

41. Objectives and principles of financial risk management

The Group is exposed to financial risks, including:

- market risk (risk related to prices of raw materials and petroleum products, risk related to prices of CO₂ allowances, currency risk, interest rate risk),
- liquidity risk,
- credit risk related to financial and trade transactions.

The former Financial Risk Management Committee at the Parent was replaced by the Price Risk and Trading Committee, which is responsible for:

- oversight and coordination of the price risk management process,
- monitoring and coordination of trading activities requiring cross-segment interaction.

The powers of the Financial Risk Management Committee in the area of currency risk, interest rate risk and credit risk management have been vested directly in the Chief Financial Officer. In addition, a team for liquidity optimisation and coordination of financing has been set up to coordinate and supervise key efforts in the area of liquidity risk management, arrangement of financing, and debt management at the LOTOS Group.

To ensure efficiency and operational security of risk management, Grupa LOTOS distinguished the following areas: financial transaction (front-office), risk analysis and control (middle-office) and documentation and settlement (back-office).

Financial risk management seeks to achieve the following key objectives:

- increase the probability that budget and strategic objectives will be met,
- limit volatility of cash flows,
- ensure short-term financial liquidity,
- maximise the result on market risk management, given an assumed level of risk.

In order to achieve these objectives, documents have been prepared at Grupa LOTOS S.A. and approved at appropriate decision-making levels of the Parent. These documents specify the necessary framework for effective and secure functioning of the financial risk management process, including principally:

- methodology for quantifying exposures to particular risks,
- acceptable financial instruments,
- method of assessing financial risk management,
- limits within risk management,
- reporting method,
- credit limits.

The Parent monitors all managed market risks on an ongoing basis. Opening positions with respect to risks which do not arise as part of the Company's core activity is prohibited. Grupa LOTOS S.A. uses liquid derivatives which it is able to measure by applying common valuation models. The valuation of the underlying position and derivatives is performed based on market data provided by reliable sources.

As of January 1st 2011, the Parent introduced hedge accounting with respect to cash flow hedges (i.e. foreign-currency facilities used to finance the 10+ Programme, designated as hedges of future USD-denominated petroleum product sales transactions).

Risk related to prices of raw materials and petroleum products

The Parent considers risk related to prices of raw materials and petroleum products, as well as currency risk, to be particularly important.

The Parent continues research into and work on a new policy for managing the risk, which ties in closely with our plans to

upscale trading operations. Concurrently, to enable implementation of specific price risk management processes, streamline management functions and improve security of operations in the broad price risk and trading area, the Company has launched the process of selecting a new Energy Trading and Risk Management system.

As at December 31st 2011 and December 31st 2011, there were no open refining margin transactions.

In 2010, the Company entered into commodity swaps in connection with sales of bitumen components at fixed prices, to ensure that the original risk profile remains unchanged. The swaps were settled in 2011, and as at December 31st 2011, there were no open commodity transactions.

Open commodity swaps as at December 31st 2010:

Company	Type of transaction	Transaction execution date	Beginning of the valuation period	End of the valuation period	Number of tonnes	Price (USD/tonne)	Fair value as at Dec
							31 2010 (PLN '000)
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Apr 1 2011	Apr 30 2011	2,692	476	64
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	May 1 2011	May 31 2011	5,000	476	142
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Jun 1 2011	Jun 30 2011	3,974	476	133
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Jul 1 2011	Jul 31 2011	3,846	476	144
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Aug 1 2011	Aug 31 2011	5,000	476	207
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Sep 1 2011	Sep 30 2011	2,692	476	121
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Oct 1 2011	Oct 31 2011	1,026	476	50
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Apr 1 2011	Apr 30 2011	(592)	716	(109)
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	May 1 2011	May 31 2011	(1,100)	716	(210)
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Jun 1 2011	Jun 30 2011	(874)	716	(175)
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Jul 1 2011	Jul 31 2011	(846)	716	(176)
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Aug 1 2011	Aug 31 2011	(1,100)	716	(240)
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Sep 1 2011	Sep 30 2011	(592)	716	(133)
Grupa LOTOS S.A.	Commodity swap	Mar 11 2010	Oct 1 2011	Oct 31 2011	(226)	716	(52)
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Jun 1 2011	Jun 30 2011	1,282	473	55
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Jul 1 2011	Jul 31 2011	1,282	473	60
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Aug 1 2011	Aug 31 2011	1,282	473	65
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Sep 1 2011	Sep 30 2011	1,282	473	70
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Oct 1 2011	Oct 31 2011	1,923	473	113
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Nov 1 2011	Nov 30 2011	2,564	473	160
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Jun 1 2011	Jun 30 2011	(282)	715	(57)
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Jul 1 2011	Jul 31 2011	(282)	715	(60)
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Aug 1 2011	Aug 31 2011	(282)	715	(62)
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Sep 1 2011	Sep 30 2011	(282)	715	(64)
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Oct 1 2011	Oct 31 2011	(423)	715	(98)
Grupa LOTOS S.A.	Commodity swap	Mar 17 2010	Nov 1 2011	Nov 30 2011	(564)	715	(132)
Grupa LOTOS S.A.	Commodity swap	Apr 30 2010	Sep 1 2011	Sep 30 2011	6,410	518	(500)
Grupa LOTOS S.A.	Commodity swap	Apr 30 2010	Oct 1 2011	Oct 31 2011	6,410	518	(474)
Grupa LOTOS S.A.	Commodity swap	Apr 30 2010	Nov 1 2011	Nov 30 2011	6,410	518	(449)
Grupa LOTOS S.A.	Commodity swap	Apr 30 2010	Sep 1 2011	Sep 30 2011	(1,410)	796	19
Grupa LOTOS S.A.	Commodity swap	Apr 30 2010	Oct 1 2011	Oct 31 2011	(1,410)	796	14
Grupa LOTOS S.A.	Commodity swap	Apr 30 2010	Nov 1 2011	Nov 30 2011	(1,410)	796	9
Grupa LOTOS S.A.	Commodity swap	Dec 13 2010	Mar 1 2011	Mar 31 2011	1,667	495	(62)
Grupa LOTOS S.A.	Commodity swap	Dec 13 2010	Apr 1 2011	Apr 30 2011	2,821	495	(91)
Grupa LOTOS S.A.	Commodity swap	Dec 13 2010	May 1 2011	May 31 2011	3,205	495	(88)
Grupa LOTOS S.A.	Commodity swap	Dec 13 2010	Jun 1 2011	Jun 30 2011	3,205	495	(71)
Grupa LOTOS S.A.	Commodity swap	Dec 13 2010	Jul 1 2011	Jul 31 2011	3,205	495	(58)
Grupa LOTOS S.A.	Commodity swap	Dec 13 2010	Aug 1 2011	Aug 31 2011	3,846	495	(54)
Grupa LOTOS S.A.	Commodity swap	Dec 13 2010	Sep 1 2011	Sep 30 2011	3,846	495	(40)

Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	Oct 1 2011	Oct 31 2011	3,846	495	(25)
Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	Mar 1 2011	Mar 31 2011	(367)	787	11
Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	Apr 1 2011	Apr 30 2011	(621)	787	16
Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	May 1 2011	May 31 2011	(705)	787	13
Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	Jun 1 2011	Jun 30 2011	(705)	787	6
Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	Jul 1 2011	Jul 31 2011	(705)	787	0
Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	Aug 1 2011	Aug 31 2011	(846)	787	(8)
Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	Sep 1 2011	Sep 30 2011	(846)	787	(13)
Grupa LOTOS S.A.	Commodity sw ap	Dec 13 2010	Oct 1 2011	Oct 31 2011	(846)	787	(16)
					61,400	TOTAL, including	(2,045)
						positive	1,472
						negative	(3,517)

¹ Fair value of commodity swaps is established by reference to future cash flows from the executed transactions, calculated on the basis of the difference between the average market price and the transaction price. The fair value has been established on the basis of prices quoted on active markets, as provided by an external consultancy (Level 2 in the fair value hierarchy).

Risk related to prices of carbon (CO₂) allowances

The risk related to prices of carbon dioxide (CO₂) allowances is managed in line with the assumptions set forth in *The Strategy for Managing the Risk Related to Prices of carbon dioxide (CO₂) Allowances by Grupa LOTOS S.A.* The period covered by the management is determined by the individual phases of the Kyoto protocol; currently, it is the period until the end of 2012.

A position limit is defined based on the number of allowances granted for a given phase. The position in a given phase comprises the aggregate of positions for individual years within the phase. The maximum loss limit is defined based on the Company's equity.

Depending on the market situation and allowances granted, the Company maintains an appropriate position in carbon allowances by entering into financial transactions.

The basic risk map takes into account the allowances granted and the carbon dioxide (CO₂) emissions planned for a given phase, which can be reliably determined both with respect to the existing installations and the installations which are planned to be constructed.

Underlying CO₂ allowances position as at December 31st 2011:

Period	EUA (tonnes)	CER (tonnes)	TOTAL (tonnes)
Phase II (2008-2012)	(133,535)	17,873	(115,662)

Underlying CO₂ allowances position as at December 31st 2010:

Period	EUA (tonnes)	CER (tonnes)	TOTAL (tonnes)
Phase II (2008-2012)	(55,924)	49,863	(6,061)

In 2011, the Company entered into EUA/CER swap transactions, as that was justified by the spread between these two types of emission allowances.

Open CO₂ allowances transactions as at December 31st 2011:

Company	Type of transaction	Transaction execution date	Transaction settlement date	No. of CO ₂ allowances	Price (EUR/tonne)	Fair value as at Dec 31 2011 (PLN '000) ²
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	5,000	11	(148)
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	1,000	11	(30)
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	10,000	11	(299)
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	34,000	11	(1,017)
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	1,000	11	(30)

Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	4,000	11	(120)
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	25,000	11	(749)
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	25,000	11	(749)
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	10,000	11	(300)
Grupa LOTOS S.A.	CER Futures	Jan 25 2011	Dec 20 2012	30,000	11	(900)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(30)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	10,000	11	(303)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	25,000	11	(756)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	50,000	11	(1,513)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(30)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	14,000	11	(424)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	35,000	11	(1,060)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	50,000	11	(1,515)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	21,000	11	(637)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	39,000	11	(1,183)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	5,000	11	(152)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(30)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	5,000	11	(152)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	10,000	11	(304)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	25,000	11	(761)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(30)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(30)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(30)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	3,000	11	(91)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	5,000	11	(152)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	5,000	11	(152)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	6,000	11	(183)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	10,000	11	(305)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(31)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(31)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(31)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(31)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(31)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	1,000	11	(31)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	2,000	11	(61)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	3,000	11	(92)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	8,000	11	(244)
Grupa LOTOS S.A.	CER Futures	Jan 26 2011	Dec 20 2012	24,000	11	(732)
Grupa LOTOS S.A.	EUA Futures	Aug 2 2011	Dec 20 2012	(14,000)	12	305
Grupa LOTOS S.A.	EUA Futures	Aug 2 2011	Dec 20 2012	(25,000)	12	555
Grupa LOTOS S.A.	EUA Futures	Aug 2 2011	Dec 20 2012	(51,000)	12	1,142
Grupa LOTOS S.A.	EUA Futures	Aug 2 2011	Dec 20 2012	(50,000)	12	1,122
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(50,000)	12	1,016
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(6,000)	12	122
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(44,000)	12	898
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(5,000)	12	102
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(14,000)	12	288
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(50,000)	12	1,027

Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(9,000)	12	192
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(11,000)	12	234
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(11,000)	12	234
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(11,000)	12	235
Grupa LOTOS S.A.	EUA Futures	Aug 4 2011	Dec 20 2012	(39,000)	12	832
Grupa LOTOS S.A.	EUA Futures	Dec 14 2011	Dec 20 2012	(15,000)	7	(34)
				110,000	TOTAL, including:	(7,303)
					positive	8,304
					negative	(15,607)

Open CO₂ allowances transactions as at December 31st 2010:

Company	Type of transaction	Transaction execution date	Transaction settlement date	No. of CO ₂ allowances	Price (EUR/tonne)	Fair value as at Dec 31 2010 (PLN '000) ²
Grupa LOTOS S.A.	CER Futures	Nov 2 2009	Dec 20 2012	1,000	14	(10)
Grupa LOTOS S.A.	CER Futures	Dec 10 2009	Dec 20 2012	5,000	13	(40)
Grupa LOTOS S.A.	CER Futures	Dec 10 2009	Dec 20 2012	25,000	13	(201)
Grupa LOTOS S.A.	CER Futures	Dec 10 2009	Dec 20 2012	20,000	13	(162)
Grupa LOTOS S.A.	EUA Futures	Dec 16 2009	Dec 22 2011	(1,000)	15	3
Grupa LOTOS S.A.	EUA Futures	Dec 16 2009	Dec 22 2011	(1,000)	15	3
Grupa LOTOS S.A.	EUA Futures	Dec 16 2009	Dec 22 2011	(1,000)	15	3
Grupa LOTOS S.A.	EUA Futures	Dec 16 2009	Dec 22 2011	(8,000)	15	26
Grupa LOTOS S.A.	CER Futures	May 28 2010	Dec 20 2012	5,000	12	(19)
Grupa LOTOS S.A.	EUA Futures	Dec 3 2010	Dec 20 2012	(11,000)	15	34
Grupa LOTOS S.A.	EUA Futures	Dec 3 2010	Dec 20 2012	(24,000)	15	73
Grupa LOTOS S.A.	EUA Futures	Dec 3 2010	Dec 20 2012	(30,000)	15	91
Grupa LOTOS S.A.	EUA Futures	Dec 3 2010	Dec 20 2012	(1,000)	15	3
Grupa LOTOS S.A.	EUA Futures	Dec 3 2010	Dec 20 2012	(5,000)	15	17
Grupa LOTOS S.A.	EUA Futures	Dec 7 2010	Dec 20 2012	(14,000)	16	50
Grupa LOTOS S.A.	EUA Futures	Dec 7 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 7 2010	Dec 20 2012	(35,000)	16	133
Grupa LOTOS S.A.	CER Futures	Dec 7 2010	Dec 20 2012	14,000	11	(1)
Grupa LOTOS S.A.	CER Futures	Dec 7 2010	Dec 20 2012	1,000	11	(0)
Grupa LOTOS S.A.	CER Futures	Dec 7 2010	Dec 20 2012	35,000	11	(15)
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(10,000)	15	34
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(10,000)	15	34
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	4
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	3
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(1,000)	16	3
Grupa LOTOS S.A.	EUA Futures	Dec 8 2010	Dec 20 2012	(10,000)	16	34
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	10,000	11	(3)

Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	10,000	11	(3)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	10,000	11	(3)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(1)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(1)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(1)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(0)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(0)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(0)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(0)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(0)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(0)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	1,000	11	(0)
Grupa LOTOS S.A.	CER Futures	Dec 8 2010	Dec 20 2012	10,000	11	(3)
Grupa LOTOS S.A.	CER Futures	Dec 15 2010	Dec 20 2012	1,000	11	0
Grupa LOTOS S.A.	CER Futures	Dec 15 2010	Dec 20 2012	5,000	11	0
Grupa LOTOS S.A.	CER Futures	Dec 15 2010	Dec 20 2012	10,000	11	1
Grupa LOTOS S.A.	CER Futures	Dec 15 2010	Dec 20 2012	1,000	11	0
Grupa LOTOS S.A.	CER Futures	Dec 15 2010	Dec 20 2012	4,000	11	0
Grupa LOTOS S.A.	CER Futures	Dec 15 2010	Dec 20 2012	20,000	11	1
Grupa LOTOS S.A.	CER Futures	Dec 15 2010	Dec 20 2012	1,000	11	-
				16,000	TOTAL, including:	152
					positive	615
					negative	(463)

² Fair value of futures contracts for carbon dioxide (CO₂) allowances (EUA, CER) is established by reference to the difference between the market price, quoted by the Intercontinental Exchange (ICE) for the valuation date, and the transaction price (Level 1 in the fair value hierarchy).

Total CO₂ allowances position as at December 31st 2011:

Period	EUA position (tonnes)			CER position (tonnes)		
	Underlying	Transaction	Total	Underlying	Transaction	Total
Phase II (2008-2012)	(133,535)	(405,000)	(538,535)	17,873	515,000	532,837

Total CO₂ allowances position as at December 31st 2010:

Period	EUA position (tonnes)			CER position (tonnes)		
	Underlying	Transaction	Total	Underlying	Transaction	Total
Phase II (2008-2012)	(55,924)	(182,000)	(237,924)	49,863	198,000	247,863

Currency risk

Currency risk is managed in line with the assumptions stipulated in *The Strategy of Currency Risk Management at Grupa LOTOS S.A.* The exposure management horizon is connected with the introduction of a budget roll over into four quarters in advance as a permanent component of the planning activities at the Company. The four quarter period is treated as the basis for determining the exposure management horizon. The base map of currency positions takes into account principally the volumes and price formulae for purchases of raw materials and sales of products, investments, borrowings denominated in foreign currencies, as well as valuation of derivatives, and may be adjusted for a ratio reflecting the volatility in the prices of raw materials and petroleum products. The strategy provides for the calculation of the following limits:

- position limit (open currency transactions must not increase the Company's underlying position and must not exceed the volume of the underlying position);
- maximum loss and liquidity limits are expressed as a percentage of the Company's equity (the liquidity limit is calculated in order to reduce the risk of excessive accumulation of financial transactions over a limited period of time, the settlement of which could result in liquidity and operating problems);
- gross total and global currency position limits applicable for the entire management period as well as for sub-periods.

For the purpose of the limits calculation, equity is remeasured on a quarterly basis. Moreover, when a loss on risk management exceeds a pre-defined threshold, limits are immediately revised in order to prevent any significant exceeding of the maximum loss limit set by the Management Board of Grupa LOTOS S.A.

The strategy allows for the possibility of consolidated risk management at the Group level.

USD is used in market price quotations for crude oil and petroleum products. For this reason it has been decided that USD is the most appropriate currency for contracting and repaying long-term facilities to finance the 10+ Programme, as such an approach contributes to reducing the structurally long position, and consequently to reducing the strategic currency risk.

Pursuant to the agreement on financing of the 10+ Programme, Grupa LOTOS S.A. as of June 30th 2011 is no longer obliged to maintain a specified level of hedge ratio for the currency risk (EUR/USD and USD/PLN), which arose in connection with the fact that the currency in which the investment projects were financed was different from the currencies in which project execution contracts were denominated.

Underlying currency position as at December 31st 2011:

Period	USD	EUR
2012	468,678,817	(254,123,754)

Underlying currency position as at December 31st 2010:

Period	USD	EUR
2011	322,577,414	(266,115,943)

Grupa LOTOS S.A. actively manages its currency position and changes it depending on the expected market developments. .

Open currency transactions as at December 31st 2011:

Company	Type of transaction	Transaction execution date	Transaction settlement date	Currency pair	Amount in base currency	Rate	Amount in quote currency	Fair value as at Dec 31 2011 (PLN '000) ³
Grupa LOTOS S.A.	Currency forward	May 24 2011	Feb 15 2012	EUR/USD	15,000,000	1.4	(20,953,500)	(5,330)
Grupa LOTOS S.A.	Currency forward	May 24 2011	Mar 15 2012	EUR/USD	10,000,000	1.4	(13,950,500)	(3,473)
Grupa LOTOS S.A.	Currency forward	May 24 2011	Jan 1 2012	EUR/USD	5,000,000	1.4	(7,008,000)	(1,863)
Grupa LOTOS S.A.	Currency forward	May 24 2011	Jan 1 2012	EUR/USD	10,000,000	1.4	(14,000,000)	(3,671)
Grupa LOTOS S.A.	Currency forward	Aug 10 2011	Mar 15 2012	USD/PLN	(10,000,000)	2.9	28,982,000	(5,381)
Grupa LOTOS S.A.	Currency forward	Aug 10 2011	Mar 14 2012	USD/PLN	(10,000,000)	2.9	28,994,000	(5,366)
Grupa LOTOS S.A.	Currency forward	Aug 10 2011	Feb 14 2012	USD/PLN	(6,000,000)	2.9	17,337,000	(3,236)
Grupa LOTOS S.A.	Currency forward	Aug 23 2011	May 5 2012	EUR/USD	20,000,000	1.4	(28,878,600)	(10,190)
Grupa LOTOS S.A.	Currency forward	Aug 23 2011	Mar 19 2012	EUR/USD	11,000,000	1.4	(15,878,500)	(5,636)
Grupa LOTOS S.A.	Currency forward	Aug 23 2011	Apr 23 2012	EUR/USD	10,000,000	1.4	(14,412,000)	(5,019)
Grupa LOTOS S.A.	Currency forward	Aug 23 2011	Apr 23 2012	EUR/PLN	12,000,000	4.2	(50,559,600)	3,010
Grupa LOTOS S.A.	Currency forward	Sep 22 2011	Mar 15 2012	USD/PLN	(10,000,000)	3.3	33,350,000	(1,049)
Grupa LOTOS S.A.	Currency forward	Dec 13 2011	Mar 15 2012	USD/PLN	(20,000,000)	3.5	69,332,000	513
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Oct 10 2012	USD/PLN	(15,000,000)	3.6	53,680,005	1,279
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Aug 17 2012	USD/PLN	(15,000,000)	3.6	53,538,000	1,291
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Oct 12 2012	USD/PLN	(20,000,000)	3.6	71,612,000	1,735
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Apr 16 2012	USD/PLN	(20,000,000)	3.5	70,734,000	1,705
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Oct 15 2012	USD/PLN	(20,000,000)	3.6	71,524,000	1,640
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	May 5 2012	USD/PLN	(20,000,000)	3.5	70,810,000	1,615
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Oct 15 2012	USD/PLN	(15,000,000)	3.6	53,693,505	1,279
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Aug 16 2012	USD/PLN	(15,000,000)	3.6	53,535,000	1,291
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	May 16 2012	USD/PLN	(10,000,000)	3.5	35,418,000	817
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Sep 10 2012	EUR/USD	20,000,000	1.3	(26,142,800)	(673)
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Nov 13 2012	EUR/USD	20,000,000	1.3	(26,185,000)	(687)
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Jun 6 2012	EUR/USD	20,000,000	1.3	(26,115,000)	(743)

Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Aug 6 2012	EUR/USD	20,000,000	1.3	(26,133,000)	(705)
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Oct 4 2012	EUR/USD	20,000,000	1.3	(26,118,800)	(542)
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Jul 2 2012	EUR/PLN	20,000,000	4.6	(92,924,000)	(2,936)
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Jan 3 2012	USD/PLN	103,000,000	3.5	(362,127,400)	(10,132)
Grupa LOTOS S.A.	Currency forward	Dec 14 2011	Dec 12 2012	EUR/USD	10,000,000	1.3	(13,073,500)	(248)
Grupa LOTOS S.A.	Currency forward	Dec 15 2011	Jan 5 2012	EUR/PLN	8,000,000	4.6	(36,478,800)	(1,138)
Grupa LOTOS S.A.	Currency forward	Dec 15 2011	Feb 1 2012	EUR/USD	5,000,000	1.3	(6,515,125)	(177)
Grupa LOTOS S.A.	Currency forward	Dec 15 2011	Feb 1 2012	EUR/USD	5,000,000	1.3	(6,513,500)	(172)
Grupa LOTOS S.A.	Currency forward	Dec 16 2011	Apr 16 2012	USD/PLN	(6,000,000)	3.5	20,809,200	105
Grupa LOTOS S.A.	Currency forward	Dec 28 2011	Jan 27 2012	EUR/USD	10,100,000	1.3	(13,205,649)	(514)
Grupa LOTOS S.A.	Currency forward	Dec 29 2011	Jan 5 2012	EUR/USD	(2,000,000)	1.3	2,582,800	(7)
Grupa LOTOS S.A.	Currency spot	Dec 29 2011	Jan 3 2012	USD/PLN	(10,500,000)	3.4	35,770,350	(112)
Grupa LOTOS S.A.	Currency forward	Dec 29 2011	Jan 5 2012	EUR/PLN	(3,650,000)	4.4	16,211,840	88
Grupa LOTOS S.A.	Currency spot	Dec 30 2011	Jan 3 2012	USD/PLN	(19,600,000)	3.4	66,924,200	(57)
Grupa LOTOS S.A.	Currency spot	Dec 30 2011	Jan 3 2012	USD/PLN	(25,000,000)	3.4	86,150,000	715
Grupa LOTOS S.A.	Currency spot	Dec 30 2011	Jan 3 2012	USD/PLN	(11,000,000)	3.4	37,766,850	175
TOTAL, including:							(51,799)	
positive							17,258	
negative							(69,057)	

Open currency transactions as at December 31st 2010:

Company	Type of transaction	Transaction execution date	Transaction settlement date	Currency pair	Amount in base currency	Rate	Amount in quote currency	Fair value as at Dec 31 2010 (PLN '000) ³
Grupa LOTOS S.A.	Currency forward	May 6 2010	Feb 10 2011	EUR/USD	5,000,000	1.3	(6,396,500)	840
Grupa LOTOS S.A.	Currency forward	May 6 2010	Feb 14 2011	EUR/USD	10,000,000	1.3	(12,795,500)	1,671
Grupa LOTOS S.A.	Currency forward	May 6 2010	Mar 10 2011	EUR/USD	5,000,000	1.3	(6,398,500)	831
Grupa LOTOS S.A.	Currency forward	May 6 2010	Mar 15 2011	EUR/USD	10,000,000	1.3	(12,800,000)	1,652
Grupa LOTOS S.A.	Currency forward	May 6 2010	Mar 16 2011	USD/PLN	(5,000,000)	3.3	16,282,500	1,384
Grupa LOTOS S.A.	Currency forward	May 6 2010	Mar 17 2011	USD/PLN	(15,000,000)	3.3	48,759,000	4,060
Grupa LOTOS S.A.	Currency forward	May 7 2010	Jan 12 2011	USD/PLN	10,000,000	3.3	(33,293,000)	(3,635)
Grupa LOTOS S.A.	Currency forward	May 7 2010	Jan 13 2011	USD/PLN	6,000,000	3.3	(20,019,600)	(2,223)
Grupa LOTOS S.A.	Currency forward	May 10 2010	Jan 14 2011	USD/PLN	20,000,000	3.1	(61,930,000)	(2,610)
Grupa LOTOS S.A.	Currency forward	May 14 2010	Jan 14 2011	EUR/PLN	2,500,000	4.0	(10,118,250)	(211)
Grupa LOTOS S.A.	Currency forward	Aug 10 2010	May 16 2011	EUR/PLN	4,500,000	4.0	(18,204,750)	(230)
Grupa LOTOS S.A.	Currency forward	Aug 10 2010	May 17 2011	EUR/USD	2,500,000	1.3	(3,284,500)	160
Grupa LOTOS S.A.	Currency forward	Aug 10 2010	Jun 15 2011	EUR/PLN	10,000,000	4.1	(40,510,000)	(482)
Grupa LOTOS S.A.	Currency forward	Sep 28 2010	Jan 10 2011	EUR/PLN	9,000,000	4.0	(36,013,500)	(357)
Grupa LOTOS S.A.	Currency forward	Oct 1 2010	Apr 1 2011	EUR/USD	9,000,000	1.4	(12,330,000)	(914)
Grupa LOTOS S.A.	Currency forward	Nov 9 2010	Jan 13 2011	EUR/USD	15,000,000	1.4	(20,830,650)	(2,338)
Grupa LOTOS S.A.	Currency forward	Nov 9 2010	Mar 15 2011	EUR/USD	10,000,000	1.4	(13,866,000)	(1,504)
Grupa LOTOS S.A.	Currency forward	Nov 9 2010	Apr 15 2011	EUR/USD	15,000,000	1.4	(20,808,480)	(2,291)
Grupa LOTOS S.A.	Currency forward	Nov 9 2010	May 6 2011	EUR/USD	10,000,000	1.4	(13,855,000)	(1,480)
Grupa LOTOS S.A.	Currency forward	Nov 9 2010	Jul 11 2011	EUR/USD	15,000,000	1.4	(20,777,250)	(2,221)
Grupa LOTOS S.A.	Currency forward	Nov 9 2010	Sep 9 2011	EUR/USD	20,000,000	1.4	(27,647,000)	(2,814)
Grupa LOTOS S.A.	Currency forward	Dec 3 2010	Feb 14 2011	USD/PLN	31,000,000	3.0	(93,889,700)	(1,745)
Grupa LOTOS S.A.	Currency forward	Dec 3 2010	May 16 2011	USD/PLN	(42,000,000)	3.0	127,785,000	2,152
Grupa LOTOS S.A.	Currency forward	Dec 3 2010	Jun 15 2011	USD/PLN	42,000,000	3.0	(128,076,900)	(2,156)

Grupa LOTOS S.A.	Currency forward	Dec 3 2010	Jul 11 2011	USD/PLN	7,000,000	3.1	(21,466,200)	(436)
Grupa LOTOS S.A.	Currency forward	Dec 3 2010	Jul 11 2011	USD/PLN	10,000,000	3.1	(30,622,000)	(580)
Grupa LOTOS S.A.	Currency forward	Dec 3 2010	Sep 12 2011	USD/PLN	(31,000,000)	3.1	95,154,500	1,620
Grupa LOTOS S.A.	Currency forward	Dec 6 2010	Aug 10 2011	USD/PLN	(38,000,000)	3.1	116,557,400	2,160
Grupa LOTOS S.A.	Currency forward	Dec 7 2010	Aug 11 2011	USD/PLN	(19,800,000)	3.1	60,489,000	883
Grupa LOTOS S.A.	Currency forward	Dec 9 2010	Aug 10 2011	EUR/PLN	21,000,000	4.1	(85,915,200)	(1,530)
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Jan 10 2011	USD/PLN	(34,100,000)	3.0	103,916,340	2,803
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	May 16 2011	USD/PLN	(30,000,000)	3.1	92,001,000	2,255
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Jun 06 2011	USD/PLN	(30,000,000)	3.1	92,215,500	2,324
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Jun 13 2011	EUR/PLN	8,000,000	4.0	(32,352,000)	(335)
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Jun 22 2011	USD/PLN	(40,000,000)	3.1	122,960,000	2,956
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Jul 12 2011	EUR/PLN	5,000,000	4.1	(20,256,000)	(205)
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Oct 5 2011	EUR/USD	10,000,000	1.3	(13,129,300)	634
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Oct 17 2011	EUR/USD	10,000,000	1.3	(13,147,500)	578
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Nov 07 2011	EUR/USD	20,000,000	1.3	(26,259,000)	1,254
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Dec 12 2011	USD/PLN	30,000,000	3.1	(93,460,500)	(2,321)
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Dec 13 2011	USD/PLN	30,000,000	3.1	(93,426,000)	(2,281)
Grupa LOTOS S.A.	Currency forward	Dec 20 2010	Dec 22 2011	EUR/PLN	20,000,000	4.1	(81,820,000)	(749)
Grupa LOTOS S.A.	Currency forward	Dec 21 2010	Jan 24 2011	USD/PLN	(34,000,000)	3.0	103,436,500	2,527
Grupa LOTOS S.A.	Currency forward	Dec 21 2010	Apr 04 2011	USD/PLN	20,000,000	3.1	(61,160,000)	(1,514)
Grupa LOTOS S.A.	Currency forward	Dec 21 2010	May 10 2011	USD/PLN	(20,000,000)	3.1	61,298,000	1,495
Grupa LOTOS S.A.	Currency forward	Dec 21 2010	Aug 5 2011	USD/PLN	(15,000,000)	3.1	46,260,000	1,114
Grupa LOTOS S.A.	Currency forward	Dec 21 2010	Nov 10 2011	USD/PLN	15,000,000	3.1	(46,605,000)	(1,144)
Grupa LOTOS S.A.	Currency forward	Dec 22 2010	Jul 7 2011	USD/PLN	7,000,000	3.1	(21,514,500)	(490)
Grupa LOTOS S.A.	Currency forward	Dec 22 2010	Jul 8 2011	USD/PLN	10,000,000	3.1	(30,734,000)	(696)
Grupa LOTOS S.A.	Currency forward	Dec 23 2010	Feb 18 2011	EUR/USD	4,000,000	1.3	(5,259,400)	250
Grupa LOTOS S.A.	Currency forward	Dec 23 2010	Jul 11 2011	USD/PLN	5,000,000	3.1	(15,368,000)	(346)
Grupa LOTOS S.A.	Currency forward	Dec 23 2010	Jul 12 2011	USD/PLN	8,000,000	3.1	(24,588,800)	(552)
Grupa LOTOS S.A.	Currency forward	Dec 27 2010	Jan 12 2011	EUR/USD	10,000,000	1.3	(13,166,000)	578
Grupa LOTOS S.A.	Currency forward	Dec 27 2010	Jan 12 2011	USD/PLN	(10,000,000)	3.0	30,223,000	567
Grupa LOTOS S.A.	Currency forward	Dec 28 2010	Jan 31 2011	EUR/USD	3,500,000	1.3	(4,630,815)	134
Grupa LOTOS S.A.	Currency forward	Dec 28 2010	Jan 31 2011	USD/PLN	(1,000,000)	3.0	3,016,000	47
Grupa LOTOS S.A.	Currency forward	Dec 28 2010	Jul 13 2011	USD/PLN	13,000,000	3.1	(39,679,900)	(622)
Grupa LOTOS S.A.	Currency forward	Dec 28 2010	Dec 1 2011	USD/PLN	(13,000,000)	3.1	40,033,500	586
Grupa LOTOS S.A.	Currency spot	Dec 30 2010	Jan 3 2011	USD/PLN	3,000,000	3.0	(8,998,500)	(106)
Grupa LOTOS S.A.	Currency spot	Dec 30 2010	Jan 3 2011	USD/PLN	10,000,000	3.0	(29,979,000)	(339)
Grupa LOTOS S.A.	Currency spot	Dec 30 2010	Jan 3 2011	USD/PLN	4,000,000	3.0	(12,000,400)	(144)
Grupa LOTOS S.A.	Currency spot	Dec 31 2010	Jan 4 2011	EUR/PLN	1,000,000	4.0	(3,957,000)	3
Grupa LOTOS S.A.	Currency spot	Dec 31 2010	Jan 4 2011	EUR/PLN	2,000,000	4.0	(7,909,000)	12
Grupa LOTOS S.A.	Currency spot	Dec 31 2010	Jan 4 2011	EUR/PLN	1,000,000	4.0	(3,950,000)	10
Grupa LOTOS S.A.	Currency spot	Dec 31 2010	Jan 4 2011	EUR/PLN	600,000	4.0	(2,382,600)	(6)
Grupa LOTOS S.A.	Currency spot	Dec 31 2010	Jan 4 2011	USD/PLN	10,000,000	3.0	(29,642,000)	(1)
Grupa LOTOS S.A.	Currency spot	Dec 31 2010	Jan 4 2011	USD/PLN	5,000,000	3.0	(14,820,500)	-
Grupa LOTOS S.A.	Currency spot	Dec 31 2010	Jan 4 2011	USD/PLN	4,000,000	3.0	(11,901,200)	(45)
Grupa LOTOS S.A.	Currency spot	Dec 31 2010	Jan 4 2011	USD/PLN	5,000,000	3.0	(14,821,500)	(1)
							TOTAL, including:	(4,114)
							positive	37,540
							negative	(41,654)

³ Fair value of currency spots and forwards is established by reference to future discounted cash flows connected with the transactions, calculated on the basis of the difference between the forward rate and the transaction price. The forward rate is calculated on the basis of the fixing rate quotations of the National Bank of Poland and the interest rate curve implied in fx swaps (Level 2 in the fair value hierarchy).

Total currency position of the Parent as at December 31st 2011:

Period	USD/PLN position			EUR/PLN position		
	Underlying	Transaction	Total	Underlying	Transaction	Total
2012	468,678,817	(457,600,674)	11,078,143	(254,123,754)	245,450,000	(8,673,754)

Total currency position of the Parent as at December 31st 2010:

Period	USD/PLN position			EUR/PLN position		
	Underlying	Transaction	Total	Underlying	Transaction	Total
2011	322,577,414	(320,281,395)	2,296,019	(266,115,943)	268,600,000	2,484,057

The LOTOS Group companies executed transactions to hedge their currency risk and transactions to hedge the USD exchange rate in connection with the purchase of notes from a LOTOS Group member.

Open currency transactions as at December 31st 2011:

Company	Type of transaction	Transaction execution date	Transaction settlement date	Currency pair	Amount in base currency	Rate	Amount in quote currency	Fair value as at Dec 31 2011 (PLN '000) ³
LOTOS Asphalt Sp. z o.o.	Currency swap	Nov 10 2010	May 14 2012	USD/PLN	(49,284,000)	3.2610	160,715,124	(9,588)
TOTAL, (9,588) including:								-
positive -								
negative (9,588)								

Company	Type of transaction	Transaction execution date	Transaction settlement date	Currency pair	Amount in base currency	Rate	Amount in quote currency	Fair value as at Dec 31 2011 (PLN '000) ³
Grupa Kapitałowa LOTOS Petrobaltic S.A.	Currency forward	Nov 30 2011	Jan 23 2012	USD/NOK	(6,700)	5.758187	38,580	(1,032)
TOTAL, (1,032) including:								-
positive -								
negative (1,032)								

Open currency transactions as at December 31st 2010:

Company	Type of transaction	Transaction execution date	Transaction settlement date	Currency pair	Amount in base currency	Rate	Amount in quote currency	Fair value as at Dec 31 2010 (PLN '000) ³
LOTOS Asphalt Sp. z o.o.	Currency swap	Nov 9 2010	Feb 10 2011	USD/PLN	(41,100,000)	2.8272	116,197,920	(5,936)
TOTAL, (5,936) including:								-
positive -								

Company	Type of transaction	Transaction execution date	Transaction settlement date	Currency pair	Amount in base currency	Rate	Amount in quote currency	Fair value as at Dec 31 2010 (PLN '000) ³
LOTOS Parafiny Sp. z o.o.	Currency forward	Apr 28 2010	Jan 28 2011	EUR/PLN	(74,500)	3.9860	296,957	1
TOTAL, including:								1
positive								1
negative								-

³ Fair value of currency spots and forwards is established by reference to future discounted cash flows connected with the transactions, calculated on the basis of the difference between the forward rate and the transaction price. The forward rate is calculated on the basis of the fixing rate quotations of the National Bank of Poland and the interest rate curve implied in fx swaps (Level 2 in the fair value hierarchy).

Interest rate risk

The base map of interest rate positions is related to the cash flows which depend on future interest rates; in particular it is based on the planned schedule of repayments under the facility for financing of inventories and implementation of the 10+ Programme and the associated interest calculated on the basis of a floating LIBOR USD rate. The structure of limits is based on the underlying's nominal value hedge ratio. In a long-term perspective, a partial risk mitigation effect was achieved through the choice of a fixed interest rate for the SACE sub-tranche under the term facility granted to finance the 10+ Programme described in Note 34 (<http://raportroczny.lotos.pl/en/financial-data/consolidated-financial-statements-2011/notes-to-the-financial-statements/34.-interest-bearing-borrowings-and-other-debt-instruments>).

The obligation to maintain a specified hedge ratio for the interest rate risk connected with the LIBOR USD floating interest rate on the facility contracted to finance the 10+ Programme expired on June 30th 2011 as per the agreement on the financing of the 10+ Programme,

Underlying interest rate position as at December 31st 2011 (USD '000):

Period	Underlying position
2012	(1,864,944)
2013	(1,373,687)
2014	(1,267,629)
2015	(1,143,396)
2016	(1,012,073)
2017	(876,641)
2018	(728,733)
2019	(562,495)
2020	(395,211)

Underlying interest rate position as at December 31st 2010 (USD '000):

Period	Underlying position
2011	(1,913,471)
2012	(1,831,610)
2013	(1,373,687)
2014	(1,267,629)
2015	(1,143,396)
2016	(1,012,072)
2017	(876,641)
2018	(728,732)
2019	(562,495)

As at December 31st 2011, the Company holds open hedging transactions executed in 2008 and 2009 to partially mitigate the interest rate risk which is not covered by mandatory hedges.

Open interest rate transactions as at December 31st 2011:

Company	Type of transaction	Transaction execution date	Beginning of period	End of period	Notional amount (USD)	Company pays	Company receives	Fair value as at Dec 31 2011 (PLN '000) ⁴
Grupa LOTOS S.A.	Interest rate swap (IRS)	Sep 5 2008	Oct 15 2008	Jan 15 2013	100,000,000	3.8%	6M Libor	(22,535)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Sep 16 2008	Jan 15 2009	Jan 15 2013	100,000,000	3.5%	6M Libor	(20,643)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Sep 19 2008	Jan 15 2009	Jan 15 2013	(100,000,000)	6M Libor	4.0%	23,738
Grupa LOTOS S.A.	Interest rate swap (IRS)	Oct 7 2008	Jan 15 2009	Jan 15 2013	100,000,000	3.5%	6M Libor	(20,437)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Oct 8 2008	Jul 15 2011	Jan 15 2013	100,000,000	4.2%	6M Libor	(18,262)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Mar 19 2009	Jul 15 2011	Jan 15 2018	100,000,000	3.3%	6M Libor	(40,338)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Apr 15 2009	Jul 15 2011	Jan 15 2018	50,000,000	3.5%	6M Libor	(22,009)
Grupa LOTOS S.A.	Interest rate swap (IRS)	May 8 2009	Jul 15 2011	Jan 15 2018	50,000,000	4.0%	6M Libor	(27,910)
								TOTAL, (148,396) including:
								positive 23,738
								negative (172,134)

Open interest rate transactions as at December 31st 2010:

Company	Type of transaction	Transaction execution date	Beginning of period	End of period	Notional amount (USD)	Company pays	Company receives	Fair value as at Dec 31 2010 (PLN '000) ⁴
Grupa LOTOS S.A.	Interest rate swap (IRS)	May 9 2008	Oct 15 2008	Jun 30 2011	50,000,000	3.4%	6M LIBOR	(6,650)
Grupa LOTOS S.A.	Interest rate swap (IRS)	May 13 2008	Oct 15 2008	Jun 30 2011	50,000,000	3.6%	6M LIBOR	(6,908)
Grupa LOTOS S.A.	Interest rate swap (IRS)	May 16 2008	Oct 15 2008	Jun 30 2011	100,000,000	3.7%	6M LIBOR	(14,220)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Jun 4 2008	Jul 15 2009	Jun 30 2011	122,000,000	4.1%	6M LIBOR	(19,599)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Jun 4 2008	Oct 15 2008	Jun 30 2011	208,000,000	3.8%	6M LIBOR	(30,735)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Jun 26 2008	Jan 15 2009	Jun 30 2011	100,000,000	4.3%	6M LIBOR	(16,943)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Jun 27 2008	Jul 15 2009	Jun 30 2011	150,000,000	4.3%	6M LIBOR	(25,768)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Sep 5 2008	Oct 15 2008	Jan 15 2013	100,000,000	3.8%	6M LIBOR	(27,521)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Sep 16 2008	Jan 15 2009	Jan 15 2013	100,000,000	3.5%	6M LIBOR	(25,060)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Sep 19 2008	Jan 15 2009	Jan 15 2013	(100,000,000)	6M LIBOR	4.0%	29,087
Grupa LOTOS S.A.	Interest rate swap (IRS)	Oct 7 2008	Jan 15 2009	Jan 15 2013	100,000,000	3.5%	6M LIBOR	(24,792)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Oct 8 2008	Jul 15 2011	Jan 15 2013	100,000,000	4.2%	6M LIBOR	(14,102)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Mar 19 2009	Jul 15 2011	Jan 15 2018	100,000,000	3.3%	6M LIBOR	(3,860)
Grupa LOTOS S.A.	Interest rate swap (IRS)	Apr 15 2009	Jul 15 2011	Jan 15 2018	50,000,000	3.5%	6M LIBOR	(3,444)
Grupa LOTOS S.A.	Interest rate swap (IRS)	May 8 2009	Jul 15 2011	Jan 15 2018	50,000,000	4.0%	6M LIBOR	(8,295)
								TOTAL, (198,810) including:
								positive 29,087
								negative (227,897)

	execution date	of period	period	amount (USD)	pays	receives	value as at Dec 31 2010 (PLN '000)
Grupa LOTOS S.A. Forward rate agreement (FRA)	Jan 19 2010	Jan 18 2011	Apr 15 2011	(100,000,000)	3M LIBOR	1.2250%	655
Grupa LOTOS S.A. Forward rate agreement (FRA)	Apr 19 2010	Jan 18 2011	Apr 15 2011	100,000,000	0.8%	LIBOR 3M	(340)
					TOTAL, including:		315
					positive		655
					negative		(340)

⁴ Fair value of IRSs/FRAs is established by reference to future discounted cash flows connected with the transactions, calculated on the basis of the difference between the forward rate and the transaction price. The forward rate is calculated using the zero-coupon interest rate curve based on 6M or 3M LIBOR, depending on the type of transaction (Level 2 in the fair value hierarchy).

Total interest rate position as at December 31st 2011:

Period	Underlying position (USD)	Fixed interest rate borrowings (USD)	Transaction position (USD)	Total position (USD)	Hedge ratio (USD)	Period
2012	(1,864,943,750)	401,678,125	500,000,000	75,863,870	(887,401,755)	52%
2013	(1,373,687,500)	376,656,250	200,000,000	75,707,285	(721,323,965)	47%
2014	(1,267,628,750)	347,575,625	200,000,000	93,595,493	(626,457,632)	51%
2015	(1,143,396,250)	313,511,875	200,000,000	96,284,191	(533,600,184)	53%
2016	(1,012,072,500)	277,503,750	200,000,000	102,199,230	(432,369,520)	57%
2017	(876,641,250)	240,369,375	200,000,000	102,124,180	(334,147,695)	62%
2018	(728,732,500)	199,813,750	-	113,673,611	(415,245,139)	43%
2019	(562,495,000)	154,232,500	-	115,396,189	(292,866,311)	48%
2020	(395,211,250)	108,364,375	-	111,293,408	(175,553,467)	56%

Total interest rate position as at December 31st 2010:

Period	Underlying position (USD)	Fixed interest rate borrowings (USD)	Transaction position (USD)	Total position (USD)	Hedge ratio (USD)	Period
2011	(1,913,471,448)	415,619,121	740,000,000	27,709,808	(730,142,519)	62%
2012	(1,831,610,416)	401,678,125	500,000,000	68,602,578	(861,329,713)	53%
2013	(1,373,687,500)	376,656,250	200,000,000	72,506,923	(724,524,327)	47%
2014	(1,267,628,750)	347,575,625	200,000,000	89,910,022	(630,143,103)	50%
2015	(1,143,396,250)	313,511,875	200,000,000	92,393,815	(537,490,560)	53%
2016	(1,012,072,500)	277,503,750	200,000,000	94,878,009	(439,690,741)	57%
2017	(876,641,250)	240,369,375	200,000,000	94,354,545	(341,917,330)	61%
2018	(728,732,500)	199,813,750	-	101,292,185	(427,626,565)	41%
2019	(562,495,000)	154,232,500	-	102,468,228	(305,794,272)	46%
2020	(395,211,250)	108,364,375	-	74,265,210	(212,581,665)	46%

To optimise the interest balance, the cash-pooling service for the LOTOS Group is used. The service consists in the application of favourable interest rates for debit and credit balances, which are subject to offsetting as at the end of each business day.

Liquidity risk

The liquidity risk management process in Grupa LOTOS S.A. consists in monitoring forecast cash flows and the portfolio of

financial assets and liabilities, matching maturities of assets and liabilities, analysing working capital, optimising flows within the Group and close cooperation with business areas in order to safely and effectively allocate the liquidity.

In the period covered by the budget, liquidity is monitored on an ongoing basis across the Group as part of the financial risk management. In the mid and long term, it is monitored as part of the planning process, which helps to develop a long-term financial strategy.

In the area of financial risk, in addition to an active management of market risk, the Company applies the following liquidity management rules:

- no margins in derivatives trading on the OTC market,
- limited possibility of early termination of financial transactions,
- limits for low-liquidity spot financial instruments,
- credit limits for counterparties in financial and non-financial transactions,
- ensuring adequate quality and diversification of available financing sources,
- internal control processes and organisational efficiency facilitating prompt contingency response.

Contractual maturities of financial liabilities as at December 31 2011 and December 31 2010 are presented below.

Maturity structure of financial liabilities as at December 31st 2011:

PLN '000	Note	Carrying amount	Contractual cash flows	Up to 6 months	6-12 months	1-2 years	2-5 years	Over 5 years
Secured bank borrowings and other debt instruments (other than overdraft facilities)	34	7,083,442	7,344,207	348,463	1,933,482	363,759	1,424,509	3,273,994
Overdraft facilities	34	308,187	308,187	224,976	83,211	-	-	-
Notes	35	-	-	-	-	-	-	-
Finance lease liabilities	37.3	197,000	197,000	10,663	8,752	18,965	72,392	86,228
Trade and other payables (net of public creditors)	37.1	3,054,041	3,054,041	2,940,861	97,986	14,515	679	-
Total		10,642,670	10,903,435	3,524,963	2,123,431	397,239	1,497,580	3,360,222

Maturity structure of financial liabilities as at December 31st 2010:

(restated) PLN '000	Note	Carrying amount	Contractual cash flows	Up to 6 months	6-12 months	1-2 years	2-5 years	Over 5 years
Secured bank borrowings and other debt instruments (other than overdraft facilities)	34	6,051,963	6,144,837	75,277	1,576,180	359,355	1,009,547	3,124,478
Overdraft facilities	34	274,831	275,548	255,198	20,350	-	-	-
Notes	35	52,670	52,670	52,670	-	-	-	-
Finance lease liabilities	37.3	74,255	74,255	1,250	1,446	5,693	27,081	38,785
Trade and other payables (net of public creditors)	37.1	2,061,584	2,061,584	2,012,750	22,623	24,918	1,293	-
Total		8,515,303	8,608,894	2,397,145	1,620,599	389,966	1,037,921	3,163,263

Maturity structure of derivative financial instruments as at December 31st 2011:

PLN '000	Note	Carrying amount *	Contractual cash flows	Up to 6 months	6-12 months	1-2 years	2-5 years	Over 5 years
Commodity swap	28, 37.2	-	-	-	-	-	-	-
Futures (CO ₂ emissions)	23, 28, 37.2	7,303	7,303	-	7,303	-	-	-
Currency forward and spot contracts	28, 37.2	53,191	53,191	55,915	(2,724)	-	-	-
Forward rate agreements (FRAs)	28, 37.2	-	-	-	-	-	-	-
Interest rate swap (IRS)	28, 23, 37.2	148,396	148,396	40,013	(6,884)	51,538	43,112	20,617
Currency swap	37.2	9,588	9,588	9,588	-	-	-	-
Total		218,478	218,478	105,516	(2,305)	51,538	43,112	20,617

* Carrying amount (positive valuation of derivative financial instruments less negative valuation of derivative financial instruments) represents the fair value of derivative financial instruments.

Maturity structure of derivative financial instruments as at December 31st 2010:

(restated) PLN '000	Note	Carrying amount *	Contractual cash flows	Up to 6 months	6-12 months	1-2 years	2-5 years	Over 5 years
Commodity swap	28, 37.2	(2,045)	(2,045)	(423)	(1,622)	-	-	-
Futures (CO ₂ emissions)	23, 28, 37.2	152	152	-	35	117	-	-
Currency forward and spot contracts	28, 37.2	(4,113)	(4,113)	4,045	(8,158)	-	-	-
Forward rate agreements (FRAs)	28, 37.2	315	315	315	-	-	-	-
Interest rate swap (IRS)	28, 23, 37.2	(198,810)	(198,810)	(139,329)	1,335	(25,386)	(39,215)	3,785
Currency swap	37.2	(5,936)	(5,936)	(5,936)	-	-	-	-
Total		(210,437)	(210,437)	(141,328)	(8,410)	(25,269)	(39,215)	3,785

* Carrying amount (positive valuation of derivative financial instruments less negative valuation of derivative financial instruments) represents the fair value of derivative financial instruments.

Credit risk

Management of credit risk related to counterparties in financial transactions consists in the verification of creditworthiness of the current and potential counterparties and monitoring of credit exposure against the granted limits. The counterparties must have an appropriate credit rating, assigned by leading rating agencies, or hold guarantees from institutions meeting the minimum rating requirement. The Group enters into financial transactions with reputable firms with sound credit standing, and diversifies the group of institutions with which it cooperates.

As at December 31st 2011, the concentration of credit risk with respect to a single counterparty in financial transactions did not exceed 0.015% of the Group's balance-sheet total.

Given that sales are executed on a deferred-payment basis, the Group may be exposed to risk of non-payment for products and services provided to its counterparties. As regards management of counterparty risk in non-financial transactions, all customers who request trading on credit terms are subject to credit assessment, whose results determine the level of possible credit limits.

Credit risk is measured by the maximum exposure to risk of individual classes of financial assets. Carrying amounts of financial assets represent the maximum credit risk exposure.

The maximum credit risk exposures as at the balance-sheet date:

PLN '000	Note	Dec 31 2011	Dec 31 2010 (restated)
Shares:		9,746	9,927
- long-term	23	9,746	9,915
- short-term	28	-	12
Decommissioning fund	23	24,491	21,668
Deposits:		78,671	5,932
- non-current	23	38,106	-
- current	28	40,565	5,932
Security deposits (margins)	23	11,748	3,108
Non-bank borrowings		1,614	-
- non-current	23	-	-
- current	28	1,614	-
Derivative financial instruments:		49,300	69,370
- long-term	23	12,098	19,408
- short-term	28	37,202	49,962
Trade and other receivables (net of receivables from the state budget):		2,170,484	1,810,637
- long-term	25	33,313	28,612

- short-term	26	2,137,171	1,782,025
Cash and cash equivalents	30	383,680	382,601
Total		2,729,734	2,303,243

In the Management Board's opinion, the risk related to non-performing financial assets is reflected by recognised impairment losses. For more information on impairment losses on financial assets, see Note [12.3](#)

(<http://raportroczny.lotos.pl/en/financial-data/consolidated-financial-statements-2011/notes-to-the-financial-statements/12.-income-and-expenses#12-3>), [12.5 \(<http://raportroczny.lotos.pl/en/financial-data/consolidated-financial-statements-2011/notes-to-the-financial-statements/12.-income-and-expenses#12-5>\)](http://raportroczny.lotos.pl/en/financial-data/consolidated-financial-statements-2011/notes-to-the-financial-statements/12.-income-and-expenses#12-5) and [12.6 \(<http://raportroczny.lotos.pl/en/financial-data/consolidated-financial-statements-2011/notes-to-the-financial-statements/12.-income-and-expenses#12-6>\)](http://raportroczny.lotos.pl/en/financial-data/consolidated-financial-statements-2011/notes-to-the-financial-statements/12.-income-and-expenses#12-6).

For information on impairment losses on receivables, the age analysis of unimpaired past due receivables, as well as the analysis of concentration of credit risk related to trade receivables as at December 31st 2011 and December 31st 2010, see [Note 26](#) (<http://raportroczny.lotos.pl/en/financial-data/consolidated-financial-statements-2011/notes-to-the-financial-statements/26.-trade-and-other-receivables/>).

This is a translation of a document originally issued in Polish.