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Central bank and prudential supervisor of financial institutions

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Introduction

This Bulletin leads with an article on securitisations, a phenomenon that has become increasingly important in recent years, and that is essential for a correct interpretation of the data released by DNB on lending and other themes. Besides deriving information on the growth of lending by Dutch banks from the banks' own balance sheets, we also need to look at the balance sheets of Special Purpose Vehicles (SPVs). These are institutions established by banks for the purpose of transferring mortgage loans and other assets to them. Those mortgage loans and assets are then no longer included in the maximum amount that banks may lend out against a certain level of own funds, hence freeing up room for new lending. For instance, in order to be able to take over mortgages (including future returns), SPVs issue bonds. At end-2008, loans amounting to EUR 250 billion had been transferred onto SPVs' balance sheets. Owing to the strong increase over recent years in this securitisation of notably mortgage loans, only half of the total growth in lending since 2000 was visible on banks' balance sheets at end-2008. DNB has hence published new tables on its website in which the growth figures have been adjusted for securitisations.

The second article focuses on Dutch banks' external claims, which owing to the financial crisis and the split-up of ABN AMRO in 2007 and 2008, fell from around EUR 1,600 billion at end-2006 to EUR 1,200 billion at end-2008, a decline of 25%. If ABN AMRO is included in the figures, the decrease centred on claims held by Dutch banks' head offices and branches and the remainder on claims held by local establishments abroad. The claims of the Dutch banking sector on the United Kingdom and the United States fell most sharply, the reason being that the loss of confidence between financial institutions in 2007 and 2008 caused various financial wholesale markets - in which Dutch banks mainly operate from their head offices in the Netherlands - to dry up. At a later stage, the economic downturn also precipitated a fall in the claims of the local, foreign branches, which mainly target regional market parties and retail customers.

The third article in this Bulletin is more methodological and discusses how DNB measures foreign holdings of Dutch securities. Of the securities issued by Dutch enterprises, banks and the government (both equities and debt instruments), EUR 1,359 billion was in the hands of foreign investors at end-2008. A very large proportion of Dutch securities are issued abroad, as is

known from information from the Dutch issuers. The share of these held by foreign investors is determined by deducting the domestic holdings that are reported to DNB by Dutch investors and custodian companies. Since the end of the 1980s, the share of securities transactions in total external financial liabilities has risen sharply. In 1986, this share of securities was still 30%. In 2008 it had climbed up to 38%. Marketable securities are thus steadily predominating Dutch external financial liabilities. To aid the correct interpretation of the data published by DNB in the Statistical Bulletin, this article also discusses a number of definitions and terms, because those in the balance-of-payments statistics may differ significantly from those used in the 'market'.

The final article deals with the internationalisation of pension funds' investments. Pension funds too have felt the effects of the liberalisation and deregulation of the capital markets in the 1980s and 1990s which, in combination with the progress in information technology, triggered a strong internationalisation in capital transactions in general. At end-2008, pension funds' investments amounted to almost EUR 700 billion, with foreign assets accounting for three-quarters of this amount. These claims are offset by pension funds' liabilities, but virtually all of these are still future benefits to Dutch retirees, supplementary to the state pension. However, opportunities for foreigners to build up a pension at Dutch pension funds are now under development.

Dutch banks' external claims under pressure

In 2007 and 2008, under the impact of the financial crisis and the split-up of ABN AMRO, Dutch banks' external claims fell by about 25%. If ABN AMRO is included in the figures, the decrease centred on claims held by Dutch banks' head offices and branches in the Netherlands while for the rest it was accounted for by claims held by local establishments abroad. The sharpest decrease was seen in the Dutch banking system's claims on the United Kingdom and the United States, two countries with large financial sectors, where the consequences of the waning interbank confidence surfaced first. On balance, claims on some countries still showed an increase, but meanwhile here, too, a turnaround has taken place owing to the spill-over of the financial crisis to the real economy in these countries.

Introduction

This article discusses the Dutch banking system's external claims and the movements in these claims for a number of countries and country groups since the onset of the financial crisis. It does so on the basis of consolidated balance sheet data of the Dutch banking system, meaning that branches and subsidiaries abroad are included in the figures. A distinction is made between external claims held by Dutch banks' head offices and branches in the Netherlands and claims held by Dutch banks' local establishments abroad, each of which accounts for about one-half of aggregate claims (Chart 1).

External claims down

The Dutch banking groups' external claims went down from about EUR 1,600 billion at end-2006 to EUR 1,200 billion at end-2008, a decrease of 25%.

If the entities of ABN AMRO which were sold to foreign banking groups during that period are still included in the figures, it appears that the decrease in the Dutch banking system's external claims was accounted for to the extent of about 75% by a drop in the claims held by head offices and branches in the Netherlands. This may be ascribed to the fact that in 2007 and 2008 the waning confidence among financial institutions led to the drying-up of various financial (wholesale) markets where Dutch banks operate mainly through their head offices in their home country. At a later stage,

prompted by the economic downturn, the claims held by local establishments abroad, which mainly target regional market participants and private individuals, also showed a decrease.

Diverging developments across countries

Almost three-quarters of the external claims held by Dutch banks' head offices and branches in the Netherlands relate to countries in Europe. Within Europe, debtors in the United Kingdom are the principal recipients of funds from the Dutch banking sector. This has to do with the position of London as a major financial centre.¹ Lending by Dutch banks to debtors established in the United Kingdom is mainly accounted for by the head offices and branches in the Netherlands, even if various banks also operate local establishments in the United Kingdom. Next to Europe, the United States represents the second largest debtor of the Dutch banks' head offices and branches in the Netherlands.

In the same way as for the head offices and branches in the Netherlands, most of the lending by local estab-

Chart 1 Ratio of Dutch banks' external claims held by head offices and branches in the Netherlands to those held by local establishments abroad

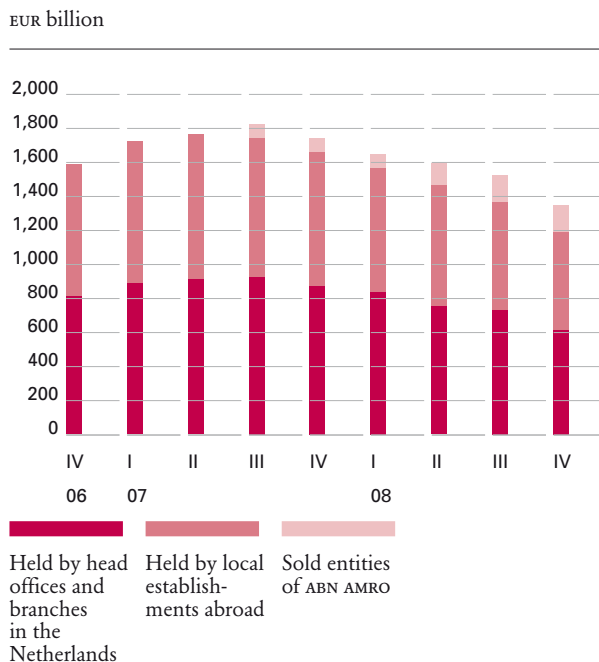
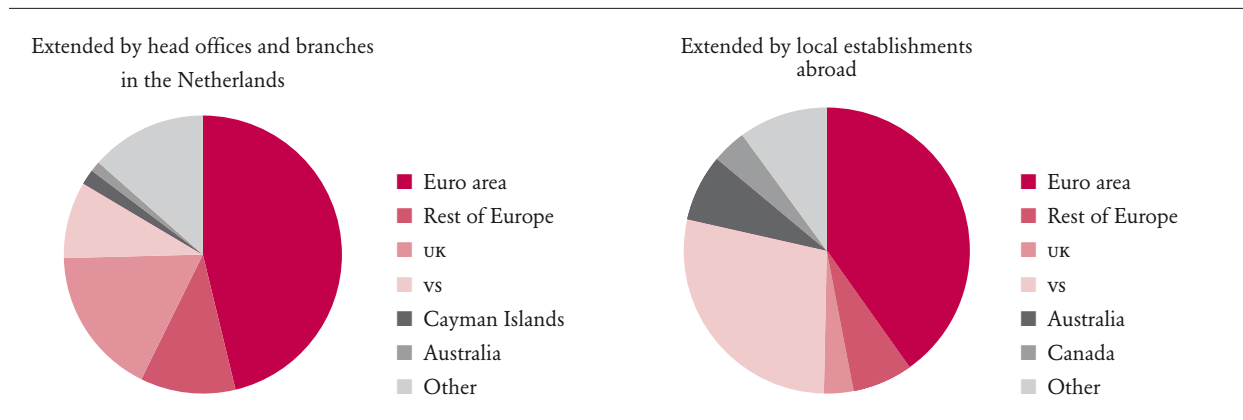


Chart 2 Dutch banks' loans granted by head offices and branches in the Netherlands and by local establishments abroad, broken down by nationality of debtor, as at 2008-IV



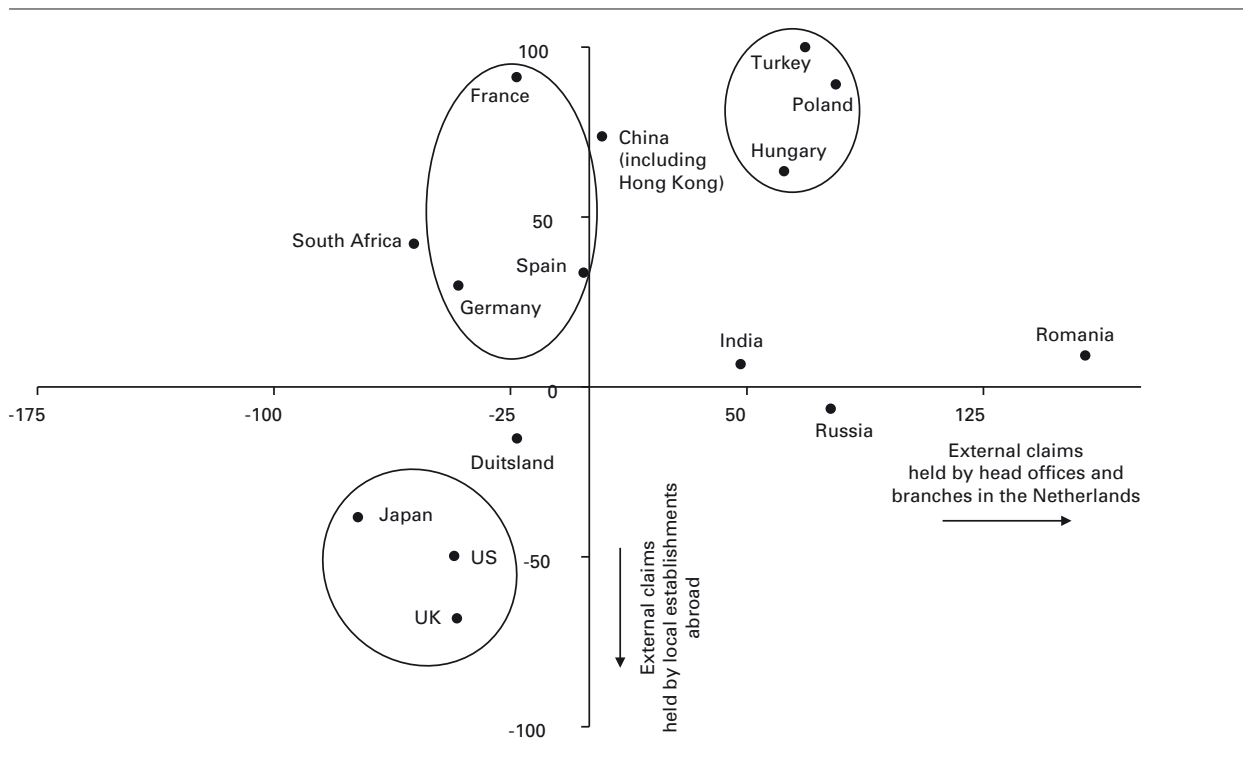
Establishments abroad is accounted for by loans to European debtors. Next to Europe, second place is held by the United States, where various Dutch banks have operated networks of local establishments for quite some time.

Whereas some countries were faced with the financial crisis at an early stage, other countries only suffered its economic consequences during the subsequent period.

This has affected the movements in Dutch banks' external claims. The various stages of this development did not make themselves felt at the same time and in equal measure in the various countries where Dutch banks' debtors are resident. This also becomes clear from the composition of the claims held by the Dutch banking groups. First, a decrease was in evidence for claims held by Dutch banks' head offices and branches

Figure 1 Movements in Dutch banks' external claims held by head offices and branches in the Netherlands and by local establishments abroad, between end-2006 and end-2008

Per cent



es established in the Netherlands, whose counterparties often consist of foreign banks. Subsequently, the decrease spread to claims held by local establishments abroad, which felt the consequences of the financial crisis at a later stage through its effects on the local real economies. Figure 1 distinguishes a number of country groups, which are discussed separately below.

Three main actors

The United States, the United Kingdom and Japan are three major countries on the global financial scene. The Dutch banking system's claims on these countries have shown a sharp decrease (Table 1).

Total claims of the Dutch banking sector on the United States have been virtually halved in two years' time. This is considerable, even if around one-third of the decrease was caused by the sale of LaSalle by ABN AMRO, which led to a sharp decrease in the number of local establishments. Dutch banks' claims on the United Kingdom and Japan have also suffered a sharp decrease. Like the United States, these are countries with major financial centres, which were hit by the market turmoil at an early stage of the financial crisis. Hence, the decrease initially manifested itself in Dutch banks' interbank claims. Interbank claims on the United Kingdom fell by 48%.

As the financial crisis increasingly affected the real economy, lending by Dutch banks' local establishments abroad was depressed. However, it should be noted in this context that it cannot be concluded from these figures whether this development ensued from a lower supply of credit, a lower demand for credit or a combination of the two. When economic condi-

tions deteriorate, it is usual for the demand for credit to decrease. Thus, British households suffered negative wealth effects, caused by sharp decreases in stock prices and a major correction in the British housing market.² On account of falling housing prices, the financial position of us households has also deteriorated strongly, causing economic growth and consumer confidence to become even more depressed.

As a consequence of the financial crisis, Dutch banks' claims on a number of offshore centres³ have also shown a decrease. These small financial centres are marked by a relatively open economy and a comparatively large financial sector, enhancing their vulnerability to negative market sentiments arising from the financial crisis. The claims of Dutch banks' head offices and branches in the Netherlands on these countries have dropped by 23%. Notably claims on the private sector decreased in 2007 and 2008, especially those on the Cayman Islands where, for tax reasons, many us companies have established special purpose vehicles.

Some major trading partners

A remarkable pincer movement was observed in Dutch banks' claims on the Netherlands' traditionally important trading partners, such as Germany and France. Claims held by Dutch banks' head offices and branches in the Netherlands decreased in 2007 and 2008, but those held by Dutch banks' local establishments still showed an increase during these two years. Within the claims held by Dutch banks' head offices and branches in the Netherlands, the decrease focused on claims on other banks and governments. The decrease in claims on other banks fits the pattern of the financial crisis as

Table 1 Dutch banks' external claims on a number of countries

EUR million

	Head offices and branches in the Netherlands			Local establishments abroad			Total	
	06 IV	08 IV	%	06 IV	08 IV	%	06 IV	08 IV
United States	95,829	54,763	-43	322,651	162,192	-50	418,480	216,955
United Kingdom	182,448	105,847	-42	60,342	19,256	-68	242,790	125,103
Japan	13,138	3,497	-73	25,708	15,855	-38	38,846	19,352
Offshore centres	40,111	30,907	-23	5,551	4,710	-15	45,662	35,617

Table 2 Dutch banks' external claims

EUR million

	Head offices and branches in the Netherlands			Local establishments abroad			Total	
	06 IV	08 IV	%	06 IV	08 IV	%	06 IV	08 IV
Germany	79,857	46,691	-42	53,768	69,814	30	133,625	116,505
France	87,436	67,270	-23	8,463	16,179	91	95,899	83,449
Spain	44,185	43,384	-2	34,332	45,879	34	78,517	89,263
Poland	3,290	5,862	78	9,867	18,653	89	13,157	24,515
Turkey	5,144	8,665	68	257	6,309	2355	5,401	14,974
Hungary	1,135	1,836	62	882	1,442	63	2,017	3,278
Brazil	5,466	5,005	-8	31,742	3,894	-88	37,208	8,899
Russia	7,484	13,214	77	1,437	1,345	-6	8,921	14,559
India	4,803	7,108	48	7,252	7,739	7	12,055	14,847
China	3,632	6,583	81	935	2,354	152	4,567	8,937
Euro area	359,820	282,911	-21	206,609	231,017	12	566,429	513,928
Europe	604,177	456,585	-24	290,068	289,396	0	894,245	745,981

The sale of ABN AMRO

The sale of ABN AMRO to a consortium of foreign banks has substantially changed the landscape of Dutch banking operations. ABN AMRO operated an extensive network of local establishments in various countries. The sale of these establishments strongly affected the statistics on Dutch banks' external lending. Especially claims on Italy, the United States and Brazil have shown sharp decreases as a consequence of the dismantling of the ABN AMRO banking group.

The first foreign banking entity of ABN AMRO to disappear from the Dutch statistics was the office network of LaSalle in the United States. LaSalle, established in the middle of the United States, operated a network of hundreds of establishments. When these establishments were sold to Bank of America, total claims held by Dutch banks' local establishments fell by more than 20%. The effect on Dutch banks' external claims on

the United States was mitigated in percentage terms because, apart from ABN AMRO, ING and Rabobank also have a strong local presence.

The effect of the sale of Antonveneta on Dutch banks' total claims on Italy was considerably larger. Antonveneta operated a network of more than 600 regional establishments. The sale of this bank caused Dutch banks' lending by local establishments in Italy to drop by more than 60%.

The last major change arising from the sale of ABN AMRO was noted in Brazil. Since as early as 1917, ABN AMRO had been active in the Brazilian market and had succeeded over the decades in building up a strong, regionally anchored network by means of acquisitions. As a result of the sale of this network, Dutch banks' lending to Brazil through local establishments has dropped by more than 90%.

it became evident in the form of liquidity shortages in the interbank markets.

Turkey, Poland and Hungary

Yet another pattern is shown by the claims on three emerging economies. Total Dutch banks' claims on these countries increased, both those held by head offices and branches in the Netherlands and those held by local establishments. During the period under review, various Dutch banks strengthened their local presence in these countries by means of acquisitions.⁴ Yet, from end-2008 onwards, claims on these countries have also shown a decrease, due in part to currency depreciation and uncertainty about the feed-through in these countries of the global economic stagnation.

BRIC countries

On account of the magnitude of their labour potential, among other factors, Brazil, Russia, India and China are viewed as the economic superpowers of the future.⁵ Thus, for the Dutch banking groups, these countries constitute growth markets. Still, the Dutch banking system's claims on these countries are still modest. Owing to high, often export-led economic growth, the financial position of these countries improved strongly in recent years, so that they required little credit from other countries. Dutch banks' loans to debtors in these countries in 2007 and 2008 were mainly granted by head offices and branches in the Netherlands. Prior to the sale of Banco Real by ABN AMRO (see the Box), the local network in Brazil still accounted for total claims of EUR 32 billion. Despite the financial crisis, Dutch banks' claims on the other BRIC countries still showed an increase, centring on private sector debtors.

1 Annual Master Card Report 2008, 'London Tops as World Commerce Center', available at <http://www.bloomberg.com/apps/news?pid=20601102&sid=af92rensibw4&refer=uk>

2 De Nederlandsche Bank, Annual Report 2008, Global economic developments.

3 Aggregate volume for Guernsey, Jersey, Liechtenstein, Bahamas, Bermuda, Cayman Islands, Netherlands Antilles, West Indies, Hong Kong and Singapore.

4 Annual Reports 2007 and 2008 of various Dutch banks.

5 World Bank 'Bric Countries in Comparative Perspective', available at <http://siteresources.worldbank.org/intrussianfederation/147270-1109938296415/20939460/kristalina-georgieva-brics.pdf>

The effect of securitisations on lending statistics

In a few years' time, securitisation, or the bundling and reselling of mortgages and other assets, has grown into an important financial phenomenon. This practice has resulted in the removal of assets from banks' balance sheets. To enable a reliable interpretation of the banking and monetary statistics published in the Statistical Bulletin, insight is required into the consequences of securitisations and the substantial distortions they can cause in analyses of bank balance sheets.

What is securitisation?

Briefly explained, securitisation denotes the process by which (usually long-term) claims are converted into negotiable assets and, subsequently, resold. Various parties are involved in this process (Fig. 1).

First, a bank bundles asset items that it wishes to remove from its balance sheet. In the Dutch situation in particular, such items mainly consist of residential mortgages, while to a lesser extent also business and consumer loans may be pooled. Subsequently, these packages are sold to a so-termed Special Purpose Vehicle (SPV), a non-banking entity set up to this end by the securitising bank. An SPV raises the funds required for this purpose by issuing debt securities. Such loan-backed paper is chiefly bought by investors, who receive interest on these securities related to the quality of the underlying assets. The SPV, which now owns the mortgages, appoints an external party, i.e. the servicer, who must see to timely repayments and interest payments. In practice, this is usually the securitising bank itself, this being the party that arranged the mortgage loans and has the necessary back-office facilities. The inves-

tors in turn enlist the services of an external party, i.e. the trustee, who makes sure that the repayments and interest payments received by the servicer are correctly distributed among the various investors.

Besides securitisations through which banks sell bundles of mortgages (or other assets) and remove these assets from their balance sheets, i.e. *true sale* securitisation, there is also another type of securitisation, the so-termed *synthetic* securitisation. This term denotes the process by which banks do not sell the assets proper – and by which, consequently, these assets stay on the balance sheet – but the risk of defaulting interest or mortgage repayments, also referred to as credit risk (Fig. 2).

The bank shifts the credit risk it runs on a mortgage bundle by selling a cds (Credit Default Swap) to an SPV. In other words: defaults on its mortgage, the SPV will guarantee the loss thus incurred by the bank. In exchange for this guarantee, the SPV periodically receives a premium from the bank. Subsequently, the SPV sells a special kind of debt paper, i.e. Collateralised Debt Obligations (CDOs), to investors, storing part of the proceeds on a deposit account with the securitising bank as a guarantee that it will be able to meet its obligations. In the event of default, the SPV must compensate the bank. This compensation will be at the expense of the interest on, and repayment of, the money that investors had invested in the SPV. In fact, the bank has sold the risk run on specific assets to an SPV, which in turn has sold it to investors.

Figure 1 Diagram of a securitisation

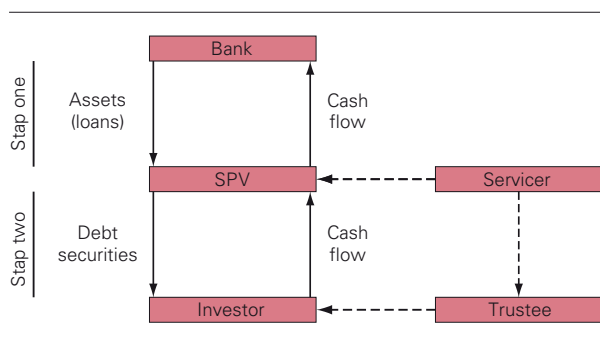
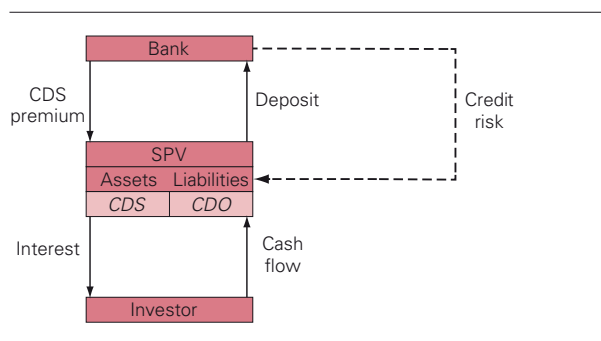


Figure 2 Diagram of a synthetic securitisation



What are the consequences of securitisation?

As a consequence of a securitisation as described above, a bundle of loans or, in the case of a synthetic securitisation, the credit risk run by a bank disappears from that bank's balance sheet and ends up on the balance sheet of a separate legal entity, called a Special Purpose Vehicle (SPV). As a result, the bank in question need hold less own funds as security. The additional solvency thus created provides the bank with room for new loan extensions. This may be illustrated by Table I (the amounts and ratios used only serve illustrative purposes and are not risk-weighted).

Furthermore, assume that for prudential reasons Bank A is required to hold 10% own funds against every loan. This requirement is satisfied before the securitisation ($100/1.000=10\%$) is effected. In the given case, the bank has no more room left for new loan extensions. If Bank A sells a pool of loans to an SPV and receives 100 liquidities in return, its solvency ratio will rise to 11% ($100/900$). This means that the bank has room to extend new loans. As appears from this example, banks can keep their lending operations going without eroding their solvency.

Securitisations in the Netherlands

Owing to the benefits banks can reap via securitisations, the number of securitisations effected has grown throughout Europe in recent years. Accounting for 8% of GDP, the volume of securitised assets in the Netherlands is comparatively large.¹ This is explained by the

Table I Securitisation illustrated

Bank A before securitisation

	Assets		Liabilities	
Bundle of loans	100	EV		100
Liquidities	0		Other liabilities	900
Other loans	900			
Total	1.000	Total		1.000

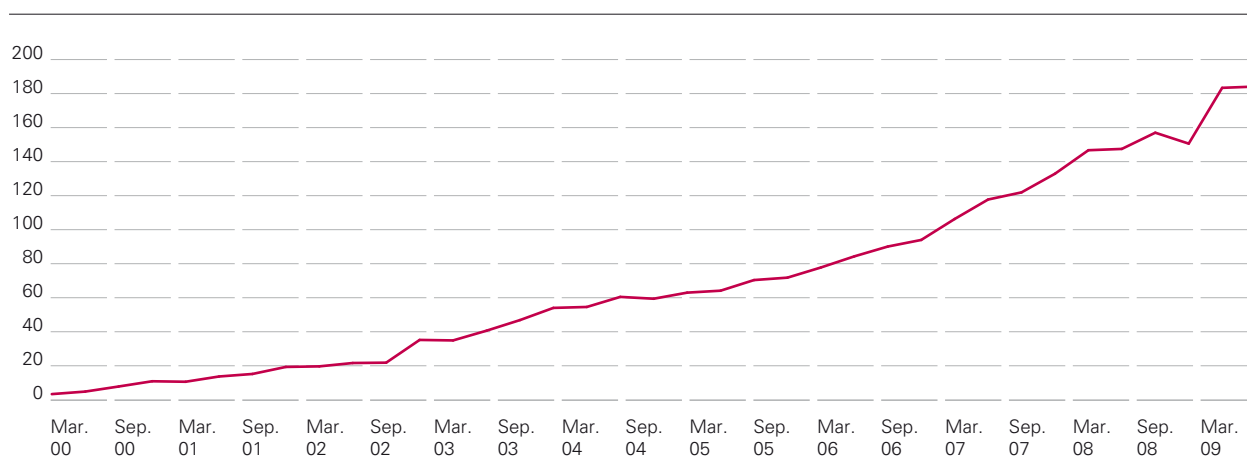
Bank A after securitisation

	Assets		Liabilities	
Bundle of loans	0	EV		100
Liquidities	100		Other liabilities	900
Other loans	900			
Total	1.000	Total		1.000

Netherlands having a relatively extensive financial sector and relatively many households with residential mortgages. The number of mortgages sold to SPVs ('true sales') has risen sharply in recent years (Chart 1). This increase is not wholly attributable to the banking sector, but also to other financial institutions that have transferred mortgages to SPVs' balance sheets via securitisations. Since 2000, the aggregate value of mortgages on the balance sheets of Dutch SPVs has doubled every three years and now stands at over EUR 180 billion.

Chart 1 Mortgages (true sale) on the balance sheets of Dutch SPVs

EUR billion



While around mid-2008 the number of mortgages on the balance sheets of Dutch SPVs temporarily fell under the pressure of the financial crisis,² the number of securitised mortgages has been on the increase again since end 2008. This rise is largely accounted for by banks buying up debt securities issued by SPVs in order to acquire assets they can use as collateral under the Eurosystem.

Besides securitising mortgages, banks can remove other consumer loans as well as business loans from their balance sheets through securitisation. Securitised loans (true sale) on the balance sheets of Dutch SPVs totalled nearly EUR 250 billion as at 31 December 2008. At 50% on average, mortgages make up the most important item on SPV balance sheets (Chart 2). Other securitised loans constitute nearly 20% of the balance sheet total.

The deposits item largely consists of capital stored by SPVs with banks by way of guarantee that they can meet their obligations in the event of default. The size of the deposits on the SPV balance sheets is therefore a reliable indicator of the volume of synthetic securitisations. Since 2000, this volume has accounted for 20% on average of the SPV balance sheet total. In recent years, these bank deposits contributed substantially to the growth of the monetary aggregates.

Effect of securitisations on banking statistics

Under international statistical guidelines, which are also observed within the scope of the ECB, SPVs do not fall under the banking sector, but under Other Financial Institutions. Therefore, part of the outstanding loans that have been securitised no longer qualify as banking credit. To gain accurate insight into the development of bank lending, it is therefore necessary to look beyond banking sector statistics and also include securitised loans. This is illustrated by Chart 3, which reflects mortgage lending. Judging by the balance sheets of the banking sector alone, the number of residential mortgage loans outstanding at year-end 2008 would be 90% higher than in 2000. If securitised mortgage loans are taken into account as well, the resulting percentage is approximately twice as high.

Securitisations of other loans, like corporate credit, have a similar effect. It must be noted, however, that credit figures can only reflect a development, and do not tell anything about the underlying cause of the growth described. Indeed, this growth may be driven by a higher demand, a larger supply or a combination of the two. Besides, the positions of the loans granted do not reflect how many new loans have been extended by banks, because they also incorporate repayments.

If a bank buys back a pool of mortgages that it had first securitised, these mortgages will reappear on its balance sheet. As long-term claims have increasingly been made tradeable, credit growth analyses based on just

Chart 2 Composition of balance sheet total of Dutch SPVs

Percentages

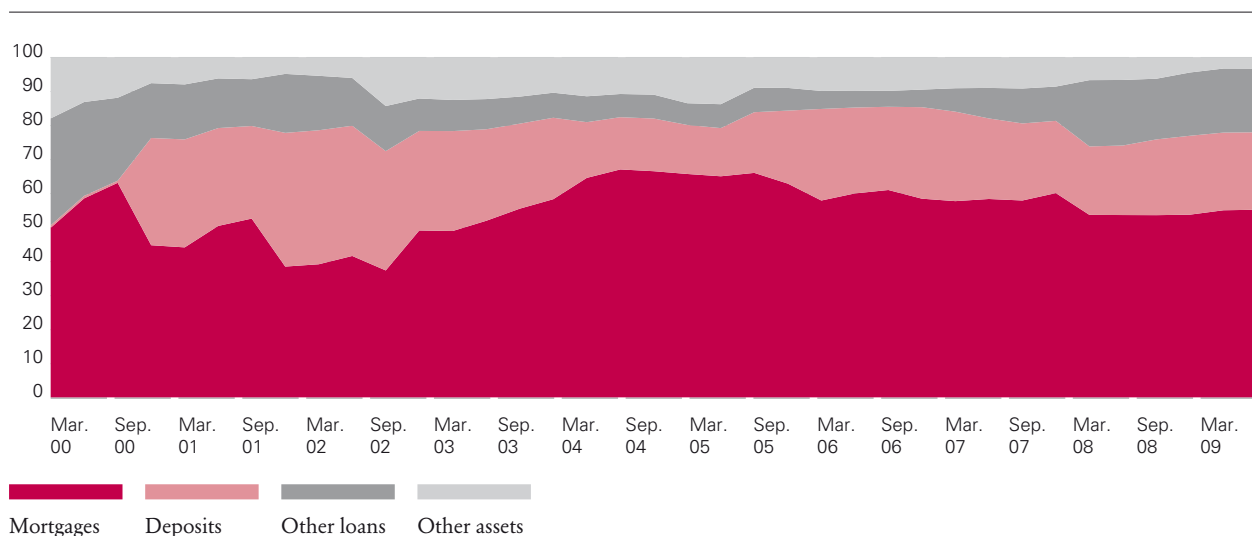
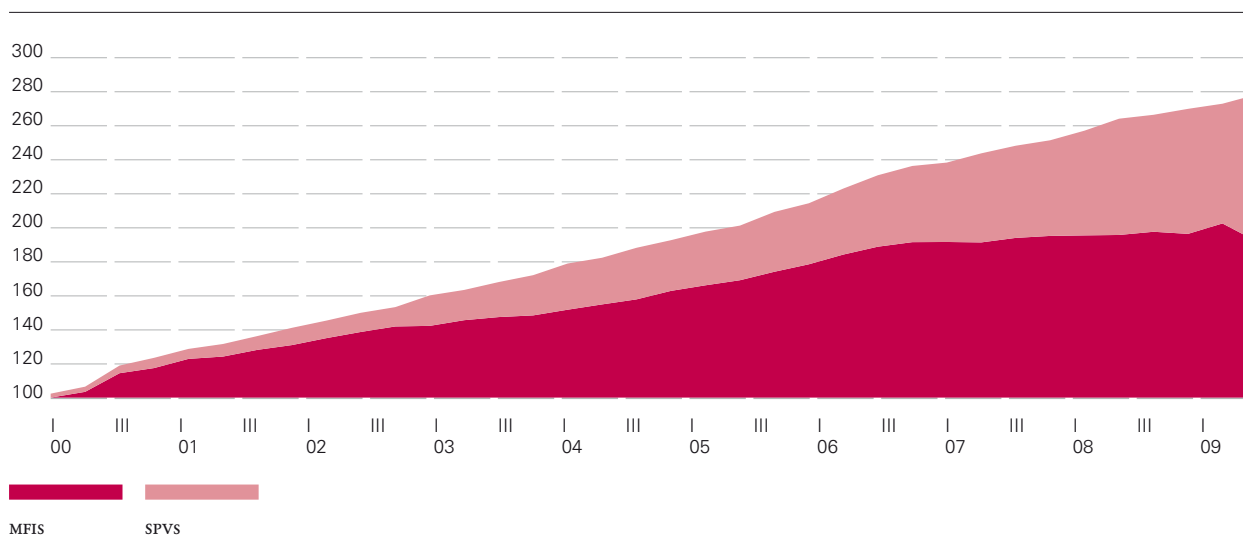


Chart 3 Growth of Dutch residential mortgages at MFIS and SPVs since 2000

2000 I = 100



bank balance sheets always produce distorted results. For a correct analysis based on a complete picture, also the developments at SPVs must be taken on board.

For an accurate insight into bank lending, it is essential that the effects of financial innovations like securitisations on bank balance sheets be made transparent. This is why DNB has published new tables on its website.³ These tables reflect the growth in lending by Dutch banks to households and non-financial institutions as well as mortgage loans, corrected for securitisations.⁴

¹ 'Securitisation in the euro area' ECB Monthly Bulletin, February 2008.

² See also 'Sharp drop in the 'repackaging' of mortgages by banks' Statistical Bulletin, June 2008.

³ <http://www.statistics.dnb.nl/> (preliminary figures).

⁴ also corrected for any statistical technical breaks in the figures.

Pension funds' increased sensitivity to foreign portfolio investments

Liberalisation and deregulation of capital markets in the 1980s and 1990s, combined with advancements in information technology, sparked the rapid globalisation of capital movements, international coordination of financial markets and the creation of sophisticated financial products. As a result, parties in the financial sector have increasingly accumulated cross-border claims and liabilities. This article shows that this is true of pension funds as well, at least as far as portfolio investments are concerned. At end-2008, invested pension assets amounted to almost EUR 700 billion, or some 1½ times Dutch GDP. Pension funds invest these assets in financial instruments, for instance equities and debt instruments. By end-2008 some three fourths was invested in foreign financial assets. Balancing these claims are pension funds' liabilities, which still consist almost entirely of future pension benefits for Dutch retirement pensioners over and above their State pension. Meanwhile, however, solutions are under development to enable foreign pension savers to accrue pensions with Dutch pension funds.

Trends in the investment portfolio since 1990

Two striking trends have marked the development of pension funds investment portfolios since 1990: they have grown strongly in size and their composition has changed dramatically (see Chart 1).

The growth of the investment portfolio, by some 8% each year, had two causes. First, there was more to invest because for many years, scheme members' contributions exceeded pensioners' benefits. The size of this surplus has declined in recent years, however, since the number of active members has declined while the number of pensioners has risen as a result of demographic aging. Secondly, pension funds made positive returns on their investment portfolios¹, despite some disappointing or even negative results. First, economic growth stagnated in 2000–2002 as a result of the so-called dotcom crisis, which involved strong depreciating stock prices of, especially, IT sector companies. Later, negative returns were recorded almost universally as a result of the credit crisis.

Meanwhile, the composition of investment portfolios changed as well. Since in the long run stocks and debt instruments tend to bring in better returns than loans, more and more assets were invested in those categories. National legislation, which created some impediments,

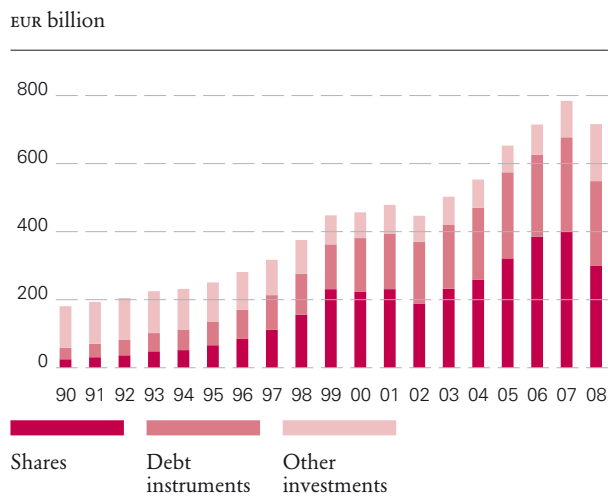
was gradually relaxed. Also, the largest pension fund in the Netherlands (the *Algemeen Burgerlijk Pensioenfonds* or ABP) was privatised in 1996, which gave this player wider investment scope. Because the Dutch home market quickly became too small for large-scale activities, ABP and other pension funds increasingly cast their nets further afield.² Economic and Monetary Union (EMU) further enlarged the possibilities for investment abroad, because it did away with exchange rates across a large part of Europe.

Higher returns on investments usually coincide with higher risks, such as exchange rate, interest rate and currency risks.³ The intensified 'quest for yield' made investment portfolios increasingly sensitive to changes in equity and bond prices and exchange rates. Pension funds have therefore increasingly hedged against these risks, as through options and interest rate and exchange rate derivatives (see the Box). In many cases, these contracts involve foreign counterparties.

Growth of cross-border investments by pension funds

Over many years, as they searched for high-yield investments and in order to diversify their investment risks, pension funds – and other parties – invested increasing portions of their assets in foreign securities (see Chart 2). At end-2008, some three quarters of invest-

Chart 1 Pension funds' portfolio investments since 1990



ments consisted of foreign-issued securities.

The period from 1990 to 2008 may be roughly divided into three phases. During the first phase, until about 1999, the share of foreign equities and foreign bonds in the investment portfolio increased steadily. Economic prosperity caused the shares of especially foreign IT companies to rise, which strongly increased their attractiveness for pension funds and other investors. The weight of foreign bonds in the investment portfolios grew as pension funds anticipated the arrival of EMU. In particular, they purchased government bonds from countries, such as Italy and Spain, where capital market rates remained relatively high until the introduction of the non-cash euro. The pension funds expected to realise price gains as capital market rates converged to lower levels.

During the second phase, from 2000 until 2005, the share of foreign equity stabilised while the weight of foreign bonds was further enlarged. Pension funds had a need for investments that carried relatively little risk, partly because shares, especially those of IT companies, had fallen considerably amid the dotcom crisis.

During the third phase (2006–08) direct holdings of foreign shares and bonds fell off slightly. Other investments, such as derivatives contracts, increased in weight, as pension funds increasingly used them to hedge against investment risks. The credit crisis, which set in in 2007, reinforced these movements. At the same time, mainly for cost-saving reasons, investment were increasingly made indirectly through investment funds. As per end-2008, almost half of pension funds' share portfolios consisted of investment fund units, up from around two-fifths two years earlier. Such indirect investments are made largely through Dutch investment

Chart 2 Pension funds' cross-border investments

1990-2008; percentages of total portfolio investments

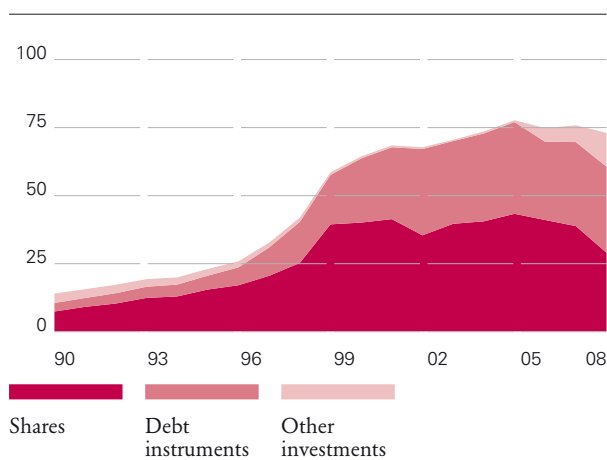


Table 1 Cross-border portfolio investments of Dutch pension funds, by country

End-2008 figures in EUR billion

	Securities	Of which shares	Of which debt certificates
1 US	152	85	68
2 France	44	9	34
3 UK	39	23	16
4 Germany	28	7	21
5 Italy	25	3	23
6 Ireland	16	10	6
7 Spain	13	3	10
8 Luxembourg	10	8	2
9 Japan	9	8	1
10 Switzerland	6	6	0
<i>Total top 10</i>	<i>344</i>	<i>162</i>	<i>181</i>
Other countries	76	37	39
Total foreign portfolio investments	419	199	220
<i>Top 10's share in cross-border portfolio</i>	<i>81.9</i>	<i>81.5</i>	<i>82.3</i>

funds (EUR 75 billion), which may in turn invest across borders. End-2008 figures on such assets in Dutch investment funds indicate that over three-fourths of them was invested in foreign equity and bonds.

Geographical spread

At end-2008, Pension funds had spread their cross-border investments over some 120 countries. The concentration of such investments within a small circle of countries was high, however, for 82% of cross-border assets is invested in just ten countries (see Table 1). At the time the observations began, in 2003, concentration on these ten countries was, in fact, even higher (84%). Within this group of ten, however, there have been relative movements. The rise of Irish and Luxembourg investment funds caused the holdings of Dutch pension funds in those countries to grow, while investments in French government bonds were expanded as well. Many of such bonds have relatively long maturi-

Table 2 Investments by pension fund type

End-2008 figures in EUR billion

	Equities				Debt certificates			
	Total	Netherlands	Other countries	In %	Total	Netherlands	Other countries	In %
Industry-wide pension funds	190	43	148	77.6	176	15	161	91.6
Company pension funds	88	44	44	50.2	60	7	53	88.3
Occupational pension funds	8	1	7	88.4	7	1	6	92.1
Total	287	88	199	69.5	243	22	220	90.8

ties (up to 50 years in some cases) or else are inflation proof. Both these aspects tend to enhance the match between pension funds' receivables, on the one hand, and their liabilities on the other. In the case of inflation-proof bonds, interest payments keep pace with inflation, so that the investor is assured of real yields, which is an attractive feature for long-term investors such as pension funds.

The geographical spread of equity and bond portfolios depends on the type of pension fund. There are three basic types of pension funds in the Netherlands: sector-wide pension funds, company pension funds and occupational pension funds. Company pension funds tend to invest smaller shares of their equity portfolios directly in foreign countries and more in Dutch investment funds compared to the other two types (see Table 2). This is because this group numbers relatively many smaller pension funds. As already mentioned, such pension funds often find it attractive from a costing point of view to invest their pension assets in an indirect manner. The industry-wide and occupational pension funds are dominated by larger entities, and they do hold more direct equity investments. For all three groups, foreign debt instruments made up circa 90% of the debt portfolio at end-2008. Debt investments typically carry lower risk factors than equity investments.

The spread of cross-border investments over countries or groups of countries shows both similarities and dissimilarities per type of pension fund (see Chart 3). Thus while all three categories invest over 80% of their assets in the same group of ten countries, the breakdown by investment country within that group differs per type of pension fund. Company pension funds invest a smaller share of assets in US securities and a larger share in EMU Member States, particularly in Irish

investment funds. This way they reduce the exchange rate risk they run. The other two groups of predominantly larger pension funds are better able to use currency derivatives to hedge against exchange rate risks.

Outsourcing of asset management

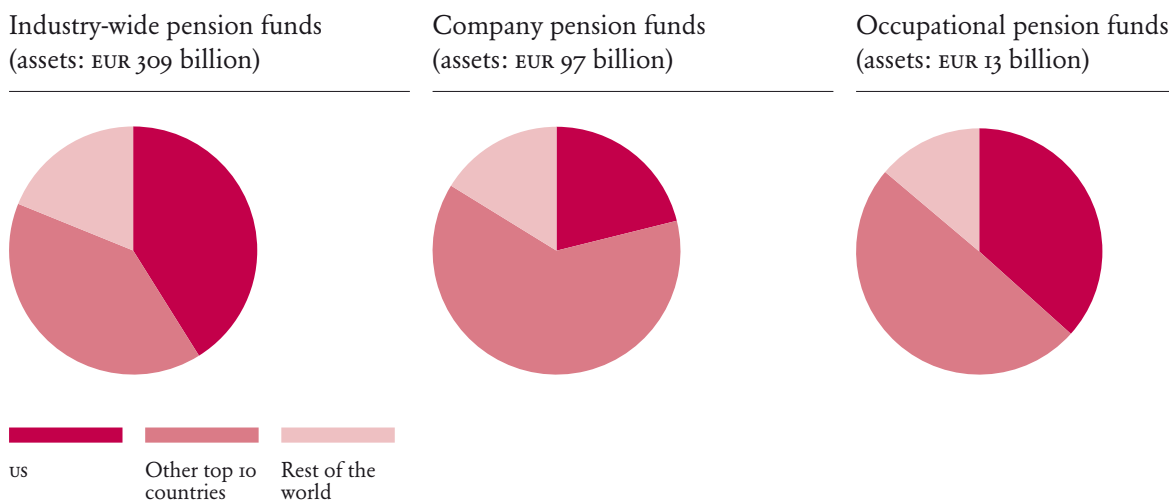
Another aspect of the internationalisation of the pension sector is that of portfolio management. Dutch pension funds increasingly decide to outsource their asset management to professional asset managers (see Chart 4)⁴. A substantial part of the Dutch asset management market has been conquered by foreign firms and many Dutch pension funds have been using their services. The increased scale of pension fund investments, the need to spread portfolios internationally and the simultaneous need to control the inherent risks with the help of sophisticated models have reinforced this trend toward outsourcing. Professional asset managers are often able to draw on specialist expertise enabling pension funds to invest in relatively risky investment products such as private equity or derivatives.

Some 95% of pension assets is currently managed not by the funds themselves but by external, mainly British and US-based asset managers. Pension funds make agreements with their assets managers on the investment categories to which (parts of) pension assets should be allocated. These agreements are usually set down in so-called mandates. The breakdown of investments depends on, *inter alia*, the pension member population.

2008 saw the creation of two very large Dutch pension providers, when pension funds ABP and Zorg en Welzijn founded APG and PGGM, respectively. Asset

Chart 3 Pension funds' cross-border portfolio investments

1990 – 2008; per cent of total portfolio investments



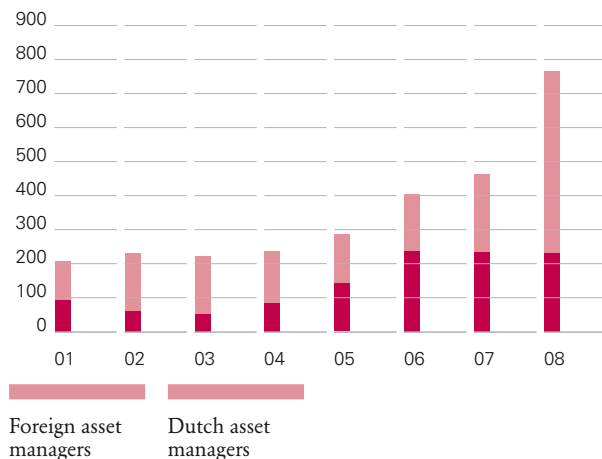
management is a major activity of these organisations. ABP and Zorg en Welzijn have entrusted most of their pension assets to these respective entities, reducing somewhat the market share of international assets managers in the Netherlands. APG and PGGM hope to manage other pension fund assets as well.

Internationalisation of pension liabilities?

The financial liabilities of pension funds consist mainly

Chart 4 External management of Dutch pension assets

EUR billion, first quarter end figures



Source: DNB and Bureau Bosch

of (future) benefits to retirees. In almost all cases, these will be benefits payable to residents of the Netherlands. Unlike Dutch banks, insurers and investment firms, therefore, Dutch pension funds have accumulated next to no cross-border liabilities.

However, two developments have been instigated which will ultimately enable pension funds to enter into cross-border obligations: the implementation of the European Pension Directive in 2005 and the arrival of a new type of entity, the General Pension Institution (*Algemene Pensioeninstelling* or API).

The European Pension Directive offers every pension provider in the European Union new opportunities to enter into cross-border pension obligations. The Directive thus serves as a first step towards EU-wide harmonisation of the pension sector. However, Dutch pension funds have made little use of these opportunities, because the Dutch pension landscape is dominated by defined benefit (DB) schemes. Under a DB scheme, the nominal benefit amount the pensioner will receive is fixed in advance, whereas the contributions by scheme members fluctuate to some extent. In most other EU Member States, pension schemes tend to be of the defined contribution (DC) type, where contributions by individual scheme members are fixed, while the individual pension benefits may vary. An additional rule limits the activities of a company pension fund to one individual company. In their present form, therefore, Dutch company pension funds are unable by definition to operate across borders. And industry-wide funds are constrained by the rule that the companies they

Box 1 Derivative contracts held by pension funds

Many pension funds use options, interest derivatives or currency derivatives to hedge against risks on their investments. At end-2008, the net claims of pension funds in respect of derivative contracts amounted to some EUR 31 billion (see Table 3). About three-fourths of Dutch pension funds' derivatives claims at that point were on foreign counterparties, largely under contracts made on the LIFFE derivatives exchange in London.

Options are useful instruments for pension funds wishing to hedge against price risk on equity positions. In many cases, the value of bought options increases when equity prices fall. Some 40% of claims were on foreign counterparties.

Interest rate derivatives, such as interest rate swaps, forward rate agreements and cross-currency interest rate swaps, are used by pension funds to cover the interest rate mismatch between investments and pension liabilities.

An interest rate mismatch arises if the average life of the investments differs from the average life of the liabilities, so that a falling capital market rate has an adverse effect on the fund's financial position. Interest derivatives enable pension funds to offset this adverse effect. As the capital market rate fell in 2008, pension funds' net interest derivatives position rose strongly. Over 80% of this claim position exists vis-à-vis foreign counterparties.

Currency derivatives (including currency term contracts) serve to hedge pension funds' currency risks on investments in countries outside the euro area. They have been used increasingly over the last few years. The sizable claims position in currency derivatives at end-2008 was mainly due to the depreciation of the pound sterling and the us dollar during November and December.

Table 3 Net derivatives positions held by Dutch pension funds

At end-2008, EUR billion

	Dutch counterparties			Foreign counterparties		
	2006	2007	2008	2006	2007	2008
Options bought	5	38	2,831	551	633	2,112
Interest rate derivatives	583	-1,621	3,418	1,766	-2,332	13,873
Currency derivatives	330	427	1,359	2,965	3,058	7,687
Total	919	-1,156	7,608	5,282	1,359	23,672

operate pension schemes for must belong to the same industry sector.

In order to make it possible for Dutch institutions to offer pension management services across borders as well, the Netherlands the Netherlands intends to introduce the already mentioned General Pension Institution or API.⁵ An API will make it its business to manage several pension schemes for several enterprises (both Dutch and foreign). This implies, in practice, the ability for an API to pool all contributed pension assets in a single investment portfolio, whereas its pension liabilities remains separated according to each managed scheme. Thus an API can generate scale benefits that until now have been the domain of the large pension funds.

Since 2008, the Netherlands has recognised a

runner-up to the API called the Contribution Pension Institution (*Premie-Pensioeninstelling* or PPI). Like the prospective API, a PPI may offer several pension schemes with, however, the proviso that they must be defined contribution schemes. For this and other reasons, Dutch parties have as yet not used this new option much.

Concluding remarks

The internationalisation of Dutch pension funds has over the past twenty years been almost entirely limited to the asset side of the balance sheet. Growth of the funds' pension assets and the relaxation of national legislation enabled pension funds to invest more in negotiable instruments.

Currently, some three-fourths of pension assets is invested abroad, across 120 countries. The arrival of EMU encouraged cross-border investments in a large part of Europe due to the disappearance of exchange rate risks. The concentration rate of cross-border investments is high: over 80% is invested in only ten countries, led by the United States foremost. British and US asset managers have meanwhile acquired a good share of this market. Liabilities of Dutch pension funds remain almost entirely domestic. Yet in recent years, initiatives have been launched to expand the possibilities for cross-border marketing of pension services.

¹ See the article entitled 'Do pension funds achieve the return they seek?' in the June, 2007 *Statistical Bulletin*.

² See Sparling, Robert P., 'Dutch external assets', *Statistical Bulletin* special issue, February 2002.

³ See the article entitled 'Growing need for current data on pension funds' financial positions' in the September, 2007 *Statistical Bulletin*.

⁴ See the article entitled 'Modernisation in the pension sector' in the September, 2008 *Statistical Bulletin*.

⁵ See the Annual Report for 2008 of De Nederlandsche Bank.

How does DNB measure that foreign holdings of Dutch securities amount to approximately EUR 1,400 billion?

A large part of securities issued by Dutch companies, banks and the government is in the hands of foreign investors. At the end of 2008, they owned EUR 1,359 billion in Dutch securities, both shares and debt instruments. This article elucidates how DNB measures foreign holdings of Dutch securities, i.e. the portfolio investment liabilities side of the balance of payments and the net external investment position of our country. For a proper interpretation of what DNB publishes on this topic in the Statistical Bulletin, this article also clarifies some definitions and concepts, as their use in the balance of payments statistics may sometimes differ significantly from the way they are used in the 'market'.

Introduction

Since the end of the 1980s, the share of portfolio investment as part of the total financial liabilities to foreign investors has risen sharply. In 1986 the share of securities was 30 percent¹. In 2008 this figure had risen to 38 percent. This means that Dutch financial liabilities to foreign investors are increasingly determined by marketable securities. This article first discusses some concepts and definitions and continues with an overview of the way in which securities are issued and held in the Netherlands, as this is important for the method DNB uses to collect data, as dealt with further on. This is followed by a short explanation about security-by-security reporting. Finally, the resulting figures from statistics and those of the International Monetary Fund (IMF) are considered, which give an indication of the spread of foreign holdings of Dutch securities by country.

Definitions and concepts

Within balance of payments statistics, securities are defined as marketable instruments. Their marketability ensures that they can change hands several times during their term. The balance of payments distinguishes between shares and debt instruments.

Shares can be purchased as a portfolio investment or as a direct investment. In a direct investment, shares are purchased with the aim of acquiring control of the management of the company. Internationally, it has been agreed that this is the case if the purchaser acquires ten percent or more of the voting rights. Portfolio

investment in the balance of payments consequently only contains interests smaller than ten percent. Shares are further subdivided into quoted and unquoted shares. Units of participation in investment funds likewise fall within the category of shares, even when the investment fund only invests in debt instruments.

For debt instruments, the balance of payments distinguishes between short-term and longer-term debt instruments, the cut-off point for short-term being an original term of one year. For the majority of the debt instruments issued, the owner is entitled to a fixed or variable coupon rate. However, there are also interest-free instruments, called zero bonds, which are issued with a rate below their redemption value and during their term grow to their nominal value (the difference between the issue price and the redemption value (the discount) is calculated as interest within statistics). Bonds with an unlimited term, also referred to as perpetual bonds, are also considered debt instruments. Hybrid securities are less easily categorised, as they may have characteristics of shares, debt instruments and financial derivatives. Examples are convertible bonds, which up to the moment of exchange are considered debt instruments. Shares and debt instruments in the hands of central banks form part of the official reserves and are not regarded as part of portfolio investment. Financial derivatives, such as options, futures and forwards, also form a separate category in the balance of payments and are not part of portfolio investment.

The distinction between Dutch and foreign securities is determined by the residency of the issuer. The IMF defines a resident of a country as a legal person (not the organisation as a whole) having its centre of economic interests within that country's borders. This means, for instance, that shares in Corus and Air France-KLM are considered foreign securities, as the companies issuing these shares have their head offices in the United Kingdom and France, respectively. When Mittal Steel still had its head office in Rotterdam, the Mittal shares were Dutch. The new Arcelor-Mittal, however, is Luxembourg-based. Royal Dutch Shell is considered Dutch, as the company is headquartered in The Hague. As a result, the composition of foreign holdings of Dutch shares by issuer differs from, for example, the AEX index. For reasons of comparison, Table 1 shows the weights of the various shares in the AEX index at the end of 2008, compared with the interest of these shares in the debt to foreign investors.

Table 1 AEX composition and corresponding weight in the balance of payments at 31 December 2008

Percentages

Company	Weight in the AEX	Interest in the balance of payments
Aegon	3.3	1.6
Ahold	4.7	2.7
Akzo Nobel	3.6	1.9
ArcelorMittal	8.4	- ¹
ASML Holding	2.5	1.1
BAM Group	0.3	0.1
Corio	0.7	1.0
DSM	1.1	0.7
Fortis	0.9	0.3
Fugro	0.5	0.3
Heineken	2.4	1.5
ING Group	7.4	3.9
KPN	8.6	5.0
Philips Electronics	7.1	3.6
Randstad	0.9	0.3
Reed Elsevier	2.5	1.3
Royal Dutch Shell	21.8	34.9
SBM Offshore	0.6	0.4
TNT	2.3	1.4
TomTom	0.4	0.2
Unibail - Rodamco Europe	3.9	- ¹
Unilever	13.2	7.7
USG People	0.3	0.1
Wereldhave	0.6	0.7
Wolters Kluwer	1.9	1.0
Other Dutch non-AEX shares	-	28.3
Total	100.0	100.0

¹ ArcelorMittal and Unibail Rodamco are considered to be foreign shares in the statistics.

In addition, it is important that not only shares traded on Euronext Amsterdam are included in the financial liabilities to foreign investors, but all shares in foreign hands issued by Dutch residents.

Finally, the balance of payments, under 'Dutch securities' states an inflow (represented by a positive sign) for purchases of Dutch securities by foreign investors. An outflow (represented by a negative figure) indicates that they have returned to Dutch hands or

that redemption payments have been made on debt instruments sold to foreign investors.

Safekeeping of securities

In the supply of data on securities, custodians, i.e. the institutions offering accounts for the safekeeping of securities, play an important role. Like money transfers, the securities transfers in the past decades have largely been by book entry. Securities accounts strongly resemble money accounts. They are not in a specific currency, but indicate the amount or nominal value of a particular security being held.

The legislation governing this has been laid down in the *Wet giraal effectenverkeer* or *Wge* [Securities Giro Act] of 1977. The *Wge* stipulates that securities have to be deposited with a central institution, so that investors are protected against loss of the securities in case of a bankruptcy of the bank where they are being kept.

In the Netherlands, the role of central securities depository (CSD) is performed by *Necigef* (Netherlands Centraal Instituut voor Giraal Effectenverkeer). *Necigef* registers on its securities accounts the amount of securities held for investors at a specific bank. Dutch securities are bearer security, which means that *Necigef* does not have any information about the investor's identity. The banks in turn keep track of how many of those securities belong to one particular investor. This activity is referred to as custody. It may be that the client of a custodian keeps the securities for a third party. Consequently, there may be several custodians in the custody chain between on the one hand the investor and on the other *Necigef*. In many cases, only the parties directly involved in the custody chain are aware of each other's identity.

Besides issuing securities in the Netherlands, a company may choose to issue securities abroad. Many countries have legal regulations similar to the *Wge* and have a central securities depository. Multinationals such as Aegon, ASML, Philips and Unilever, for instance, have opted for a listing on the New York stock exchange. In this way, companies not only have immediate access to a new capital market, but also show their connectedness with that foreign market.

Residents wishing to invest in these securities issued abroad can open a securities account with a custodian in that country. Nowadays, however, Dutch custodians have their own accounts with foreign branch partners so that it is sufficient to open a securities ac-

count with a local bank in the Netherlands. The custody chain in this case extends beyond the Dutch border. Conversely, foreign custodians hold securities accounts with Dutch custodians, so that they can hold securities issued in the Netherlands for their clients. A third route via which cross-border custody takes place is between the central securities depositories of various countries, the CSD-to-CSD link. There are also two international CSDs, the ICSDs: Euroclear Bank in Brussels and Clearstream Banking in Luxembourg, which were established especially for cross-border settlement of securities.

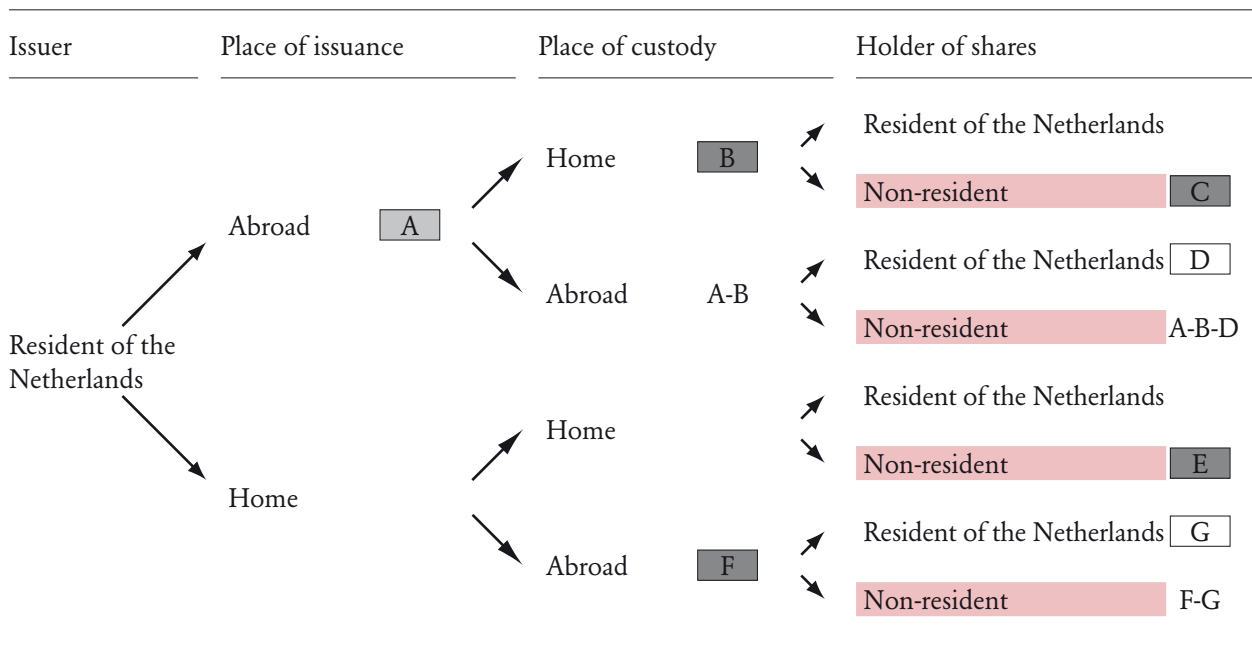
The system of collecting data

The scope of Dutch legislation – for the balance of payments statistics the *Wet financiële betrekkingen buitenland* or *Wfbb 1994* – does not reach beyond the country borders. This means that DNB cannot ask for-

foreign investors how many Dutch securities they hold, even leaving aside the practical problems in identifying the holders, who, theoretically, could be based all over the world. Therefore, the amount of Dutch securities held by non-residents must be derived in an indirect way.

One of the options would be to derive foreign holdings as a residual item, i.e. the total outstanding amount of Dutch securities minus the holdings of all resident investors. This option has the potential disadvantage of a high reporting burden for national investors, especially if these investors do not have to report their national positions for other statistics either. Against this background, DNB in 2003 decided to use a method that directly connects to those points in the custody chain where there is a relation between a resident and a non-resident. This ‘mixed approach’ distinguishes between securities issued in the Netherlands and those issued abroad. The decisive criterion for this is the location of the CSD where the security has been

Figure 1 Build-up of foreign holdings of Dutch securities in 2008



	2008 amounts in EUR billion	
A	1,135	
B	98	-/-
C+E+F	488	
D+G	166	-/-
Foreign holdings of Dutch securities	1,359	

deposited, not the stock exchange where the security is being traded².

Figure 1 shows how the distinction between securities issued in the Netherlands and those issued abroad plays a role in determining foreign holdings of Dutch securities. This figure shows the custody chains discussed above for securities issued abroad (top branch) and issued in the Netherlands (lower branch). In practice, the chain between issuer and eventual holder may be longer than shown in Figure 1, but the calculation method would be the same. This figure therefore sums up all the elements of the system. Below we will discuss the custody chains in actual practice for on the one hand securities issued in the Netherlands and on the other those issued abroad. We will refer back to this figure in our explanation.

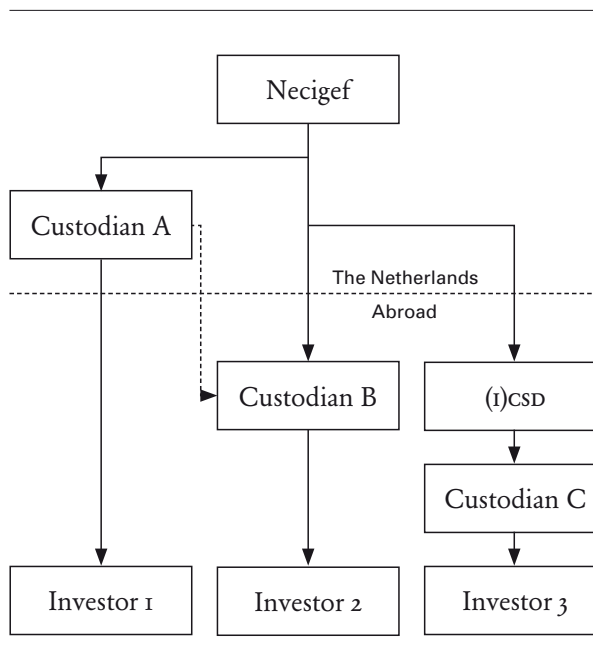
Securities issued in the Netherlands

As shown in Figure 2, foreign investors (investors 1, 2 and 3) may hold Dutch securities in various ways. For instance, they can open their own securities account with a custodian based in the Netherlands (investor 1). A second option is to do this via a custodian in the client's own country (investor 2). This foreign custodian then holds the securities with Necigef via a local custodian (indicated by the dotted line between custodians A and B) or via a CSD-to-CSD link (investor 3). As a result of the ESES project (which we will discuss in more detail further on), since the beginning of 2009, foreign banks have now been able to open their own account at Necigef for holding securities. No matter which option a non-resident chooses, the ownership of a security issued in the Netherlands can be determined by DNB by simply asking Necigef and the Dutch custodians how many Dutch securities are recorded on securities accounts in the name of non-residents. This corresponds to blocks E and F in Figure 1. Naturally, Dutch investors may also have accounts abroad holding securities issued in the Netherlands. In order to deduct these positions from the securities held abroad, DNB also collects information about this from the investors themselves. See block G in Figure 1.

Securities issued abroad

In the case of securities issued abroad, as represented in Figure 3, two amounts have to be deducted from each other: the total amount issued and the amount in the hands of residents. First, DNB therefore collects data from the issuing institution on securities deposited with foreign CSDs (block A in Figure 1). For shares, this means that new capital must have been raised, for

Figure 2 Securities issued in the Netherlands and held abroad



example in New York (New York-registered shares). The issue of certificates such as American Depositary Receipts (ADRS) are not considered part of the issues. These ADRS issued in the United States effectively represent shares issued in the Netherlands with a new label. Consequently, they do not belong to the total amount of shares issued abroad.

For determining the ownership of residents, DNB proceeds as follows. DNB first of all collects data from residents about the securities they hold with foreign custodians (investor 4 in Figure 3 and block D in Figure 1). The residents are usually banks, pension funds and insurance companies. It may also be the case that Dutch investors hold these items issued abroad via Necigef (via a CSD-to-CSD link) or via a Dutch custodian. DNB therefore asks both Necigef and the custodians which part they hold with foreign custodians and (i)CSDs (investors 5 and 6, block B in Figure 1). However, in this part of the reporting, they cannot make a distinction as to the residence of the investor. It may turn out that a Dutch custodian holds these securities for a non-resident investor. This corresponds with Block C in Figure 1. The data DNB collects about this separately complete the picture of foreign holdings.

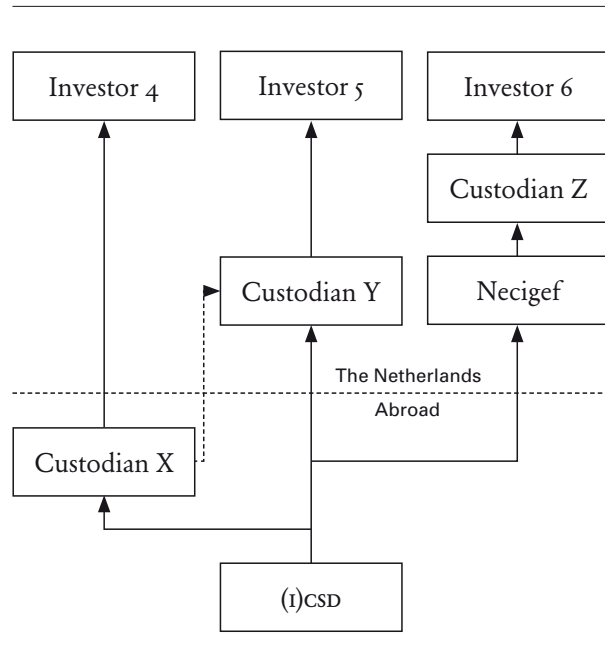
Security-by-security reporting

Since the beginning of 2003, DNB has investors, custodians and issuing institutions report data on individual securities (*security-by-security reporting*). They each have their own ISIN code. ISIN stands for International Securities Identification Number and is an ISO standard for the identification of securities comparable to a personal identifier for people in the Netherlands or the Chamber of Commerce number for companies. The ISIN code can be used to identify a specific security unambiguously. The reporter only has to provide the ISIN code in combination with the number of securities or nominal value, purchases and sales, any coupon interest received or paid, and dividends. DNB then calculates market values and interest to be received or paid. Subsequently, DNB uses the ISIN code to categorise the amounts by country and sector of the issuing institutions, type of security (share, participation in an investment institution or debt instrument) and currency.

The security-by-security approach has a number of major advantages compared to a reporting methodology in which data are drawn up by a reporter beforehand and subsequently adjusted to fit the categories required for statistics. Those data in some cases deviate strongly from the classifications reporters themselves use in the market. In addition, security-by-security reporting offers DNB more flexibility in compiling its figures. For instance, DNB no longer has to revert to reporters if international statistical guidelines require changes to statistics reporting. In such cases, DNB 'only' has to adjust its own systems to the new situation³.

More and more countries are introducing security-by-security reporting. For a number of ECB statistics, it is even obligatory to enable reporters to use security-by-security reporting. This makes it interesting for the national central banks within the European Union to centrally purchase the data required for processing. That is why some years ago, the ECB decided to create a European securities database for all central banks in the European Union, the Centralised Securities Database (CSDB). In addition to savings on costs, the CSDB also boosts the use of harmonised data and improves the quality of European statistics on portfolio investment with a system of coordinated quality checks. In the course of this year, DNB will also switch over to CSDB for the processing of its security-by-security reporting.

Figure 3 Securities issued abroad and held in the Netherlands



Developments in the European system of exchanges

Following the liberalisation of capital transactions and the increase in cross-border securities trade, the need for settling international securities transactions more efficiently also grew. This first led to the merger of the Dutch, French and Belgian stock exchanges to form Euronext. In addition, the national clearing organisations merged into one central clearing organisation, LCH Clearnet. In addition, the French (2001), Dutch (2002) and Belgian (2006) central securities depositories merged with Euroclear Bank.

Euroclear also developed one settlement platform for securities transactions for all three stock exchanges. This platform is known as the Euroclear Settlement of Euronext-zone Securities (ESES)⁴. With the introduction of the ESES project at the beginning of 2009, the CSD-to-CSD links between the Dutch, Belgian and French CSDs were terminated. They are, however, still in operation for links with CSDs of other countries. As it was easy to take into account the consequences of ESES, the impact on collecting balance of payments data was very limited. After all, within ESES the same players are active, though their role may sometimes have changed. As the implementation of ESES has made it easier for companies in the Euronext area to issue securities, a further dilution may take place between the country

of the issuer and the country of residence of the CSD. Determining the country of residence of the issuer of securities has therefore not become any easier. This is another reason for statisticians to enter these data in a uniform way in the CSDB.

The methodology of DNB in practice

At the end of 2008, foreign holdings of Dutch securities, as described according to the methodology above, amounted to EUR 1,359 billion (Table 2). Eighty percent of this related to debt instruments, especially instruments issued by Dutch banks and the Dutch government. The remainder concerned shares, the majority of which were issued by non-financial institutions (in Table 2 part of the group Other sectors). The special financial institutions (SFIs) form a separate group, which was already discussed in the Statistical Bulletin ⁵.

Table 3 shows how the total of EUR 1,359 billion is made up of various building blocks. The major part, EUR 1,135 billion, of foreign holdings of Dutch securities is observed through companies that issue securities abroad (block A in Figure 1, which also states the other total sums of Table 3). This amount must be reduced by EUR 98 billion for Dutch securities held abroad by Dutch custodians (block B in Figure 1). The remainder of foreign holdings, EUR 488 billion (blocks C, E and F in Figure 1), are held for non-residents at Dutch custodians and the CSD; shares mainly at Dutch custodians (EUR 115 billion), capital market paper especially at the CSD (EUR 224 billion). The other substantial deduction item, worth EUR 166 billion, represents the securities held abroad by resident investors (blocks D and G in Figure 1).

Table 2 Foreign holdings of Dutch securities per issuer at 31 December 2008

EUR billion

	Shares	Debt instruments	Total
Special financial institutions	14	411	425
Banks	2	334	336
Government	-	242	242
Other sectors	244	112	356
Total	260	1,098	1,359

Foreign holdings of Dutch securities by country

As foreign holdings of Dutch securities are determined indirectly, there is no information on the country or sector of the eventual foreign holder. This information therefore has to be obtained from other countries that collect data on their holdings of Dutch securities. Each year, with a lag of more than a year, the IMF publishes its Coordinated Portfolio Investment Survey (CPIs), a questionnaire among IMF member countries into cross-border holdings of shares and debt instruments, subdivided by residence of issuer. In this survey, countries report the value of their foreign securities, including Dutch ones, held by their residents. The combined data on the Netherlands form the mirror image of the amount DNB determines in an indirect way for foreign holdings of Dutch securities. As not all countries contribute to the CPIs and there may be differences in the

Table 3 Indirect observation of foreign holdings of Dutch securities at 31 December 2008¹

EUR billion

		Shares	Capital market paper	Money market paper	Total
Securities issued abroad (+)	A	143	947	45	1,135
Securities held at non-residents (-)	B	5-	88-	5-	98-
Securities held for non-residents (+)	C+E+F	160	254	75	488
Investments of residents held abroad	D+G	38-	126-	3-	166-
Dutch securities held abroad		260	987	111	1,359

¹ The letters in the second column refer to Figure 1.

quality of the observations of the various countries, the overview is not complete. The top ten countries with investments in Dutch securities (Table 4) report about 60 percent of the amount observed by DNB. The CPIS nevertheless provides a useful indication of the countries where foreign investors in Dutch securities are based. Dutch shares and debt instruments are, for example, most popular with investors in the United States. At end-2007, they invested for EUR 256 billion in Dutch securities. American interest was fed by the many large multinationals of Dutch origin. Germany came second with Dutch securities holdings amounting to EUR 121 billion. Unlike the Americans, the Germans particularly focused on bonds. It was striking that countries outside the euro area had a keen interest in Dutch shares, while within the euro area debt instruments were more popular. Investments by the United Kingdom were more or less equally spread between shares and debt instruments.

Table 4 Top ten countries with investments in Dutch securities at 31 December 2007

EUR million

	Shares	Debt instruments	Total
United States	156,884	98,981	255,865
Germany	21,356	99,433	120,789
United Kingdom	47,910	41,477	89,387
France	10,910	77,479	88,389
Italy	8,430	59,588	68,018
Spain	7,260	47,138	54,398
Luxembourg	45,701	7,820	53,521
Ireland	15,721	15,026	30,747
Japan	19,691	4,764	24,455
Belgium	3,604	14,961	18,565

¹ Excluding the obligations of special financial institutions.

² A detailed description can be found in the final report of the Task Force on Portfolio Investment Collection Systems.

<http://www.ecb.europa.eu/pub/pdf/other/portfolioinvestmenttaskforce200206en.pdf>.

³ For example, in 2006, DNB was able to increase the level of detail with a distinction between quoted and unquoted shares for the data reported with ISIN code.

⁴ Although ESES offers one platform for the settlement of transactions at all three stock exchanges, the transfer of ownership of the securities is still effected at the various CSDs themselves. The financial settlement of securities takes place via accounts at the central banks (Target2).

⁵ Statistical Bulletin September 2008 – The Netherlands still attracts SFIS.

Monetary and financial statistics for the Netherlands

The tables listed below will no longer be published in the Statistical Bulletin as of this issue. Please follow the links to the tables on the DNB website (www.dnb.nl), where long time series in euro are published. Quarterly and monthly series generally start in 1982, daily series in 1990.

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