FINANCIAL SECTOR SUPERVISION IN THE NETHERLANDS ANTILLES: A NEW APPROACH

prepared

by

Eugene B. Holiday

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1. Introduction

The financial sector is widely viewed as the nerve system of a modern economy. As part of the economic system its key function is to provide financial intermediation. Bain (1992) describes financial intermediaries as institutions which serve the needs of both lenders and borrowers. The financial sector is the depository of public savings. It is the primary source of external financing for businesses, the government and households to bridge liquidity shortages and to make capital investments. Further, the banking sector, usually the largest subsector in the financial sector, owing to the fact that its liabilities are regarded as money, operates the payments system in the economy. As such the financial sector wields considerable influence over the outcome of the economic process. The importance of the financial sector to the overall condition of the economy has always caused the authorities to pay close attention to its soundness and efficiency. To foster an adequate performance of the financial sector it is usually subject to more supervision than any other sector in the economy. The Netherlands Antilles is no exception in that regard.

The Bank van de Nederlandse Antillen, as the national Central Bank, has by virtue of the Central Bank Statute (P.B. 1985 no. 183) been entrusted with the task of supervising the financial sector. This mandate means that the Bank has the responsibility to safeguard the value of the Netherlands Antillean guilder and to promote a smooth functioning of the financial sector. According to K. Spong (1990) supervision refers to the Bank's monitoring of financial conditions at financial institutions under its jurisdiction and to the ongoing enforcement of financial sector

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The views expressed in this paper do not necessary reflect the opinion of the Central Bank and are entirely the responsibility of the author.

regulation and policies. As such the role of financial intermediaries in the economy is subject to the influence of financial sector supervision. In the Netherlands Antilles this is particularly evident since the middle of the eighties as the supervisory approach has changed in terms of scope and procedures.

This study reviews some of the latest developments in the field of financial sector supervision. Any evaluation of the developments in financial sector supervision should be based on a knowledge of the structure and an understanding of the economic role of the financial sector. The outline of the rest of the study is as follows. Chapter 2 provides a brief overview of the structure of the financial system. That is followed in chapter 3 by an analyses of the role of the financial sector in the economy since 1986. That is due to the structural break in most series as of that year as a result of the seccession by Aruba from the Netherlands Antilles. Chapter 4 deals with some of the latest trends in financial sector supervision in the Netherlands Antilles. The study ends with some concluding remarks.

2 Financial Structure

2.1 Introduction

The Netherlands Antilles has a wide range of financial intermediaries. They engage in an extensive range of banking and financial services. Based on the type of services domestic financial institutions provide, the following classification can be made:

1. Central Bank
2. Bank and credit institutions
3. Institutional investors
4. International financial institutions

That classification broadly reflects the structure of the regulatory framework which is used to regulate and supervise the national financial sector.

2.2 The Central Bank

The Bank van de Nederlandse Antillen has a key role in the financial sector of the Netherlands Antilles. The role of the Bank has like central bank's elsewhere in the world, evolved over time. This is reflected in the successive Central Bank charters of 1828, 1907, 1961 and 1985 which provide the legal basis for the central role of the Bank in the national financial sector. These charters show the gradual evolution of the Bank from a commercial institution, with special central bank privileges such as the monopoly of note issue, into a modern central bank. The original task of the Bank was to foster the economic development of Curacao by bringing banknotes into circulation and by extending credit to merchants. It was only in 1961, 133 years after its establishment, that the legal foundation was laid for the Bank to function as a full-fledge Central Bank. According to the Bank Statute of 1961 the principle responsibilities of the Bank are:

1. to promote the stability of the value of the Netherlands Antillean guilder (NAf.);
2. to foster a sound and efficient functioning national financial system; and
3. to issue banknotes and provide for the circulation of coins.

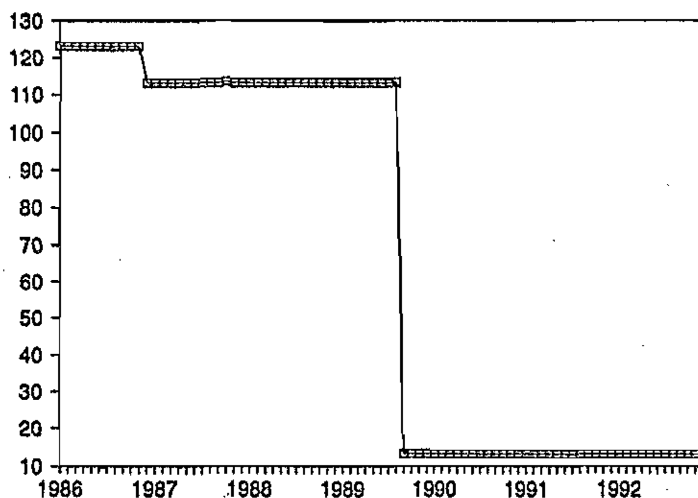
This implied that the Bank had become the supervisory authority for the financial sector of the Netherlands Antilles. To enable the Bank to effectively fulfill these responsibilities two important national ordinances have been enacted. These are:

(1) The National Ordinance Regulating the Supervision of Bank and Credit Institutions (P.B. 1972, no.38); and
(2) The National Ordinance Regulating Foreign Exchange Transactions (P.B. 1981, no.67).

They provide the Bank with the tools for the actual conduct of supervision.

The position of the Bank as supervisor of the financial system was further strengthened with the approval of the 1985 Bank Statute. The key element in that regard is the provision which limits the degree in which the Central Government can borrow at the Central Bank to 10% of its revenues in the previous year. This entailed an increase in the **monetary control capacity** of the Bank. The effect of the regulatory change is illustrated in graph 2.1. Following a substantial buildup in the outstanding balance on the Central Government's advance account at the Bank the 1985 statute ushered in a period of decline in the balance.

Graph 2.1 Development in the Central Government debt on the Advance account at the Central Bank.



2.3 Bank and Credit Institutions

Banks and credit institutions include commercial banks, the Giro, savings banks, mortgage banks, development banks, finance companies and credit unions. Their activities are, by virtue of the National Ordinance regulating the Supervision of Banks and Credit Institutions (P.B. 1972 no. 138), subject to the supervision of the Central Bank. Table 2.1 shows that apart from

the international banks, commercial banks are the largest group of financial institutions in the Netherlands Antilles. With assets amounting to 115% of GDP in 1992 they are the primary holders of the financial assets. In 1986 that percentage was 90%. The importance of the commercial banks is enhanced because they control some of the other important institutions in this group, mainly savings and mortgage banks. Among these institutions only the development banks have a governmental background.

Table 2.1 Balance sheet totals and number of selected financial institutions (in millions NAf.)

	1986		1991#		1992#	
	NAf.	#	NAf.	#	NAf.	#
The central bank	628.9	(1)	506.3	(1)	542.4	(1)
Commercial Banks	1,858.0	(12)	3,249.6	(17)	3,535.0	(17)
Life insurance	314.0	(8)	468.3	(8)	N.A	(10)
Pension funds	1,137.3	(21)	2,337.7	(21)	N.A	(22)
International banks	10,098.7	(53)	36,385.1	(56)	42,665.0	(54)

Source: Bank van de Nederlandse Antillen

Commercial banking in the Netherlands Antilles has its origin in the trading firms of the nineteenth century which extended banking services to facilitate trade. At present there are 17 commercial banks operating in the domestic economy. That entails an increase in the number of banks by 5 since 1986. One of the main features of the local banking system is its oligopolistic structure, as only a limited number of these banks account for the bulk of the banking business. These are the banks with offices in the Leeward and Windward Islands of the Netherlands Antilles. Further, during the past two decades banking in the Netherlands Antilles has in line with global developments become increasingly international.

All commercial banks, except two fully indigenous banks, are branches or subsidiaries of foreign banks. That development was

accompanied by a marked expansion in the foreign business of domestic banks and by the growth in the number of banks authorized to engage exclusively in international banking.

2.4 Institutional Investors

Institutional investors include pension funds, insurance companies and the social insurance bank. In terms of balance sheet total pension funds are the second largest group of financial intermediaries in the Netherlands Antilles. In 1991 their total assets amounted to 83% of GDP. That is a remarkable growth since 1986 when their assets-to-GDP ratio amounted to 55%. There are 22 pension funds licensed by the Central Bank to operate in the Netherlands Antilles, two of which were established by the government to cover government employees. The remainder are company pension funds. Until the introduction of the National ordinance (P.B. 1985 no. 44) regulating the supervision of pension funds in 1985, the supervision of pension funds was based on the National Ordinance regulating the Supervision of Banks and Credit Institution (P.B. 1972 no. 138).

The insurance industry is divided in two categories. These are life insurances companies and general insurance. Until 1992 only the life insurance business was subject to the Central Bank's regulation under the National Ordinance on the Supervision of Banks and Credit Institutions (P.B. 1972 no. 138). At the end of 1992 there were 10 life insurance companies authorized to do business in the Netherlands Antilles. Their assets equaled 17% of GDP in 1991, i.e., 2 percentage points more than in 1986. With the enactment of the National Ordinance regulating the Supervision of Insurance Companies, the general insurance business also came under the supervision of the Central Bank. At the end of 1992 about 18 general insurance companies have applied for a licence at the Central Bank. Like the banking sector, the insurance industry is comprised mainly of branches and subsidiaries of foreign companies.

The social insurance bank is a government controlled institution charged with collecting premiums and making payments under the social security system. The social security system comprises the General Old Age Pension fund (AOV), the General Widows and Orphans' fund (AWW), the Work Incapacitation fund (OV), the Sickness Benefit (ZV), and the Cessantia fund. Participation by employees, employers and independent professionals is a legal requirement. Contrary to pension funds and insurance companies the Social Insurace Bank is not subject to the Central Bank's supervision.

2.5 International Financial Institutions

International financial institutions include, international banks, international finance companies, international mutual funds, captive insurance companies, professional reinsurers and pension funds. Their activities involve the channelling of funds to and from third countries. Without the prior approval of the Central Bank international financial institutions are not allowed to do business with Netherlands Antillean residents. The assets of these institutions are significantly larger than GDP. Eventhough these institutions play an important role in the development of the domestic economy through their foreign exchange, profit taxes, and employment contribution, they are not considered in the rest of this study[1].

3 The economic role of financial institutions

3.1 Introduction

The institutions discussed in chapter two are quantitatively the most important categories of financial intermediaries in the Netherlands Antilles. This chapter examines the financial institutions' activities and their role in the economy of the Netherlands Antilles.

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1) For a detailed discussion on the offshore banks in the N.A. see J. Hagen (1990).

The role of the financial sector is the subject of various studies. In broad terms the literature may be divided in two schools of thought. First, the traditional position that the financial sector influences the outcome of the economic process through the money supply. Gertler (1988) states: "the main inter-action in conventional Keynesian, Monetarists' and Classical Models stems from activity in the medium of exchange....". A good understanding by the authorities of how financial institutions influence the money supply is therefore the focal point in this view. The financial structure is presumed to be irrelevant. Second, the modern position that financial institutions influence the economy through the advantages that arises from their provision of real services. These advantages are the savings in transactions and information costs and the provision of a wider range of financial assets. Informational asymmetries between market parties play a central role in this modern view[1].

As a starting point for the analysis of the role of the financial sector in the economy the financial interrelations in the Netherlands Antilles for 1991 are summarized in annex 1. That is the last year for which data of all financial institutions are available. The annex reveals some salient aspects of the Netherlands Antilles financial system.

3.2 The role of commercial banks

On the liability side commercial banks rely heavily on the domes-tic private sector's demand for deposits. About 45% of total fun-ding was derived from the domestic private sector in 1991. That equals about 70% of domestic liabilities. Including the private sectors' savings from indirect channels, i.e. the non-bank finan-cial institutions, these percentages amounted to about 55% and 90%, respectively. In 1986 and 1991 domestic private sector deposits holdings equaled 53% and 59% of GDP, respectively.

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1) For a detailed discussion see Gertler (1988)

Compared to other Caribbean Countries such as Barbados, Jamaica and Trinidad & Tobago, the banking sector plays a larger role in the mobilization of financial resources from the Private Sector in the Netherlands Antilles. Annex 2 shows that for mentioned countries the deposits-to-GDP ratio amounted to 45%, 40% and 39%, respectively.

Table 3.1 Primary domestic sources of commercial bank funds (in millions NAf.)

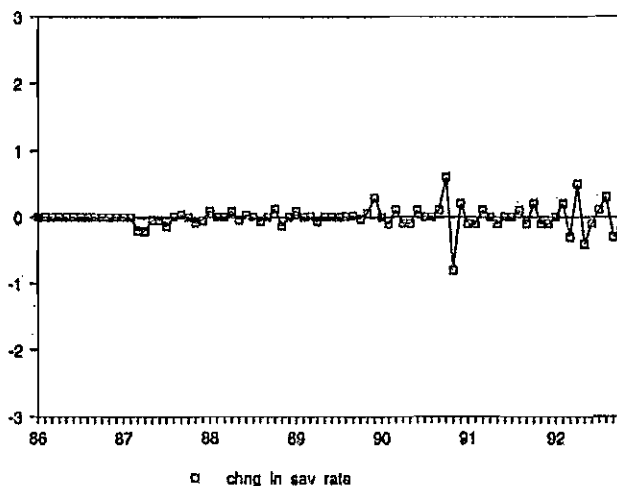
	1991	1992
Private sector deposits		
Savings deposits	870.9	970.0
- Households[1)]	870.9	970.0
Time deposits[2)]	245.8	290.5
- Businesses	174.8	173.2
- Financial Institutions	71.0	73.1
- Banks	72.7	67.7
- Households	-.-	-.-
Demand deposits	491.4	519.4
- Businesses	249.6	265.1
- Financial Institutions	52.6	49.2
- Banks	24.2	26.4
- Households	164.9	178.7
Government deposits	78.6	61.6
Total	1686,7	1841,7

1) Includes their holdings of time deposits.
2) The time deposits of Businessess are overstated due to misclassiffications of mainly pension funds.
Source: Bank van de Nederlandse Antillen

As shown in table 3.1, the bulk of the private sector deposits, about 50%, is held in the form of savings deposits by households. During the last ten years that percentage has remained relatively

unchanged. These deposits have an average maturity of about 14 months and a velocity of circulation of about 0.8. The average maturity has, except for hikes in 1986 and 1987, remained relatively constant during the eighties. The hikes in 1986 and 1987 are related to the influx of large sums of moneys in the banking sector following the cessation of operations by the SHELL refinery in 1985, and the consequent redundancy payments to its laid of employees. Pro rato the velocity of circulation of savings deposits fell in those two years. The short term and high velocity of these deposits indicate that they are very active. Commercial banks offer an interest rate of 3% to 5%. Given the low level of inflation real interest rates have, except for the end of 1990 and the beginning of 1991, been positive since 1986. The negative real interest rates were a result of the surge in inflation following the onset of the Gulf crisis.

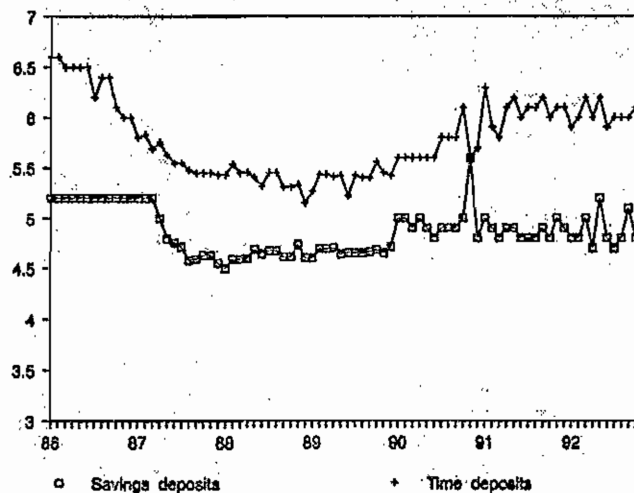
Graph 3.1 Development in the change of interest rates on savings deposits 1986 -1992



As illustrated in graph 3.1 prior to 1990 the interest rate on savings has been kept fairly constant, except for a fall in 1987. After 1990 the development in the rate shows some degree of volatility. A possible explanation for this is the increased availability of domestic substitutes for passbooks savings e.g. savings-certificates and competitive governments paper.

Table 3.1 shows that demand deposits, the second largest source of funds for banks, are mainly held by businesses and households. These are the only type of checkable accounts which commercial banks offer their clients. Like savings deposits, their share in total deposits has remained relatively constant at about 28%.

Graph 3.2 Development in the interest rates on 1 year time deposit and on savings deposits.



Time deposits are preferred by the corporate sector as an instrument to hoard temporary excess liquidity. This because about 75% of domestic time deposits had a maturity of less than one year in 1991 compared to 85% in 1986. The maturity on time deposits is slightly less than that of savings deposits. Nevertheless, banks pay a higher interest on time deposits. This may be explained by the bias of commercial banks towards less liquid debt instruments. Despite a longer maturity, savings deposits are considered more liquid than time deposits causing banks to offer a liquidity premium on time deposits. In 1986 and 1987 the liquidity premium on time deposits declined owing to the fall in the velocity of circulation of savings in that period referred to earlier. The premium remained relatively stable between 1988 and 1990, but increased to around the same level of 1986 at the end of 1992. Graph 3.2 illustrates the development in the interest rates on

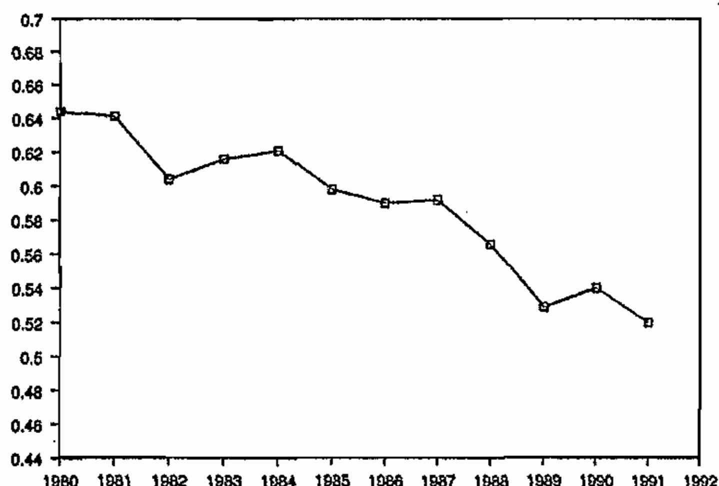
time and savings deposits.

As illustrated in annex 1 banks mainly use the attracted funds to provide loans to the private sector in general and to businesses in particular. In 1991 more than half of bank lending was allocated to businesses, about a third to mortgages and the remainder to consumer loans. Commercial bank lending to businesses amounted to 38% of GNP in 1991 compared to just 26% in 1986. This increase is mainly due to the sharp increase in commercial bank mortgage loans for commercial purposes. Notable is that in 1991 over 40% of mortgages were for commercial purposes compared to 21% in 1986. Lending to the non-corporate private sector also increased, from 10% of GDP in 1986 to 20% of GDP in 1991. This is largely due to a marked average annual increase of almost 50% in the level of lending for general consumption. Further, as illustrated in annex 2 commercial banks' transfer of mobilized financial resources to the private sector has improved since 1986. This can be concluded from the so-called "domestic-funds-transfer-ratio", i.e., the ratio between domestic private sector deposits and banks' domestic claims on the domestic private sector, which increased from 70% in 1986 to 100% in 1991. This ratio is higher than in Barbados, Jamaica and Trinidad & Tobago, but lower than in Germany, Japan and the U.S..

Loans to the domestic governments, largely reflecting investments in government securities, make up a relatively small part of the lending business of banks. Noteworthy though is that since 1989 the commercial banks' portfolio of government paper has more than doubled, reflecting the precarious public finances. Most of the increase is accounted for by the placement of bonds by the Island Government of Curaçao on the market to compensate the continued loss of profit tax revenues from the international financial industry. The latter is related to the repeal of the US withholding tax on interest payments to non-residents in 1984, which made the floating of Eurobonds through Netherlands Antilles international finance companies by U.S. firms less competitive compared to direct financing.

In 1991 just over half of the loans to domestic sectors had a maturity of less than 2 years. Since 1986 this percentage has fallen by about 7 percentage points implying that banks have engaged in more medium to long term lending. The main reason for the change is the strong expansion of their mortgage portfolio, in response to buoyant construction activities for commercial as well as residential purposes. As shown in graph 3.3 the shift mainly occurred after 1987. This coincides with the economic upturn of 1988.

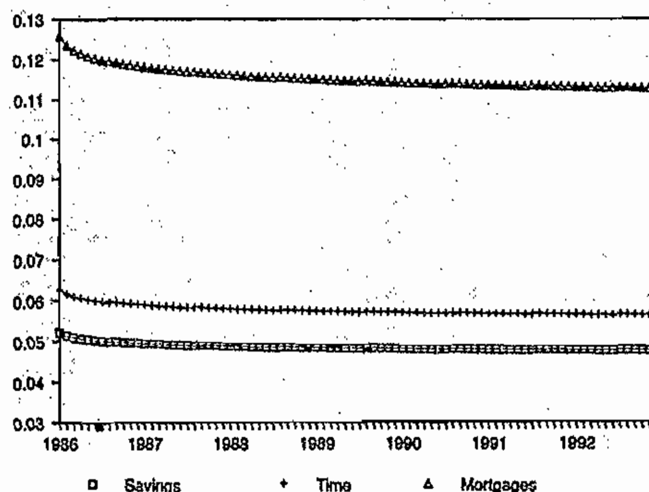
Graph 3.3 Development in share of commercial banks loans with maturity less than 2 years



Commercial banks lending rates tend to move with deposit rates. This is particularly the case for mortgages. As illustrated in graph 3.4 below, the trend in the interest on mortgage loans follow those of time deposits and savings deposits. This suggest that commercial banks lend at a fixed margin on their cost of funds. The margin range from 6% to 14%. The data indicate that banks use the rate on deposits with a maturity of 1 year as the base rate to set lending rates. The practice of a fixed margin and the high level of the margin imply an absence of or limited price competition between financial institutions. This has encouraged banks to employ alternative competing techniques, particularly

through branch expansion.

Graph 3.4 Trend in lending and deposit rates 1986 - 1992



Further, with regards to the use of banks' funds the substantial balances held by the commercial banks in the form of non-interests bearing deposits at the Central Bank is notable. In 1986 and 1992 these amounted to NAf.40 and NAf.85 million respectively. This suggests a persistent high level of excess liquidity in the banking system.

Commercial banks' foreign business make up about a third of total business. This business more than doubled between 1986 and 1992. Their net position shows that commercial banks maintain long positions in foreign instruments[1]. They limit their exchange risk exposure by holding most of their assets and liabilities in U.S. dollars. Table 3.2 illustrates the strong expansion of commercial banks' foreign business since 1986.

1) Since 1972 the commercial banks are subject to the so-called B-9 policy of the Central Bank which places a maximum on their net foreign assets positions. The maximum allowed position is expressed as a percentage of a three months moving average of the banks' domestic debt.

Table 3.2 Commercial banks total foriegn assets and liabilities

	Assets	Liabilities	Net Assets
1986	649.2	529.2	120.0
1991	1201.6	1184.8	16.8
1992	1339.6	1293.1	46.5

3.3 The role of Institutional Investors

The institutional investors, i.e., pension funds and life insurance companies, more than commercial banks, depend on the private sector to hold their liabilities. In 1991 domestic private sector claims on the pension funds and insurance companies amounted to more than 90% of their balance sheet total. Contractual savings in the form of pension programs and life insurance policies recorded annual increases of 5.2% and 8.6%, respectively between 1986 and 1991. An important observation in this regard is that the contractual savings of the domestic private sector at pension funds were larger than their deposit holdings at banks in 1991. As a percentage of GDP contractual savings at the pension funds amounted to 83% in 1991, compared to a 59% bank deposits-to-GDP ratio.

On the lending side of pension funds and life insurance companies the domestic private sector, contrary to banks, is not the main recipient of funds. These institutions invest their funds mainly in foreign securities. In 1991 the foreign assets of pension funds and life insurance companies accounted for 58% and 22%, respectively, of total assets. In 1986 these percentages amounted to 55% and 28% respectively. Information on the distribution of the foreign assets by type of instrument is not available. Indications are that U.S. treasury paper is the preferred invest-

ment instrument. The explanation for this lies in the link of the Netherlands Antillean guilder with the U.S. dollar. That minimizes exchange rate risk on investments in U.S. dollar denominated securities. This is very important given that their liabilities are in Netherlands Antillean currency.

Life insurance companies and pension funds play an important role in the financing of the domestic government deficits. In absolute terms pension funds are the primary source of borrowing for the government. However, in relative terms insurance companies are the main supplier of finance to the government. Lending to the domestic government by life insurance companies amounted to 51.7% of total assets compared to 13.6% and 5.1% by pension funds and commercial banks, respectively.

Pension funds hold a strikingly large amount of domestic assets in the form of liquid assets; primarily deposits at commercial banks. In 1991 liquid assets amounted to 33% of domestic assets, i.e., 3 times as much as in 1986.

Regarding the channelling of domestically mobilized funds to the domestic private sector pension funds and insurance companies play a small role. As illustrated in table 3.3 the "domestic-funds-transfer-ratio" of institutional investors is much lower than that of commercial banks. Institutional investors' lending activities to the domestic private sector mainly involves the extension of mortgage loans. Pension funds has expanded their mortgage portfolio substantially since 1986, while life insurance companies reduced theirs by about NAf.20 million until 1989. Since then they have kept their mortgage portfolio more or less at the same level. That explains the opposite development in the "domestic-funds-transfer-ratio" of pension funds and life insurance companies between 1986 and 1991. The mortgage portfolio of life insurance companies and pension funds made up about 60% and 70%, respectively, of their private sector loan portfolio in 1991. In 1986 these percentages amounted to 65% and 60%,respectively.

Table 3.3 The "domestic-funds-transfer-ratio" of commercial banks and institutional investors.

	1986	1991
Commercial banks	69.9%	100.1%
Life insurance companies	39.7%	22.9%
Pension funds	7.7%	9.2%

4. A new approach to financial sector supervision.

4.1 Introduction

Based on the preceding analysis it can be concluded that the financial sector plays an important role in the Netherlands Antillean economy. Because of that disturbances in the financial sector can, through the existence of substantial interactions, lead to imbalances in the real economy. Having an adequate legal and institutional apparatus in place to detect and deter the onset of inefficiencies in an early stage is therefore important. The Central Bank is charged with the responsibility to fulfill the role of supervisor of the financial sector. During the past decade developments in and outside the domestic financial sector has caused the Central Bank to implement measures to control the activities of the sector, with the purpose of neutralizing potential adverse effects on the real economy.

The supervisory activities of the Central Bank inlude both monetary and prudential supervisory measures. This implies that the Central Bank not only sought to ensure monetary stability but also financial stability. This is important given the supplementary nature of both types of supervision. Gerald Corrigan, as President of the Federal Reserve Bank of New York, in an address to the U.S. Senate Committee on Banking, Housing, and Urban Affairs in 1991 emphasized this by stating:

"The direct linkages between banking supervision and the conduct of monetary supervision are important, ... what is evenmore important is that the stability of the financial system is a prerequisite .... to the conduct of monetary policy".

4.2 The strengthening of prudential supervision.

In recent years the Central Bank has stepped up its efforts to improve and strengthen its prudential supervision. There are a number of developments in the financial sector which could account for this. In that regard one can refer to:

(i) the increasing number of financial institutions, especially commercial banks.
(ii) the increasing amounts of money entrusted to the financial sector; and
(iii) the concomitant increase in risks owing to longer term lending.

Nevertheless the explanation for the strengthening of prudential supervision are mainly external. For like elsewhere in the world there was no need for concern given the relative stability of the domestic financial system. As a result only little attention has been paid to the issue of financial stability. However, international developments in the nineteen eighties have brought about a significant change in this situation. Beginning in the second half of the 1980's the global financial environment was beset with instability. Problems in the financial markets were accompanied with problems at financial institutions. The stock market crash of 1987, the mini crash of 1989 and the deterioration in the quality of bank's assets in many OECD countries resulting from their exposures to borrowers from developing countries and from domestic sectors and regions affected by unfavorable economic developments. The U.S. savings and loans crises is a good example of the weakness in the financial sector.

These indications of financial instability increased existing concerns among supervisory authorities regarding threats to their financial systems from failure of banks operating outside their jurisdictions. The genesis of these concerns was in 1974 owing to the failure of Bankhaus I.D. Herstatt and the Franklin National Bank which played an important role in the decision to establish the Basle Committee. As a result the Basle Committee has issued guidelines concerning strengthened prudential supervision and increased harmonization of national regulatory regimes. These guidelines pertain to :

(i) the distribution of responsibilities between supervisors in parent and host countries (the Basle Concordat 1975 its Revision in 1983, the 1991 Supplement to the Concordat and the Minimum Standard Paper of 1992), and

(ii) the management of financial risk and banking solvency, (the Basle agreement 1988, entitled International Convergence of Capital Measurement and Capital standards),

and hence to banking stability.

These developments have prompted the Central Bank to take further measures to ensure domestic financial stability. The focus of the Central Bank's measures is modernization of the legal framework and the strengthening of the supervisory apparatus and procedures.

In the area of renewing the legal infrastructure the policy of the Central Bank is aimed at developing specific legal instruments for different categories of institutions, while ensuring consistency of procedures. The modernization of the regulatory infrastructure include among others:

(i) the preparation of a draft bill regulating the banking and credit sector to replace the existing legislation of 1972. The draft bill takes account of developments in

international supervisory guidelines such as those of the Basle Committee referred to above; and

(ii) the preparation and enactment of the "National Ordinance regulating the supervision of insurance companies (P.B.1990 no.77). This legislation has strengthened and expanded the legal infrastructure for the regulation of insurance companies. This law also subjects general insurance companies to the supervision of the Central Bank.

In the area of strengthening the supervisory apparatus and procedures, the policy of the Central Bank is aimed at improving transparency and surveillance. The measures include;

(i) the introduction of new, more extensive reporting systems for financial institutions, inter alia, the "chart of accounts" for banks in 1989 and the "annual statements" for insurance companies; and

(ii) the introduction of onsite examinations in 1988 for commercial banks and credit institutions. In 1992 the Central Bank also started with an onsite examination program for the insurance industry.

4.3 Towards a market based approach in monetary policy.

Monetary policy is concerned with controlling the conditions under which money and credit is supplied in the economy. As illustrated in chapter 3 the financial sector play an important role in that process. The activities of the financial sector can therefore be a major impediment to stable monetary developments. The question of monetary stability, as opposed to that of financial stability, has always drawn the attention of the Central Bank. Pursuant to the Central Bank Statute monetary stability entails the promotion of the stability of the value of the Netherlands Antillean guilder. In practice this means that the monetary policy of the Central Bank is aimed at fostering external monetary equilibrium

to maintain the fixed exchange rate of the Netherlands Antillean guilder vis-a-vis the U.S. dollar. Since December 1971 the exchange rate has been pegged at NAf.1.79 per U.S.dollar.

Traditionally the Central Bank has relied mainly on quantitative credit controls to pursue that objective. The principle guideline when employing this instrument is the rule that overtime the supply of money from domestic sources should be sufficient to meet and consistent with the long term needs of a growing economy. The underlying conceptual framework is the monetary approach to the Balance of payments. The basis of this model is the definition of the money supply as being equal to the domestic assets of the banking system plus the countries foreign exchange holdings. Changes in the money supply therefore results from changes in domestic credit extension and changes in the foreign exchange reserves position. It is assumed that domestic credit extension is exogenously controlled by the Monetary Authorities. According to this framework discrepancies between the real demand for money and the nominal supply of money will lead to disequilibria on the external accounts, which can be removed by controlling of the domestic component of money creation[1].

Recently, however, the Central Bank has initiated a change in its policy procedures in favor of indirect market based instruments of monetary controls. The change in the Central Bank policy approach must be seen against the background of both increasing recognition of the drawbacks associated with direct controls and conditions in the financial sector. An important drawback of direct controls, given the oligopolistic structure of the banking sector, is that they inhibit competition. By employing market-oriented monetary policy instruments the Central Bank can stimulate price determination based on market forces.

The conditions in the financial sector underlying the change in the Central Bank's policy approach are:

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1) See for a detailed discussion Polak and Argy (1977)

(i) the strong tendency to invest domestic financial resources abroad;
(ii) the existing overliquidity in the banking sector and at the pension funds; and
(iii) the relatively large margin between deposit rates and lending rates.

Those factors are related to the scarcity of financial instruments owing to the absence of well developed money and capital markets. Financial markets help to strengthen and improve the efficiency of the financial sector. Through the issuance of stocks and shares and long term bonds they provide for investment in long term assets. By increasing the range of financial instruments available to savers and investors financial markets contribute to increased competition in the financial sector and to the lowering of intermediation costs. The Central Bank recognized the inadequacy of direct monetary controls instruments to address these issues and hence set out to rethink and adapt its monetary policy approach.

First, the Central Bank, through an agreement with the Minister of Finance, converted NAf.100 million of the NAf.113 million Central Government debt on the advance account into interest bearing marketable bonds. The objective of that operation was to increase the availability of financial instruments and hence promote the development of the domestic capital market. By way of the then introduced tender system NAf.70 million of the newly created bonds from the conversion were auctioned on the market. Apart from increasing the availability of financial instruments the Central Bank focussed on their liquidity by providing a framework to allow for trade in existing securities. The Central Bank decided to act as intermediary between buyers and sellers of government securities. These operations are intended to temper domestic demand for foreign securities. In addition they should help reduce the overliquidity in the banking system and pension funds' substantial holdings of short term assets. Eventhough the domestic net demand for foriegn securities have declined since

1989 (from NAf.149 million to NAf.6 million in 1992) no definite conclusions can be drawn regarding the effectiveness of the capital market activities. That is because of the concomitant decline in U.S. interest rates.

Second, the continued high level of overliquidity has been an important source of excessive commercial bank lending in the latter part of the eighties and the beginning of the nineties.
The excessive growth in commercial bank lending resulted in a marked decline in the official foreign exchange reserves, below the internationally acceptable level of 3 month imports. To halt the deterioration in the official foreign exchange reserves position, the Central Bank introduced the so-called monetary cash reserve arrangement in 1990. This measure meant a break with the traditional credit control policy. Under the monetary cash reserve measure no absolute ceiling is imposed on bank lending. Commercial bank lending is permitted to grow freely at a standard rate considered desirable by the Central Bank. The standard growth rate is determined based on the principle that over time the money supply from domestic sources must be adequate to meet the long-term needs of a growing economy. To the extend that the actual growth exceeds the permissible standard growth, banks are obliged to hold a non-interest bearing cash reserve, i.e. a deposit, at the Central Bank equal to the product of the value of the excess growth and the reserve percentage. Due to practical and administrative considerations banks are charged a penalty on excess lending under the arrangement equal to the potential loss of interest on the cash reserve. This is approximated by the product of the value of excess lending, the reserve percentage and the Central Bank's pledging rate. Hence the monetary cash reserve places a penalty on excess lending thereby increasing the costs of bank lending. Money creation by banks therefore are governed by market forces. Annex 3 contains the agreed framework which was used to introduce the Monetary cash reserve arrangement. In a situation of persistent collective excess lending compared to the standard, the Central Bank can rely on increasing either the cash reserve percentage or the pledging

rate to curb the growth in bank lending. The measure was effective as it brought the growth in commercial bank lending back from around 20% to within the 5% range, which is considered consistent with a sustainable level of economic growth.

Third, the Central Bank against the backdrop of the potential destabilizing influences of the continued excess liquidity in the banking system pursued the development of instruments to conduct open market type operations. In August 1992, the Central Bank introduced the repurchase agreement facility. This facility provides commercial banks with an alternative short term interest bearing money market instrument to invest their liquid funds in. This facility allow commercial banks to buy treasury paper from the Central Bank and resell these securities at predetermined prices at maturities up to two months. The yields on repos are determined by the demand for these securities. The latter is a function of the extent to which commercial banks interest free deposits at the Central Bank exceeds their required working balances and of the maturity of the instrument. Until then the Central Bank had issued Certificates of deposits to help address the overliquidity in the banking system. Apart from being a monetary policy instrument to improve the efficacy of open market operations it also contributes to the development of domestic financial markets.

And finally, the Central Bank recognized the need for the development of a structural policy instrument to better deal with the existing imbalances in the financial sector. The monetary cash reserve measure proved effective in curbing the excessive credit growth through its impact on lending rates, but the overliquidity in the system and the relatively high margin between deposit rates and lending rates persisted. The Central Bank therefore inactivitated the monetary cash reserve measure and starting September 15, 1993, introduced a "Reserve Requirement" for commercial banks. This policy instrument obliges individual commercial banks to hold a deposit at the Central

Bank. The size of the deposit is determined as a percentage, the so-called reserve percentage, of a banks' domestic debt. The reserve requirement is held for one month. Noteworthy is that the required deposit is interest-bearing. The interest rate on the required reserves, the so-called reserve funds rate[1], is calculated in such a way that for banks collectively interest earned on the required reserves equal the interest paid on the debit balances. Annex 4 contains the agreed framework for the implementation of the reserve requirement. The objective of this measure is to tighten conditions on the money market by binding the excess liquidity of the commercial banks. To the extent that this measure forces commercial banks to borrow at the Central Bank it will increase the Central Bank's control over commercial banks domestic lending. The Central Bank by tightening/easing the terms at which banks may borrow, through an increase/decrease in its pledging rate or limiting/expanding the use of its credit facility, can encourage/discourage commercial banks to restrict the extension of credit.

5. Concluding remarks

The financial sector has in many ways provided the economy with the products and services it needs. It has supplied safe financial instruments in real terms for savers and financing for borrowers. This has contributed to improved mobilization and transfer of financial resources since 1986, which is important to economic growth.

Particularly, the non-corporate private sector, has made use of the safe financial products as reflected in the substantial increases in savings deposits at commercial banks and in

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[1] The reserves funds rate (RFR) is a function of collective debit balances (CDB), collective required reserves (CRR) and the pledging rate. The equation is as follows:

(-) $RFR = ((CDB)/(CRR)) * (PR)$, where $0 \leq RFR \leq PR$

contractual savings via life insurance policies and pension programs.

During the period 1986-1991 the availability of longer term credit has improved. Especially commercial banks have ventured into more medium term financing of the private sector which is the largest sector (it accounted for 65% of GDP in 1991) and the main engine of economic growth. In addition commercial banks and pension funds have also channelled a larger portion of their mobilized savings to the domestic private sector. This is reflected by the increases in their "domestic-funds-transfer -ratios".

There is, notwithstanding the favorable performance of the financial sector, and particularly the banking sector, room for further improvement. This is evident from a number of factors. First, a larger portion of the large pool of resources collected by pension funds need to be allocated to the domestic private sector. This is important to help temper the persistent net domestic demand for foreign financial instruments, as reflected in the net private capital outflow on the balance of payments. Second, the imbalance on the money market as reflected in the overliquidity in the banking sector and the high level of liquid balances at the pension funds needs to be addressed. And finally, the fixed and high level of the margin between lending and deposit rates suggest that the costs of financial intermediation are high owing to a lack of price competition. These factors form important impedements to the attainment of the objective of monetary stability.

Furthermore, increasing signs of instability to the global financial environment and the recognition of growing financial interdepence has increased the vulnerability of domestic financial systems. This has led to a number of international initiatives by, inter alia, the Basle committee and the G-7, aimed at improving prudential supervision practices.

These factors promted the Central Bank to take measures to adapt its approach to financial sector supervision. They entail the upgrading of the legal infrastructure, the supervisory apparatus and the policy procedures, to allow the Central Bank to better address the existing conditions in the financial sector. The main features of the new appraoch are the introduction of on-site examination in 1988 and the employment of market-oriented monetary policy instruments since 1989.

To conclude, the effectiveness of the market-based approach to monetary policy will largely depend on the availability of sufficient domestic instruments and on the degree in which it manages to bring about internationally competitive domestic interests rates. The limited availability of domestic financial instruments play an important role in the demand for foreign securities and underlines the need for further development of the local capital market. The prominence of institutional investors on the lending side of the market for government securities suggests that these companies are very important to the process of local capital market development. A further deepening of the market to include private sector securities may contribute to an improvement of their "domestic-funds-transfer-ratio" and hence help to ease the pressures on monetary stability. Further, the figures show that the development in the demand for foreign securities correlates with developments in the yield differential between domestic and U.S. financial instruments. This suggests that domestic interest rates are not sufficiently sensitive to fluctuations in foreign rates. The tender system and the required reserve arrangement are intended to attained the necessary link between the two.

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Annex 1. Matrix of financial interrelations in the Netherlands Antilles 1991 (in millions NAf.)

Assets of (Collums) / Liabil. of (Rows)	1 Centr. Bank	2 Commer. banks	3 Giro	4 Non Mon banking instit.	5 Pension funds	6 Life insur.	7 Centr. Govern.	8 Isl. Govern.	9 dom. Priv. sector	10 Priv. sector loans	11 Foreig banks	12 Foreig govern.	13 Priv. foreig sector	14 Other	15 Total
1 Central Bank	X	74.9	-	-	-	-	111.8	29.6	203.8	-	-	1.2	-	85.0	506.3
2 Commercial banks	-	83.8	-	7.7	326.9	15.9	50.9	27.7	1493.5	3.3	356.3	-	418.1	465.4	3249.5
3 Girodienst	-	4.8	X	-	-	-	34.2	-	45.7	-	-	-	-	-	84.7
4 Non monetary banking instit.	-	-	-	-	-	-	-	-	33.5	-	-	-	-	7.0	40.5
5 Pension funds	-	-	-	-	X	-	-	-	2251.2	-	-	-	-	86.5	2337.7
6 Life insurance	-	-	-	-	-	X	-	-	433.7	5.6	-	-	-	29.1	468.4
7 Central Governm.	54.8	95.3	-	5.0	255.6	242.3									653.0
8 Isl. governments	13.8	71.6	81.9	0.1	63.0	-									230.4
9 Dom. priv.secur.	-	5.7	-	0.5	8.5	0.6									15.3
10 Private sector	0.5	1637.1	0.0	13.7	216.2	91.8									1959.3
- Mortgages	-	540.9	-	1.2	152.4	54.9									749.4
- Consumer loans	-	236.2	-	8.3	-	17.9									262.4
- Business loans	0.5	860.0	-	4.2	63.8	19.0									947.5
11 Foreign banks	317.7	574.5	-	12.1	-	-									904.3
12 Foreign govenm	-	253.7	-	-	1363.4	102.1									1719.2
13 Foreign Private	-	168.2	-	-	-	-									168.2
14 Other	119.5	280.1	2.8	1.4	104.1	15.7									523.6
15 Total	506.3	3249.7	84.7	40.5	2337.7	468.4	196.9	57.3	4461.4	8.9	356.3	1.2	418.1	673.0	12860.4

Source: Bank van de Nederlandse Antillen

ANNEX 1 (Continued)

Explanatory notes:

1. Commercial banks holdings of coins and notes are included in their assets at the Central Bank. This is also the case for the non-bank private sector. See (R1, C2) and (R1, C9), respectively. (R1, C2) means Row 1, Column 2.

2. The capital and reserves of the financial institutions is included in the private sector assets at the respective categories of institutions. In the case of the Central Bank Capital and Reserves are included in the Central Governments' claims on the Bank. See (R2, C9), (R4, C9), (R5, C9), (R6, C9) and (R1, C9).

3. Commercial bank loans to the private sector (R10, C2) includes amounts receivables.

4. Due to lack of a breakdown of pension funds claims on non-residents, their foreign assets has been allocated fully to foreign governments (R12, C5). The same has been done for life insurance companies (R12, C6). Part of these assets should however be allocated to foreign banks and foreign non-bank private sector.

5. The claims of the pension funds on the commercial banks (R2, C5) refers to liquid assets. This represents their holdings of bank deposits. Noteworthy is the significant discrepancy between the reporting of banks (see table 3.1 of the text) and the reporting by the pension funds in this annex. A possible explanation for this is that banks do not always classify pension funds as financial institutions but as non-bank businesses.

Annex 2. Selected financial aggregates as pecentage of GDP and banks' "domestic-funds-transfer-ratio" for various countries.

	Commercial banks' deposits (1)		Commercial banks' claims on private sector a) (2)		"Domestic-funds-transfer-ratio" b) (3)= (2)/(1)	
	1986	1991	1986	1991	1986	1991
Caribean						
Barbados	47.0%	45.0%	32.3%	36.2%	68.7%	80.6%
Jamaica	44.5%	39.8%	24.9%	29.3%	56.0%	73.4%
Netherlands Antilles	52.9%	58.9%	37.8%	59.6%	71.4%	101.4%
Trinidad and Tobago	42.8%	39.0%	39.3%	38.2%	91.8%	97.9%
Industrial countries						
Germany	53.6%	58.5%	86.5%	98.0%	161.5%	167.5%
Japan	94.9%	106.1%	108.1%	125.6%	113.9%	118.3%
United States	34.0%	34.6%	41.1%	44.9%	120.7%	129.8%

Comments:

a) Includes claims on non financial public enterprises

b) Measure of the extent to which domestically mobilized resources are channelled to the domestic private sector.

Source: International Financial Statistics

ANNEX 3. Skeleton agreement monetary cash reserve arrangement

1. Permitted exemption/standard

The Bank van de Nederlandse Antillen may conclude with the representative organizations of the credit institutions an agreement on a course of action as referred to in Article 6 of the Act on the Supervision of the Banking and Credit Institutions (P.B. 1972, no.138), under which individual institutions shall hold a non-interest-bearing deposit at the Bank whose amount shall be related to the growth rate of their lending. Unless agreed otherwise, such a monetary cash reserve arrangement shall apply for a period of twelve months. The growth rate of lending operations of the participants in the arrangement relative to the base amount shall be exempt from cash reserve obligations up to a certain percentage (the permitted exemption or the franchise). Unless agreed otherwise, this percentage shall be equal to the growth rate which the Bank considers desirable for the combined participants in the arrangement (the standard).

2. Lending

For the purposes of the present arrangement, lending shall be understood to be domestic lending.

3. Base amount

The base amount shall be equal to the lending position calculated as a three-month average of the month-end in the base period.

4. Penalty instead of non-interest-bearing deposit

The participants in the arrangement who, at any month-end in the period referred to under 1, exceed the permitted exemption shall be charged a penalty after each three months period. This penalty takes the place of the obligation, referred to under 1, to hold a non-interest-bearing deposit at the Bank van de Nederlandse Antillen. The amount of the penalty shall be determined every month by multiplying the excess over and above the permitted exemption (expressed in Guilders) by a percentage fixed by the Bank (for the period in which the permitted exemption is exceeded) and by subsequently multiplying the product by a standard rate of interest (on a monthly basis). Unless agreed otherwise, this standard rate of interest shall, throughout the period, be equal to the Bank's interest rate on advances in force at the beginning of the period.

5. Cash reserve percentage

The percentage referred to under 4 may be changed, within a bandwidth to be agreed for the period referred to under 1, without any further consultation, with the proviso that it shall remain in force for at least three months.

6. Threshold value

Any penalty due for a period shall not be payable if, over the period referred to under 1, it does not exceed the threshold value of NAf.3,000.00.

7. Transfer of unused margins

The participants in the arrangement are allowed to transfer any unused margins under the permitted exemption among themselves.

8. Newly established banks

Banks which are, in principle, subject to the monetary cash reserve arrangement can be exempted from the arrangement for a period not exceeding 1 year. The period of exemption may be shortened if the Bank holds the opinion that the operations of a bank to which this arrangement applies have developed to such an extent that continued exemption would distort competitive relationships among the banks which are, in principle, subject to the monetary cash reserve arrangement.

9. Transitional arrangement

After a period in which no monetary measures have been in force, a transitional arrangement may be agreed upon.

Willemstad, August 05, 1991
BANK VAN DE NEDERLANDSE ANTILLEN

Annex 4. Agreement on a Reserve Requirement

1. Deposit

The Bank van de Nederlandse Antillen may conclude with the representative organizations of the credit institutions an agreement on a course of action as referred to in Article 6 of the Act on the Supervision of the Banking and Credit institutions (P.B. 1972, no.138), under which individual banks shall hold a deposit, the so-called "Reserve Requirement", at the Bank.

2. Size

a. The size of the reserve requirement of an individual bank shall be determined as a percentage, the so-called reserve percentage, of its domestic debt.

b. The Bank will announce the reserve percentage and the size of the reserve requirement two working days before a reserve requirement period (see 3) begins.

c. The domestic debt equals the sum of the amounts reported under the resident column of accounts 21, 22, 23 and 24 of the Chart of Accounts two COA reporting dates prior to the start of the reserve period mentioned under 3.

d. To compute the size of the reserve requirement of an individual bank the announced reserve percentage will be applied to the domestic debt under the understanding that:

- the first NAf.25 million of domestic debt is exempt from reserve requirement;
- the next NAf.25 million of domestic debt is subject to 50% of the reserve requirement; and
- domestic debt in excess of NAf.50 million is subject to the full reserve requirement.

3. Reserve period

The required amount shall be held on a separate deposit account at the Central Bank for a reserve period of, in principle, one month. The reserve period will begin on the first working day after the 15th day of a calendar month and it will end when the next reserve period begins.

4. Debit balances

The requirement to hold a deposit on a separate account at the Bank may force individual banks into debit balances on their clearing account at the Bank. Advances to cover these debit balances will have to be collateralized by Antillean Governments bonds and/or the required deposits at the Bank. The Bank may introduce a maximum for individual debit balances in case it

would appear that their distribution between individual banks substantially deviates from the distribution of the reserve requirements.

5. Interest

a. The required reserves will be interest-bearing. The interest rate, the so-called reserve funds rate, will be calculated in such a way that for the banks collectively the interest earned on the required reserves equals the interest paid on the debit balances. This neutral interest outcome will be effectuated by applying the following formula:

$$\text{eserve funds rate} = \frac{\text{collective debit balances}}{\text{collective required reserves}} \times \text{pledging rate BNA}$$

The reserve funds rate will be determined retroactively for each reserve period and may not exceed the pledging rate.

b. The interest receivable on the reserve requirement and the interest payable on debit balances will be calculated on a daily basis with a year equal to 365 days.

c. The interest settlement will take place on a net basis on the first working day after the end of a reserve period.

6. No liquid assets

The required reserves will not qualify as liquid assets in the sense of Supporting Schedule 2 of the Chart of Accounts.

Willemstad, September 7, 1993
BANK VAN DE NEDERLANDSE ANTILLEN