Contents

Recent developments

Financial stability 7

Monetary and economic developments
The Netherlands in the euro area 17

Supervision
Latest developments in supervision 27

Payments
Current developments in payment and settlement systems 32

Articles

The economic consequences of the war in Iraq 41

Corporate sector’s financial position under pressure: causes and consequences 49

Transparancy and confidence: the common ground between market operation and supervision 59

Role reversal: a closer look at the rating agencies 67

The Dutch economy in 2003-2005: a forecast using markmon 73

List of articles published in 1999-2003 89

Publications

dnb Staff Reports 93
Recent developments
Although consumer and investor confidence has recovered somewhat, this is still barely evident from expenditure and production figures. Companies and consumers have started to rectify their financial balance sheets, which in the course of recent years became increasingly lopsided. On the international financial markets, the decline in the dollar continued and long-term interest rates have fallen further. In the context of financial stability in the Netherlands, this article addresses the housing market and house financing. The financial risks for families and the banks have increased as a result of the current cooling off in the housing market. The possibility that house prices will fall cannot be ruled out; a sharper correction could follow a significant rise in mortgage interest rates if, for example, long term interest rates go up in the United States. Movements in US rates can be reinforced by the pro-cyclical behaviour of major players on the mortgage market.

Recent developments

Downward risks from the international macro-economic environment

The end of the conflict in Iraq has resulted in a hesitant recovery in confidence, particularly among consumers and investors. Share prices have risen somewhat (about 10%) from the last low point shortly before the start of hostilities in Iraq. For the time being, however, the nascent recovery in confidence is barely evident in spending and production figures. European companies in particular are still clearly in a high state of uncertainty and continue to be cautious about capital expenditure decisions. On the other hand, companies are beginning to improve the lopsided balance sheet ratios which built up during the investment boom in the 1990s.

According to the most recent World Economic Outlook from the IMF, growth of 1.9% is possible in the industrial economies this year with the euro area (1.1%) lagging behind the US (2.2%). Economic recovery is expected, now that the main source of uncertainty, the threatening conflict in Iraq, has passed. Along with this, energy prices have fallen and, furthermore, monetary policy is still very loose. In the US, where the first impulse toward recovery is expected to come from, labour productivity growth has also remained remarkably high since the start of the recession in 2001.

Consumers, like companies, are also facing a poorer financial situation. Consumers in the US have a key role here; expenditure by American households makes up almost 30% of the total GDP of developed countries. At the end of last year, their net assets fell to their 1995 level, after a peak in 2000, mainly because of falling share prices but also as a result of a higher debt burden compared with income. Nevertheless, net assets grew again slightly in the fourth quarter of 2002. Chart 1 shows that American households increased their saving somewhat last year, after the fall in their net assets which started in 2000. At 4%, the savings ratio last year was not yet at the average for the 1990s (6%) but was clearly higher than the 2% of income saved around 2000. A higher savings ratio is the foundation for a healthy economic recovery based less on debt financing and speculative price movements than at the end of the 1990s.

Chart 2 shows that the change in the net assets of the American household sector in recent years was associated mainly with the downward adjustment on the stock markets. This was partly offset by increases in the value of owner-occupied housing although, against that, mortgage debt has increased sharply. The ratio of outstanding mortgage debt to the value of the property (the ‘loan-to-value’ ratio) is at an historically high level of 41%. In recent years, American consumers, supported by low mortgage interest rates, have released a large proportion of the increased value of their properties. This was expressed in 2002 as a 12% increase in mortgage debt. Although it is estimated that one-third of the new mortgage debt is used for expenditure, the bulk is used for paying off relatively expensive loans, such as existing, more expensive mortgages and credit card borrowing. Nevertheless, on balance, the total debt of house-
holds increased by 9% last year, while the debt service (interest and repayments) was almost unchanged, partly as a result of falling interest rates.

As in the US, the effect of house prices on household assets has also increased in the Netherlands. Similarly, there is an unfavourable trend in the Netherlands in the ratio of mortgage debt to the value of the collateral. It is therefore relevant to analyse more closely the financial stability risks associated with a possible adjustment in house prices. This is discussed below in ‘The Dutch mortgage and housing market’, partly in view of the recent stabilisation of house prices.

The business sector is in a process of balance sheet restructuring. Since the economic trough in early 2001, profits have increased again somewhat, in particular at American companies, mainly as a result of cost cutting. Growth in capital expenditure is lagging behind, allowing companies to use the profit growth to improve their liquidity. European and Dutch companies are going through the same process (Chart 3; see also the article ‘Corporate sector’s financial position under pressure: causes and consequences’ elsewhere in this Quarterly Bulletin). The low point for capital expenditure in the US seems to have passed, especially for investment in machinery and computers. The result is that companies’ financing requirements are beginning to rise again (Chart 4).

A number of factors are currently hindering a strong recovery in capital expenditure, especially in the euro area, despite the favourable trend in liquidity. Firstly, the improvement in company balance sheets has not been completed; debt, both in Europe and the US, is still too high. Secondly, at current utilisation rates, there is still little reason to expand existing production capacity. This is indicated by the manufacturing sector in the US, where no more than three-quarters of existing production capacity is currently in use, while unemployment is increasing in both the US and Europe. Finally, the recovery in capital expenditure depends on

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**Financial stability**

**Chart 2 Ownership of securities¹ and home ownership of households in the United States**

Per cent of disposable income

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¹ Corporate equities and mutual fund shares.
Source: Federal Reserve.

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**Chart 3 Corporate liquidity ratio**

Ratio of liquid assets to short-term debt

United States

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United States

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Netherlands

Source: Federal Reserve and DNB.

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**Chart 4 Corporate financing requirements - United States**

USD billion

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<th>82</th>
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</tbody>
</table>

Explanatory note: Financing requirement is the difference between capital expenditure and retained profits and dividends.
Source: Federal Reserve.

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8 DNB / Quarterly Bulletin June 2003
companies’ sales expectations. A rapid increase in demand and profits cannot be expected at the current levels of consumer confidence and unemployment.

An additional factor, particularly for the euro area, is the exchange rate. Since the start of 2002, the trend in the value of the dollar against the euro has been downward. This is hindering the recovery of the European export sector and leading to capital losses for companies with American interests. Part of the explanation for the falling dollar is the gradual change in the composition of capital flows to the US in the past two years, required to finance the large current account deficit. Share transactions and direct investment have fallen in favour of fixed-interest investments (Chart 5). The poorer prospects for American growth have contributed to this. The current relatively low interest rates in the US are also unattractive to investors in fixed-interest securities and this is leading to downward pressure on the dollar exchange rate. The following section addresses the recent changes in the dollar exchange rate in more detail.

International financial markets

The dollar has depreciated further in recent months and is now close to the rate at which the euro was introduced in 1999 (1.1667 USD/ EUR). This trend was interrupted temporarily in early March when war against Iraq became inevitable. The successful course of the conflict resulted in a brief appreciation of the dollar to 1.06 USD/eur but its downward trend resumed with the end of the conflict, first and foremost as a result of many disappointing American macro-economic figures. The dollar also faced downward pressure following comments by the US Treasury Secretary that the depreciation of the dollar was reasonable, by which he departed from the strong dollar policy. A third factor was a change in the composition of third-countries’ official reserves in favour of the euro. Finally, the dollar depreciated compared with the euro which gained in strength as a result of transactions prompted by differences in interest rates between currency areas (carry-trades). Often, cheap Japanese yen were borrowed to be invested at a much higher interest rate in fixed-interest euro-denominated products. As well as the carry-trades, the yen also weakened against the euro as a result of the spread of the SARS virus in East Asia and continuing political tension between the US and North Korea. The appreciation of the yen against the dollar was limited as investors did not take large positions in the dollar/yen-exchange rate on the assumption that room for a further strengthening of the yen is limited. Investors are clearly convinced that the Japanese government regards an appreciation of the yen as undesirable and that it will not refrain from major interventions.

Stock markets recovered when it became clear that a conflict was inevitable, not only because this brought an end to the uncertainty, but also because investors speculated on a rapid attack, as at the time of the Gulf War when stock exchanges rose sharply as soon as fighting broke out. This process was reinforced by the reversal of large positions held by hedge funds which were speculating on a continuing downward trend of share prices and rising bond prices. There was, however, no further recovery in share prices during the conflict, partly as a result of disappointing macro-economic figures in the US. Share prices only rose further when companies presented good first-quarter figures. The increase was relatively limited, however, as the better profit figures were achieved mainly by cost cutting and not as a result of improved sales. With less political uncertainty, volatility on the stock exchanges dropped sharply, to the level in early 2002. Volatility fell more strongly in the US than in Europe, reflecting the view of investors that American companies have made progress in restructuring their balance sheets, while their European counterparts are lagging behind.

Fixed-interest securities dropped during the early stages of the conflict in Iraq, partly in reaction to the actions of hedge funds mentioned above. With the end of the conflict, the sharp increase in interest rates that many had expected did not happen. In contrast to the stock markets, volatility on the American bond market...
has fallen only slightly since the start of the conflict in Iraq. Historically, interest-rate volatility is in fact still at a very high level. Now that the threat of war has disappeared as an explanation for the low interest rates, there are question marks surrounding the sustainability of the current high bond prices. The yield on risk-free government bonds is an approximation of inflation expectations and real economic growth. On the basis of inflation and growth forecasts by, for example, the IMF or OECD, capital market interest rates should be much higher than is currently the case.

The disinflationary climate and consequent budgetary consolidation were the principal factors behind global falls in interest rates over the past two decades. These trends have declined sharply in importance in recent years: inflation has stabilised at a low level and budgetary deficits have in fact increased. Nevertheless, interest rates on government bonds have fallen spectacularly during the past year (Chart 6). Ten-year bond yields in the US and Germany have fallen by 200 and 150 basis points respectively since March 2002.

High bond prices could be a result of the loose monetary policy in the G7 countries. In the US and Japan particularly, the central banks have provided the financial markets with ample liquidity. Investors seem to be using this liquidity mainly for bonds. A second explanation for the overvaluation is the very pessimistic assessment of economic prospects made by a number of dominant market parties. Asian market parties in particular think the Japanese scenario of the past decade is very possible for the US and Europe. They point to similarities such as the high indebtedness of companies and what they regard as an ineffective series of interest rate cuts in combination with loose budgetary policy. Statistics on capital movements do indeed confirm that Asian parties are increasingly buyers of American bonds. Another frequently mentioned factor in the rapid fall in interest rates is the hedging activity of the major players on the American mortgage market which have to make additional purchases of fixed-interest securities for balance sheet risk management when interest rates fall, so that a self-reinforcing process is set in motion (see ‘The market for house financing in the US and interest rate movements’). A final explanation for low interest rates is that bonds are overvalued as a result of the on-going reweighting of investment portfolios away from shares and into bonds. Most attention is on the portfolios of life insurers and pension funds, but it is likely that other parties and private investors are behaving similarly, as confirmed by the fall in investment in equity funds in favour of bond funds.

While prices all across the bond market rose as a result of falling interest rates, high-interest corporate bonds and emerging market bonds were particularly affected. The risk premium on these bonds has fallen sharply. The main reason for this is companies restructuring their balance sheets. Reducing net debt not only improves balance sheet ratios in favour of lenders, but also allowed the issue of corporate bonds to fall by more than 20% compared with last year. Against the lower supply there is increased demand for corporate bonds in order to achieve adequate yields with generally falling interest rates. Emerging markets also benefited from the increased demand for riskier investments. Brazil and Turkey regained access to the international capital market and the interest rate premium for emerging markets fell to its lowest level since mid-1998, just before the outbreak of the Russian crisis. Asian countries benefited less from the increased risk tolerance, however, with the SARS virus, tension surrounding North Korea and an accounting scandal in South Korea playing a role. Finally, the favourable climate for emerging market loans allowed a number of countries to include a ‘collective action’ clause in the contracts without having to make major price concessions. This clause means that a specified majority of the bondholders can demand the restructuring of a bond loan rather than unanimity being required.

**Chart 6  Capital market interest rates (10-year yield)**

Per cent, daily figures

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Source: Thomson Financial.

**Profitability of Dutch banks**

Compared with a year ago, banking profitability has fallen further (see also ‘Latest developments in supervision’ elsewhere in this Quarterly Bulletin). This is no surprise
given the disappointing economic situation and adverse developments on the stock markets. Once again the banks are having to increase provisions and commission income is falling back. A new development is that interest income fell in the past quarter for the first time after years of increases. This latter point is not remarkable, however, in view of the current economic situation. Despite the fall in results, however, the banks’ capital adequacy is well up to standard. The banks’ capital adequacy ratio was 11.5% in February 2003 which is, therefore, well above the Basel minimum of 8%.

Recent international economic developments are a reason for cautious optimism about the future profitability of banks. If the expected recovery in economic growth does indeed happen, bank lending will probably pick up in due course, with a positive effect on interest income. In addition, in general there are fewer defaults and the risk of collateral falling in value declines with an economic recovery. Consequently, banks as a rule will require lower provisions. With economic recovery, share prices will also probably increase again, and this is likely to have a positive effect on banks’ non-interest income. Finally, the recent falls in operating expenses as a result of the banks’ cost cutting measures are contributing to creating a solid basis for a recovery in their profitability.

Although there are grounds for cautious optimism, there are still also significant risks for banks. These are connected with the general risks for economic growth.

**Chart 7a Price trend by type of house**
Percentage changes; first quarter compared with previous year’s first quarter

**Chart 7b Time taken for houses to sell**
First quarter

Growth in private sector capital expenditure is under pressure, while at the same time the competitiveness of Dutch businesses is declining, partly as a result of the gradual appreciation of the euro. Furthermore, the increasing budget deficits of a number of European countries are creating upward pressure on interest rates.

**Housing market and house financing**

The Dutch mortgage and housing market

The Dutch housing market is cooling off. This follows a decade of sharp rises during which house prices more than doubled, reaching 20% above their 1978 peak in real terms. Prices of detached houses began to fall during the final quarter of 2002 and the price of an average house fell slightly during the first quarter of 2003 (by 0.3% on a quarterly basis although there was an increase of 1.7% on an annual basis; Chart 7a). Furthermore, the number of house transactions fell by 11% on an annual basis. The slow-down in the market is also demonstrated by the fact that houses are taking longer to sell (an average of 71 days in the first quarter of 2003, compared with 64 in the first quarter of 2002; Chart 7b) although this measure underestimates the time that a house is for sale, as properties which do not sell are often taken off the market temporarily to be re-introduced.

The cooling off appears to be creating a more healthy housing market after the exuberant price rises.
in recent years. Purchasers have more time to decide and speculative transactions no longer offer automatic gains. For financial stability, an important element in this situation on the housing market is the extent to which earlier price rises were caused by developments in underlying variables, and in how far there was a bubble, with purchasing decisions being based mainly on the expectation of capital gains. In the latter case, it can be assumed that prices will tend to return to a more balanced level based on underlying variables.

It is less likely that a bubble will develop in the housing market that is of the same magnitude as the recent Internet hype on the stock markets, when the underlying, fundamental value of the shares appeared to have no meaning. Purely speculative trading in houses is less attractive because of the relatively high transaction and maintenance costs. There are also developments in underlying variables which have also supported house prices in the recent past. There is a link between the movements in house prices and wages, as house purchases (unlike, say, shares) are generally financed by borrowing and the scope for mortgage lending is determined partly by income. Mortgage interest rates, which have reached very low levels, have also increased the scope for lending. It is also significant that alongside probably more temporary factors, such as lower interest rates, a number of factors which pushed up prices in the past ten years were structural. In particular, these were the improved quality of homes and increased real incomes, as well as changes in social and working habits, so that banks include second and temporary incomes when determining borrowing capacity. In addition, new mortgage products have been developed which have expanded borrowing capacity by making better use of tax facilities. The rise in the scarcity premium on land as a result of population growth has a role and cost increases in construction are generally high compared with growth in labour productivity. Finally, housing completions have lagged behind demand for many years, with an historic low point being reached in 2002 (9% lower than in 2001) when the net increase in the number of houses was only 35,000 compared with the increase in demand of 90,000 estimated by the Ministry of Housing, Spatial Planning and the Environment.

Despite the above developments, the housing market is now cooling off. Here too, underlying variables, such as the economic cycle and the financial markets, have a role. Firstly, increasing unemployment creates downward price pressure. Consumer confidence is low and there is little willingness to make major purchases. Secondly, lower share prices have an adverse effect on house prices, especially in the higher segment of the market. Long-term research by the Bank indicates that it takes about 2½ years for developments in share prices to translate into a significant positive relationship with house prices (Quarterly Bulletin, September 2002). In the current situation, this would imply that the recent falls in share prices have not fully worked through into the prices of more expensive houses. This effect could be substantial, as household shareholdings have almost halved in value since their peak in 1999 (from EUR 201 billion to EUR 105 billion).

As well as the underlying explanations for the current cooling off discussed above, there are indications that the significant price rises in the past were larger than could be expected merely on the basis of the underlying variables. Different surveys indicate the possibility of a considerable overvaluation of the Dutch housing market, although such comments are always surrounded by uncertainty (see also the article ‘The Dutch economy in 2003-2005: a forecast using Morkmon’, elsewhere in this Quarterly Bulletin). In that case, a lower price level is not impossible. The current slowdown may be an initial, gradual step in that direction. A sharper adjustment could occur if there is a rapid fall in consumer confidence, higher expectations of falling prices or a significant increase in mortgage interest rates, for example, because capital market interest rates rise in the US (see ‘The market for house financing in the US and interest rate movements’).

**Significance of the housing market for financial stability**

The relationship between the housing market and financial stability runs mainly via households and financial institutions. Experience from the past and in other countries shows that falls in house prices can put families in a financially vulnerable position. The significance of this channel has increased as the housing market has taken an increasingly greater place in the financial situation of families. Calculations show that the percentage of total disposable income spent on mortgage interest and repayments has risen sharply in the past decade, notwithstanding the fall in mortgage interest rates (Chart 8). As a result of higher house prices and increased home ownership, the value of owner-occupied properties (EUR 915 billion) now represents half of families’ balance sheets. Specific target groups, such as first-time buyers with mortgages with a high loan-to-value ratio (the ratio between the cost of a house and the mortgage) or those with an investment construction, are vulnerable. Falls in house prices (certainly if
combined with low share prices) quickly result in the homeowners concerned being in a negative equity position and facing residual indebtedness if they are forced to sell (for example, because of unemployment, divorce or moving house). Most households are not in these vulnerable groups: three-quarters of home owners have a loan-to-value ratio of under 70%. Nevertheless, they too will see a decline in the financial buffer function of the housing market if the opportunities for releasing surplus value are reduced by falls in house prices.

As well as households, banks also have a major interest in the housing market with residential mortgages making up over 20% of their consolidated balance sheets. In essence, there are four factors which determine the vulnerability of banks to movements in house prices. The first is the risk of default on mortgages. This depends mainly on the ratio between household income and the cost of financing the mortgage. The higher the financing cost compared with income, the greater the risk of default as a result of unemployment or loss of a second income. For the economy as a whole, the financing charges on mortgages have risen strongly compared with the early 1980s, but have fallen again slightly in the past two years thanks to lower interest rates. All in all, new mortgages for dual-income households are now more affordable than at the end of the 1970s, while the affordability for single earners is at about the same level as then (Chart 9). Practical experience shows that in poor economic conditions mortgagees go to considerable trouble to continue meeting their obligations and that mortgagees are often prepared to accept flexible repayment schemes.

A second factor is the loan-to-value ratio referred to above, which determines the security of a loan and the amount of capital that banks must maintain against their loan portfolio. Changes in the loan-to-value ratio have made the banks more vulnerable to sharp falls in house prices. The loan-to-value ratio on new mortgages has risen sharply over time (Chart 10) and reached 106% at the end of 2002. It is now more common for mortgages to be of a type in which the financial risks for households remain high throughout the entire term. More than half of households who bought a home after...
years ago opted for a linear, annuity or savings-based mortgage (Chart 11). As the remaining term of these mortgage types gets shorter, the financial risk falls gradually, as a result of the periodic repayments. By contrast, more than 80% of households who bought a home in 2001 and 2002 opted for an interest-only mortgage (with the mortgage debt remaining high for the entire term) or an endowment/securities-based mortgage (with investment in shares, so that eventual repayment is uncertain).

A third factor is the extent to which banks can absorb any losses on their mortgage portfolio without problem. As the capital adequacy of Dutch banks has been well above the Basel minimum for years, thanks to their specific policies directed to this objective, they have buffers which they can use to absorb unexpected losses.

Finally, the extent to which banks are dependent for their income on mortgage lending is relevant. Two developments occur here. Non-interest income has become relatively more important to banks since the early 1990s, although recently there has been some turnaround in this. On the other hand, there are signs that a larger share of interest income is earned from mortgages. Mortgage lending has risen as a proportion of total bank lending in the past decade (Chart 12) and mortgage interest rates fell less sharply than rates on other types of lending (Chart 13). On balance, dependence on income from mortgage lending appears to have risen somewhat in recent years.

All in all, the financial risks for families and banks have increased as a result of the cooling off in the housing market. Developments in loan-to-value and the choice of mortgage type have increased vulnerability over time. Against this, however, the affordability of mortgages for first-time buyers is the same or better than at the end of the 1970s and there are large buffers in the form of capital and residual surplus value. Consequently, the risk to the proper operation of the

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**Chart 11 Types of mortgage**

Percent

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<td>Savings-linked mortgages</td>
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<td>43%</td>
<td>35%</td>
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<td>9%</td>
<td>4%</td>
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<td>35%</td>
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Explanatory note: Current types of mortgage broken down by year of house purchase.


---

**Chart 12 Private sector lending**

Year-end figures in millions of euros

<table>
<thead>
<tr>
<th>Year</th>
<th>Residential mortgages</th>
<th>Other loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>50,000</td>
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</tr>
<tr>
<td>91</td>
<td>100,000</td>
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<tr>
<td>92</td>
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<td>150,000</td>
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<tr>
<td>93</td>
<td>200,000</td>
<td>200,000</td>
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</tr>
<tr>
<td>02</td>
<td>650,000</td>
<td>650,000</td>
</tr>
</tbody>
</table>
The American mortgage market and its players are increasingly being identified as a possible source of financial instability. An often-mentioned risk is their influence on the level and volatility of interest rates on American bonds which, because of their dominant role, affect interest rates in the rest of the world. The major players in the American mortgage market trade very actively in fixed-interest securities as part of their risk management, as explained below. As they buy when bond prices are going up and sell when prices fall, their activities reinforce movements in interest rates.

In line with the official interest rate cuts in the past 2 ½ years, US capital market interest rates have fallen sharply and mortgage refinancing has risen to a record level. American capital market interest rates probably fell more than would have been expected on the basis of the economic situation because of bond purchases for risk management. Any upward adjustment to American interest rates will also influence Dutch interest rates and that could present a risk to Dutch house prices, given the housing market’s sensitivity to interest rates (see ‘The Dutch mortgage and housing market’).

The interest rate dynamic referred to above is associated with two features of the American mortgage market which are very different from the European situation, except in Denmark. The first difference relates to options for customers to benefit from a fall in mortgage interest rates. The second is the existence of a well-developed secondary market for house financing.

The American public can get mortgages from banks or other intermediaries, referred to jointly as originators. On application, the customer receives an offer stating an interest rate. The customer then has about 90 days to consider whether he wants the mortgage at that rate. If mortgage interest rates fall, the customer will approach an originator to get a lower interest rate. If, on the other hand, the interest rate has risen during the 90 days, the customer will opt for the interest rate in the offer. Consequently, the originator is not certain whether a mortgage offer will in fact be accepted, depending on the movement in interest rates. If there is an interest rate rise, the originator will be faced with a loss, as he has to grant a mortgage at a lower interest rate than he could get elsewhere in the market, and so the mortgage falls in value. To cover the interest rate risk, the originator sells some of the mortgages he will grant in the future. He can do this on the ‘to-be-announced’ (tba) market where mortgages are sold, for future delivery. The originator will sell just the number of mortgages that he estimates he will grant at the time the option period expires. When he makes the offer, he will sell half of his potential mortgages, as the probability of an interest rate rise is the same as the probability of an interest rate fall, i.e. 50%. If the interest rate then rises, the probability that the offer will be converted into a loan is the same as the probability of an interest rate fall, i.e. 50%. If the interest rate then rises, the probability of granting the mortgage increases and the originator will have to buy back the loans just sold on the tba market. The sales and purchases of mortgage loans on the tba market are, however, merely demand and supply on the fixed-interest market. With a higher supply of loans if interest rates rise and purchases of loans when interest rates fall, the originators are a significant group whose
risk management systems work pro-cyclically on the fixed-interest market.

When an offer is finally converted into a mortgage loan, the originator can choose between keeping the loan on his balance sheet or selling it on the secondary market. Sale on the secondary market is proving to be increasingly attractive, involving 50% of mortgage loans in 1998 and almost 70% now. The majority of the loans are sold to Fannie Mae and Freddie Mac. These two agencies were set up by the government with the aim of promoting house ownership by purchasing residential mortgages from originators who then have room in their balance sheets for new mortgage loans. The agencies bundle the mortgages they have acquired into portfolios of standardised mortgage loans which are then sold on the capital market in the form of mortgage backed securities (mbs). These are debt instruments secured on the cash flow from a portfolio of mortgage loans. The agencies’ added value as intermediaries is that they make mortgage loans negotiable and also guarantee prompt payment of the interest and principal to the originator. It is attractive for the agencies to keep mbs on their own books while the interest rate on the mbs is higher than their cost of finance. In recent years, the agencies’ balance sheets have expanded strongly as, on the one hand, they have issued large, liquid debt instruments and, on the other hand, kept mbs on their books. 60% of the mbs created in 2000 are on the books of the agencies. By doing this, however, the risk of the two agencies is no longer limited to the credit risk, but they also run an interest rate risk. This risk is more difficult to manage in the American market as home owners can repay mortgages without penalty: this is the second option for the customer to benefit from a fall in interest rates. If interest rates fall, Fannie Mae and Freddie Mac run the risk of loans in the mbs on their own books being repaid early while they are left with their expensive financing. If interest rates fall, for example, a 30-year mortgage will be repaid and the income reinvested at a lower interest rate but the interest rate on the fixed financing is unchanged so that a negative interest margin could result.

Fannie Mae and Freddie Mac have three ways of hedging the risk of early repayment (prepayment risk).

Firstly, they can pass the risk on to market parties by issuing callable debt (debt which can also be repaid early). The second option is the use of derivatives, such as interest rate swaps and options. Finally, the agencies can cover prepayment risk by dynamic hedging which manages interest rate risk by aiming to keep the interest rate sensitivity on the asset side of the balance sheet matched with the interest rate sensitivity on the liabilities side. The probability of the early repayment of mortgage loans increases as interest rates fall. The expected term of the mbs is thus shorter and so the interest rate sensitivity on the asset side will fall. To keep interest rate sensitivity in balance, the agencies have to buy in additional interest rate risk or repay their debt. In either case, therefore, an interest rate fall will create additional demand for fixed-interest products. In the other direction, an increase in interest rates creates sales of fixed-interest securities, and so it is clear that this process of dynamic hedging also works pro-cyclically on the fixed-interest market.

The pro-cyclical hedging-policy has resulted in a doubling of interest rate volatility in the US compared with the first half of the 1990s. In fact, in March, interest rate volatility almost reached the record level of October 1998, at the time of the LTCM crisis. The influence of increased American interest rate volatility on the rest of the world can be illustrated by interest rate volatility in Germany, which increased by more than half in the same period. High interest rate volatility is damaging to the economy as a whole because it increases uncertainty in capital expenditure and investment decisions. It also means higher transaction costs for market parties if the interest rate risk is hedged or greater financial risks if the risk is not or only partly hedged.

2 Interest rate sensitivity is the change in the price of a bond resulting from a certain interest rate movement. The longer the term of a bond, the greater the interest rate sensitivity as, for a ten-year bond, a fall in interest rates has implications for the next nine years, while the consequences for a one-year bond are limited to one year.
The Netherlands in the euro area

The successful outcome of the war in Iraq has appreciably diminished the uncertainty among investors, firms and households. Worldwide, stock markets have rebounded and risk premiums have fallen, while the price of crude oil has dropped by USD 8 a barrel. These favourable effects may give new impetus to the recovery of the world economy, which in recent months has lost momentum. The US dollar has continued to depreciate over the past few months. Combined with the deterioration of competitiveness in the past few years, the persistent cyclical weakness of the Dutch economy has translated into a sharp rise of unemployment.

Diminishing uncertainty as a result of successful outcome of Iraq war

In the period December 2002-March 2003, global economic developments were in no small measure affected by the threat of war in Iraq. Among the effects being feared were terrorist attacks and the destruction of the Iraqi oil installations. The increased risk perceptions showed up in share prices as well as consumer and industrial confidence plummeting on a global scale (see Chart 1). In no time, the price of oil was up by USD 10 to USD 34 per barrel. Government bonds assumed their traditional role as safe haven in uncertain times, causing the American ten-year interest rate to reach the lowest level seen since the sixties, i.e. 3.64%. In the euro area, long-term interest decreased by 0.7 percentage point to 3.9%.

In an unstable climate, enterprises and consumers tend to adopt a reserved attitude. Enterprises postpone investment and are less eager to hire staff. Households will save more as a precaution, putting off purchasing durable consumer goods. Consequently, the uncertainty prevailing in the run-up to the war was a hindrance to the recovery of the world economy. In all major industrialised countries but Italy growth figures in the fourth quarter of 2002 were down from the corresponding figures in the third quarter. Preliminary growth estimates for the United States and the euro area suggest that the negative effects of the uncertainty still clearly made themselves felt in the first quarter of 2003 (see ‘The economic consequences of the war in Iraq’, in this Quarterly Bulletin).

The favourable course taken by the war, which began on 20 March and lasted about 4 weeks, has put an end to the uncertainty about the outbreak and duration of the war. The price of oil rapidly dropped to USD 25, while on stock exchanges significant price hikes were recorded. Consumer confidence in the US leaped 20 points, regaining the level measured in December (Chart 2). Investors withdrew from government bonds, causing long-term interest rates to rise again.

Although these developments improved prospects for a cyclical upturn, the risks have not disappeared. Strikingly, industrial confidence has barely responded to the end of the war. Despite the recent recovery on stock exchanges, US share prices are still down by about 20% compared to the level prevailing over a year ago, and the prices of their Euro area counterparts by a good 30%. These figures reflect persistent doubts about the cyclical prospects for the world economy and the recovery of corporate profits, as well as a high degree of risk aversion among investors. Investors are still sceptical about the reliability of the financial results published by companies in the wake of the accounting scandals involving major American corporations. Doubts about the soundness of investment advice by analysts may also have caused investors to be more wary of investing in shares. The recent USD 1.4 billion settlement by which 10 major merchant banks in New York bought off prosecution for violating legislation on share trading once more fixed attention on the abuses having transpired in recent years.

So far, China, Hong Kong, Singapore and Taiwan are the most important economies to have suffered negative effects from the outbreak of the pulmonary disease sars. In particular tourism, civil aviation and road transport have been hit hard. The World Bank and the Asian Development Bank (ADB) have adjusted their growth forecasts for East Asia for the running year downwards by approximately 0.5 percentage point. However, East Asia being the world’s most dynamic region, its growth prospects are still good. If the spread of the disease cannot be brought to a halt until in the third, instead of the second, quarter, the ADB estimates that the region stands to lose another 0.6 percentage point of growth. In such a scenario, it is conceivable that the sars epidemic will have appreciable economic consequences for the Western countries, too. First of all, trade with Asian countries will be dealt a blow. But also the strong growth of direct investment seen in the past 15 years, and the concomitant internationalisation of production, may result in spillovers. Many multinationals have subsidiaries in the Asian region (excluding Japan). Half the global chips production, for example, is based in Asia, as is the assembly of 85% of the personal computers produced worldwide. If sars disrupts the production process in Asia, the Western economies will be adversely affected too.
On the foreign exchange markets, the downswing of the dollar has set the scene in recent months. In the past six months, the euro gained more than 18% on the dollar (Chart 3). At the end of May, the euro stood at USD 1.18, the highest level in four years. Within the span of a year, the euro has appreciated about 25%. Vis-à-vis the currencies of all trading partners, the euro realised similar price rises. The significantly lower value of the dollar is the corollary of increased concern about the United States’ persistent and large deficit on the country’s current account (4.8% of GDP in 2002).

Other contributing factors are the accounting scandals, the uncertainty about the strength of the economic recovery, the low interest rate and the fiscal deficit. The depreciation of the dollar will in time lead to a lower deficit on the United States’ current account. As a result, the American economy is now less well positioned to be the main engine of the world economy than it has been in recent years. This is unfavourable for economies that depend heavily on exports for their economic recovery, like Japan and the European economies. In the first quarter of the year, the Japanese government resorted to a USD 20 billion intervention on the foreign exchange market to prevent a stronger yen from frustrating the economic recovery.
The international environment

United States

The growth of the American economy has lost pace in the past six months (Table 1). According to preliminary estimates, in the first quarter the economy grew by a mere 1.9% (quarter-on-quarter, annualised) and by as little as 1.4% in the last quarter of 2002. The four preceding quarters saw double that growth. Corporate investment declined in the first quarter, after rising in the preceding quarter for the first time in two years. ICT investment made a positive exception, showing brisk growth. For the first time in many years, net exports contributed significantly to economic growth, suggesting that the depreciation of the dollar is beginning to make itself felt in the real economy. Labour productivity growth continues to develop quite favourably, boding well for the prospects of the American economy in the long term (Chart 4). In the short term, however, this development will depress employment and push up unemployment, which in the meantime has risen to 6% of the labour force. Inflationary pressures continue to decline. In the course of six months, core inflation fell by 0.7 percentage point to 1.5% in April, the lowest level in thirty-seven years.

Lower oil prices, improved financing conditions, and increased consumer confidence may help the economic recovery to accelerate in the second half of the year. The economy is still receiving stimuli from

Table 1 Economic growth in the United States

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2002</th>
<th>2003</th>
</tr>
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<tbody>
<tr>
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<td></td>
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</tr>
<tr>
<td>gdp</td>
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<tr>
<td>Per cent changes on previous quarter¹</td>
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<td>6.7</td>
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<td>5.6</td>
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<td>Exports</td>
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<td>2.2</td>
<td>2.2</td>
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<tr>
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<td>0.4</td>
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</tr>
<tr>
<td>ICT investment</td>
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<td>0.4</td>
<td>0.7</td>
</tr>
<tr>
<td>Public sector expenditure</td>
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<td>Changes in inventories</td>
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<tr>
<td>Net exports</td>
<td>-0.2</td>
<td>-0.7</td>
<td>-0.8</td>
<td>-1.4</td>
</tr>
</tbody>
</table>

¹ On an annualised basis.

Source: Bureau of Economic Analysis, Department of Commerce.
monetary policy (low interest rate) and fiscal policy (reduction in taxation and social insurance contributions as well as extra expenditures). The housing market continues to thrive on the back of low mortgage interest rates. Also, macroeconomic profits have greatly improved since the fourth quarter of 2001, which is a precondition for a sustainable recovery of investment. This is evidenced, for one, by the better-than-expected first-quarter results reported by most enterprises. Partly as a result of this improved performance, corporate bond risk premiums have dropped sharply, reducing corporate financing costs (Chart 5). The lower dollar has strengthened American businesses’ competitive position and looks set to stimulate export and slow down imports in due time.

Despite these positive developments, a robust recovery is not secured by far. So far, the American economy has been sustained by consumers and the government. The rising unemployment and modest growth of real wages constitute a risk to consumption. The stimulus provided by the housing market also seems to be weakening as American households have lately started to use renegotiated mortgage loans increasingly for expensive credit card debt repayment instead of consumer spending. Corporate investment may take long to recover as the corporate finance restructuring process is not over yet. Besides, the low capacity utilisation in manufacturing (75%) signifies that production capacity limits are nowhere in sight yet. Finally, it is conceivable that the accounting scandals have not only lessened the risk appetite of investors, but also that of the top executives who make the investment decisions.

During its meeting on 6 May, the Federal Reserve did not lower the interest rate. Hence, the federal funds target rate continued to stand at 1.25%, the lowest level in 40 years. The American central bank is concerned about the rapid pace at which inflation is falling. Strikingly, the official statement spoke of ‘the probability of an unwelcome substantial fall in inflation, though minor, exceeds that of a pickup in inflation from its already low level’. A further fall of inflation may depress corporate profit margins, thus standing in the way of a sustainable recovery of investment.

Euro area
In Europe, too, the economic recovery is showing hitches. In the fourth quarter of 2002, GDP growth was a meagre 0.1% (quarter-on-quarter), down 0.2 percentage point from the third quarter. The German economy was stagnant, while the French economy contracted by 0.1%. The principal factor underlying the deceleration of European economic growth is the sharp decline of export growth. Growth of consumption and investment fell off too. A preliminary estimate by Eurostat indicates that the European economy posted zero growth in the first quarter. In Germany, Italy and the Netherlands, GDP decreased,
while it rose in France and Spain. Industrial production in the first quarter grew by just 0.1%.

In terms of the Harmonised Index of Consumer Prices (hICP), euro area inflation came out to be 2.3% in the first quarter, falling to 2.1% in April as a result of lower energy prices. For the remainder of the year, inflation is expected to hover just below 2%. hICP core inflation – measured as inflation adjusted for the price movements of energy and unprocessed food – amounted to about 2% in recent months.

Leading indicators suggest that economic activity will be slow to recover. In Germany, France and Italy industrial confidence has fallen (Chart 6). The unfavourable developments on the labour market and the low consumer confidence point to a weak growth of consumption. Unemployment has risen to 8.7% of the labour force, while consumers’ expectations regarding future unemployment have deteriorated sharply (Chart 7).

The recent appreciation of the euro presents a risk to the recovery of the European economy. It undermines the competitive position of European producers, putting pressure on exports and GDP growth. Imported goods, on the other hand, will become cheaper, and possibly lead to lower inflation. According to the model for the European economy (Euromon) developed by the Bank, a 10% appreciation of the euro will lead to a decline of economic growth by 0.35% in the first year. In the second year, production loss will mount further to 0.4 percentage point. Inflationary pressure will subside, causing prices to fall in two years’ time to a level 0.6 percentage point below today’s level.

In the past few months, the Governing Council of the European Central Bank (ECB) has cut the key policy rate to 2.0% in two steps, i.e. by 0.25 percentage point on 6 March and by another 0.5 percentage point on 5 June. Both decisions were based on indications that the cyclical recovery process would be proceeding at a slower pace than was initially assumed, thus reducing the upward risk for price stability. The growth of M3 at about 8% on an annual basis does not reflect inflationary risks, as it is primarily a result of the prevailing uncertainty prompting investors to hold financial assets with a relatively low risk and a short maturity. In line with this picture, growth of bank lending to the private sector was relatively moderate in the first four months of 2003. In the boom period (1999-2000), credit expansion measured 9% per annum. Meanwhile this percentage has fallen off to less than 5%, as is consistent with a feeble appetite to invest.

### Evaluation of monetary strategy of ECB

The key elements of the Eurosystem’s monetary strategy are its quantitative definition of price stability and its using two pillars for the monetary policy analysis. Having applied it for over four years, the ECB Governing Council has subjected its strategy to an in-depth evaluation. On 8 May, the Governing Council
announced that it had chosen not to revise its monetary strategy, and to adhere to an inflation of close to 2%, within the scope of its pursuit of price stability defined as a HICP index rise by no more than 2% in the medium term. By choosing this course, the Governing Council emphasises that its monetary policy provides for a safety margin related to the risks of deflation. Such a safety margin is also useful as a compensation for any measurement error in the HICP that leads to an overestimation of inflation and any implications of national inflation differences within the euro area.

Finally, the ECB Governing Council has decided to alter its communication policy. The President’s statement, which is drawn up after an interest rate decision, will henceforth commence with an economic analysis to enable an analysis of the short- to medium-term risks. This information is followed by a monetary analysis to assess the medium-term to long-term risks for price stability. By re-ordering the sequence of the analytical parts, the Council wishes to underscore that the economic and monetary analyses complement each other, and serve as a mutual check. To stress the long-term character of the monetary growth analysis, the Council will no longer evaluate the reference value of m3 growth every year.

**Dutch economy in recession**

Owing to the unfavourable international developments, the hesitant recovery of the Netherlands’ economy, visible in the second and third quarters of 2002, did not persevere (Table 2). In the fourth quarter of 2002, GDP even dropped by 0.2% on a quarterly basis, while, according to provisional estimates, it will be down by a further 0.3% in the first quarter of 2003. By a much-used definition (a decreasing GDP during two consecutive quarters), the Netherlands is now in recession. Also owing to the disappointing world trade, in the past six months exports contracted by 0.1% per quarter on average. In the preceding two quarters, exports still showed 0.8% growth. After having been stagnant in the fourth quarter, private consumption increased by 0.4% in the first quarter, making a modest contribution to growth. In over two years’ time, consumption has practically fallen away as the driving force behind growth. In tune with the weak consumption growth, consumer confidence and the willingness to buy are at their lowest levels since the eighties.

In this climate, corporate investment continues to decline. In the first quarter, investment dropped by 1.0%. Since the third quarter of 2000, corporate investment has been showing uninterrupted negative quarter-on-quarter growth. The previous contraction of investment was closely related to the unprecedentedly rapid deterioration of the profitability of Dutch

**Table 2 Economic growth in the Netherlands**

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i</td>
<td>ii</td>
<td>iii</td>
<td>iv</td>
</tr>
<tr>
<td>GDP</td>
<td>1.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Consumer expenditure</td>
<td>1.2</td>
<td>0.9</td>
<td>-0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Private sector investment</td>
<td>-2.5</td>
<td>-4.5</td>
<td>-1.7</td>
<td>-0.5</td>
</tr>
<tr>
<td>Public sector expenditure</td>
<td>3.9</td>
<td>3.4</td>
<td>1.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Exports</td>
<td>1.7</td>
<td>-1.4</td>
<td>-0.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Imports</td>
<td>1.9</td>
<td>-2.1</td>
<td>-1.6</td>
<td>1.7</td>
</tr>
</tbody>
</table>

**Contributions to GDP growth**

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i</td>
<td>ii</td>
<td>iii</td>
<td>iv</td>
</tr>
<tr>
<td>Consumer expenditure</td>
<td>0.6</td>
<td>0.4</td>
<td>-0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Private sector investment</td>
<td>-0.5</td>
<td>-0.8</td>
<td>-0.3</td>
<td>-0.1</td>
</tr>
<tr>
<td>Public sector expenditure</td>
<td>1.0</td>
<td>0.9</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Changes in inventories</td>
<td>0.2</td>
<td>-0.6</td>
<td>-0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Net exports</td>
<td>0.0</td>
<td>0.4</td>
<td>0.4</td>
<td>-0.3</td>
</tr>
</tbody>
</table>

Source: Statistics Netherlands.
For the first time in the past two decades, all quoted non-financial corporations combined failed to record a profit in 2001, while suffering a loss in 2002. As recently as in 2000, their profitability was still at a record high. Profits were under pressure from the decline in macro-economic demand as well as the high labour costs ensuing from the high wage growth and companies’ resistance to cut down on staff. In addition, profits of quoted companies were hit hard by the fallen share prices and the depreciation of the dollar, since this required large write-offs of (often dearly paid) acquisitions. Profits of small and medium-sized enterprises were also affected by high labour costs and declining sales. However, in this case the drop in profits is less dramatic, since acquisitions are far less important for this category of enterprises.

The immediate outlook for the Dutch economy has deteriorated in the past quarter. The appreciation of the euro means a loss of competitive strength outside the euro area, putting exports and production under pressure. The Dutch economy’s open character renders it relatively susceptible to changes in the euro-dollar exchange rate – not only through the international trade channel, but also through the direct investment channel. The Netherlands is one of the United States’ main investors. The depreciation of the dollar by 25% vis-à-vis the euro seen in the past 12 months has diminished the value of Dutch investment in the United States by 25% (book value 23% of GDP in 2001). The stock market slump has prompted pension funds to raise pension contributions in order to consolidate their financial positions. In addition, it is likely that (over time) pension schemes will be made more austere (limited indexation, higher employees’ contributions, average wage based pension scheme, etc.). These measures are depressing (expected) disposable personal income. The stimuli provided by the public sector will fall away, while from the housing market no strong impetus is to be expected either, given the marked deceleration in house price rises. This Quarterly Bulletin’s article entitled ‘The Dutch economy in 2003-2005: a forecast using MARKMON’ elaborates on the prospects for the Dutch economy in the medium term.

### Inflation, wages and the turnaround on the labour market

Dutch inflation is still following a downward trend. Compared to the fourth quarter of 2002, (CPI-based), inflation dropped by 0.3 percentage point to 2.7% in the first quarter (Chart 9). In the same period in 2002, inflation measured as much as 3.9%. In May, inflation continued to fall to 2.3%, the lowest level of the past three years. Core inflation – measured as the inflation adjusted for government measures and volatile components (energy, vegetables and fruit) – decreased by 2.3 percentage point in the past four quarters and has
fluctuated in recent months around 2.0%. The decline of (core) inflation partly reflects that the one-time price-boosting effect of the euro cash launch has faded. Persistently weak macro-economic demand is another important factor. Enterprises have refrained from high price rises, accepting lower profit margins. Measured by the *hcip*, over the past twelve months the inflation differential between the Netherlands and the euro area has narrowed by a full percentage point to 0.8 percentage point in May.

Despite a long series of disappointing growth figures, wages were slow to respond to the deteriorating economic situation. Besides the worse-than-expected development of inflation in 2001, this may be related to the fact that for a long time most of the collective bargaining was being conducted against a background of falling unemployment (Chart 10). The latter circumstance was due to employers waiting relatively long before reducing staff as well as to the fact that in 2001 and 2002 employment in the public sector was still sharply on the rise. The fact that this labour hoarding strategy was not abandoned sooner has drawn heavily on profits and labour productivity growth, which reached lows in 2001 and 2002 (Chart 8). It also meant that for a long time the labour market itself did not give off signals calling for wage restraint.

Since the spring of 2002, unemployment has been rising at a robust pace, while in recent months an appreciable acceleration is being recorded. In the period February-April 2003, seasonally adjusted unemployment amounted to 385,000 persons, 55,000 more than in the period November 2002-January 2003. A substantial redundancy wave occurred in March and April in particular. Expressed as a percentage of the labour force, in the past twelve months unemployment has risen from 3.9% to 5.3%. Remarkably, unemployment among males has increased more sharply than among females. In times of recession, usually the...
reverse is seen, as women, just like young persons, on average have a relatively weak position on the labour market. The present pattern reflects that women have been able to benefit disproportionately from the recent increase in employment in education and healthcare. The recent sharp rise of youth unemployment, on the other hand, is consistent with the historical pattern.

The first big step towards wage moderation was not taken until the conclusion of the social agreement on 28 November 2002. On that occasion, the social partners agreed to limit negotiated wage increases to the expected inflation level, then estimated at 2.5%. The collective labour agreements concluded after 1 January 2003 broadly conform to this accord. As the wage settlements for 2003 were in part concluded before 1 January, the negotiated wage increase will probably amount to 2 3/4%.

Given the moderate economic outlook and the fact that, normally, the trend in employment usually lags behind the development of economic growth, it is expected that the labour market situation will be deteriorating considerably in the coming time. Moderate contractual wage increases over a longer period are crucial to prevent unemployment from rising unnecessarily high. Wage moderation is also essential for a recovery of competitiveness, which in recent years has weakened as a result of low productivity growth combined with high wage increases over a number of years. The appreciation of the euro is making the loss of competitive strength more apparent now. Finally, pension funds, too, stand to gain from moderate wage settlements, as these lower the costs of indexing pensions to wage and price developments.

Bank lending in the Netherlands

In the first quarter of 2003, the growth of bank lending in the Netherlands decelerated further to 5.4% on an annualised basis, the lowest growth percentage observed in ten years (Chart 11). Bank lending is notably suffering from the stagnancy in corporate lending since the first quarter of last year. Continuing to put off investing as long as economic prospects remain uncertain, enterprises have less need for borrowing. Besides, the balance sheet restructuring prompted by the deteriorated financial position of enterprises has not been completed yet (see article ‘Corporate sector’s financial position: causes and consequences’ in this Quarterly Bulletin). To consolidate their financial position, enterprises are reducing their refinancing risks by replacing short-term credit with long-term credit.

In the first quarter of 2003, the growth of mortgage lending declined for the second consecutive quarter. At 6.1% on an annualised basis, however, it continues to be strikingly high against the background of the cooling housing market. In the first quarter of 2003, the average house price increase levelled off to a level below that of inflation, while the number of transactions in the housing market fell off further. In the same quarter, the number of newly registered mortgages for dwellings dropped by 11% compared to the level a year earlier. One explanation for the relatively strong rise of mortgage lending is that home owners borrow more than is required for financing their homes, e.g. via remortgages and second mortgages. The persistently strong growth of the average mortgage loan (8.3% in the first quarter) points in that direction. The trend of raising residential mortgages is being stimulated by the low mortgage rates, which early this year reached the lowest level since 1962. The low interest rate keeps the increase in the monthly mortgage burden within bounds, despite the rising mortgage debt of households. American households use much of the mortgage amounts taken out through remortgages to repay debts for which relatively high interest rates are charged (e.g., credit card debts). Judging by the exuberant growth of consumer credit (over 35% on an annualised basis in the first quarter of 2003), this behaviour would seem to be less prevalent in the Netherlands. Other than to finance their own homes,
Dutch households appear to be using the funds generated through mortgage loans primarily for consumption, which also includes expenditure on home improvements.
The profitability of Dutch banks declined further in the past quarter. The economic downturn and the depression on the stock markets were reflected in higher provisioning and lower non-interest income. In the first quarter, interest income fell for the first time in two years, due to the adverse economic conditions.

The new Capital Accord, which has now been presented in full by the Basel Committee to the industry for consultation, is expected to be signed at the end of this year. The Bank has drawn up a new solvency arrangement for securitisations and has also revised the liquidity guidelines. Finally, the Bank is preparing for a new supervisory task – the supervision of trust offices – which is to take effect on 1 January 2004.

Dutch banks’ results

In the first quarter of 2003 the profitability of Dutch banks, measured by operating result after taxation, decreased further compared to last year (Table 1).1 The decline is partly attributable to higher provisions (up 37% on Q1 2002) prompted by the difficult economic environment. But the further fall in commission income (over 15% lower than in Q1 2002) as a result of the lacklustre financial markets also played an important part. Other non-interest income was higher than in earlier quarters, partly due to non-recurring income from the sale of a substantial third-party interest by one of the major banks. Finally, interest income in the first quarter was also down.

Apart from the decline in the first quarter of 2003, interest income has shown steady year-on-year growth over the past two years, whereas non-interest income has consistently fallen. As a consequence, the relative share of interest income in total income has risen in recent years. This is remarkable as for many years the trend had been exactly the reverse. This pattern can be seen both in the consolidated results of the Dutch banks (Chart 1) and in the results from their domestic operations. It should be noted here that interest income is still substantial (61% of aggregate total income of the banking industry at year-end 2002). In addition, this aggregated picture conceals the fact that interest income can account for a much larger or smaller share of total income of individual banks.

The trend of a rising share of non-interest income in bank profits also occurred in many other EU countries. Some researchers saw this as a sign that the financial system had reached maturity.2 In an advanced financial system, more companies raise finance directly in the capital markets, thus forcing the banks to adopt a different role. In these conditions, banks act less as a financial intermediary (borrowing and lending of funds) and more as trader, arranger and advisor in financial transactions. This, so it is claimed, explains the steady increase in the relative share of non-interest income.

The developments of the past years prove that the

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<thead>
<tr>
<th>Table 1 Dutch banks’ results</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
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<tbody>
<tr>
<td></td>
<td>i</td>
<td>ii</td>
<td>iii</td>
</tr>
<tr>
<td>Total income</td>
<td>10.9</td>
<td>11.6</td>
<td>10.9</td>
</tr>
<tr>
<td>Interest income</td>
<td>5.8</td>
<td>6.4</td>
<td>6.3</td>
</tr>
<tr>
<td>Non-interest income</td>
<td>5.1</td>
<td>5.2</td>
<td>4.5</td>
</tr>
<tr>
<td>Commission income</td>
<td>2.9</td>
<td>2.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Other income</td>
<td>2.2</td>
<td>2.4</td>
<td>1.8</td>
</tr>
<tr>
<td>Total expenses</td>
<td>8.2</td>
<td>8.8</td>
<td>8.7</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>7.6</td>
<td>8.1</td>
<td>7.8</td>
</tr>
<tr>
<td>Total provisions 1</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Operating result after tax</td>
<td>2.0</td>
<td>2.1</td>
<td>1.6</td>
</tr>
</tbody>
</table>

1 The sum of the value fluctuations of claims, value fluctuations of financial fixed assets, and the balance of additions to and withdrawals from the General Risks Fund.
latter is not a cast-iron law. As described below in greater detail, banks have been hit by the deteriorating stock exchange climate and this has happened, incidentally, precisely because of their advanced services. The weak stock market has made it less attractive for companies to raise funding via the stock markets. In addition, households are generally less keen to invest in times of falling share prices. The banks are consequently generating less income from equity-related transaction, brokerage and advisory services. All this raises the question how the development of interest and non-interest income of Dutch banks can be explained in economic terms. An initial explanation is provided below.

Development of interest income
Interest income of banks is determined by the amount of total bank lending (volume effect) and the net interest income per euro of extended credit (price effect). The total volume of bank lending is related to economic activity. When the economy is booming, the propensity to invest and consume, and consequently the demand for credit, will obviously be much greater than during an economic slowdown. Chart 2 shows however that despite a significant economic downturn in the past two years, the growth in domestic bank lending has only fallen marginally. At the time of the economic slowdown in the early nineties, domestic lending grew at a significantly lower rate. This meant that – given the downward business cycle – domestic bank lending was exceptionally strong in the past year.

By contrast, the growth in the foreign lending of Dutch banks dropped sharply in recent years and even contracted by over 8% in 2002. This decline is attributable to the worsening global economy. Dutch bank lending to the United States, France, Germany and Belgium – four of the five countries on which Dutch banks have their largest exposures – suffered a severe fall in the past
year. On balance, the growth in total lending by Dutch banks decelerated sharply to 2.5% in 2002, compared to over 7% in 2001. Clearly, therefore, the lower growth in foreign lending had a negative impact on net interest income.

As is illustrated in Chart 3, there is a strong relationship between total bank lending and net interest income. In other words, changes in the lending volume largely explain the movements in net interest income. The development in net interest income over the past two years is striking. While the volume growth of total bank lending decreased fairly sharply, the growth in net interest income more or less stabilised. This implies that net interest income per euro of extended credit must have improved.

Chart 4, where total net interest income is scaled with total bank lending, shows that, after declining for many years, net interest income per euro of extended credit actually increased recently. This explains why the growth in net interest income remained stable while the growth in total bank lending was decelerating. The next Quarterly Bulletin will take a closer look at net interest income per euro of extended credit.

Development of non-interest income

Non-interest income of Dutch banks consists of income from commissions (currently about 54% of non-interest income), participating interests and securities (about 5% of the total), results from financial transactions (approx. 19%) and other non-interest income (approx. 22%). The first three categories concern activities that depend heavily on the stock markets. Commission income, in particular, is closely linked to the fortunes of the stock market. Chart 5 confirms the strong impact of the AEX index on non-interest income. In April and May stocks rallied after having been pushed lower by the (threatening) war in Iraq. As soon as the stock markets start to show a strong recovery with sustained price rises, non-interest income of banks can also be expected to pick up.

The above justifies the conclusion that the profitability of Dutch banks relies heavily on the business cycle (for interest income) and the stock exchange climate (for non-interest income). Whether the profitability of Dutch banks will be restored in the short term therefore largely depends on how quickly and strongly the economy and stock markets recover. As discussed in greater detail elsewhere in this Quarterly Bulletin (see chapter on ‘Financial Stability’), Dutch banks have sufficient solvency so that further profit setbacks can probably be absorbed very smoothly.

Supervision and regulation

Review of the Capital Accord

In recent years the Basel Committee on Banking Supervision has worked intensively on the development of the New Capital Accord (or: Basel II). This accord is intended to replace the first Basel Accord dating from 1988. Basel II introduces a three-pillar struc-
The new solvency rules for securitisations were submitted for consultation to the supervisory authorities in relation to securitisations in recent years. The new regulations cover all types of securitisation. Alongside traditional securitisations, explicit attention is also devoted to synthetic securitisations. These are securitisations where the assets are not actually sold; only the credit risk is transferred. This is done by means of credit default swaps, which entitle to compensation if a certain event (e.g. default on payment of interest and/or principal in respect of a securitised loan) occurs. The assets remain the property of the institution, but a guarantee has been purchased against the risk of something going wrong.

The new regulation will be effective until the new Capital Accord enters into force. Where possible, the arrangement already links up with the securitisation conditions in the new Accord, as laid down in the Third Consultative Document (CP3) of the Basel Committee on Banking Supervision. This will make it easier for Dutch banks to comply with the new rules at the end of 2006, which is an advantage because securitisations are usually long-term transactions.

Revision of liquidity guidelines
New liquidity requirements based on a new liquidity reporting regime are due to take effect from July 2003. The reasons for the revision are described in the Quarterly Bulletin of June 2001. The old reporting regime was confined to the banks’ domestic operations, while the new reporting regime comprises both domestic and foreign operations, including subsidiaries. Measured by balance sheet total as at year-end 2002, the reporting scope has thus been widened by about 70%. Moreover, the new reporting guidelines attach greater weight to the liquidity risk arising from off-balance sheet items, such as unused credit facilities, stand-by facilities, guarantees and derivatives. Moreover, they also take account of the (non-)convertibility and transferability of the various currencies within the reporting bank group.

As with the old reporting regime, the liquidity requirements entail that the available liquidity of a bank must be at least equal on both a weekly and monthly basis, to the amount of required liquidity determined on the basis of the (potential) obligations. The available liquidity is formed by the total amount of assets that can be readily converted into cash through (temporary) sale or lending transactions and the incoming contractual cash flows in the relevant period. The liquidity value of the various items is determined by means of weighting factors. The required liquidity in the periods mentioned is formed by the total amount of the various items that are payable on demand, weighted with a fac-
tor to express the withdrawal risk, and the – similarly weighted – outgoing contractual cash flows in the relevant periods. The liquidity requirements are based on a dual scenario approach, with both a general (market) crisis and a specific bank crisis being taken into account.

From the middle of last year, the new reporting regime was piloted alongside the old regime to assess the effects of the expansion and renewal of the reporting requirements and, in particular, to evaluate the applied weighting factors. The evaluation of the pilot showed that the banking industry as a whole, including foreign operations, had a liquidity surplus but the distribution at individual bank level was uneven. In the case of banks with relatively substantial (mainly short-term) interbank or (other) interprofessional funding and/or relatively large off-balance sheet commitments, the new liquidity requirements are stricter than the old liquidity requirements. By contrast, the new liquidity test favours banks with ample liquid assets by giving a relatively greater weighting to available liquidity. Furthermore, the evaluation of the pilot and the consultation with the banks also showed that the liquidity requirements in relation to (reverse) repo transactions and securities borrowing were too high on balance. The requirements have consequently been adjusted in this respect. The same applies to certain types of savings.

Supervision of trust offices
Under the new ‘Wtt’ (Act on the Supervision of Trust Offices) which is expected to take effect from 1 January 2004, the Bank’s supervisory task will be extended to include trust offices. The relevant bill was recently approved by the Council of Ministers and sent to the Council of State for a recommendation. Formal trust supervision is being introduced in response to the demand for growing international attention for the risk that trust offices are being used for improper practices. To date, the trust sector relied on a modest degree of self-regulation, and only trust offices affiliated with banks fell within the supervision of banks. The introduction of trust supervision can count on a broad basis of support in the market.

Trust offices engage in the business of providing international companies with management services and domicile, but also render administrative, tax and legal services. In certain cases, trust offices are intensively involved in setting up complicated international holding and financing structures. The trust sector in the Netherlands is relatively large and the same applies to the funds flows circulating within the sector. This has to do with the tax facilities that the Netherlands offers to holding and financing companies of international corporations and the traditionally strong business services sector in the Netherlands.

The Wtt focuses on the integrity of trust offices and (in principle) imposes no conditions on their financial health. Once the Wtt takes effect, the provision of trust services will be subject to a licence from the Bank. Trust services, as defined (in summary) by the Wtt, are activities performed outside the group on a professional or commercial basis in the fields of administration and domiciliary services, in combination with additional services, including the sale of corporate entities and trustee services. Licences will exclusively be granted by the Bank after the executive and supervisory directors, (co-)policy-makers and holders of a qualified participating interest have been vetted in terms of reliability and executive and supervisory directors and (co-)policy-makers also in terms of expertise. In addition, the manner in which the trust office conducts its business must also meet certain conditions. Licensed trust offices are recorded in a public register and are subject to ongoing supervision by the Bank. The demands made in relation to the conduct of the trust office’s business are being elaborated by the Bank in lower regulations. These include regulations relating to the administrative organisation of trust offices, with trust offices being obliged to establish the identity of the ultimate beneficiaries of any entities under their management. The ‘Wtt’ contains a transitional arrangement for existing trust offices. In order to qualify for the transitional arrangement, these trust offices must register with the Bank within eight weeks after the Act takes effect.

The Bank is currently making preparations for its new supervisory task. In this connection, it is developing lower regulations for trust supervision in consultation with the Ministry of Finance and the market parties. Furthermore, preparations are being made for the implementation of the transitional arrangement.

1 As income and expenses of banks are not spread evenly over the year, quarterly figures are usually compared on a year-on-year basis to avoid seasonal distortion.
2 For an EU study into this trend see: ECB, April 1999, The implications of the changing nature of banking and financial services for the income structure of the EU banks.
Current developments in payment and settlement systems

Electronic point-of-sale payments continued to increase in the initial months of 2003, although growth in the use of the electronic purse or prepaid card (‘chipknip’) appears to be slowing down. Pin-based debit card payments, however, still have not reached their saturation point.

Cross-border payments are becoming cheaper and easier within the euro area. From 1 July 2002, payments and cash withdrawals abroad using debit cards became free of charge for Dutch account holders, and from 1 July 2003 no fee will be charged for transferring funds to account holders in other euro area countries. This is providing that the client supply the necessary details to enable the payment to be fully automatically processed.

In the context of its oversight role, the Bank conducted an examination on the security of the debit card and direct debit payment products, partly in light of several fraud incidents over the past year. The Bank observed that the existing security measures, supplemented by a few recent efforts on the part of banks, continue to be sufficient to guarantee an adequate level of security and limit losses as much as possible.

CLS, the system for the settlement of foreign exchange transactions that became operational last September, is developing favourably. Three major Dutch banks participate in CLS and settle large transactions using the system. Since the launch of CLS, the level of risk has been reduced and liquidity savings achieved.

The Bank commissioned a market survey on people’s familiarity with banknotes and their aesthetic appreciation of the designs. The results indicated, among other things, that public recognition of large euro note denominations is limited. Knowledge of security features has clearly declined since the introduction of the euro. It is essential that the public be alert to security features to reliably identify counterfeits. The number of detections of forged banknotes has increased, but remains below the level of national currency detections prior to the introduction of the euro note.

The growth of chip card use levels off, debit card use continues to grow

The growth in the number of transactions using the electronic purse (chipknip) has levelled off after sharply increasing, primarily in the first half of 2002. Compared to the previous year, the use of the electronic purse continued to increase by nearly 40% over the first five months of 2003. Month-on-month the number of transactions has however visibly stabilised since the autumn of 2002 at a level of around 9 million transactions per month, or an estimated 1 to 1.5% of the total number of point-of-sale payments (broadly defined). The chipknip is most often used in a number of specific market segments: catering (company restaurants and the like), vending (drinks and sweets machines) and parking, but strong growth is no longer seen in this area (chart 1). One particular segment in which the electronic purse was not widely used in the past has recently experienced sharp growth: its use in cigarette vending machines increased sevenfold from around 30,000 transactions over the first four months of 2002 to over 225,000 in the same period this year. Further growth appears in store when a compulsory age check via the chipknip becomes operational later this year. Although the user will still have the choice of paying cash, it makes sense that, if the card is needed to check the bearer’s age in any case, it will also be used more often for payments. Despite its success in niche applications, the electronic purse will only really gain volume if it is used more often to pay in shops. There are no functional obstacles to this development as many points-of-sale have an electronic purse terminal (usually combined with debit card function). However, these terminals are only used for an average of 10 chipknip transactions per month.

After many years of growth, it still appears that pin-based debit card use at points-of-sale has not reached

<table>
<thead>
<tr>
<th>Chart 1  Number of transactions using the electronic purse</th>
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<tbody>
<tr>
<td>Millions</td>
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<tr>
<td>Catering</td>
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<td>10</td>
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32 DNB / Quarterly Bulletin June 2003
satisfaction. Over the first four months of 2003, nearly 360 million payment transactions were made using debit cards, an increase of 9% compared to the year before. Growth stood at 12% over the whole of 2002, taking the number of payments across the 1 billion threshold. The high growth figures indicate an ongoing substitution of cash payments by electronic payments. By far the largest portion of debit card payments are made in supermarkets, which account for over one third of the total number of transactions. Speciality shops selling food and spirits reported a relatively steep increase of around 18% from just under 11 million to nearly 13 million transactions. The number of point-of-sale terminals in this sector increased sharply. On the other hand, debit card payments at petrol stations have been increasing fairly moderately despite a rise in the number of active terminals. This sector is nearing saturation, as the bulk of payments at petrol stations are electronic.

Lower cost cross-border payments in the euro area

Since 1 July 2002, in line with the European regulation ‘cross-border payments in euro’, the same fee applies for domestic and cross-border card payments and cash withdrawal within the euro area. Dutch bank account holders do not pay a fee for these payment services. From 1 July 2003, the same rule applies for certain credit transfers under EUR 12,500. In order to process these transfers more efficiently, a standard European transfer product was developed called ‘Credeuro’. Credeuro’s conditions include creating uniformity in the delivery of the payment and ensuring transfers are effected within a maximum of three days. An agreement has also been reached regarding the interbank charging principles, including prohibiting intermediary banks from charging fees on the principal sum. A fee can be charged for payment orders that cannot be fully automatically processed (the regulation does not apply in this case); private customers in the Netherlands will not be charged a fee for payment orders that can be automatically processed. An iban and bic are required for automatically processing a transfer. iban stands for ‘International Bank Account Number’, an international standard for bank account numbers that adds a country code, bank code and two control digits to national bank account numbers. bic is the ‘Bank Identifier Code’, which allows the payment order to be automatically directed to the recipient bank. Consequently, to facilitate efficient use of Credeuro, it is important that the recipient companies state their iban and bic on invoices and letterhead. A number of Dutch banks now include the iban and bic on their customer account statements.

Lower cost processing of cross-border payments in the euro area also requires technical infrastructure adjustments. The European Payments Council (EPC) – the umbrella forum within which the European banking industry is working towards the formation of a ‘Single Euro Payment Area’ or SEPA – has explicitly opted for a central European infrastructure for transaction processing. Currently, the only supplier of a central solution is the Euro Banking Association (eba) with its st ‘clearinghouse, which became operational at the end of April with an initial group of 12 banks. This group will be expanded in phases. At present, the volumes that are being processed remain very low and it is vital that st attract more volume. In this perspective, the ability to reach all banks in Europe is necessary, among other things. Not all banks are convinced they should invest in a link to eba. In view of this, direct participants in st are developing a solution with the primary aim of reaching these banks. This involves participants acting as a national point of access for incoming and outgoing traffic for banks that are not directly connected.

Oversight of payment products

In the capacity of its responsibility for promoting the smooth functioning of the payments system in the Netherlands, the Bank exercises a specific type of payment systems supervision called oversight. In that context, alongside the examination of payment and securities settlement systems, payment products are also regularly tested. This is important, as improper functioning of a payment product can lead to disruptions in the financial system and could undermine public confidence in the Dutch payment system. In general, the Bank’s oversight role for payment products is based on the principle of an unobstructed and free functioning market, assuming that market players themselves are generally expected to develop and offer reliable and secure payment products. However, should the security and reliability of these products come into question due to an increasing number of fraud cases, for instance, the Bank can draw up recommendations based on the postulate of free market functioning. The Bank examined the security of debit cards and direct debits following an apparently increasing number of incidents involving these payment products in 2002, which received a good deal of public attention.
In evaluating whether a payment product is secure, it should be kept in mind that security can only be objectively to a certain extent. Moreover, achieving 100% security is not attainable in practice. This aim could increase the cost of the product in question to an economically prohibitive level, or reduce the functionality or user friendliness to the point that the public would no longer find it acceptable from an efficiency viewpoint. However, the highest possible level of security should be pursued given the options available.

The security measures in and around payment products comprise technical and organisational aspects. An efficient functioning of these measures depends on their correct application by banks, companies (e.g. retail businesses) and consumers. Adequate security is therefore the joint responsibility of all parties involved as each party can contribute to its realisation. A number of aspects are considered in judging the security of a payment product, which not only include the requirements for a minimum level of security but the relative total volume of fraud cases and the spread of financial risk among the banks, retailers and consumers. The liability of the consumer is a key point in this regard.

Security of the debit card and direct debit
The examination of the security of the debit card and direct debit payment products has primarily focused on fraud incidents involving these products in 2002. These incidents were listed and the particular risks that emerged were examined. An analysis was then made of the measures taken by banks to mitigate the identified risks. The conclusion was that most of the risks that surfaced from the fraud incidents in question had been recognised when the products were first introduced and that steps had been taken to address them. Moreover, the banking industry has recently taken additional steps in response to those incidents.

Regarding the debit card, the Bank is of the opinion that the measures that were already in place, supplemented by recent measures taken by the banks (such as additional security requirements for unmanned Pos terminals, increased public information, fraud detection related to atm use by customers of other banks, etc.) remain satisfactory to sufficiently guarantee adequate security. Nevertheless, the Bank will continue to closely follow developments in this area as it appears in practice that technological developments (such as mini cameras and skimming equipment) make it easier to illegally copy magnetic strip details from debit cards and retrieve the corresponding pin codes. It should be noted that, thus far, however, attempts to crack the pin codes’ encryption systems have been unsuccessful.

As for direct debits, the Bank generally considers existing measures – along with additional steps taken by the banks (such as a stricter assessment of collectors and a periodic review of the collector, analysis of the plausibility of orders, etc.) – to be sufficient to, firstly, guarantee that damages due to direct debit fraud remain as limited as possible and, secondly, to mitigate the risk of illicit direct debits as much as possible. In order to promote secure payments in an e-business environment, the Bank is of the opinion that product conditions should be drawn up in the near future for direct debit based on Internet mandates. There are, as yet, no such conditions although direct debits are occasionally effected based on Internet mandates. This is an undesirable situation and creates a lack of clarity in the market. Banks have since begun examining proposals for such product conditions.

Developments in Continuous Linked Settlement (cls) of foreign exchange transactions
Since 9 September 2002 banks around the world have been using the cls Bank to settle their foreign exchange transactions. The centralised settlement of both sides of a foreign exchange transaction not only reduces the risks associated with the settlement process but also improves efficiency due to a faster settlement and savings on liquidity use.2

Since cls became operational, use of the system has steadily increased to over 65 thousand daily transactions, with a gross value of $725 billion, over the month of April (including both sides of the transactions, see chart 2). For the time being, cls settles in seven currencies (us, Canadian and Australian dollars, euro, yen, British pounds and Swiss francs), but other currencies will quickly be added (in the first phase the Scandinavian krones and the Singapore and Hong Kong dollars). The us dollar carries by far the greatest weight in the system’s total turnover, at nearly 50%. This means that the currency is represented in nearly all cls transactions. After the dollar, the euro is the second most important currency in cls, but with a share of 25%, still lags far behind the us currency.

In practice, the system’s efficiency advantages work satisfactorily. Over time, liquidity use in the cls settlement procedure has become more efficient (chart 3). The increased number of transactions and participating banks has resulted in an increased netting effect. As a
result, the relative value of banks’ pay-ins (expressed as a percentage of total value) has fallen considerably since September 2002. This means that banks can now settle relatively more foreign exchange transactions through cls without a proportionate rise in the necessary pay-ins made into the cls account in the morning. This creates a cost advantage for participating banks (offset, of course, by the cost of participating in cls).

There are three Dutch banks participating in cls, which are also shareholders in the cls organisation: abn amro, ing and Rabobank. Fortis participates through its Belgian branch. In April 2003 the value of Dutch banks’ pay-ins into the cls system amounted to around €700 million a day (chart 4). These were euro transactions that were channelled from dnb’s to p system to cls’ account with the ecb. Transactions in other currencies were executed by the central banks that issue those currencies.

Initiatives towards a more efficient settlement of cross-border securities trading

In the first quarter of 2003 two reports were published concerning the future of the infrastructure for the clearing and settlement of securities transactions. Subsequent to the securities trade (involving shares, bonds, derivatives), clearing and settlement are the administrative processes that lead to the transfer of securities against payment. Despite this relatively simple aim, the practice of cross-border transactions in particular often proves complex, leading to high costs and risks in the settlement process.

A report published in January by the 9-30, a group of bankers and other involved parties, including central banks, contains twenty-odd recommendations towards improving the worldwide infrastructure for the clearing and settlement of securities transactions. Many of these recommendations aim at achieving a better alignment between local standards and market practices, which are currently still strongly nationally oriented. In many countries, for instance, there is a single organisation for the central custody and final transfer of securities that has developed its own it standards for communication
with the local stock exchange and with other market parties. Such organisations are also often ensnared by local regulations. By better aligning standards and regulations, a worldwide ‘interoperable’ network should be possible, comparable to the international telephony network. This would simplify cross-border securities trading and create the possibility of changing suppliers or being connected to several systems. This would stimulate competition among the suppliers of clearing and settlement services. The 9-30 also makes recommendations on improving risk measures and the governance of organisations that are involved in the settlement of securities transactions.

The question of how to design the infrastructure for settling cross-border securities transactions is currently of particular interest within Europe. The volume of such transactions has increased, partly due to the introduction of the euro, which has also stimulated demand for a more efficient European infrastructure. This has sparked an integration process. In recent years, many stock exchanges, clearinghouses and settlement organisations that formerly represented the interests of their users as non-profit institutions have been reshaped into commercially controlled organisations, in the hope of being better prepared for an international consolidation process. This consolidation process has since taken shape in the form of a number of cross-border mergers, not only among stock exchanges, clearinghouses and settlement organisations but also within the chain of trade, clearing and settlement. The current situation in Europe is characterised by strong dynamics, but also by lack of clarity. The badly aligned, but surveyable national non-profit structures have changed into a mixture of user-driven, profit-oriented organisations that handle various parts of the trade, clearing and settlement chain and are increasingly indifferent to national borders. The second report published by the Giovannini group in March is especially relevant in this context. In an earlier report, this European Commission advisory group consisting of commercial parties indicated which barriers impede cross-border securities trading. The second report suggests a strategy to dissolve these impediments within three years. In order to achieve this, the group appeals to the market parties to reach agreements on issues such as technical standards, and the public sector is urged to improve the alignment of legal and regulatory frameworks, among other things. The report also addresses the European consolidation process, which it says will be stepped up by the disappearance of the above-mentioned barriers, and discusses a few possible related scenarios.

Both reports include very useful recommendations for increasing the efficiency of cross-border securities trading. Realising an interoperable worldwide network can limit the costs and risks of cross-border securities trading. However, this is clearly a long-term project given the high investment costs involved. Dissolving the barriers within Europe mentioned by the Giovannini group will also contribute to a more efficient and secure cross-border securities trading system, and has an ambitious time schedule. To promote fair competition, both reports assign a key role to public authorities. There is a strong consolidation trend in Europe, driven by network effects and economies of scale, which pushes to the forefront the issue of which aspects of the clearing and settlement infrastructure are best served by a competitive market. The two reports provide little insight on this point. Both imply that clearing and settlement in an open structure should be made available, and point to the danger of unfair competition in the event of mergers within the trade, clearing and settlement chain. However, they fail to comment on the more fundamental question of which aspects of the infrastructure should be offered in a competitive market.

Counterfeited euro notes

In the beginning of 2002 just after the introduction of the euro, hardly any counterfeited euro notes were detected. Over the course of 2002 the number of forgery disclosures rose. And in the first quarter of 2003, both the quantity and the quality of counterfeits increased. The development in the number of forgeries surfacing in the Netherlands is on a par with other countries in the euro area. Despite the increase, the number of detected forgeries is negligible compared to the total number of euro notes in circulation. The level of forgeries remains just one third of that of the national currency before the introduction of the euro note. Nevertheless, the Bank continues to alert the public to the importance of examining the banknotes for at least three security features.

Awareness and appreciation of bank notes

Periodically, the Bank commissions a market survey on the public’s awareness and aesthetic appreciation of banknotes. At the beginning of 2003, 1100 was asked again to conduct a new survey of the entire Dutch population over age 18. Around 2,000 people were questioned on the following topics, among others:
1 Spontaneous and prompt awareness of euro notes;  
2 Knowledge of security features;  
3 Aesthetic appreciation (appearance and cleanliness).

**Spontaneous and prompt awareness of euro notes**
The survey showed that nearly every Dutch resident is aware of the existence of €50 denominated notes. However, there is much less knowledge of higher denominations whose use for payments is limited. Only a little over half (around 55%) of respondents was able to spontaneously identify the €200 and €500 note. The €100 note was identified by 82%. Around the same proportion as those surveyed in 2002 spontaneously identified six or seven denominations. When asked about the non-existent €250 and €1,000 notes, no less than 17% and 19% respectively said these denominations were in circulation, up from 10% last year. This is likely due to the information campaigns around the euro conversion.

**Knowledge of security features**
Research into the degree of knowledge of security features reveals that respondents were able to spontaneously correctly identify an average of 2.0 features (chart 5); more than was the case for guilder notes. This is the result of the massive information campaign during the introduction of the euro, which was the largest ever in the Netherlands to date. Media attention and the public information campaigns in 2001 and 2002 appeared to have boosted people’s knowledge of security features.

However, the public’s familiarity with specific security features was significantly lower in 2003 compared to the previous year. Awareness of the customary watermark, the silver coloured foil / the hologram and the security thread fell sharply (table 1). Consequently, the percentage of people unable to identify any security features rose sharply from 11% (2002) to 18% (2003). It is worth noting that the number of people aware of the thin coloured fibres visible under a UV lamp increased, although this security feature was not communicated to the public. On the other hand, knowledge of the use of optical variable ink (a security feature for the public) was marginal and even declined in 2003.

A sound knowledge of the security features is essential as it enables the public to reliably identify forgeries, and its decline is therefore a cause for concern.

**Aesthetic appreciation (appearance and cleanliness)**
When respondents were asked about the appearance of euro notes, around 66% said they considered the complete range of euro notes beautiful. Previous surveys indicated that appreciation among the Dutch for guilder notes was even higher, fluctuating around 80%.

The €20 and €100 notes received the highest appraisal (around 72% consider these denominations beautiful). The €5 note received the lowest scores. Only 49% of those surveyed said the note was attractive. During the guilder era the nlg 25 note was the least revered, although a 1997 survey found that around 67% considered it beautiful. In that year, the Dutch were most fond of the nlg 250 note (91%). In terms of design, the public apparently preferred guilder notes to their euro counterparts.

### Table 1 Spontaneous recognition of specific security features

<table>
<thead>
<tr>
<th>Security feature</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watermark</td>
<td>70</td>
<td>65</td>
</tr>
<tr>
<td>Silver-coloured foil / hologram</td>
<td>61</td>
<td>52</td>
</tr>
<tr>
<td>Security thread</td>
<td>31</td>
<td>13</td>
</tr>
<tr>
<td>See-through register</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Raised ink</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Type of paper</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Coloured fibres visible under UV lamp</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Iridescent stripe</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Optical variable ink</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Recognised none</td>
<td>11</td>
<td>18</td>
</tr>
</tbody>
</table>

1 Security features for the public.

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**Chart 5 Knowledge of banknote security features**
Average number of features recognised
Chart 6 reveals that around 85% of the public consider euro notes to be clean. The widely perceived complaint that the €5 note in particular is dirty is not reflected by the survey results. Around 71% of those surveyed considered it a clean note, although this is substantially less than the 91% who deemed the €50 note clean. The fact that the €5 note has only been in circulation for five quarters plays a role here. It is expected that the quality of this denomination will further decline through intensive use and its low return rate to the Bank.

The aim of the changes is to increase the social efficiency of banknote distribution and of the payments system. Currently, the credit sector can deposit and order an unlimited amount of notes from the Bank at almost no cost. As a result, the frequency at which the Bank collects and reissues banknotes is too high, leading to a less than optimal distribution. It would be more efficient and secure if banks recycled the notes they received from customers as much as possible, and used them for example to supply ATMs.

The Bank plans to introduce transitional measures as early as 2005 and to start charging commercial banks for its actual costs. This will give the banks an incentive to recycle the banknotes they receive from their own cash centres. In addition, the commercial banks themselves will have to take care of supplying their branches and ATMs. The distribution chain will thus be shortened, and the number of steps required for transferring, transporting and processing banknotes will be limited.

Restructuring of banknote distribution

DNB intends to change the banknote distribution system, shifting to the ‘market’ (commercial banks) a portion of the tasks currently performed by the Bank nearly free of charge. The Bank expects this change to increase the social efficiency of the payment system.

The plans include closing the Bank’s agencies in Eindhoven, Hoogeveen and Wassenaar on 1 January 2008. From 2008, the banking industry will only be able to call at the Amsterdam agency to order and deposit banknotes in bulk quantities up to a certain maximum. However, the Bank will still continue to receive enough banknotes to ensure a clean circulation. And from 2008 the public will only be able to exchange guilder notes in Amsterdam. The intention is that the number of full-time equivalent jobs (fte) in the currency sector will decline gradually. The consequences of these plans are expected to be partially absorbed through natural wastage, however forced redundancies cannot be ruled out.
Articles
The economic consequences of the war in Iraq

A war affects the economy through various channels. This article discusses a number of these channels and seeks to provide insight into the economic consequences of the war in Iraq. It may be concluded that the West is mainly experiencing indirect effects, including a decline in consumer confidence and a deterioration of financial market conditions. These effects have resulted in an economic growth slowdown. Iraq is primarily contending with direct economic effects, yet despite the extensive economic damage that was inflicted on this country, it is reasonable to assume that its economic outlook will improve in the long term after the fall of the former regime.
Introduction

Until recently, the war in Iraq constituted a considerable risk to the global economy and an adverse scenario could have caused a recession in the main economic blocs. This explains why the threat of war in the months prior to the actual conflict cast a shadow over the European and American economies. The war has since been waged, allowing an initial estimate to be made of the costs and economic consequences of the conflict. Such observations are, of course, tentative, because even in hindsight it is difficult to establish which economic developments were a result of the war and which would have emerged whether or not the conflict had taken place. This article starts with a general discussion of the most important channels through which war can affect the economy. A distinction is made between effects that are directly related to the war and the indirect effects, such as oil price movements and the impact on confidence. Subsequently, the impact of the war in Iraq is evaluated based on the channels described, focusing on the effects on Western economies. The economic situation in Iraq is only briefly discussed.

The direct economic consequences of the war

The direct economic consequences of war include the additional military expenditures that result from actually waging the war, as well as the damage to factors of production in the countries involved. The nature and extent of these effects depend on the role individual countries played in the war and are relatively quantifiable. The key factor for a country fighting a war on foreign soil is the cost of the military operation (including the financing costs), assuming its armed forces are not drafted from the civilian labour force. As for the country under attack, alongside the (extra) defence costs, it faces destruction of the factors of production due to losses among its labour force and damage to buildings, factories and infrastructure. Moreover, the economy of the country that is attacked may be damaged due to disruption of its administrative structure.

The indirect economic consequences of war

There are numerous indirect economic consequences of war. A broad economic approach, as is advocated by Tingergen (1985), considers both the positive and negative social effects of war. Potentially positive effects – partly seen from a normative perspective – are the creation of political peace and security, the dismantling of a dictatorship, the recovery of supply lines for essential raw materials such as oil, etc. Such factors are particularly significant in the somewhat longer term, while the negative social effects of war are often immediately apparent. An integral consideration of the positive and negative consequences as supported by Tinbergen is irrefutably relevant, but also extremely complex, and inevitably requires subjective assessments. This process is not within the scope of this article, which only considers a limited number of obvious channels through which a war can indirectly affect the economy.

Oil

Since World War Two, the Middle East has been an important hotbed of tension in the world. Since the 1970s, the region has had an unmistakable influence on the price and supply of crude oil. Supply levels can decline during a war in or near oil producing countries if equipment is damaged or important ports and waterways are blocked. In addition, from time to time oil producing countries impose limitations on production or exports as a foreign policy tool. Both events have the potential to exercise a strong upside effect on the oil price, which leads to a deterioration – if only temporary – of the international terms of trade among oil importing countries. This is clearly illustrated by the oil price shocks in 1973/1974 and 1979/1980. Both crises reinforced the wage-price spiral – particularly in Europe – under economic circumstances that would better have been served by real wage moderation. Because wages were not tempered, operating profits deteriorated sharply and unemployment further increased.

Since then, all sorts of measures have significantly reduced the vulnerability of Western economies to oil supply disruptions. In 1974, 26 industrial countries united to form the International Energy Agency (IEA), which coordinates the management of Western oil supplies. The agency’s members have committed themselves to maintaining a total oil supply equal to a minimum of 90 days of net oil imports. Even more important from a structural perspective is the fact that more and more energy-saving techniques have been applied to production processes, means of transport and consumer electronics. Moreover, the use of alternative energy sources has increased, prompting a decline in the use of oil for national production. The increasing importance of the services sector, which uses relatively little energy, also contributed to this trend (Chart 1). However, this does not alter the fact that total
oil consumption in the industrialised world has increased around 20% since the early 1970s. The global economy’s sensitivity to oil price shocks may have lessened, but it has by no means disappeared.

Confidence and financial markets
Both the threat of war and warfare itself undermine the economic confidence of consumers, producers and investors. This can be incited by actual developments such as a sharp increase in the public deficit due to military expenditures. More commonly, however, the main reason behind a decline in confidence is uncertainty surrounding the length, the outcome, the aftermath and the economic consequences of the war. This type of confidence loss, which is justified by the economic consequences of previous conflicts, is therefore an independent factor that can negatively influence the economy for shorter or longer periods because spending is deferred until the dust settles.

In uncertain times, investors flee to safety, often prompting an increase in the value of gold and government bonds while prices fall for more risky investments such as shares and corporate bonds. If waning confidence leads to a drop in housing demand, housing prices will also decline. Private investors will experience a substantial net capital loss, putting (additional) pressure on consumer spending. Companies will also be confronted with poorer financing conditions in the form of higher risk premiums or credit rationing, leading to a decline in the propensity to invest.

The war in Iraq

Direct economic consequences for Iraq
The war in Iraq only lasted a short time and was primarily fought in and around the cities. Because the damage to oil installations remained limited, oil production is expected to be restored to pre-war levels in the near future. However, in the cities the day-to-day economy was completely disrupted for some time after the government authorities fled. It is too soon to assess the resulting damage to the economy. Estimates of the reconstruction costs are between USD 25 and 30 billion.

Despite the considerable costs in the short term, the fall of the regime has likely strongly improved Iraq’s economic prospects in the longer term. This view is supported by the recent decision by the United Nations to lift the trade sanctions against Iraq. It is also clear that the ousted regime did very little good for the Iraqi economy. Chart 2 illustrates the dramatic decline in the average level of prosperity in Iraq since Saddam Hussein came to power in 1979 at a time when the economy flourished due to high oil prices. The war against Iran in the 1980s and the Gulf War in 1991 seriously damaged the country’s capital goods supply and infrastructure. The situation was exacerbated by the above-mentioned trade sanctions imposed after the Gulf War. The sanctions were meant to strike the Iraqi government, but their devastating effect on the economy mainly harmed the country’s people. The ‘oil for food’ programme set up by the United Nations in 1996 offered some relief, but was in fact no more than an economic emergency aid package.

Chart 2  Real GDP per capita in Iraq
In USD production per capita

Sources: Maddison (OEC 2001) and EIU.
**Direct economic consequences for the West**

The United States (US) carried the bulk of the cost of the military operation in Iraq, for which Congress approved a supplementary budget package in the amount of USD 62.5 billion (over 0.6% of GDP), USD 20 billion of which was spent when the Iraqi regime fell. The bulk of remaining short-term spending will cover the cost of a continued military presence in Iraq, estimated at USD 2 billion a month based on the current military force. The demobilisation of American troops will require another USD 7-odd billion. The United Kingdom has spent a total of over £3 billion (around 0.3% of GDP) on the war.

The cost of the war in Iraq will further burden the American budget, which – even without the war – was estimated would register a deficit of over USD 300 billion (3% of GDP) in 2003 and 2004. This will further aggravate the problem of the so-called ‘twin deficits’ – the combination of the private savings deficit and the government budget deficit. A similar state of affairs was seen in the 1980s, and ultimately resulted in a spectacular fall in the dollar. The first signs that history is repeating itself already appear to be emerging, though perhaps not to the same degree. So far, US authorities appear unconcerned about this threat (rightly or wrongly), but a further depreciation of the dollar represents a significant threat to a swift economic recovery in Europe.

Military spending can exert a strong demand impulse on the economy, as illustrated by the example of the German war economy under the Nazi regime. For a few years in the run-up to World War Two, Germany realised economic growth of around 10%. Table 1 places the US expenditures on the war in Iraq in an historic perspective. The table shows that earlier wars often went hand in hand with massive government spending, which led to a strong expansion of the American economy. At the same time, it is also clear that US spending on the war in Iraq has been so minimal that only a modest impact on domestic demand can be expected.

**Indirect consequences for the West**

The greatest risk to Western economies of the war in Iraq concerned oil supplies from the Middle East. Over half the world’s explored oil reserves are found in Iraq and its direct neighbours Iran, Kuwait and Saudi Arabia. Furthermore, unlike any other oil producing country, Saudi Arabia has a considerable level of untapped and immediately available production capacity. The huge importance of these countries in the global oil market explains why the increasing threat of a war in the Middle East determined the development of the oil price for quite some time. In the months around the turn of the year, the oil price hit a peak of nearly USD 35 per barrel for North Sea crude. This was partly due to strikes in Venezuela. There was no actual production decline in Iraq during that period, as illustrated in Chart 3. This changed as soon as the war broke out and Iraq’s daily production of some 2.5 million barrels of oil ground to a halt. Somewhat surprisingly, however, the oil price then steadily declined to around USD 25. Evidently, the outbreak of the war removed a degree of uncertainty and the markets expected – correctly as it turned out – a swift end to the conflict. Another factor that contributed to the fall in the oil price was a production increase of around 1.8 million barrels a day, the lion’s share of which came from Saudi Arabia.

Confidence is the second channel through which war indirectly affects the economy. It is reasonable to assume that the war in Iraq led to a loss of confidence and that this – partly via the financial markets – caused

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**Table 1. The military costs of a few American wars**

<table>
<thead>
<tr>
<th>War</th>
<th>Billions of USD</th>
<th>As a percentage of GDP</th>
<th>Cumulative GDP growth</th>
<th>Average GDP growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Civil War (1861-65)</td>
<td>5</td>
<td>104</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>First World War (1917-18)</td>
<td>26</td>
<td>32</td>
<td>17.1</td>
<td>8.2</td>
</tr>
<tr>
<td>Second World War (1941-45)</td>
<td>285</td>
<td>130</td>
<td>72.7</td>
<td>11.5</td>
</tr>
<tr>
<td>Korean War (1950-53)</td>
<td>54</td>
<td>15</td>
<td>27.3</td>
<td>6.2</td>
</tr>
<tr>
<td>Vietnam War (1964-72)</td>
<td>111</td>
<td>12</td>
<td>44.9</td>
<td>4.2</td>
</tr>
<tr>
<td>Gulf War (1990-91)</td>
<td>61</td>
<td>1</td>
<td>1.3</td>
<td>0.6</td>
</tr>
</tbody>
</table>

a slowdown in Western economies. Charts 4 and 5 show that consumer confidence in the euro area and the US steadily declined in the run-up to the military conflict. There is no certain proof that this loss of confidence was related to the threat of war, as sentiment was already fragile. It is probable, however, that a relation exists, given that consumer confidence (particularly in the US) recovered immediately after the conflict. A closer look at the charts reveals that previous wars also affected consumer confidence, although it is difficult to completely filter out the influence of the business cycle in this regard.

According to US research, strong declines in consumer confidence following non-economic events, such as the Gulf War, indicate a spending decline that cannot be linked to economic factors such as disposable household income. During peacetime, however, the confidence indicator contributes little to the information embodied in the usual determinants of consumption and investments. These results confirm the conjecture that war incites households and companies to postpone purchases. Thus, it may be assumed that the weakening of the global economy since the fourth quarter of 2002 is at least partly due to the war in Iraq.

On the financial markets there was a flight to relatively safe investments prior to the war in Iraq. This ‘flight to quality’ is a typical reaction to a loss of investor confidence and in this case can be explained as follows. Firstly, investors in assets with an uncertain return encountered ever-greater risks as the threat of war increased. This is confirmed by the indicator of expected volatility in the Eurostoxx European share index (Chart 6), which reached a peak just before the war and clearly decreased thereafter. A similar development emerged after the terrorist attacks in the US and...
during the stock market malaise in the summer of 2002. In addition, the risk premium on corporate bond yields reached an historic high just before and during the war in Iraq and then sharply fell after the war ended (Chart 7).

Investor behaviour as outlined above had two important economic effects. First of all, it sent share prices down, causing investors to suffer a capital loss. Secondly, it increased companies’ financing costs by raising the risk premium on corporate bonds. Both effects have likely had a negative impact on the American and European economies. It is reasonable to assume that the United States was hit relatively hard, because the American economy is comparatively more sensitive to deteriorating conditions on the public capital market (Table 2) for two reasons. Firstly, private

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**Chart 5 Economic confidence in the United States**
Confidence index and annual spending increase in percentage terms

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**Chart 6 Implicit volatility euro area share prices**
Per cent, twenty-day moving averages (eurostoxx 50)

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**Chart 7 Euro area, interest on corporate bonds**
Daily figures: per cent and percentage points, respectively

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Source: Thomson Financial.
Explanatory note: Implicit volatility is a measure of expected share price movements derived from option prices.

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1 Difference between aaa and bbb loans with terms of 7-10 years.
share holdings – and thus the potential wealth effects on consumption – are much larger in the US. Furthermore, American companies much more often than their European counterparts turn to capital markets to meet their financing needs.

In light of the swift end of the war in Iraq, it may be expected that the situation in the financial markets will return to normal. Charts 6 and 7 support this prognosis. A positive note can also be found in history. The five most prominent wars in which the US was involved since the attack on Pearl Harbor each resulted in a sharp decline in American share prices, as measured by the S&P 500 index. In every case, however, the index recovered completely within a year.

In conclusion

This article attempted to provide an indication of the direct and indirect economic consequences of the war in Iraq. From an historic perspective, military spending on the war by the US and United Kingdom was limited. All the same, the resulting increase in the US budget deficit comes at an exceptionally unfortunate time. The threat of an uncontrolled depreciation of the dollar given the substantial US ‘twin deficits’ significantly erodes the prospects of economic recovery in Europe. For Iraq, the direct consequences of the war are considerable and negative. However, the war may have favourable consequences for the Iraqi economy in future. The recent lifting of trade sanctions will speed up the reconstruction of Iraq and may pave the way towards restoring the prosperity that was lost in recent decades.

Regardless, the war in Iraq has temporarily eroded the economic confidence of consumers, producers and investors and is partly to blame for the fact that an economic recovery of the global economy has failed to materialise. It is too soon to assess the longer-term prospects, which are partly dependent on the development of the geopolitical situation and – more to the point – how events progress in the Middle East peace process.

Literature Consulted


Tinbergen, J. (1985), De economie van de oorlog, Economisch Statistische Berichten, jaargang 70, nummer 3494.

1 After Pearl Harbor: the Korean War (1950), the Cuban missile crisis (1961), the Vietnam War (or, more specifically, the Tet offensive in early 1968) and the Gulf War (1990/1991).
Corporate sector’s financial position under pressure: causes and consequences

In the present economic slowdown, businesses are seeing their financial health jeopardised, with falling earnings and high debts combining to erode the creditworthiness of many companies. Dismal financial market conditions are adding to the problem as funding options are reduced. This article discusses the causes of the Dutch corporate sector’s worsening position in some detail and highlights its consequences for the country’s financial system, identifying repercussions for banks, other financial institutions and financial markets. Equity and venture capital markets, in particular, are hamstrung by the increased risks: compared with capital market funding, bank loans are a stable source of financing during an economic downturn. Reviewing the macroeconomic effects of the conditions facing the corporate sector, this article concludes that high debts and concomitant balance-sheet adjustments are holding back the recovery.
Introduction

The latest turn in financial markets primarily reflects the state of Dutch corporate financial health: whereas it was technology companies that initially found themselves in dire financial straits, businesses across the board are now experiencing a gradual erosion of their financial positions. In 2002, non-financial listed companies posted total net losses of €3.9 billion and saw their creditworthiness dip: nearly all credit-rated businesses have had their ratings cut at least once – and some several times – since 2001. In 2002 and the first three months of 2003, over €160 billion was wiped off non-financials’ market values, while first-quarter risk premiums on lower-graded corporate bonds were, at around 150 basis points, double their 1999 figures.

This article investigates the financial health of the corporate sector and gauges the extent to which this affects the Dutch financial system. After reviewing the causes behind the deteriorating business climate, it goes on to describe its impact on companies’ creditworthiness and the efforts being made to restructure balance sheets. Listed companies are the key focus of attention, accounting as they do for over half the assets of the entire non-financial corporate sector. Central to our analysis is the financial accelerator mechanism, which offers an explanation for the interaction between the developments that companies face and the financing options that they have. Within this particular framework, we investigate to what extent trends in business impact on banks, institutional investors and financial markets, addressing the question of whether financial stability is at stake – ie, whether such trends disrupt the financial system’s capacity to mobilise savings, diversify risks and allocate resources. Lastly, we review the extent to which such risks to the financial system in their turn affect the economy at large.

Deteriorating conditions in the Dutch corporate sector: causes

Massive debts
Dutch companies are heavily indebted: in net asset value terms, corporate debt has surged to historic highs over the past decade (Chart 1) and sectoral debt ratios have increasingly diverged. The massive surge in telecoms debt is primarily to blame for this growing divergence, as until 2000 debt increases at telcos coincided with a share price explosion on the back of exceedingly bullish profit expectations. In fact, this makes the telecoms industry a prime example of the way the financial accelerator mechanism works. This mechanism assumes that companies know their own financial circumstances better than do lenders. Because of these information asymmetries, external borrowing is typically more expensive than internal funding through retained profits: because of the need to assess and monitor companies, lenders incur costs. As the financial accelerator mechanism would have it, agency costs – ie, the risk premium – decline as a company’s net asset position improves. And this is exactly what happens when cash flows and asset prices pick up, thus boosting the collateral value of the overall business. With higher collateral values reducing potential loan losses, financiers will be keener to cut their risk premiums and increase lending. As collateral values by and large move up and down with the business cycle, the financial accelerator mechanism implies a pro-cyclical movement. When economies are booming, rising collateral values facilitate borrowing, while the reverse happens when the business cycle slows down. This pattern suggests that, during the 1990s boom, the investment expansion was mostly financed externally, which arguably makes the financial accelerator mechanism a key driving force behind the increase in corporate debt.

This big borrowing binge has caused corporate leverage – ie, the debt-to-equity ratios – to soar. In the halcyon days of the upswing, shareholders benefited from this high gearing as the cost of borrowing was lower than return on total assets. Leverage (gearing) really kicked ahead in 2000 and 2001, when Dutch companies
attracted relatively large amounts of debt through corporate bonds (Chart 2) to finance the mega-mergers and takeovers of the day and buy their umts licences. Telecoms companies took on huge amounts of debt, believing they would have no trouble refinancing their borrowing through future profit growth or new equity issues. Compared with companies in other countries, Dutch businesses are indeed looking highly leveraged (Chart 3), as they have undertaken large-scale capital spending outside their home market. With this spending running at nearly 84% of gross domestic product by the end of 2001, Dutch companies had invested virtually twice as much outside their national borders as other European businesses. Research shows that companies often issue corporate bonds to finance their (foreign) merger and acquisition activities. Remarkably, corporate America is looking at lower levels of leverage than its euro-area counterparts. This probably reflects more highly developed capital markets, making us companies less dependent on bank loans: around 15% of us non-financial corporate debt is to banks, compared with nearly 50% for Dutch companies. By contrast, American companies typically call on direct funding through equities and bonds, and, as their leverage shows, they attract relatively more equity in the process. The more highly leveraged a company is, the less financial cushioning it will have. As a result, Europe’s – and particularly Holland’s – highly leveraged companies are more vulnerable to adverse financial conditions than are their us counterparts.

Falling profits
Dutch corporate vulnerability was laid bare when businesses saw their profits take an across-the-board dive in 2001 and 2002. As with debt patterns, profit trends between companies are increasingly seen to be diverging (Chart 4). This suggests that today’s drop in earnings is really the aftermath of the debt and capital spending spree of the late 1990s – which mainly sucked in technology, media and telecommunications companies. And, indeed, the 10th percentile – ie, the 10% of companies with the lowest profit margins – mostly includes umt companies. Huge losses in these industries have reduced companies average profit margins much...
more steeply than any reading of Chart 4’s median percentile – the 50th – would suggest. Non-financial companies were looking at a negative 1.7% profit margin in 2002, down from over +6.5% in 2000. Not once in the previous twenty-five years had net profit margins dipped into negative territory.

A number of factors contributed to this sharp downward lurch. For one thing, turnover slackened as the economy slowed down, with listed companies seeing turnover growth slump to 3-4%, compared with average 12% increases in the 1995-2000 period. The rising value of the euro against the greenback also ate into profits, as Dutch businesses saw their competitiveness eroded and dollar-denominated revenues translated into much lower euro results. In a separate development, gross margins narrowed in the wake of steeply rising wage costs which were not offset by any increase in labour productivity. In fact, in the 2001-2002 period Dutch labour productivity even edged down and unit wage costs added around 5% per annum. As Chart 5 shows, this caused Dutch businesses to report poorer performances than their counterparts elsewhere. Other factors depressing corporate results included the cost of restructuring and depreciation. In 2001, depreciation charges at the country’s listed companies reached record highs, even matching operating profits. Depreciation charges of this magnitude had not been taken to corporate P&Ls for decades. Lastly, operating income was increasingly squeezed by the interest businesses were paying on their massive debts: in the mid-1990s interest payments accounted for some 10% of operating profits, but this figure had shot up to over 50% in 2001 – clear evidence of increased gearing making for much shakier corporate balance sheets. When declining profits pushed return on total assets below the cost of borrowing, companies witnessed an accelerated drop in free cash flows and credit ratings.

Corporate creditworthiness: the consequences

What the indicators say
Corporate net asset positions have deteriorated in tandem with the contraction in profitability, and listed companies have seen their solvency ratio – ie, shareholders’ equity to total assets – badly hit, since 2000 languishing below the levels recorded in the early 1990s (Chart 6). Profits being down, companies have little room to boost solvency by retaining earnings. Meanwhile, with worsening solvency having pushed up the cost of external financing, they are finding it difficult to refinance existing debt and, aside from their solvency, their ability to repay their debts features high among external borrowing conditions. To measure this, the ratio often used in loan contracts is interest cover1 (Chart 6). This measure had been falling well before the economy began to slow – a clear indication of its leading indicator nature – and its steep downtrend since 2000 mainly reflected imploding corporate profits. Despite falling earnings, interest cover has fluctuated at levels typical of a downturn’s nadir (3-3.5), mainly thanks to low interest rates taking some of the pain out of the crippling debt problem.

Chart 6 Solvency and interest cover
Shareholders’ equity at book value/total assets ratio (percentage); operating result/net interest payments; listed companies

<table>
<thead>
<tr>
<th>Year</th>
<th>Solvency ratio</th>
<th>Interest cover, right-hand scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>40</td>
<td>15</td>
</tr>
<tr>
<td>91</td>
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<td>01</td>
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<td>0</td>
</tr>
</tbody>
</table>

Source: DNB calculations based on CBS data.
As creditworthiness indicators for the Dutch corporate sector have taken a plunge, the past couple of years have witnessed a steep increase in rating cuts (Chart 7): nearly all of the country’s rated companies have had their credit ratings downgraded at least once. Between 2000 and 2002, tmt firms came in for the most downgradings but in the first quarter of 2003 it was mainly companies from other sectors that saw their ratings slashed. This suggests that tmt creditworthiness has now bottomed, while bankruptcies have helped to weed out the weak players. First-quarter credit rating reductions suggest that creditworthiness is likely to remain depressed across a broad section of large listed players. But creditworthiness of smaller firms would also seem to be affected, as a rising number of companies are going to the wall (Chart 8). Bankruptcies typically trail the business cycle, and a further rise in 2003 bankruptcy numbers cannot be ruled out in the current recession (see ‘The Netherlands in the euro area’ elsewhere in this Quarterly Bulletin). All things considered, businesses should continue to see their creditworthiness under pressure this year.

Restructuring balance sheets
The deteriorated solvency position across a broad range of companies has sparked a process of balance-sheet restructuring, as the reduced availability of external cash is forcing businesses to cut their cloth accordingly. Costs are being trimmed, and cash flows and revenues from the sale of assets are being put towards reducing debt – at the expense of capital spending and profit opportunities (Chart 9). As a result, corporate gearing is being reduced, which is bad news for shareholders as the scope for additional returns – ie, returns in excess of the cost of borrowing – declines. By contrast, creditors do very well out of balance sheets being repaired, as default risk drops. Companies holding on to their cash is another contributor here: in view of the precarious conditions in the financial markets, companies prefer...
to stay in the money and keep a lid on their refinancing risks as much as possible. One way to do so is to roll over short-term debt into long-term liabilities, as banks’ figures on loans to Dutch businesses show. Since the first quarter of 2002, short-term corporate borrowing has declined by almost 5% while long-term bank credit has risen by nearly 4%. Some companies have opted to restructure their debts by converting them into equity. This strategy does not tend to support their share prices, as it entails profits being distributed across a larger number of shares. What is more, creditors are liable to negotiate conversion conditions that are favourable to themselves.

Repairing balance sheets is tough going in a climate in which attracting capital has become an uphill struggle. There is much less venture capital to be had and the cost of equity has recorded a massive increase: at 4.2%, its measure, the dividend yield, even edged ahead of bond yields in the first quarter of 2003, something which had not happened in twenty years. Getting companies back on a healthy financial footing is not made any easier by the big holes in company pension schemes, which have opened up as a result of the stock-market meltdown. It will by and large fall to their sponsoring companies to plug these holes. Higher pension premiums push up wage bills and reduce operating earnings. Some firms have made one-time payments into their pension schemes, at the expense of their cash and equity positions. Neither does their capital base erode any faster by the big holes in company pension schemes. (A measure, incidentally, which may get watered down for Dutch companies.) Rating agencies are already gauging creditworthiness in conjunction with pension scheme shortfalls, recently precipitating a spate of downgradations to individual companies’ credit ratings. Cheerless stockmarket conditions are to blame for both the trouble with pensions and the difficulty in attracting equity.

Risks to the financial system

Impact on the financial markets

Hit hardest by the deteriorated solvency position of the corporate sector are, of course, the markets for the riskiest types of funding: equities and venture capital. The Amsterdam stock exchange has seen the CBs index of non-financial stocks nosedive by around 60% since 2000. As a result, price/earnings ratios have also come down and were close to their long-term averages in the first three months of 2003 – suggesting that the air has gone out of stock prices. The 2002 tumble in the volume of new issues from non-financial firms shows that their ability to attract equity has sharply diminished (Chart 2), while the equity market is effectively closed to companies seeking to launch initial public offerings (IPOs). In Amsterdam there have been no IPOs from Dutch non-financials since 2001 and the Dutch market for venture capital has similarly dried up, contracting by an annual 70–80% in 2001 and 2002. This indicates that the equity and venture capital markets are mainly because of investors turning more risk-averse – no longer able to fulfil two of their essential functions: diversification of risks and allocation of funds.

Because of their deteriorating financial positions, institutional investors have been taking fewer risks (see ‘Financial stability’ articles in previous Quarterly Bulletins). This decline in financial health partly reflects the falling market values of Dutch non-financial companies, in which pension funds and insurers hold around 10% of shares. Insurance companies, in particular, typically have relatively many domestic stocks in their investment portfolios. With price losses having eroded their capital base, institutional investors have had to review their investment policies. The changes they have implemented have subsequently contributed to the shutdown in the equity and venture capital markets – in which pension funds and insurers are major players.

As Chart 2 shows, there has been slightly less of a slump in bond issuance than in the issue of shares, reflecting the fall in bond yields over the past few years and the fact that companies have been able to attract relatively cheap funding as a result. Companies boasting relatively strong financial positions are finding it easy to tap the bond market, at relatively low cost. Less creditworthy firms, by contrast, are looking at much less favourable borrowing conditions, as evidenced by the persistently high premiums that companies with low credit ratings are being charged (Chart 10). That said, even these companies are still able to attract funding in the bond market, as investors now see high-yield corporate bonds as safer alternatives to equities. In the commercial paper (CP) market – which companies tap for short-term cash to fund their working capital, for example – terms and conditions for borrowing are even more closely tied in with credit ratings. The spate of
rating downgrades has made the US and European Cp markets less than accessible to an ever-growing number of companies. Together, these credit market developments show that higher corporate risks may have sparked less favourable terms and conditions as well as higher risk premiums, but that funding is indeed still available – particularly in the bond market. By clearly differentiating between types of exposure, this market is doing precisely what it is supposed to do, and, as a result, is helping to speed up the restructuring process among Dutch companies.

Risks to banks
Judging from bank lending figures, the impact of the deteriorating health of Dutch companies does not appear overly alarming. Granted, loan growth slowed from 4.4% in 2001 to just over 1% in 2002, but the trend is still positive: that is to say, Dutch banks provided more new loans than were repaid by businesses. Moreover, banks – unlike institutional investors – are in solid financial health. Despite slowing profits and swelling provisions for increased credit risk, their solvency is robust, thanks, among other factors, to the fact that equities account for only a slim proportion of their balance sheets (around 3% at end-2002). No reason for any credit crunch, then: the slowdown in loan growth would appear to reflect tightened-up borrowing conditions and the drop in demand for corporate credit. With capital spending down and – thanks to balance-sheet restructuring – cash positions improved, businesses have less need for recourse to bank lending.

In today’s recession, bank borrowing would seem to be a more stable source of liquidity than any direct funding. This becomes painfully clear when capital market financing options run out and companies have to rely on borrowings from banks. Even large, multinational players currently find themselves in this situation, examples in the Netherlands being Ahold, Getronics and kpn. Such companies have displayed a sharply increased reliance on direct funding, particularly bonds (Chart 11), which has made them more vulnerable to adverse trends in the financial markets.

Ahold is a case in point. The stockmarket meltdown and the sudden downgrade of its credit rating have combined to severely weaken its financial position. Circumstances such as these present banks with a dilemma. If they pull the plug, the company might go down and any loans need writing off. Banks often end up as lenders of last resort in such cases, which is why they understandably – and quite desirably – do whatever it takes to protect their backs. Credit contracts typically specify restrictive provisions, with additional risks

Chart 10  Risk premium on corporate bonds, euro area
Percentages/percentage points, daily data

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>2003</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: msci.
1 Risk premium is defined as the difference between interest rate on aaa and bbb loans with 3-5 year maturities.
being offset by higher fees or collateral – instruments that allow banks to cushion the impact of worsening corporate health.

Macroeconomic impact

The trade-off between capital market trends and companies’ financial positions would increasingly appear to be affecting corporate health, particularly that of large, stockmarket-listed companies. Because of their increased reliance on capital markets, companies are compelled to make shock-wise adjustments to their balance sheets more than they have ever had to before – as demonstrated by the steep share price falls that have hit Dutch companies, unconnected to global stockmarket developments. As Chart 12 shows, it is not uncommon to see an increase in company crises two years after a peak in the business cycle. That said, the sheer number of company crises that have hit the country is rather unusual, particularly as the depth of the slump is similar to those of previous cycles (see ‘Just a normal cyclical downturn in the Netherlands?’, Quarterly Bulletin 2002). Compared with the large, multinational players, smaller unquoted companies would seem to be less affected. Granted, bankruptcy numbers have been shooting up, but in 2002 these were still around 10% below the figure for the early 1990s (Chart 9). If adjusted for the rise in the number of established businesses (as indicated by the bankruptcy rate), bankruptcies even lag this figure by 25%. This finding may suggest that financial market trends affect companies in different ways, depending on the type of funding they attract. As relatively big users of capital market funding, large listed companies are sensitive to instability in precisely those markets. Smaller companies, by contrast, rely on bank credit and thus benefit from the stable nature of this type of funding.

When corporate debts are running high, unstable conditions in the financial markets are bound to impact the larger economy, as businesses’ reduced financial flexibility impedes stockbuilding, capital spending and employment growth. Research carried out by the imf confirms that high corporate debt does indeed prolong and deepen a slump. Last year, it slowed down European capital spending growth by an estimated 2.5-3 percentage points – a precise mirror image of the upswing, when ample availability of external funding heightened investment expansion. Presumably, corporate debt is having a similarly significant downward effect on the Dutch economy, one indication being the relatively steep fall in spending on equipment and computers (down by a compound 10% in 2001-2002). Obviously, this has called for more sweeping balance-sheet adjustments than the recession of the early 1990s, when spending on equipment and computers came down nearly 3%. In those years, businesses were looking at greater excess capacity (in 1991-1992, capacity utili-
isation rates in industry were well below those in 2002) and higher interest rates. Given this, it is likely that other financial factors – such as steep corporate debts and the stockmarket meltdown – caused the sheer depth of the decline in investment. In fact, these high debt levels suggest the corporate adjustment process has yet to run its full course, protracting the economic downturn. In addition, any convincing recovery in capital spending requires an uptick in profit growth. Profits are projected to pick up modestly this year, but mainly on the back of cost savings and not so much because of growing turnover. Companies’ propensity to invest is being held back by the uncertain economic outlook and unfavourable financial markets. Not until these conditions improve will companies loosen their purse strings and use the liquidity they have held on to for new investment. The foundations of such a recovery are currently being laid by the balance-sheet restructuring process.

In conclusion

Dutch companies are paying the price of the balance-sheet imbalances created during the stockmarket boom, with historically high debts and a sharp decline in profitability combining to undermine the strength of the business sector. The Dutch financial system is feeling the pain: key sources of funding for high-risk investment have dried up as institutional investors have become less able to take risks. Financial market instability has squeezed the creditworthiness of large, listed companies in particular – ample available funding during the upswing saw them take on massive debts, which they are finding difficult to refinance in today’s troubled capital market conditions. In addition, corporate health is also being weakened by pension fund shortfalls. That said, companies’ deteriorating positions have not sparked a systemic crisis, primarily because the effects on banks have been limited. This is allowing banks to continue to play their traditional role as stable financiers and cushion the impact of direct corporate financing drying up, without taking irresponsible risks. The decline in financial flexibility and balance-sheet restructurings have acted as a brake on capital spending, slowing down the economic recovery. The shortage of high-risk funding is undermining the Dutch economy’s long-term growth potential, which relies on innovative investment to enhance productivity. All in all, the health of the business sector, the stability of the financial system and the growth of the economy are inextricably bound together.

Bibliography


imf World Economic Outlook (2003).


1 Interest cover is established by dividing the company’s operating profit by the net interest payable.
2 In the 1980-2003 period (up to and including the first quarter), price/earnings ratios averaged 13.7. At the end-of-1999 peak of the stockmarket boom, p/e ratios were as high as 32. Since then, they have come down to 13.2 in the January-March period of this year (Source: Thomson Financial).

3 A corporate crisis is defined as a 3%-plus drop in the CBIS price index in a single day, if no similar price falls are recorded by the S&P500 share index. By this measure, domestic conditions are adjusted for any worldwide stockmarket trends.
4 IMF, Notes to World Economic Outlook, April 2003.
Market discipline is a key element of a well-operating financial system. It contributes to a better allocation of capital within the economy, while reducing the costs of attracting equity. As a precondition for market discipline to operate smoothly, enterprises should offer investors and the public at large an adequate measure of transparency. To enforce the desired transparency, regulations are required. In addition, users should be convinced they can trust the information concerned. This calls for an independent supervisory institution. This article looks into the benefits of transparency within the context of the confidence crisis in the wake of the Enron affair. It will in particular focus on financial institutions, as well as discussing the role of transparency within the new Basel capital accord and the future distribution of responsibilities between the Autoriteit Financiële Markten (AFM), the Nederlandsche Bank and the Dutch Insurance Board (PVK) in assessing the external disclosures of financial institutions.
**Introduction: a crisis of confidence?**

Eighteen months ago, it transpired that Enron’s actual operating results deviated substantially from the results as reported by this company. The first response – one of shock and dismay – was soon dampened, though, by reassuring sounds. Enron was an exception, it was said, the kind of fraud that every now and again came to light, and, surely, we should not let our response run away with us. A couple of affairs later – Xerox and Worldcom topping the others in magnitude – it was brought home that Enron was not just a case on its own. There was something structurally wrong with the way in which quoted companies presented their results. Managers were rumoured to be manipulating the results to prop up their bonuses and the value of their share options. And auditors were said to turn a blind eye when doing their job, anxious not to lose lucrative consultancy commissions. Other control mechanisms, too, were asserted not to be functioning properly, such as the audit committees in the United States whose task it is, as part of boards of directors, to monitor reporting. But, as could be heard notably on this part of the ocean: this was a typically American problem. European remuneration structures, it was argued, did not encourage manipulation to the same extent as did their American counterparts and, more important, European reporting rules were better. While the Americans opted for an approach based on rules with precise instructions that promoted going to the limits of the permissible, in Europe the prevailing approach was principle-based, putting a true reflection of capital and results first. Banks improved their internal procedures and mechanisms ensuring segregation of duties (and sometimes discontinued specific activities altogether), informing their customers of these measures in an attempt to win back their confidence. A number of institutions decided to disclose buy and sell advice provided by their investment analysts. Transparency would seem to come out here as the absolute champion of medicines against injured confidence.

Obviously, policy-makers were not sitting around doing nothing. Notably in the United States, the entry into force of the Sarbanes-Oxley Act was a far-reaching measure, thought by some to be a bit brash. Measures were taken to protect the auditor’s independence and strengthen the audit committees’ position, while a Public Company Accounting Oversight Board was set up. Following the problems surrounding the initial candidate, Mr. McDonough, retiring president of the New York Federal Reserve and previous chairman of the Basel Committee, was eventually appointed chairman.

The Netherlands, too, is taking steps to introduce independent supervision of auditors and intensify supervision of annual reporting. For that matter, this policy stance is only partly the corollary of the crisis described above. It is expected that as of 2005 all quoted companies and financial institutions will be required to employ the International Accounting Standards/International Financial Reporting Standards (IFRS) in drawing up their consolidated annual accounts. This calls for supervision for the consistent application and
interpretation of these rules. Also from a microprudential angle, meaningful initiatives are being taken in the field of transparency. It is expected that financial institutions will be required to satisfy the requirements of the new Basel capital accord (Basel II) as of the end of 2006. In this accord, a prominent role is reserved for transparency as a means to promote market discipline. Here, too, supervision is indispensable for ensuring a consistent application of the, often complex, rules.

Transparency: its benefits and restrictions

Benefits of transparency

The Basel Committee defines transparency as the ‘public disclosure of reliable and timely information that enables users of that information to make an accurate assessment of the financial condition of an individual bank and banking systems as a whole.’ This definition, primarily aimed at banks, is confined to information that helps users form an opinion of the condition of these institutions. A comprehensive definition of transparency would be aimed at the economy as a whole and comprise all information that may help users in taking decisions. With transparency defined in these terms, the public disclosure of an abundance of data is not regarded as transparency, as the data lose their value for users. The value of transparency also becomes automatically clear: greater transparency leads to better decisions, a more efficient allocation of capital and lower capital costs (as investors demand a premium for uncertainty).

The foregoing implies that sound and well-managed banks have an interest in being transparent. Indeed, transparency reduces the costs of attracting funds, thus increasing the return. Also, shareholders will adjust their demand for return to the decreased uncertainty, which in turn will boost the price of the share in question. These benefits should automatically result in enhanced transparency. In order to realise the said benefits, healthy and well-managed banks should voluntarily proceed to disclose additional information. If the market mechanism operates properly, this policy will reward the more transparent institutions with lower return requirements for borrowed and own funds, and confront the more reticent institutions with a higher return requirement. Indeed, the market will assume that the less transparent institutions have something to hide or, in other words, are less sound and less well-managed than the open ones. This in turn compels a second cohort of institutions (the best among the stragglers) to strengthen transparency etc. Although a number of banks voluntarily disclose more information now than regulatorily required, clearly the above course of events has not materialised. Apparently, transparency is not without its restrictions.

Restrictions of transparency

Transparency is not only attended by benefits, but also by costs. Financial institutions will only strengthen transparency (on a voluntary basis) as long as the benefits (by way of a lower return demand on the part of investors) of additional transparency outweigh the costs. The costs of transparency are higher than may seem at first sight. Besides the costs of disclosure proper (and the corresponding verification of the data concerned and the risk of being brought to account for disclosing misleading information), there are costs involved by generating the data. If an institution does not use data internally, these costs will be considerable. From the fact that at sound and well-managed banks the information to be publicly disclosed is often available, we should not infer that every institution that is less well able to produce all information is managed poorly. For smaller institutions and institutions with a low risk profile the costs of collecting such information are not necessarily outweighed by the benefits. From this it follows that a uniform degree of transparency voluntarily observed by the entire financial sector is simply not feasible. Before public disclosure of specific data is made mandatory, it is moreover necessary to reflect on whether it is justified to oblige an institution to disclose data that it does not consider worthwhile generating for internal use.

Another cost component is constituted by the competitive disadvantages possibly entailed by transparency. Firstly, transparency may provide competitors with information about the markets on which the institution is active, about where the institution is vulnerable and what market segments are lucrative for the institution. In addition, transparency may compel the institution to disclose specific elements of its risk management and pricing systems and, in the process, surrender its edge on the competition. It may be clear that in such cases the costs of transparency are such that a financial institution is reluctant to proceed to voluntary public disclosure of data. Regulators wishing to enforce transparency in these circumstances will need to think twice whether the benefits of transparency outweigh the financial consequences for the institutions concerned.

In some cases, the institutions are even prohibited from making public disclosures. Some forms of transparency may undermine the trust relationship between banks and their customers, or be in violation of nation-
al privacy legislation. In such cases, disclosure of public information is not in order. In many jurisdictions, the legislator or supervisor moreover restricts financial institutions in disclosing specific data public lest transparency damage the financial stability.

The role of the information user
In the foregoing, it was concluded that users benefit by additional disclosure. The definition of transparency ignores the risk that users can no longer see the wood for the trees because of an overkill of data. This is an oversimplified representation of reality: the processing of information carries costs for the users, too. If these costs are too high, the users will pay no heed to the information. In that case, additional disclosure will neither help them to arrive at better-informed decisions nor lessen their uncertainty. As a result, the benefits of disclosure as outlined above will not be realised. Hence, enterprises will no longer have grounds for making additional disclosures. Consistent and comparable reporting may help keep the processing costs of the information users low. The chance of this consistency occurring spontaneously is minimal. Regulation by way of rules enforcing consistent reporting is necessary to minimise the costs of data processing by the users. On the other hand, this need is at odds with the earlier observed desirability of keeping the costs for the information suppliers to a minimum. Bringing about consistency, between institutions, of external (publicly disclosed) information may lead to a less than perfect match between external information and data intended for internal use and may, hence, raise the costs of providing information.

Another factor comes into play as well: users may overreact to information. If they fail to comprehend the information wholly, they may not only reward positive information too generously, but also penalise negative information too heavily, causing share prices to fall, and costs of borrowed funds to rise, to levels unwarranted by the information, or, in the worst case, causing a run on banks. This may induce enterprises in general, and financial institutions in particular, to observe less transparency than they would normally do, especially if not the entire market is transparent. These considerations are justifiable to a certain extent. If an institution is to resort to emergency support or if an institution is (silently) placed under legal restraint, transparency may lead to a self-fulfilling prophecy. Providing aid to the institution combined with public disclosure of that aid might cause this institution to go bankrupt instead of preventing this. This clearly shows there are limits to the benefits of transparency. It may even prove necessary to restrain sound institutions in their transparency policy in order to prevent negative information from becoming known indirectly.

In everyday practice, where institutions are hardly ever in a situation as critical as outlined above, more openness is the very policy by which to counteract contagion effects and abrupt (over)reactions by the market. Problems at an institution seldom or never prop up just out of the blue. Openness enables the market to respond to problems in time. Institutions will thus be compelled by the market to restructure the way they run their operations. If they do not pursue this course of action, they will find themselves faced with higher costs and, if the markets are functioning well, with the risk of a take-over. Indeed, by improving the condition and management of the institution, the acquiring party may reduce the return demand of their own capital providers, thus raising the profitability and value of the institution taken over.

Transparency also helps to prevent contagion effects by curbing the risk of the public assuming erroneously that the problems of one institution are also encountered at other institutions. This requires that users of information can rely on the transparency of the institutions and proceed from the assumption that the information disclosed in the event of problems, is reliable.

Standardisation of publicly disclosable data may also help contain overreactions of the market. Overreactions partially arise from a lack of insight on the part of the information users into the actual meaning of data and from the value they attach to reporting. Consistency makes users better aware of the nature of the data, thus reducing the chance of misguided interpretation. As noted above, as consistency will seldom or never be achieved by the market of its own account, standard-setting is necessary.

The inherent differences between parties that have left funds to the care of an institution are a relevant final factor. From a perspective of stability, transparency and market functioning, of these differences, the one between professional parties and consumers is especially relevant here. Compared to professional parties, consumers are less inclined to make an assessment of an institution’s condition, for example, by perusing an annual report. And if they do, they are almost by definition less capable of processing information than are professional parties. Besides, their interest is more modest. Not only will they deposit less money at an institution, and, hence, be less able to enforce discipline, but they will also have a limited interest in the
soundness of the institution, knowing that their savings are hedged by an implicit or explicit guarantee. The reason why this phenomenon makes it harder to achieve an optimal level of transparency is twofold. In the first place, part of the market fails to exert its disciplining effect. Secondly, that same part of the market undermines the disciplining action of other parties. Research shows that parties whose financial soundness is diminishing, increasingly make use of savings to fill their need for borrowed funds. In so doing, they circumvent the increased risk premium that professional counterparties require of them. Instruments like a deposit guarantee scheme, designed to protect consumers and limit the risk of a bank run, also restrict the market mechanism. They thus reduce the chance of an optimal transparency level being achieved without a supplementary regulation.

Lessons from the foregoing
The above shows that transparency may contribute to a more efficient allocation of capital within the economy and, thanks to disciplinary action and containment of contagion effects, a consolidation of the financial stability. Although a lot is already achievable without regulations, the market mechanism alone does not suffice to optimise transparency. The authorities should bring about a certain measure of consistency. This will help stem overreactions of the market arising from misinterpretation of data as well as reducing the costs for users of these data. At the same time, institutions should be left some freedom to keep their costs within bounds. In addition, it should be noted that it may not be fair to require the same measure of openness of every institution. The measure of openness desired partially depends on the size of the institution and the magnitude of its exposure. Furthermore, a transparency framework should be geared to professional parties, which are better able to process the information than consumers, besides having a stronger disciplining effect and a greater interest in fulfilling this role. Full transparency is not feasible because of the costs entailed, the statutory restrictions and the competitive disadvantages that institutions may experience from ‘over’-transparency. Furthermore, a transparency framework should be geared to professional parties, which are better able to process the information than consumers, besides having a stronger disciplining effect and a greater interest in fulfilling this role. Full transparency is not feasible because of the costs entailed, the statutory restrictions and the competitive disadvantages that institutions may experience from ‘over’-transparency. Furthermore, financial stability is better served by timely and frequent public disclosures as these enable the market to exert its disciplining action in time. Besides, it is of the essence that market parties, in the event of problems at one institution, do not lose their confidence in the information provided by the other institutions. The need for secrecy regarding specific data is unavoidable and should be observed consistently. Data manipulation can on no account be tolerated, as it will also undermine confidence in the data published by sound enterprises. Finally, supervision for compliance is no less important. This aspect will be explored below.

The above factors are important preconditions for optimal transparency. The following paragraph sets out how these preconditions are reflected in the transparency requirements to be imposed on banks by the new capital accord. To clarify in what context this will be realised, first the role of market discipline is outlined along with its significance for the banking system’s solvency under the current capital accord. Furthermore, the practical aspects of the implementation of supervision on reporting in the Netherlands are discussed.

Market discipline and the Basel capital accord

The 1988 accord
In 1988, the G10 central banks and banking supervisors signed the Basel capital accord. With this accord, the Basel Committee sought to achieve a worldwide standard for banking solvency, thus strengthening the stability of the banking sector without disturbing the competitive relations between institutions (if a single country were to impose higher solvency requirements, it would bring its banking sector in a disadvantageous position vis-à-vis countries with a more lenient supervisory regime). One important element of the Basel capital accord is the b15 ratio (so named after the Bank of International Settlements in Basel, which also accommodates the Basel Committee’s secretariat). The b15 ratio is a (rough) measure of an institution’s solvency. The Basel accord stipulates that this ratio should at least be 8%, which for banks roughly amounts to an obligation to hold 8 euro cents as capital for each euro they lend and a permission to finance no more than 92 euro cents with (cheaper) borrowed funds. If the b15 ratio drops below 8%, a bank and its supervisory authority must take measures.

Since the implementation of the Basel accord, the banking system’s solvency (expressed in terms of b15 ratio) has substantially improved. Besides, institutions nearing the critical limit of 8% or even dropping through that bottom nowadays require less time to restore their solvency to the desired level than they used to. Financial stability is served by this development. However, it is not only the supervisory authorities to whom this effect is owed. On the contrary, the number of cases in which the b15 ratio is so low that the super-
visor’s intervention is required, is negligible. It seems as if the capital accord has had a much stronger disciplining effect along a different course. The bis ratio is a worldwide standard that enables comparing banks’ solvency ratios. Despite its being a rough measure, the bis ratio has made professional parties better equipped to exercise their disciplining action. Rating agencies and other market parties factor in the bis ratio when making an assessment of institutions. This compels banks to observe a higher solvency lest they be confronted with a poorer rating and higher costs of borrowed funds. The bis ratio makes it easier for bank managers to explain that retained earnings or other methods of strengthening their financial position are also in the interest of the shareholders. Consequently, on balance, we see that for most banking systems in the western world, the bis ratio exceeds 10% (amply over the 8% minimum laid down in the accord). This should largely be attributed to the transparency facilitated by the accord and to the market discipline having improved as a consequence.

**Basel ii**

Given the above, it will not be surprising that market discipline has been labelled as one of the three pillars of the revised capital accord (often referred to as Basel ii). In the first pillar of the accord the rules for calculating the bis ratio are laid down. The second pillar deals with risk assessment by the supervisory authority. The third pillar (worked out by the Basel Committee under the chairmanship of Mr. Brockmeijer, Deputy Executive Director at the Nederlandsche Bank) aims to strengthen transparency by obliging financial institutions to disclose relevant information about their risk profile – the capital held and the risk management systems put in place to compensate for this exposure. These measures should further strengthen market discipline’s role in keeping banks solvent. In working out this pillar, the Basel Committee has sought to take account of the conditions for optimal transparency as identified in the previous paragraph.

In part, the implementation of the third pillar automatically arises from the approach chosen in the first pillar. The capital accord from 1988 provides for only one method of calculating the bis ratio. The new accord offers three. Depending on its sophistication, an institution may choose between a standardised ratio (which largely agrees with the ratio from the old accord) and two more risk-sensitive calculation methods, both employing the internal models approved by the supervisory authority. To be able to assess the bis ratio, the market must know how it has been calculated. This renders additional disclosure necessary. Furthermore, the internal models used for the more sophisticated methods offer some leeway. To discourage manipulation, an institution following the model-based approach is required to disclose data on the models used as well as on the parameters underlying the bis ratio. This not only provides banks with a motive to refrain from manipulating data for the sake of protecting their own reputation, but also offers the market a more detailed insight into the institution’s exposure. In conformity with the aforesaid conditions, the new accord seeks to strike a balance between imposing detailed disclosure criteria, on the one hand, and flexibility (for maximum consistency with the internal systems), on the other hand.

Finally, in formulating the rules for transparency, much attention has been paid to conformance with the international reporting rules in order to avoid institutions having to disclose the same data twice over or being confronted with different definitions and the concomitant extra effort.

**The resulting approach**

The approach chosen in Basel ii is largely in line with the conclusions arrived at in the previous paragraph. It starts with a framework that promotes comparability of data, thus reducing the costs of information for users, while at the same time seeking to correspond with banks’ internal systems. In addition, it enforces consistency of the data earmarked for public disclosure. This promotes a more accurate interpretation of these data by the users and, consequently, minimises the risk of overreaction by the market. Moreover, it does justice to the differences between institutions. Some data only need to be disclosed if banks opt for calculating the bis ratio on the basis of internal models. Banks that have no such internal models at their disposal (usually, the smaller, less complex institutions) need not go to the expense of disclosing data they do not consider useful for internal use. The balance between an institution’s interest and risk profile, on the one hand, and requirements as to transparency, on the other, is strengthened further as the supervisory authority may set different reporting frequencies for different banks. After all, the reporting requirements regarding the internal model approach are mainly aimed at professional market parties. Finally, especially at times when the soundness of some individual institutions is dubious, it is vital for the sector’s reputation that confidence in the public disclosures of healthy institutions be preserved. This not only requires sound auditing of the figures, but also,
The future

To enhance transparency, the implementation (probably as of end-2006) of Basel II will entail the introduction of a reporting framework that banks will be required to observe on top of the reporting requirements of the ordinary rules for external reporting. Given the social relevance of the financial sector, the great importance of confidence for this sector, and the risk of contagion, these extra demands are justified. In addition, it may be argued that the nature of the industry renders additional demands necessary. While constituting the core of the banking business, risk has of old been hedged by external disclosure to a limited extent only. The additional transparency requirements set by Basel II fill this void by subjecting banks to a reporting regime that is highly microprudentially oriented, besides a reporting regime that is based on a more traditional pattern (but will be considerably modernised with the implementation of IFRS). The new reporting policy will pose a challenge to all parties involved. Not only the institutions themselves will be having to get used to the new requirements, also the auditors will be needing to deepen their knowledge and gear their audit approach to the new issues. In addition, questions are raised with regard to the distribution of tasks among the supervisory authorities. Indeed, the AFM is entrusted with conduct-of-business supervision and, hence, with the supervision of reporting by quoted companies, while the Bank and the PVK are responsible for the prudential supervision of financial institutions. These two types of supervision overlap where reporting by financial institutions is concerned.

Before discussing the distribution of tasks between the supervisory authorities involved, it may be useful to formulate a number of principles. Firstly, supervisory overlaps should be avoided as much as possible. Secondly, the Bank is responsible for prudential supervision. As argued above, it is important that information is at all times adequate and trusted by its users, for one, because it helps avoid that problems at one individual institution lead to doubts about the soundness of other institutions. Thirdly, possessing the relevant expertise is vital when assessing an institution’s external disclosures. For the Basel transparency requirements in particular, but also for a number of requirements regarding ‘ordinary reporting’ – such as the valuation of complex financial products and loans and the treatment of hedges – it holds that the issues at play here belong to the domain of microprudential supervision rather than that of reporting.

The above considerations have resulted in AFM, PVK and the Bank agreeing, in consultation with the Ministry of Finance, that the Bank and PVK have an important role in the supervision of financial institutions’ external disclosures. To this end, AFM, PVK and the Bank have set up a cooperation team to work this out further. The fact that the prudential supervisors will be involved in the supervision of external reporting is a meaningful contribution to the preservation of confidence in published data. The Bank already possesses the know-how and expertise required for a well-informed judgment of the Basel transparency requirements and the bank-specific criteria for external reporting. Through the chairmanship (Dr. Schilder, Executive Director at the Nederlandsche Bank) of the Accounting Task Force of the Basel Committee, the Bank has been closely involved in the realisation of these rules.

It has been agreed that the Bank’s supervisory activities will primarily focus on compliance with the Basel rules and such accounting standards as are mainly designed for the financial sector and, consequently, contain a clearly prudential component. In practice, however, situations will no doubt occur regarding which it is not clear beforehand which of the supervisory authorities is responsible. To avoid overlaps between supervisory activities, more precise definitions are being elaborated. In the course of the year, the cooperation team referred to above will perform several dry runs during which a number of annual accounts will be assessed. On the basis of this exercise, the mutual agreements will be fine-tuned further.

Within the Bank, supervision of reporting will be segregated from prudential supervision. The way in which information about prudential supervision may be used for assessing annual reports will be decided on at a later stage. The procedure to be chosen will probably be one by which, in conformity with agreements previously concluded with the institutions, prudential supervision officers will provide information to officers entrusted with the supervision of financial reporting. Finally, it will have to be decided how the Bank will report to AFM about the outcome of its examinations. Before the new regime becomes operational, these agreements will be laid down in a covenant between the
Bank and other financial institutions.

1 The measures taken in this connection were already discussed in the previous Quarterly Bulletin.
4 This observation applies to the entire financial sector. Therefore, it is not surprising that the Basel three-pillar framework has been adopted for the revision of the European rules for solvency supervision of insurers, Solvency II, and that in the future, transparency will gain in importance in that sector too.
Ratings play a prominent part in the capital market. They enable investors to assess and compare credit risks inherent in debt instruments issued by different parties. As a result of the current trend towards disintermediation, where bank borrowing is replaced by capital market financing, a broader public has begun to use ratings. But as the use of ratings is so widespread, while the number of internationally operating rating agencies is very limited, changes in ratings may lever sharp movements in the financial markets.

The importance of ratings and the role of the rating agencies was clearly demonstrated in the past year. The deteriorating economic climate and structural weaknesses in the financial reporting of large enterprises made ‘downgrades’ (i.e. downward adjustments of ratings) a daily phenomenon.\(^1\) Added to this, the development of various new and complex financial products has further boosted the importance of rating agencies. The European System of Central Banks (ESCB) also uses ratings in selecting assets eligible for use as collateral in monetary policy operations. The reviewed Basel Capital Accord (‘Basel II’) might well add further importance to the role played by ratings.

At the same time, however, there has been criticism about rating agencies’ predictive powers and the level of competition in the ratings market. The supervisor in the US, the Securities Exchange Commission (SEC) has therefore begun an inquiry, while various international fora are also considering the role of the rating agencies. In early 2003, the Nederlandsche Bank has discussed the functioning of the rating agencies with ten Dutch parties active in the financial markets (financial institutions, non-financial corporations and large institutional investors). This article describes several topical themes, related to the role of the rating agencies in the financial markets, based partly on the outcome of these discussions.
Introduction

Ratings play an important part in the mechanics of the capital market. They may be regarded as quality labels expressing the creditworthiness of a financial institution, enterprise or government in letters. The higher the rating, the greater the perceived likelihood is that debt servicing obligations will be met in time. For an issuer to be allowed to access the capital market, it usually needs to obtain a rating. Ratings enable investors to assess and compare credit risks inherent in debt instruments issued by various parties. The best-known three entities determining and publishing such ratings are the rating agencies Standard & Poor’s, Moody’s and Fitch. Ratings are conferred in the form of letter combinations, starting with a top rating of aaa to the bottom rating category, c (Table 1). Although the letter codes used by the different rating agencies do not correspond exactly, they are nearly identical, so that roughly the same significance may be attached to each agency’s ratings.

Agencies’ mode of operation

Ratings are determined for debt instruments issued by financial institutions, enterprises and governments. This section describes the approach used in determining a rating for a private enterprise, which involves close monitoring of the development of an enterprise’s creditworthiness by a standing team of analysts. These analysts, often specialising in a single corporate sector, compose their rating on the basis of both public and confidential information. Such confidential information is gathered through visits which analysts pay once or twice a year to the company in question, to be informed on corporate strategy, the financial situation and the management. During the rest of the year, the analysts are kept informed by ‘their’ companies of current developments. After a company has thus been vetted, the rating proposed by the analysts is discussed and finalised by a rating committee. If the rating committee is of the opinion that the company’s creditworthiness has changed, its rating may be adjusted. In such cases, the rating committee will usually place the company concerned on a so-called ‘watch list’, with a notice of an expected rating ‘upgrade’ (positive outlook) or ‘downgrade’ (negative outlook). The rating committee will decide on the basis of further analysis, whether or not the adjustment is to be finalised. The company concerned is informed in advance of a change in outlook or a rating adjustment.

In assessing a company, rating agencies take account of its profitability, its solvency, the sector it operates in, its strategy and its management. All these factors are

Table 1 Overview of Moody’s and Standard & Poor’s long-term ratings

<table>
<thead>
<tr>
<th>Moody’s</th>
<th>Standard &amp; Poor’s</th>
</tr>
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<tbody>
<tr>
<td>aaa: best quality</td>
<td>aaa: extremely strong capacity to meet obligations</td>
</tr>
<tr>
<td>aa: high quality</td>
<td>aa: very strong capacity</td>
</tr>
<tr>
<td>a: upper medium grade</td>
<td>a: strong capacity</td>
</tr>
<tr>
<td>ba: medium grade</td>
<td>bbb: adequate capacity</td>
</tr>
<tr>
<td>ba: has speculative elements</td>
<td>bb: major uncertainties could lead to inadequate capacity to meet obligations, less vulnerable to non-payment</td>
</tr>
<tr>
<td>b: generally lack characteristics of desirable investment</td>
<td>b: adverse business conditions will likely impair capacity to meet obligations, more vulnerable to non-payment</td>
</tr>
<tr>
<td>caa: poor standing, may be in default</td>
<td>ccc: dependent upon favourable business, financial and economic conditions to meet obligations, currently vulnerable to non-payment,</td>
</tr>
<tr>
<td>ca: speculative in a high degree, often in default</td>
<td>cc: currently highly vulnerable to non-payment</td>
</tr>
<tr>
<td>c: lowest grade, extremely poor prospects</td>
<td>c: currently highly vulnerable to non-payment, situation of bankruptcy</td>
</tr>
</tbody>
</table>

then fed into a model which agencies use to estimate the probability of a payment default. According to the agencies, ratings reflect a long-term vision of credit risk and should therefore remain stable throughout the business cycle. Yet a proportionally large number of downgrades over the past two years might lead to the suspicion that the rating agencies have changed their approach, increasing their ratings’ sensitivity to cyclical movements. The rating agencies themselves have recently revealed, although in veiled terms, that details of their approach have changed. The parties interviewed confirmed a change in mode of operation by the agencies since the collapse of the US company Enron in 2001. The rating agencies, they intimated, have become more critical and are paying closer attention than before to especially companies’ liquidity position and the expected cashflows. In order to enable themselves to be more critical in their questionings and thereby to fill up their knowledge gaps, Moody’s and Standard & Poor’s have begun to hire auditors and derivatives specialists. Also, many of the interviewed financial market parties have noticed the agencies are demanding closer contacts. These parties were in agreement that in the uncertainty of the current climate, the rating agencies have become more nervous and have developed a tendency towards downgrading. This so-called ‘downward bias’, supposed to have been nourished by image problems which the agencies have had since the 1997 Asia crisis and the collapse of Enron, has drawn negative responses, particularly because of the ‘lemming behaviour’ agencies were perceived to have shown. Usually, when a bank or enterprise sees its rating downgraded by one of the agencies, it is never long before the next agency downgrades its rating also. The majority of interviewees further complained that companies are finding it difficult these days to obtain or hold on to a rating above the sector standard. Under the current difficult economic circumstances, sector analyses have the upper hand. Not until the economic outlook brightens will rating agencies turn their eyes to the achievements of individual enterprises.

Rating agencies’ independence

The international ratings industry is highly concentrated, with only three big international players, Standard & Poor’s, Moody’s and Fitch operating in a de facto oligopoly. Many years ago, the big three were endorsed by the US SEC when they received the status of ‘Nationally Recognised Statistical Rating Organisation’, or NRSRO. The bulk of these three agencies’ income is made up of fees paid by issuing parties in order to obtain a rating. Another, far lesser flow of funds comes in from investors who pay for risk management-related research and services. Moody’s 2002 annual report revealed that 83% of total income was made up of rating-related income. Risk management-related research and services accounted for 9% to 10% of income.

An arrangement under which the party assessed by the rating agencies is paying for its own assessment creates the impression of conflicting interests. An alternative way of footing the bill does not readily suggest itself, however. Investors will, of course, try to use the public ratings without paying for the service (the ‘free rider’ problem). In the opinion of interviewed issuers, the rating agencies operate independently of the parties they assess, despite the fact that these parties are paying for the assessments themselves. For one, an agency is paid only relatively minor sums by the individual parties they assess: between EUR 50,000 and EUR 100,000 for frequent issuers. Moreover, according to responding issuers, there are no incentives towards fraud, because by favouring an individual party through a rating upgrade, an agency may cause severe damage to its own reputation and thereby ruin its entire market. In addition, fees are negotiated, according to issuers, with different parties within the agencies – although fees seem to be subject to stiff annual increases, which in this oligopolistic market, issuers cannot do much to prevent. Finally, issuers claim that their power to influence an imminent downward adjustment of an ‘outlook’ or rating is very limited, as is their influence on the wording of the accompanying press release.

Investors who were interviewed tended to show less favourable opinions of the agencies’ independence, because they were concerned that the current fee-based system may cause conflicts of interests. Most interviewees think the agencies operate independently of one another as far as contacts of the exchange of information is concerned. Yet many parties are under the impression that the rating agencies do follow each others assessments: ‘split ratings’, or rating differences between agencies, are very rare indeed. Although issuing parties do not doubt the rating agencies independence, their own dependency on the agencies is unquestionable: issuing parties need a rating for every issue they carry out, because investors demand such an independent assessment. If no rating is allocated, investors, finding it difficult to estimate the issuer’s credit risk, will be reluctant to purchase the debt instrument, unless at a reduced price. This raises the question of whether the open capital market as a whole
would be able to function without ratings. Investors are looking for an independent assessment, which is currently provided by the agencies. According to financial market parties, there is no simple answer to the question what alternative independent assessment might replace agencies’ ratings.

The quality of analysts and the transparency of rating techniques

With the renewed focus on rating agencies, much has been said and written in recent times about the transparency and quality of the ratings they confer. The agencies use sophisticated models to help them determine, on the basis of a variety of characteristics, whether an enterprise or a bank will be able to meet its obligations in time. For the individual investor, these models are difficult to understand. Moreover, the models are unable to take account of all the factors that determine the vicissitudes of an enterprise. Fixing a rating, finally, also involves a degree of subjective perception by the agency’s analyst, for instance with respect to a company’s management. Transparency regarding the models used would of course contribute to a better understanding. Yet given the degree of subjectivity involved in the assessment, a transparent ‘flow chart’ rating method would seem an impossibility: rating a company can never be a mechanical process. In the opinion of interviewees, enhanced transparency about the techniques and model on the part of the agencies would be more than welcome. Many now regard the models as ‘black boxes’. Parties’ opinions about the transparency of individual rating agencies tend to diverge rather widely. In addition to more clarity on the models used, interviewees would like to know more about what goes on within the rating committees making the final decisions on outlooks and ratings.

Except for the issue of transparency (or the lack of it) one may ask whether the ratings’ quality has suffered from the increase in the number of ratings conferred. Currently, a relatively small number of staff rate hundreds of companies and governments which are supposed to be monitored intensively and visited once or twice every year. The question rises whether it is even possible to follow every entity with the degree of intensity required to arrive at a proper rating. As a rule, interviewees were highly satisfied with the quality of the analysts and the specific knowledge they had about the company. Some concerns remained, however, with respect to the assessment of institutions combining banking and insurance activities. The agencies use separate units for rating the banking and the insurance parts of these conglomerates. The co-operation between such units appears to leave something to be desired in terms of effectiveness, in part because the units do not work in the same physical location. Criticism was also voiced about the units’ limited knowledge of the European insurance industry. Perhaps, the Anglo-Saxon background of the rating agencies may have a role to play here.

The rating market for ‘structured finance’

The rating market for structured finance, according to financial market parties, may be regarded as a separate line of business within the rating agencies, employing highly competent specialists. Debt instruments in the structured finance market are usually referred to by the term asset-backed securities, or abs. abs are debt instruments secured by the cashflows of a lending portfolio (such as credit card receivables, car loans or housing mortgages). Such debt instruments are issued by a trust or special purpose vehicle (spv) which uses the cash inflows from the underlying lending portfolio to cover its cash outflows. The loans are acquired by the trust from a bank or other financial institution. abs are usually broken down in what are called tranches carrying different payment priorities. As a result, the different tranches will have different credit qualities and hence different ratings.

Structured finance is a fast-growing sector within the rating agencies and accounts for an increasingly important part of the agencies’ income. According to provisional 2002 data, structured finance ratings accounted for 37% of Moody’s total income and for 45% of its rating-related income. According to interviewees, structured finance is popular among rating agencies’ analysts because of the high salaries that are being paid. Although the knowledge on traditional ratings serves as a basis for the rating of a structured finance product, determining abs tranche ratings requires an entirely different technique. The reason is that structured finance products have a number of specific characteristics, such as an underlying portfolio consisting of more or less risky, homo- or heterogeneous debt instruments, a breakdown in tranches carrying different payment priorities, and the relative complexity of the trust company structure. The technique for determining structured finance ratings is strongly model-driven, which implies that the outcome depends largely on the assumptions fed into the model, such as the likelihood
of default applying to individual debt instruments in the underlying portfolio and the diversity of that portfolio (number of corporate sectors and business lines).

The impact of a change in rating

Ratings are never stable and may change as the creditworthiness of an enterprise changes. A change in rating may have far-reaching implications, whose nature is dependent on the nature of the corporate sector in which the enterprise operates and dependent on the rating’s level. Being downgraded from A to a level has less far-reaching implications than a downgrade from BBB to BB, because a BBB rating (also called ‘investment grade’) is considered by many institutional investors to be the minimum rating for assets to be eligible as investments. For this reason, most market parties aim explicitly for certain rating levels.

A direct overall implication of a downgrade is that it increases the cost of debt financing. Reduced creditworthiness implies increased risk for bondholders, who will therefore demand a higher interest rate. Many enterprises will also see the interest rate on their bank credit line go up when their rating goes down. Yet the reduced cost of funding resulting from a higher rating does not automatically imply that all parties aim for the maximum rating. The downside of a maximum rating is an increased capital requirement, whose funding costs are relatively high.

In addition to the increased cost of debt financing, a low rating may also reduce funding potential. Many institutional investors, as has been explained above, are not allowed to purchase debt instruments carrying a rating below BBB; some even have to sell bonds after they fall below BBB rating. If this happens, the issuer is drawn into a vicious circle with the value of its bonds going down and its interest spending going up.

An important setback for financial institutions suffering a rating downgrade is reduced turnover in derivatives trading. A prime rating is an essential element in the selection of a counterparty for derivatives contracts. For a non-financial corporation, a downgrade impacts not only funding conditions but also its capability to secure big commercial contracts. An enterprise’s financial position and its implications for the firm’s continuity are a major consideration when it comes to entering into long-standing commercial relationships. Insurers may feel the impact of a downgrade in the size of their policyholder base. Policyholders of a downgraded insurer may decide to take their business elsewhere.

The implications of rating up- or downgrades are closely monitored by financial market parties. Some issuers interviewed have had specific researches made into the costs involved in a downgrade. Also, in the case of momentous decisions, as on a prospective merger, many parties take the expected effect on ratings into account. Rating agencies are regularly asked to inform parties of the implications which a planned merger or disposal of a business segment is to have for the relevant ratings. In some cases, a merger or the disposal of business segments has been cancelled on the basis of the rating agencies’ response.

Contract clauses providing for the transition to a different regime of conditions on a change in an enterprise’s rating are usually referred to in the market by the term ‘rating triggers’. When a downgrade occurs, a rating trigger may cause interest payments on bonds or bank credit lines to increase; it may empower an investor or bank to demand extra collateral; or it may cause loans to become reclaimable without notice. In the past, rating triggers used to be a popular instrument for fostering confidence among investors and restricting the cost of finance. The large-scale use of such provisions understandably carries a systemic risk, because enterprises may be drawn into a liquidity crisis as a result of changed ratings. The interviews did not reveal evidence that rating triggers were used on a large scale by the interviewees. Both Standard & Poor’s and Moody’s expressed their concerns last year about the use of rating triggers and the lack of transparency surrounding them. In their rating assessments, the agencies take account of the fact that an enterprise or financial institution uses rating triggers in its contracts. Researches by Moody’s and Standard & Poor’s show that large-scale liquidity problems resulting from rating triggers are not expected in the short term.

Should rating agencies be supervised?

The rating agencies have gradually become part and parcel of the financial marketplace. Ratings provide an opportunity for investors to estimate and compare credit risks, reflected by the greatly increased use of traditional ratings for debt instruments issued by governments, financial institutions and enterprises. Rating agencies also play an important part in the development of a variety of new, complex financial products, particularly in the field of structured finance. As more and more investors invest in structured products, they are in need of the opinion of an independent third par-
ty (the rating agencies) about the risk they enter into. The ECB also uses ratings in selecting assets eligible as collateral in monetary policy operations. Basel II, the reviewed Basel Capital Accord, is to add even more importance to the role played by the rating agencies. Under the proposed new Accord, new calculation methods will be used to determine solvency requirements applying to credit risks. One of the new methods is the standard approach, under which banks may use external ratings by approved rating agencies. The implied recognition by the financial supervisor will further enlarge the role of rating agencies in the financial system.

The increased significance of ratings, in combination with the limited competition in the rating market, raises the question whether external supervision on the rating agencies is needed. Given the vulnerabilities described above, one might conclude that it is. The supervisory effort would have to be directed at the quality of the rating process (not at the outcome of that process) together with regulations on transparency and reporting. However, these developments should never lead to a situation where the users of ratings stop making their own credit risk analyses. The interviewees’ response to the question about supervision was not unequivocal. Some parties favoured some form of supervision of the rating determination process. Others appeared more reluctant, partly because of the subjectivity involved in the rating process. The latter interviewees wished to restrict the growing influence of the rating agencies in the private sector by encouraging greater competition. One idea under consideration was to have issuance managers develop their own ratings for the debt instruments to be issued. However, under the current difficult investment climate and given the debate on the independence of merchant banks’ analysts, this idea is unlikely to find much response. Another possibility suggested as a competitor for external ratings is the further development of bank’s own internal risk models. However, this effort may well prove too costly for the smaller banks.

Summary and conclusions

Financial market parties use ratings for various purposes: for issuers they may be a means to gain access to the capital market, while for investors they may be used as an opinion on the risk involved in complex financial constructs. There is no doubt that ratings have become a household phenomenon and that rating agencies have become part and parcel of the financial system. The prominent role of the agencies has, however, also aroused criticism of the way they function in that system.

It is debatable whether the limited level of competence in the ratings market prevents adequate credit assessments from being made. The interviewees were under the impression that the rating agencies copied each other’s ratings in order to avoid loss of face. Also, there proved to be a strong demand for greater transparency of methods and techniques used in rating companies. Investors were specifically concerned about whether the rating agencies are able to function independently from the parties they rate, since the agencies depend on these parties for part of their income. Issuing parties, however, despite their satisfaction with the analysts’ quality and independence, were unhappy with what they termed the ‘downward bias’ of the rating agencies and the current dominance of sector analyses over individual analyses. Issuing parties, moreover, are strongly dependent on the rating agencies’ judgement.

The increasing significance of ratings, together with limited competition in the rating market and a lack of transparency regarding methods and techniques, raises the question whether external supervision of the rating agencies is needed. The perceived vulnerabilities seems to suggest that it is. The supervisory effort would have to be directed at the quality of the rating process (not at the outcome of that process) together with regulations on transparency and reporting. Interviewees’ responses to the question about supervision were not unequivocal. Some parties went so far as to favour some form of supervision of the rating process itself, while others expected few benefits from supervision, pinning their hopes on other channels able to break into the ratings market, as through the development by banks of internal risk models.

Literature
Bakker, A.F.P. (2003), Wie houdt toezicht op de kredietbeoordelaars? (‘Who supervises the credit rating agencies?’), Fiducie, Monthly publication by the Business Finance Students’ Association fsa, special issue nr. 2.
Jonker, N. (2002), Credit ratings of the banking sector, De Nederlandsche Bank, Research Memorandum nr. W 0714


1 See also the article entitled ‘Corporate sector’s financial position under pressure: causes and consequences’ elsewhere in this Quarterly Bulletin.
The year 2003 got off to a troubled start characterised by a global decline in asset prices, unrest in the Middle East and the invasion of the United States into Iraq. These events further dented consumer and producer confidence, which had already been weak at the beginning of the year. In the last quarter of the previous year and the first quarter of this year, Dutch GDP volume underwent quarter-on-quarter contraction of 0.2% and 0.3% respectively. This means that the Netherlands is in recession. Given that the last two quarters of 2001 also showed slightly negative growth rates, the double dip is a fact. In the light of these recent macroeconomic developments, economic growth is expected to sink to below zero (-0.4%). The contraction is the combined effect of the strong decline in business investments, low export growth and a relatively high increase in imports. Private consumption is only growing at a moderate pace, partly because the moderate development of house prices is leaving less room to use home equity for consumption purposes. The steep rise in unemployment in the coming two years will keep a lid on wages. Together with the sharp fall in import prices, this will cause inflation to slow to an estimated 2.4% this year, 1.6% in 2004 and 1.3% in 2005. Alongside these issues, this article also devotes attention to three uncertainty scenarios. The first two scenarios look at uncertainties in the global sphere, namely a faster-than-expected recovery of world trade growth and a further depreciation of the dollar. The third puts the Dutch housing market under the microscope. The estimates and scenario results were obtained with the aid of MORKMON, the Nederlandsche Bank’s macroeconometric model for the Netherlands.
Introduction

Every six months a forecast for the Dutch economy is published on the basis of computations made with MORKMÖN, the Nederlandsche Bank’s macroeconomic structural model. This article presents the estimates for the Dutch economy for the 2003-2005 period. The realised figures for the first quarter of 2003 are taken into account in this forecast.

Compared to six months ago, the economic outlook for the coming years has been revised downwards. The estimate for GDP volume growth, for instance, has been reduced by more than one percentage point for both 2003 and 2004 to -0.4% and 0.8% respectively. For the first time in years, the Dutch economy’s actual growth in 2002 and forecast growth for 2003 are lower than for Germany. At the root of the problem lies the depressed state of the global economy, which is the direct result of the tensions surrounding the war in Iraq, including the related oil price hike, and the prolonged stock market crash in the past years. Falling share prices and stabilising house prices are putting a brake on private consumption, thus depriving the Dutch economy of this internal spending impulse. In the fourth quarter of consumption, thus confirming the the recent Broad Macroeconomic Projection Exercise (Bmpe)1. In conformity with the arrangements within the ESCB, the assumptions contain no specific interest or exchange rate outlook. The projections assume that exchange rates remain constant at the level prevailing at the time of projecting (22 May 2003). Throughout the projection period, the key policy interest rate lies at the historically low level of 2.5%. The long-term interest rate is based on the technical assumption that this will edge up from 4.0% in 2003 to 4.1% in 2005.

Economic growth in the largest western economies is steadily starting to pick up in 2003 (table 1). By and large, GDP volume growth in 2003 is expected to be 1.5 times greater than in 2003. Growth in the US will start slightly earlier and also be somewhat stronger than elsewhere, thus confirming the US in its role as the engine of the global economy. The world trade relevant to the Netherlands grew by a meagre 0.2% in 2002, but will accelerate to 3.3% in 2003 and then double in the space of two years to 6.8% in 2005. By mid-2004 the growth rate will already be around the average of the past decades (roughly 6%). All in all, therefore, the global economic climate is expected to gradually brighten up and an open economy like the Netherlands can reap the benefits from such an upturn.

The oil price outlook has been slightly adjusted compared to the previous projections. The estimate for the consumer price index (CPI) remains unchanged at 2.4% for 2003, before breaking through the 2% border to 1.6% and 1.3% in 2004 and 2005 respectively. The principal contributing factors are the strong advance of the euro – leading to lower import prices – and the more moderate wage increases than in previous years. Wage moderation is taking place against a backdrop of sharply rising unemployment, with the jobless rate set to grow by about 100,000 people both in 2003 and 2004.

This article first deals with the assumptions underlying the projections and then explains in greater detail the economic outlook resulting from the projections. Finally three uncertainty scenarios are presented. These analyse the effects of a stronger-than-expected resurgence of global trade, a further depreciation of the US dollar and a decline in house prices in the Netherlands.

Assumptions for 2003-2005

In view of its open character, the Dutch economy is highly susceptible to foreign developments. The most important external influences are described below. These are based on the assumptions applied within the European System of Central Banks (ESCB) in the context of the recent Broad Macroeconomic Projection Exercise (Bmpe). The projections assume that exchange rates remain constant at the level prevailing at the time of projecting (22 May 2003). Throughout the projection period, the key policy interest rate lies at the historically low level of 2.5%. The long-term interest rate is based on the technical assumption that this will edge up from 4.0% in 2003 to 4.1% in 2005.

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The oil price projections are based on futures prices. These are showing a slightly downward trend, with stabilisation likely at USD 23 per barrel. The current status quo in the Middle East is expected to help stabilise the oil price. The euro’s strong appreciation of 23% from USD 0.94 in 2003 to USD 1.16 in 2004 is pushing oil prices even lower in euro terms for European consumers and producers. USD-denominated commodities prices excluding energy fell almost 4% in 2002 and a similar decline is foreseen for 2003. As the world economy continues to recover in 2003 and 2004, however, commodities prices will start to move higher again, thus cancelling out the drop in the past two years.

Rising commodities prices in 2004 and 2005 will drive up the price level of total goods imports, though this effect will be dampened by the spillover effect from the stronger euro. The appreciation of the European currency will cause both the import price level and the

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1. Bmpe

2. ESCB

3. USD

4. CPI

5. GDP

6. US dollar

7. House prices

8. Netherlands

9. Euro zone
export price level of Dutch competitors (both calculated in euros) to decline in 2003.

Domestic assumptions mainly relate to the budgetary policy and other public sector aspects. The projection incorporates the policy agreements of the recently formed government under Prime Minister Balkenende (‘Balkenende ii’) and its implications for the projection period. These implications are outlined in the Outline Accord entitled ‘Meedoen, Meer Werk, Minder regels’ (More Participation, More Work, Less Regulation) of the Christian-Democrat, Liberal and Democrat parties forming the coalition. The package of measures seeks to promote employment and structural economic growth while achieving a substantial reduction in the emu deficit. The Stability and Growth Pact stipulates that the budget deficit must not exceed the maximum of 3.0% of GDP. To this end, the Outline Accord spells out a coherent package of measures, including policy adjustments and expenditure increases as well as a set of tax and premium alterations. The main emphasis is on the adjustments relevant to the financial balance. Rising to a cumulative €18 billion in 2007, these consist mainly of savings on social benefits and salaries in the public and healthcare sector. As a matter of policy, public sector wages – and linked unemployment benefit and general old age pension payments – are to increase by 1 percentage point less than the medium-term forecast in the 2004-2007 period. The additional spending will mainly take place in the policy fields of education, healthcare, safety and mobility. The increased expenditures on these spearheads come on top of the additional spending already agreed upon in the Strategic Accord 2002 that laid out the policies of the first Balkenende government. Growth in public consumption will decelerate in 2003 to 0.2% (against 3.7% in 2002), but public sector investments will still grow by 2.6% this year due to the implementation of existing large-scale projects.

Employment growth in the public sector will not be affected by the policy package. The proposed reduction in public administration posts will be compensated by higher employment in education, healthcare and the
police force and judiciary. On balance, the number of public sector jobs will rise slightly in 2003-2005.

Baseline projection results for 2003-2005

Table 2 gives the actual figures for 2002 and the estimates for the 2003-2005 period of the key macro-economic variables. The principal focus below is on economic growth and its determinants, the developments in the labour market, the wages and the prices during the projection period.

Economic growth

In 2003 the Dutch economy, measured by GDP volume, will contract 0.4%, making this the first year of negative annual growth since 1982 when the economy shrank 1.2%. The lowest growth figure last century after 1982 was 0.8% in 1993. In the last quarter of 2002 and the first quarter of this year, the Dutch economy underwent

<table>
<thead>
<tr>
<th>Table 2  Key indicators of the baseline projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
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<tr>
<td>--------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Demand and production</strong></td>
</tr>
<tr>
<td>Percentage changes</td>
</tr>
<tr>
<td>Private consumption</td>
</tr>
<tr>
<td>Gross business investments (excluding housing)</td>
</tr>
<tr>
<td>Exports of goods and services</td>
</tr>
<tr>
<td>Imports of goods and services</td>
</tr>
<tr>
<td>Gross domestic product</td>
</tr>
<tr>
<td><strong>Wages and prices</strong></td>
</tr>
<tr>
<td>Negotiated wage rates per employee in the market sector</td>
</tr>
<tr>
<td>Wage cost per employee in the market sector</td>
</tr>
<tr>
<td>Consumer price index</td>
</tr>
<tr>
<td>Price competitiveness ¹</td>
</tr>
<tr>
<td>Price level of GDP</td>
</tr>
<tr>
<td>Real disposable wage income per employee ²</td>
</tr>
<tr>
<td><strong>Labour market</strong></td>
</tr>
<tr>
<td>Employment (FTE)</td>
</tr>
<tr>
<td>Labour supply (persons x 1,000)</td>
</tr>
<tr>
<td>Change in unemployment (x 1,000 persons)</td>
</tr>
<tr>
<td>Inactive-to-active ratio (percentage)</td>
</tr>
<tr>
<td><strong>Public sector</strong></td>
</tr>
<tr>
<td>EMU fiscal balance (% of GDP)</td>
</tr>
<tr>
<td>Gross debt (year-end, % of GDP)</td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
<tr>
<td>Trade balance – visibles and invisibles (% of GDP)</td>
</tr>
<tr>
<td>Labour income share ³</td>
</tr>
</tbody>
</table>

1 Change in competitors’ export prices less change in goods export prices (excluding energy).

2 Deflated with the private consumption deflator.

3 Companies excluding mineral extraction, property companies and public sector (government, healthcare, education and social services).
quarter-on-quarter contraction of 0.2% and 0.3% respectively, thus confirming that the Netherlands is in recession. The CBS’s last review of the figures even indicates a double dip as the last two quarters in 2001 also showed (moderately) negative growth.

This is clearly visible in Chart 1a. This chart illustrates the quarter-on-quarter GDP volume growth for the 2001-2005 period with actual figures for the period until the end of the first quarter of 2003 and projections for the subsequent period. The first dip is visible in the third and fourth quarters in 2001 and the second dip in the fourth and first quarters of 2002 and 2003 respectively. Slightly negative growth is also foreseen for the second quarter of 2003, but a gradual pick-up in the economy is anticipated for the period thereafter. The recovery of quarter-on-quarter GDP volume growth in the second half of this year will only be very modest, so that annual growth for full-year 2003 will turn out negative. Chart 1b splits annual GDP volume growth into the contribution from the current year and the contribution from the spillover from the previous year. In contrast with previous years, there is no spillover growth in 2003. Annual growth in 2004 is estimated at a moderate 0.8%, partly on account of the extremely modest GDP spillover from 2003.

Compared to the previous projection, the expected growth for all spending components in 2003 has been revised downwards. Private consumption will grow less quickly, being tempered by more subdued growth in disposable income and disappointing wealth growth. Investments declined no less than 6% in the first quarter of this year relative to the same quarter in 2002. Due to the steady deterioration of Dutch corporate competitiveness in the past years and the recent appreciation of the euro, Dutch exports will grow less quickly than world trade. In the ‘Scenario Analysis’ section later in this article, individual attention is devoted to the effects of world trade growth and the appreciation of the US dollar on the Dutch economy.

A combination of sustainable wage moderation and corporate cost reductions, partly in reaction to the sharp rise in unemployment, will help to improve corporate competitiveness and profitability. In the coming years this will be reflected in reviving export and investment growth which will play an important role in fuelling growth to about 2.5%, which is more in line with trend growth.

As in 2002, private consumption will grow both this and next year by 0.9%. The indicators characterising consumer confidence and the propensity to buy are currently at their lowest levels since the recession of 1982. Consumers are clearly worried about the rising unemployment, the political tensions in the Middle East and the continuing unrest in the financial markets.

Additional factors for the Netherlands are the income effects of the Outline Accord underlying the second Balkenende government. The cuts in public sector salaries and benefits, together with the additional measures, will negatively affect disposable income and consequently private consumption. The disposable income of public sector workers and benefit claimants will grow below the rate of inflation and this will erode the purchasing power of these groups. On balance, the real disposable household income will fall 0.2% in 2003 due to the moderate increase in negotiated wages in combination with higher pension and health contributions. The assumption for the projection horizon, how-
ever, is that consumers will realise that 2003 is an economically difficult year due to temporary factors and will therefore be prepared to dip into their available savings (total savings excluding contractual savings) to maintain private consumption at a reasonable level. The partial dismantlement of the salary savings scheme may help in this connection by releasing savings that would otherwise have been blocked.

Against this, the stock market fall and stabilisation of house prices will dampen private consumption growth. A few years ago, homeowners cashed in part of the substantial equity in their homes following the house price boom and the funds thus released were used in (large) part to buy consumer goods and services. The reduced use of home equity plus the sharply lower share prices have eliminated these additional spending impulses which, in turn, will depress consumption growth. The Outline Accord further discourages consumers from using home equity by imposing restrictive measures on mortgage interest relief. The arrangements made and the current debate about this facility may give rise to critical sentiment concerning current house price levels. The baseline projection assumes that house prices will for the time being continue to develop roughly in line with the average price level. Later in this article, an uncertainty scenario looks at the consequences of a house price correction for the Dutch economy. The economic impact of the use of home equity for consumer spending is also discussed.

In the 1996-2001 period public sector consumption gave a strong impulse to total domestic demand, fuelling GDP volume by an additional 0.7 percentage point per year. Due to the deteriorating condition of the government budget and the spending cuts outlined in the new coalition agreement, this impulse to GDP growth will largely disappear during the projection period.

Business investments will decline 7.4%, which is even more than the 5.1% fall recorded last year. The causes can be traced to diminished producer confidence, lower profitability, low production capacity utilisation and the sustained weakening of competitiveness. Corporate profits are under pressure due to the high wage and price increases in the past years. The labour income ratio will rise from 81.1% in 2000 to 85.3% in 2002 and 86.6% in 2003, before subsequently falling back to 84.4% in 2005 as a result of wage moderation and staff trimming. With companies cutting staff numbers and the number of vacancies falling, unemployment will rise by about 100,000 people both in 2003 and 2004. Furthermore, during the past three years, the number of bankruptcies has doubled from 300 to 600 per month. After regaining some ground in 2002, producer confidence and company order books have deteriorated sharply in the past six months. Business process rationalisation and company bankruptcies will help to improve labour productivity growth, which was negative in 2001 and 2002. Total investments will hesitantly edge up next year and then accelerate in 2005 to a growth rate of 3.6% for both business investments and investments in housing.

In the first quarter of 2003 the import and export volumes of goods and services were 3.5% and 1.3% higher than a year earlier. This growth is largely attributable to an increase in transit goods, i.e. products imported into the Netherlands and then exported after little or no further processing. Adjusted for transit goods, the exportation of goods and services produced in the Netherlands will be slightly lower than in the previous year, while the adjusted import figure will show an increase of 2.3%. The rise in imports corresponds with the acceleration of world trade and the appreciation of the euro. In addition, export growth is expected to be tempered for the time being by the outbreak of fowl pest and the restrictions on production as a result of preventative measures. On an annual basis, the Dutch poultry sector (including supply, services, processing, trade and distribution) represents a gross production value of over €17.5 billion. About 75% of Dutch poultry production is exported. Overall, export growth will lag behind the increase of world trade relevant to the Netherlands, indicating that Dutch exporters are losing market share. The deteriorating price competitiveness is partly responsible for this. Apart from the stronger euro, this is also attributable to the sharp increase in unit wage costs in the past years. For the coming years, we expect import and export volume growth to accelerate as world trade starts to pick up speed. Transit goods will account for a large share of this volume growth. Price competitiveness is undergoing a slow recovery, but it will probably be 2005 before Dutch products will again be cheaper than competitor products in foreign markets.

Wages
Growing unemployment is alleviating the upward pressure on wages. Negotiated wage increases are showing a downward trend, declining from 4.5% in 2001 to 3.7% in 2002 and 2.8% in 2003. The figure for 2003 is already largely encapsulated in existing negotiated wage agreements. During the Autumn Consultation in December 2002 the government and social partners, i.e.
employers and employees, agreed to limit the negotiated wage increases to the then expected rise in consumer prices of 2.5%. Wage agreements concluded at an earlier stage, covering 64% of the working population, provide for a wage rise of 3.0%. The average negotiated wage increase thus works out at 2.8% in 2003. The downward trend of the past years will continue in the coming years. The current economic climate leaves the trade unions little room for above-inflation wage demands. At 1.1% the wage increase projected for 2005 is roughly in line with the forecast rate of inflation. Furthermore, in the Outline Accord of the new Balkenende government, it has been agreed that public sector salaries will increase by 1 percentage point less than the earlier medium-term forecast.

Table 3 gives a breakdown of the unit wage costs. The downward trend of the negotiated wage increases translates into a decrease in the pay rise per employee of about 1 percentage point per year, falling from 5.0% in 2002 to 1.7% in 2005. The wage drift largely reflects the rise in the average wages as a result of the ageing of the working population and is therefore positive. The cyclical component of the wage drift consists of contributions, bonuses, labour market allowances and so forth. Due to the relaxation of the labour market, the cyclical component will serve to reduce the wage drift during the projection period. The contribution of the employers’ social costs to the wage increase was 0.7 percentage point in 2002. This will rise to 0.9 percentage point in 2003 and then halve in subsequent years. The positive contribution of the social costs to the wage increase is largely caused by the increase in pension contributions in order to compensate for the lower-than-expected returns of the pension funds. The stock market malaise has eroded the buffers of the pension funds to such an extent that in some cases the funding ratio (the value of a pension fund’s assets as a percentage of its liabilities) has sunk below the level of 100%. After dropping 0.2% in 2002, labour productivity will rise again by 0.5% and then continue to improve in subsequent years. Partly due to this recovery of labour productivity, the increase in unit wage costs will halve next year, ultimately falling from 5.2% in 2002 to 0.3% in 2005.

Labour market
Companies were reluctant in the past year to lay off employees who had only recently been recruited at the expense of great effort in the tight labour market of 1999-2000. The retention of redundant staff (labour hoarding) adversely affected labour productivity in 2001 and 2002. The ongoing rationalisation and reorganisation of business processes is currently reversing this trend. As a consequence, employment in the market sector will contract both this and next year. Additional causes of job losses are the limited economic growth and the substantial rise in labour costs in 2001 and 2002. The number of vacancies fell sharply in the second half of 2002. Employment is expected to drop by 0.9% in 2003 and by 0.4% in 2004, which stands in stark contrast with the positive growth percentages of 2.5% on average per year in the 1996-2001 period. The number of unemployed people averaged 392,000 in the period from February to April 2003 compared to 290,000 a year earlier.

A similar increase of roughly 100,000 people is foreseen for 2003 as a whole and 2004. Unemployment partly remained low in 2001 and early 2002 because the filling of long-standing vacancies in the education and healthcare sectors led to a strong rise in public sector employment. Even in the second quarter of 2002, employment in the non-commercial services sector grew by 3.5% (year on year). By contrast, the new gov-
ernment’s proposed measures mean that the scale of public sector employment will barely change in the coming period. Both in the private and public sector, employment will only start growing again in 2005. For the time being, companies will utilise productivity improvements to increase profitability.

Another factor contributing to the rise in unemployment is the increase in the labour supply of 0.9% per year during the projection period. The new coalition agreement seeks to stimulate labour participation through various social security measures relating to pensions as well as unemployment and social benefits. With social benefits lagging behind market sector wages, the replacement rate will automatically drop, thus giving people an added incentive to enter the job market. Rising unemployment and falling employment will cause the ratio between inactive and active people to deteriorate from 65.9% in 2002 to 72.0% in 2005.

**Prices**

A breakdown of the increase in the consumer price index (cpi) is given in table 4. The cpi still rose by 4.2% in 2001, but inflation is gradually falling in the current weak economic climate. The most important factor in this connection is the declining contribution of unit wage costs, which fell in the space of three years from 2.4 percentage points in 2002 to 0.1 percentage point in 2005. The two contributing factors to this decrease are the wage moderation and the improvement of labour productivity, partly as a result of corporate restructuring. Over the projection period the gross margin improvement of companies will on average contribute some 0.7 percentage point annually to inflation. In 2000 and 2001 these figures still amounted to -1.6 percentage point and -0.6 percentage point respectively. The decrease in 2000 was due to the fact that companies were unable to fully pass on the substantial increases in raw materials and commodity prices to consumers. Owing to the strong appreciation of the euro and the global economic slowdown, import prices will make a negative contribution of 0.8 percentage point to inflation this year.

**Public sector**

In 2001 the gross debt ratio of the public sector amounted to 52.8% while the fiscal balance showed a surplus of 0.1% of nominal gdp. In 2002 this surplus turned into a deficit of 1.2% gdp, which will rise further to 1.9% gdp in 2003 and 2.3% gdp in 2004, thus fluctuating around 2% gdp throughout the entire projection period 2003-2005. Owing to the development of the deficit on the fiscal balance, the gross debt ratio will increase from 52.5% gdp in 2002 to 54.0% gdp in 2005. Due to the denominator effect, the increase in gdp during the projection horizon means that the increase in the debt ratio will remain limited. The general government debt will rise faster in absolute terms.

The further deterioration of the fiscal deficit in 2004 is largely the result of the cyclical decline in the years 2002-2003. The measures as set forth in the Outline Accord are designed to counter a further worsening of the budget balance. In the short term, however, the package of adjustments, additional expenditures and tax and premium alterations also leads to higher government pay-outs, so that the proposed measures do not immediately lead to a proportionate improvement of the fiscal balance. In the longer term, however, they do achieve this effect.

### Table 4 Breakdown of consumer price rise

<table>
<thead>
<tr>
<th>Contributions in percentage points</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>0.1</td>
<td>-0.8</td>
<td>-0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Indirect taxes and non-market sector</td>
<td>0.6</td>
<td>1.1</td>
<td>0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Unit wage costs</td>
<td>2.4</td>
<td>1.6</td>
<td>0.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Gross margin improvement</td>
<td>0.2</td>
<td>0.6</td>
<td>1.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Private consumption deflator</td>
<td>3.4</td>
<td>2.4</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Consumer price index</td>
<td>3.3</td>
<td>2.4</td>
<td>1.6</td>
<td>1.3</td>
</tr>
</tbody>
</table>

1. Indirect taxes, natural gas, rents and public sector services.
2. Including cost of capital.
Scenario analysis

The baseline projection discussed in the previous section contains a number of uncertainties of both domestic and international origin. This section looks at three alternative scenarios. The first two concern international uncertainties, namely a faster recovery of the world economy and a further depreciation of the US dollar relative to the euro. The third uncertainty considered here concerns the development of house prices in the Netherlands and the possible economic consequences of a price correction on the housing market.

The economic effects of a faster recovery of world trade

Since the attacks in the US on 11 September 2001, international tensions have noticeably increased. The resulting sense of heightened insecurity and uncertainty may have delayed the economic recovery. The contagious SARS virus could pose a further obstacle to an early revival. In this uncertainty scenario, we consider the consequences of a faster revitalisation of the global economy.

The baseline projection assumes that the geopolitical tensions will diminish in the course of the second quarter of this year, whilst the economy will slowly start to recover. It is not inconceivable, however, that the speedy resolution of the war in Iraq leads to a faster restoration of confidence, causing a stronger resurgence of consumer spending and business investments than anticipated in the baseline projection. Great uncertainties continue to surround the environment, however. Some indicators, such as the oil price and consumer confidence, point cautiously to an economic recovery. Others, such as share prices and producer confidence, provide less cause for optimism.

To gain a clearer picture of where the economy is heading following the war in Iraq, we will compare the current economic environment with the economic developments at the time of the first Gulf War (August 1990-February 1991). Just after the outbreak of the first Gulf War, the oil price rapidly doubled to US$40 per barrel at the end of September 1990 but then fell back gradually to US$20 per barrel during the military actions aimed at the liberation of Kuwait (Operation Desert Storm; 16 January-27 February 1999). In the case of the recent war in Iraq, which everybody had seen coming for several months, the oil price peaked on the eve of the invasion of Iraq at just over US$30 per barrel, and subsequently dropped back in the course of the conflict to US$25 per barrel. The oil price currently seems to be stabilising at this level.

Chart 2 shows the development of consumer confidence during the two military conflicts with Iraq. Growing consumer confidence is an indication that consumers are starting to take a sunnier view of the future and may be prepared to start spending more. As is evident from the chart, the confidence of both US and euro area consumers plunged twice during the first Gulf War, namely shortly after the invasion of Iraq into Kuwait (August 1990) and during Operation Desert Storm. Once Operation Desert Storm had been successfully completed, consumer confidence resurged both in the US and the euro area. The pattern at the time of the recent invasion of Iraq was different. Consumer
confidence had already been flagging for some time, but started to recover immediately after the invasion got underway. The figures for May indicate that consumer confidence appears to be continuing to recover in the US, while euro area consumers are less sanguine about the future. Together with the resurgence of consumer confidence in the wake of the first Gulf War, this suggests that the recovery of consumer confidence in the Western world may be sustained. That, in turn, could propel the global economy towards a speedier revival, which would also benefit the Dutch economy. A less positive sign is the further decline in producer confidence in the euro area and the US over the past months. However, as soon as renewed consumer confidence starts to translate into additional spending, producer confidence is also likely to perk up.

In the first months of the first Gulf War, US and European shares lost about 15-20% of their value. Between the beginning and end of the war, share prices were highly volatile. They staged a full recovery during Operation Desert Storm. In the recent conflict with Iraq, share price movements were less erratic than during the first Gulf War. Prices fell just after the war got underway, but quickly recovered during and after the war. This rebound was much less powerful than at the time of the first Gulf War, however. Share prices are now at a higher level than in the run-up to the Iraq war, but are still low compared to their level in previous years.

All in all, particularly the recent developments in terms of oil prices and consumer confidence point to the possibility of a more vigorous recovery. In line with this, Table 5 presents the economic consequences of a faster global recovery for the Netherlands. Compared to the baseline projection, world trade is assumed to grow by 2 percentage points more in 2003 and 1 percentage point more in both 2004 and 2005, resulting in growth rates of 5.3% in 2003, 6.4% in 2004 and 7.4% in 2005.

The additional acceleration of world trade growth during 2003-2005 boosts the export of goods by an extra 1.5 percentage points in the first year and by 1.0 percentage point in each of the two subsequent years. Consumer spending will increase this year by an additional 0.1 percentage point compared to the baseline projection, rising to an extra 0.4 percentage point of consumption growth in 2005. GDP volume growth will gain 0.4 percentage point in three successive years, carrying unemployment in its slipstream. The jobless rate will drop by 10,000 people this year, 17,000 people in 2004 and a further 16,000 people in 2005. The reduction in the jobless rate will also create upward pressure on private sector wages and inflation, while stimulating consumption growth.

The macroeconomic consequences of a further depreciation of the dollar

A second uncertain factor in the foreign outlook concerns the euro exchange rate versus the dollar. After the end of the first Gulf War, the dollar gained strongly. This performance was not repeated after the recent Gulf War. Though the dollar rallied briefly in the wake of the US victory, the euro soon resumed its relentless advance. Since February 2002 the euro has increased from USD 0.86 to USD 1.16, representing a rise of 35%. Table 6 shows what will happen if the dollar depreciates a further 10% from the second half of 2003.

Table 5 Earlier recovery of world trade growth
Effects in percentage points relative to baseline projection, unless otherwise indicated

<table>
<thead>
<tr>
<th>Assumptions relative to baseline projection</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>World trade growth</td>
<td>2.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results according to MarkMon</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private consumption volume growth</td>
<td>0.1</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>GDP volume growth</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Volume growth of goods imports</td>
<td>1.3</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Volume growth of goods exports</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Change in unemployment (1,000 persons)</td>
<td>-10</td>
<td>-17</td>
<td>-16</td>
</tr>
<tr>
<td>Growth in private sector wage rate</td>
<td>0.1</td>
<td>0.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.1</td>
<td>0.3</td>
<td>0.6</td>
</tr>
</tbody>
</table>
The weakening of the dollar versus the euro is closely bound up with the ‘twin deficit’ problem in the US. This problem concerns the growing current account deficit and the rise in the government budget deficit since mid-2001 (chart 3). The US current account had shown a substantial deficit for some time, but without impairing the strength of the dollar. The dollar only started to depreciate some time after the US was also confronted with a rising government budget deficit. This deficit is expected to grow even wider and the dollar may therefore drop further.

Table 6 illustrates how an additional 10% depreciation of the US dollar would impact on the Dutch economy. This depreciation is assumed to occur in the third quarter of this year, after which the exchange rate of the dollar versus the euro will remain unchanged during the projection period. A further assumption is that from the third quarter onwards the weaker dollar will cause the relevant world trade to lag slightly behind the baseline projection, while also lowering import prices by 3%. Given that our price competitiveness will deteriorate, exports and thus production and employment will be lower than estimated in the baseline projection. Owing to the ongoing adjustment of domestic prices to the lower import prices as well as the reduced economic activity and higher unemployment, inflation will turn out lower than foreseen in the baseline projection, particularly in the years 2004 and 2005.

The cooling of the housing market

House prices rose 6% in 2002 to an average level of €200,000 (Statistics Netherlands). In the first quarter of this year, house prices rose no further relative to the fourth quarter of 2002. The period between the time that a house is put on the market and the actual sale has risen from 40 days at the height of the housing boom in 1999-2000 to about 70 days in the first quarter of this year (note that this figure excludes (still) unsold

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**Chart 3 US current account, dollar/euro rate and US central government deficit**

### US current account balance
Quarterly figures, in GDP percentages

<table>
<thead>
<tr>
<th>Year</th>
<th>-6</th>
<th>-5</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
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</table>

### Dollar/euro exchange rate
Weekly averages

<table>
<thead>
<tr>
<th>Year</th>
<th>0.80</th>
<th>0.85</th>
<th>0.90</th>
<th>0.95</th>
<th>1.00</th>
<th>1.05</th>
<th>1.10</th>
<th>1.15</th>
<th>1.20</th>
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</tbody>
</table>

### US central government deficit
Quarterly figures in GDP percentages on an annual basis

<table>
<thead>
<tr>
<th>Year</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tr>
<td>99</td>
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</tbody>
</table>
houses). The housing market has thus arrived in calmer waters after the exuberant years of 1999 and 2000 when house prices increased by 15 to 20% annually. There is however some unrest about the possibility of price corrections in the housing market, particularly in the top segment. According to the nvm (Dutch Association of Real Estate Agents), the average selling price of detached houses has already dropped from €336,000 in the first quarter of 2002 to €332,000 in the first quarter of this year, representing a fall of just over 1% on an annual basis.

A recent imf survey shows that in four out of ten cases, a housing boom is followed by a substantial price correction. Ing and PricewaterhouseCoopers (pwc) have carried out specific studies of the situation in the Netherlands. According to these studies (table 7), the recent house price increases were much higher than justified by the underlying variables (e.g. mortgage interest rate, income development, demographic developments). As a result, houses are now overvalued by about 20-35%. Ing and pwc expect this overvaluation to decrease in the coming period through a gradual decline in prices. A recent comparative international study of The Economist also points to a substantial

Table 7  Summary of views on house prices ¹

<table>
<thead>
<tr>
<th>Statements about house prices</th>
<th>Expected development of nominal house prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overvaluation approx. 35%</td>
<td>2003: fall of 4 1/4%, 2004: fall of 9%</td>
</tr>
<tr>
<td>At least 20% overvaluation</td>
<td>Gradual price decline of 20% in 2003</td>
</tr>
<tr>
<td>Prices have overshot</td>
<td>Below-trend price increases</td>
</tr>
<tr>
<td>Reasonably healthy housing market, downward trend in top segment</td>
<td>Moderate price development</td>
</tr>
<tr>
<td>Increase in downward risks</td>
<td>Slight increase in house prices in 2003 and 2004</td>
</tr>
<tr>
<td>Overvaluation 44%</td>
<td>30% price decline over four years</td>
</tr>
</tbody>
</table>

overvaluation in the Dutch housing market. The Netherlands Bureau for Economic Policy Analysis, the Rabobank and the nvm, by contrast, foresee a slight increase in nominal house prices.

House prices could come under downward pressure from the development of share prices and the real disposable household income. On the other hand, low mortgage interest rates coupled with the growing demand for housing and low supply of new housing will probably continue to prop up house prices in the coming years. It should be noted, however, that mortgage interest rates constitute an important risk as housing will rapidly become less affordable if interest rates rise.

A comparison with existing house prices in morkmon can help us form a picture of the overvaluation of house prices. This comparison can be used to estimate the realistic price of existing houses on the basis of underlying factors used in the model (inflation, interest, disposable income, rents, price level of investments in houses). The overvaluation of the house prices can then be calculated by comparing the estimated price of housing with the actual price. This method shows that a 20% overvaluation arose in the housing market in 1999 and that since then prices have evolved in line with the model. From 2000 till the present, the overvaluation according to this method is about 20%, which is roughly in the middle of the extreme opinions indicated in table 7.

The scenario below calculates what the economic consequences would be of a 20% price correction (table 8), assuming that the overvaluation would be neutralised in two years. In concrete terms, this means that house prices are assumed to fall by 10% in both this and next year, followed by a stabilisation in 2005.

In morkmon house prices influence domestic spending via two routes. First, a fall in house prices dampens private consumption by limiting the opportunities for using home equity to buy consumer goods. The second route concerns the investments made in residential construction: investing in new housing becomes less attractive if house prices fall while construction costs remain unchanged. Sluggish domestic spending is accompanied by lower production growth and reduced employment growth. Compared to the baseline projection, private consumption will decrease by 1.5% cumulatively in three years’ time, while gdp volume will lag 0.8%. The number of unemployed people will rise cumulatively by 22,000 people, which serves to dampen wages and inflation.

In the morkmon model simulation the development of house prices has a gradual and delayed impact on the economy. As a result, the effects are spread out over time. In practice, the timing of home equity use also plays an important role and this can be more erratic than reflected in the comparisons used in morkmon. Now that the housing market seems to have passed its peak, it is interesting to look back at the effects of home equity use in the past years and extrapolate our findings to the near future with the aid of information obtained from the personal wealth survey that the nipo conducted last year on the Bank’s behalf.

This survey revealed that the spending impulse reached a maximum of almost eur 10 billion in the year 2000 and then halved to eur 4.5 billion in 2001. For subsequent years we have assumed that home equity use will progressively decrease to zero within three years. This gradual reduction is based on the assumption that the development of house prices will be extremely moderate or stable. Given the current uncertainties in

---

Table 8  Consequences of a fall in house prices
Effects in percentage points relative to baseline projection, unless otherwise indicated

<table>
<thead>
<tr>
<th>Assumption relative to baseline projection</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in house prices</td>
<td>-10</td>
<td>-10</td>
<td>0</td>
</tr>
<tr>
<td>Private consumption volume growth</td>
<td>-0.2</td>
<td>-0.7</td>
<td>-0.6</td>
</tr>
<tr>
<td>gdp volume growth</td>
<td>-0.1</td>
<td>-0.4</td>
<td>-0.3</td>
</tr>
<tr>
<td>Change in unemployment (1,000 persons)</td>
<td>2</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Growth in private sector wage rate</td>
<td>-0.0</td>
<td>-0.3</td>
<td>-0.6</td>
</tr>
<tr>
<td>Inflation</td>
<td>-0.0</td>
<td>-0.1</td>
<td>-0.1</td>
</tr>
</tbody>
</table>
Global economic growth was disappointing in the past year, particularly due to the continuing deterioration of consumer and producer confidence which have come under further pressure due to the tensions in the Middle East and the unrest in the financial markets. Dutch GDP volume growth will even sink below zero to -0.4% this year. Economic growth is expected to make a cautious recovery in the coming years, rising on the back of accelerating world trade to 1.8% in 2005. Due to the sustained low economic growth since 2001, registered unemployment is set to rise strongly both this and next year by 105,000 and 98,000 people respectively to an average of 433,000 people in 2004. The growth rate will level off to an expected 466,000 people in 2005. Partly due to the sharp rise in unemployment, the negotiated wage increases will fall from 2.8% this year to 1.8% in 2004 and 1.1% in 2005. The declining increase in wage costs and the moderate import price development, partly thanks to the euro appreciation, will push inflation down from 2.4% in 2003 to 1.6% in 2004 and 1.3% in 2005. The disappointing economic growth is also expressed in the government budget. The deficit on the fiscal balance will amount to 1.9% of GDP this year and 2.3% next year, before falling back to 2.0% of GDP in 2005. The package of austerity measures will prevent the deficit from rising further. The gross debt will increase in this connection from 52.7% of GDP in 2003 to 54.0% of GDP in 2005.

This article also discussed three uncertainty scenarios relating to a faster recovery of the global economy as expressed in higher world trade growth, a further depreciation of the dollar and, finally, the possibility of a price correction on the housing market. A faster recovery of world trade will give exports a strong boost, thus stimulating production and employment. A further depreciation of the dollar will cause Dutch price...
competitiveness to deteriorate, resulting in lower growth figures for exports, production and employment. Inflation will decrease as a result of falling import prices, but also due to a lower increase in unit wage costs. The third scenario focuses on the housing market. Though statements about the equilibrium level of house prices will always be surrounded by uncertainties, various sources and analyses that point to a substantial overvaluation of house prices definitely merit attention. To obtain an idea of the possible consequences of a strong price correction on the housing market, we have assumed a scenario where house prices fall by a total of 20% over a two year period. Such a correction would dampen economic growth by about 0.3 percentage point in 2004 and 2005. Finally, a further analysis of the consequences of home equity use, which still gave annual GDP volume growth a 1 percentage point impulse in 1999-2000, showed that the gradual ebbing away of home equity use in the period thereafter will dampen growth by some 0.5 to 0.7 percentage point.

1 The ECB issues projections for the euro area every six months in its June and December Monthly Bulletins, calculated on the basis of projections of the individual national central banks of the euro area and the ECB’s own staff.

2 A DNB study shows that the developments in the stock market precede developments in the housing market by several years, see: Van den End, J.W. & J. Kakes (2002). 'De samenhang tussen beurskoersen en huizenprijzen', (The correlation between stock prices and house prices), MeB series no. 17, De Nederlandsche Bank.
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- 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 morkmon

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- 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 Bank’s involvement in securities settlement systems in the Netherlands
- The Dutch economy in 1999-2001: a forecast based on morkmon

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- The importance of financial structure for monetary transmission in Europe
- Risk analysis: the new tool for Supervision
- The transparency of funds transfers in the Netherlands
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- Introduction of the euro for cash payments
- The Netherlands economy in 2000-2002: a forecast based on morkmon

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- Electronic banking: current trends and the implications for banks and supervision
- Population ageing and public finance in the longer term
- Output gap and future inflation from an international perspective
- Integrity supervision

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- Guardian of financial stability
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- Asset price inflation on the equity and real estate markets: risks and policy implications
- Globalisation prompts overhaul of international financial architecture
- Currency crises in emerging markets: predictable or not?
- The Dutch economy in 2000-2002: a forecast based on morkmon

March 2001
- Banking industry on schedule with euro introduction
- 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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- Labour mobility in the euro area
- The Dutch economy in 2001-2003: a forecast using morkmon
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- Key features document for financial products: the current position
- Countdown: business girls up for ‘e-day’

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- Farewell to the Guilder
- New economy: illusion or reality?
- The Dutch economy in 2001-2003: a forecast using morkmon

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- Structure of financial supervision
- What do we understand about exchange rates?
- Smooth euro changeover, higher prices?

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- Spotlight on household wealth management in the Netherlands
- Tariff structures and infrastructure in Dutch retail payment systems
- 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

**December 2002**
- Banking supervision: the Act on the Supervision of the Credit System 50 years on
- Just a normal cyclical downturn in the Netherlands
- Different economies, synchronised cycles?
- The Dutch economy in 2002-2004: a forecast using morkmon

**March 2003**
- Immigration from an historical and an economic perspective
- Need for transparent financial reporting and sound corporate governance
- More synchronous cyclical movements through mergers and acquisitions?
- An assessment of the Bank’s large-value payment system top under the ‘core principles’
- Better price measurement through hedonic price adjustment

**June 2003**
- The economic consequences of the war in Iraq
- Corporate sector’s financial position under pressure: causes and consequences
- Transparancy and confidence: the common ground between market operation and supervision
- Role reversal: a closer look at the rating agencies
- The Dutch economy in 2003-2005: a forecast using morkmon
Publications
No. 102 On the influence of capital requirements on competition and risk taking in banking

Peter J.G. Vlaar

This paper focuses on the interaction between regulation and competition in an industrial organisation model. We analyse how capital requirements affect the profitability of two banks that compete as Cournot duopolists on a market for loans. Bank management of both banks choose optimal levels of loans provided, equity ratio and effort to reduce loan losses so as to maximise profits. It is shown that the introduction of a just binding capital constraint improves the profitability of the constrained bank, whereas the profitability of its unrestricted competitor declines. Especially, if an inefficient bank chooses a strategy that might result in bankruptcy, capital requirements are welfare improving. However, also under conditions that both banks would also never default in the absence of regulation, mild capital requirements can be beneficial as they stimulate banks to provide more loans. Too high requirements on the other hand relatively favour the inefficient bank, and result in welfare losses.

Keywords: Cournot duopoly, Capital requirements, Profit paradox.

JEL codes: G28, E44, L16.

No. 103 Robust versus Optimal rules in Monetary Policy: A note

Maria Demertzis and Alexander F. Tieman

We provide a framework for analysing the choice between optimal and robust rules in the presence of paradigm uncertainty in monetary policy. We thus provide for two issues: first, we discuss the conditions of uncertainty that render a robust rule a preferable substitute to optimal rules and second, we show how the degree of risk aversion increases the desirability of robust rules.

Keywords: Model Uncertainty, Monetary Policy, Optimal Policy Rules.

JEL codes: E52, E58, C70.

No. 104 The Impact of the Single Market on the Effectiveness of ECB Monetary Policy

Paul Cavelaars

This paper studies the implications of Europe’s single market. Small costs of international trade in goods and services may cause a large home bias in consumer spending and can explain seemingly excessive short-run exchange rate volatility. The European single market (declining costs of international trade between the euro area and the member states which have not adopted the single currency) will reduce the home bias in consumption. As a result, euro area monetary policy becomes less powerful in terms of stabilising consumption, but better able to influence the general price level.

Keywords: Trade costs, home bias, monetary transmission, exchange rate volatility.

JEL codes: F50, F410.