistent and high-quality services. Through its International Auditing Practices Committee (IAPC), IFAC has formulated the International Standards on Auditing (ISAs) and International Auditing Practice Statements (IAPSs) (www.ifac.org).

International Monetary Fund (IMF)
The IMF develops and monitors international standards in areas having direct operational relevance to its mandate to carry out surveillance of the international monetary system. In collaboration with other standard-setting bodies, it has developed international standards for data dissemination and compilation and transparency practices in fiscal, monetary and financial policies, and has contributed to the assessment and implementation of international standards for banking supervision. In addition, the IMF has prepared for several countries, on an experimental basis, reports on their progress in implementing internationally recognised standards and codes of best practices (www.imf.org).

International Organization of Securities Commissions (IOSCO)
IOSCO is an organisation for cooperation among national securities regulators. Its regular membership consists of government regulators of securities and futures markets. IOSCO develops and promotes standards of securities regulation in order to maintain efficient and sound markets. It draws on its international membership to establish standards for effective surveillance of international securities transactions and promotes the integrity of markets by a rigorous application of the standards and effective enforcement against offences (www.iosco.org).

Organisation for Economic Co-operation and Development (OECD)
The OECD aims to promote policies designed to achieve sustained economic growth and employment in its member countries. In the area of promoting efficient functioning of markets, the OECD encourages the convergence of policies, laws and regulations covering financial markets and enterprises (www.oecd.org).

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IV. Structural and regulatory developments

Initiatives and reports concerning financial institutions

October

The Electronic Banking Group (EBG) of the Basel Committee on Banking Supervision (BCBS) released a discussion note and a series of white papers exploring cross-border supervisory challenges related to electronic banking activities.[17] In the document, the EBG noted that e-banking was based on a technology designed to expand the “virtual” geographic reach of banks and customers without necessarily requiring a commensurate “physical” expansion. Such expansion could extend beyond national borders. The EBG highlighted that many cross-border issues arising from the rapid expansion of e-banking activities were not contemplated when the Basel Committee’s existing guidance was developed. It pointed out the particular need for international cooperation among supervisors to address the cross-border challenges created for bank supervision and identified four action items:

The EBG stresses supervisory cooperation on cross-border e-banking

(i) Building upon work conducted to date and developing guiding principles for the prudent risk management of e-banking activities.
(ii) Identifying if and where existing Basel Committee guidance needs to be adapted to facilitate the sound supervision of cross-border e-banking activities.
(iii) Promoting international cooperation within the banking industry and between the public and private sectors to identify both e-banking risk issues and sound practices needed to deal with them.
(iv) Encouraging and facilitating the exchange of material developed by bank supervisors and of available information on e-banking training programmes.

17 See *Electronic Banking Group Initiatives and White Papers*, Basel Committee on Banking Supervision, Basel, October 2000. Available at www.bis.org.

November

A group of large banks agrees on principles against money laundering

A group of 11 international banks agreed on the Wolfsberg principles, a set of common voluntary guidelines against money laundering.[18] The rules cover banks' relationships with high net worth individuals and include guidance concerning the acceptance of clients, situations requiring special attention, means of identifying unusual or suspicious activities, beneficial ownership of accounts and education of bank staff. Other banks have been encouraged to adopt the guidelines but no mechanism has been agreed for dealing with institutions breaking the rules.

US regulators call for public comment on simplified capital requirements for non-complex financial institutions

US federal bank and thrift regulatory agencies requested public comment on an advance notice of proposed rulemaking that considers the establishment of a simplified regulatory capital framework for non-complex financial institutions.[19] Such a framework would conform to the underlying principles of a revised Basel Capital Accord but would relieve the regulatory burden on non-complex supervised entities. The advance notice solicits comment on the following issues: definition of a non-complex institution; identification of the eligibility criteria for a simplified capital framework; setting of an appropriate minimum capital threshold for non-complex institutions; consideration of additional options for measuring regulatory capital at non-complex institutions and resolution of the implementation issues associated with a simplified framework.

Initiatives and reports concerning financial markets and their infrastructure

October

The Swiss government announced a reduction in stamp duties effective from 1 January 2001. Domestic banks trading Swiss securities on non-Swiss exchanges will not have to pay stamp duties on such transactions. Institutional investors conducting proprietary trades will also be exempted.

The largest US dealers agree to remove restructuring clauses from default swaps

The largest US dealers in credit derivatives agreed to remove restructuring clauses from standard credit default swap contracts written on US corporate entities.[20] The change was prompted in large part by the losses faced by sellers of default swaps on the US insurance company Conseco. The firm's loss of access to the commercial paper market forced it to use its backstop loan facility. A subsequent restructuring of the company's debt, which included a one-year extension of the backstop facility, triggered payment of default swaps written on it. The dealers involved felt that such an event gave buyers of protection an unjustified windfall profit, particularly given that no

18 See www.wolfsberg-principles.com.

19 See www.federalreserve.gov.

20 However, default swaps paying in the event of a debt restructuring will still be offered.

default had occurred. Since then dealers have become concerned about the possible exercise of default swaps in debt restructuring, particularly when no economic default is actually experienced. One of the consequences of the initiative taken by US dealers could be to affect liquidity in the credit derivatives market since European banks continue to use the restructuring clause.

The ESF announces plans for the creation of a single European counterparty

The European Securities Forum (ESF) announced plans for the creation of a single European counterparty and netting facility for all European equities.[21] The ESF said that it would seek bids from outsiders to operate the facility but, if the bidding process did not yield an acceptable solution, it would set up the operation itself. The ESF believes that the future development of securities trading systems makes vertical ownership structures inappropriate for a pan-European capital market. Furthermore, the present fragmentation of post-trade processing makes European capital markets less cost-efficient and competitive. The initiative was prompted by the failure of existing market participants to come to an agreement concerning the creation of a European facility for the clearing of equities.

The DTCC calls for a global clearing facility

The Depository Trust and Clearing Corporation (DTCC), the world's largest securities clearance and settlement entity, called on the financial services industry to develop a global clearing solution to lower costs, reduce risk and facilitate the growth of financial instruments trading worldwide. In a white paper, the DTCC announced the sponsoring of a global conference in early 2001 to address these issues.[22] The paper does not prescribe a single central counterparty solution but rather identifies a number of issues requiring discussion, a shared understanding and mutual agreement across the industry, including: standards for communications and technology; agreements on cross-collateralisation and cross-margining among central counterparties; shared technology investments; and coordinated business policies and plans.

The London Clearing House announced plans to expand its clearing services for OTC derivative instruments. OTCDerivNet, a new company established with eight leading derivatives dealers, will build on the SwapClear service established in 1999 to clear interest rate swaps. The new facility will conduct clearing, netting and daily margining of an extended range of OTC products in a wider variety of currencies.

November

European finance ministers reached an agreement to curb tax evasion in the European Union.[23] Under the agreed rules, most EU states will share

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[21] The European Securities Forum, which comprises the major users of European clearing and settlement facilities, was established in 1998 to facilitate rapid progress towards an efficient European capital market infrastructure. See *ESF's Blueprint for a Single Pan-European Central Counterparty*, European Securities Forum, Frankfurt and London, December 2000. Available at www.eurosf.com.

[22] See *Central Counterparties: Development, Cooperation and Consolidation*, Depository Trust and Clearing Corporation, New York, October 2000 (available at www.dtcc.com).

[23] See www.europa.eu.int.

European finance ministers agree to share information on non-resident savings income

information on non-resident income from savings, enabling the home country of a non-resident investor to receive the tax proceeds generated by such income. Countries opposed to a rapid introduction of information exchange (Austria, Belgium and Luxembourg) will be granted a seven-year transition period allowing them to impose withholding tax on savings income at a rate of 15% for the first three years and 20% for the remaining four years. The agreement provides for three quarters of the tax revenue to be transferred to the home country of the non-resident investor. After the transitional period, all EU countries will be required to swap information. However, fearful that such an agreement could trigger a damaging flight of savings from the European Union, Austria and Luxembourg stressed that their eventual signature, and therefore the coming into force of the savings tax directive in early 2003, would hinge on the acceptance of the information exchange scheme by several non-EU financial centres.

The Committee of Wise Men calls for a new regulatory system for Europe's financial markets

The Committee of Wise Men on the Regulation of European Securities Markets published its interim report.[24] The document identifies a number of deficiencies in the European Union's financial markets and states that the Financial Services Action Plan endorsed by the EU heads of state and government in March 2000 contains the key elements required for the further integration of the European financial services market.[25] However, it also argues that the current legislative process is slow and inconsistent, and therefore calls for a new type of regulatory system that could adjust rapidly and flexibly to developments in financial markets. It makes four central recommendations: (i) that only a framework of broad principles for securities legislation should be enacted at the EU level in accordance with normal EU legislative procedures; (ii) that detailed implementation procedures should be delegated to a new EU Securities Committee supported by EU regulators; (iii) that member states should implement EU law within a new framework of enhanced cooperation to ensure consistent transposition of legislation; and (iv) that enforcement of EU rules should be strengthened through more vigorous action by the Commission and enhanced cooperation between member states and their regulators. A crucial element of the report is the suggestion that, wherever possible, proposals be agreed through existing "fast track" procedures and that regulations rather than directives be used to transpose and implement the new rules.[26] At the same time, the Committee did not recommend the creation of a single pan-European regulatory agency, arguing that: (i) the basic harmonised

[24] The Committee, under the Chairmanship of Alexandre Lamfalussy, was established by ECOFIN in July 2000 with the mandate of assessing current conditions for the implementation of the regulation of securities markets in the European Union. The *Initial Report of the Committee of Wise Men on the Regulation of European Securities Markets* is available at www.europa.eu.int. The Committee's final report will be released in mid-February 2001.

[25] The Plan aims to complete the single market in financial services by 2005.

[26] Regulations are legislative acts that, once agreed by the Council of Ministers and the European Parliament, do not need member state transposition. Directives require transposition by member states, which can take up to 18 months or more.

rules necessary for the appropriate functioning of an integrated market were not yet in place; (ii) speedy action was needed to correct the shortcomings of the present regulatory framework; and (iii) some time would be needed to ascertain whether any such reforms delivered or failed to deliver results. If approved by EU governments in early 2001, the proposed system could start functioning at the beginning of 2002.

The European Commission announces a review of the Investment Services Directive

Shortly after the publication of the Wise Men's report, the European Commission announced an extensive review of the Investment Services Directive (ISD).[27] The aim of the review is to consider how legislation could best be updated to reflect the profound changes taking place in the investment services industry and in the trading infrastructure of European securities markets. This move follows a widespread recognition that the existing "single passport" rules allowing firms to sell investment services across the European Union are currently not functioning well because some member states continue to impose restrictions in the name of investor protection (see the box on pages 13-14). The process calls for a consultation period lasting until end-March 2001. This consultation will focus on how the single passport can be made fully operational and how an appropriate regulatory framework for market infrastructure can be developed. The revision should create the legal environment in which the passport could become more effective for inter-professional business and be progressively extended to cover services to retail investors. With respect to the trading infrastructure, the Commission highlighted the fact that EU securities legislation provides for "regulated markets" to serve investment firms in other member states but does not properly provide for safeguards in relation to disclosure, transparency, integrity and stability. This potentially distorts competition between exchanges and trading systems, raising the question of whether it would be useful to apply common principles to trading systems (including new electronic trading arrangements) and, if so, what these principles should be. The Commission is also seeking to stimulate the debate on the need for common regulatory and supervisory responses to the consolidation of clearing and settlement systems. The consultation process, which forms part of the Financial Services Action Plan, will take into consideration the conclusions reached by the Wise Men's final report.

The OECD removes the threat of economic sanctions for cooperating offshore centres

The Organisation for Economic Co-operation and Development (OECD) announced that it would remove the threat of economic sanctions for offshore financial centres that sign a collective commitment to transparency and cooperation. In June 2000, the OECD had published a list of countries with harmful tax practices as part of a multi-pronged international crackdown on tax evasion.[28] Such countries were warned that they could face punitive action

[27] See www.europa.eu.int.

[28] See the August 2000 issue of this commentary for more details.

unless they agreed to cooperate by July 2001. One of the most contentious requirements is that offshore centres introduce mechanisms allowing for the exchange of information with OECD fiscal authorities. The move is aimed at countering offshore centres' complaints that the OECD is forcing them to adopt standards that are higher than those of some of its own member countries.

Euroclear and Clearstream, the two large international clearing companies, announced that they had agreed to set up a "daylight" bridge between their settlement systems. The initiative, which follows an earlier overnight arrangement between the two entities, is designed to offer multiple intraday exchanges of securities and cash deliveries.

Commercial banks operating in the euro zone launched a cross-border retail payment system that should shorten processing time and reduce associated costs. The STEP1 facility will offer straight through processing of retail payments on the Euro1 clearing platform already used by a large number of major international banks. An important benefit of the new system will be a reduction in processing time to about three days from the up to seven days now prevailing.

The European Central Securities Depositories Association (ECSDA) agreed on a number of standards to facilitate the cross-border settlement of equities.[29] Such standards will allow national depositories to link up directly with each other. The ECSDA also agreed to implement a delivery-versus-payment standard that would enable the simultaneous exchange of cash and securities between buyers and sellers of securities at the time of settlement.

OM Gruppen AB of Sweden and Morgan Stanley Dean Witter & Co. launched Jiway, an online stock exchange aimed at giving retail investors greater access to European and US stock markets. Its services, however, are not directly offered to the retail public but are available only to brokers, financial advisers and other intermediaries.

December

New legislation to enhance the regulation of futures trading is signed

The President of the United States signed the Commodity Futures Modernization Act of 2000.[30] The legislation, which extensively revises the Commodity Exchange Act, creates a flexible structure for the regulation of futures trading, codifies an agreement between the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC) to repeal the 18-year-old ban on single stock futures, and provides legal certainty for the over-the-counter derivatives markets (given that certain contracts will not be deemed illegal futures contracts). Under the new framework for futures markets, existing "one size fits all" regulations will be

[29] The ECSDA was formed in 1997 to provide a forum for national central securities depositories to exchange views and take forward projects of mutual interest. Its work has focused on the delivery of secure delivery-versus-payment cross-border settlement. See www.ecsda.com.

[30] See www.cftc.gov.

replaced by broad, flexible Core Principles. In addition, three regulatory tiers will be established for the markets: recognised futures exchanges (RFEs), derivatives transactions facilities (DTFs), and exempt multilateral transaction execution facilities (MTEFs). The three tiers will match the degree of regulation more closely to the nature of products and customers. Moreover, clearing organisations overseen by the CFTC, US banking regulators, the SEC or foreign regulators will be permitted to clear transactions executed on exempt MTEFs and to clear bilateral transactions. The law, which reauthorises the CFTC for five years, also clarifies the Treasury Amendment exclusion and specifically grants the CFTC authority over retail foreign exchange trading.

The ESF modifies its strategy on a single European counterparty

The ESF decided not to put out to tender the contract for the provision of central counterparty services. It will instead issue a blueprint for a single pan-European clearing house. European clearing houses will be asked to respond to the blueprint and propose workable solutions to the ESF. A formal request for a proposal will not be issued as long as rapid progress with service providers is achieved.

Blackbird Holdings Inc. launched an electronic trading platform for European interest rate swaps. The company, which was launched last autumn as a dealer-to-dealer platform for simple interest rate derivative products, initially focused on Canadian and US dollar interest rate swaps. The European platform will trade swaps denominated in euros, sterling and Swiss francs.

The New Basel Capital Accord

Serge Jeanneau

In January 2001, the Basel Committee on Banking Supervision issued a second round of proposals for a New Basel Capital Accord that, once finalised, will replace the current 1988 Accord. The 1988 Accord has helped strengthen the soundness and stability of the international banking system and enhance competitive equality among internationally active banks. However, the financial marketplace has developed dramatically during the past decade, to the point where the Accord's standard capital ratio has become a less accurate indicator of a bank's financial condition and created some perverse incentives.

The new framework is intended to align regulatory capital requirements more closely with underlying risks, to recognise improvements made in risk measurement and control, and to provide banks and their supervisors with several options for the assessment of capital adequacy so as to make the Accord suitable for use by all classes of bank. In putting forward these proposals, the Committee believes that it has laid the groundwork for a flexible framework that has the capacity to adapt to changes in the financial system and to enhance its safety and soundness.

The comments received on the proposals set out in the Committee's first consultative paper, issued in June 1999 (see the *BIS Quarterly Review* of August 1999), and ongoing dialogue with the industry and supervisors worldwide greatly assisted it in developing the new proposals. The Committee recognises that the New Accord is more extensive and complex than the 1988 Accord, as a natural reflection of innovation in the financial marketplace and the resulting need for a more risk-sensitive framework. The key aspects of the proposals are briefly highlighted below. For a more extensive treatment, readers are encouraged to refer to the package of documents released by the Basel Committee Secretariat.[1]

The proposals are based on three mutually reinforcing pillars that allow banks and supervisors to evaluate properly the various risks that banks face. The New Accord focuses on: minimum capital requirements, which seek to refine the measurement framework set out in the 1988 Accord; supervisory review of an institution's capital adequacy and internal assessment process; and market discipline through effective disclosure.

Pillar 1

In the proposals for Pillar 1 – minimum capital requirements – the Committee intends to replace the "one size fits all" framework set out in the 1988 Accord with a variety of options. The New Accord sets out those options from which banks, with the authorisation of their supervisor, can choose depending on the complexity of their business, as well as the quality of their risk management. This framework is designed to motivate banks to improve continuously their risk management capabilities so as to make use of the more risk-sensitive options and, thus, produce more accurate capital requirements. The Committee is also placing greater emphasis on banks' own assessment of the risks to which they are exposed in the calculation of regulatory capital charges.

For credit risk, a standardised approach building upon the 1988 Accord and introducing the use of external credit assessments will be available for less complex banks. Banks with more advanced risk management capabilities, which can meet rigorous supervisory standards, can make use of an internal ratings-based approach. Under this approach, some of the key elements of credit risk, such as the probability of default of the borrower, will be estimated internally by a bank. The Committee is also proposing an explicit capital charge for operational risk. A number of possible options for this calculation are elaborated on in the consultative package. The approach to market risk remains largely unchanged.

With respect to the overall level of capital, which will be determined by summing separately calculated charges for credit, market and operational risk, the Committee's primary goal is to

[1] See in particular *The New Basel Capital Accord: an explanatory note* for a general description of the contents of the consultative package. Available on the BIS website at www.bis.org.

deliver a more risk-sensitive methodology that on average neither raises nor lowers regulatory capital for banks, after including the new operational risk capital charge. Naturally, capital requirements may increase or decrease for an individual bank depending on its risk profile.

Pillar 2

The Committee's ongoing work has also affirmed the importance of the supervisory review process as a critical complement to the minimum capital requirements. The New Accord therefore proposes procedures through which supervisors can ensure that each bank has sound internal processes in place to assess the adequacy of its capital and set targets for capital that are commensurate with the bank's specific risk profile and control environment. This internal process would then be subject to supervisory review and intervention where appropriate.

Pillar 3

The Committee believes that the disclosure requirements and recommendations set out in the package will contribute to market discipline by allowing market participants to assess critical information describing the risk profile and capital adequacy of banks. The proposals provide more detailed guidance on the disclosure of capital structure, risk exposures and capital adequacy.

Similarities and differences relative to the June 1999 proposals

The basic concepts and the design of the two sets of proposals remain the same. Thus, the three-pillar approach has been retained; several options are allowed for each measure under Pillar 1; banks are offered incentives to move to more accurate risk measures; there is a greater risk sensitivity of risk weights (the "OECD club" approach to such weights has been abandoned); and an explicit operational risk charge has been introduced.

However, a number of significant amendments have been made. First, there is a much greater degree of detail in every aspect of the package. Second, the standardised approach to credit risk measurement will more closely align the various risk buckets to the underlying risk (in part through the addition of a new risk bucket for corporate exposures – see the table below). Third, two options (foundation and advanced) are provided under the internal ratings-based approach, so that it can now be used by many more banks. Fourth, the focus of the measurement of other risks has been changed, with interest rate risk shifted from Pillar 1 to Pillar 2, but operational risk remaining in Pillar 1. Lastly, far more specific criteria have been provided for Pillars 2 and 3.

Risk weighting for corporates under the standardised approach

June 1999		January 2001	
AAA to AA-	20%	AAA to AA–	20%
A+ to B–	100%	A+ to A–	50%
Below B–	150%	BBB+ to BB–	100%
Unrated	100%	Below BB–	150%
		Unrated	100%

Further work and implementation

Following a final round of comments to be submitted by 31 May 2001, the Committee intends to finalise the New Accord by the end of the year and implement it in member jurisdictions in 2004. This timetable will accommodate national rulemaking procedures and allow adaptation of banks' internal systems, supervisory processes and regulatory reporting. The Committee has consulted with supervisors worldwide in developing the new framework, and expects the New Accord to be adhered to by all significant banks around the globe after a certain period of time. The Committee recognises that implementation of these proposals will in many cases require supervisors to augment their resources. It nonetheless believes that a capital adequacy framework that is more sensitive to risk and promotes strong risk management practices justifies any required additional resources. The Committee and the BIS's Financial Stability Institute stand ready to provide assistance and together will serve as a forum for information dissemination and exchange among supervisors.

Chronology of major structural and regulatory developments

Month	Body	Initiative
October 2000	Electronic Banking Group of the Basel Committee on Banking Supervision	Releases a discussion note and a series of white papers on the implications of electronic banking for banking supervision
	US dealers in credit derivatives	Agree to remove restructuring clauses from standard default swap contracts
	European Securities Forum	Announces plans for the creation of a single European counterparty and netting facility for European equities
	Depository Trust and Clearing Corporation	Calls for the development of a global clearing solution
	London Clearing House	Announces plans to to expand its clearing services for OTC derivative instruments
November 2000	Group of internationally active banks	Agrees on the Wolfsberg anti-money laundering principles
	US regulatory agencies	Call for public comment on simplified capital requirements for non-complex financial institutions
	European finance ministers	Agree to curb tax evasion through a programme of exchange of information on non-residents' savings income
	Committee of Wise Men on the Regulation of European Securities Markets	Publishes *Initial Report of the Committee of Wise Men on the Regulation of European Securities Markets*
	European Commission	Announces an extensive review of the Investment Services Directive
	Organisation for Economic Co-operation and Development	Announces the removal of the threat of economic sanctions for offshore centres that sign a commitment to transparency and cooperation
	Euroclear and Clearstream	Announce the setting-up of a daylight bridge between their settlement systems
	Group of commercial banks in the euro zone	Launches a cross-border retail payment system
	European Central Securities Depositories Association	Agrees on standards to facilitate the cross-border settlement of equities
	OM Gruppen AB and Morgan Stanley Dean Witter & Co.	Launch Jiway, an online stock exchange aimed at retail investors
December 2000	President of the United States	Signs the Commodity Futures Modernization Act of 2000
	European Securities Forum	Modifies its strategy with respect to the creation of a central European counterparty for equities
	Blackbird Holdings Inc.	Launches an electronic trading platform for European interest rate swaps