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Recent developments
In recent months, uncertainty in financial markets has risen sharply. Worldwide, equity prices have plunged, and the US dollar has depreciated by approximately 10% vis-à-vis the euro. Economic recovery in both the United States (US) and in the euro area lost momentum in the second quarter. In the Netherlands, the persistent economic downturn has pushed up the jobless rate. Yet, a significant moderation of negotiated wage rates is not in sight. To compensate for the effects of the stock market slump, pension funds will raise contributions, causing labour costs to rise.

Turbulence on the international financial markets

The past few months have seen uncertainty in financial markets growing significantly, reflecting also macro-economic developments. The increased risk perceptions can be told from the sharp rise in various risk premiums (Chart 1). In de US, risk premiums companies must pay on their bonds (bbb category) went up by approximately 1 percentage point to 2.6%, the highest level in the past ten years. Developing countries, too, are compelled to pay considerably higher spreads on their government debt. The increased uncertainty is also evidenced by the highly volatile price movements in the financial markets. In July and August, days that saw stock price fluctuations by +5% of −5% were no exception. The main exchange rates were also marked by increased volatility. Government bonds fulfilled their traditional role as safe haven in uncertain times. As a result, the ten-year bond yield in the US came down from 5.4% to a mere 4.0%, and long-term interest rates in the euro area fell 0.7 percentage point.

Developments in international financial markets were determined by the worldwide drop in equity prices and the sharp depreciation of the dollar. In the second quarter, stock market prices in the US and Europe fell by more than 10%, and another 20% in July (Chart 2). The aex did even worse, losing as much as 40% of its value between March and early August. In the second half of August, prices partly picked up again. The price/earnings ratios of the Eurostoxx index and the aex have meanwhile dropped well below the long-term average, indicating that equity prices in Europe are quite low in a historical perspective. The low ebb at stock markets reflects grown doubts about the prospects of the global economy and the recovery of corporate profits. Key to this sentiment is the wave of accounting scandals at major American companies. Questioning the reliability of the financial information published by the corporate sector, investors grew more risk averse, adjusting profit expectations downward. This sent equity prices plummeting. In response, the Bush administration introduced a bill specifying higher penalties for accounting

Chart 1  Volatility and risk premiums in financial markets

Percentages and basis points, daily figures

<table>
<thead>
<tr>
<th>Volatility Dow Jones</th>
<th>Volatility euro/us dollar rate</th>
<th>US corporate (bbb type) bond spreads, right-hand scale</th>
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<td>0 00</td>
<td>0 01</td>
<td>0 02</td>
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</table>

1 Weighted absolute value of the relative price change in a moving two-week window.
Source: Thomson Financial.
fraud. On the day Congress agreed on the bill, equity prices on Wall Street shot up by 6.5%. Strikingly, the European stock markets fell back just as much as their American counterparts, even though a scandal of a similar scale has not emerged in Europe so far.

In the second quarter, the euro rose by more than 12% against the dollar (Chart 3), moving above parity (1 dollar per euro) for a while in mid-July. The euro appreciated by 7% against the currencies of all of its trade partners. The sharp drop in the value of the US dollar is due to increased concerns about the persistent and sizeable current account deficit of the US, which ran 3.9% of GDP in the first quarter of 2002. Other contributing factors are the accounting scandals and uncertainty about the vigour of the economic recovery. The lower dollar rate will in the medium term reduce the United States’ trade deficit. As a consequence, the American economy will no longer be able to function as the global economy’s driving force to the same extent as in recent years. This is unfavourable for economies depending heavily on exports for their economic recovery, like Japan. In an attempt to prevent a stronger yen from jeopardising the hesitant economic recovery, the Japanese government intervened in the foreign exchange market with a record of €34 billion in the second quarter.

The negative mood on stock markets constitutes a risk for the recovery of the main economies in the world, the American economy in particular. Businesses may have difficulty getting their activities financed. Consumers may cut down on expenditure because they have lost money on the stock market. According to prevailing estimates, in the long term spending will be cut by four cents for each dollar lost. In the bull-market years (1995-1999), the growth of American consumption was significantly lower than might have been anticipated on account of the above estimate. The consumption/net wealth ratio has fallen off sharply as a
consequence (Chart 4). One plausible explanation may be that a large part of the stock market gains were not considered to be of a permanent nature. Consistently, so far the turnabout on the stock market in 2000 has likewise impacted consumption but moderately, allowing the consumption/net wealth ratio to rise appreciably again. The experience since 1995 thus suggests that consumption might be less adversely affected by the recent price falls than expected.

In many a country on the European continent, the vast majority of households hold no shares, and total equity investments are relatively modest compared to the United States, the United Kingdom and the Netherlands. The direct wealth effect in those countries will hence be small. Nonetheless, the stock market slump may temporarily impact the economies of these countries adversely through the indirect channel of consumer confidence. In many countries – Germany being the most important exception – equity price losses coincide with a decline in consumer confidence, whereas the reverse occurs in the event of price gains (Chart 5). Since stock market movements affect consumer confidence for some time and spending patterns adjust with some lag to changes in consumer confidence, in Europe, too, economic activity might be somewhat impacted by equity prices having fallen.

**Chart 4  Private consumption in the United States and the Netherlands**

Percentages, annual data

<table>
<thead>
<tr>
<th>Year</th>
<th>Netherlands 1</th>
<th>United States 2, right-hand scale</th>
<th>Netherlands 4, right-hand scale</th>
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<tr>
<td>01</td>
<td>100</td>
<td>100</td>
<td>102</td>
</tr>
</tbody>
</table>

1 As a percentage of disposable income.
2 As a percentage of net assets, defined as the total of real and financial assets (including home ownership and pension capital) minus debt.


**Chart 5  Correlation between equity price changes and consumer confidence**


Source: Own calculations based on data of the European Commission and Thomson Financial.

The international environment

**United States**

The recent revision of the American National Accounts shows that the recession in the United States in 2001 lasted longer and was more serious than previously assumed. In the first three quarters of 2001, the United States’ gross domestic product declined, reaching an annualised quarter-on-quarter low of −1.6% in the second quarter. Average GDP growth for 2001 came in at only 0.3% as a result, whereas earlier estimates had assumed 1.2% growth, with contracting economic activity in the third quarter only. This indicates that the American economy was going through a recession well before the 9/11 terrorist attacks. The new third-quarter growth figure (−0.3% instead of −1.3%) suggests that these attacks had had but a limited impact in macroeconomic terms.

The economic recovery in the United States lost momentum in the second quarter of the running year (Table 1). Preliminary estimates set economic growth in the second quarter at a mere 1.1%. In addition, the growth figure for the first quarter was adjusted downwards from 6.1% to 5.0%. The decline by 4 percentage points was visible in all spending categories, except investment. The decline in investment has practically bottomed out. Investment in machines and software has inched up for the first time in eighteen months. Employment is slow in recovering. Job creation in July was negligible, and the jobless rate continued to stand at 5.9% of the labour force.
The outlook for the United States for the rest of 2002 presents a mixed picture. On the one hand, a number of leading indicators, such as consumer confidence and business confidence, deteriorated far more than expected in July and August, partly as a result of stock prices plunging in June and July. On the other hand, the economy continues to be affected by monetary (low interest) and fiscal (reduction in taxation and social insurance contributions) stimuli. The lower dollar has benefited the competitive position of American businesses and is set to boost exports in the medium term. Consumption continues to grow at a robust pace. In July, for example – the drop in consumer confidence notwithstanding – car sales shot up driven by interest-free financing offers. The housing market, too, shows no sign of falling back, with the mortgage rate being the lowest in thirty years. Recent research found that developments in the housing market have a greater impact on consumer spending than do developments in the stock market. Moreover, macroeconomic profits have improved strongly since the fourth quarter of 2001, which is a prerequisite for a sustainable recovery of investment. Only a small minority of large firms reported poorer results for the second quarter than expected. In the face of the present uncertainties, however, businesses will be inclined to postpone their investment plans.

In its meeting of 13 August, the Federal Reserve stated that it saw primarily downward risks regarding economic activity in the near future, but did not move to cut the federal funds target rate. This rate therefore remained 1.75%, the lowest in 40 years.

**Euro area**

In Europe, too, the economic recovery is showing hitches. GDP in the first quarter increased by 0.3% on a quarterly basis, after contracting by 0.2% in the fourth quarter. However, the signs for the second quarter do not augur well. Industrial production in the second quarter was only marginally up on the first quarter, partly owing to strikes in Germany and Italy. According to preliminary estimates, growth of the Italian economy was disappointingly low (0.2%), while German economic growth halved at 0.3%. In Germany, the Ifo index in August fell for the third month in a row, and in France and Italy, too, industrial confidence declined (Chart 6). In July, consumer confidence recorded a drop for the second consecutive month. Retail sales did not point to an acceleration of consumption growth either. The weak growth of consumer spending is related to unfavourable developments in the labour market and the fact that many consumers are under the impression that inflation has gone up in recent months. This perception is possibly fed by the rise of prices of

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**Table 1 Economic growth in the United States**

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<td>2.4</td>
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<td>-7.9</td>
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**Contributions to gdp growth**

<table>
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<td>iv</td>
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<td>Private consumption</td>
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<td>1.7</td>
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<td>-0.1</td>
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<td>Net exports</td>
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<td>-0.2</td>
<td>0.5</td>
<td>-0.4</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

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1 Annualised, seasonally adjusted.

Source: Department of Commerce, Bureau of Economic Analysis.
frequently bought products in particular, such as vegetables, fruit, petrol, as well as drinks and meals in bars and restaurants. The introduction of the euro is another factor. Since in reality the inflation rate has fallen, it may be assumed that consumers underestimate the purchasing power of their income. In June, unemployment edged up further to 8.4% of the labour force, as job creation came down to a very modest level.

In terms of the harmonised index of consumer prices (hicp), inflation in the euro area decreased to 1.8% in June, to climb back to 1.9% in July. For the remainder of the year, inflation is expected to come out at slightly over 2%. Especially service prices keep on rising, owing to which the hicp core inflation – the inflation corrected for the price movements of energy and unprocessed food – invariably stood at 2.6%, only to decrease to 2.5% in July.

Second-quarter growth of the broad monetary aggregate m3 was 7.1% on an annual basis. While having fallen off lightly after accelerating in the second half of 2001, monetary growth in the euro area is still clearly in excess of the reference value of 4.5%. This relatively high rate reflects the increased liquidity preference of investors in the light of the negative stock market environment and the uncertain economic outlook. Euro area residents converted investments outside the euro area into liquid assets, which are included in the broad monetary aggregate. In addition, the fall of the long-term interest rates has reduced the differential between the long-term rate and the short-term rate, rendering liquid assets relatively attractive. Growth of lending to the private sector came down in the second quarter of 2002 to 5.5% as a result of the weak cyclical development and the grown uncertainty. Only one year ago, lending increased by 7.9%.

The recent developments in the stock markets and the foreign exchange markets present a risk for the recovery of the European economy. The appreciation of the euro has affected the price-competitiveness of European producers. As a result, exports may be depressed for about two years and economic growth may decline. On the other hand, prices of imported goods will fall, pushing down inflation. Euromon, the model for the European economy developed by the Bank, indicates that a euro/dollar rate of 1.00 instead of 0.91 will reduce both economic growth and inflation by approximately 0.1 percentage point in the current year. In 2003, the downward effect on inflation should be about 0.4 percentage point, and, on gdp, 0.5 percentage point.

On the basis of an analysis of the monetary, financial and economic developments and uncertainties discussed above, the European Central Bank decided on 1 August not to adjust the main interest rates. Since 8 November 2001, the refinancing rate has remained constant at the level of 3.25%.

The Dutch economy: growth deceleration persists

The Dutch economy barely grew in the first six months of the year (Table 2), i.e. on a quarterly basis by just 0.1% in both the first and the second quarter. Just as in 2001, government spending was an important source of domestic spending. Annualised, growth of private consumption was slightly down to 1.1%, thus continuing to contribute steadily if modestly to the spending rate. The substantial decline in the willingness to buy seen since December 2001 as yet appears to have a limited effect on the actual spending pattern of households.

Since the first quarter of 2001, consumption growth has been fluctuating around 1.2%, after registering an average of about 4% in the period 1996-2000. Compared to American consumers, Dutch consumers responded sharply to the deterioration of the economic climate in 2000. In the United States, consumption growth averaged 4.2% in the years 1996-2000, and 2.7% in 2001 and the first half of 2002. The difference in response can also be told from the respective saving patterns. Whereas Dutch households increased their saving rate by 3.5 percentage points in 2001, the saving

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**Chart 6  Leading indicators for the euro area**

- Ifo indicator
- Euro area consumer confidence, right-hand scale
- pmi of euro area manufacturing industry, right-hand scale

1 Standardized at 0 (= pmi-90).
Source: Thomson Financial.
rate of their American counterparts went down 0.5 percentage point. American household savings did not start to rise until the second half of 2001. The consumption/net wealth ratio went up by 1.0 percentage point in 2001. However, a sharper rise would have been more obvious given the growth of disposable income by 6% (Chart 4). The Dutch pattern of consumption was thus less stable than the American, which is the more striking as Dutch consumers were not faced with a higher jobless rate (in the United States unemployment increased by 2 percentage points) and unemployment benefits here are considerably more generous than in the United States.

Business investment is still under downward pressure. In the second quarter, the level of investment was 4.3% lower than a year earlier. Investment has now staged a negative year-on-year growth for six quarters in a row. The continuing contraction of investment is closely tied in with the unprecedented speed at which profitability of the Dutch business sector deteriorated in 2001 (Chart 7). For the first time in the past two decades, quoted non-financial companies on average did not turn in a profit in 2001, while in 2000 their profitability stood at a record high. Although corporate profits were down across the board, the historically big losses notched up by the technology and telecom companies, like Philips and KPN, account for much of this spectacular downturn. Profits were depressed by the decline in macroeconomic demand and high labour costs, which were caused by high wage increases (4.1%) and the reluctance of businesses lay off staff. In addi-

Table 2 Economic growth in the Netherlands

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<td>i</td>
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<td>iii</td>
<td>iv</td>
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<tr>
<td>Percentage changes on previous corresponding period</td>
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<td>Contributions to GDP growth, percentage points</td>
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<td>Private consumption</td>
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</tbody>
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Explanatory note: The quarterly figures are not adjusted to the annual figures of the 2001 National Accounts, as the latter figures were not available on the cut-off date.
Source: Statistics Netherlands.

rate of their American counterparts went down 0.5 percentage point. American household savings did not start to rise until the second half of 2001. The consumption/net wealth ratio went up by 1.0 percentage point in 2001. However, a sharper rise would have been more obvious given the growth of disposable income by 6% (Chart 4). The Dutch pattern of consumption was thus less stable than the American, which is the more striking as Dutch consumers were not faced with a higher jobless rate (in the United States unemployment increased by 2 percentage points) and unemployment benefits here are considerably more generous than in the United States.

Business investment is still under downward pressure. In the second quarter, the level of investment was 4.3% lower than a year earlier. Investment has now staged a negative year-on-year growth for six quarters in a row. The continuing contraction of investment is closely tied in with the unprecedented speed at which profitability of the Dutch business sector deteriorated in 2001 (Chart 7). For the first time in the past two decades, quoted non-financial companies on average did not turn in a profit in 2001, while in 2000 their profitability stood at a record high. Although corporate profits were down across the board, the historically big losses notched up by the technology and telecom companies, like Philips and KPN, account for much of this spectacular downturn. Profits were depressed by the decline in macroeconomic demand and high labour costs, which were caused by high wage increases (4.1%) and the reluctance of businesses lay off staff. In addi-

Chart 7 Profitability of Dutch businesses

Percentages
tion, profits were reduced because (often costly) participations and acquisitions had to be written off owing to the fallen stock prices. In line with the deteriorated profitability, the number of bankruptcies rose by more than 20% in the first quarter.

The economic downturn and the risen risk perceptions are also reflected in the financing behaviour of Dutch enterprises. In the first two quarters of this year, the decline in investment in fixed assets reduced the growth rate of lending to businesses to 2% (Chart 8). Short-term lending, which is important for financing stockbuilding, even fell by as much as 3.4%. Greater uncertainty and higher risk aversion among external financiers have induced businesses to improve their cash positions. Despite the substantial fall of their profits, Dutch enterprises increased their liquid assets from 26.4% of GDP at the end of 2000 to 32.4% in the first quarter of the running year. The diminished use of short-term bank loans is also partly induced by risk-averse financing behaviour. By not using their credit lines to the maximum, companies create room to borrow at a later stage and limit their refinancing risks. It is not surprising that companies with the highest debt and, hence, the highest refinancing risks, have boosted their cash positions the most.

The immediate prospects for the Dutch economy deteriorated in the past quarter. The appreciation of the euro means a loss of competitiveness outside the euro area, pushing down exports and production. Its open character renders the Dutch economy relatively sensitive to changes in the euro/dollar rate. Moreover, the Netherlands is one of the biggest investors in the United States. The stock market slump will have negative effects by way of higher pension contributions, lowering disposable income (see below). In addition, it remains to be seen whether and, if so, to what extent consumer spending will be affected by wealth effects and confidence effects. The stimulating effects from the public sector will evaporate within the foreseeable future. No strong stimulus is to be expected either from the housing market, given the slowdown seen in the increase in real estate prices. The rundown of inventories – which set in in the first quarter of 2001 – is still under way. In view of the persistently low economic growth and the further fall of stock prices, corporate profits should not be expected to look better this year than last year. As, given the modest profit outlook and increased uncertainty, companies will be little pressed to expand production capacity, it will also take longer for investment to recover.

**Inflation, wages and the reversal on the labour market**

Dutch inflation is falling at a slow pace. Compared to the first quarter, CPI-based inflation decreased by 0.3 percentage point to 3.5%. This reduction mainly reflects baseline effects, viz. higher energy prices and higher meat prices in the wake of the foot-and-mouth disease in the spring of last year. July, too, saw an inflation figure of 3.5%, i.e. 0.1 percentage point higher than in June, mainly driven by higher vegetable and fuel prices. Furthermore, housing rents went up 2.9% with effect from 1 July (last year: 2.7%). Corrected for government measures and volatile components (energy, vegetables and fruit), inflation in July came down by 0.1 percentage point to 3.7%. The underlying inflation dynamics continue to be high. This would seem to be caused mainly by sharply risen wage costs, beside the euro conversion. A recent Bank survey concludes that the transition to the euro has raised the general price level by approximately 0.6 percentage point. In this Quarterly Bulletin’s article entitled ‘Getting used to the euro’ the results of this survey are extensively discussed. Elsewhere in the euro area, the euro effect appears to be less pronounced. Eurostat estimates this effect at no more than 0.2 percentage point. In terms of the harmonised index of consumer products (HICP), Dutch inflation dropped to 3.8% in July. In the rest of the euro area, HICP inflation stood at 1.9%.

Wage movements are highly important for the future course of inflation. For 80% of employees in the

**Chart 8 Bank lending to private sector**

Quarterly figures; year-on-year percentage changes

<table>
<thead>
<tr>
<th>Year</th>
<th>Lending to private and public companies</th>
<th>Mortgage lending</th>
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Lending to private and public companies
Mortgage lending
Short-term business lending
private sector collective labour agreements have been concluded for 2002, providing for a 3.6% pay rise on average. From a macroeconomic perspective, this is a generous increase in view of the drop in labour productivity by 0.6% in 2000, the deterioration of the competitive position, the rise of the A1q to 84% and the reversal shown by the labour market at the end of 2001.

Despite a range of disappointing growth figures, wages have not shown a trend towards substantial moderation recently (Chart 9). In addition to inflation developing less favourably than expected, this might tie in with the majority of collective wage negotiations taking place against a backdrop of falling unemployment. The latter factor was the result of employers waiting relatively long before proceeding to shed labour. This prolonged labour hoarding drew heavily on the growth of profits and labour productivity, which reached all-time lows in 2001. It also means that for quite some time the labour market gave no signals toward wage moderation.

Since the spring of 2002 it has been clear, however, that unemployment is on the rise at a hefty pace. In the period May-July 2002, the jobless number corrected for seasonal effects ended up at 174,000 persons, implying an increase by 38,000 in six months’ time. The number of vacancies, too, showed a rapid decline. Given the weak economic outlook and the fact that normally job creation trails economic growth, the labour market situation is expected to deteriorate considerably in the coming period. Generous collective labour agreements might delay the recovery of the Dutch economy and lead to an unnecessarily high increase in the jobless rate. During the previous recession (1991-1992), unemployment rose by 200,000 persons, for one, because wages were slow to respond to the deteriorated situation.

Trying times for pension funds

Incidentally, a moderate wage development might be welcome news for the pension funds, since the cost of indexing pensions to wage and price movements will turn out lower. Compared to other countries, Dutch households have built up huge assets in pension funds (Chart 10). Pension funds have a very long investment horizon. In recent years, Dutch pension funds have increasingly expanded the equity component of their portfolios on the argument that in the long run returns on equity are higher than on government bonds. The weight of equities in the portfolio increased from 12% in 1990 to approximately 50% in 1999 (Chart 11), more than 85% of which consisting of foreign shares. Since, in the long term, investment returns are higher, the pension premiums, a part of the wage bill, can remain relatively low. Pension funds cannot fully translate the higher investment returns into lower pension contribu-

### Chart 9  Wage settlements for 2002 by date of conclusion of collective labour agreement

<table>
<thead>
<tr>
<th>Year</th>
<th>Negotiated wage rate increase for 2002</th>
<th>Unemployment</th>
<th>GDP growth</th>
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<tbody>
<tr>
<td>2000</td>
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<td>2001</td>
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<td></td>
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<tr>
<td>2002</td>
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Explanatory note: The hue of a bar represents the number of employees coming under the collective labour agreements concluded. Light-coloured = less, and dark-coloured = more, than one hundred thousand employees.
1 Latest official unemployment figure (x 1,000) at the time of the negotiations.
2 Latest official GDP growth figures (quarter-on-quarter, annualised) at the time of the negotiations.

### Chart 10  Size and equity investments of pension funds

Percentages of GDP

<table>
<thead>
<tr>
<th>Country</th>
<th>Financial assets</th>
<th>Equity investments</th>
</tr>
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<tbody>
<tr>
<td>NL</td>
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<tr>
<td>CH</td>
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<tr>
<td>UK</td>
<td></td>
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<tr>
<td>US</td>
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<td>FN</td>
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<td>CA</td>
<td></td>
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<td>DK</td>
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<td>BE</td>
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<td>DE</td>
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<td>IT</td>
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<td>SW</td>
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</table>

tions, though, as they need hefty financial buffers to absorb the sometimes major swings in returns. Consequently, the current premiums are substantially lower than in the seventies and eighties, while the buffers are considerably larger (on average).

Pension funds benefited from the steep price rises on the stock markets and the moderate wage and price rises in the second half of the nineties. As a result, the return on their investment portfolios was higher than was required to cover the growth of their obligations – including the indexation of the accrued pension claims and the payable pensions. In the period 1995-1999, the return averaged 11.5%, compared to 7.0% in 1990-1994. These windfalls were generally used for building financial buffers and, to a much lesser extent, reducing the premiums. Between 1995 and 1999, the coverage ratio – the ratio of a pension fund’s invested assets to its pension liabilities – rose sharply from 107% to 135%. At the end of 1999, pension funds had amassed a buffer amounting to 35% of their liabilities, while at the end of 1990 there was hardly any buffer worth mentioning.

In 2000, the spell of financial prosperity came to an end, however. Pension funds were in for trying times, in terms of both investments and liabilities. Since March 2000, the stock market environment has been deteriorating dramatically, causing pension funds to sustain considerable losses on their equity positions.

The return on total assets was no more than 2.6% on average in 2000 and a negative 2.8% in 2001. On the pension payments’ side, liabilities rose at a higher pace in the wake of the high wage growth and high inflation seen since 2000. These two unfavourable developments drew so heavily on buffers that by the end of 2001, the average buffer had been reduced to 18% of liabilities. The tumbling stock prices in recent months have further eaten into the buffers. According to projections of Netherlands Bureau for Economic Policy Analysis, the average coverage ratio will come out at approximately 110% at the end of this year. About one quarter of the one thousand pension funds or so in the Netherlands are already in a worse position than this average suggests. In July, nearly two hundred pension funds posted a coverage ratio of between 100% and 110%, while forty reported percentages lower than 100%.

If the coverage ratio continues to be low, adjusting pension payments to wage and price movements may become difficult. The Pensions and Insurance Supervisory Authority of the Netherlands therefore stipulates that pension funds maintain financial buffers that correspond with the risk profiles of their investments. Should buffers threaten to turn out lower than required, the pension funds in question must take action, to which end basically three ways are open. In the first place, pension funds may decide to index running pension payments – which in practically all cases is conditional – henceforth only partially or not at all. So far, this policy has been adopted only sporadically. In 2002, 90% out of the 1.2 million retired residents received fully indexed payments, in conformity with the regulations, while for a mere 1% nominal payments remained constant. The remaining 9% received partially adjusted benefits. A second policy option to compensate for an unduly low buffer is to reduce the equity component in portfolios. This trajectory has on the whole not been followed either. Indeed, many pension funds chose to add stocks to their portfolios in 2000 and 2001 in order to keep up the portfolio weight of equities. Abandoning the long-term strategy would in the long run require sharp permanent premium increases to offset the lower returns. By far the majority of funds have so far opted for the third way to increase the coverage ratio, viz. (temporary) premium increases and extra capital injections by companies. The Netherlands Bureau for Economic Policy Analysis projects that in 2002 pension funds (except abp) will raise the average pension premium to 10.5% (up by 1 percentage point), and to 11.8% in 2003. Pension contributions at the abp are set to rise even higher, since its members are relatively old and the coverage ratio relatively low.

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Chart II  Average coverage ratio and equity holdings of pension funds

<table>
<thead>
<tr>
<th>Coverage ratio</th>
<th>Equity holdings, right-hand scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>110</td>
<td>30</td>
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<tr>
<td>120</td>
<td>40</td>
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<tr>
<td>130</td>
<td>50</td>
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<tr>
<td>140</td>
<td>60</td>
</tr>
<tr>
<td>90</td>
<td>10</td>
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</table>

2 Equity holdings as a percentage of total assets.
The higher pension premiums imply a substantially higher wage bill and a deterioration of competitiveness. Economic growth, inflation, exports and employment will develop less favourably as a result. Calculations using the Bank’s macroeconomic model morkmon show that the anticipated premium increases will reduce GDP by 0.1 percentage point in 2002, and 0.4 percentage point in 2004. The general price level in these years will be pushed up by 0.2 percentage point and 0.6 percentage point, respectively. Negative economic effects should also be factored in for subsequent years.

The housing market and mortgage lending

The housing market appears to have stabilised in the first half of 2002, after the exuberant 20% price hike seen in 2000 and the subsequent moderation to 10% in the course of 2001. Annualised, in the second quarter the price of the average home went up by 6.5%. Sharp housing price rises are now primarily restricted to provinces where, earlier on, real estate price movements lagged behind the national average. For example, while in recent years house prices in Groningen and Zeeland rose at a lower rate than elsewhere in the Netherlands, in the period June 2001-June 2002 it was the other way round (Chart 12). The reverse holds for Flevoland, Utrecht and Noord-Holland, which led the housing market boom in 2000. Also a breakdown of the housing market into different price categories throws up evident differences. The period during which houses in the top-end segment are for sale has become longer than in the other market segments, while price movements in this segment trail the average. For the most expensive houses, even price falls have been recorded. This Quarterly Bulletin’s article entitled ‘Influence of stock market strongest in housing market’s top segment’ discusses at length the divergent price movements seen for the different housing categories.

Growth of mortgage lending accelerated in the second quarter to 12.1% on an annual basis (Chart 8), with the average mortgage loan rising by 6%. The increase in newly registered mortgages is almost entirely accounted for by refinanced and second mortgages. Since early 2001, the number of refinanced and second mortgages has been rising steadily, in parallel with the lower mortgage rates. By refinancing their mortgages, home owners are able to reduce their monthly mortgage payments.

The levelling off of the rate of price increases on the housing market signals a lower growth rate of household wealth. This may lead to debt problems for households that recently bought a house using a second mortgage (the average loan-to-value ratio for new home owners was 104% in the first quarter). This situation may arise in the event of loss of income owing to unemployment or forced relocation, e.g. as a result of a divorce. Against the background of the less than bright labour market, and a housing market cooling down further, in the first half of this year approximately 450 cases of payment arrears were recorded on mortgages granted with an NHG guarantee (this number came out at 625 for all of 2001).

3 The measurement for macro level profits in the National Accounts is far less susceptible to accounting tricks than the figures published by the companies.
5 Some corporate pension funds have granted associated companies – e.g. Unilever, ABN AMRO and Rabobank – contribution discounts and, in some cases, even contribution holidays. In a number of cases, contributions were refunded. Given the size of the pension fund sector, however, the effect of this measure was of minor significance.
Latest developments in supervision

Banks’ results underwent a negative impact during the past quarter from halting recovery in the international economy and from a depressed sentiment on the stock markets.

The new cross-sector framework of financial sector supervision in the Netherlands is gradually taking shape. The Bank and the Pensions and Insurance Supervisory Authority of the Netherlands have embarked on a course of closer co-operation in some areas of prudential supervision. Together with their counterpart, the Netherlands Authority for the Financial Markets, both institutions are working towards effective agreements about the precise division of labour and mutual co-operation.

Finally, in July, a new Exemption Regulation under the Act on the Supervision of the Credit System entered into force, while an Act on the Money Transaction Offices also became operative.

Developments in the financial sector

During the second quarter of 2002, the profitability of Dutch banks, in terms of after-tax profits, further declined, continuing a trend which had manifested itself in preceding quarters (Table 1). This development was caused by less advantageous macroeconomic conditions, forcing the banks to make larger provisions (92.4%), and the developments on the financial markets reflected by lower commission earnings (-4.3%). A bright spot, meanwhile, was the decline of operational costs as a result of cost reduction measures taken by some individual banks.

Developments in provisions

Larger provisions were deemed necessary because deteriorating economic outlooks and the growth in the number of bankruptcies increased the risk of default on loan servicing. The same development is also observed in the rest of Europe. Chart 1 shows that both provisions made by the 12 largest banks in Europe excluding the Netherlands and those made by the large Dutch banks have increased sharply since 2001. Most important for longer-term developments will be the issue of whether the depressed stock market sentiment affects consumer confidence and further delays economic recovery. This is because if economic growth continues to decline, the lending portfolios of banks will deteriorate further so that they will have to make larger provisions.

Country risk also is a major influence in the development of provisions. In the second quarter, the credit spreads of Brazil and Turkey – i.e. the margin between the interest rate on a country’s government paper and the ‘risk-free’ rate – increased sharply (Chart 2). Growing political unrest in these two countries and the devaluation of their currencies vis-à-vis the US dollar has increased the risk that these countries, like Argentina, may face financial crises. Expectations are that Dutch banks will be more than able to absorb the impact should a crisis develop in these countries. Compared to the crisis in Argentina, caused in part by a misconceived policy mix, the current problems in Brazil and Turkey are of a less fundamental nature. In addition, Dutch banks, having well-spread international portfolios, are less susceptible to fluctuations in the performance of

### Table 1 Profit and loss of Dutch banks

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<tbody>
<tr>
<td><strong>Total earnings</strong></td>
<td>19.7</td>
<td>17.5</td>
<td>-0.2</td>
<td>-3.6</td>
<td>4.0</td>
<td>-2.7</td>
<td>1.3</td>
<td>4.3</td>
<td>-1.7</td>
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<tr>
<td><strong>Interest</strong></td>
<td>15.2</td>
<td>6.3</td>
<td>6.6</td>
<td>0.3</td>
<td>11.7</td>
<td>5.0</td>
<td>10.2</td>
<td>15.9</td>
<td>4.8</td>
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<tr>
<td><strong>Commission</strong></td>
<td>23.8</td>
<td>28.9</td>
<td>-9.9</td>
<td>-14.0</td>
<td>-10.9</td>
<td>-10.5</td>
<td>-4.0</td>
<td>-2.7</td>
<td>-4.3</td>
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<tr>
<td><strong>Total expenses</strong></td>
<td>11.8</td>
<td>16.7</td>
<td>7.4</td>
<td>4.6</td>
<td>9.7</td>
<td>7.6</td>
<td>7.7</td>
<td>7.1</td>
<td>5.5</td>
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<tr>
<td><strong>Operational expenses</strong></td>
<td>15.2</td>
<td>19.8</td>
<td>2.5</td>
<td>3.6</td>
<td>6.4</td>
<td>3.5</td>
<td>-2.7</td>
<td>3.6</td>
<td>-1.7</td>
<td></td>
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<tr>
<td><strong>Provision</strong></td>
<td>-24.3</td>
<td>-14.6</td>
<td>98.0</td>
<td>16.8</td>
<td>82.7</td>
<td>50.6</td>
<td>312.8</td>
<td>61.2</td>
<td>92.4</td>
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<tr>
<td><strong>Profit/loss after tax</strong></td>
<td>53.7</td>
<td>21.5</td>
<td>-19.3</td>
<td>-15.5</td>
<td>-16.4</td>
<td>-32.6</td>
<td>-11.5</td>
<td>-8.8</td>
<td>-23.4</td>
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</table>

Source: DNB.
individual economies – with the proviso that exposures of Dutch banks to Brazil and Turkey as a share of their regulatory capital base (7.5% and 6%, respectively, on 31 March 2002) are larger than those on Argentina (2.8% on 31 March 2001 and 3.6% the previous quarter).

**Development of commission income**
Commission income continued to decrease during the second quarter as a result of declining share prices. Stock market depreciation may affect banks’ profitability through various channels. First, the lower value of securities traded leads to lower commission earnings (Chart 3), mainly as a result of price effects. Volume effects are insubstantial: stock market sentiment appears to have only limited consequences for the number of securities transactions. Secondly, banks also practice own-account trading. Yet the effect of falling share prices on own-account trading results does not have to be negative: by taking up short positions, banks may well generate income out of declining prices.

Finally, Dutch banks’ solvency ratios are not fundamentally impacted by a declining stock market. Although the market value of banks’ investment and trade portfolios decreases, the influence of this market risk in determining the solvency ratio is minor compared to that of lending risk. As a result, Dutch banks’ combined solvency, in terms of the **b**is capital standard, hardly declined during the second quarter, and at 11.2% (10.4% for the large banks) remained well above the 8% minimum requirement.

**Development of interest income**
Interest income during the second quarter was 4.8% up compared to the corresponding period of last year. The rise in interest income may be partly explained from the favourable development of the interest term structure: the margin between long-term and short-term interest rates increased, which is profitable for the banks because their assets tend to have longer maturities than their liabilities. Another reason is the growth of total

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*Source: DNB.*

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**Chart 1** Semiannual provisions of large **EU** banks vs. large Dutch banks

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<td>12000</td>
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<tr>
<td>0</td>
<td>500</td>
<td>1000</td>
<td>1500</td>
<td>2000</td>
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**Source:** DNB.

**Chart 2** Credit spread vis-à-vis Brazil and Turkey

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**Source:** Bloomberg.

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**Chart 3** Correspondence between **AEX** index and Dutch banks’ commission income up to June 2002

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<tr>
<td>2000</td>
<td>1500</td>
<td>1000</td>
<td>500</td>
<td>0</td>
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**Source:** DNB.
bank lending by 8% compared to the corresponding period of the previous year (Chart 4). Both Other lending, including corporate lending and consumer credit, and Mortgage lending contributed to this growth pattern. The growth in mortgage lending was mainly caused by a larger number of contract renegotiations resulting in increased loans. The numbers of mortgages directly connected to housing transactions remained unchanged. In the second quarter, according to Land Register data, prices of terraced homes were 6.5% higher compared to the second quarter of the year before (against a 2% rise in the first quarter). Apparently house prices are rising more sharply again than in the recent past, although still far more slowly than in 1999 and 2000, when annual price increases of 15% to 20% were recorded.

During the first quarter of 2002, the Guarantee Fund for Homeownership (Nationale Hypotheek Garantie or nhg) noted a sharp increase in the number of homeowners who are four months in arrears with their mortgage payments, a picture which the Bank saw confirmed by its own contacts within the Dutch banking community. The borrowers in question are typically young homeowners with weak financial reserves who quickly become financially vulnerable when a loss of income occurs, as a result of e.g. job loss or divorce. Given the very limited number so far, the Bank, for the time being, sees no cause for concern about mortgage lending by Dutch banks. Yet the Bank will continue to monitor consumers’ debt positions closely, especially because consumers seem to run up ever greater debts.

**Chart 4  Bank lending to the private sector**
Quarterly figures, annual rate of change in percentages

<table>
<thead>
<tr>
<th>Year</th>
<th>95</th>
<th>96</th>
<th>97</th>
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<th>00</th>
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<tbody>
<tr>
<td>Total lending</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Mortgage lending</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Other lending</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: DNB.

**Chart 5  Overdrafts on checking accounts**

<table>
<thead>
<tr>
<th>Year</th>
<th>93</th>
<th>94</th>
<th>95</th>
<th>96</th>
<th>97</th>
<th>98</th>
<th>99</th>
<th>00</th>
<th>01</th>
<th>02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total € million</td>
<td>0</td>
<td>1000</td>
<td>2000</td>
<td>3000</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: CBS.

This phenomenon is also illustrated by the fact that for several years, overdrafts on checking accounts have continued to increase (Chart 5). Since overdrafts carry higher interest rates than other forms of debt, this development has led to increased interest income for the banks.

**New cross-sectoral framework for supervision of the Dutch financial sector**

**Introduction**

In February of this year, Parliament endorsed the restructuring of financial sector supervision in the Netherlands along cross-sectoral or functional rather than sectoral lines. Whereas until recently, the nature of a financial institution (its 'sector') determined which supervisor was responsible for supervising it, this decision is now based on the functional distinction between prudential and conduct-of-business supervision. Under the new framework, the Bank and the Pensions and Insurance Supervisory Authority of the Netherlands (Pensioen- en Verzekeringkamer or pvk) are responsible for prudential supervision, which aims to promoting the soundness of financial institutions. The Netherlands Authority for the Financial Markets ('the Authority'), the legal successor to the Securities Board of the Netherlands, is the conduct-of-business supervisor for the entire financial sector. Conduct-of-business supervision aims at promoting a well-ordered and transparent market process, pure relations between market parties and, in that context, the protection of the consumer. Given the new supervision framework, the Bank and the pvk have intensified their co-oper-
Supervision

During the past six months. In addition, clear agreements have been made with the Authority regarding the division of duties between the prudential and the conduct-of-business supervisors.

**Intensified co-operation between the Bank and the PVK**

In early March 2002, the Governing Board of the Bank and the Board of the PVK agreed on plans to intensify their co-operation with respect to the exercise of supervision; policy and research; facilities management; and legal and management issues. During the second quarter, partly as a result of cross-appointments of Board and Governing-Board members between the PVK and the Bank, good progress was made in realising the planned intensified co-operation. Regarding the exercise of supervision, activities included further efforts in jointly drafting a comprehensive risk profile for mixed financial conglomerates and an approach strategy for what is called group supervision. Also, the risk analysis methods and tools of the Bank and the PVK – named, respectively, *rast* and *marfs* – are being integrated with each other. In the field of policy, policy preparation for a number of dossiers is being co-ordinated and in some cases joint policy advice has been prepared. Co-operation in the area of facilities management – comprising the three subprojects of financial accountability and planning & control; human resource management; and ICT – has included explorations in the field of cross-internships and mutual outplacement. Legal and management issues include preparations for and consultations on the Supervision Covenant, which was signed by the Bank and PVK on 23 April 2002. With the intensified co-operation in the areas mentioned, on-the-job contacts have become both more numerous and more intense. Those involved in the various shared activities have begun to get acquainted (on personal, organisational and operational levels). As a result, there is full confidence that in the rest of 2002, the envisioned enhanced co-operation may be expanded and extended further.

At the same time, it has become clear that full integration between the Bank and PVK may offer advantages which would be impossible or much more difficult to realise through organic growth. In combining the strengths and expertise of both entities, the quality and efficacy of Dutch supervision will increase even further. Such a quality upgrade, which will also benefit the supervised institutions, has become necessary because the financial world continues to increase in complexity. When in future, institutions have to deal with only a single ‘window’ for prudential supervision, they will find the efficiency of supervision increased. The integration process will involve all of the Bank and all of the PVK. This approach will ensure that common ground and areas of interaction between the supervisory tasks of both institutions and the Bank’s other tasks aimed at financial stability may be expanded to the full. Consultations on the matter are to be held with the responsible political authorities and with sectoral organisations.

**Co-operation with the Authority within the new supervisory framework**

After some of the Bank’s tasks with respect to the supervision of banks and collective investment schemes had been transferred, in the spring of this year, to the Authority (i.e. supervision of the Key Features Document for financial products and of compliance with the Consumer Credit Act), 1 September saw the transfer of conduct-of-business supervision of collective investment schemes (to the Authority) and that of prudential supervision of securities firms (to the Bank). By that time, the exercise of supervision had been adjusted as far as currently possible to the new supervision framework. Fine-tuning and remaining adjustments will have to wait until after the implementation of the draft legislation on securities-specific supervision and the overall restructuring of the supervision acts. Especially the latter change will take a few years. Then, most authorised institutions in the financial markets will have two supervisors, one prudential and the other for conduct-of-business, each active in its own area. Depending on the nature of the financial institution, contact with the prudential or the conduct-of-business supervisor will be most frequent. Some institutions will encounter only one supervisor, for instance because only integrity or only consumer protection demands specific attention pursuant to, respectively, the Act on the Money Transactions Offices or the Act on Consumer Credit.

Joint consultations by the Bank and the PVK have been held on a frequent basis with the Authority about the optimum division of labour and mutual co-operation. The outcome is a clear division in the regulations to be supervised. The Authority, for instance, will supervise client agreements while the Bank and the PVK will supervise credit institutions’ own funds. Any remaining areas where supervisors might cross each others paths are covered by practical agreements. One might think in this respect of certain management aspects. All the major and minor agreements have been recorded in a Covenant between the Bank/PVK and the Authority, which will shortly be signed by the three
supervisors and will concern all institutions subject to both prudential and conduct-of-business supervision.

Consultation and legislation

**New Capital Accord**

In early July, the Basel Committee has reached an agreement on the main outstanding issues holding up the new capital accord. Decisions were made regarding a several measures allowing for advantageous capital requirements on loans to small and medium-sized businesses. In October, banks will be asked to make a pro forma calculation of the capital requirements under the new Accord, including these latest decisions. This survey, called the quantitative impact study, will take until end-2002. The final decisions on the size of capital requirements will be taken on the basis of the survey results. After a last round of consultations, the Accord is expected to be signed in late 2003 and to enter into force at end-2006.

**New EU consultative bodies for supervision and financial stability**

This spring, a new institutional debate on supervision and financial stability was launched by the European Union, at the initiative of the British and German finance ministers. Their proposal was to investigate whether the EU’s legislative process – including the one regarding banks’ solvency requirements – might be speeded up and in what way consultations on financial stability between government departments, central banks and supervisors may be improved. Subsequently, the European Council of ministers of finance asked the Economic and Financial Committee (EFC) and the European Commission for an investigation. In the meantime the Council has decided, on the basis of interim results, to elaborate the so-called Lamfalussy approach in order to speed up legislation on banking and insurance supervision.

In 2000 a Committee of the Wise headed by Alexandre Lamfalussy developed this approach for the securities sector, where it has since then been implemented. It is based on the principle of clear distinctions between regulation, implementation of regulation, execution and enforcement. Basically, the European Parliament and the European Council formulate only the core principles for prudential supervision in a Regulation or Directive. Technical details on implementation are a matter for the European Commission and a committee of national government departments responsible for their countries’ legislation (‘comitology’). The Commission is itself advised by another committee of national (sectoral) supervisors, which consults with market parties on proposed legislation. The latter committee also monitors the uniform implementation of regulatory measures in the Member States. This approach will allow for technical regulations to be introduced sooner or to be adjusted to market developments. The advice furnished by supervisors and the involvement of market parties are intended to improve the quality and relevance of prudential legislation.

The above implies that EU consultations on the supervision of banks and insurance companies, and possibly also of financial conglomerates, is about to undergo major changes. Existing committees will be dissolved and other bodies created and given new mandates. Three EFC working groups, one of which will be headed by Managing Director Henk Brouwer of the Bank, are to make recommendations shortly, including opinions on the financial stability consultations. A major subject will be the issue of how to ensure the continued involvement of central banks and how the synergy of their activities and the supervision of banks may be used to best advantage.

**Exemption of prohibitions in the Act on the Supervision of the Credit System**

The Act on the Supervision of the Credit System 1992 (ASC) includes several prohibitory clauses. Examples are the prohibition against pursuing the business of a credit institution without a (banking) licence; the prohibition against pursuing the business of an electronic money institution; the prohibition against receiving repayable funds from the public; and the prohibition against the use of the word ‘bank’. The Minister of Finance is authorised to grant exemption from these prohibitions by Ministerial Regulation, an authority which he has used since 1994. On 1 July 2002, several of such exemption regulations were replaced by a single new Exemption Regulation in implementation of the Act on the Supervision of the Credit System 1992 (the ‘Exemption Regulation’). Institutions which meet the requirements of the Exemption Regulation are by law exempted from the prohibitory clauses in the ASC. In addition, the Nederlandsche Bank is authorised under the ASC to grant dispensation in individual cases.

So under certain conditions, companies are allowed to operate as credit institutions in the Netherlands without a banking licence. There are, in fact, some 12,000 of such companies operating under exemption or dispensation, also known as finance companies. Under the
new Exemption Regulation, the conditions for exemption have been relaxed. The first reason for this are the so-called integrity rules (including a notification requirement, integrity requirements with respect to (co-)policy makers, and requirements regarding the origin and destination of funds received), which had been introduced on 1 December 2001 in the aftermath of the 11 September 2001 attacks, have been repealed pending legislation on trust offices – since many finance companies are managed by such trust offices. Secondly, it is now allowed to receive funds, regardless of the notice period, from professional market parties and from within a closed circle. The requirement that such funds must be received with notice terms of two years or more has been dropped. The Policy Rule and the explanatory note to the Exemption Regulation explain what is meant by a ‘closed circle’ and a ‘professional market party’. And under several strict conditions, it is also allowed to receive funds from the larger public (i.e. not from within a closed circle or from professional market parties).

Act on Money Transaction Offices replaces Act on Exchange Offices

On 19 July 2002, the Act on the Money Transaction Offices (amto) entered into force, the Act on the Exchange Offices (aeo) being repealed simultaneously. From 1 January 1995, the aeo had provided for the registration and supervision of exchange offices. Since then, action has been taken against several fraudulent exchange offices. Research has revealed, however, that other money transactions (such as money transfers and the cashing-in of interest coupons) may be used for the laundering of criminal earnings and financing acts of terrorism. The amto aims to counter such actions and to protect the integrity of the financial system.

The amto operates on the basis of a registration system: it is not allowed to do business as a money transaction office unless an entry has been made in the Register kept by the Bank. Registration is subject to a number of requirements, relating to such issues as managers’ trustworthiness and other parties with material interests, and to operational integrity. Finally, every money transaction office must meet several supervisory requirements. The requirements made of operational integrity, for instance, are more stringent than they used to be under the aeo, while non-compliance with the rules may lead to the imposition of a cease and desist order or a fine. Another change from aeo to amto is that the role of the external auditor has been more closely attuned to supervisory purposes.

All money transfer offices must, over and above the requirements made under the amto, comply with requirements pursuant to the Disclosure of Unusual Transactions (Financial Services) Act and the Identification (Services) Act. In addition, the Bank is responsible for monitoring compliance with the Sanctions Act by money transaction offices. And finally, the amto serves the purpose of consumer protection.
Current developments in payments and securities systems

The electronic purse has been gaining hugely in popularity this year. Data for the first seven months of the year show the number of prepaid card payments to have soared from 30 million in 2001 to around 80 million in 2002. Since the amendment of the Act on the Supervision of the Credit System took effect in July, non-banking providers of electronic money are permitted to access the market under a more relaxed supervisory regime. Expectations are that the market mechanism will also work more effectively when the recommendations made by the Bank earlier this year consequent on research into the functioning of the payment market are realised.

Since the Regulation on cross-border payments in euro entered into force on 1 July, cross-border payments and cash dispenser transactions have become cheaper for Dutch consumers. At the European level, banks are seeking ways of realising a single euro payment area, where cross-border payment orders can be processed as efficiently as possible.

The integration of the European securities market is progressing. Following the integration of the Euronext exchanges, the operational integration of the attending clearing has been largely completed. Mergers between Euronext and British derivatives exchanges and settlement systems have also contributed to further integration.

In the first six months since the introduction of euro banknotes and coins, nearly 22,000 euro counterfeits have surfaced. This is a mere 7% of the total number of forged banknotes in the now defunct currencies of the twelve euro countries recorded in the first half of 2001.

Increased use of e-money

The use of electronic purses, i.e. reloadable multipurpose prepaid cards, has been spreading rapidly this year. In the first seven months of 2002, the number of prepaid card payments (in the Netherlands: the chipknip and until 1 April the chipper) expanded by over 170% on the same period in 2001, from around 17 million to 45 million transactions. This development has been boosted by the introduction of euro banknotes and coins and the fact that parking tickets in several municipalities must now be paid electronically. Electronic payments have consequently expanded most in the parking segment, followed by catering and vending-machines (for sweets, soft drinks etc.); all these transactions involve relatively small amounts, mostly paid with coins. Prepaid cards are by far the most appropriate means of payment here, as debit cards do not constitute a proper alternative for cash. Combined, the three segments account for about two-thirds of the total number of prepaid card transactions. The expansion of the reach and size of electronic money is making for increasing payment efficiency.

It appears that, seven years into their existence, prepaid cards are now gaining fast in popularity; it must be remembered that debit card payments also took several years to settle in. Chart 1 shows the annual use of debit cards for the years 1989-1995 and of prepaid cards for the years 1997-2002 (extrapolating for the remaining months of 2002), 1989 and 1997, respectively, being the second year of existence. It must be noted here that, at the same stage of their existence, the infrastructure for prepaid cards is more developed than that for debit cards was, as a result of the much larger number of cards and terminals. Furthermore, people have meanwhile grown much more accustomed to the use of payment cards. Still, the development of prepaid card payments is slow to pick up. At the time, the advantages to consumers and retailers of debit cards over cheques and cash to pay for larger amounts exceeded those of using prepaid cards for small payments over using cash are today. However, the use of prepaid cards could be stimulated by further familiarisation and new applications.

So far, electronic money has been issued by banks. Since the implementation of the relevant European Directive in the Act on the Supervision of the Credit System as from 1 July, institutions other than traditional banks are permitted to issue electronic money. Electronic money institutions meet the definition of a

Chart 1 Comparison of debit and prepaid card payments

Number of transactions, in millions, as from the second year of production (1989-1995 and 1997-2002, respectively)
credit institution and thus need authorisation from the Bank. The law provides that the Bank may issue guidelines and recommendations on electronic money institutions’ solvency and liquidity, including investment restrictions, as well as their administrative organisation. Being more limited in their possibilities of raising money from the public and investing them, electronic money institutions are subject to less stringent requirements than banks. Several prospective electronic money institutions have meanwhile applied for authorisation from the Bank.

Realisation of recommendations for functioning payment market

In April of this year, the Bank made recommendations to the Minister of Finance to enhance the transparency and functioning of the payment market. In the meantime, the parties involved have begun implementing these recommendations. In conjunction with the Bank and market operators, the Ministry of Finance has formulated a mandate for the Maatschappelijk Overleg Betalingsverkeer (MOB) (Social Forum on the Payments System). Here relevant developments in payments and common policy themes will be discussed, such as how to raise efficiency. An advisory panel will furthermore be established, made up of users of electronic payments, which is to set up the structured exchange of information on developments regarding the technical infrastructure. A working group researching the costs of point-of-sale payments, consisting of experts representing suppliers and users, is studying the social costs of cash and electronic payments.

The Bank is also looking into the possibilities of offering settlement accounts to non-banks with a view to making settlement more efficient. Finally, the Bank has embarked on exploratory discussions with the banking system about ways of increasing the efficiency of the infrastructure for cash handling.

Cheaper cross-border payments

On 19 December 2001, the EU Regulation on cross-border payments in euro was adopted. Pursuant to the Regulation, euro debit card transactions and cash dispenser withdrawals abroad must be effected at the same rates as similar transactions domestically as from 1 July 2002. As from 1 July 2003, this will also apply to credit transfers in euro. As domestic and cross-border card transactions have in common that the entire payment chain is fully automated (straight-through processing or STP), the costs differ relatively little. Cross-border credit transfers are, however, much more costly to process, because the current infrastructure does not allow of completely automated processing, so that cross-border transfers are much more expensive than domestic transfers. As consumers are not charged for debit card transactions and cash dispenser withdrawals in the Netherlands, the Regulation entails that Dutch banks may no longer charge consumers for debit card transactions effected in one of the other euro area countries. These cross-border payments have thus become cheaper for consumers, as they used to pay an average of €0.2 for cash dispenser transactions and around €0.15 for debit card payments abroad. The banks’ earnings have thus been reduced by millions of euro. Consumers’ credit card payments to retailers are also no longer subject to cross-border charges.

The Regulation applies to customer fees, not to interbank fees, i.e. the fees which banks charge each other, for services rendered. Here, too, European developments are underway, as a result of which cross-border payments for bank customers can become cheaper. In July, Visa announced that it would be drastically reducing its interbank rates for cross-border transactions effected with debit and credit cards. Banks usually sell these payment products under a Visa licence. The bank of the Visa card holder charges the interbank rates to the bank of the retailer, which in turn charges the retailer. The price reduction is the consequence of the judgement made by the European Commission in July in respect of a complaint lodged by EuroCommerce, a European organisation of retailers, as long ago as 1997. The complaint related notably to the intransparent manner in which Visa charges retailers for cross-border transactions. The Commission is of the opinion that the multilaterally fixed interchange fee of Visa transactions basically hampers competition, but also points out that a set fee is cost-effective in a payment network linking thousands of banks. That is why the Commission decided to exempt this interbank fee, provided that Visa makes major changes to its current system. Visa must not only lower its fees, it must also ensure that the fees may not exceed the costs incurred and that banks must, if asked, provide retailers with insight into the composition of these costs. At a later stage, the Commission will be looking into the interbank fee system used by Visa’s competitor, Mastercard. The Commission is furthermore dealing with a request from the banks for permis-
sion to charge a multilateral interchange fee (mif) for cross-border transfers.

The euro area stands to benefit from a single euro payment area, aimed at harmonisation of retail payments in euro. The European banks have agreed to strive for a pan-European solution which will yield significant improvements by mid-2003. Five working groups have been set up to work on realisation of such products for the European market. Their activities are led by the European Payments Council, made up of 45 members, including four from the Netherlands. The Eurosystem is actively involved in this process.

Run-up to Continuous Linked Settlement of foreign exchange transactions

Although payments in central bank money can be settled directly and irrevocably at both the national and the European level, there was until recently no global infrastructure for the settlement of foreign exchange transactions. Such an infrastructure is now provided for by the CLS (Continuous Linked Settlement) Bank. As from 9 September, a number of banks, which have successfully completed several trial rounds, began to settle its foreign exchange transactions in smaller groups in CLS. The Federal Reserve Bank of New York, which exercises oversight on CLS in conjunction with the central banks of the 10 countries, has given the necessary regulatory approval. The Eurosystem has given permission to include the euro in CLS. The group restriction will gradually be lifted, so that the system may be expected to be fully operational after one or two months.

At the request of the 10 central bank governors, the CLS Bank was set up by a group of large global banks in order to deal with the risks inherent in foreign exchange settlement. So far such transactions have been settled primarily at the national level, with the payment and delivery of the foreign currencies taking place separately on accounts of correspondent banks in the country of issue of these currencies. The two transactions are not effected on the same day; but even if they were, time differences would stand in the way of simultaneous processing. Owing to this coordination problem, there is a risk that a bank defaults on the delivery of a currency, while the payment has already been made by its counterparty. In the worst-case scenario, that counterparty could also default on its obligations, setting in motion a chain reaction which could jeopardise the functioning of the financial system. The CLS Bank solves this coordination problem by working on a payment-versus-payment principle, with the payment and the delivery taking place simultaneously.

Development of Euronext

The Euronext merger is a good example of the progressing integration of the European securities and derivatives markets. Euronext will be expanding further, while the remaining separate components effecting the clearing and settlement of transactions on the Euronext exchanges will be integrated (Scheme 1).

The Euronext merger has meanwhile led to complete integration of the separate clearing platforms of the Euronext exchanges in Amsterdam, Paris and Brussels into a single platform. As from October 2001, all securities registered with Euronext can be traded in Amsterdam too. The Portuguese stock exchange, which joined Euronext in February 2002, will also be implementing this trading platform, at a later stage. In December 2001, Euronext made a successful bid for the British derivatives exchange, Liffe. The takeover of Liffe, which is considerably larger than Euronext’s other derivatives exchanges, has boosted Euronext’s position as the European derivatives exchange. According to the current plans, all derivatives exchanges will be switching to Liffe’s trading system in 2003, in order to integrate derivatives trading, too.

Paris-based Clearnet, forming part of the Euronext holding company, is responsible for the clearing of the transactions concluded on the Euronext stock exchanges. Here Clearnet fulfils the role of central counterparty in all transactions effected on the stock exchanges in Paris, Amsterdam and Brussels. This means that once two trading parties have concluded a transaction, the clearing organisation takes over their liabilities. Two new contracts thus emerge (novation), with the parties undertaking the securities transaction thus acquiring liabilities vis-à-vis the central counterparty instead of each other. A major task of a central counterparty is to manage counterparty risk by, among other things, setting margin requirements. The operational integration of the clearing activities of the stock exchanges in Amsterdam, Paris and Brussels has been largely completed. Clearnet already has a common clearing platform in Paris and Brussels, viz. Clearing 21; Amsterdam is expected to follow suit in October 2002. The Portuguese stock exchange does not operate a separate clearing organisation at this point in time, but intends to join the common clearing platform in 2003. Clearnet also serves as central counterparty for the
derivatives exchanges in Paris, Amsterdam and Brussels. These exchanges also plan to integrate their clearing platforms in 2003, while the Portuguese exchange will do so later in that year. Liffe’s clearing, however, will continue to be executed by the London Clearing House.

The final processing step is settlement, entailing the transfer of securities and payment. Euroclear, a Belgium-based international securities settlement institute has been designated by Euronext as 'preferred settlement institute'. In order to be able to perform this role adequately, Euroclear took over the central securities depositories in France, the Netherlands and Belgium. In July 2002, Euroclear and the central securities depository for British and Irish securities, Crest, announced their merger. In their joint plans, Euroclear and Crest intend to build a new common settlement platform, to which all countries concerned will migrate one-by-one. The settlement of the cash leg of securities transactions is currently performed largely by the various national central banks, and will continue to be so. However, the various settlement methods will have to be reconciled. The Bank is actively involved in this adjustment process, working on the principle that the safe and efficient settlement of securities transactions needs to be guaranteed at all times.

### Scheme 1 Integration process Euronext

<table>
<thead>
<tr>
<th>Trade securities</th>
<th>Amsterdam</th>
<th>Brussels</th>
<th>Paris</th>
<th>Portugal</th>
<th>London (Liffe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>derivatives</td>
<td>Switch system&lt;sup&gt;1&lt;/sup&gt;</td>
<td>as from March 2003</td>
<td>as from April 2003</td>
<td>send&lt;sup&gt;1&lt;/sup&gt;</td>
<td>liffe conect</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clearing securities</th>
<th>Amsterdam derivatives clearing&lt;sup&gt;2&lt;/sup&gt;</th>
<th>as from March 2003</th>
<th>Clearing 21</th>
<th>Interbolsa</th>
<th>London Clearing</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Settlement securities</th>
<th>Euroclear Amsterdam</th>
<th>Euroclear Brussels</th>
<th>Euroclear France</th>
<th>Interbolsa</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Money</th>
<th>De Nederlandsche Bank</th>
<th>National Bank of Belgium</th>
<th>Banque de France</th>
<th>Banco de Portugal</th>
<th>Bank of England</th>
</tr>
</thead>
</table>

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<sup>1</sup> Date of switch to Liffe Conect as yet unknown.
<sup>2</sup> Clearing 21 is to be introduced, but the date is as yet unknown.
Oversight on payments and securities transactions

Seeking to boost the proper functioning of payments and maintain financial stability, the Bank attaches importance to the safety and efficiency of clearing and settlement systems for payments and securities transactions, so that (systemic) risks can be avoided where possible. That is why the Bank exercises oversight and assesses (new) payment products and systems, as well as securities settlement systems, especially those of the Euronext exchange, for adequacy.

Retail payment systems
Seeking to boost the proper functioning of payments, central banks within the Eurosystem jointly drew up oversight standards, which must be met by relevant payment systems in the euro area. These are the Core Principles for Systemically Important Payment Systems, formulated by the g10 central banks (for more details on the Core Principles, see the Quarterly Bulletin of March 2001). These apply to large-value systems, which could constitute a possible source of systemic risk. However, the malfunctioning of systems processing relatively small amounts and hence forming much smaller possible sources of systemic risk can also cause disturbances within the financial system and hinder the smooth functioning of payment systems. That is why the Eurosystem considers a number of Core Principles applicable to the retail payment systems as well. The plans were recently submitted to the relevant market parties for consultation (these can be found on the websites of the ecb and the Bank (www.dnb.nl)). A preliminary list of the retail systems which need to meet the standards has been drawn up. Market operators can submit comments on these plans up to and including 30 September of this year.

Securities clearing
For Euronext nv and Euronext Amsterdam nv to be in compliance with the requirements of the Exchange License Agreement, the securities settlement systems used by Euronext Amsterdam must be subjected to the Clearing and Settlement Euronext (cse) regulatory framework, the oversight being exercised by the Bank in conjunction with the Netherlands Authority for the Financial Markets. The introduction of Clearing 21 on the Amsterdam exchange will therefore be reviewed in advance by the Bank, in conjunction with the Authority, in terms of several standards relating to risk management policy, legal tenability and operational reliability. In the context of an adequate risk management policy, the principles for and the size of the various buffers maintained in Clearing 21 to cover possible risks are, for instance, assessed. The rules and procedures for clearing members which are to be harmonised with those in France and Belgium will also be assessed.

Countering counterfeiting

Every euro area country has set up a National Analysis Centre (nac), where the euro counterfeits found within its borders are classified and registered, irrespective of their country of origin. The Dutch nac, established in 1999, is lodged with the Bank. The nac’s task is to ensure that the data of the counterfeits are recorded in the central Counterfeit Monitoring System; where necessary the counterfeits are shown to the ecb and the other ncbs. Counterfeits found outside the euro area are sent to the ecb. Both nationally and internationally, the ncbs work closely with the police and the judicial authorities. Agreement was recently reached about the establishment of an international bureau which will research counterfeiting (International Counterfeit Deterrence Center).

In the euro’s first six months, the Eurosystem registered 21,965 euro counterfeits (notably EUR 50 notes). Although considerable in absolute terms, this is no more than just over 7% of the total number of counterfeits registered by the euro area ncbs in the first six months of 2001, when the national currencies were still in circulation. Compared with the total current circulation of 7.4 billion banknotes, the number of counterfeits is negligible. Fears harboured by some market operators that the public’s unfamiliarity with the new euro banknotes would generate counterfeiting on a massive scale have thus not materialised. This undoubtedly has to do with the notes’ elaborate security features and the extensive information campaign.

Over the past few years, digital tools have become increasingly available to counterfeiters. The technical barriers to counterfeiting have been reduced by sophisticated, and at the same time user-friendly, equipment. However, many counterfeiters turn out to be of poor quality. The combination of specially produced paper, the inks used and the improved printing techniques, underlain by constant research, give central banks a head start on potential counterfeiters.

The public is able to distinguish between genuine and counterfeit notes only by checking the security fea-
The euro banknotes contain security features for the general public, but also for professional money handlers. Banknotes can be checked for genuineness on the basis of these features as well as with the aid of tools.

Circulation and production of banknotes

Over the past few months, the euro area banknote circulation showed a slightly rising trend. At end-July 2002, the value of the circulation came out at around 86% of the circulation at end-July 2000. The expansion since early 2002 is accounted for mainly by the large denominations (Chart 2), possibly due to a growing demand with a view to supplementing dormant cash holdings. One indication is the fact that the Bank is issuing more of such banknotes than are being returned by the banking system. If dormant cash holdings are expanding, the circulation may be expected to gradually increase further. In addition, the use of euro notes outside the euro area is generating rising demand,

Table 1: Euro banknotes’ security features for the public

<table>
<thead>
<tr>
<th>Feature</th>
<th>Denomination</th>
<th>Explanation and effect</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>5, 10, 20</td>
<td>Silver-coloured foil.</td>
<td>Front</td>
</tr>
<tr>
<td>1b</td>
<td>50, 100, 200, 500</td>
<td>Tilting will show up shifting images in the foil.</td>
<td>Front</td>
</tr>
<tr>
<td>2</td>
<td>All</td>
<td>Light and dark shades in the paper show up when the note is held against the light.</td>
<td>Front and reverse</td>
</tr>
<tr>
<td>3a</td>
<td>5, 10, 20</td>
<td>Tilting will show up a vertical gold-coloured, iridescent stripe.</td>
<td>Reverse</td>
</tr>
<tr>
<td>3b</td>
<td>50, 100, 200, 500</td>
<td>Tilting will make the colour change from purple to olive green.</td>
<td>Reverse, value figure on the lower right</td>
</tr>
<tr>
<td>4</td>
<td>All</td>
<td>1.2 mm-wide thread in the paper, which shows up as a dark line when the note is held against the light; it contains small lettering.</td>
<td>Front and reverse</td>
</tr>
<tr>
<td>5</td>
<td>All</td>
<td>When the note is held against the light, the front and reverse form a perfect match.</td>
<td>Value figure at the top</td>
</tr>
<tr>
<td>6</td>
<td>All</td>
<td>Tactile ink layer on the paper.</td>
<td>Front</td>
</tr>
</tbody>
</table>

Features. The Bank recommends that the public check banknotes for at least three security features. The features for the public were extensively highlighted during the publicity campaign (Table 1). Each of the seven denominations has these features. A study, discussed in the previous Quarterly Bulletin, shows that in early 2002 the public was remarkably well informed about the security features of euro banknotes, much more so than about guilder notes.

The euro banknotes contain security features for the general public, but also for professional money handlers. Banknotes can be checked for genuineness on the basis of these features as well as with the aid of tools.
notably in parts of Central and Eastern Europe. On the other hand, the sharp growth of electronic payments, such as debit card payments in the Netherlands, is having a downward effect on the demand for banknotes.

In order to replace unfit banknotes and to accommodate the expansion of the banknote circulation, new euro banknotes must be produced every year. This year is the first to see production in conformity with the decentralised pooling system, entailing that the production of each denomination is distributed among a limited number of national central banks. The Eurosystem opted for this arrangement to make production more efficient and thus cheaper. In 2002, the Bank will be producing €5 and €50 banknotes. Pooling the euro note production incidentally means that the letter in the notes’ serial number no longer indicates which national central bank originally issued the note.
Influence of stock market strongest in housing market’s top segment

Given the sharp decline of share prices in the recent past, the question is relevant whether this development has influenced other financial assets, especially house prices. This is because in the longer term, various types of assets are likely to follow related paths, since they are influenced by common economic factors, but also because share prices and house prices themselves interact. In the Netherlands, this interaction seems to flow from share prices to house prices rather than the other way round. This does not mean, however, that Dutch house prices are bound to follow the recent downturn of the stock exchange: too many other factors are also at work in the housing market. Share price developments exert their greatest influence on the top segment of the housing market.
Introduction

After the strong rise of share prices worldwide during the 1990s, they started on a sharp downward course in 2000. At the same time, however, house prices in many countries including the Netherlands continued their upward trend from the 1990s. The recent divergence of share and house prices is remarkable because to a large extent, both are determined by the same broad economic developments. Economic growth and interest rates, for instance, are long-term forces driving both prices. This article will first discuss the theoretical background of this fundamental linkage. Next, the impact of share and house prices on the economy is explained. This section will also highlight the interaction between share and house prices, taking place both through direct links and through macro-economic influences. Finally, the correlation between asset prices in the Netherlands is examined empirically.

Understanding the correlation between share and house prices is important, because mutually reinforcing asset prices may affect financial stability. A bubble on the stock market, for instance, may cause excessive price rises in the housing market. Once the bubble bursts, house prices may also undergo sharp downward adjustment (also imaginable is the reverse process, with house prices driving up the stock market). Such negative asset price developments would affect the financial position of households more strongly than in the past, because they have increasingly invested their wealth in equity and houses.1 The result has been that consumer spending is increasingly influenced by wealth effects. According to a Bank survey held earlier this year among households, 42% of homeowners invest in equity, as against 9% of rent-payers. This has made spending patterns and the financial positions of some households even more sensitive to the interaction between share prices and house prices. Besides, financial institutions such as banks, insurance companies and pension funds have also become more active in the asset markets. Although these are usually better able than households to spread their risks, even their financial position may be influenced substantially by falling asset prices.

Fundamental relationship

Prices of equity and property are likely to exhibit a long-term positive correlation, because ultimately, price developments for various types of asset are largely driven by common factors, especially economic growth and interest rates. The fundamental value of a share, for instance, is determined by the present value of expected future dividend flows. In the long term, dividends will keep pace with corporate earnings, which in turn correlate with nominal GDP growth. Economic growth impacts house prices as well. A GDP increase will lead to higher nominal wages and households, seeing their borrowing capacity grown, will be able to make higher offers for houses. Besides, housing demand is, of course, not only prompted by investment motives, but is also a form of (durable) consumption correlated with economic growth. Investors use (long term) interest rates as a discount factor for assessing expected yields on shares and houses.

There is a mechanism inherent in investors’ behaviour which creates a link between asset prices. If in the long term, various asset types are to some extent substitutes for one another, price changes in one asset market (such as the stock market) will lead, as a consequence of arbitrage by investors, to a similar price movement in other asset markets (such as the property market). The resulting positive correlation between asset prices depends on the degree of integration between markets. Not only professional investors but households, too, may play a role in the arbitrage mechanism. Although the latter regard their home mainly as a durable consumer good, it is also, together with other assets (including shares) part of their investment portfolio. Active management of households’ portfolios may therefore enhance the correlation between asset prices.

The link between house and share prices may not always be visible, however, owing to several factors. First, price developments in each market are strongly affected by market sentiment. As expectations may develop differently in each market, so the correlation between asset prices may be temporarily disrupted. Secondly, an improving economic outlook may lead to higher share prices, but also to higher real interest rates, which have a depressing effect on house prices. Wages are a third temporary factor. A rise in nominal wages increases households’ borrowing capacity which in turn may drive up house prices. If labour productivity remains unchanged, however, high wages will affect corporate margins, resulting in negative effects on share prices. A fourth factor is investors’ ability to use the fact that in the short run, the share and housing markets are segmented. This negative correlation between markets for equity and property is described by the ‘capital switching’ model.2 Both asset categories are not readily convertible in this model, serving instead as competing investments. Negative earnings prospects in one asset...
market generate capital flows towards the other, so that prices diverge. Finally, there are important differences in the way each market functions. Whereas stock market prices are dominated by international developments, house prices are influenced more strongly by local factors such as regional economic growth and demographic developments. In many countries, moreover, restrictions on the supply of new homes also play a role in housing market pricing. In the Netherlands, the shortage of high-quality homes has been a major factor in the price rises of recent years.

The impact of asset prices

As appears from the previous section, asset prices are ultimately determined by economic factors such as economic growth and interest rates. However, share and house prices may, in turn, also influence the economy, through wealth effects and through lending. In addition, asset prices may also influence each other, either directly or via the channels mentioned.

Wealth effects and lending

According to the permanent income hypothesis household consumption is affected both by a household's current and (expected) future income and by its net financial position. By implication, shareholders and homeowners will adjust their spending pattern when asset prices change. They may sell the assets, borrow more (either on the assets or otherwise) or save less. Generally speaking, changes in house prices will have greater wealth effects than share price changes. The main reason for this is that homeownership is more widespread across the population than investment in shares, which is fairly concentrated among the wealthier households with a generally low propensity to consume. Also, share prices are much more volatile than house prices, making it more difficult to assess whether a capital gain realised on shares is permanent or only temporary. Finally, it has become easier in recent years to withdraw the equity on property through mortgage renegotiation or second mortgages, removing a major barrier to realising capital gains on property.

Many empirical studies find a strong relationship between lending and asset prices. Apart from common causes (economic growth, interest rates) there is also a more direct relationship in that the purchase of assets, particularly homes, is financed in part with borrowed funds. Conversely, assets are used as collateral, and mortgage equity withdrawal has been one way of cashing in on capital gain. In recent years, this has been clearly evident in the Netherlands – and more recently in the United States – where boosts in consumer spending have been fuelled by increased second and renegotiated mortgages.

Apart from having direct wealth effects, asset prices may also function as an indicator for future economic developments. This implies that asset price developments are closely linked to general public confidence in the economy and this, in turn, indirectly affects consumer spending, even by households with no financial assets.

Interaction between share and house prices

Another relevant issue, in addition to their relationship through macroeconomic variables, is the extent to which share and house prices may influence each other. They may do so indirectly, through the channels already described: capital gains may, via spending effects, generate higher GDP growth, which in turn may boost other asset prices as well. But they may also affect each other through lending, for instance when a rise in house prices increases consumers' borrowing capacity, which is then used to purchase shares. In the Netherlands, moreover, part of mortgage lending generates investment in shares, in the form of investment-based mortgages. Finally, a direct correlation may occur where asset price rises increase their owners' financial scope for buying other financial assets.

Correlation between share and house prices in the Netherlands

As appears from the above, the theoretical relationship between share and house prices is a complex one. So what about the correlation in practice? It is hard to make any specific statements based on empirical evidence, because even where a correlation may be established, it is still difficult to draw firm conclusions about interaction and causality based on statistical techniques. Yet it seems logical that pass-through effects will ripple from the stock market to the property market rather than the other way round, the Dutch stock market being closely intertwined with the major foreign stock markets. In addition, households' investments account for less than one quarter of the Amsterdam stock exchange's total market capitalisation. Against this background, this section analyses the relationship between share and house prices in the Netherlands. First, the underlying macroeconomic factors and the

Influence of stock market strongest in housing market’s top segment
correlation between both series at different lag periods for property prices are discussed. Next, we take a closer look at the correlations, distinguishing between different types of dwellings and shares. Such a breakdown may offer a better understanding of the way share prices affect the housing market and of whether there is, in fact, any real causal relationship at all.

The relationship between share and house prices
Given the joint influence of underlying factors, the long-term developments of share and house prices should, on the whole, move in tandem. Statistical tests have confirmed such a link in the Netherlands over the past few decades. Chart 1 also shows how share and house prices exhibited a positive correlation during most of that time. Periods of acceleration in the rise of share prices (starting 1983 and starting 1997) were followed a few years later by an accelerated rise of house prices (starting 1986 and 1999). Using a multi-variable model, we analysed the importance of macroeconomic factors, which may act as a transmission channel in this respect. To this end, long-term interest rates were used together with private consumption (wealth effects) and bank lending (credit channel). Estimation results for this multi-variable model point towards a correlation between share and house prices in the Netherlands, with bank lending the primary channel.

As already noted, stock market prices are more likely to influence the housing market than vice versa – a correlation which is confirmed by statistical tests. Based on this relationship, a simple correlation analysis was performed on changes in house and share prices in the Netherlands, with share prices leading. The analyses revealed that it takes 8 to 14 quarters for stock market developments to translate into a significant positive correlation with house prices (Chart 2). The same analysis, performed for other countries, have also revealed positive correlations at similar lag periods. The delayed response of house prices could be due to the less liquid nature of the housing market, to slow price adjustment, or to a pass-through from stock market to housing market via macroeconomic channels. Simulations using morkmon, for instance, show that the effect of stock market capital gain on economic growth peaks after as long as two years, while that on wages will peak after three years, delaying the demand impulse on the housing market by a fairly long period.

Charts 1 and 2 show that share and house prices may also diverge. This was clearly in evidence during the past few years and also during the 1984-2001 subperiod, with stock market prices leading house prices by three to six quarters. The preceding sections have given several explanations for such a divergent development. One obvious factor, for the most recent period of divergence, is the development of long-term interest rates. In the Netherlands (but also in the US and the UK), the decline of capital market interest rates in 2000 and 2001 is regarded as one of the major factors underlying the sustained rise in house prices, while the interest rate decline itself was related to the worldwide economic slowdown, depressing share prices. An additional expla-

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**Chart 1  Share and house prices**
Real price indices, logarithmic scale (1st Quarter 1995 = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Stock market index</th>
<th>House prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>70</td>
<td>78</td>
</tr>
<tr>
<td>1984</td>
<td>90</td>
<td>110</td>
</tr>
<tr>
<td>1994</td>
<td>110</td>
<td>130</td>
</tr>
<tr>
<td>2002</td>
<td>130</td>
<td>150</td>
</tr>
</tbody>
</table>

**Chart 2  Correlation between share and house prices**
Correlation coefficient between year-on-year percentage changes with share prices leading

<table>
<thead>
<tr>
<th>Lead period in quarters</th>
<th>Correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>2</td>
<td>0.0</td>
</tr>
<tr>
<td>3</td>
<td>-0.5</td>
</tr>
<tr>
<td>4</td>
<td>-1.0</td>
</tr>
</tbody>
</table>


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1 The correlation coefficient is expressed as the covariance divided by the product of the standard deviations, and varies from -1 to 1.
nation may be offered by the ‘capital switching’ theory. For during a downturn in the stock market, families are bound to regard their home as a relatively stable asset, leading to increased demand and continued price rises in the housing market.

Breakdown into different types of dwelling and shares

It stands to reason that the direct influence of the stock market on house prices will be greatest in the top segment of the housing market: people who live in the more expensive houses tend to have higher incomes at lower consumption-to-income ratios, and can afford to invest more of their stock market capital gain in housing. Also, private shareholdings are largely concentrated among high-end homeowners. The survey mentioned earlier shows, for instance, that shareholdership is twice as frequent among owners of detached houses as among owners of terraced houses. If correlation between share and house prices is actually stronger for high-end housing categories, this in itself is an indication that not only is there a link between the stock market and the housing market, but that, in fact, the former influences the latter.

A correlation analysis covering the past fifteen years has confirmed the assumed relationship between housing categories and the stock market (Table 1). Prices of high-end, detached houses exhibit stronger coherence with share prices than do prices of less expensive segments, while the correlation weakens as the average price within a segment decreases. The same picture emerges when looking at the past few years, with prices of detached houses rising far more strongly than those of other types of dwellings, in parallel with the development of the stock market index – which rose until March 2000 and then declined sharply – whereas in 2001 and the first half of 2002 that movement was reversed (Chart 3). In fact, some prices in the uppermost echelon of the market came down. Thus it appears that developments in the stock market affect mostly the high-end segment of the housing market. Since the owners of the more expensive houses also have, on average, greater net wealth and therefore larger financial buffers, they are, of course, also better able to cope with adverse developments on the housing market. In addition to being most evident at the high end of the housing market, the influence of the stock market is also felt soonest there. This may imply that housing categories do exhibit (delayed) correlation, perhaps because price changes in high-end houses affect mobility in other segments of the housing market.

Shares may be broken down into high-technology (tmt) shares and other shares. Over the past two years, there has been a stronger positive correlation (or a less strong negative correlation) between house prices and the overall stock market index than between house prices and the stock market index with tmt shares excluded (Chart 4), which is an indication that the impact from tmt shares on housing prices has become more pronounced. The period since 1998 was dominated by the technology bubble, which had a major positive impact on overall stock market developments up to 2000, and a major negative impact afterwards. Remarkably, the influence of tmt share prices on house prices was asymmetrical: during the 1998-1999 stock market boom the positive correlation, compared to that with non-tmt shares, was not stronger; during the technology crash of 2000-2001, it was. A logical explanation for the asymmetry is that many private investors did not buy into technology shares until prices had reached a very high level. A nip攀登 survey has confirmed that technology shares quickly gained in popularity between the fall of 1999 and early 2001.* The fact that many telecom shares were issued when prices were high contributed to this trend. All in all it appears that the implosion of the

Table 1  Correlation between stock market index and house prices by dwelling type

<table>
<thead>
<tr>
<th></th>
<th>Detached</th>
<th>Corner house</th>
<th>Terraced house</th>
<th>Apartment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.24*</td>
<td>0.21*</td>
<td>0.14*</td>
<td>0.10</td>
</tr>
<tr>
<td>Average price</td>
<td>339,000</td>
<td>224,000</td>
<td>179,000</td>
<td>147,000</td>
</tr>
<tr>
<td>Net wealth</td>
<td>387,400</td>
<td>289,330</td>
<td>203,620</td>
<td>116,950</td>
</tr>
</tbody>
</table>

1 Correlation coefficient for year-on-year changes over the 1985-2001 period (i.e. the maximum period for which data is available), averages for lag times vis-à-vis share prices of 4 to 16 quarters; * = significant correlation at the 10% confidence level.

2 Average house price in euro during the second quarter of 2002 (source: nvm).

3 Average net wealth (assets minus debts) of homeowner in euro; source: survey among Dutch households, March 2002 (see Van den End et al., 2002, op. cit.).
technology bubble has contributed to the recent cooling down of the housing market in the Netherlands, which is another indication that the stock market affects house prices.

Conclusion

Viewed across an extended period, levels of share and house prices appear to follow roughly parallel paths. This trend is determined by macroeconomic developments with a common influence on both asset markets. In addition, there are signs pointing to interaction between the stock market and the housing market, with ripples flowing mainly from share prices to house prices. The link-up between share and house prices may be through confidence and wealth effects, but perhaps also through other channels. Because of this, it may take several years before developments in the stock market are transmitted to the housing market, so that share and house prices may temporarily diverge. Mapping these conclusions onto the current situation in the Netherlands, where the share index has been declining for over two years while house prices continue upward, one is tempted to speculate on the development of house prices during the coming years. However, many other factors besides share prices play a role in the housing market including, importantly, a limited supply of high quality homes which is unlikely to be remedied in the near future.
This article considers the position of national central banks within the ESCB. The fundamental framework underlying the ESCB is that of a system of central banks in which component institutions are individually and collectively responsible for carrying out various tasks. Within this framework, the current division of labour between the ECB and NCBs is evaluated using the concept of efficiency (which subsumes cost-consciousness as well as effectiveness), along with that of subsidiarity. In contrast to most of the existing literature, the focus is not exclusively on monetary policy, but takes into account a broader array of tasks performed by central banks. Taking a long-run perspective, it is argued that while some tasks are likely to be centralised, fundamental changes in the role of NCBs in the ESCB are linked to further political integration within Europe and the development of supranational institutions in other policy areas.
Introduction

Monetary policy is one of the few areas of European integration where there is a genuinely supranational policy. In considering the role of central banks in general, the main focus of authors is typically on monetary policy (e.g. Fischer, 1995). The same focus is evident among those who have considered the role of national central banks within the European System of Central Banks (ESCB). Seen from this perspective, the transfer of monetary policy sovereignty from individual countries to the European level since 1999 has raised questions about the ongoing role of national central banks (NCBs). However, central banks also have a number of other tasks. This article takes a broader perspective and considers the position of NCBs in the context of the ESCB with respect to the full range of tasks carried out.

This article proposes a number of criteria to evaluate the division of ESCB tasks, review the current assignment of tasks and consider how they are likely to change in the future. Moreover, NCBs also fulfil non-ESCB tasks. For the Nederlandsche Bank (DNB), these non-ESCB tasks span a wide range of policy areas that are indirectly related to ESCB responsibilities and occupy around 50% of staff. These tasks are not specified by the Maastricht Treaty, but are agreed upon with the respective national governments. The role of NCBs in carrying out these other tasks is discussed, using the example of DNB.

To preview the conclusions, the current system is likely to continue to evolve over coming years as experience is gained with monetary union and efficiency gains are exploited. As long as nation states remain in existence, it seems unlikely, for various reasons, that the role of national central banks will alter completely. Although major changes in the way in which the system is organised can be expected, most of them are only likely in the long term, which is defined to be more than a generation.

The paper continues with a discussion of the criteria proposed for evaluating the distribution of central banking tasks within the European context. The current role of NCBs within the ESCB and the possible future evolution of these tasks are considered. This is followed by a discussion of the non-ESCB tasks that DNB is responsible for. The article concludes with a summary of the main findings.

A framework to analyse the division of tasks

Ideally, a ‘normative literature’ on central banking would provide guidance on what central banks should be doing, including (i) the tasks the Eurosystem should be fulfilling and (ii) an optimal division of these tasks between a centre (the ECB) and national central banks. Such a normative literature on central banking is, however, lacking. Instead, criteria are proposed against which the current division of tasks can be assessed. In the European context, the Maastricht Treaty forms the basis for the current assignment of tasks. It is based on the idea that the ESCB as a system shares a number of tasks. Given this common responsibility, all participating central banks – be it the ECB or NCBs – have to be involved in all relevant policy areas. In addition, all participating central banks have to have the means to fulfil these tasks for which they are collectively responsible. Within this overriding framework, the Treaty refers to two broad principles: first, the idea of subsidiarity, i.e. the current system was created out of respect for national sovereignty within some basic rules set by the EU, and not on the basis of better co-ordination or centralisation per se. This also reflects the heterogeneity of the member states. Consequently, any task should be performed at the lowest regional level possible and there are limits on the extent to which national tasks can be centralised. Second, the Treaty emphasises the idea of efficiency, i.e. where can the task be effectively undertaken at the least cost? There is a relationship between both principles, in that subsidiarity (and the benefits that come with it – see below) should prevail, but obvious inefficiencies should be prevented or eliminated.

The Maastricht Treaty specifies the tasks to be carried out by the system, but in most cases is not specific about which part of the system should undertake them. The following sections consider the extent to which the allocation of tasks conforms with the subsidiarity and efficiency criteria proposed. The concept of effectiveness subsumed in the efficiency principle includes, inter alia, the following aspects:

- A system of checks and balances forms part of ensuring the accountability of independent central banks. Because the ESCB independence is contained in an international treaty, unlike other central banks where independence can be overturned by a parliamentary majority, accountability arrangements are particularly important as a counterpart to this independence. The lack of credible accountability arrangements could undermine public and political confidence in the mon-
The role of NCBS within the ESCB: The example of the Nederlandsche Bank

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Monetary policy decisions

Monetary policy-making covers a number of aspects. This section discusses the role of NCBs in decision-making, in research activities underpinning those decisions and in the communication of decisions.

The Treaty provides that the meetings of the ECB Governing Council (which formulates monetary policy) are to be prepared by the Executive Board of the ECB. The main task of the ECB in this respect is to lay the groundwork for the monetary policy decisions of the Governing Council. NCBS governors (together with ECB Executive Board members) decide on monetary policy, requiring the NCBS to brief their governors (and this briefing has to be an interactive process) so that they can carry out this joint responsibility. NCBS are therefore involved in research and the preparation of monetary policy decisions. That is, the need to conduct independent research inter alia arises from the obligation NCBS have to fulfil their role in carrying out the tasks the ESCB as a system has been assigned. Certainly for NCBS such as the DNB, which prior to EMU had maintained a fixed exchange rate vis-à-vis the Deutsche mark, monetary policy preparation has become more complex. It now requires the analysis of economic variables and monetary indicators for the euro area as a whole.

These current arrangements are explicitly set out in the Treaty, so are fixed for the time being. However, the composition of the Governing Council has been the subject of debate, with some arguing for limits on the number of NCBS governors. It has been argued that decreasing the numbers of national governors may increase effectiveness, since having 12 NCBS governors participating may exceed the optimal ‘club size’ for monetary policy decisions. This could make it difficult for the Council to engage in effective debates over policy decisions and hamper the development of a cohesive decision-making body. A further argument against including all NCBS governors is that the Eurosystem has to guard against the perception that European monetary policy could be sub-optimal for the following reasons (e.g. Baldwin, 2001):

- National interests could dominate decision-making. This could be the case if NCBS governors regard themselves as representing the monetary policy requirements of their home country, rather than basing their decisions on the euro area as a whole.
- If euro area countries are very heterogeneous, competing national interests could offset one another and result in a bias against changing interest rates. This could make it difficult to reach a decision to change interest rates in the Governing Council.

Despite the above arguments, a Governing Council without adequate representation of NCBS governors is unwarranted for various reasons. Their removal conflicts with the notion that all NCBS must contribute to the maintenance of price stability and the other tasks of the ESCB. Broad participation in decision-making is a part of the checks and balances that are a necessary counterpart to the independence of the ESCB. Moreover, the quality of policy debates in the Governing Council could be adversely affected if the number of NCBS governors was to be reduced. The argument runs as follows: economic theory suggests that competition typically leads to higher efficiency. Competitive pressure on the centre (ECB) regarding research and the preparation of monetary policy decisions is provided by the NCBS to ensure that monetary policy remains innovative and e.g. incorporates the latest academic insights. It also ensures that decision-makers are exposed to alternative academic paradigms: ‘Every research department ... is at risk of developing a dominant ‘in-house’ view that is intolerant of chal-
The role of ncb within the escb: The example of the Nederlandsche Bank

...to the local orthodoxy. It would be unfortunate for the citizens of Euroland if all … Council members drank only from the same fount of economic wisdom. As noted above, monetary policy requires the accurate assessment of market sentiments and expectations. Here ncb members of the Governing Council play a vital role, as they have a ‘regional information advantage’ and can – helped by the fact that they have at their disposal established organisations – typically provide a better assessment of the situation in their home country. This local knowledge is also important in the communication of monetary policy decisions to the public. Here there is a role to be played by national central banks, as communication is facilitated by a better knowledge of languages, regional institutions and particular circumstances. Finally, ncb members of the Governing Council do not consider themselves to be representatives of their home country.

In summary, monetary policy decision-making within the ecb Governing Council should therefore be characterised by a team effort with a strong, but not dominant centre. Interest rate decisions are based on input provided by both the ecb and ncb. At the same time, to ensure that the public understands that monetary policy is based on the entire euro area, ncbs must be careful not to overemphasise country-specific needs.

It is possible that in the long run, integration and trade links within the enlarged eu will reduce diversity and reduce the argument for ncb input in decision-making based on their regional information advantage. However, even if this were to occur, the argument for reducing ncb input so as to improve efficiency is outweighed by the benefits provided via competition, the contribution to the checks and balances of the ecb and their role in communication. Also, to a large extent it resembles the setting in the us, which indicates that in other monetary unions regional participants also play an important role.

Monetary policy implementation
The Treaty requires the ecb’s Executive Board to implement monetary policy in accordance with the guidelines and decisions laid down by the Governing Council. Consistent with the subsidiarity principle, monetary policy operations are co-ordinated by the ecb and the transactions are normally carried out by the ncbs (European Central Bank, 2001a). The decentralised operation also reflects a philosophy of allowing broad participation in monetary policy operations: all financial institutions subject to minimum reserve requirements in the euro area are able to participate in standard open market operations and access dnb’s standing facilities. For the Netherlands, this means that around 80 institutions can participate in tenders, and around 5–10 regularly do so. Within the euro area as a whole, between 300–400 banks currently participate. This contrasts with the system operated in other countries (such as the us), where participation in open market operations is limited to a few large players. In the latter systems, the transmission of monetary policy to a broad range of financial institutions occurs mainly via the money market. Both systems are possible. Perhaps the most important difference is that the system used by the Eurosystem differentiates less between types of market participants. Financial institutions are able to decide for themselves whether or not to access funds from the central bank or the market. This also allows monetary policy to more directly influence a greater number of financial market participants, without being completely dependent on the interbank market.

At the same time, the decentralised implementation ensures an element of continuity for counterparties to the operations in that they continue to hold accounts at their national central banks. The decentralised approach also embodies an element of insurance against disasters, by ensuring that the system has the ability to implement policy from locations across the monetary union. Finally, the approach fosters ongoing contact between ncbs and market participants which is useful in the formulation of monetary policy and, in the case of some ncbs (including dnb), can assist in the exercise of the supervisory responsibilities.

Given the philosophy underlying the system, significant changes in the short term are unlikely. Changes would also run counter to some of the criteria set out previously, notably the need to accurately assess market sentiment and the relevance of ncbs for communication. In the long term, if there is increasing consolidation within the banking sector that reduces the total number of banks, as well as an increase in cross-border mergers, the usefulness of implementing policy from every central bank may diminish. If that occurs, it is possible that operations might be centralised in one or a few locations.

International co-operation
With regard to international co-operation, it is necessary to distinguish between ‘European’ and ‘national’ responsibilities: European responsibilities relate to matters that are of importance to the entire Eurosystem, whereas national responsibilities are linked to national institutions or governments. The Treaty states that the
European Central Bank should be the system’s representative vis-à-vis third parties. The Governing Council, as the key decision-making body of the ECB, decides how this is arranged in practice. For most European issues, the ECB president would normally fulfil this role. But, the Council can decide that others should also act as the representative where this is desirable, or that national representation is more appropriate.

However, not all external representation involves European issues. National central banks are the agents of governments, and to the extent that international responsibilities are linked to national sovereignty, these responsibilities remain at the respective NCB. An example is IMF membership: nations are members of the IMF, represented by their central banks and/or finance ministries, so NCBs are closely involved in the preparation of IMF-related activities. The international network that NCBs have can in turn be beneficial for other tasks. Given the fact that national interests can diverge across EMU members, this set-up can be regarded as appropriate. NCBs are also represented directly at (and are shareholders in) the Bank for International Settlements (BIS). The BIS is not only a bank, but also provides a forum to discuss a range of issues, including those relating to financial stability. As is discussed below, this is a national responsibility. Given that the NCBs are shareholders in the BIS, and that the topics discussed in BIS forums relate to NCBs’ areas of responsibility, it is logical for NCBs to remain actively involved in BIS forums.

In the long run, as European integration proceeds, European interests will increasingly replace national interests. There will be less need to pursue purely national policies vis-à-vis the outside world in some areas. The speed at which this internationalisation occurs will probably vary across issues. If European integration also moves towards political union, it makes sense to decouple representation of the member states from the nations and to transfer it to an European institution. That is likely to mean that the ECB, and therefore its president, would have an increasing role as the public face of the ESCB. If national representation were to be centralised at the European level, governance arrangements of some international organisations may need to be adjusted to reflect this. A single European representative in the IMF, for example, would imply that both the European and the US representatives have blocking votes. Such an arrangement could hamper the effective working of the IMF.

**Foreign exchange operations and reserves management**

The Treaty provides that the ESCB is responsible for conducting foreign exchange operations and managing the official foreign reserves of member states. To avoid conflicting policy messages, the Treaty also provides that foreign exchange transactions should take place within a common framework.

Key reasons for central banks to hold foreign reserves are to ensure that they have the ability to intervene in foreign exchange markets if necessary – e.g. to smooth exchange rate fluctuations or in reaction to financial crises. All members of the ESCB own foreign reserves. An additional reason for holding reserves is the active involvement of NCBs in IMF matters. The reserves of the ECB are managed on its behalf by NCBs.

Foreign reserves and a central bank’s net worth represent a part of the wealth of a nation and are therefore owned by the nation. Accordingly, there is no particular need to transfer the ownership of these assets. However, the question of who should manage these funds on behalf of a country is open to debate. Currently NCBs are responsible for managing these funds and do so according to their own risk preferences. Nevertheless, these reserves could in principle be centralised and managed by the ECB (or a private sector asset manager). The ECB (or a private sector manager) would then effectively be acting as an agent for NCBs.

However, there are economic arguments against the complete centralisation of reserves management: given the substantial value of these reserves, a common reserves management is not necessarily optimal. The risks of pooling such a large fund can be spread if each NCB manages its own reserves. The potential benefits from the reduction in risk may therefore outweigh the additional costs of the decentralised reserves management (consistent with the concept of effectiveness set out in Section 2). Moreover, managing reserves deepens an NCB’s knowledge of financial market developments, which assists in carrying out other tasks. However, this argument should not preclude cooperation with another NCB or the ECB where an NCB lacks sufficient economies of scale to carry out the task efficiently. NCBs currently also manage the reserves of the ECB – this involves only marginal additional costs for NCBs and means that the ECB does not need to duplicate the reserves management expertise that already exists in the system. However, at some point, it is likely that the ECB will manage its own reserves, thereby gaining the benefits of additional market contacts. In making decisions on this issue, the Governing Council will consider the costs and benefits for the system as a whole.

In the long run, the arguments against centralisation of all reserves are likely to remain valid. Scope for complete centralisation therefore seems small.
Statistics

According to the Maastricht Treaty the ECB shall collect the necessary statistical information to fulfil its tasks, but the Treaty stipulates that the tasks should be decentralised to the extent possible. Monetary statistics are collected by national central banks (NCBs), as the collection of data typically involves close contacts with commercial banks. In a situation where NCBs are responsible for both the implementation of monetary policy and prudential supervision, the efficiency criterion of Section 2 implies that it is clearly more efficient for the NCB to collect monetary statistics. Otherwise, another statistical agency would have to establish and maintain contacts with commercial banks. To the extent that NCBs collect statistics on national data, it seems reasonable that this should remain a national task. There seems little scope for national statistics. Given the natural links NCBs have with commercial banks.

Some NCBs also collect or compile non-monetary national statistics. The NCB does this for balance of payment statistics as most of these data are also obtained from commercial banks. Although this task could in principle be transferred to the national statistics institution, there is no indication that they would be any more cost-efficient than the NCB, given the natural links the NCB has with commercial banks.

Over the long term, if national borders become less important from an economic perspective, the arguments for national collection of data diminish. It seems, however, unlikely that all statistics collection activities could be efficiently centralised in one location (given the size of the bureaucracy implied), but some clustering into regional groupings could occur. Closer political union would also presumably result in some clustering or centralisation of statistics gathering, as some countries might wish to centralise their statistical activities.

Operational tasks: Payment systems and banknotes

Operational tasks remain within the domain of the NCBs. As the banker to banks, central banks have typically provided facilities whereby banks can settle debts amongst themselves. Payments to and from the government are also often channelled through the central bank (as banker to the government). A further reason why central banks provide services in this area is to ensure financial stability. Because payment systems form a link between financial institutions, there is a risk that instability can be transmitted via these systems. By providing payment systems, central banks minimise that risk.

Payment systems differ across the euro area. In this context, it is useful to make a distinction between wholesale and retail systems. An integrated wholesale system was necessary for the introduction of the common monetary policy. To meet this requirement, the Eurosystem has developed the TARGET system. Each NCB has its own wholesale payment system, based on their existing technologies, and the European payment system TARGET provides a common interface. TARGET works effectively as one pan-European system, but national differences remain. There is also a link in this area to monetary policy implementation. Institutions subject to reserve requirements are required to hold reserves at the NCB in the country in which they are established. Similarly, they participate in monetary policy operations via that NCB. This necessitates the provision of some form of payment system by NCBs.

Looking ahead, further harmonisation of the TARGET system is likely in coming years, although the exact form that this will take is not yet clear. In this respect, there are three important factors that will determine how payment systems are organised in the long term: (1) the desires of customers (i.e. commercial banks), (2) competition and (3) technology.

(1) Customers’ wishes differ somewhat. Some large banks that operate across Europe are keen to see the introduction of a completely centralised system. That reduces their need to deal with different national central banks and different payment systems. On the other hand, those banks which focus mainly on national markets are less interested in seeing greater European harmonisation that would entail (potentially costly) changes.

(2) Competition is less of an issue with wholesale payments, given the need for systems that ensure financial stability (implying a continued role for central banks). However, NCBs do need to ensure that the services offered to banks do not take advantage of any monopoly power that they have.

(3) Although the future development of the wholesale payment system is not completely certain, it is clear that technology provides increasing options. For example, it is possible to envisage a system that is more harmonised than the current system, but nevertheless allows for some national variation to reflect the different desires of customers in different countries.

Using the argument from the second section, it seems likely that, in the long term, the efficiency argument would imply a further consolidation in the area of wholesale payment systems. An important determinant of the speed of this process is trends in the banking and finance system. To the extent that there is a significant consolidation of banks, and increasing numbers of
banks operating across the euro area, there may be less demand for national differences in payment systems. Integration of stock markets and other exchanges also increases the demand for harmonisation. These factors could eventually lead to some or all NCBs ceasing to offer payment systems.99

In contrast, central banks are often not directly involved in the provision of retail payment systems. Instead, they typically act to promote market solutions. Cross-border retail payments in the form of credit transfers are made via correspondents (sometimes in a multilateral context in the form of ‘club’ arrangements), or the commercial banks’ own networks. These payments are relatively expensive, especially for small amounts.

For the future of retail systems, the role of central banks is less relevant as they do not provide the systems here. On the other hand, competition may play more of a role. That is already evident in the Netherlands where currently a single provider of clearing services operates between banks, although another provider is considering entering the market. There is clearly more scope for cross-border services to develop. That is beginning to occur. The EU has recently decided that cross-border payments within the euro area must be provided for the same price as payments within a country. This decision is likely to stimulate the provision of cross-border services. Here commercial banks need to consider how to balance the competing demands of those customers predominantly interested in making payments within a country and the costs that are incurred to accommodate those wanting cross-border payments. To be cost-efficient, a completely integrated clearing system would require countries’ payment systems to be more harmonised (e.g. with regard to the use of instruments such as cheques and giro payments). Reaching agreement on how to proceed will take time and the ESCB has a role to play in encouraging and supporting further progress.

Finally, it is also important to consider the more physical side of the operational tasks, i.e. the production and distribution of banknotes. It is clearly not efficient to centralise all operations in one location, for instance with regard to the sorting of banknotes. On the other hand, the production of banknotes is an area where further rationalisation is possible and where considerable efficiency gains can clearly be achieved for the system as a whole, as can be seen by a comparison between the number of staff involved in this task in Europe and the number involved in the US. In addition, the introduction of a common currency suggests that the distribution of banknotes can be rationalised across the monetary union as a whole, rather than being based within individual countries. Market participants are already calling for discussions on this issue and the ESCB needs to continue to work with them to arrive at sensible solutions.

National tasks – responsibilities of DNB outside the ESCB

As is the case for other national central banks within the ESCB, DNB carries out a number of tasks that do not fall under the provisions of the Treaty of Maastricht. Cross-country differences between NCB activities in this area reflect different preferences and traditions regarding the organisation of these tasks and whether they have been allocated to the central bank or not. Although emanating from a national responsibility, these other tasks are generally related to monetary policy and allow synergies between the various tasks to be exploited.

In this section DNB is used as an example to illustrate national duties. The key non-ESCB tasks of DNB cover financial stability, prudential supervision and DNB’s role as an independent economic advisor to the Dutch government.100 As noted above, some of the statistical functions and parts of DNB’s role in international co-operation also fall outside the framework of the ESCB.

For these non-ESCB tasks, the relevant question to consider is whether these national tasks can best be carried out by a (national) central bank or by another national and/or international institution.

Financial stability

Financial stability is a responsibility that brings together a number of the key tasks of central banks – including monetary policy, banking supervision and payment systems.101 Because monetary policy is implemented via financial markets, financial stability is required for the effective implementation of monetary policy. Payment systems also have an important link with financial stability in that they can be a transmission channel for financial instability. For those NCBs with an involvement in banking supervision, there is a further link, as the soundness of individual financial institutions is obviously relevant for the stability of the entire financial system. Given these links, all NCBs have a competence in the area of financial stability – even where that is not explicitly set out in national legislation. In fact, central banks are unique in that they are entrusted with an array of interrelated tasks that give them a broad oversight of the financial system from
these various perspectives. That implies that they have a competitive advantage in ensuring the stability of the financial system.

In some countries, authorities other than central banks also have a responsibility for financial stability. The Treaty specifies that the ECB shall contribute to the smooth conduct of policies pursued by the competent authorities related to the stability of the financial system. These non-central bank institutions therefore have a responsibility to work together with the ECB to ensure that the ECB can fulfil the task allocated to it. The increasing integration between financial systems (both cross-sector and cross-border) requires close cooperation and information exchanges between all institutions with a responsibility for financial stability.

At present the financial stability task is mainly national in character, with countries taking responsibility for markets in their jurisdiction. At the same time, international meetings and ECB networks provide the opportunity to exchange information and views. Where necessary, international cooperation can be readily arranged to ensure the stability of the financial system, as was evident in September 2001. But, as globalisation of financial markets and financial institutions continues, the international character of this task will become increasingly apparent. Financial instability is less likely to stop at national (or EU) borders. As internationalisation continues, it will be necessary to consider whether some form of European financial stability forum, or a broader co-ordination mechanism such as a world-wide forum, is the most effective way forward (the Financial Stability Forum already incorporates elements of this). At the moment, such international forums provide for the exchange of information, but they respect national responsibilities in this area. Whether and how that might change in the future is unclear.

**Banking supervision**

As with financial stability, the Treaty provides that the ECB shall contribute to the conduct of policies pursued by the competent authorities relating to prudential supervision. In contrast to the situation for financial stability, not all NCBSs are the leading authority for prudential supervision in their countries. But, by explicitly assigning a role to the ECB, rather than to the ESCB, the Treaty gives all parts of the system a role in contributing to prudential supervision. This institutional set-up requires a creative solution to allow the various players to each fulfil their role.

This section briefly reviews two issues: (1) the arguments surrounding whether supervision should be a task for a central bank, and (2) the issue of the integration of supervision across Europe. Clearly, countries have made different decisions regarding their choice of the lead banking system supervisor (on the basis of the structure of their financial systems and/or political preferences. Moreover, those choices have recently been reviewed in a number of countries, including the Netherlands, where the decision was made that the central bank should continue to be the prudential supervisor for banks. The factors that determined the decision to retain the supervision function for the Netherlands within the central bank are briefly reviewed. First, the function was already in place in the central bank. In order to justify a change, there need to be clear efficiency gains from moving to another allocation of tasks. That was not judged to be the case. Second, there is a close link to the ECB’s role in financial sector oversight, meaning that synergies between the two functions can be exploited. Third, there is a link to the central bank’s role as lender of last resort. Having the supervisor in-house makes the communication channels shorter in the event of a crisis where it is necessary to judge whether problems relate to only one institution or to the system more broadly, and to assess whether they reflect solvency or liquidity difficulties. For small countries, the need to ensure a strong and viable institution (including its ability to attract high-quality staff) is an additional argument in favour of combining supervision with monetary policy.

There are also arguments against combining supervision and monetary policy in the same institution. Prominent among these is the argument of a conflict of interest: for example, monetary policy may not be tightened sufficiently to offset an inflation risk for fear of undermining the position of parts of the banking system (see Sinclair, 2000). In practice, however, the risk of a conflict of interest is rather limited (see Goodhart, 2000 and European Central Bank, 2001b regarding the relevance of this point). Advocates of removing the supervisory function from central banks also argue that agreements to exchange information can ensure that there are sufficient information flows between the central bank and the supervisor. However, apart from carrying risks in terms of timeliness and completeness, information exchanges are no substitute for hands-on responsibility in the field. The impetus to keep fully up-to-date with new developments in financial instruments, and their implications for risk management, diminishes if the central bank has no involvement with prudential supervision. Even when the central bank is not ultimately responsible for supervision, some
involvement in supervisory tasks is important. These arguments illustrate that there may not always be a single correct answer to the issue of where primary responsibility for supervision should lie. However, for the Netherlands at least, it is not obvious that alternative arrangements would be preferable.

The second issue concerns the centralisation of supervision within the euro area. The key argument in favour of a more centralised supervisory framework is the increasing internationalisation of the financial sector. These intensified links between institutions and markets have increased the risk that contagion could extend beyond national borders. Euro area centralisation would also reduce the scope for competition between regulators and align prudential supervision with the geographic boundaries of the monetary union.26

Clearly, although the increasing internationalisation of banks will determine supervisory arrangements in the future, it is not obvious that the establishment of a single European supervisor is the most effective response to increasing internationalisation. First of all, financial structures currently differ across Europe and can therefore better be supervised by national institutions. Second, such an institution (which should be independent in order to function effectively) would be very powerful and a system of checks and balances would be necessary.27 Finally, the absence of any fiscal union also plays a role here, as any major financial crisis is likely to have implications on national budgets. Currently it is not clear to what extent sovereign countries are willing to bear the financial consequences of the failure of institutions in other countries.

What is required (and already occurs) is that the setting of basic rules of conduct takes place at the European level, and the practice of supervision is more harmonised, so as to ensure a level playing field within the single market and beyond. In addition, cross-country agreements between supervisors are established as banks expand across borders. These can be tailor-made for the specific banks’ circumstances. Out of these arrangements a more co-ordinated system might evolve organically over the coming years, and this should be encouraged to ensure that there truly is a level playing field for banks from different parts of the eu. This is preferable to attempts to impose a top-down European solution.

The Dutch situation might serve as an example: unlike other major European banks, large Dutch banks have tended to expand into the Americas, rather than into other parts of the eu. A common European solution may therefore not be the most efficient from the Dutch perspective, since our banks have different interests and needs than those from other euro area countries. The issue is currently under active consideration, with various proposals circulating for increased European co-ordination. What is important here is that all central banks are actively involved, regardless of whether or not they have primary responsibility for supervision.

National economic advisor

In a number of countries, national central banks have a formal role as an economic advisor to the government. This is reflected in the representation of dnb in various policy forums in The Hague. In addition, the president of De Nederlandsche Bank is an ex officio member of the Social and Economic Council (ser). This council is made up of members nominated by employers and unions, along with independent members appointed by the crown. The ser provides advice to the government across various social and economic issues. An advantage of this council is that its members represent various segments of society, ensuring that its advice is based on a range of perspectives (a variant of the checks and balances argument of Section 2). dnb plays an active role in the ser. To some extent, the input that dnb provides reflects insights stemming from the role in monetary policy formulation. This includes highlighting the implications of the common monetary policy for national economic policy in the Netherlands. The issues covered by the ser are, however, considerably broader than those where there is an obvious connection to monetary policy. Moreover, dnb’s role as an advisor on economic issues extends beyond participation in the ser. What, then, is the value added by dnb on issues unrelated to monetary policy?

The most important point is that it can be valuable for governments to receive objective advice from an independent organisation. At times, the advice from such an independent organisation may be unpalatable for a government. Precisely because of that, the advice can provide a valuable contribution to the careful consideration of arguments. Such a role as independent advisor does not have to be fulfilled by a central bank, but because of the Bank’s historic involvement in these issues, and dnb’s place in the financial and economic establishment, it makes sense. dnb has established a reputation and is perceived as credible by the public. This reputation is important if dnb – and its advice – are to be taken seriously. dnb also has the necessary infrastructure and is able to exploit synergies with other
tasks. This implies that ďnb is able to undertake this task at relatively low costs (i.e. relatively efficiently).

An alternative to the national central bank could be to involve research institutes. In the Netherlands there are already a number of such institutes and they fulfil a valuable role. But the comparative advantages of ďnb in economic policy advice include the fact that the Bank is actively involved in policy-making. The involvement in policy-making ensures that the Bank does not operate in an ivory tower but is part of a world-wide network that provides access to a wide range of policy-relevant information. As a result, some specific economic policies are criticised, the government cannot dismiss the comment as readily as is possible with reports from competing academic institutions. It would also take time and substantial investment before other institutions were able to build up the credibility and networks necessary to effectively carry out this role. It is therefore not evident that there would be any efficiency gains in transferring this role to another institution.

So the role as policy-maker provides a counterpart to the valuable contributions of academic research. Involvement in euro area monetary policy formulation strengthens ďnb’s voice at the national level. At the same time, the knowledge of country-specific factors is higher, compared to a situation where the ėcb would fulfil such a role. Relatively controversial positions can be taken, because of the high degree of statutory independence.

Conclusions

The history of European integration was politically motivated, but shows quite clearly that economic integration preceded political integration at times. Monetary policy (and in particular exchange rate arrangements) have tended to be at the forefront of these efforts.28 Despite deep economic integration, political integration still has a long way to go, as is inter alia evidenced by the rather weak role of the European Parliament and the fact that the role of the Commission is not completely clear. One of the guiding principles of European integration is its co-operative nature. This is reflected in the Maastricht Treaty, which entrusts the ėescb, as a system, with policy tasks. This implies that all participating central banks, i.e. both the ėcb and the ncbś, must jointly fulfil the roles assigned by the Treaty.

The unique history of the ėescb – formed when a group of sovereign countries surrendered their monetary policy autonomy to form a monetary union – goes a long way towards explaining why that is so. The central banks within the system operate together as a team. While a strong centre is important for the team to perform well, the various national central banks are also crucial parts of the system. This is particularly important in the formulation and implementation of monetary policy, where public confidence in the policies of the system (and therefore their effectiveness) also depends on communication skills and knowledge of country-specific factors.

The European preference for subsidiarity reinforces the tendency for decentralisation. This preference yields a number of benefits, but at the same time entails certain costs. In particular, it has consequences regarding the extent to which efficiency gains can be achieved through centralisation. Viewed purely from a cost-consciousness point of view, there would appear to be scope for centralisation or greater regional specialisation in a number of areas. For example, increasing cross-border activity by financial and non-financial companies is likely to result in further harmonisation of payment systems and co-ordination in financial stability. A more harmonised payment system would in turn facilitate greater specialisation in the implementation of monetary policy. Banknote production and distribution is also an area where further efficiency gains can be sought.

Inefficiencies need to be eliminated where they exist, without undermining the fundamental principles upon which monetary union has been founded. Looking ahead, it seems likely that the basic structure of the system will remain intact for the foreseeable future. More substantial changes are linked to the need for further political integration within Europe and the development of supranational institutions in other policy areas. So long as Europe remains a community of nation states, national tasks are likely to remain a key part of the work of ncbś, as the example of prudential supervision shows. Further economic and political integration would also allow a more centralised approach to be taken in areas such as international representation.

Even in a full-fledged political union, regional identities continue to be an important factor. Shared histories, cultures and, in particular languages, are fundamental in shaping identities. These factors will remain in place for generations. Institutions tend to be related to these feelings of identity, and may even outlive them. National central banks are therefore likely to remain in place, albeit in a different form, for a long time to come.
Literature


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1 This article differs slightly from an earlier published version.
2 In this regard, tasks such as banking supervision are considered ‘indirectly related’ to monetary policy, as is explained below. Note, however, that not all ncb’s perform this task.
3 This principle has also been stressed by the ecb. See European Central Bank, (1999), p. 57. A framework based on similar considerations has also been proposed for the re-organisation of the Bundesbank after the adoption of the single monetary policy. See Koesters et al. (2001) and Deutsche Bundesbank (1999).
4 Note that not all of the aspects of effectiveness discussed here are relevant for every task carried out by ncb’s.
5 ncb’s are also involved in the preparation of monetary policy via their participation in the ecb Monetary Policy Committee, which inter alia prepares the economic projections of the euro area.
7 This holds all the more in an enlarged emu with more than 20 member states.
9 In fact, small, open countries have a natural inclination to make decisions on the basis of the euro area as a whole – possibly more so than large countries. A strong and successful European economy is of particular importance for smaller members of the euro area. For example, if euro area decisions were based only on Dutch circumstances, this would eventually have negative consequences for the euro area as a whole and therefore for the Netherlands.
10 See Aksoy et. al. (2002).
11 See Buiter (1999).
12 See Goodfriend (1999).
13 This does not exclude the possibility that, for practical reasons, the number of ncb Governors in the Governing Council may be limited at any point in time (e.g. subject to some form of rotating scheme) following euro area enlargement. Nevertheless, were this to occur, it would be important for ncb’s to continue to participate in the Council to the fullest extent possible in order to be able to effectively contribute to the tasks of the ecb.
14 See, for example, Goodfriend (1999).
17 See Art. 5 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank.
18 Language differences also play a role here.
19 That could also have implications for the decentralised implementation of monetary policy.
20 Additionally, dnb, together with the Minister of Finance, plays a role in the reinsurance of foreign payment risks for exporters and importers.
21 These issues are discussed in more detail below. Note that although not all central banks have explicit banking supervision tasks, their involvement in financial stability means that they have to take a close interest in it.
23 Again, the Treaty does not give the ECB primary responsibility in this field. Article 105 (6) does provide that, in the event of unanimous agreement by the European Council, acting on a proposal from the Commission and after consulting the ECB, could confer on the ECB specific tasks relating to prudential supervision. There is no indication that this is likely to happen in the foreseeable future.
24 The recent changes have resulted in a division of tasks along functional, rather than sectoral, lines. Organisational links between DNB and the insurance supervisor have been strengthened. This facilitates an integrated approach with respect to the prudential supervision of financial conglomerates who may be active across a range of financial products. These prudential supervision tasks have been separated from tasks associated with overseeing the conduct of business of these companies and consumer protection.
25 This holds in particular for Europe. Monetary policy is supranational, implying that there is little conflict, as no single NCB is in a position to determine European monetary policy. More generally, even if banking supervision is delegated, the risk of a conflict of interest (albeit between different institutions) could still result in monetary policy reacting inappropriately to external pressure. Having banking supervision and monetary policy under one roof might allow a better solution because any trade-off can be explicitly made. It is not the existence of conflicts of interest that is the issue, but how they are dealt with. Here the solution is good monetary and prudential policies, not the physical separation of institutions.
26 See van der Zwent, 2002, for a discussion of these issues.
27 The US achieves these checks and balances via the existence of a number of supervisors. For small countries, the importance of achieving checks and balances may be outweighed by the need to ensure a strong and effective institution.
28 For a more detailed discussion on the history of European monetary union, see European Commission (2002) and Houben (2000). Houben also discusses the different monetary policy traditions in the various EU countries.
On 1 January 2002, the Netherlands switched over to euro coins and banknotes with alacrity. The operation, which went smoothly and swiftly, marked the largest monetary changeover ever. This does not mean that the transition to the euro is completed, though. Indeed, Dutch consumers are still in the process of familiarising themselves with the new currency and the new prices. And a process like this takes time. Many Dutch citizens are already accustomed to the new currency, but one out of three still has not got the hang of the euro as a unit of account. Remarkably, ever since the introduction of the new currency consumers have perceived the rate of inflation as being much higher than is actually the case. Four-fifths put the price rises down to the euro. Although the price movements are underlain by more factors, it is evident that the euro has led to price increases. The estimated euro effect on retail prices is 1.4%. For the CPI this implies that 0.6 percentage point of an average inflation of 3.6% in the first six months of 2002 is to be attributed to the euro. This appears from a survey among consumers and retailers conducted in June at the Nederlandsche Bank’s initiative. The following article presents the principal results of this survey.
**Introduction**

Over the past few months it has been raining complaints about hefty rounded up prices and price tags whose guilder signs had simply been replaced by euro signs. A survey conducted early this year at the Nederlandsche Bank’s initiative showed that such price adjustments were not merely incidents. The conversion of retail prices to euro, it emerged, has produced an upward effect on the Dutch consumer price index by 0.2 to 0.4%. It appeared, in other words, that the introduction of the euro pushed prices up, if moderately. While the Netherlands did not deviate in this respect from the other EMU member states, Dutch consumers’ discontent with the new currency on this score did not abate. To find out whether the effect on prices had been more pronounced and to measure the habituation to the euro, the Bank commissioned another representative survey. Within this scope, 750 consumers and 800 retailers were interviewed in the second half of June. This article presents the main results.

**Many consumers already used to the new currency**

Six months after the introduction of the euro banknotes and coins, nearly two-thirds of Dutch consumers have grown accustomed to the new currency. More than one-third still need to come to grips with it, especially as a unit of account. More than half of this category report they still translate euro prices into guilder prices, and a quarter that they are insufficiently apt at judging the euro prices.

The new banknotes do not give rise to many problems. The opposite holds true, though, for the euro coins. After six months, one in five consumers is still not able to establish the value of the coins at a glance. More than one-third of the ‘slow’ adjusters expect to be used to the new currency before the end of the year. One-fifth assume that it will take several years’ time for them to advance to that stage. Strikingly, the elderly (65 and over) appear to have least trouble dealing with the euro. Those in their (early) forties turn out to find it hardest and to fear more than people in other age groups that it will take a lot of time for them to acclimatise. Senior citizens are proportionately less inclined to translate euro prices into guilder prices. It takes more effort on the part of people in their fifties and sixties to tell the coins apart.

More than 50% of Dutch consumers have rigorously said goodbye to the guilder: they do not even have one guilder cent left at home. Almost 90% of the other half have kept back an amount of just under NLG 100, i.e. NLG 47 per household on average, in most cases out of nostalgia.

The advent of the euro has had little effect on the amount of cash consumers have in their pockets. More than one-third now carry more cash; 12%, less. One average, Dutch consumers have EUR 63 worth of banknotes and/or coins in their wallets. The percentage of Dutch consumers (52% in all) that carry less than EUR 50 in cash includes relatively many citizens between the age of 30 and 40. This category incidentally indicates that they used to have less money on them before the changeover. In the group carrying between EUR 50 and EUR 100 cash, i.e. one-third of the population, the elderly are comparatively well represented.

The euro cent appears to be a nuisance. 60% of Dutch shoppers would not mind if Frankfurt abolished it tomorrow. This sentiment is shared by the same percentage among retailers. The food trade is slightly more positive about the euro cent, because it enables paying and returning the right change.

**Scapegoat euro**

According to the Bank’s most recent survey, two-thirds of Dutch consumers, among whom relatively many women, consider themselves the worse for the euro. This view is largely (approx. 90%) fed by the impression that life has become more expensive on account of the euro. To a lesser extent, the loss of price sense is a cause for discontent. Only 4% is entirely positive, seeing only the benefits. For the latter group, the advantages the euro brings to them as tourists preponderate: the single currency has made travelling in the euro area easier. More than 50% of the respondents state they have inadvertently stepped up their expenditures since the introduction of the euro and about the same percentage claim they are more cost-conscious now when doing their shopping. These views are shared by both sexes, but not by all age groups. Especially those in their forties and fifties are of the opinion that prices have increased since the introduction of the euro. In the category that has unwittingly spent more since 1 January 2002, those aged between 30 and 40 predominate. Perhaps this explains why this category in particular is now in the habit of carrying more cash. The generations that have seen World War II and the reconstruction of the Netherlands are less easily misled by the ‘money illusion’. They are obviously used to being prudent with
money and less likely to be snared into spending more by seemingly lower prices.

About 50% of the respondents that have grown more alert to prices report they are more on their guard since finding that shopping has become more expensive, and one-third because they feel that judging prices properly is more difficult now. To determine whether a product is expensive or cheap, nearly 70% of Dutch consumers first translate a product’s price into guilders. It is not surprising that the elderly are significantly less represented in this category. Indeed, they take a relatively relaxed approach to the euro. Incidentally, nearly 50% of Dutch consumers compare prices before practically any purchase and are, in fact, permanently on the alert.

Almost a quarter of the respondents said not to be deterred when finding a product to be considerably more expensive since the conversion. They bought it anyway. Slightly less than half (44%), including relatively many consumers in the 40-50 age bracket, indicated they would move on to another shop or postpone the purchase. The majority in this category are women. One-third of Dutch consumers would only buy the bare essentials. Relatively many individuals in this group fall in the lowest-income bracket. Among those who postpone their purchases, those aged between 30 and 40 are, relatively speaking, conspicuously absent. This is in line with the earlier conclusion that Dutch consumers in this age group spend more than average since the euro has become their currency.

**Retailers not much troubled by euro**

Also in the months following on the successful transition from guilders to euro retailers hardly ran up against logistical or other problems. Fears of shortages of cash at the cash registers proved unfounded, and staff turned out to be generally well practised in handling the new currency. Only 9% of retailers reported lack of familiarity with the new currency as a point of concern. One in three retailers state that consumers are still wrestling with the new currency as a means of payment and as a unit of account. Retailers furthermore indicate they are not suffering adverse side effects from media reports suggesting that their price increases are euro-related. One in ten consider this negative publicity a nuisance, and 1% report that customers complain about prices. Almost half (47%) of the retailers interviewed report that their customers have become more cost-conscious since the arrival of the euro. Consumers are particularly critical at clothes and shoe shops.

**Inflation higher in consumers’ perception than in reality**

Remarkably, more and more consumers are under the impression that prices are rising strongly, whereas inflation in Europe has declined demonstrably since the beginning of the running year. This phenomenon, which in Germany is referred to as ‘Gefühlsinflation’, is also manifesting itself in the Netherlands. Dutch inflation has been well in excess of 3% since eighteen months. This rate, which is relatively high where the Netherlands is concerned, is due in part to higher wage costs, increased indirect taxes, the foot-and-mouth disease, higher oil prices and the harsh winter conditions in southern Europe pushing up vegetable prices. Apart from the wage costs, the effect of these factors has worn off since the beginning of this year, bringing down inflation. Whereas the consumer price index in December 2001 was still as much as 4.4% higher than the year before, inflation slowed down to 3.5% in July 2002. In the first six months of 2002, the cost of living for Dutch households rose by 3.6% on average.

However, inflation as perceived by the consumers, deviates considerably from actual inflation. The survey shows that the public is under the impression that, compared to 2001, grocery prices and expenditures on clothing, gas and electricity, housing and transportation have on average gone up by 7.3% in the first six months of 2002. As is clear from Chart 1, the experiences of consumers are varied. While 13% think prices have not changed at all, the same percentage surmise that the cost of living has risen by more than 3%. Three-quarters of Dutch consumers think that prices have increased by more than the official statistics indicate. Incidentally, there is a certain correlation between the measure of habituation to the euro and the price rises as perceived. Consumers who are having difficulty getting used to the euro generally state higher inflation rates. They think that prices have increased by 9% on average. Consumers who have already grown accustomed to the euro perceive an inflation of less than 7%.

The discrepancy between actual and perceived inflation also appears from the data of Statistics Netherlands. In Statistics Netherlands’ monthly Dutch consumer confidence surveys, consumers are asked if they think prices have risen moderately to considerably. Three-quarters of Dutch consumers think that prices have increased by more than the official statistics indicate. Incidentally, there is a certain correlation between the measure of habituation to the euro and the price rises as perceived. Consumers who are having difficulty getting used to the euro generally state higher inflation rates. They think that prices have increased by 9% on average. Consumers who have already grown accustomed to the euro perceive an inflation of less than 7%.

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tion goes up and the other way round. The percentages of consumers perceiving such price movements may therefore be interpreted as an indicator of perceived inflation. Strikingly, this indicator, which in the past twenty years has invariably responded to sharp inflation turns, has been mounting steeply since the introduction of the euro even as inflation has been falling. This indicator, too, suggests that actual inflation and perceived inflation are diverging widely at present.

The gap between the perceived and actual inflation rates can partially be explained. The CPI reflects the price movements of all goods and services consumed by households and not just those regarded as daily necessities. The cost of living is also determined by other factors, such as the cost of housing, transportation and telecommunication. Actual inflation based on the CPI and perceived inflation may vary if consumers base their impression of inflation mainly on the cost of daily groceries. Hence, if prices rose sharply in the retail trade, consumers will assume that inflation has increased considerably, even though at stable housing and transportation costs the effect on the total cost of living will be limited. Table 1 shows the price movements for several product categories and services. Whereas retail prices in 2002 rose by 4.5%, the CPI increased by 3.6% because house rents (+2.8%) and transportation costs (-0.1%) dampened the effect on inflation. It is clear, however, that the perceived inflation of 7.3% is even much higher than the increase of retail prices with which consumers are daily confronted.

More than 80% of those interviewed blame the euro for the price rises. Consequently, the perceived high inflation cannot be seen apart from the introduction of the new currency. From the survey it further emerged that consumers attribute approximately one-third of
the perceived price rises directly to the transition from the guilder to the euro. This perception varies from one expenditure category to another. In the case of housing, gas and electricity, consumers thinks that approximately 12% of inflation is due to the euro, and in the case of furniture and domestic appliances, 20%; food, clothing and shoes are held to account for about 30%, and, finally, hotels and restaurants for 40% of inflation.

A salient detail is that consumers also perceive a euro effect in categories where this is less obvious, such as gas and electricity, living costs and some public services.

Prices raised by the retail trade due to the arrival of the euro

In January 2002, the Bank established that the introduction of the euro had led to price rises and that the price conversion in the retail trade had prompted price increases varying from 0.5 to 0.9% on average. The Cπ has risen by 0.2 to 0.4% as a result, reflecting the estimated €0.9 billion non-recurrent introduction costs being passed on, on the one hand, and the rounding to psychologically attractive prices, on the other. Recently, ING’s research department concluded that the euro pushed up retail prices until April 2002 by 1.1%. The Dutch consumers’ organisation, too, in a recent survey pointed out that the transition to the euro had led to price rises also after January.

From the Bank’s survey conducted in June it appears that nearly two-thirds of retailers has not used the introduction of the euro to raise prices. The percentages by which prices were adjusted by the rest varied widely (Chart 3). Some 12% raised prices by 1-5%; 4% did so by 5-10% and another 4% for an increase by 10% or more. 17% of the respondents were unable to name a percentage. In the latter group, retailers whose pricing is dictated by their businesses’ headquarters predominate. All this amounts to an average euro-related increase of retail prices by 1.4%. As a consequence, the Cπ has increased by 0.6%. Although this estimate is not very accurate due to the relatively wide dispersion of euro-related price increases, the euro clearly brought about price rises also after January 2002. The survey does not cast light on the reason why some retailers did not raise prices until later. It is assumed that some waited until the public’s attentiveness to price increases had faded or until the moment that dual pricing was no longer required. One large group of retailers had put off the preparations for the euro until the last moment. Possibly, this group had to wait until after January to gain insight into the costs entailed by the changeover and, hence, into the costs it could pass on to the consumers.

As observed on the basis of earlier surveys, it now also appears that small and medium-sized enterprises carried through above-average price increases. Small businesses raised prices by 1.7%, medium-sized businesses by 1.4%, and large companies by 0.9%. Besides

<table>
<thead>
<tr>
<th>Period</th>
<th>Retail trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Food</td>
</tr>
<tr>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>7.2</td>
</tr>
<tr>
<td>February</td>
<td>6.2</td>
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<td>March</td>
<td>4.7</td>
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<td>April</td>
<td>3.8</td>
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<td>May</td>
<td>3.4</td>
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<tr>
<td>June</td>
<td>3.6</td>
</tr>
<tr>
<td>Average</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Table 1 Price movements

Price changes in 2002, against 2001
size, the extent to which a business is sensitive to competition is another factor in euro-related price increases. Retailers with few or no competitors raised their prices by 1.5%. In cases where competition is strong, prices went up by 1.4%, and in cases where competition is fierce, prices increased by 0.9%.

Above-average euro-related price increases have had an appreciable effect on sales volume. Respondents reporting price increases below the average of 1.4% saw their sales volumes rise by 1%, whereas all the others were faced with a drop of 0.6%. In the case of price increases by 10% or more, sales volume plummeted by nearly 8%. In other words, retailers who in the opinion of consumers pushed up prices too much, appear to have been punished for their strategy.

The effect of the euro on inflation is temporary, though. For one, the changeover costs are non-recurring, as is their being passed on to consumers. Prices being rounded up to attractive euro amounts is another one-off movement. In the long term the euro will have a restraining effect on inflation. As the retail trade is expected to have recovered the costs as early as next year, it should no longer need to adjust prices further. This ensures that any price rises in the near future will be moderate. Besides, in the long run the euro will contribute to price competition in Europe. This, too, will curb the rate of inflation.

Summary conclusions

The principal findings based on the Nederlandsche Bank’s consumers and retailers survey of June 2002 are as follows:

- After six months’ experience with paying in euro, some 60% of Dutch consumers are used to the new currency;
- On the other hand, more than one-third of Dutch consumers still have not got the hang of the euro as a unit of account. This inaptitude inadvertently manifests itself in higher expenditures since everything appears so much less expensive now;
- Both consumers and retailers indicate they feel little need for the euro cent;
- While experiencing some nuisance from the negative media reports of euro-related price increases, the retail trade has hardly met with logistical or other problems;
- More than half of the Dutch consumers interviewed state they no longer keep guilders at home. The other half has retained guilders for nostalgic reasons;
- At over 7%, inflation as perceived by consumers in the first half of 2002 is twice as high as actual inflation. The euro has driven a wedge between price perception and reality;
- The Nederlandsche Bank’s survey shows that euro-related price increases also occurred after January of the running year. The overall euro effect estimated on the basis of the survey amounts to 1.4% in terms of retail prices, and to 0.6% for the CPI;
- The effect of the changeover on inflation will be temporary. In the long term, the euro will intensify competition in Europe and have a restraining effect on price rises.

1. The Dutch version of this article was published on the Nederlandsche Bank’s website on 13 August 2002
3. These included a variety of shops: supermarkets, bakeries, butchers, clothes and shoe shops, as well as furniture shops, but also hairdressers, beauty parlours, restaurants and hotels.
In the course of their cross-border activities, entrepreneurs incur certain risks, such as payment risks in relation to exports and expropriation risks in the case of foreign direct investment. While they can acquire private sector insurance to manage some of these risks, private market coverage is still limited. The Netherlands, like most industrial nations, hence provides some facilities for reinsuring certain political and commercial risks. These facilities are of considerable financial significance; a rough estimate puts the amount of Dutch exports reinsured at over EUR 100 billion in the past 25 years alone. The government’s complementary role dates as far back as 1922, when the first export credit guarantee facility came into operation. A consultative body, comprising private and public sector representatives and presided over by the Nederlandsche Bank, was set up in the same year. To mark the eightieth anniversary of this body, now known as the State Committee for export, import and investment guarantees, in June 2002, this article explores the Bank’s role in administering Dutch reinsurance facilities.
Dutch authorities’ reinsurance facilities

Reinsurance facilities in support of corporate sector competitiveness

As do most industrial nations, the Netherlands supports the competitiveness of its internationally-active corporate sector by providing some facilities for obtaining coverage against the political and commercial risks inherent in exports and foreign investment. Since these risks vary for export and foreign investment, the Dutch authorities provide two different reinsurance facilities under the Ministry of Finance budget: export credit insurance and investment insurance. The Decree on the admission of credit insurance companies (1983) provides that credit insurers established in the Netherlands can reinsure such risks with the State subject to certain conditions. The State concluded such a reinsurance agreement with gerling ncm. This company has built up expertise in credit insurance through its private operations and serves as an agent for the reinsurance facilities: applicant policyholders may contact gerling ncm in order to submit insurance requests or seek professional advice and guidance. Since the establishment of the first export guarantee facility in 1922, the Bank has acted as an independent advisor to the government, in part by presiding over the State Committee for export, import and investment guarantees (Box 1).

Export credit insurance

Exporters incur various kinds of risks when supplying export products and related services to foreign customers. For relatively large export transactions, exporters call in banks to structure financing which allows customers to spread out their payment obligations.

Box 1 State Committee: eighty years in brief

In the early 1920s, the Dutch economy underwent a deep depression and unemployment soared. To support the export sector, the government decided to follow the example of other industrial nations and to issue export credit guarantees. However, there was no organisation capable of implementing such a scheme; this was a completely new field and the Netherlands did not yet have a tradition of private credit insurance. On 15 June 1922 the Minister of Finance set up the State Committee on Export Credits, charged with advising the Minister on requests for government export credit guarantees. At the Minister’s request, the Nederlandsche Bank – discount institution for the credit system and trusted third party for the government and private enterprise – took on the chairmanship of the Committee. As too few exporters made use of the facility it was subsequently dismantled by early 1929. With hindsight, the lack of interest can be mainly attributed to unfamiliarity of potential users with the insurance cover provided under the regulation.

Following the crash on Wall Street on 24 October 1929, the global economy was hit by the Great Depression. The relatively open Dutch economy, which was still strongly geared to the agriculture sector, endured heavy blows. As part of the legislation to address the agricultural crisis, it was decided in 1931 to reintroduce the export credit guarantee regulation and to reinstate the State Committee. In 1946, the Committee’s field of work was expanded to include import guarantees since the post-war reconstruction of the Netherlands was accompanied by sizeable imports of raw materials and capital goods. In 1969, investment insurance policies were added to the Committee’s remit, and it was then given its current name. As a result of the so-called Desert Act, which sought to restrict the number of advisory bodies in the Netherlands, the status of the Committee was changed as of 1 January 1997 from advisory body to consultative body.

The State Committee currently deals exclusively with policy matters and no longer with the assessment of individual insurance applications. As early as in 1932, part of the implementation was transferred to the Nederlandsche Crediet Verzekeringmaatschappij (ncm) which was established in the mid-1920s. The assessment of the insurance applications dealt with by the ncm was initially left to a small group of the Committee members. In 1961, this task was delegated to the so-called Daily Committee with its own tasks and powers. In the mid-1980s, the Daily Committee was incorporated in the Nederlandsche Bank’s Export and Import Guarantees Department (Exim), which was also set up in 1961. Exim acts as the secretariat of the State Committee. As of 1993, the State Committee’s sphere of influence was further enhanced by the introduction of expert working groups, supported by the Exim secretariat. In the 1994-2001 period, various working groups issued around 20 reports on a wide range of policy issues. Since 2001, the recommendations of the State Committee have been presented to the Second Chamber of Parliament and published on the Ministry of Finance website (www.minfin.nl).
tions over time. This situation exposes exporters to the risk that they will be unable to supply the export goods on completion of production because the foreign party cannot buy them or does not wish to do so (manufacturing risk). There is also the risk that foreign buyers will not (fully) meet their payment obligations (credit risk). Credit risks can be classified as country risks or buyer risks. Country risk applies if a default arises due to a government-imposed transfer restriction or a general suspension of payment. Buyer risk exists where non-payment occurs due to the customer’s own payment difficulties. Exporters can obtain cover against these risks by taking out credit insurance. However, payment exposures to customers from emerging economies with a relatively long period of risk are virtually uninsurable; private insurers are not yet prepared to grant coverage for such tenors, especially not for country risks. Thanks to the export credit insurance facility, banks and exporters can nonetheless obtain cover for a significant part of these risks. Supplementary coverage options include insurance against the risk that a foreign customer wrongly calls in guarantees provided by the exporter. Contractors and metal-processing companies, dredging companies, shipbuilders and construction firms are – in combination with banks providing export finance – the main users of this facility. In 2000, on a rough estimation, some 5% of total Dutch capital goods exports to emerging economies were reinsured by the State.

The export credit insurance facility also provides the option of covering exchange rate risks, incurred when export contracts and tenders to contract are denominated in a foreign currency. The coverage provides for the reimbursement of the differences between the guaranteed rate, agreed on when submitting the tender or drawing up the export contract, and the prevailing market rates when the various payments fall due.

**Investment insurance**

Through the Regulation on reinsuring investments (1997), the government can reinsure certain political risks attached to foreign direct investment by Dutch companies. Alongside coverage against risks such as war, expropriation and transfer restrictions, companies may also request coverage for breach of contract by government parties. Besides equity holdings, long-term loans may also be included under the coverage. The Investments Facility user profile is quite diverse. While utilities have always accounted for a relatively large share, small and medium-sized enterprises have stepped up their use of this facility in recent years.

**Dutch government’s reinsurance exposure**

The total exposure of the government on account of export credit insurance (€C1), increased considerably in the 1970s and early 1980s (Chart 1). This growth reflected the shift in exports from industrial nations to OPEC countries and other emerging economies. Following the outbreak of the Latin American debt crisis in 1982, the exposure declined again during the 1980s. The sharp rebound in the early 1990s resulted from the issuance of some reinsurance commitments – of a provisional nature – for Saudi Arabia. Since the export orders did not go ahead in the end, the final exposure (arising from the issued policies) was quite stable in those years. Over the past few years, €C1 exposure has shown a gradual decline. Apart from structural factors such as the increased private sector provision of €C1 (Box 2), cyclical factors are also significant; for example, the financial crises that have recently hit emerging markets have depressed the demand for imports of capital goods. Moreover, the transfer of the state’s short-term insurance portfolio to Gerling NCM in 2001 led to a decline in overall exposure. At end-March 2002, the Dutch government had €6 6 billion of export credit insurance policies outstanding, with Asia accounting for more than one third (Chart 2). In contrast to the decline of the €C1 exposure, investment exposure quadrupled

**Chart 1 Export credit and investment insurance exposure (1970-2002)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total export credit insurance exposure</th>
<th>Final export credit insurance exposure</th>
<th>Total investment insurance exposure, right-hand scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>0.2</td>
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<td>74</td>
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<tr>
<td>98</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>02</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Explanatory note: The above exposures are not adjusted for price developments. Total exposure = exposure arising from policies and contingent exposure arising from commitments (promises of cover). Final exposure = exposure arising from policies. Source: Gerling NCM.
Box 2 The advance of the private market for export credit and investment insurance

An important trend in the area of export credit and investment insurance is that risks which, until recently, could only be covered by governments, can be increasingly absorbed in the private market. Banks, private insurers and reinsurers are capable of taking on these risks in respect of ever more countries, for their own account, with the risk periods becoming steadily longer. The increase in private sector insurance ensures that the government can gradually withdraw from the market and concentrate on risks which are not yet deemed marketable. This process has also been the subject of international harmonisation, as EU members have agreed to no longer cover so-called marketable risks. From time to time, the European Commission revises the definition of marketable risks on the basis of an analysis of the private (re)insurance market. Since early-2002 commercial and political risks in a large number of OECD countries, with a maximum risk period of up to two years, have been regarded as marketable.

Nonetheless, the agreements between the Dutch government and Gerling NCM go further than provided by the European Commission. In the regulation on risk-bearing which took effect in early-2001, it was agreed that Gerling NCM would underwrite all risks in those OECD countries on its own account, regardless of the duration of the risk. For the other countries, Gerling NCM insures risks for up to three years on its own account; however exposures in respect of the high-risk countries are subject to a maximum limit. The Netherlands is one of the frontrunners in this area, along with the United Kingdom and France. The government and Gerling NCM have agreed to review this arrangement in three years’ time.

In countries such as Canada, Japan, the United States and South Korea, export finance is generally not provided by commercial banks but directly by state agencies. In the Netherlands, commercial banks provide export finance and a private insurer – as in Germany and France – acts as an agent for reinsurance by the public sector. In light of the above, the provision of reinsurance facilities in the Netherlands is already comparatively market-driven, with the private market playing a much stronger role in administering such insurance facilities.

Chart 2 Regional distribution of exposure, March 2002

Percentages

<table>
<thead>
<tr>
<th>Region</th>
<th>Export credit insurance</th>
<th>Investment insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia/Oceania</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>Central and Eastern Europe</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>Latin America</td>
<td>14</td>
<td>10</td>
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<tr>
<td>Middle East</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Africa</td>
<td>5</td>
<td>Others</td>
</tr>
</tbody>
</table>

Explanatory note: Exposures arising from issued policies and promises of cover.
Source: Gerling NCM.
insurance. Among other matters, it will look at whether and how the Dutch government could itself hedge the contingent exchange risks it has reinsured. It should be noted that the government also has outstanding currency exposure of another kind since, in the case of export finance, coverage can be denominated in foreign currencies. This is a conditional exposure, as the government only incurs exchange risks in the event of non-payment by the customer. These risks move in the opposite direction to those arising from tender to contract policies.

International harmonisation of export credit insurance facilities

In designing its export credit insurance facility, the Dutch government must observe international regulations. To prevent governments from subsidising exports through insurance, the main industrial nations seek harmonisation of the conditions attached to such facilities within the EU and OECD. The agreements are laid down in the Arrangement on Guidelines for Officially Supported Export Credits. This Arrangement is a gentlemen’s agreement between the participant member countries.\(^2\)

Reviewed over the medium term, export credit insurance facilities must be offered on a cost-neutral basis. In the 1980s, the ECI facilities of the participant member countries, including the Netherlands, generally incurred large insurance claims because of the debt crisis in Latin America and the break-up of the Soviet Union. In part these insurance losses were recovered in the 1990s, through re-payments of sovereign debt agreed upon in the Paris Club. Export subsidies are, in principle, banned by the World Trade Organisation. In this context, the OECD agreement on minimum premium benchmarks for country risks of 1997 forms an important milestone. A number of indicators (premium feedback tools) are used to measure whether these benchmarks are indeed cost effective in the long term. An essential component is the common classification of country risks, used by the participating member states since early 1999. All in all, this agreement is a significant step towards safeguarding cost neutrality and creating a level playing field in the area of premiums. However, countries are still free to determine their own policies in respect of buyer risk surcharges.

Another important international understanding is that the coverage which governments offer via reinsurance or guarantee facilities should complement those which can be provided by the private insurance market (Box 2). Finally, the transactions that are to be insured have been subjected to more intense scrutiny in recent years in terms of their social and environmental impact.

State Committee consultations between administrators and users of reinsurance facilities

With a view to monitoring the demand for export credit and investment insurance and improving the competitive position of the Dutch corporate sector, the government and the users of these facilities have held consultations since as far back as 1922. These consultations take place in the State Committee for export, import and investment guarantees. Meetings are held at the Bank twice a year. The main export and investment sectors are represented (construction, electrical engineering, agriculture, consultant engineers, shipbuilding) along with the organised corporate sector, banking sector, credit insurance industry and the relevant ministries (Finance, Economic Affairs and Agriculture). In 2001, the small and medium-enterprises sector was allocated a seat on the Committee in order to advance this sector’s use of the facilities. The direct consultations between the administrators and users of the export credit and investment facilities enables the Committee to keep abreast of important developments and to identify bottlenecks at an early stage. It generates broad support for solutions which, on the one hand, help to uphold the Netherlands’ competitive position abroad and, on the other, comply with various international agreements in relation to the harmonisation of the conditions attached to reinsurance and guarantee facilities. Policymakers take account of the Committee’s recommendations when shaping policies. With a view to enhancing the transparency of government policy, the Committee’s recommendations have been presented to the Second Chamber of Parliament since 2001 and are published on the Ministry of Finance website (www.minfin.nl).

The Bank’s role in administering reinsurance facilities

Policy advice

In addition to its activities relating to the chairmanship and the secretariat of the State Committee, the Bank, particularly the Export and Import Credits Guarantee Department, is involved in the administration of the
Dutch reinsurance facilities. As laid down in the Regulation on Export and Import Guarantees (last amended in February 2002), the Bank can advise the government – in this case the Ministries of Finance and Economic Affairs – upon request or on its own initiative, on general matters relating to export credit and investment insurance. In practice, the Bank advises on various policy issues, such as product development, risk management and optimisation of operations. The Bank also participates in the Netherlands delegation to various international fora and contributes to determining the official position on harmonization of export credit policies. Moreover, in relation to country risk, the Bank advises on underwriting standards and the framework for country risk limits. It shares responsibility for the maintenance of adequate operational procedures and management information. In that context, the Bank is now jointly developing with the Ministry of Finance and the computerised management information system in support of claims and portfolio management.

Involvement in operations
In advising on policy matters, the Bank benefits from its day-to-day involvement in the State’s reinsurance operations. Without such involvement, the Bank would be less able to take a practical approach towards policy matters, detracting from its capacity to issue effective advice. Within the limits of its authorisation, the Bank assesses the applications for reinsurance cover put forward by . In cases that go beyond these limits, the Bank advises the Ministries of Finance and Economic Affairs, which take the final decision. The Bank has a delegated authority to process claims for damages and to monitor collection procedures.

Insurance trends: increasing complexity requires more individual solutions
Due to the expansion of international trade and lending and the emergence of new methods of financing, the volume and complexity of transactions requiring insurance has increased over the past years. For one, project finance, whereby the repayment commitments are met from the income of the project under realisation, has become far more popular. To an increasing extent, the government is being asked for tailor made solutions, allowing for a better fulfilment of its complementary role. Hence it is important to build up expertise in the area of project finance and other forms of structured finance with a view to modernising insurance coverage and relevant documentation. New portfolio management techniques for transferring risks such as liability swaps and co-insurance with other political risk insurers are issues under consideration. When it comes to offering individual solutions, investment insurance might gain in prominence in the future, particularly if more coverage options are developed for certain political risks attached to investment loans. In June 2002, such an approach was recommended by the State Committee in a review of the Investments Regulation.

Added value
The central bank’s involvement in the field of export credit and investment insurance, which, from an international perspective, is not self-evident, arises from the government’s need for an independent advisor. The Bank contributes its financial and economic expertise in the area of financial stability (country risk, financial sectors and market know-how) and risk management. Links with institutions such as the European Central Bank (ecb), the Bank for International Settlements (bis), the Basel Committee and the International Monetary Fund provide useful input for policy planning and monitoring purposes. For instance, through its Banking Supervision Department the Bank contributes to (inter)national discussions on the solvency weighting of government-backed export credits.

Conversely, the Bank’s involvement in export credit and investment insurance has added value for its tasks relating to financial stability. The expertise in country and counterparty risk is, for example, useful in monitoring economic developments and financial structures in emerging markets (in the context of bis and the ecb, etc.). The common country classification referred to earlier is also used as input in determining the additional capital and provisioning requirements imposed on commercial banks under the Bank’s country risk policy. Under the revised Basel Capital Accord, this country classification is recognised as an external rating for sovereign risks. The experiences of debt restructuring operations acquired via the Paris Club may serve as useful input for international consultations on the desired participation of private creditors in the support official debt relief operations. Besides these examples of knowledge transfer, the Bank’s involvement in reinsurance complements its network, providing it with various contacts among the business sector, foreign export credit and investment insurers, and various multilateral organisations.
Conclusion

2002 sees the eightieth anniversary of the Dutch export credit insurance facility and the State Committee for export, import and investment guarantees. Partly through the State Committee, the Bank contributes as an independent advisor to the administration of the Dutch reinsurance facilities. Conversely, the Bank profits from the expertise and the contacts acquired through its involvement in export credit and investment insurance.

Literature


De Nederlandsche Bank (1982) Zestig jaar zekerheid bij export, (Sixty years of secured exports) Amsterdam.


1 A complementary export credit insurance facility, involving a lower amount (€10/10m), is provided under the Ministry of Economic Affairs budget. The Bank is not involved in administering this facility. The aim, in time, is to integrate this facility into the regular export credit insurance facility.

2 Australia, Canada, European Union, Japan, New-Zealand, Norway, Czech Republic, United States, South Korea, Switzerland, (Hungary and Poland are applicant Participants).

3 The Bank’s authorisation limits vary – as do those for gerling ncm – according to the risk rating of the country for which a request is submitted. The Bank has authorisation limits of €15 million and €10 million in respect of the higher (1 to 3) and lower (6/7) country classifications respectively. All non-standard requests are presented to the Ministry of Finance for a decision.

4 Of the other countries participating in the Arrangement, at any rate the Banque de France, Oesterreichische Nationalbank, Banco de Portugal, Banco de España and the Federal Reserve Board hold varying degrees of responsibility in the field of export credit insurance (see the OECD publication Export Credit Financing Systems in OECD Member Countries and Non-Member Economies).
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- Development of banknote and coin circulation
- The monetary policy strategy of the Eurosystem
- Scenarios for the European economy: an analysis with euromon
- The Dutch economy in 1999-2001: a forecast using markmon

**September 1999**
- The Dutch housing and mortgage markets: a risk analysis
- Consumer Affairs
- Government and inflation under emu: the decomposition of Dutch inflation
- Transparency in the international financial system: a survey
- Fiscal policy and the interest rate movements in the euro area: scenarios based on the multicountry model euromon

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- The significance of the European capital market for corporate financing
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- The role of a national central bank in the single European monetary policy
- The importance of financial structure for monetary transmission in Europe
- Risk analysis: the new tool for Supervision
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- The Goldilocks economy of the United States in comparison with Europe: an analysis with euromon
- The Nederlandsche Bank’s analysis of bank lending

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- Unemployment and labour reserve in the Netherlands
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**September 2000**
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- Output gap and future inflation in the longer term
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- Guardian of financial stability
- Recent developments
- Asset price inflation on the equity and real estate markets: risks and policy implications
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- Currency crises in emerging markets: predictable or not?
- The Dutch economy in 2000-2002: a forecast based on markmon

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- Economic convergence and monetary policy in accession countries
- Towards a new Basel Capital Accord
- A comparative study of the Federal Reserve System and the escb as monetary policy institutions
- A new approach to risk in foreign exchange settlement
- The role of fiscal policy in emu: A simulation with euromon

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- The Dutch economy in 2001-2003: a forecast using markmon
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- Key features document for financial products: the current position
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**March 2002**
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- Smooth euro changeover, higher prices?

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- A suggested European agenda for structural reform
- Regulatory Impact Analysis as new instrument for the Bank
- The Dutch economy in 2002-2004: a forecast using morkmon

**September 2002**
- Influence of stock market strongest in housing market’s top segment
- The role of national central banks within the European System of Central Banks: The example of the Nederlandsche Bank
- Getting used to the euro
- Export credit insurance eighty years on
DNB Staff reports have been published since 1996. Aim and scope of this publication series is to disseminate a selection of the research done by staff members of the Bank to encourage scholarly discussion. An overview of DNB Staff reports can be found on the Bank’s website, http://www.dnb.nl. During the second and third quarter of 2002, nine Staff reports were published which are summarised below.

No. 83 Comovement in International Equity Markets: a Sectoral View
R.P. Berben and W.J. Jansen

We investigate shifts in correlation patterns among international equity returns at the market level as well as the industry level. We develop a novel bivariate GARCH model for equity returns with a smoothly time-varying correlation and then derive a Lagrange Multiplier statistic to test the constant-correlation hypothesis directly. Applying the test to weekly data from Germany, Japan, the UK and the US in the period 1980-2000, we find that correlations among the German, UK and US stock markets have doubled, whereas Japanese correlations have remained the same. Both dates of change and speeds of adjustment vary widely across countries and sectors.

Keywords: Stock market linkages, financial integration, smooth transition.
JEL codes: C22, G15.

No. 84 The Welfare Cost of Structural Distortions and Stochastic Shocks
P.A.D. Cavelaars

This paper develops a monetary-fiscal game which stresses the importance of international spillovers and introduces a double (monetary and fiscal) credibility problem. Models that neglect the inability of fiscal policymakers to commit will tend to underestimate the welfare cost of structural distortions. Due to international spillovers, stochastic shocks may be relatively costly in welfare terms, despite the contribution of policy surprises to finance such shocks.

Keywords: Commitment, spillovers, welfare analysis.
JEL codes: E610, F330.

No. 85 Double Discretion, International Spillovers and the Welfare Implications of Monetary Unification
P.A.D. Cavelaars

This paper studies the welfare consequences of the monetary union in Europe. Its workhorse is a monetary-fiscal game which stresses the importance of international spillovers and introduces a double (monetary and fiscal) credibility problem. It is shown that the welfare impact of EMU is ambiguous for Europe, but that EMU is unambiguously welfare-improving for the US.

Keywords: Monetary union, commitment, spillovers, welfare analysis.
JEL codes: E610, F330.

No. 86 Cyclical Patterns in Profits, Provisioning and Lending of Banks
J.A. Bikker and H. Hu

The proposed risk sensitive minimum requirements of the new Basel capital accord have raised concerns about possible (acceleration of) procyclical behaviour of banking, which might threaten macroeconomic stability. This paper analyses the interaction between business cycles and bank behaviour over the past two decades for 26 industrial countries. As expected, profits appear to move up and down with the business cycle, allowing for accumulation of capital in boom periods. Provisioning for credit losses rise when the cycle falls, but less so when net income of banks is relatively high, which reduces procyclicality. Lending fluctuates with the business cycle too, but appears to be driven by demand rather than by supply factors such as (shortage of) capital, which contradicts the assumptions underlying capital crunch theory. All in all, over the last decades, distortion caused by procyclical behaviour of banks has been limited, banking crises excepted.

Keywords: Profits, credit loss provisioning, lending, business cycle, credit crunch, bank lending channel, balance sheet channel, financial stability, procyclicality.
JEL codes: E32, E51, G21, G28.
No. 87 Efficiency and Cost Differences across Countries in a Unified European Banking Market

J.A. Bikker

This paper seeks to discover the level and spread of bank efficiency in the EU, which in the light of the current and expected increase in competition in Europe is of vital importance for welfare-related public policy toward market structure and conduct. In particular, this study focuses on differences across countries, variously sized banks (reflecting distinct market segments), various banking categories and over time. Two related but diverging dimensions of efficiency are considered: X-efficiency, measuring managerial ability, and cost level differences, reflecting national economic and institutional conditions with respect to supervisory rules, government interference, customer preferences and level of development. The observed large spreads in inefficiencies and cost levels across countries and individual banks indicate that the process of scaling up and rationalisation to be prepared for increased foreign competition, has – for at least part of the banks – only just begun.

Keywords: Banks, efficiency, banking category and size effects, international comparison, stochastic cost frontier approach, translog cost function, consolidation.

JEL codes: F36, G21, G34.

No. 88 Aiming for the Bull’s Eye: Inflation Targeting under Uncertainty

M. Demertzis and N. Viegi

We study the implications of uncertainty for inflation targeting. We apply Brainard’s static framework which imposes multiplicative uncertainty in the monetary transmission. Brainard’s main result is that in the presence of uncertainty, monetary authorities become naturally more cautious. But this also implies that monetary objectives are seldom achieved. We therefore attempt next to find a monetary rule that reaches the objectives set more often, improving therefore the welfare of the Central Bank. Such a rule is the result of a new algorithm that we put forward, in which the inflation target is state contingent. The Central Bank sets (as an auxiliary step) therefore, a variable inflation target that depends optimally, on both the degree of uncertainty as well as on the shocks that occur each time. We show that such a rule helps the CB attain its objectives more often thereby reducing the losses incurred. Moreover, and as a corollary to such an approach, the rule derived is ex ante neutral to the degree of uncertainty.

Keywords: Inflation targeting, uncertainty, variable target, transparency.

JEL codes: E42, E52.

No. 89 The Timing of EU Expansion and the Real Exchange Rate Europe

P.A.D. Cavelaars

This paper analyses the impact of the timing of EU expansion on the real exchange rate between the accession countries’ currencies and the euro. I find that the real exchange rate response to EU accession is smaller in the case of a postponed accession, as postponement gives the regions more time to converge. However, early EU accession would contribute to reducing the real exchange rate response to asymmetric productivity shocks, as increased bilateral trade reduces the size of the non-tradable goods sector, making the real exchange rate less sensitive to productivity shocks.

Keywords: Economic integration, real exchange rate, international trade, productivity shocks.


No. 90 Spillover of Domestic Regulation to Emerging Markets

A.F. Tieman

Correlation between the risks of portfolios of different commercial banks leads to too much risk taking from a social planner’s perspective. The presence of a regulator improves this risk-benefit allocation of the financial system. In this paper I show that first-best regulation also leads to more attention for the fundamentals of borrowing countries.

Keywords: Bank regulation, spillovers, fundamentals.

JEL codes: G28, I16, F34, E58.
No. 91 Foreign Bank Penetration and Private Sector Credit in Central and Eastern Europe

R.T.A. de Haas and I.P.P. Lelyveld

We analyse foreign bank penetration in Central and Eastern Europe (CEE) and its influence on private sector credit, taking into account both cross-border credit and credit by foreign bank subsidiaries. By combining Bis and BankScope data into a unique database we make a clear distinction between these credit categories. We show that the relative importance of foreign bank subsidiaries has increased considerably during recent years. However, in Hungary and Poland foreign banks were also important during the first transition years, as they provided substantial amounts of cross-border credit. We do not find evidence of foreign banks deserting CEE during financial crises or economic downturns. Although cross-border credit did decrease during some periods, foreign banks expanded the credit supply of their subsidiaries simultaneously. This may be an important consideration for (transition) countries that still have to decide whether to open up their markets to foreign bank subsidiaries.

Keywords: Foreign banks, cross-border credit, transition economies.

JEL codes: F36, G21.