



Annual Report 2018

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KÄRNAVFALLSFONDEN

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PREFACE

Together with the Swedish Radiation Safety Authority (SSM) and the National Debt Office, the Nuclear Waste Fund is responsible for ensuring that sufficient financial resources will be available for disposal of the spent nuclear fuel and decommissioning and dismantling of the nuclear power plants. The primary mission of the Nuclear Waste Fund is to manage the fees that are paid in for this purpose.

Since the start in 1996, the Nuclear Waste Fund has achieved a good return on the managed capital. The main reason for this is that the Fund has invested in bonds with a relatively long remaining maturity, at the same time as the trend in bond rates has been falling sharply. Falling bond rates mean that the value of such a bond portfolio increases, which results in a higher return due to revaluation gains on the bond holdings.

The prefaces to the most recent years' annual reports have warned that market rates have reached such a low level that a continued fall in interest rates cannot reasonably be expected. Instead, they said that bond rates could be expected to rise, leading to revaluation losses on the bond holdings and downward pressure on the Fund's return. However, interest rates did not rise in 2018 either. Instead, the year has been characterized by low interest rates and small interest rate movements. The year's rate of return was 1.4 percent.

The previous prefaces also noted that the market situation has made it increasingly urgent that the Fund be allowed to invest in more asset classes. During 2013, SSM, in consultation with the Nuclear Waste Fund and the National Debt Office, submitted a report to the Government with proposals for changes in the financing system. In the late autumn, the Riksdag (Swedish parliament) passed a new law and the Government issued a new ordinance allowing the Nuclear Waste Fund to invest in corporate bonds and equities starting in 2018, subject to certain restrictions.

During the year, the Nuclear Waste Fund formulated and initiated a new asset management strategy. Asset management has been divided into two portfolios: a base portfolio with Swedish treasury and mortgage bonds, and a long-term portfolio with corporate bonds and equities. This has made it possible to offer the different reactor owners and other fee-liable licensees an asset management strategy adapted to the particular reactor owner's investment horizon.

Kammarkollegiet (the Legal, Financial and Administrative Services Agency) has been tasked to manage two new asset classes: Swedish corporate bonds and Swedish equities. The Fund has also invested in a global mutual fund containing global equities and global corporate bonds. The mutual fund is managed by three separate managers, one for global equities and two for corporate bonds. Guidelines for environmental and ethical considerations in the investments have been adopted and implemented.

Stockholm, February 2019
Daniel Barr
Chairman

INTRODUCTION

The role of the Nuclear Waste Fund in the financing system

In the early 1980s the Riksdag (Swedish parliament) devised a special system for financing of the costs for safe future management and disposal of the spent nuclear fuel and decommissioning and dismantling of the nuclear power reactors. The principle is that the nuclear power industry should be liable for the costs. To this end, the holder of a license to own or operate a nuclear facility that gives or has given rise to residual products pays a special fee to the Swedish state. The fee is calculated individually for each licensee so that the calculated future fees, together with the Fund assets already paid in by the licensee, correspond to the calculated total future costs for the licensee. The National Debt Office is responsible for calculating fees and approving disbursements of Fund assets. The Government makes decisions in certain cases regarding fees and disbursements.

The Fund assets may also be used to cover certain costs for research and development, regulatory supervision, case management, asset management etc. and for support to certain non-profit organizations and municipalities.

The paid-in fees are managed by the Nuclear Waste Fund. The authority also manages the fees paid in under the now-revoked Studsvik Act attributable to the early Swedish nuclear research programme.

Regulatory framework

During 2018, the activities of the Nuclear Waste Fund have been governed by the provisions of:

- The Act (2006:647) on Financial Measures for the Management of Residual Products from Nuclear Activities (the Financing Act).
- The Ordinance (2017:1180) on the Management of the Assets of the Nuclear Waste Fund (the Asset Management Ordinance).
- The Ordinance (2017:1179) on the Financing of the Residual Products of Nuclear Power.
- The Ordinance (2007:1055) with Terms of Reference for the Nuclear Waste Fund.

Furthermore, the Government has approved a budget for the Nuclear Waste Fund as a public authority.

Tasks

According to the above acts and ordinances, the Nuclear Waste Fund's task is to:

- receive fee payments
- manage Fund assets
- disburse Fund assets
- keep the National Debt Office informed of the size of the funds that have been set aside for each reactor owner and every other licensee and of the Fund's other activities so that the National Debt Office can fulfil its tasks within the financing system.

Organization

The Nuclear Waste Fund is a public authority led by a Board of Governors. According to the Ordinance with Terms of Reference for the Nuclear Waste Fund, Kammarkollegiet (the Legal, Financial and Administrative Services Agency) performs administrative services for the Fund under a contract between the Fund and the Agency.

Under the contract, Kammarkollegiet is responsible for capital management within the framework established by the Board of Governors, although some management is now outsourced to external asset managers.

The Fund has no employed staff.

PRESENTATION OF RESULTS

Performances and costs

Performances

The Nuclear Waste Fund's most important performance is the return that is earned on the Fund's capital. This result is presented in the section "Management of Fund assets".

Expenses

The Government has approved compensation from the Nuclear Waste Fund for the costs of asset management.

Table 1 shows the Government-approved budget and the outcome for the past three years.

Table 1: Fund management costs

(SEK thousand)	2018	2017	2016
Budget including custody account charge	21,430	15,230	11,950
Outcome, fund management costs	19,206	12,590	11,917
- of which remuneration to Kammarkollegiet	18,000	11,600	11,000
Outcome, custody account charge	1,537	1,331	492

Total fund management costs amounted to 0.027 percent of the market value of the managed capital at the end of 2018, consisting of 0.016 percentage point for asset management and 0.011 percentage point for administration.

Preparations for and implementation of the expanded investment mandate have entailed considerable extra work for the Nuclear Waste Fund and Kammarkollegiet's capital management during 2018. This explains the increased management cost.

Management of Fund assets

New asset management model

The new Asset Management Act and Asset Management Ordinance entered into effect on 20 December 2017. The Act allows expanded investment options, as described in greater detail in the following. The transition to the new investment rules will take place gradually starting 1 June 2018.

Goal and requirements for asset management

The new wording of the Financing Act, Section 13, states the following:

"The Fund assets shall be managed cautiously to secure the financing of the future costs which the fees are intended to cover. This asset management may include acquisition of shares or interests in companies. The return on the Fund assets shall be added to the capital."

The new Asset Management Ordinance imposes the following general requirements on asset management (Sec. 7):

“The Fund assets shall be managed

1. in a cautious manner so that they will most likely suffice to meet the expected need for disbursements from the Fund, have a suitable level of risk and provide satisfactory liquidity, and
2. in a responsible manner with a view to environmental and social aspects, while still meeting the requirement in 1.”

The now-revoked Studsvik Act (Sec. 3) stated that the paid-in fees should be transferred to the Nuclear Waste Fund and that the rules in the Financing Act should be applied to their management. It follows from provisions in the Financing Act (Secs. 5a and 13) that this still applies.

Cautious and responsible asset management

The Nuclear Waste Fund has defined the requirements on cautious and responsible asset management in greater detail in special policy documents.

Division into two asset management portfolios

According to the Fund’s terms of reference, the annual accounts shall be prepared in such a manner that they show how large a proportion of the Fund’s assets accrues to each reactor owner and every other fee-liaible licensee. In this context, the Nuclear Waste Fund handles the funds set aside under the Studsvik Act in the same way as if Studsvik were yet another licensee.

Sec. 8 of the Asset Management Ordinance states that of every licensee’s share of the Fund assets, an amount corresponding to the sum of the discounted value of the expected net disbursements of Fund assets during the current calendar year and the next nineteen calendar years, but at least 60 percent of the licensee’s share of the Fund assets, shall be invested in an interest-bearing account at the National Debt Office, in treasury bills issued by the state or in debt instruments issued in accordance with the Covered Bonds Issuance Act (2003:1223).

With this in mind, the Nuclear Waste Fund’s assets are being managed in two separate portfolios with different investment rules:

- The base portfolio containing the same asset classes as those to which the Nuclear Waste Fund was restricted up to 20 December 2017: interest-bearing account in the National Debt Office, debt instruments issued by the state and debt instruments issued in accordance with the Covered Bonds Issuance Act (2003:1223), as well as derivatives whose underlying assets are debt instruments issued by the state or in accordance with the Covered Bonds Issuance Act (2003:1223) or that relate to interest rates in Swedish kronor. The base portfolio thereby constitutes a continuation of the former total portfolio for management of the Nuclear Waste Fund.
- The long-term portfolio containing the riskier asset classes which the Nuclear Waste Fund is allowed to invest in from 20 December 2017, i.e. asset classes permitted under the Asset Management Ordinance other than those included in the base portfolio. This

means that the portfolio contains Swedish and global equities and corporate bonds as well as derivatives for management of e.g. interest rate risks.

The base portfolio thereby contains the asset classes that all licensees' (and others') paid-in funds may be invested in without restriction. The long-term portfolio contains the asset classes that are permitted for investments to the extent this is possible with the restrictions stipulated in Sec. 8 of the Asset Management Ordinance, see above.

The same method used in the management of mutual funds is used to keep track of each payer's share of the funds in each portfolio. The capital in each portfolio is divided into a number of equally large shares. Fee payments and disbursements relating to a fee-liable licensee lead to "purchases/redemptions" of shares. The market value (balance) of the portfolio is determined daily and "purchases/redemptions" of shares are made at the current market value.

Investments in shares in the appropriate portfolio are made for each payer. Decisions regarding such investments must meet the requirements of the Asset Management Ordinance on a given minimum share of assets of the class included in the base portfolio.

The transition to the new investment model with two investment portfolios was begun in June 2018 and will proceed gradually. During the first five months of the year, all of the capital in the Nuclear Waste Fund was invested in the base portfolio. Thus, when the implementation period started in June 2018, all licensees ("fund shareholders") had 100 percent of their capital in the base portfolio. After that, the process of redemption of shares in the base portfolio and purchase of shares in the long-term portfolio began for those shareholders who will have shares in both portfolios.

The transfer between the portfolios entails that financial instruments in the base portfolio have to be sold to generate liquidity for redemption of shares. The liquid funds that are freed on redemption are invested in new shares in the long-term portfolio and used to purchase new financial instruments that meet the requirements for the portfolio's holdings.

The following table shows the planned and current distribution of investments in the two portfolios for each “fund shareholder”.

Table 2. Distribution between base portfolio and long-term portfolio.

(%)	BASE target value	LONG target value	BASE 31/12 2018	LONG 31/12 2018
Ranstad	100	0	100	0
Studsvik funds	100	0	100	0
Ågesta	100	0	100	0
Barsebäck Kraft	88.5	11.5	97.7	2.3
Chalmers	62.0	38.0	91.5	8.5
Cyclife	62.0	38.0	91.5	8.5
Forsmark	62.0	38.0	91.5	8.5
OKG	62.0	38.0	91.4	8.6
Ringhals	62.0	38.0	91.6	8.4
Studsvik	62.0	38.0	91.5	8.5
Westinghouse	62.0	38.0	91.2	8.8

Capital management of the base portfolio

Investment rules

The base portfolio corresponds to the former total portfolio for the Nuclear Waste Fund. Investments are restricted to the following:

- Sight deposits in accounts at the National Debt Office, with nominal return based on the repo rate.
- Short-term deposits at a fixed interest rate at the National Debt Office with an investment period that can vary between one month and one year.
- Investments on the market in treasury bills, fixed-income bonds or index-linked bonds issued by the National Debt Office.
- Investments on the market in debt instruments issued in accordance with the Covered Bonds Issuance Act (2003:1223).

To increase the return, the Nuclear Waste Fund participates in the market with repurchase transactions, or repos.

Active management

The base portfolio’s assets were managed actively in 2018. Active management entails that the investments deviate from the mix of securities that constitute the index. The purpose is to achieve a higher return than that achieved by passive management (index management). Passive management entails that the investments mirror the components of the index as closely as possible.

The basis for active management in 2018 was the standard portfolio, which conforms to the Board of Governors’ decision regarding a reference portfolio. By deviating from the standard portfolio within the framework determined by the Board of Governors, Kammarkollegiet has tried to generate a higher return than that generated by the standard portfolio.

Return

The nominal and real returns achieved during the past five years (total portfolio up until May 2018 and thereafter base portfolio) are shown in Table 3.

Table 3: Nominal and real return for the base portfolio (%)

Year	Nominal return ^{I)}	Inflation ^{II)}	Real return
2014	10.69	-0.30	10.99
2015	-0.52	0.10	-0.62
2016	5.76	1.70	4.06
2017	1.48	1.70	-0.22
2018 ^{*)}	1.97	2.00	-0.03
Average per year^{III)}	3.80	1.04	2.74

^{*)} Base portfolio from 1 June 2018

The nominal returns achieved for the standard portfolio in relation to the comparison index during the past five years (total portfolio up until May 2018 and thereafter base portfolio) are shown in Table 4.

Table 4: Nominal and active return for the base portfolio (%)

Year	Nominal return ^{I)}	Comparison index ^{IV)}	Active return ^{V)}
2014	10.69	10.72	-0.03
2015	-0.52	0.39	-0.91
2016	5.76	5.01	0.75
2017	1.48	0.39	1.09
2018 ^{*)}	1.97	1.81	0.16
Average per year^{III)}	3.80	3.59	0.21

^{*)} Base portfolio from 1 June 2018

^{I)} The nominal return consists of the sum of realized and unrealized value changes in the investments plus interest received (including inflation compensation on index-linked investments).

^{II)} The percentage change in the consumer price index reported by SCB for the past 12 months is used as a measure of the rate of inflation.

^{III)} Calculated as the geometric mean of the annual values.

^{IV)} 30% OMRX REAL and 70% OMRX TBOND from 1 Jan. 2014

30% OMRX REAL, 20% OMRX TBOND and 50% OMRX MORT from 1 June 2018

^{V)} Return above comparison index.

As is evident from Table 3, the nominal return in 2018 amounted to 1.97 percent. Inflation was 2.00 percent. The real return was thereby -0.03 percent. As an annual average, the real return over the past five-year period amounted to 2.74 percent.

As is evident from Table 4, the active return in 2018 amounted to 0.16 percent and during the past five-year period to an average of 0.21 percent per annum.

The goal set by the Board for active return was 0.50 percent per annum on average during rolling five-year periods from May 2014 until May 2018. Thereafter, the goal for active return in the base portfolio is 0.25 percent. The reason for the change is that the comparison index changed at the same time.

Capital management of the long-term portfolio

Investment rules

The following investments are permitted in the long-term portfolio:

- Corporate bonds listed in Swedish kronor and global corporate bonds.
- Swedish and global equities.
- Derivatives, but not to create leverage in the portfolio.
- Shares in mutual funds invested in the kinds of financial instruments stipulated above.
- Sight deposits at the National Debt Office.

Portfolio construction

The long-term portfolio began to be built up gradually starting in June 2018. Initially, investments were made in corporate bonds in Swedish kronor and in Swedish equities.

Exposure to global corporate bonds and global equities is achieved by investing in fund shares in a specially selected mutual fund with an investment policy that meets the requirements of the Nuclear Waste Fund. By agreement with the mutual fund company, the Nuclear Waste Fund has ensured good insight into the mutual fund's underlying assets. Investments in mutual fund shares began in December 2018.

At the end of 2018, the assets in the long-term portfolio amounted to nearly SEK 5 billion.

Active and passive management

Equities are managed passively while corporate bonds are managed actively.

Return

The rate of return in the long-term portfolio during the period June – December 2018 amounted to -5.82 percent in nominal terms and -7.04 percent in real terms. Since the period is short and the portfolio is under construction and has mainly consisted of only Swedish equities and corporate bonds, it is not meaningful to analyze the return more closely in relation to goals, comparison index etc.

Result of capital management on the total level for the Nuclear Waste Fund

Table 5: Nominal and active return for the total portfolio (%)

Year	Nominal return ^{I)}	Inflation ^{II)}	Real return
2014	10.69	-0.30	10.99
2015	-0.52	0.10	-0.62
2016	5.76	1.70	4.06
2017	1.48	1.70	-0.22
2018	1.54	2.00	-0.46
Average per year ^{III)}	3.71	1.04	2.66

^{I)} The nominal return consists of the sum of realized and unrealized value changes in the Fund's investments plus interest received (including inflation compensation on index-linked investments).

^{II)} The consumer price index reported by SCB for December, the 12-month change in percent (rate of inflation), is used as a measure of inflation.

^{III)} The real return consists of the nominal return less inflation.

Summary assessment

Capital management during 2018 has been dominated by preparations for and implementation of the new asset management model. Despite the burden this has placed on the asset management operation, the rate of return has been positive both for 2018 and the past five-year period. The real return during the five-year period amounts to an average of 2.66 percent per annum. However, inflation has undermined the real return for 2018, which was slightly negative.

Active management of the base portfolio has shown a positive result for both 2018 and the past five-year period. The goal set for excess return has not been achieved, however.

The Board of Governor's summary assessment is that the result for the five-year period is good and for 2018 satisfactory. This assessment is made in the light of an economic situation with very low interest rates and the rising inflation of recent years.

Change in the Fund

The fair value of the Nuclear Waste Fund increased in 2018 by SEK 2,412,725 thousand to SEK 69,648,872 thousand.

Table 6 shows the components of the change.

Table 6: Change in the Fund

(SEK thousand)	2018	2017	2016
Fees paid in	3,685,429	3,797,399	3,735,653
Financial income	2,451,209	2,030,749	1,784,313
Financial expenses	-235,534	-208,781	-199,175
Unrealized change in value ¹	-1,224,302	-880,613	1,758,617
Disbursement of reimbursements/subsidies	-2,244,871	-2,107,679	-1,734,067
Operating expenses	-19,206	-12,590	-11,917
Total	2,412,725	2,618,484	5,333,424

¹ Unrealized change in value is included in financial expenses and income in the Income Statement.

Table 7 shows the distribution of the fair value of the Fund at the end of each year.

Table 7: Fair value of the Fund per fee-liable licensee²

(SEK thousand)	2018	2017	2016
Forsmarks Kraftgrupp AB	19,931,150	19,300,634	18,489,119
OKG AB (Oskarshamn)	13,250,641	13,051,187	13,040,508
Ringhals AB	22,467,541	21,123,450	20,132,890
Barsebäck Kraft AB	13,778,837	12,303,109	11,391,738
Vattenfall AB (Ågesta)	311,171	288,935	298,621
Westinghouse Electric AB	29,756	28,883	24,829
Ranstad Mineral AB	617	606	2,268
Studsvik Nuclear AB	10,507	3,605	3,176
Cyclife Sweden AB	9,591	6,734	5,652
Chalmers TH AB	517	391	308
Total market value acc. to Financing Act	69,790,328	66,107,534	63,389,109
Market value Studsvik funds	996,062	1,115,697	1,186,908
Adjustment of difference between market value and fair value	-11,038	-12,224	-12,269
Adjustment for e.g. accruals and deferrals ³)	-1,126,480	25,140	53,916
Total fair value	69,648,872	67,236,147	64,617,664

³) Including deferred income of SEK 1,086,000 thousand from Barsebäck.

The difference between market value and fair value consists of interest accrued between the balance sheet date (31 Dec. 2018) and the settlement date. The market value of interest-bearing financial instruments includes such accrued interest.

Receive fee payments

According to its terms of reference, the Fund shall receive the fees that are paid under the Financing Act. The fees for reactor owners are calculated in relation to the energy that is delivered and have been determined by the Government for the current three-year period based on a recommendation by SSM.³ As from 1 September 2018, the National Debt Office has taken over SSM's responsibility for recommending fees to the Government. The recommendation for the current fees is based on Svensk Kärnbränslehantering AB's and SSM's own cost calculations.

A fixed amount in kronor is set for the nuclear power plant in Barsebäck, which is no longer in operation.

SSM has also set a fixed fee for the other fee-liable licensees. Fees paid in as shown in Table 10 agree with the set fees.

² See also Note 13 to the Balance Sheet

³ Government decision 2017-12-21, M2017/2543/Ke

Table 8 shows the amounts of the variable fees (öre/kWh).

Table 8: Fees

(öre/kWh)	2018	2017	2016
Forsmarks Kraftgrupp AB	3.3	3.9	3.9
OKG AB (Oskarshamn)	6.4	4.1	4.1
Ringhals AB	5.2	4.2	4.2
Studsvik fee ^{*)}	--	0.3	0.3

^{*)}The Studsvik Act ceased to apply on 1 Jan. 2018

Table 9 shows how much energy was delivered.

Table 9: Electricity delivered

TWh (=1,000,000,000 kWh)	2018	2017	2016
Forsmarks Kraftgrupp AB	24.9	24.5	24.0
OKG AB (Oskarshamn)	10.7	11.1	13.6
Ringhals AB	30.1	27.4	22.9
Total	65.8	63.0	60.5

Table 10 shows the fees that have been paid into the Fund.

Table 10: Fees paid in

(SEK thousand)	2018	2017	2016
Forsmarks Kraftgrupp AB	823,140	955,201	935,383
OKG AB (Oskarshamn)	684,512	455,210	558,620
Ringhals AB	1,565,973	1,150,851	963,424
Barsebäck Kraft AB	543,000	1,042,000	1,042,000
Vattenfall AB (Ågesta)	37,884	0	49,354
Westinghouse Electric AB	3,314	3,687	3,687
Ranstad Mineral AB	17,882	0	81
Studsvik Nuclear AB	6,850	381	882
Cyclife Sweden AB	2,755	1,002	501
Chalmers TH AB	120	78	78
Total acc. to Financing Act	3,685,429	3,608,410	3,554,010
Studsvik fees^{*)}	0	188,988	181,643
Total	3,685,429	3,797,398	3,735,653

^{*)}The Studsvik Act ceased to apply on 1 Jan. 2018.

Disbursements from the Fund

The Nuclear Waste Fund disburses money from the Fund. But it is the National Debt Office⁴ that examines and decides⁵ how and to what extent Fund assets may be used to pay the costs reactor owners and other fee-liable licensees are expected to incur during a given future time period.

The National Debt Office (previously SSM) also examines to what extent Fund assets should be used to reimburse a municipality for information costs under the Financing Act. Such reimbursement may not exceed SEK 10 million per municipality and 12-month period for municipalities

⁴ Up until 31 August 2018, it was SSM that examined and decided.

⁵ Acc. to the Ordinance (2017:1179) on the Financing of the Residual Products of Nuclear Power.

where a facility for final disposal of spent nuclear fuel is planned or being built.

The National Debt Office (previously SSM) also examines questions regarding to what extent Fund assets should be used for support to non-profit organizations under the Financing Act. Such support may be provided in an amount not in excess of SEK 2.5 million per organization and calendar year and in a total amount not in excess of SEK 3.5 million per calendar year.

The Government decides on disbursement of money from the Fund to state authorities to cover certain costs for research and development, supervision, case management, asset management etc. as stipulated in the Financing Act.

Table 11 shows the disbursements that have been made from the Fund.

Table 11: Disbursements

(SEK thousand)	2018	2017	2016
Forsmarks Kraftgrupp AB	458,122	398,801	394,343
OKG AB (Oskarshamn)	661,053	619,353	294,442
Ringhals AB	515,424	439,404	434,553
Barsebäck Kraft AB	363,282	284,156	262,771
State authorities	57,515	63,633	64,106
Municipalities	7,223	10,927	11,850
Non-profit organizations	0	120	3,363
Vattenfall AB (Ågesta)	20,915	13,919	8,712
Westinghouse	2,850	0	0
Total acc. to Financing Act	2,086,384	1,830,313	1,474,140
Studsvik funds	158,487	277,366	259,926
Total	2,244,871	2,107,679	1,734,067

More detailed information on disbursements is provided in Note 7 to the Income Statement.

INCOME STATEMENT

(SEK thousand)

	2018	2017
Operating expenses		
Costs for personnel (Note 1)	-337	-285
Other running costs (Note 2)	-18,869	-12,305
Total	-19,206	-12,590
Result of operations	-19,206	-12,590
Transfers		
Other funds obtained for financing of subsidies (Note 3)	3,685,429	3,797,399
Financial income (Note 4)	2,451,209	2,030,749
Financial expenses (Note 5)	-1,459,836	-1,089,395
Provision to reserves for transfer purposes (Note 6)	-2,412,725	-2,618,484
Subsidies paid (Note 7)	-2,244,871	-2,107,679
Balance	19,206	12,590
Change in capital for the year	0	0

BALANCE SHEET

(SEK thousand)

ASSETS	31/12 2018	31/12 2017
Long-term investments		
Other securities held as non-current assets (Note 8)	67,167,100	64,263,374
Total	67,167,100	64,263,374
Current receivables		
Receivables from other government agencies	448	32
Total	448	32
Accruals and deferrals		
Prepaid expenses	0	28
Other accrued income (Note 9)	877,651	720,109
Total	877,651	720,137
Short-term investments		
Securities and interests (Note 10)	793,626	3,573
Total	793,626	3,573
Cash and bank balances		
Balance in interest-bearing account at National Debt Office	6,547	29,478
Other balances at National Debt Office (Note 11)	2,225,238	2,223,954
Cash and bank balances (Note 12)	18,147	-5
Total	2,249,931	2,253,427
TOTAL ASSETS	71,088,756	67,240,543
CAPITAL AND LIABILITIES		
Reserves		
Nuclear Waste Fund (Note 13)	69,648,872	67,236,147
Total	69,648,872	67,236,147
Liabilities etc.		
Current liabilities to other government agencies	36	38
Other current liabilities (Note 14)	347,476	0
Total	347,512	38
Accruals and deferrals		
Accrued expenses (Note 15)	6,371	4,358
Other deferred income (Note 16)	1,086,000	0
Total	1,092,371	4,358
TOTAL CAPITAL AND LIABILITIES	71,088,756	67,240,543

CASH FLOW STATEMENT

(SEK thousand)	Note	2018	2017
Operations			
Expenses		-19,206	-12,590
Increase (-) in current receivables		-416	-26
Increase (+) in current liabilities		2,174	-636
CASH FLOW TO OPERATIONS		-17,448	-13,253
Investments			
Investments in financial assets		-20,189,888	-14,201,172
Total investment expenditures		-20,189,888	-14,201,172
Financing of investments			
Sale of non-current assets		15,750,374	10,438,382
Return (excl. unrealized gains and losses)		2,491,588	2,217,876
Total funds provided for financing of investments		18,241,962	12,656,257
Change in current receivables and liabilities	17	-421,580	4,411
CASH FLOW TO INVESTMENTS		-2,369,506	-1,540,503
Transfer activities			
Subsidies paid		-2,244,871	-2,107,679
Change in current receivables from fee-liable licensees	18	942,900	60,417
Disbursements in transfer activities		-1,301,971	-2,047,262
Financing of transfer activities			
Other funds obtained for financing of subsidies		3,685,429	3,797,398
Total funds provided for financing of transfer activities		3,685,429	3,797,398
CASH FLOW FROM TRANSFER ACTIVITIES		2,385,459	1,750,136
CHANGE IN CASH AND CASH EQUIVALENTS		-3,496	196,380

Specification of change in cash and cash equivalents	2018	2017
Cash and cash equivalents at start of year	2,253,427	2,057,047
Increase in cash and bank balances	18,151	107
Increase in balance with National Debt Office	-21,647	196,273
Total change in cash and cash equivalents	-3,496	196,380
CASH AND CASH EQUIVALENTS AT YEAR-END	2,249,931	2,253,427

ADDITIONAL DISCLOSURES AND NOTES

Amounts are in thousands of kronor unless otherwise stated. Summation differences may occur due to rounding-off.

Accounting policies

The authority's accounts comply with generally accepted accounting principles and the annual accounts have been prepared in accordance with the Ordinance (2006:605) on Annual Accounts and Budgets as well as the Swedish National Financial Management Authority's guidelines (ESV 1998:7) on accounting for funds and provisions in government agencies.

Fixed-income investments

In the case of deposits in interest-bearing accounts, accrued interest is recognized as interest income in the Income Statement and as a cut-off item in the Balance Sheet.

In the case of fixed-income coupon investments, accrued interest is recognized as interest income in the Income Statement and as a cut-off item in the Balance Sheet.

In the case of index-linked coupon investments, accrued interest including inflation compensation on the coupon rate is recognized as interest income in the Income Statement and as a cut-off item in the Balance Sheet. Accrued inflation compensation on invested capital is recognized as interest income in the Income Statement and as revaluation of the carrying amount in the Balance Sheet.

Repurchase transactions (repos) are accounted for in accordance with the Swedish National Financial Management Authority's guidelines for accounting of repos with repurchase agreements in the annual accounts (ESV dnr 3.7-61/2017).

Equity investments

Equity investments and shares in mutual funds are measured at fair value, whereby both realized and unrealized value changes are recognized in the Income Statement.

Derivatives

The fair value of derivatives is determined based on listings at year-end. Derivatives with positive fair value at the balance sheet date are recognized as assets, while contracts with negative fair value are recognized as liabilities.

Derivatives are used for more effective asset management, and swaps have been used during 2018 to reduce the interest rate risk.

Guarantees

According to the Financing Act and the Financing Ordinance, the holder of a license to own or operate a nuclear activity that gives or has given rise to residual products shall also provide guarantees. The reactor owner shall provide acceptable guarantees to the Nuclear Waste Fund corresponding to the financing and supplementary amounts determined by the Government. Other fee-liable licensees shall provide equivalent guarantees for the financing amount determined by SSM. As of 1 September 2018, responsibility for determining the financing amount and the annual nuclear waste fee has been transferred to the National Debt Office. The guarantees shall be managed by the National Debt Office.

Valuation principles

The Fund's financial instruments are measured at fair value in accordance with Chap. 5 Sec. 13 of the Ordinance on Annual Accounts and Budgets, since they are primarily

held to generate return or increases in value. The financial instruments are measured individually.

Correction of errors in previous annual accounts

Interest income and interest expenses on investments have in previous years been recognized as net amounts under “Financial income” and “Financial expenses”. The comparative figures for both items have therefore been increased by SEK 204,581 thousand in 2017.

Remuneration and other benefits

Board members and other Board appointments

(SEK thousand)	Remuneration
Daniel Barr, Chairman - Swedish Pensions Agency	74
Malin Björkmo, Vice Chairman - Handelsbanken Fonder AB - Björkmo Advisors AB - Eggum Invest AB - Third AP Fund - Itello AB	35
Sara Bergström - Vinnova's programme council for financial market research	30
Malin Dahlroth - Sydkraft AB - Sydkraft Thermal Power AB - Sydkraft Nuclear Power AB - Sydkraft Hydropower AB - Sydkraft Försäkring AB	30
Johan Gyllenhoff - Försäkringsaktiebolaget Vattenfall Insurance - Vattenfall Eldistribution AB	30
Christian Ragnartz -	30
Björn Österberg - Zendra AB	27
Total fees	256

Notes
(SEK
thousand)

	2018	2017
Note 1		
Costs for personnel		
Fees	-256	-214
Other personnel costs	-80	-71
Total personnel costs	-337	-285
Note 2		
Other operating expenses		
Services, intrastate	-18,371	-12,011
Other operating expenses	-498	-294
Total other operating expenses	-18,869	-12,305
Note 3		
Other funds obtained for financing of subsidies		
Fee acc. to Financing Act		
Forsmarks Kraftgrupp AB	823,140	955,201
OKG AB (Oskarshamn)	684,512	455,210
Ringhals AB	1,565,973	1,150,851
Barsebäck Kraft AB	543,000	1,042,000
Vattenfall AB (Ågesta)	37,884	0
Studsvik Nuclear AB	6,850	381
Cyclife Sweden AB	2,755	1,002
Westinghouse Electric Sweden AB	3,314	3,687
Ranstad Mineral AB	17,882	0
Chalmers University of Technology	120	78
Total fee acc. to Financing Act	3,685,429	3,608,410
Studsvik fees	0	188,989
Total other funds obtained etc.	3,685,429	3,797,399

Fees are paid by the reactor owners in relation to the energy delivered. Fee per reactor owner and energy delivered is shown by Tables 8 and 9 in the presentation of results. Other fee-liable licensees pay a fixed fee.

Note 4		
Financial income		
<i>Interest income on investments etc.</i>		
Fixed-income investments	1,263,640	1,393,550
Corporate bonds	587	0
Index-linked investments	62,574	0
Repo transactions	523	11,437
Share dividends	6,910	0
Swaps	16,260	0
<i>Total</i>	1,350,493	1,404,987
Capital gains	1,100,716	625,762
Total financial income	2,451,209	2,030,749

	2018	2017
Note 5		
Financial expenses		
<i>Interest expenses on investments etc.</i>		
Interest-bearing account for payments and disbursements	-145	-278
Sight deposit account	-5,302	-4,816
National Debt office, account charges	0	-21
SE-Banken, custody account charge	0	-155
Danske bank, custody account charge	-1,537	-1,177
Fixed-income investments	-146,919	-152,551
Index-linked investments	-4,219	-45,681
Repo transactions	-74,504	-1,254
Total interest expenses	-232,628	-205,933
Capital losses	-2,906	-2,848
Unrealized change in value	-1,224,302	-880,613
Total financial expenses	-1,459,836	-1,089,395
Note 6		
Provision to reserves for transfer purposes		
Costs for personnel	-337	-285
Other operating expenses	-18,869	-12,305
Other funds obtained for financing of subsidies	3,685,429	3,797,399
Financial income	2,451,209	2,030,749
Financial expenses	-235,534	-208,781
Unrealized change in value	-1,224,302	-880,613
Subsidies paid	-2,244,871	-2,107,679
Total provision to reserves	2,412,725	2,618,484
Provision to Nuclear Waste Fund	-2,412,725	-2,618,484
Balance	0	0
Note 7		
Subsidies paid		
Reimbursement to reactor owners etc.		
Forsmarks Kraftgrupp AB	-458,122	-398,801
OKG AB (Oskarshamn)	-661,053	-619,353
Ringhals AB	-515,424	-439,404
Barsebäck Kraft AB	-363,282	-284,156
Vattenfall AB (Ågesta)	-20,915	-13,919
Westinghouse Electric AB	-2,850	0
Total acc. to Financing Act	-2,021,646	-1,755,633
Studsvik funds	-158,487	-277,366
Total reimbursement to reactor owners etc.	-2,180,133	-2,032,999
Others subsidies paid		
<i>Support to Non-profit organizations</i>		
Swedish Environmental Movement's Nuclear Waste Secretariat	0	-108
Swedish Renewable Energies Association	0	-13
Swedish NGO Office for Nuclear Waste Review	0	0
Total	0	-120

Cont'd note 7	2018	2017
<i>Reimbursement to municipalities</i>		
Oskarshamn Municipality	-2,760	-3,248
Östhammar Municipality	-3,698	-6,904
Regional Council in Kalmar County	-765	-775
<i>Total</i>	<u>-7,223</u>	<u>-10,927</u>
<i>Reimbursement to other government agencies</i>		
Uppsala County Administrative Board	-999	-576
Swedish Radiation Safety Authority	-43,855	-61,500
National Debt Office	-12,046	-1,754
Government Offices/Swedish National Council for Nuclear Waste	-3,613	-2,839
<i>Total</i>	<u>-60,512</u>	<u>-66,669</u>
<i>Reversal</i>		
Regional Council in Uppsala County	0	742
County Administrative Board in Uppsala County	0	11
MKG	0	185
Swedish Radiation Safety Authority	2,998	2,098
<i>Total</i>	<u>2,998</u>	<u>3,036</u>
Total other subsidies paid	-64,738	-74,680
Total subsidies paid	-2,244,871	-2,107,679
Note 8	Other securities held as non-current assets	
Treasury bonds	15,260,724	13,218,321
Covered bonds	30,427,523	31,740,426
Corporate bonds	1,369,999	0
Index-linked investments	16,531,393	19,304,628
Equities	2,055,736	0
Mutual fund	1,521,725	0
Total other securities held as non-current assets	67,167,100	64,263,374
<i>Of which unrealized change in value</i>		
Treasury bonds issued by the National Debt Office	751,677	763,579
Covered bonds	948,080	1,447,066
Corporate bonds	-7,523	0
Index-linked interest-bearing investments	985,687	1,343,174
Equities	-228,239	0
Mutual fund	-63,575	0
<i>Total unrealized change in value</i>	<u>2,386,108</u>	<u>3,553,819</u>
<i>Of which accrued interest</i>		
Treasury bonds issued by the National Debt Office	116,523	126,231
Covered bonds	285,459	364,282
Corporate bonds	587	0
Index-linked interest-bearing investments	32,599	36,818
<i>Total accrued interest</i>	<u>435,167</u>	<u>527,331</u>

The par value of treasury bonds issued by the National Debt Office at 31 December 2018 is SEK

13,569,000 thousand. The comparison value at 31 December 2017 is SEK 11,314,000 thousand.

The fair value includes interest accrued up to the accounting date. Index-linked investments include inflation compensation.

	31/12 2018	31/12 2017
Note 9		
Other accrued income		
<i>Accrued fees from fee-liable licensees</i>		
Forsmarks Kraftgrupp AB	237,412	237,019
OKG AB (Oskarshamn)	177,396	77,565
Ringhals AB	396,882	349,899
Acc. to Studsvik Act	0	48,900
Vattenfall AB (Ågesta)	37,884	0
Studsvik Nuclear AB	6,850	381
Cyclife Sweden AB	2,755	1,002
Westinghouse Electric AB	3,314	3,687
Chalmers TH AB	120	78
Total	862,614	718,531

The fees are paid by the reactor owners in arrears. Payment is due within one month of the end of the quarter. Barsebäck Kraft AB and other fee-liable licensees pay a fixed annual fee in arrears. Barsebäck Kraft AB paid the fee for 2018 before the end of the year.

<i>Accrued interest income on investments</i>		
Repos	2,101	1,578
Swaps	12,936	0
Total	15,037	1,578
Total other accrued revenue	877,651	720,109

Note 10 **Securities and interests**

Receivable, unliquidated securities	790,743	0
Total	790,743	0

Danske bank

Receivable, repos	0	32,932,836
Liability, repos	0	-32,931,574
Net receivable, repos	0	1,262

Danske bank

Receivable, unrealized change in value	0	2,071
Liability, unrealized change in value	0	-894
Net receivable, unrealized change in value	0	1,177

Nordea

Receivable, repos	0	5,475,377
Liability, repos	0	-5,475,027
Net receivable, repos	0	350

Nordea

Receivable, unrealized change in value	0	343
Liability, unrealized change in value	0	0
Net receivable, unrealized change in value	0	343

Cont'd note 10	31/12 2018	31/12 2017
SEB		
Receivable, repos	0	1,050,550
Liability, repos	0	-1,050,433
Net receivable, repos	0	117
SEB		
Receivable, unrealized change in value - repos	0	78
Liability, unrealized change in value -repos	0	0
Net receivable, unrealized change in value	0	78
Swedbank		
Receivable, repos	1,196,013	1,253,705
Liability, repos	-1,193,251	-1,253,491
Net receivable, repos	2,762	214
Swedbank		
Receivable, unrealized change in value - repos	494	79
Liability, unrealized change in value - repos	-374	-48
Net receivable, unrealized change in value	120	31
Total net receivable, repos	2,762	1,943
Total net receivable, unrealized change in value	120	1,630
Total securities and interests	793,626	3,573
Note 11		
Other balances at National Debt Office		
National Debt Office sight deposit account	2,225,238	2,223,954
Total other balances at National Debt Office	2,225,238	2,223,954
Note 12		
Cash and bank balances		
Danske bank KAF AKX	192	0
Danske bank KAF BASE	-2	0
Danske bank KAF FOK	3,099	0
Danske bank KAF LONG	14,857	0
SEB securities accounts	0	-5
Total cash and bank balances	18,147	-5

Note 13	Nuclear Waste Fund	31/12 2018	31/12 2017
	Fair value at year-end	69,648,872	67,236,147
		2018	
		<i>Number of shares</i>	
	Of which acc. to Financing Act		
	• <i>Forsmarks Kraftgrupp AB</i>		
	Value of Fund shares BASE	50,066,317.69	18,017,089
	Value of Fund shares LONG	1,781,073.75	19,063,615
	Accrued fees	237,412	0
	• <i>OKG AB (Oskarshamn)</i>		237,019
	Value of Fund shares BASE	33,211,254.84	11,951,551
	Value of Fund shares LONG	1,191,555.92	12,973,622
	Accrued fees	177,396	0
	• <i>Ringhals AB</i>		77,565
	Value of Fund shares BASE	56,173,814.43	20,214,960
	Value of Fund shares LONG	1,971,276.04	20,773,551
	Accrued fees	396,882	0
	• <i>Barsebäck Kraft AB</i>		349,899
	Value of Fund shares BASE	37,397,566.40	13,458,056
	Value of Fund shares LONG	340,760.91	12,303,109
	• <i>Vattenfall AB (Ågesta)</i>		0
	Value of Fund shares BASE	759,415.53	273,287
	Accrued fees	37,884	288,935
	• <i>Studsvik Nuclear AB</i>		0
	Value of Fund shares BASE	9,296.14	3,345
	Value of Fund shares LONG	331.38	3,224
	Accrued fees	6,850	0
	• <i>Cyclife Sweden AB</i>		381
	Value of Fund shares BASE	17,375.88	6,253
	Value of Fund shares LONG	619.25	5,732
	Accrued fees	2,755	0
	• <i>Westinghouse Electric AB</i>		1,002
	Value of Fund shares BASE	66,983.89	24,105
	Value of Fund shares LONG	2,482.28	25,196
	Accrued fees	3,314	0
	• <i>Ranstad Mineral AB</i>		3,687
	Value of Fund shares BASE	1,715.05	617
	• <i>Chalmers TH AB</i>		606
	Value of Fund shares BASE	1,008.07	363
	Value of Fund shares LONG	35.95	313
	Accrued fees	120	0
	Total acc. to Financing Act	182,992,882.93	69,790,328
	66,107,534		
	Of which acc. to Studsvik Act		
	Value of Fund shares BASE	2,767,879.81	996,062
	Accrued fees	0	1,066,797
	Total acc. to Studsvik Act	2,767,879.81	996,062
	Total market value	185,760,763.20	70,786,390
			67,223,231

Cont'd. Note 13	31/12 2018	31/12 2017
Adjustment of difference between market value and fair value	-11,038	-12,224
Undistributed assets and liabilities at closing of accounts	-1,126,480	25,140
Total fair value	69,648,872	67,236,147

The value of Fund shares is based on the market value of the Fund's investments in financial instruments, sight deposits and accrued interest income on such investments. Accrued fees will be invested in new shares when payments are remitted to the Fund. The undistributed amount consists mainly of certain accrued income and expenses for the fourth quarter of each year and the balance in the Fund's interest-bearing account for payments and disbursements. The share value for the BASE portfolio (SEK 359.86) and for the LONG portfolio (SEK 941.37) at 31 December 2018 is measured in accordance with the market valuation principle (Handels NAV, Net Asset Value).

The fair value for 31 Dec. 2018 includes accumulated unrealized change in value of long-term investments including repos in the amount of SEK 2,349,715 thousand. The comparison value for 31 Dec. 2017 includes accumulated unrealized change in value of long-term investments including repos in the amount of SEK 3,555,449 thousand.

Note 14	Others current liabilities	31/12 2018	31/12 2017
	Danske bank		
	Receivable, repos	-32,268,815	0
	Liability, repos	32,269,811	0
	Net liability, repos	996	0
	Danske bank		
	Receivable, unrealized change in value	-21,105	0
	Liability, unrealized change in value	39,461	0
	Net liability, unrealized change in value	18,356	0
	Nordea		
	Receivable, repos	-6,928,330	0
	Liability, repos	6,928,921	0
	Net liability, repos	591	0
	Nordea		
	Receivable, unrealized change in value	-2,056	0
	Liability, unrealized change in value	20,214	0
	Net liability, unrealized change in value	18,158	0
	Total net liability, repos	1,587	0
	Total net liability, unrealized change in value	36,514	0
	Unliquidated securities	289,735	0
	Trade payables, intrastate	1,072	0
	Revaluation, swaps	18,568	0
	Total other current liabilities	347,476	0

	31/12 2018	31/12 2017
Note 15		
Accrued expenses		
Government Offices/Swedish National Council for Nuclear Waste	0	774
National Audit Office	100	118
Kammarkollegiet	5,750	2,900
Danske bank custody account costs	521	450
Other accrued expenses	0	116
Total accrued expenses	6,371	4,358
Note 16		
Other deferred income		
Barsebäck	1,086,000	0
Total other accrued income	1,086,000	0

Note 17 **Change in current receivables and liabilities – investments**

The big change in the item is mainly attributable to a net receivable on the balance sheet date of about SEK 500,000 thousand relating to unliquidated securities and a decrease in the accrued interest on covered bonds of about SEK 80,000 thousand.

Note 18 **Change in current receivables and liabilities – transfers**

The big change in the item is mainly attributable to the fact that Barsebäck Kraft AB paid in the fee for the entire fee period (2018 – 2020) in 2018.

TABLE OF ESSENTIAL FIGURES

(SEK thousand)	2018	2017	2016	2015	2014
Interest-bearing account at the National Debt Office					
Interest expenses	145	278	135	130	0
Interest income	0	0	0	0	119
Change in capital					
Change in capital for the year	0	0	0	0	0
Change in capital brought forward	0	0	0	0	0
Fund capital	69,648,872	67,236,147	64,617,664	59,284,240	57,900,074
Remuneration to Kammarkollegiet	18,000	11,600	11,000	10,620	10,620
Fair value of the Fund per fee-liable licensee					
Forsmarks Kraftgrupp AB	19,931,150	19,300,634	18,489,119	17,018,517	16,608,973
OKG AB	13,250,641	13,051,187	13,040,508	12,115,332	11,967,716
Ringhals AB	22,467,541	21,123,450	20,132,890	18,589,948	18,259,842
Barsebäck Kraft AB	13,778,837	12,303,109	11,391,738	10,065,444	9,322,162
Vattenfall AB (Ågesta)	311,171	288,935	298,621	245,441	206,635
Westinghouse Electric AB	29,756	28,883	24,829	20,093	20,775
Ranstad Mineral AB	617	606	2,268	2,074	2,006
Studsvik Nuclear AB	10,507	3,605	3,176	7,079	5,757
Cyclife Sweden AB	9,591	6,734	5,652	0	0
Chalmers TH AB	517	391	308	219	144
Studsvik funds	996,062	1,115,697	1,186,908	1,200,114	1,481,410

SIGNATURES

The Nuclear Waste Fund's 2018 annual accounts were adopted at a Board meeting on 13 February 2019.

We certify that the annual accounts give a true and fair view of the results of operations and of costs, revenue and the financial position of the authority.

We believe that internal governance and control at the authority has been adequate during the period covered by the annual accounts.

Daniel Barr
Chairman

Malin Björkmo
Vice Chairman

Sara Bergström

Malin Dahlroth

Johan Gyllenhoff

Christian Ragnartz

Björn Österberg

