

ANNUAL CONSOLIDATED FINANCIAL STATEMENTS OF THE CAPITAL GROUP OF BANK OCHRONY ŚRODOWISKA S.A. FOR THE YEAR ENDED 31 DECEMBER 2018 WITH THE INDEPENDENT AUDITOR'S REPORT

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Annual consolidated profit and loss account of BOŚ Group

Continued operations	Note	for the year	
	Note	31-12-2018	31-12-2017
Interest income and similar income, in which:		628,304	663,541
- Financial assets measured at amortized cost		516,877	nd
 Assets carried at fair value through other comprehensive income 		106,889	nd
- Financial assets carried compulsorily at fair value through profit or loss		4,538	nd
Interest expense and similar charges		-244,189	-279,523
- Financial assets measured at amortized cost		-234,505	nd
- Financial assets carried compulsorily at fair value through profit or loss		-9,684	nd
Net interest income Fee and commission revenue	6	384,115 135,027	384,018 144,464
Fee and commission expense		-37,133	-35,409
Net fee and commission income	7	97,894	109,055
Dividend income Result on financial instruments assessed according to their fair	8	6,069	5,735
value basing on the statement of profit or loss (including receivables from clients)	9	62,590	65,712
Result on investment securities	10	2,166	6,788
Result on hedge accounting	11	1,313	2,596
Foreign exchange result	12	24,251	23,213
Remaining operating income	13	23,138	17,062
Remaining operating expenses Net impairment losses	14 15	-21,676 -134,090	-23,934 -137,832
General administrative expenses	16	-357,243	-380,705
Gross profit	10	88,527	71,708
Tax expenses	18	-24,799	-25,646
Net profit		63,728	46,062
attributable to:			
- equity holders of the parent		63,728	46,062
- noncontrolling holders		-	-
Profit per share attributable to the equity holder of the parent during the period (in PLN)	19		
– basic		0.82	0.73
– diluted		0.82	0.73

There were no discontinued operations in 2018 and in 2017.

Annual consolidated statement of comprehensive income of BOŚ Group

Continued operations	for the year ended		
	31-12-2018	31-12-2017	
Net profit	63,728	46,062	
Items that may be reclassified subsequently to profit or loss	-2,310	33,553	
Fair value of financial assets carried at fair value through other comprehensive income	-2,852	nd	
Deferred tax	5 4 2	nd	
Valuation of financial assets available for sale	-	41,572	
Deferred tax	-	-8,019	
Items that will not be reclassified subsequently to	48	-120	
profit or loss			
Fair value of equity instruments carried at fair value through other comprehensive income (gross)	-1	nd	
Revaluation of employee benefit liabilities	60	-148	
Deferred tax	-11	28	
Total comprehensive income	61,466	79,495	
attributable to:			
- equity holders of the parent	61,466	79,495	
- noncontrolling holders	, <u>-</u>	<u> </u>	

Annual consolidated statement of financial position of BOŚ Group

Assets	Note	31-12-2018	31-12-2017
Cash and balances with the Central Bank	20	186,736	632,772
Receivables from other banks	21	196,104	375,748
Financial assets held for trading	22	87,761	198,065
Derivative hedging instruments	41	- - 476 202	4,722
Investment securities - equity securities	24	5,476,293 85,027	5,539,720 nd
measured at the fair value through other comprehensive		63,027	IIu
income - debt securities		4 01E 000	nd
		4,015,998	nu
measured at the fair value through other comprehensive income			
- debt securities measured		1,375,268	nd
at amortized cost			
- investment securities available for sale		nd	4,133,456
- investment securities held to maturity		nd	1,406,264
Receivables from clients - measurement at amortized cost	23	11,809,527 11,704,874	12,343,773 nd
- measured at the fair value through profit or loss		104,653	nd
Intangible assets	26	120,050	121,328
Property, plant and equipment	27	68,396	72,720
Income tax assets		99,867	76,165
- current		1,124	716
- deferred		98,743	75,449
Other assets	28	206,291	311,707
Total assets		18,251,025	19,676,720

Liabilities	Note	31-12-2018	31-12-2017
Amounts due to the Central Bank and to other Banks	29	571,784	479,534
Financial derivative financial instruments held for trading	22	54,336	68,238
Derivative hedging instruments	41	18,298	20,571
Amounts due to customers	30	14,799,109	15,463,833
Liabilities related to the issue of bank securities	31	4 6,590	829,980
Subordinated debt	32	370,672	595,692
Provisions	33	35,773	25,135
Income tax liabilities		4,972	1,765
- current		4,497	727
- deferred		475	1,038
Other liabilities	35	211,925	339,135
Total liabilities		16,113,459	17,823,883

Equity	Note	31-12-2018	31-12-2017
Attributable to equity holders of the parent:			
Core capital: - Share capital	39	1,461,036 929,477	1,160,291 628,732
- Own shares		-1,292	-1,292
- Share premium		532,851	532,851
Revaluation capital Retained earnings	40 41	57,390 619,140	10,598 681,948
Total equity		2,137,566	1,852,837
Total equity and liabilities		18,251,025	19,676,720

Annual consolidated statement of changes in equity of BOŚ Group

Attributable to shareholders of the Bank									
	Share capital				Retained earnings				
	Equity share capital	Shares owned	Equity share premium	Equity from revaluation	Other supplemen tary capital	Other reserve capitals	Fund general risk fund	Undistributed financial result	Total equity
As at 31-12-2017	628,732	-1,292	532,851	10,598	594,874	23,605	48,302	15,167	1,852,837
Impact of IFRS 9 implementation as at 01-01-2018	-	-	-	49,054	-	-	-	-127,172	-78,118
As at 01-01-2018, after including changes in accounting principles resulting from application of IFRS 9	628,732	-1,292	532,851	59,652	594,874	23,605	48,302	-112,005	1,774,719
Net profit	-	-	-	-	-	-	-	63,728	63,728
Other comprehensive income	-	-	-	-2,262	-	-	-	-	-2,262
Total comprehensive income	-	-	-	-2,262	-	-	-	63,728	61,466
Sales result - securities reclassified according to IFRS 9	-	-	-	-	-	-	-	2,223	2,223
Issue of V series shares	300,745	-	-	-	-	-	-	-	300,745
Share issue costs	-	-	-	-	-	-	-	-1,587	-1,587
Profit distribution, including:	-	-	-	-	29,519	-	-	-29,519	-
Transfer of net profit to other capital	-	-	-	-	- 36,482	-	-	-36,482	-
Covering the costs of issuing shares (U series)	-		-	-	6,963	<u>-</u>		6,963	
As at 31-12-2018	929,477	-1,292	532,851	57,390	624,393	23,605	48,302	-77,160	2,137,566
As at 01-01-2017	628,732	-1,292	532,851	-21,950	652,828	23,605	48,302	-81,187	1,781,889
Opening balance adjustment (Note 3)	-	-	-	-	-	-	-	-7,596	-7,596
As at 01-01-2017 after the OB adjustment	628,732	-1,292	532,851	-21,950	652,828	23,605	48,302	-88,783	1,774,293
Net profit	-	-	-	-	-	-	-	46,062	46,062
Other comprehensive income	-	-	-	32,548	-	-	-	885	33,433
Total comprehensive income	-	-	-	32,548	-	-	-	46,947	79,495
Liquidation of a subsidiary	-	-	-	-	-23	-	-	27	4
Share issue costs	-	-	-	-	-	-	-	-955	-955
Profit distribution, including:	-	-	-	-	-57,931	-	-	57,931	-
Transfer of net profit to other capital	-	-	-	-	10,042	-	-	-10,042	-
Coverage of loss brought forward	-	_	-	-	-67,973			67,973	
As at 31-12-2017	628,732	-1,292	532,851	10,598	594,874	23,605	48,302	15,167	1,852,837

Non-controlling interests did not occur in 2018-2017.

Annual consolidated statement of cash flows of BOŚ Group

Indirect method	31-12-2018	31-12-2017
CASH FLOWS FROM OPERATING		
ACTIVITIES		
Gross profit	88,527	71,708
Total adjustments:	96,187	100,107
Depreciation	39,783	41,964
Interest on investing activities	, -	-41,446
Profit / loss from investing activities	-48,314	·-45
Interest on financing activities	37,368	47,226
Dividends received	-6,069	-5,735
- dividends received from securities held for trading	137	237
- from investment securities	5,932	5,498
Change:	93,623	87,807
- receivables from other banks	-11,387	50,779
- securities held-for-trading	7,607	39,883
- assets and liabilities due to valuation of derivative	91,244	-112,370
financial instruments and derivative hedging		
instruments		
- from investment securities	215,402	-338,563
- receivables from clients	377,960	1,621,486
- change in other assets and income tax	103,086	-7,661
- amounts due to Central Bank and other banks	92,250	363,770
- amounts due to customers	-664,724	-1,659,745
- in provisions	10,698	10,348
- in other liabilities and in income tax	-128,117	119,880
Income tax paid	-26,669	-35,399
Net cash flow from operating activities	184,714	171,815
CASH FLOW FROM INVESTING ACTIVITIES		_
Inflows	48,203	118,839
Sale of property, plant and equipment	140	77,751
Interest received on securities measured at amortized cost	48,063	41,088
Outflows	-283,155	-326,118
Purchase of securities measured at amortized cost	-251,453	-219,816
Purchase of securities held to maturity		
Purchase of intangible assets	-25,397	-17,973
Purchase of property, plant and equipment	-6,305	-88,329
Net cash flow from investing activities	-234,952	-207,279

CASH FLOW FROM FINANCIAL ACTIVITIES

Inflows Inflow from the issue of shares and additional capital contributions	300,745 300,745	100,000
Inflow from issue of bonds issued by the BOŚ Group	-	100,000
in which subordinated bonds	-	100,000
Outflows	-1,047,365	-153,617
Redemption of bonds issued by the BOŚ Group	-1,000,000	-100,000
Interest paid on bonds issued by the BOS Group, of which:	-45,778	-52,662
- subordinated bonds	-27,482	-24,600
Other financial outflows	-1,587	-955
Net cash flow from financial activities	-746,620	-53,617
TOTAL NET CASH FLOW	-796,858	-89,081
BALANCE SHEET CHANGE IN CASH AND CASH EQUIVALENTS	-796,858	-89,081
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD	2,530,339	2,619,420
CASH AND CASH EQUIVALENTS AT THE END OF	1,733,481	2,530,339
THE PERIOD		
cash and cash equivalents with limited availability for use	197,648	521,430

Additional explanatory notes to the annual consolidated financial statements

1. General information – Bank Ochrony Środowiska S.A. and the Bank Ochrony Środowiska S.A. Capital Group

Bank Ochrony Środowiska S.A.

The parent entity of BOŚ S.A. Capital Group (hereinafter referred to as: BOŚ Group) is Bank Ochrony Środowiska S.A. (hereinafter referred to as: The Bank or BOŚ S.A. or a dominant entity). The Bank, with its registered office in Warsaw, ul. Żelazna 32, was incorporated based on the decision No. 42 of the President of the National Bank of Poland ('NBP') dated 15 September 1990 and the Notarial Deed of 28 September 1990 on the establishment of the Bank. The Bank was entered into the National Court Register of the District Court in Warsaw, 12th Commercial Department, with the reference number KRS 0000015525 and the statistical number REGON 006239498.

According to the Polish Classification of Activities (PKD), the Bank's activities fall within the category PKD 6419Z.

The Company was established for an indefinite duration.

The key purpose of the BOŚ Group is effective management of shareholders' capital and cash entrusted by customers, ensuring the profitability of operations and safety of entrusted funds.

The BOŚ Group's area of activity is banking including: accumulating cash funds, lending, clearing, granting loans, performing cash settlements, providing other banking services as well as financial advisory and consulting services

BOŚ Group realized its mission mostly by:

- 1) providing bank services to the customers of individual and institutional segments, especially those customers who undertake pro-ecological ventures or operate within the environment protection and water management segment and persons who value eco lifestyle,
- 2) efficient participation in distribution of funds for environment protection investments and sustainable development in Poland.

Starting from 24 January 1997, in accordance with the decision of the Management Board of the Warsaw Stock Exchange (WSE), the Bank's shares were admitted to trading on the Warsaw Stock Exchange and classified to 'financial/banking sector' category.

These annual consolidated financial statements of BOŚ S.A. Group were authorized by the Management Board of the Parent Entity on 13 March 2019 for publication on WSE on 14 March 2019.

1.2. The list of the BOŚ S.A. Capital Group entities subject to consolidation.

No.	Subordinated entities	Registered office	% in share capital as at	% of voting rights as at	Consolidation method				
Direct subsidiaries									
1.	Dom Maklerski BOŚ S.A.	Warsaw	100%	100%	Full consolidation method				
2.	BOŚ Eko Profit S.A.	Warsaw	100%	100%	Full consolidation method				
3.	BOŚ Capital sp. z o.o.*∖	Warsaw	100%	100%	Full consolidation method				
4.	BOŚ Ekosystem sp. z o.o.*\	Warsaw	100%	100%	Full consolidation method				
Indirect subsidiary (subsidiary of BOŚ Eko Profit S.A.)									
1.	MS Wind sp. z o. o.	Warsaw	100%	100%	Full consolidation method				

*\ Companies: BOŚ Eko Profit SA, BOŚ Capital Sp. z o.o. and BOŚ Ekosystem Sp. z o.o. merged with BOŚ in 2018. As at 31 December 2018, after the merge, there is only one Company. The list of companies was detailed in the Note 50.

Dom Maklerski BOŚ S.A. is a directly related entity which operates on the capital market and in particular offers brokerage services.

BOŚ Eko Profit S.A. is a directly related entity with leasing activity financing ecological projects and financial and advisory services supplementary to the Bank's offer.

MS Wind Sp. z o.o. - is an indirectly related entity (100% of the BOŚ Eko Profit S.A. engagement) leading the activity consisting of wind farms projects' realization.

As at 31 December 2018 the Bank's interest in the share capital and in the voting rights at the General Meetings of Shareholders of above-mentioned entities equaled:

- 100% in Dom Maklerski BOŚ S.A.,
- 100% in BOŚ Eko Profit S.A.,
- 100% in MS Wind sp. z o.o.,

Additional information concerning the Companies as at 31 December 2018

No.	Entity subordinated	Income*\	Number of employees	Profit or loss before tax	Tax Income (in PLN thousand)	Retained financial support **\
			full-time positions individuals	before tax (thousands of PLN)		
	Direct subsidiaries					
1.	Dom Maklerski Banku Ochrony Środowiska S.A.	80,825	246 39,252	2,481	-159	-
2.	BOŚ Eko Profit S.A.	18,436	7 13	4,545	-1,869	-
	Indirect subsidiary (sub	sidiary of Bo	OŚ Eko Profit S.A	l.)		
1.	MS Wind sp. z o.o.	6, 4 57	1/2 2	592	521	

^{*\} Income defined as net interest income, net commission income, net result on financial instruments, other operating income in PLN thousand.

1.3. Composition of the Management Board and the Supervisory

Board of BOS S.A.

The composition of the Bank's Management Board as at 31 December 2017 was as follows:

- Bogusław Białowas President of the Management Board,
- Arkadiusz Garbarczyk Vice-President of the Management Board,
- Dariusz Grylak Vice-President of the Board,
- Anna Milewska Vice-President of the Board.

On 21 February 2018 the Supervisory Board:

- entrusted to Mr Arkadiusz Garbarczyk the function of the Vice-President of the Board acting as a first deputy
 President of the Management Board
- dismissed Mrs Anna Milewska and Mr Mariusz Grylak from the Management Board,
- appointed Mr Konrad Raczkowski as a Member of the Management Board.

Therefore, as of 31 December 2018 the Management Board was composed as follows:

- Bogusław Białowas President of the Management Board,
- Arkadiusz Garbarczyk first deputy of the President of the Management Board,
- Konrad Raczkowski Vice-President of the Management Board.

^{**\} Financial support from public funds, in particular on the basis of the Act of 12 February 2009 on the State Treasury support to financial institutions (Journal of Laws 2014 item 158)

Until the date of these financial statements, the composition of the Bank's Management Board has not changed.

Composition of the Bank's Supervisory Board

As at 31 December 2017, the Supervisory Board included as follows:

- Mr Wojciech Piotr Wardacki Chairman
- Mr Andrzej Grzegorz Matysiak Vice-Chairman
- Emil Stanisław Ślązak Secretary
- Janina Kazimiera Goss
- Oskar Kowalewski,
- Paweł Mzyk,
- Piotr Sadownik,
- Marian Szołucha.

In 2018, the following changes in composition of the Supervisory Board were introduced:

- On 13 February 2018 Mr. Paweł Mzyk resigned from Membership of the Supervisory Board,
- On 13 February 2018 the General Meeting of Shareholders of BOŚ S.A. introduced the following changes in the composition of the Supervisory Board:
 - dismissed Mr Oskar Kowalewski from the Bank's Supervisory Board,
 - appointed the following persons: Mrs Iwona Beata Duda and Mr Dariusz Józef Wasilewski, as new members of the Bank's Supervisory Board.

As at 31 December 2018, the Supervisory Board included as follows:

- Mr Wojciech Piotr Wardacki Chairman
- Mr Andrzej Grzegorz Matysiak Vice-Chairman
- Emil Stanisław Ślązak Secretary

Members:

- Iwona Beata Duda
- Janina Kazimiera Goss
- Piotr Sadownik,
- Marian Szołucha
- Dariusz Józef Wasilewski

Until the date of preparing these financial statements, the composition of the Bank's Supervisory Board has not changed.

2. Information on the accounting principles (policies) adopted in the preparation of the annual consolidated financial statements

2.1. Basis for the preparation and compliance statement

Annual consolidated financial statements of BOŚ Group include:

- 1) consolidated profit as at 31 December 2018 statement of profit or loss for the 12-month period ended and data 31 December 2017,
- consolidated report as at 31 December 2018 and 31 December 2017,
- 3) statement of comprehensive income for the 12-month period ended and comparative data for the 12-month period ended
- 4) consolidated statement of financial position as at 31 December 2018 and comparative data as at 31 December 2017,
- 5) consolidated statement of changes in equity for the 12-month period ended 31 December 2018 and comparative data for the 12-month period ended 31 December 2017,
- 6) consolidated statement of cash flows for the 12-month period ended 31 December 2018 and comparative data for the 12-month period ended 31 December 2017,
- 7) additional explanatory notes.

These annual consolidated financial statements are prepared in accordance with International Financial Reporting Standards ('IFRS') as endorsed by the European Union ('EU') in force as at the reporting date i.e. 31 December 2018 and have been prepared under the same accounting policies for each period based on the concept of historical cost, except the following items measured at the fair value:

Manner of recognition of the fair value variations through:

Financial instruments held for trading

Hedging derivative financial instruments for the fair value

Receivables from the customers that do not meet requirements of the

cash flow tests.

Investment debt securities kept in the business model with the purpose $% \left(1\right) =\left(1\right) \left(1\right) \left($

of obtaining contractual cash flows or for sale.

Investment capital securities

Financial result

financial result

financial result

other

comprehensive

income

other

comprehensive

income

IFRS comprise standards and interpretations accepted by the International Accounting Standards Board ('IASB') and the International Financial Reporting Interpretations Committee ('IFRIC').

Dom Maklerski BOŚ S.A., BOŚ Eko Profit S.A. and MS Wind sp. z o.o. prepare financial statements in accordance with IFRS as adopted by the EU.

These annual consolidated financial statements have been prepared in Polish zloty (PLN) and all values have been presented in PLN thousands (thousands of PLN).

These annual consolidated financial statements have been prepared based on the assumption that the Bank and the Group's entities will continue as going concerns in the foreseeable future, i.e. in at least 12 months from the balance sheet date.

Taking into account the above factors, as at the date of the authorization of these annual consolidated financial statements, there is no knowledge of any facts or circumstances that would indicate a threat to the continued activity of the Bank and of the companies the BOŚ Group consists of, within a least 12 months from the balance sheet date due to an intended or compulsory abandonment or limitation of the current activity.

In these annual consolidated financial statements, the same accounting policies have been adopted as in the annual consolidated financial statements of the Group for the year ended 31 December 2017, with the exception of application of the standards IFRS 9 and IFRS 15 starting from 01 January 2018.

When preparing these annual consolidated financial statements, it was decided to apply an acceptable retrospective amendments of the accounting principles resulting from the implementation of IFRS 9, i.e. without transforming the data for comparative periods and the revaluations for assets and financial liabilities were recognized at the opening balance of the current reporting period, i. e. as at January 2018.

2.2. Standards, interpretations and amendments to standards, which were applied for the first time in 2018

IFRS	Nature of amendement	Applicable from	Impact on the Bank
IFRS 9 Financial instruments financial	The standard introduces one model with only two categories for qualifying the financial assets: valuated at the fair value and valuated at amortized cost. Classification is done at the moment of initial recognition and depends on the management model applied by the entity regarding financial instruments and characteristics of contractual cash flows for these instruments. IFRS 9 introduces a new model regarding revaluation write-offs - a model of expected credit losses. A key change is a requirement imposed to the entities to present within other income total consequences resulting from changes of own credit risk for financial obligations chosen for the valuation at fair value through the financial result.	01 January 2018.	The impact was described below
IFRS 15 "Revenue from Contracts with Customers"	Principles defined in IFRS 15 will concern all contracts that result in a revenue. Fundamental principle of the new standard is to recognize the revenue at the moment of transferring the goods or services to the customer, at the amount of the transaction price. Any goods or services sold in packages that can be extracted from the package should be recognized separately. Moreover, any discounts or rebates applicable to the transaction price would be, as a rule, allocated to the appropriate element of the package. In case of a variable revenue amount, according to the new standard, such a variable amount is included in revenues, if there is high probability that in the future reversal of the revenue recognition as result of revaluation will not occur. Moreover, according to IFRS 15, expenses for securing the contract with the customer should be activated and settled in time during the whole period of consuming the profits from this contract.	01 January 2018.	The impact was described below
Explanation to IFRS 15 "Revenue from Contracts with Customers"	Explanation includes additional information and explain main assumptions adopted in IFRS 15, i.a. regarding identification of separate obligations, defining if the entity plays the role of an intermediary (agent) or whether it is the main provider of goods and services (principal), as well as the way of recording the revenues from royalties. Apart from additional explanation, exemptions and simplifications were introduced for the entities applying the new standard for the first time.	01 January 2018.	The impact was described below
IFRIC 22 Foreign Currency Transactions and Advance	Interpretation of IFRIC 22 defines the moment of fixing the date of transaction for the purpose of defining the foreign exchange rate at the moment of the initial recognition, to calculate an asset, the expenses and the revenues when the entity recognizes a transferred prepayment or a received advance in foreign currency. Interpretation concerns	01 January 2018.	The change does not have significant impact on he financial

Consideration	cituations when transaction is everyosed in a foreign surrous and the		statements
Consideration	situations when transaction is expressed in a foreign currency and the entity recognizes a transferred prepayment or a received advance in foreign currency before the recognition of the asset, the expenses of the revenues related to the given transaction.		statements
Annual amendments to IFRS 2014-2016	The International Accounting Standards Board published in December 2016 "The Annual amendment to IFRS 2014-2016" that amend 3 standards including IFRS 12 "Disclosure of Interests in Other Entities", IFRS 1 "First-time Adoption of International Financial Reporting Standards" and IAS 28 "investments in associates and joint ventures". Amendments include explanation and changes regarding the scope of the standards, recognition and valuation, as well as any changes regarding terminology and edition.	amendments to	The change does not affect significantly the financial statements
Amendments to IAS 40 Investment property	Amendments to IAS 40 precise requirements regarding reclassification to the investment properties or from the investment properties. They precise as well that only the change of the management's intention regarding property is not an evidence of the change of use. The amendment to the standard should be applied to any change of use that occurs after its entering into force and to any investment properties owned at the date of entry into force.	01 January 2018.	The change does not affect significantly the financial statements
Amendments to IFRS 2: Classification and valuation for transactions based on shares	The amendment introduces i.a. guidance regarding valuation at the fair value for obligations resulting from transactions based on shares settled in cash, the principles related to the reclassification of transaction or a question how to recognize an employee's tax liability for such transactions.	01 January 2018.	The change does not affect significantly the financial statements
Amendments to IFRS 4: Application of IFRS 9 Financial Instruments together with IFRS 4 Insurance contracts	Amendments to IFRS 4 "Insurance contracts" address the question of applying the new standard IFRS 9 "Financial Instruments". Published amendments to IFRS 4 supplement options already existing in standards and aim at preventing fluctuations in results of the entities from the insurance sector due to implementation of IFRS 9.	01 January 2018	The change does not affect significantly the financial statements

2.2.1. IFRS 9 Financial Instruments

On 24 July 2014, the International Accounting Standards Board published the International Financial Reporting Standard 9 'Financial Instruments' (IFRS 9). In 2016, IFRS 9 was made mandatory by the European Commission for application to the annual financial periods beginning on or after 1 January 2018.

IFRS 9 replaced IAS 39 'Financial instruments: Recognition and Measurement'

IFRS 9 introduced changes in the financial instruments accounting as follows:

- 1) classification and valuation of financial assets,
- 2) Impairment loss of financial assets,
- 3) Hedge accounting.

Impact of IFRS 9 on the financial position

Below is presented the comparison of the measurement categories and the financial assets' and liabilities' carrying amounts as at 31 December 2017, according to the principles of IAS 37 and IAS 39, with the measurement categories and the relative carrying amounts as at 01.01 2018 according to the principles of IFRS

Financial assets concerned with amendments to IFRS 9	IAS 39 31-12-2017	Classification and	Impairment loss	IFRS 9 01-01-2018
		measurement		
Receivables from clients measured at amortized cost Receivables from the customers	12,343,773	-114,618 ⁽¹⁾	-139,655 P)	12,089,500
 measured at the fair value through the result financial 	nd	114,602 (1)	nd	114,602
Equity securities available for sale	58,361	-58,361 ⁽³⁾	nd	nd
Equity securities held-for-trading Equity securities	19,641	364 ⁽³⁾	nd	20,005
measured at fair value through other comprehensive income	nd	85,123 ⁽³⁾	nd	85,123
Debt securities available for sale	4,075,095	-4,075,095 ⁽⁴⁾	nd	nd
Debt securities held-to-maturity Debt securities	1,406,264	-1,406,264 ⁽⁴⁾	nd	nd
measured at fair value through other comprehensive income	nd	4,392,023 ⁽⁴⁾	-641 ⁽⁵⁾	4,391,382
Debt securities measured at amortized cost	nd	1,123,681 w	nd	1,123,681

Total	17,903,134	61,455 ■	-140,296

Financial liabilities impacted by changes in IFRS 9	IAS 37 31-12-2017	Classification and measurement	Impairment	MSSF 9 01-01-2018
Provisions for contingent liabilities granted being credits or guarantees	10 57	7 -	16 616 ⁽⁶⁾	27 193
Total	10 57	7	- 16 616	27 193

Moreover, below is presented specification of each title's impact on equity elements:

Equity item	31-12-2017	Gross impact	Deferred tax impact	Total impact	01-01-2018
Revaluation capital Recognition of impairment losses write- offs	10,598	-	-	-	-
(expected ECL losses) on debt securities	-	641	-122	519	-
Reclassification of					
equity financial instruments					
to the category measured at fair value through other comprehensive income	-	26,116	-4,962	21,154	-
Reclassification of equity financial instruments to the category measured at fair value through the financial result	-	102	-20	82	-
Reclassification of debt securities carried at fair value through other					
comprehensive income	-	-114	22	-92	-
to those measured at amortized cost					
Reclassification of debt securities carried at amortized cost					
to	_	33,816	-6,425	27,391	_
those measured at fair value		33,010	0,123	27,331	
through other comprehensive income					
Revaluation capital after considering OB IFRS 9	10,598	60,561	-11,507	49,054	59,652
Retained earnings	681,948	-	-	_	-
Recognition of impairment losses write- offs (expected ECL losses) on financial	·				
assets and liabilities	_	-156,287	28,898	-127,389	_
off-balance		130,207	20,030	127,303	
bearing the credit risk					
Recognition of impairment losses write- offs					
(expected ECL losses) on debt securities	-	-641	122	-519	-
Reversal of impairment losses write-offs					
due to reclassification of equity securities measured at the fair value through other comprehensive income	-	908	-172	736	-
Retained earnings after considering OB IFRS 9	681,948	-156,020	28,848	-127,172	554,776

In relation with change of measurement and impairment loss of financial instruments recognition principles, the implementation impact was recognized respectively in the equity from revaluation at the level of KPLN 49,054 (increase) and in retained earnings at the level of KPLN 127,172 (increase).

In retained profits is mainly recognized the impact of model change for impairment loss of liabilities from the customers measured on amortized cost for KPLN 139,655 and impairment loss of the off-balance liabilities being credits or warranties for KPLN 16,616, changes in carrying amount of liabilities from the customers reclassified to the measurement category on fair value through the financial result for PLN 16,000 and assets from deferred tax income for KPLN 28,848.

The capital resulting from revaluation includes also revaluation of equity securities, reclassified to the measurement category at fair value through other comprehensive income for KPLN 26,116, revaluation of reclassified debt securities for KPLN 33,702, write-off impairment loss for debt securities for KPLN 641, provision for deferred income tax for KPLN 11,507.

Adjustments as at 01 January 2018

- (1) reclassification of credit receivables to the measurement category at the fair value through profit or loss. Receivables from clients for the amount of 114,618 KPLN did not meet the requirements of the SPPI test, due to the interest rate structure containing the multiplier in the formula. Consequently, these receivables were deleted from the measurement category on amortized cost. The fair value of these receivables is KPLN 114,602 and they were recognized in the measurement category at fair value through profit or loss.
- (2) Expected credit losses The amount of KPLN 139,655 is due to the increase of write-offs for impairment losses on receivables from the customers recognized in the BOŚ Group balance sheet. According to the IFRS 9 methodology, as at 01 January 2018, write-offs for impairment losses were assessed basing on the expected credit losses method.
- (3) equity instruments reclassification. In accordance with IAS 39 equity instruments were classified as financial assets available for sale and carried at fair value through other comprehensive revenue. In case of equity instruments not listed on public markets, they were measured on purchase cost and taking into consideration impairment losses. As at 01 January 2018, the BOŚ Group reclassified these items to the measurement category at fair value through profit or loss (securities held by Dom Maklerski BOŚ) and to the category at fair value through other comprehensive income (securities held by the parent entity). Classification to the measurement category at the fair value through other comprehensive income is irrevocable during the whole period of these investments being maintained.
- (4) reclassification of debt securities issued by the State Treasury. Due to the deletion of the category of financial assets held to maturity and available for sale as at 01 January 2018, BOŚ Group classified debt securities according to IFRS 9, basing on the business model and the SPPI test. As a result, debt securities were classified within the measurement category at the fair value through other comprehensive income.
- (5) debt securities issued by local government units and commercial entities were assessed as regards the expected credit losses. In effect, a write-off for the amount of KPLN 641 thousand was recognized.
- (6) Expected credit losses for contingent liabilities granted being credits or warranties. Adjustments as at 01 January 2018
- , contingent liabilities being credits or warranties were assessed basing on the expected credit losses method, according to the IFRS 9 methodology.

Gross carrying amount

Moreover, BOŚ Group introduced changes concerning definition of the financial assets gross value, measured at amortized cost. Modification concerns assets impaired after the date of the original recognition. Until 31 December 2017, the difference between interests on gross value and net value, i.e. adjustment of net impairment interests income, was recognized as a decrease of financial assets, gross. According to IFRS 9, this adjustment is recognized as an increase of write-offs for impairment losses (expected credit losses). As result, gross value and write-offs for expected credit losses were increased by the amount disclosed in the Note 23.

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This modification has not impacted the equity of BOŚ Group. Simultaneously, this change resulted in an increase of the gross carrying amount, as well as of write-offs for impairment losses as at 01 January 2018 for the amount of PLN 181,337 thousand, i.e. without impacting the carrying amount (net) of financial assets.

Impact of IFRS 9 on the capital adequacy assessment

For capital adequacy purposes, BOŚ Group decided to apply transitional arrangements, during the transitional period for mitigating the impact of the introduction of IFRS 9 on own funds based on Article 1 (9) of the Regulation (EU) 2017/2395 of the European Parliament and of the Council of 12 December 2017 (Regulation) amending Regulation (EU) No 575/2013. In addition, it was decided not to apply Article 1 (4) of the Regulation (EU) 2395/2017.

Taking into account the impact of IFRS 9 implementation with and without the use of transitional arrangements, BOŚ Group meets the applicable capital requirements as at 31 June 2018.

As at 1 January 2018 the impact of IFRS 9 application on Tier I capital ratio was of -0.48 p.p. without application of transitional provisions and 0.17 p.p. with application of transitional provisions. The impact of application of IFRS 9 rules on the total capital ratio was of -0.47 p.p. without application of transitional provisions and 0.15 p.p. with application of transition provisions.

Due to the decision on the use of transitional provisions starting from 01 February 2018 BOŚ Group will disclose its own funds, capital ratios and leverage ratio, both using and not using the transitional arrangements resulting from Article 473a of the Regulation (EU) no. 575/2013.

2.2.2. IFRS 15 "Revenue from Contracts with Customers"

IFRS 15 "Revenue from Contracts with Customers" was issued by the International Accounting Standards Board on 28 May 2017 and is effective for annual periods beginning on or after 1 January 2018.

IFRS 15 introduced a new five-step model that should be used to identify contracts generating revenues except for contracts falling in the scope of another standard. The objective of the standard was to harmonize principles applied in this area and remove inconsistencies in previous revenue requirements.

IFRS 15 assumes that the revenue recognition should depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

The transfer of goods or services is based on the transfer of control to the customer. It may occur either at a point in time or throughout time.

IFRS 15 defines the control over an asset as having the ability to direct the use of, and obtain substantially all of the remaining benefits from the asset. The control implies also the ability to prevent other entities to decide on the use of an asset or obtain benefits from the asset.

IFRS 15 defines also in what way the contract modifications should be recognized depending on whether they are (or not) connected with the original contract. In case the modifications cover the original contract, IFRS 15 details circumstances in which they should be recognized prospectively or retrospectively (through a cumulative catch-up adjustment at the modification date).

BOŚ Group analyzed the changes in revenue recognition model in accordance with IFRS 15 as compared to the one applied to date.

For this purpose the Bank proceeded

to: 1) identification of contracts;

Review of contracts to verify if they meet 5 following criteria:

- a) the parties approved the contract and are obliged to meet the obligations assigned to them,
- b) each party's rights in relation to the goods or services to be transferred can be identified,
- c) the payment terms for the goods or services to be transferred can be identified,
- d) the contract has commercial substance,

e) it is probable that the consideration to which the entity is entitled to in exchange for the goods or services will be collected. When assessing this criterion the intention of the customer and his ability to pay the related compensation was taken into account.

When identifying the contracts BOŚ Group took into account the guidance about contract combinations and their modifications because they can affect the method of revenue recognition in the contract with the customer. In some cases, two or more contracts may be treated as a whole or accounted for as a single contract. It will take place in the following cases:

- contracts that are entered into with the same customer or related parties, at (or near) the same time, and at least one of the following conditions are met:
- a) contracts are negotiated as a package with a single commercial objective,
- b) the amount of consideration to be paid in one contract depends on the price or performance of another contract or
- c) the goods or services promised in the contracts (or certain goods or services promised in each contract) are considered to be a single "performance obligation".
- d) Performances resulting from contracts were identified
- BOŚ Group distinguished performance obligations i.e. assets that are independent of each other.

2) determine the transaction price,

Transaction price is the amount of consideration to which BOŚ Group expects to be entitled in exchange for transferring promised assets. Except for the amount of consideration, the transaction price also includes the variable remuneration and share of financing costs provided for by the contract in case of advance or deferred payment if it has a significant impact on the amount of the remuneration obtained.

If the consideration specified in the contract includes a variable amount, BOŚ Group estimates the amount of consideration to which it will be entitled in exchange of transfer of the promised assets to the customer.

3) allocate the transaction price,

The general principle is the allocation of transaction price to each separate performance obligation in the amount that BOŚ Group expects to be entitled to in exchange for transferring promised goods or services. The allocation is made by reference to the standalone selling price, i.e. the price at which BOŚ Group would sell a given asset separately to similar customers and in similar circumstances. If the transaction price changes during the term of the contract, the re-allocation is made by reference to initially determined standalone selling prices.

4) recognize revenue,

Revenue is recognized as assets are transferred to the customer and the control over the subject matter of the contract is passed. The control may be passed over time or at a point in time and means the ability to direct the use of, and obtain all of benefits from the asset.

Following the analysis conducted, the following types of revenues were identified that should be in principle recognized in accordance with IFRS 15:

- a) revenues from contracts whereby the BOŚ Group acts as intermediary in the provision of services,
- b) revenues from the sale of insurance products demonstrating a link with financial instruments in the scope not falling under separate standards,
- c) contract costs.

As a result of works carried out BOŚ Group did not identify any significant discrepancies in the current recognition of revenues and expenses and the requirements of IFRS 15. Implementation of IFRS 15 in 1 January 2018 did not have therefore significant impact on the financial statements of BOŚ Group.

2.3 Comparability with data from the previous period

Implementation of the new accounting standards had the following impact on the comparability of data from the current period to data regarding the previous period:

- 1) First application of IFRS 9 leads to changes in presentation of separate items concerning financial assets and liabilities, as well as the scope and the manner of their disclosure. BOŚ Group took the decision to use the option acceptable by IFRS 9, to withdraw from restating comparative data for the previous periods with respect to changes resulting from classification, measurement and impairment. Differences in the financial assets' and liabilities' carrying value resulting from IFRS 9 application were recognized as an element of the result from previous years and of the revaluation capital as at 01 January 2018.
- 2) Application of IFRS 15 for the first time does not impact the changes in presentation.
- 3) The name of the section "Credits and loans granted to customers" from the statement of financial position for 2017, was changed. In the statement of financial position for 2018 this position took the following name "Receivables from the customers". The change of name was not accompanied by the change of principles related to gathering economic transactions.

2.4. Going concern

These annual consolidated financial statements have been prepared based on the assumption that the BOŚ Group will continue as going concern in the foreseeable future, i.e. in at least 12 months from the balance sheet date.

Due to the balance loss incurred in 2015 and in relation with requirements of the Article 142 of the Banking Act, on 30 March 2016 the Bank submitted to the Polish Financial Supervision Authority a Recovery Program (RP) of BOŚ S.A. approved by the Bank's Supervisory Board . (Pol: PPN). The PFSA approved the above-mentioned program, provided its remarks and information regarding the RP, sent to the Bank on 14 December 2016.

On 23 February 2018 the Bank submitted to PFSA an updated version of the RP. The revision of RP resulted from failure to meet boundary conditions of the document accepted by the Financial Supervision Authority in December 2016, which gave rise to re-assessment of assumptions adopted within the business model and of risk costs. The changes concerned mostly modification of the Bank's business model - towards the area of specialization compliant with the Bank's mission, verification of the trail of write-offs in the area of credit risk related to the adjustment of business model and update of elements relating to the capital adequacy.

PFSA approved the updated RP version on 24 May 2018.

Period for the realization of restructuring activities to be carried out by the Bank within the frames of RP was defined for the years 2018-2021. Furthermore, the Bank prepared a Framework Strategy of acting for BOŚ, consistent with the Recovery Program in terms of assumptions, directions and objectives planned to be achieved.

The main assumptions of the Strategy were made public in a form of current report on 20 April 2016, while the report on modifications of the Main assumptions of the Strategy - on 22 March 2018 and 28 November 2018, Current report on the update of Strategy. The starting point for this update were favorable market and macroeconomic conditions, as well as the change of the Bank's business model.

Below you will find assumptions of the updated version of the Framework Development Strategy of the BOS:

- evaluation of the business model toward concentrating on banking for institutions, especially small and middle enterprises, at the same time profiling the offer for individual Clients - specialization in ecology and use of the potential on the pro ecological ventures funds market,
- after concluding the stage of stabilization and recovery actions that took place in 2016-2018, starting a stage of business development linked with implementation of the new business model and the new role of the Bank in government actions for the environment protection,
- using favorable factors of growth regarding pro-ecological investments, by financing pro-ecological projects and distributing efficiently means intended to finance activities aiming at environment protection and sustainable development.

In 2018, the Bank performed the capital increase by the amount of PLN 300.7 million. The Court registered the capital increase on 03 July 2018.

issue of the Bank's actions will allow to finance the credit action and to realize development ventures.

Selected strategic goals of BOŚ S.A. for 2021:

Net profit over PLN 180 million,

ROE over 7.7%,

C/I over 47%.

Taking into account described factors, as at the date of the authorization of these financial statements, no circumstances are known that would indicate a threat to the going concern of BOŚ Group within at least 12 months after the balance sheet date due to an intended or compulsory abandonment or limitation of the current activity.

2.5. Consolidation

These consolidated financial statements include financial data of Bank Ochrony Środowiska S.A. and financial data of related entities, prepared for the year ended 31 December 2018. The financial statements of subsidiaries are prepared based on consistent accounting policies applied to economic transactions and events of a similar nature as well as for the same reporting period as the parent entity's financial statements.

All significant balances and transactions between the entities belonging to BOŚ Group, including unrealized gains arising from transactions within BOŚ Group have been fully eliminated. Unrealized losses are eliminated unless they present evidence of impairment.

Subsidiaries are consolidated in the period starting from the date of the acquisition of control over them by BOŚ Group and cease to be consolidated at the date such control terminates. The control of a parent company takes place when:

- 1) it holds control over a given entity,
- 2) it is exposed to variable returns or is entitled to variable returns for its engagement in the company,
- 3) has a possibility to use a power to impact level of generated returns.

BOŚ Group verifies its control over other companies, if a change in one or more conditions of control mentioned above occurs.

If BOŚ Group holds less than a majority of the voting rights but holding rights are enough to unilaterally guide this company's relevant actions, it means that BOŚ Group exercises authority over the company. When assessing whether the rights to vote in the given entity are enough to exercise authority, BOŚ Group analyzes all the relevant circumstances, including:

- 1) proportion of voting power held, in comparison to other shareholders' shares and a level of their voting power dispersion,
- 2) a level of potential voting power held by the Company, other shareholders or third parties;
- 3) rights resulting from other contractual agreements, and
- 4) additional exceptional circumstances, which may prove that the Company has or does not have a possibility to guide the company's relevant actions at the time the decision is adopted, including voting patterns observed at the previous shareholders' meetings.

As at 31 December 2018, BOŚ Group does not exercise control over companies, in which the Group has less than the majority of voting rights and at the same time holds control.

Changes in the share of parent's ownership over a subsidiary that do not result in the loss of control are recognized as equity transactions. In such cases, BOŚ Group adjusts the carrying amount of controlling and non-controlling interests in order to reflect the changes in the relative share of the Group in the subsidiary. Any difference between the amount of adjustment of non-controlling interests and the fair value of the amount paid or received are recognized in equity and attributed to the dominant entity's owners.

In case BOŚ Group lost control over the subsidiary, profit or loss shall be recognized in the statement of profit or loss, calculated as the difference between sum of aggregated amount of received payment plus the fair value of the preserved shares and the initial carrying value of assets (including goodwill) plus the subsidiary's liabilities as well as non-controlling interests. All amounts connected to this subsidiary, originally recognized as other comprehensive income, shall be settled as if BOŚ Group had directly disposed corresponding assets or liabilities of the subsidiary

(i.e. presents it in the financial result or in other category of equity, in accordance with the relevant IFRS). The fair value of any investment retained in the former subsidiary, at the date when control is lost, is treated as the fair value on initial recognition of a financial asset in accordance with IAS 9.

2.6. Operating segment reporting

Operating segment is this part of BOŚ S.A. Group which is engaged in the following type of economic activity:

- 1) that results in obtaining revenues and incurring costs
- 2) the results of which are regularly reviewed by the Bank's Management Board when taking decisions regarding allocation of resources and when assessing the results of this activity, as well as
- 3) for which separate financial information is available.

Segments reporting has similar basis as the one adopted for the purposes of the internal reporting purposes.

BOŚ Group has distinguished the following operating segments:

- 1) institutional customers
- 2) individual clients
- 3) treasury and investment activity,
- 4) brokerage activity,
- 5) other (non-allocated to the segments).

BOŚ Group does not conduct geographically diversified business. The detailed description of the reporting policy by operating segments is presented in Note 48.

2.7. Measurement of items denominated in foreign

currencies Functional currency

Items included in the consolidated financial statements are measured using functional currency of the primary economic environment in which the BOŚ Group operates ('the functional currency').

The functional currency of BOŚ Group is the Polish zloty (PLN).

Transactions and balances

Transactions denominated in foreign currencies are translated into the functional currency at the rate of the transaction date and the result is recognized in the profit and loss account.

Cash assets and liabilities denominated in foreign currencies are translated at the rate applicable at the end of the reporting period.

Assets and liabilities not being a cash and measured at fair value are calculated based on the exchange rate applicable at the day of the measurement.

Assets and liabilities not being a cash and measured at fair value are calculated based on the exchange rate applicable at the day of creating these items.

2.8. Interest income and expense

In the statement of profit or loss is recognized all interest income related to the financial instruments measured at amortized cost using the effective interest rate method, financial assets with interest measured at the fair value through other comprehensive income or through the financial result.

The effective interest rate method is a method for calculating the amortized initial value of assets or the financial liabilities and for allocating the revenues or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, BOŚ Group estimates cash flows considering all contractual terms of the given financial instrument (for example, prepayment options not being separated from the host contract) but does not consider potential future credit losses. This calculation includes all fees paid or received between the parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts.

Once a financial asset, or a group of similar financial assets, has been written down as a result of an impairment loss, interest income is recognized at the rate of interest used to discount the future cash flows for the purpose of impairment loss measurement.

2.9. Fee and commission income and expense

Fee and commission revenue and expense regarding receivables from clients are recognized as an element of the interest revenue according to the effective interest rate method. Fee and commission for credit granted, collected before the credit's disbursement are postponed until the date of paying cash to the customer. Loan syndication fees are recognized as revenue when the syndication has been completed and BOŚ Group retained no part of the credit risk for itself or retained a part at the same effective interest rate as the other participants.

Other fee and commission income is recognized at the moment of the transfer of these promised goods or services to the customer. In case of fees and commissions for credit limits granted, recognition of the revenue takes place with the course of time of these limits' availability.

Fee and commission expense is recognized according to the memorial rule, i.e. at the moment of the services' receipt from the supplier. Expenses for mandatory fees resulting from law provisions are recognized at the moment the payment obligation arises.

2.10. Principles of recognition of revenues and costs related to bancassurance

BOŚ Group recognizes and settles revenues and costs from offered insurance products in accordance with their economical substance. Because of this economical substance, BOŚ Group distinguishes fees that form:

- 1) an integral part of remuneration resulting from the financial instrument offered additionally,
- 2) a remuneration for additional activities after a sale of insurance product,
- 3) a remuneration received as a result of insurance mediation.

Remuneration from sale of the insurance product received or due to BOŚ Group, including the financial instrument, when the insurance product is directly related with the financial instrument, is an integral part of remuneration for the offered financial instrument and is settled over a period of time as an integral part of interest rate and is recognized as an interest income in a statement of profit or loss.

In particular, a direct relation is recognized when at least one of two conditions is met:

- 1) A financial instrument is offered by BOŚ Group always together with an insurance product, i.e. both transactions have been concluded at the same time, or have been concluded in a sequence in which each transaction is a result of a previous one,
- 2) An insurance product is offered by BOŚ Group only together with an financial instrument, i.e. there is no possibility to buy in BOŚ Group an identical insurance product in legal form, conditions and economic substance without a related financial instrument.

In the absence of meeting one of the conditions, a detailed analysis of economic substance of the insurance product is performed, as regards fulfillment of criteria of insurance contracts independence from offered financial instruments. The analysis of direct link between the insurance product and the financial instrument may result in a division of a complex product, i.e. separating the fair value of the financial instrument and the fair value of the insurance product sold together with this instrument. In such a case, remuneration due to BOŚ Group for the sale of insurance product is split into (1) a part of an element of amortized cost of the financial instrument and (2) a part being a remuneration for insurance mediation services.

A split of remuneration is proportional to the fair value of the financial instrument and the fair value of insurance mediation services vs the sum of both these values. The financial instrument's fair value is calculated using an income method based on a recalculation of future amounts at present value considering current data about profitability and costs generated by the product. An insurance mediation's fair value is calculated using a market method based on prices and other relevant information generated by identical or comparable market transactions.

BOŚ Group recognizes remuneration for insurance mediation in commission revenue at the time of sale of the insurance product or its renewal. An revenue from remuneration for sale of insurance products are reduced by a provision against a calculated by BOŚ Group, percentage value of repayments made in periods after the insurance products selling (e.g. resulting from clients cancellation of insurance). If, during the period of an insurance contract, BOŚ Group receives a remuneration for services for realizing an activity /services resulting from the offered product or if it is probable, BOŚ Group settles this remuneration during the term of the contract, taking into consideration the principle of matching the revenue and costs. The remuneration is recognized in commission income respecting stage of completion rule for of a given activity/service. If it is not possible to determine the exact number of BOŚ Group's activities within a specified time-scale, BOŚ Group will settle remuneration linearly during an insurance product's lifetime, unless there are proofs that other method will better present the stage of completion.

The amount of predicted repayment as well as proportion for income split depending on their economical substance is verified each time after receiving information about important changes in that regard, at least as at the balance sheet date.

Costs linked directly with an insurance product sold together with a financial instrument are settled in accordance with the principle of matching revenues and costs:

- 1) As a part of an amortized cost of a financial instrument if the entire income related to a sale of an insurance product is accounted for using effective interest method,
- 2) If there has been made a split of the remuneration in proportion used to separate income within calculation of amortized cost and included as one-off income or deferred income.

Fixed costs or costs not directly connected with the sale of insurance products or financial instruments are recognized in statement of profit or loss when incurred.

2.11. Hedge accounting

Hedge accounting is applied in order to compensate the fair value of the hedged and hedging items.

On the basis of the IFRS 9 transition provisions, BOŚ Group took a decision to continue with the IAS 39 requirements, as for the hedge accounting principles to be applied.

Regarding the hedge accounting, BOŚ Group may take a decision to switch to IFRS 9 requirements at a later date.

BOŚ Group applies hedge accounting, if all the following criteria as defined in IAS 39 are met:

- at the inception of the hedge there is a formal designation and documentation of the hedging relationship, risk management objective of BOŚ Group and strategy for hedge inception; documentation identifies the hedging instrument, hedged item, the nature of the risk being hedged and how BOŚ Group will evaluate the effectiveness of the hedging instrument in offsetting the risk by changes in fair value of the hedged item's,
- 2) it is expected that the hedge will be highly effective in offsetting changes in fair value, consistently with the originally documented risk management strategy for that particular hedging relationship,
- 3) effectiveness of the hedge can be reliably measured, i.e. the fair value of the hedged item and the fair value of the hedging instrument can be reliably measured,
- 4) the hedge is evaluated on an ongoing basis and found to have been highly effective in all reporting periods for which the security has been established.

Hedge accounting is an integral element of the financial risk management in BOŚ Group.

Financial risk management is carried out in accordance with existing Group's risk management process.

BOŚ Group uses hedge accounting for hedging the fair value of financial instruments.

Fair value hedge is a hedge against changes in the fair value of a recognized asset, liability or probable future liability or an identified portion of this recognized asset, liability or probable future liability which can be attributed to a particular risk and can affect the statement of profit or loss.

Fair value hedge which meets the requirements of hedge accounting in a given period is recognized by the BOŚ Group as follows:

- 1) Changes of fair value of hedging instrument (i.e. derivative instrument designed qualified as fair value hedge) is recognized in the statement of profit or loss,
- 2) The gain or loss on the hedged item resulting from the hedged risk adjust the carrying amount of the hedged item and are recognized in the statement of profit or loss,

- 3) interest on hedging derivatives are presented in the same line of the statement of profit or loss in which the interest on the hedged instrument, i.e. the net interest income is presented.
- 4) The valuation of hedged financial assets classified as fair value through OCI, resulting from factors other than hedged risk, is recognized in the revaluation reserve till the disposal or maturity of asset.

BOŚ Group ceases to apply hedge accounting in case of extinction, termination or realization of the hedging instrument or when the hedging relationship does not meet criteria of applying hedge accounting. When ceasing to apply hedge accounting, valuation of hedged items that are submitted to valuation in line with method of amortized cost (without applying the principles of hedge accounting), attributable to the risk hedged and recognized in the periods when hedging was effective, is submitted to be settled in the profit and loss account.

BOŚ Group does not apply hedge accounting to cash flows.

2.12. Investment in subsidiaries

Investments in subsidiaries are recognized in the present financial statements at purchase price less any impairment losses.

2.13. Financial assets and liabilities

Initial recognition

BOŚ Group recognizes a financial asset or liability in the statement of financial position when the Group is bound by contractual provisions regarding this financial instrument. In initial recognition, financial assets and liabilities are classified to an appropriate measurement category.

Valuation of financial assets and liabilities at initial recognition is carried out at fair value. For the items not measured at fair value in later periods, fair value is increased or decreased by direct costs of concluding the transaction.

Valuation of financial assets after the period of initial recognition

After the period of initial recognition, BOŚ Group performs valuation of financial assets and liabilities according to the principles of classification carried out at amortized cost or at fair value.

Amortized cost is the amount in which a financial asset or liability is measured at the moment of initial recognition, minus repayments of the capital and increased or decreased by a determined, applying the effective exchange rate, cumulated amortization of any differences between the initial value and the value in terms of maturity and decreased by any impairment write-offs.

Measurement at fair value is defined as the price that would be received for selling an asset or paying to transfer a liability in an orderly transaction on the main (or most advantageous) market at the measurement date in the current market conditions (meaning the output price) regardless whether that price is directly observable or estimated using other valuation techniques.

Classification and measurement of financial assets

According to IFRS 9, financial assets are classified to an appropriate valuation model since initial recognition has occurred. BOŚ Group's financial assets are classified per the following valuation category:

- 1) Financial assets measured at amortized cost,
- 2) Financial assets measured at the fair value through other comprehensive income,
- 3) Financial assets measured at the fair value through the financial result,

Classification through the appropriate valuation category is based on :

- 1) Business model serving as reference to the financial assets' management and
- 2) The test of contractual cash flows characteristics ("The SPPI test" Solely Payment of Principal and Interest).

Business models

The existing business models are defined by the Key Management of BOŚ Group. The business models identified by the Group reflect its operating activity, i.e. the method of managing a specific group of assets and the purpose for which these assets were recognized or were acquired. Particular business models identified are constituted by groups of assets which are jointly managed, evaluated and reported.

When identifying business models for each group of financial assets the Bank considers qualitative aspects and quantitative criteria.

Qualitative aspects

Qualitative aspects include the analysis and assessment of:

- 1) business purpose for which the assets were recognized or were acquired,
- 2) methods according to which results on assets within a given business model are evaluated and reported to the Key Management of BOŚ Group and presented as part of external reporting,
- 3) reasons of decisions regarding the sale of financial assets,
- 4) solutions and organizational structures within which specific groups of assets are recognized or acquired,
- 5) type of risk affecting the results achieved on each group of assets,
- 6) method in which the managers of groups of assets are remunerated, in particular whether remuneration is based partly or totally on the fair value of managed assets.

Quantitative criteria

Quantitative criteria used for identification and periodic verification of business models relate to the assessment of materiality and frequency of sale of assets from particular models. It is provided that in HtC business model, the sale of financial assets is admitted, in particular in the following cases:

- 1) deterioration of cash flows recoverability assessment, in order to limit the credit risk effects,
- 2) close to the term of contractual maturity,
- 3) sporadic sales (even if the value of assets sold is significant)
- 4) a non-significant value of assets sold.

Lack of meeting quantitative criteria, i.e. significant and frequent sale of financial assets with an undeteriorated credit risk assessment, gives as result a necessity to change reassignment of the whole portfolio of financial assets where the sale took place, which means the change of classification for this portfolio at fair value.

As result of the analyses performed, financial assets of BOŚ Group are assigned to the following business models:

1) Held to Collect Model (HtC)

A model whose assumption is to hold financial assets in order to collect contractual cash flows. Within the HtC model are held financial assets being credits or loans, receivables purchased within factoring services, debt securities acquired for investment purposes.

2) Held to Collect or Sale Model (HtCS)

A model whose assumption is to hold financial assets in order to collect contractual cash flows, as well as a sale. Within the HtCS model, are held debt securities acquired to secure current financial fluidity needs , as well as the profitability profile.

3) Other business models

Within other business models are acquired assets of a trade nature, in order to achieve financial result from change of the market value or remuneration being a trade margin. These business models contain mainly derivative financial instruments and securities.

The SPPI tests

According to the IFRS 9 requirements, financial assets within the model HtC and HtCS are subject to the SPPI test. The objective of the SPPI test is to confirm that contractual cash flows resulting from these financial assets are solely payments of principal and interest on the principal amount outstanding, given that :

- 1) capital is a fair value of the financial asset at initial recognition day,
- 2) interests are the remuneration for : time value of money, the credit risk, fluidity risk margin, administration costs and profit margin.

The SPPI test includes in particular the analysis of cash flow characteristics, in relation with the conditions of prepayment or extension, change of currency of the financial asset, conditions that increase variation of cash flows over the average variation resulting from the change of the market interest rates (for example leverage), conditions that allow financial redress to the debtor's assets defined limit.

For the purpose of IFRS 9 implementation, the SPPI test was carried out for each financial asset within the model HtC and HtCS at the date of initial recognition or the last significant annex. The SPPI test was carried out basing on the financing conditions applied to the homogenous product-type groups. For the financial assets that cannot be assigned to the SPPI test was carried out individually.

The SPPI test confirming that cash flows are not solely payments of principal and interest on the principal amount outstanding shows valuation category according to the fair value through profit or loss, to which the data group of the financial assets should be classified.

SPPI tests in BOŚ Group showed that the financial assets containing the multiplier in the interest rate structure do not meet the test criteria, and as a result they were classified as measured at fair value through profit or loss.

Classification principles for the financial assets to the value category, basing on the business model and the SPPI test:

	The SPPI test	The SPPI test	
Business models :	Cash flows are solely payments of principal and interests	Cash flows are not solely payments of principal and interests	
Held to Collect Model	measurement at amortized cost	Measurement at fair value through financial result	
Held to Collect Model	Measurement at the fair value through other comprehensive income	Measurement at fair value through financial result	
Other business models	The SPPI test is not carried out ; compulsory measurement at the fair value through profit or loss		

Financial assets by measurement category

- 1) Financial assets measured at amortized cost
 - This measurement category includes first of all the liabilities portfolio from individual and institutional customers. This category includes also receivables purchased within factoring services, securities from the investment portfolio held for obtaining profits from contractual cash flows and liabilities from other banks, including transactions buy-sell back.
- 2) Financial assets measured at the fair value through other comprehensive income

 This measurement category includes debt securities acquired to secure current financial fluidity needs, as well as the profitability profile, held for obtaining profits from contractual cash flows and for sale.
- 3) Financial assets measured at the fair value through profit or loss
 - This measurement category includes derivative financial instruments and securities acquired for trade purposes.
 - Credits with the interest rate structure containing the multiplier in the formula presented within receivables from clients, are a separate item within this measurement category. Preferential credits, granted with support of the public sector entities, are considered in this item.

Due to the discussions being held on the classification and measurement of financial instruments containing i.a. a multiplier, the above approach may be modified in the future.

Change of the financial instruments measurement category

Change of the financial assets measurement category can occur only as a result of a business model change. A change of business purposes related to the given financial assets or a change in attribution to the given business line are not considered as the change of business model.

Change of the financial assets measurement category as result of the business model change is recognized prospectively i.e. from the date of this change.

Financial liabilities cannot be reclassified.

Modification of financial assets

Modification of financial assets is identified by BOŚ Group in case of changes in the contract that gave rise to the given financial assets, that impacted the value and the deadline regarding the cash flows. Cash flow changes resulting from the initial contract with the customer are not recognized as modifications. The change of contractual conditions as regards the payment can be carried out both for the credit risk management and commercial reasons.

BOŚ Group makes a distinction of types regarding financial assets modification: between significant and insignificant modifications.

Quantity criteria

Is significant a modification that consists of the change in contractual conditions of payment for the given financial asset and which gives rise to the difference exceeding 10% (comparing the value of the future cash flows resulting from the modified financial asset discounted with the original effective interest rate and the value of the future cash flows resulting from the financial asset before modification discounted with the same interest rate. In case of an insignificant modification this difference is less than 10%.

Quantitative criteria are not applicable to the contracts to be transmitted for restructuring and debt recovery actions, to recover receivables.

Quality criteria

Financial assets' modification performed in situations presented below is recognized as a significant modification:

- addition of the feature that violates the SPPI test result
- change of credit currency not provided for within the initial contractual conditions,
- a change of counterparty which is considered as significant modification

Significant modification

Significant modification results in derecognition of the original asset from the balance sheet, recognition in the profit and loss account of expenses and commissions that are not settled and initial recognition of a financial asset being an effect of modification.

Insignificant modification

A nonsignificant modification does not lead to derecognize existing financial assets from the statement of financial position. The result from a nonsignificant modification is recognized in the profit and loss account.

Derecognition of financial assets from the balance sheet

BOŚ Group derecognizes financial assets only when the contractual rights to the cash flows on those assets expire or when the financial asset is transferred and the transfer meets the conditions of a removal from the balance sheet. In particular, BOŚ Group writes-off loans against the impairment allowance when the loan is uncollectible, i.e.:

Impairment of financial assets

IFRS 9 introduced a new approach to estimate losses on financial assets measured at amortized cost and at the fair value through other comprehensive income. This approach is based on expected loss contrary to the model applied to date resulting from IAS 39 that is based on the incurred loss conception.

Recognition of expected losses depends on the risk level change, from the initial recognition of the financial asset. BOŚ Group recognizes three basic stages of the financial assets as regards the risk level change:

- **Stage 1** comprising exposures for which no significant increase in credit risk defined as the increase in the likelihood of insolvency since initial recognition has occurred. For such exposures the expected losses are recognized over the horizon of the next 12 months or maturity date of exposures if this period is shorter than 12 months.
- **Stage 2** comprising exposures for which a significant increase in credit risk since initial recognition has occurred but the event of failing to meet the obligation did not become substantiated. For such exposures the expected losses are recognized over the horizon of the remaining lifetime of exposure.
- **Stage 3** comprising exposures for which the events of failing to meet the obligation have materialized (impairment indicators have occurred). For such exposures the expected losses are recognized over the horizon of the remaining lifetime of exposure.

Moreover, the Group identifies assets POCI (ang. Purchased or Originated Credit Impaired), i.e. financial assets with impairment loss due to the credit risk, at the date of the initial recognition. For such exposures the expected losses are recognized over the horizon of the remaining lifetime of exposure.

One of the key elements of IFRS 9 introduction was determining the definition of the significant increase in credit risk which is decisive in classification to stage 2.

The second key element introducing to IFRS 9 was the approach to estimating the risk parameters. For estimating the impairment loss allowances, BOŚ Group continues to use its own estimations of risk parameters based on internal models, however it made modifications necessary to take into account IFRS 9 requirements (such as the estimation of parameters over the horizon of lifetime or consideration of future macro-economic conditions). The Bank developed a methodology for model parameters and built models which are compliant with IFRS 9. The expected credit losses constitute the product of PD, LGD and EAD parameters estimated individually for each exposure and the final amount of expected losses is the sum total of expected losses in each period (depending on the stage over a 12-month horizon or lifetime) discounted using the effective interest rate. The estimated parameters in accordance with IFRS 9 are subject to adjustment for macro-economic scenarios. Scenarios developed internally were used. Greater volatility of allowances resulting from the changes in classification of exposures between the stage 1 and 2 is expected and giving rise to material changes in the coverage of exposure by allowances over different time horizons of recognizing the expected losses.

Valuation of allowances for expected credit losses, of provisions on financial guarantees and granted liabilities, made in Polish zloty and in foreign currencies (including the exchange differences) are recognized respectively as expenses or income of BOŚ Group arising from write-offs and provisions.

Financial instruments offsetting

Financial assets and liabilities are offset and the net amount is reported in the balance sheet only when BOŚ Group has a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

Financial liabilities

Financial liabilities after the period of initial recognition are measured at amortized cost using the effective interest rate. BOŚ Group derecognizes from its balance sheet a financial liability when it is no longer binding, i.e. when the obligation set forth in the contract has been fulfilled, annulled, or has expired.

Liabilities regarding derivative financial instruments are measured at their fair value through the financial result.

Capital Investments

Capital Investments are classified within the measurement category at the fair value through other comprehensive income. Classification of capital investments within this measurement category is irrevocable. Profit or loss resulting from the difference between sale and purchase prices or from the modification of the fair value of these investments are not subject to the recognition in the income statement, also in case of sale. The profit and loss account recognizes only the revenues on dividends.

Capital Investments were classified within the measurement category at the fair value through other comprehensive income, due to their investment purposes and the way to achieve economic benefits through dividends received.

Capital instruments, classified within the measurement category at the fair value through other comprehensive income, are measured basing on the capital asset pricing model. The model uses financial forecast for chosen companies and market parameters such as: capital cost and beta adjustment, calculated on data of comparable and companies and the discount and bonus on fluidity and control maintenance.

Sale and repurchase agreements

Securities sold subject to repurchase agreements ('repo's', 'sell-buy-backs') are presented in the financial statements as securities when the entity maintains substantially the whole risk and all the profits connected with the possession of these securities. The counterparty's liability is included in the amounts due to other banks or amounts due to customers, as appropriate.

Securities purchased under agreements to resell ('reverse repos', 'buy-sell-backs') are recorded as receivables from other banks or customers, as appropriate. The difference between the selling and repurchase price is treated as interest and is recognized over the life of the agreements using the effective interest rate method.

Securities lent to counterparties are not derecognized by BOŚ Group.

Securities borrowed by BOŚ Group are not recognized in the financial statements, unless these are sold to third parties. In such case the purchase and sale transactions are recognized in the consolidated financial statements and related gains or losses are included in trading income.

The obligation to return securities lent is recorded at fair value as amounts due to customers. The risk and rewards concerning securities remain with the contractor.

Trade receivables and contractual assets receivables

For trade receivables and contractual assets receivables, BOŚ Group carries out a measurement of the expected credit losses in the horizon of these assets' whole life.

Non-current assets held for sale

Non-current assets are classified as 'held for sale' and measured at the lower of the carrying amount and the fair value net of the costs of preparing the asset for sale, if the carrying amount is realized mainly through the sale transaction and not through on-going use.

2.15. Intangible assets

Goodwill

After the initial recognition, the goodwill is presented at the acquisition price less any accumulated impairment allowances. Impairment testing is performed every year. Additionally, at each reporting date, there is an assessment performed to estimate if there is any evidence of goodwill impairment.

At each reporting date BOŚ Group assesses whether there is any evidence indicating that the carrying amount of goodwill is higher than its recoverable amount. The Group performs an annual impairment test on goodwill, regardless of the existence or non- existence of any evidence indicating the impairment. The test is drawn up in accordance with IAS 36.

The recoverable amount is estimated on the basis of the value-in-use of the cash-generating units (CGU hereinafter), that have been attributed to the goodwill.

The value-in-use is the present estimated value of the future cash flows that the Group expects to obtain as a result of the continuing use of CGU. The value-in-use takes into account the residual value of a CGU. The residual value of a CGU is calculated by extrapolating the cash flow projections beyond the forecast period, using the specified rate of growth.

Projections of future cash flows cover a period of 5 years and are based on:

- 1) historical data reflecting the potential for CGU to generate cash flows,
- 2) projections of the balance sheet as well as profit and loss in the forecasting period,
- 3) assumptions contained in the budget of BOŚ Group,
- 4) analysis of reasons for differences between past cash flow projections and actual cash flows received.

The present value of future cash flows is calculated using a suitable discount rate, taking into account the risk free rate, the risk premium, the premium for low capitalization and the specific risk premium.

The present value of future cash flows is compared to the carrying value (as at the date of the test) for the sum of: goodwill and net assets of the CGU excluding the amount related to the deferred tax.

Licenses and software

Licenses for computer software acquired and developed by the Bank are capitalized on the basis of costs incurred to acquire and prepare specific software for use. The capitalized costs are amortized on a straight-line basis over their estimated useful lives.

Outlays related to maintenance of software are recognized as expenses when incurred or as deferred costs.

The economic useful life of intangible assets ranges from 1 to 15 years.

Outlays on intangible assets

BOŚ Group recognizes incurred expenses of the asset for the outlay on intangible assets at the stage of development works for the venture carried out internally only in case if: (1) there is a possibility and intention to finalize and to use a produced intangible asset, (2) has proper technical and financial resources to finish the development and to use the asset and has the ability to measure reliably the outlay attributable to the intangible asset during its development. Only those costs are capitalized which can be directly associated to the creation, production and adoption of the intangible asset for use in the manner intended by the management.

The capitalized costs are amortized on a straight-line basis after the completion of development. The estimated useful life is determined on an individual basis.

Testing for impairment

Intangible assets are audited for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. The recoverable amount is the higher of two values: the intangible asset's fair value less costs to sell and the value in use.

2.16. Property, plant and equipment

All property, plant and equipment are stated at historical cost less accumulated depreciation. Historical cost includes outlay that is directly attributable to the acquisition of the assets.

Subsequent outlay are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to BOŚ Group and the cost of the given item can be measured reliably. All other repair and maintenance costs are charged to the statement of profit or loss during the financial period in which they incurred.

Land is not depreciated.

Fixed assets are depreciated using the straight-line method over their estimated useful lives, as follows:

- 1) 40 years for buildings (depreciation rate 2.5%),
- 2) 2-12 years for leasehold improvements, or shorter depending on the term of the contract (depreciation rate 10%),
- 3) 3-20 years for equipment and vehicles (depreciation rate 10%-100%).

The assets' residual values and useful lives are reviewed, and adjusted, as appropriate, at each balance sheet date.

Assets that are subject to depreciation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. The recoverable amount is the higher of the asset's fair value less costs to sell and the value in use.

Gains and losses on disposals are determined by comparing proceeds from sale with the carrying amounts and recognized in the statement of profit or loss.

The construction in progress is related to the fixed assets that are under construction or assembly and are presented in the purchase price or cost of creation less impairment allowance. Construction in progress is not amortized until the date of the completion of the construction works and transferring the asset to utilization.

2.17. Leasing

The Group classifies as a lease all agreements under which fixed assets are used or put into service by the Group, within a definite period in exchange of a series of rent payment. In case of determining that an agreement is considered as lease, BOŚ Group classifies the given agreement as financial lease or operating lease.

Are classified as financial lease all agreements under which substantially the whole risk and benefit resulting from the assets owned is transferred. Other lease agreements are classified as operating lease.

The lessor

In case of financial lease agreements, the subject of leasing is not recognized in the statement of financial position, but in the item Receivables of clients is recognized the value of lease receivables for the net amount of lease investment. A net lease investment is a current value of minimal lease fees and an eventual final value of the agreement, which is not guaranteed. Revenues from the financial lease are principally recognized as interest revenues.

The lessee

Financial lease

In case of financial lease contracts where the lease subject is recognized as property, plant and equipment and additionally a liability is recognized in the amount equal to the present value of future minimum leasing fees as determined at the inception of the lease. The leasing fees are divided between finance expenses and the decrease in the liability balance in the manner that enables to maintain fixed interest rate from the remaining amount of liability. Costs of financial leasing are recognized directly in the statement of profit or loss.

Operating lease

All the lease payments paid under the operating lease agreements are charged to costs on a straight-line basis over lease term. If a lease agreement is terminated before the end of the lease term, the potential payment owed to the lessor by way of a contractual penalty increases the costs of the period in which the agreement was terminated.

2.18. Deferred tax

For the consolidated financial statements purposes, deferred tax is calculated based on the liability method. BOŚ Group recognizes provision and assets for temporary differences resulting from deferred income tax resulting from the difference between the moments of income and expense recognition according to the accounting principles and corporate income tax regulations.

The main temporary differences arise from the revaluation of certain financial assets and liabilities, including derivative contracts, provisions for pensions and other post-retirement benefits and tax losses carried forward.

Deferred tax liability is recognized in full amount, with the exception of:

- 1) the situation when deferred tax liability arises due to the initial recognition of goodwill or initial recognition of an asset or liability in a transaction other than business combination and at the time the transaction does not influence either gross profit or loss or taxable profit or loss and
- 2) in respect of deductible temporary differences resulting from investments in subsidiaries, associates or joint ventures except the situation when timing of reversal is under the control of the investor and when it is probable that in the foreseeable future temporary differences will not be reversed.

Deferred tax assets are recognized to the extent that it is probable that future taxable profit will be achieved against which the temporary differences can be utilized in exception when deferred tax asset arises from initial recognition of assets or liabilities from a transaction which:

- 1) is not a business combination, and
- 2) does not affect, at the moment of the transaction, neither the accounting profit nor taxable profit (tax loss).

Income tax related to items that are recognized in other comprehensive income are recognized in other comprehensive income.

Deferred income tax is measured using the tax rates (and regulations) that are expected to apply in the period when the asset is realized or the liability is settled, based on the tax rates (and the tax laws) that have been enacted at the reporting date or that are sure to be enacted in the future at the balance date.

BOŚ Group offsets deferred tax assets and provisions if, and only if, it has a legally enforceable right to set off current tax assets and liabilities, and the deferred tax relates to the same taxpayer and the same taxation authority.

2.19. Assets foreclosed

Assets foreclosed are initially recognized at their fair value. If the fair value of the foreclosed assets is higher than the debt amount, the difference constitutes a liability to the borrower and is reimbursed to the account of the owner of the foreclosed asset, after deducting the costs of foreclosure, its maintenance and valuation.

If the fair value of the foreclosed assets is lower than the debt amount, the difference constitutes a liability of the borrower to BOŚ Group, which may be subject of restructuring or debt recovery.

There are no foreclosed assets in BOŚ Group.

2.20. Prepayments, accrued income, accruals and deferred income

Prepayments are costs incurred in the current financial year, relating to the future periods. Prepayments are recognized in the consolidated balance sheet in 'Other assets'.

Accrued expenses related to costs comprise costs incurred in the current period, which will be paid by BOŚ Group in the future periods. Accrued expenses related to costs are disclosed in the consolidated balance sheet in 'Other liabilities'.

2.21. Provisions for employee benefits

BOŚ Group recognizes provisions for severance grants liabilities based on the actuarial model. The actuarial model applied by the unit in order to determine the present value of its defined benefit obligations and the related current service cost of employment and, where applicable, past service cost, uses the projected unit credit method.

The Projected Unit Credit Method (sometimes known as the benefit accrued in relation to the years of service method or as the benefit/years of service method) sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation.

Actuarial gains and losses are fully recognized in other comprehensive income.

2.22. Provisions

Provisions are recognized when the following conditions are met jointly:

- 1) as at the balance-sheet date, BOŚ Group has a present, legal or constructive obligation to spend these funds, resulting from the past events, where the existence of such obligation is verified with a lawyer's opinion,
- 2) it is more likely than not that an outflow of resources will be required to settle the obligation; and
- 3) the amount can be reliably estimated.

Provisions are measured at the present value of the outlays expected to be required to settle the obligation, accounting for the time value of money (if material) and the risks specific to the given obligation.

If the amount of expected outlays is discounted, the increase in the provision due to passage of time is recognized as interest expense.

2.23. Equity

Equity is composed of capital and reserves created by the parent entity and subsidiaries in accordance with the legal regulations, i.e. the respective acts and the Bank's Articles of Association.

Items of equity of subsidiaries other than share capital are added to relevant items of equity of the parent entity.

Share capital

The core capital comprises the registered share capital of the parent entity and the share premium.

The share capital relates only to the share capital of the parent company. It is recognized at the nominal value according to the amount disclosed in the Articles of Association and in the National Court Register.

Share premium is created on sale of shares at price over their nominal value after covering the costs of issue.

Own shares

In case of redemption of own shares the amount of payment charges the equity and is recognized in the balance sheet in a separate line 'own shares'.

Revaluation capital

The revaluation capital comprises the change in the value of financial assets classified in measurement category at fair value through other comprehensive income and as from 31 December 2017 - in the category available for sale (ISA 39) resulting from their measurement as well as deferred tax related to the items recognized within revaluation capital, gains or losses relating to the hedging instrument (hedge accounting for the cash flows) for the effective part of hedge, as well as actuarial profit and loss on defined benefits.

Retained earnings

Retained earnings comprise undistributed financial result and other capitals, i.e. remaining reserve capital and other capital reserves, and the general risk fund.

Other reserves are created from profit appropriations and are set up for purposes specified in the Statutes or other regulations.

2.24. Cash and cash equivalents

For the purposes of the consolidated cash flow statement cash and cash equivalents comprise items which are mature within three months of their acquisition date, including: cash and non-restricted balances with central banks, treasury bills and other deposits on the money market, loans and advances granted to other banks, amounts due from other banks and short-term Treasury securities.

2.25. Brokerage activity

Dom Maklerski BOŚ S.A. engages in custody operations in respect of servicing customers' securities accounts. These assets have not been recognized in the consolidated financial statements because BOŚ Group does not control them, does not benefit from them and does not incur any risk connected to these assets.

2.26. New standards and interpretations, as well as amendments of standards and interpretations that may be applicable but are not yet binding and were not previously implemented

IFRS	Nature of amendment	Applicable from	Impact on the Bank
IFRS 16 Lease agreements	The new standard defines the principles of recognition, valuation, presentation and disclosure regarding leasing. All lease transactions result in acquiring the right by the Leese to use the asset and the liability for payment obligation. Therefore, IFRS 16 cancels classification of operating lease and financial lease in line with IAS 17 and introduces one model to the accounting recognition of the leasing by the Leese. The Leese will be obliged to recognize: (a) assets and liabilities for all lease transactions concluded for the period over 12 months, except situations when the given asset has low value and (b) in the statement of results, amortization of the leased asset takes place separately of the interests on the leasing liability. IFRS 16 mostly repeats regulations of ISA 17 related to the accounting recognition of the leasing by the lessor. In consequence, a lessor continues to classify in the category of operating lease and financial lease and appropriately differentiates the accounting recognition.	01 January 2019.	Description of standard implementatio n is presented below
Amendments to IFRS 9 Financial Instruments	Modifications on IFRS 9 introduce provisions related to contracts with prepayment option and with the possibility to require approval of the prepayment amount by the lender, this amount being significantly lower than the unpaid amount of principal and interest. Such prepayment amount could be a payment due by the borrower to the lender, and not a compensation to be paid by the borrower to the lender. This financial asset will be measured at amortized costs or at fair value through other comprehensive revenue, nevertheless negative compensation has to be a justified compensation for prepayment features of the contract.	01 January 2019.	The change will not affect significantly the financial statements
Modifications on IAS 28 Investments in associates and joint ventures, measurement of long-term investments	Amendments clarify that IFRS 9 Financial Instruments are to be applied by the Companies with respect to long-term interests in an associate or joint-venture to which the equity method is not applied and which are a part of net investments in an associate or joint-venture (long-term investments). The above explanation proves that the model of expected credit losses resulting from IFRS 9 is applicable to the above long-term investments. The Board clarifies additionally that by applying IFRS 9, the entity does not take into account any losses of associates, joint-ventures and losses for loosing receivables resulting from net investments recognized as adjustments of net investments in the associate or in joint-venture that are a result of IAS 28 application Investment in associates and joint ventures.	01 January 2019.	The change will not affect significantly the financial statements
IFRIC 23 Uncertainty over Income Tax Treatments	Interpretation clarifies, how to apply the requirements regarding recognition and measurement included in IAS 12 Income Taxes when there is uncertainty over income tax treatments. Interpretation of IFRIC 23 especially specifies, in case of uncertainty over income tax treatments, if the entity is required to analyze uncertain tax items separately and when such an analysis should be performed, what are the entity's assumptions towards the possibility of control by the tax authorities, how the entity defines taxable profit (loss), tax base, unused tax losses, tax rates and how the entity recognizes changes in facts and circumstances. In line with the interpretation, the impact of the uncertainty should be measured using the method of the most likely amount method or the expected value method.	01 January 2019.	The change will not affect significantly the financial statements
Amendments to IAS 19 Employee benefits	Amendments to IAS 19 are effective for annual periods beginning on or after 1 January 2019. Adjustments to the standard define the requirements related to the accounting recognition of modifications, as well as the limitations or settlements of the program concerning defined benefits.	01 January 2019.	The change will not affect significantly the financial statements

Conceptual Framework for Financial Reporting,	Conceptual Framework were published by IASB in March 2018. This document presents in a comprehensive way the issues regarding Financial Reporting, principles to set standards and guidance for the entities that prepare consistent accounting policies. This document also facilitates the understanding and interpretation of standards. Conceptual assumptions include new concepts, updated definitions and criteria of recognizing assets and liabilities and the explanation of significant concepts. The Document consists of 8 chapters. Conceptual assumptions were published together with justification of modifications. The Board published moreover a separate document entitled "Amendments to References to the Conceptual Framework in IFRS Standards", which presents changes in standards in order to update of References to the Conceptual assumptions. In most cases, references to the standards were updated in order to reflect the references to the Conceptual assumptions. In case of two standards, exemptions were introduced regarding preparation of accounting policies concerning the balances of a regulated activity, i.e. IFRS 3 Business Combinations and IAS 8 Accounting Principles (policy), changes in accounting estimates and errors. The assumptions are effective immediately, as far as it concerns IASB and IFRIC.	On or after 01 January 2020	The change will not affect significantly the financial statements
Amendments to IFRS 3 Business Combinations	As a result of the amendments to IFRS 3, definition of "venture" was modified. The current definition has been limited will probably result in an increase of transactions of acquisitions that will be qualified as an asset acquisition.	01 January 2020.	The change will not affect significantly the financial statements
IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors	The Board published a new definition of the notion "materiality". Amendments to IAS 1 and IAS 8 clarify definition of "materiality" and make all the standards more consistent.	01 January 2020.	The change will not affect significantly the financial statements
IFRS 17 Insurance	IFRS 17 "Insurance contracts" was issued by the International Accounting Standards Board on 18 May 2017 and is effective for annual periods on or after 1 January 2021. The new IFRS 17 "Insurance contracts" will replace IFRS 4 (currently in force) that allows diversity in practice regarding the settlement of Insurance contracts. IFRS 17 will modify the accounting system of all the entities that deal with Insurance contracts and investment contracts, as this IFRS defines a new approach to the recognition, measurement, presentation and disclosure of insurance contracts. The main goal of IFRS 17 is to guarantee transparency and comparability of financial statements of insurance companies.	01 January 2021	The change will not affect significantly the financial statements
Amendments to IFRS 10 and IAS 28	Amendments to IFRS 10 and IAS 28 concern Sale or Contribution of Assets Between an Investor and its Associate or Joint Venture. The amendments solve the problem of existing inconsistency between IFRS 10 and IAS 28. The accounting recognition depends on whether the non-monetary assets sold or transferred to an associate or a venture may be considered as "business". In case the non-monetary assets are considered as "business", the investor will recognize a full profit or loss on the transaction. However, in case the assets do not meet definition of "business", investor should recognize a profit or a loss, excluding a part consisting of other investors' shares. Amendments were published on 11 September 2014.	It was not established by the International Accounting Standards Board	The change will not affect significantly the financial statements
Amendments to IFRS 2015-2017	The International Accounting Standards Board published in December IFRS 2015-2017" that amend 4 standards: IFRS 3 "Business combinati MSR 12 "Income tax" and MSR 23 "Borrowing costs". Amendments included guidance regarding standards on recognition and measurement.	ions", IFRS 11 "Joint	Arrangements",

IFRS 16 was issued by the International Accounting Standards Board on 13 January 2016, approved by the EU on 31 October 2017 and is applicable for annual periods beginning on or after 1 January 2019.

Identification of lease agreements according to IFRS 16 is based on the principle of exercising control. The agreement is classified as a leasing one, when a lessee exercises control on transferred asset in exchange of remuneration during a defined period of time. IFRS 16 introduces new principles of leasing recognition. The main modification is elimination of the leasing classification - operational and financial leasing division. Instead of which one model for leasing accounting will be introduced. The lessor continues to apply two classifications: operational leasing and financial leasing.

BOŚ Group as a lessee recognizes leasing in its statement of financial position as an asset that gives right to use as well as a respective liability on the day when the object of leasing is available for use. Every leasing payment is allocated between the liability and financial charges. Financial charges are recognized in the profit and loss account during the leasing period. Asset related to the usage right is amortized with a straight-line depreciation method.

According to IFRS 16, BOŚ Group as a lessee recognized in its books as at 01 January 2019 leasing liabilities resulting from the agreements for the amount of PLN 74,174 thousand, that were previously classified as operational leasing according to the principles of IAS 17 Leasing. These liabilities were measured at current value of future leasing payments, discounted using the marginal interest rate as at 01 January 2019.

The rights to use the assets according to the lease agreement were measured at the amount of liabilities for leasing, i.e. PLN 74,174 thousand.

When applying IFRS 16 for the first time, BOŚ Group intends to use the following practical solutions, accepted by the standard:

- 1) using one discount rate to the portfolio of lease contracts with similar features,
- 2) Exclusion of initial direct costs in order to measure the value of assets related to the right to use, as at the date of the standard implementation,
- 3) use of judgement in determining the remaining lease period, in case the agreement includes the option to extend or terminate the lease,
- 4) exclusions approved in the standard IFRS 16 regarding:
 - a) using an asset with low value;
 - b) using an asset for the period no longer than 12 months

Liabilities in respect of operational lease disclosed as at 31-12-2018	87,610
Discount assessed with application of marginal interest rate for BOŚ Group	-10,472
(Decreases): short-term leasing is recognized as a cost	-2,442
(Decreases): leasing with low value is recognized using the straight-line method as a cost	-394
Liabilities in respect of operational lease as at 01-01-2019	74,174

Implementation of the new standard IFRS 16, as at 01 January 2019, will contribute to the increase of the balance sum by the amount of 74.1 million, while it had no impact on retained earnings and on the equity level of BOŚ Group.

3. Adjustments of the prior period errors

In 2014-2016, the Bank paid interests on funds received from a related entity BOS Finance AB with its registered office in Stockholm (Sweden). These funds transferred to the Bank were acquired by way of issuance of euro bonds in the international market. The Bank included information about it in its current report no 13/2011 dated 12 May 2011. Interest paid to the company BOS Finance AB in 2014-2016 amounted to PLN 190,446 thousand. The Bank exempted these paid interests from the flat-rate income tax, under provisions of the art. 21-3 of the Corporate Income Tax Act, as well as under provisions of double taxation agreement concluded between Poland and Sweden, by not taking into account the beneficial owner clause. Given the above, the Bank decided to apply

the flat-rate income tax 3% to the interests paid in 2014-2016.

In these financial statements, provision on flat-rate income tax was recognized, for the amount of PLN 7,596 thousand as the best valuation, as the adjustment of the equity opening balance in the item of retained gains as at 01 January 2017.

4. Significant accounting estimates and judgments

The preparation of the Group's consolidated financial statements requires to apply judgment, estimates and assumptions which have an impact on the presented revenues, expenses, assets and liabilities, and the related notes and disclosures regarding contingent liabilities. The uncertainty regarding these assumptions and estimates may cause adjustments to the carrying amount of assets and liabilities in the future. It also requires to exercise professional judgment in the process of applying the adopted accounting policies.

BOŚ Group adopted assumptions and estimates concerning the future based on historical data and the knowledge held at the date of the preparation of these consolidated financial statements. Estimates and assumptions are subject to the current reviews. These assumptions and estimates may change as a result of future market changes or other changes outside the control of the Group. Changes of assumptions and estimates are recognized within the period in which the change was performed or within this period and within future periods, if the change in assessment and assumption concerns the current period and future periods.

BOŚ Group recognizes and measures current and deferred tax assets and liabilities in accordance with the requirements of IAS 12 Income tax based on the tax profit (tax loss), taxable base, carry-forward of unused tax losses and tax credits, and tax rates, while considering the assessment of uncertain tax treatment. Where uncertainty exists as to whether and to what extent the tax authority will accept tax treatment of a given transaction, BOŚ Group recognizes such treatment after considering the uncertainty, if any.

4.1. Financial assets

Impairment of receivables from clients

On a monthly basis BOŚ Group performs a loan exposure review including: the identification of loan exposures at impairment risk, the assessment of the impairment. Impairment valuation is based mainly on assessing probability of impairment indicator based on historical analysis, assessing potential losses (LGD parameter) and assessing macroeconomic environment where BOŚ Group operates.

Models intended to assess the write-offs for expected credit losses built in line with IFRS 9 are composed of elements, determined by BOŚ Group by using all available historical information and forecasts. With these models, BOŚ Group assesses the level of credit risk with the highest possible accuracy. Expected credit losses are the product of the parameters PD, LGD and EAD individually defined for each exposure with statistic techniques. The final expected credit losses constitute the sum total of expected losses in each period (depending on the stage over a 12-month horizon of lifetime for Stage 1 and the remaining lifetime for Stage 2) discounted using the effective interest rate.

The structure of models used in order to evaluate expected credit losses takes into account modelling for the following parameters:

- PD (probability of default) assessment of probability regarding default in a given time horizon (12 months or during the whole lifetime of the exposure),
- LGD (loss given default) a part of exposure which would not be recovered in case of default,
- EAD (exposure at default) expected exposure value at the moment of default.

Introduction of the model for write-offs for expected credit losses assessment in line with IFRS 9 resulted in an increase of write-offs for balance sheet receivables and provisions for off-balance sheet liabilities, especially for the exposures classified in Stage 2 and Stage 1. The increase of impairment losses

is mainly due to the fact that are taken into consideration losses recognized over the horizon of the exposure lifetime for exposures classified within the Stage 2 and those over the horizon of the next 12 months for exposures classified within the stage 1.

For the assessment of write-offs, the component of macroeconomic forecasts is used in the model. Given the fact that there is a significant part of specific credit exposures in BOŚ Group portfolio, with characteristics and construction indicate a slight connection between this risk and macroeconomic environment, the observed historically impact of forecasts was not significant for the measurement. Above factors show that sensitivity of the level for assessed loss in terms of impact on changes of macroeconomic forecasts is highly limited.

Greater volatility of allowances resulting from the changes in classification of exposures between the stage 1 and 2 is expected, compared with the model used in line with IAS 39, is expected. Expected greater volatility results from a different time horizon for the recognition of expected losses. Assessment of losses during the whole lifetime of the exposure is subject to greater uncertainty as regards the assessments, compared to the loss assessed over a 12-month horizon, due to, in principle, a longer period during which unexpected factors impacting the exposure risk can occur.

Theoretical reclassification of 1% of exposure from Stage 1 with the highest risk level to Stage 2 for each type of exposure would result, as at the end of December 2018, in an increase of allowances by PLN 10.5 million.

In December 2018, sensitivity analysis of the level of impairment allowances to changes of LGD portfolio parameters was performed. In case of changes in recovery rates by +/-10 p.p., estimated value of Impairment write-offs on receivables from clients valued using the group method, would respectively decrease by PLN 61.0 million or increase by PLN 56.5 million.

The SPPI test

SPPI test is an assessment, whether cash flows resulting from the financial assets held in HtC and HtC&S models are solely payments of principal and interest on the principal. This assessment (apart from the business model) determines classification of financial assets to the measurement category at amortized cost or respectively at fair value through other comprehensive income. Given the above, this assessment is crucial for determining a correct principle of measurement for credit and loan agreements and other financial contracts that are the core activity of BOŚ Group.

According to IFRS 9, the principal amount is a fair value of financial assets as at the date of the initial recognition. Interest is a payment for the time value of money, a margin for the credit risk carried and other types of risk carried due to the maintenance of the principal and the profit margin.

SPPI test includes an analysis of concluded contracts/agreements in terms of determining cash flow characteristics resulting from these contracts/agreements. SPPI test is considered to allow classification to the measurement category at amortized cost or at fair value through other comprehensive income, if no cash flow characteristics were identified, for which the timing or the formula of defining the value depends on other factors than those meeting the definition of principal and interest from principal. Characteristics deciding that this definition is not met:

- financial leverage
- Wages and salaries depending on conditions not linked with the time value of money or with the risk carried
- Earlier repayment option, however for the amount of the principal's and the interest's parts which are not paid yet, with a justified fee for an earlier repayment is considered as an option meeting the requirements of SPPI test.

BOŚ Group performs SPPI tests for all financial assets that are required to perform this assessment, while for the assets resulting from standard documentation this test is performed at the level of groups of products. As regards assets that can be negotiated with individual clients, it is performed based on individual contracts. As result of the SPPI test, was identified a number of credit contracts with the interest rate is based on the multiplier formula (financial leverage). This is a part of preferential credits granted with the support of the National Fund for the Environment Protection. Given the above, they were reclassified to the measurement category at the fair value through financial result.

Business model

Valuation of business model is a significant assessment; according to IFRS 9, it is one of the elements deciding on a correct allocation of the financial assets valuation category. BOŚ Group defines business models within the frame of the financial assets management, mainly based on their business goals and the way of achieving financial results. Business model can be changed only in case of significant internal changes

1 external changes in BOŚ Group operations and will be defined by the management of the Group. According to expectations, business model change will occur rarely. In particular the change of business purposes regarding financial assets is not considered as a change of the business model.

4.2. Impairment test of non-financial assets

As at 31 December 2018, the market capitalization of Bank Ochrony Środowiska S.A. remained below its accounting amount. This situation was considered by the Management Board as a potential indicator of impairment of the Bank's assets. Given the above, as at 31 December 2018, impairment test for non-financial assets was performed and the Group determined their recoverable amount at the level of their value in use estimated using the following methods: discounted future cash flow method, residual profit and dividend model.

Impairment tests performed demonstrated that the fair value is in the range between

PLN 2 ,124 million and PLN 4,269 million and thus no impairment was recognized. Recoverable value was defined at the level of the value in use. Estimation of the value in use basing on the model of discounted cash flows showed that the value in use of the assets exceeded their accounting amount by PLN 2,185 million. The results of the tests performed using the residual gains method and based on the dividend model also showed that the value of in use of the assets exceeds their accounting value by, respectively, PLN 40 million and PLN 500 million. In order to determine the recoverable value of fixed assets, the cost of equity at the level of 8.30% (beta=1) was admitted.

The financial cash flows used in the model covered the years 2019-2026 and resulted from the forecasts of the Bank development, in particular from Financial Plans and from the Framework Development Strategy, as well as from the analyses of banking sector in Poland. Projection Horizon takes into account the period 2019-2021 which was the return to stability in terms of the Bank's results, due to Recovery Program realization and taking into account a 5-year forecast period thereafter.

The cash flows accounted for the expected value of charges regarding the tax on assets and for dividend from profit for paid to the shareholders after the termination of Recovery Program in 2021.

4.3. Fair value of financial instruments

The fair value of financial instruments not quoted on active markets is determined using valuation models accepted on the market. These take into consideration the estimated future cash flows discounted to their present value (using the zero-coupon curve with a margin), comparable transaction prices (if they exist), and refer to similar instruments quoted on active markets. In rare cases, when the use of such models is not possible and there is no possibility to estimate the fair value in a reliable manner, financial instruments are carried at cost. Information on the sensitivity of financial instruments is included in Note 47.

4.4. Provision for retirement benefits

The right to the retirement severance pay is available to any employee who has reached retirement age. Retirement severance pay relating to pre-retirement benefits or allowances and retirement within collective redundancies are not included in the calculations and in the case of their occurrence in the future, such provisions should be calculated separately. An employee, who became permanently disabled and entitled to disability allowance paid from the social insurance, is entitled also to the disability pay.

The basis of both retirement and disability pension is calculated on the basis of the employee's salary, calculated as holiday compensation at the time of vesting conditions to pay.

Amount of severance pay depends on seniority at the Bank Ochrony Środowiska S.A. in relation to the base:

Up to 10 years of work	-	100%	
More than 10 years of work	-	200%	
More than 15 years of work	-	250%	

Employee remuneration as of 31 December 2018 was used for the purposes of calculation. Provision for retirement benefits and similar is calculated with actuarial method.

4.5. Consolidation scope

BOŚ Group estimates that it does not have significant influence on the WODKAN S.A. company. The Group's share in WODKAN S.A. capital and accounts for 29.48%, giving assurance to exceed 20% of votes during General Meeting of Shareholders. However, it is not reflected by a significant impact of BOŚ Group on the company.

Taxes

Laws on corporate income tax, personal income tax, tax on goods and services or social security contributions applicable in Poland are subject to frequent changes, which results in the lack of well-established practice and vagueness and inconsistency of regulations. This situation leads to possible discrepancies in the interpretation of tax regulations by State authorities and taxpayers. Tax settlements and other settlements (e.g. customs duties) may be subject to control for a period of up to 6 years. The competent control bodies are authorized to impose significant penalties along with interest. There is a risk that control bodies will adopt a different position than the Company as far as the interpretation of regulations is concerned, which could significantly affect the amount of public law liabilities disclosed in the financial statements.

BOŚ Group recognizes deferred tax assets based on the assumption that in the future, income tax will be generated, allowing to use deferred tax asset. Deterioration of tax results in the future could make this assumption unjustified.

5. Risk management

Credit risk management is concentrated directly on the Bank, taking into account that Bank's financial assets are the majority of BOŚ Group's assets as at 31 December 2018. Due to aforementioned, methodology description regarding process of credit risk management is related to the Bank.

5.1. Credit risk Definition of credit

risk

Credit risk is identified as the risk of potential loss stemming from failure to settle an obligation by a client or a contracting party within a contractual deadline.

Credit risk management methods

The Bank pursues an individual (credit transaction) and portfolio policy of credit risk management considering the level of risk appetite.

Amount of risk appetite was determined within the limits set by the practice of sound and prudent risk management and adopted at a moderate level.

The process of credit risk management in the Bank included in particular:

- 1) Procedure for assessing the credit risk of each single transaction, for setting collaterals and for loan granting,
- 2) Monitoring the risk level, limiting it and conducting stress tests,
- 3) Rating and scoring models applied in the assessment of individual and institutional client risk,
- 4) Principles of responsibility in the process of assessment of credit risk,
- 5) Portfolio credit risk assessment,
- 6) Principles of managing mortgage-secured exposures,
- 7) Principles of identifying impaired exposures and determining impairments,
- 8) System of reporting to the Bank's executives,
- 9) Information systems, supporting the above tasks.

Management of the single transaction risk is implemented in line with the following rules:

- 1) Each credit transaction required a comprehensive credit risk assessment which resulted in an internal rating or scoring assessment,
- 2) The client creditworthiness constitutes a basis for the credit decision,
- 3) Measurement of the credit risk of prospective and concluded loan transactions is performed at the stage of loan granting and monitoring,
- 4) The loan granting process assures independence of the credit risk assessment from sales forces,
- 5) Credit decisions were taken by authorized persons,
- 6) Loan transaction conditions offered to the client depended on the level of risk connected to the client and/or transaction.

The financing of a single transaction was based on:

- 1) having the credit worthiness of the borrower to repay the proposed debt at times agreed upon with the Bank,
- 2) providing a collateral in the form and amount accepted by the Bank, if required by internal regulations,
- 3) meeting other criteria for taking financing such as, in particular, the results of customer's relationship with the Bank and the credit history assessment in the banking sector.

Portfolio credit risk management is executed by using various methods of credit risk measurement and valuation, among which:

- 1) probability of default,
- 2) expected loss,
- 3) migration matrix between periods of delays and classes of risk,
- 4) analysis of loan origination (loans granted in a given period),
- 5) share and structure of non-performing loans,
- 6) share and structure of exposures meeting the conditions for individual impairment.

The Bank has its Credit Risk Management Committee. The Committee's aim is to develop the principles of credit risk management and risk monitoring within the framework established by the appropriate strategies, policies or rules adopted by the Management Board or Supervisory Board.

The Committee operates in the following areas:

- 1) credit risk management and credit process,
- 2) valuation of assets,
- 3) models and methodologies of credit risk evaluation.

In addition, the Risk Committee is to support the Bank's Supervisory Board in the oversight of risk area. The Risk Committee is composed of the members of Supervisory Board. In particular, the Committee's objective is: to give opinion on the overall, current and prospective readiness of the Bank to undertake the risk, to give opinion related to the risk management strategy of the Bank, give support to the Supervisory Board while implementing this strategy, verify if the assets and liabilities prices offered to the clients fully reflect the business model of the Bank and its strategy regarding the risk.

Processes established for the purpose of risk management

In 2018, the Bank performed activities consisting of increasing the level of automatic decisions as regards individual customers and prepared the requirements concerning reconstruction of the risk assessment processes, put in place to date, in order to improve efficiency of these processes and to maintain the quality of credit portfolio.

The Bank performed assessment of the risk before taking the decision on the given exposure and during the whole period covered by the credit transaction, as part of the monitoring process. The principles of risk assessment were described in the Section *Tools/techniques used in credit risk management* Withdrawal of the method of risk assessment required approval of the Department Director responsible for risk assessment of individual transactions and resulted in additional risk verification by the employee from the department mentioned above, specialized in identification of risk and selection of adequate forms of mitigation, independent of sales forces.

The frequency and scope of monitoring have been determined by the level of identified risk. Monitoring was performed by a separate organizational unit within the structures responsible for credit risk assessment and management. The unit was dedicated to the monitoring of credit portfolio and to the measurement of individually significant exposures.

The risk of untimely debt servicing or default repayment, and the risk of loss or decrease in the value of accepted collateral were mitigated using the early warning system, managed by the unit responsible for monitoring.

If the Bank identified a situation that could jeopardize the timely repayment, the Bank undertook admonition and restructuring procedures using appropriate IT tools.

In the process of risk assessment and monitoring, the Bank used information from internal databases and external sources, including the Credit Information Bureau S.A. ("Biuro Informacji Kredytowej") and the National Register of Debts ("Krajowy Rejestr Długów") and the Central Database - Bank Register ("Centralna Baza Danych - Bankowy Rejestr").

The Bank carried out credit risk assessment using rating and scoring models. Models were created, developed and supervised in the Risk and Planning Area taking into account internal and external requirements in this area. Significant models were subject to periodical (not less than on a yearly basis) validation performed by an independent validation unit.

The Bank has put in place a multi-level system of credit decision-making, the basis of which is the rule that the higher level of risk of the transaction resulting from its complexity, the amount of exposure or financial and economic situation of the client, the higher decision-making level is authorized to make the decision. The decision-making level with highest clearance level are the Credit Committee of Headquarters and the Management Board of the Bank. Credit decisions are made upon prior verification of risk made by the person specialized in risk assessment and mitigation, i.e. an expert from separate organizational unit in the Bank's Headquarters, independent from sales forces.

In making credit decisions on transactions with members of the Bank or persons occupying management positions at Bank or capital-related entities or organizational-related entities, the Bank was taking into account the requirements of the Banking Law.

The Bank preferred collateral transactions, provided that a maximum level of unsecured transactions was established in the retail segment, considering specificity of a product and the impact of these transactions on the results of the Bank and the amount of potential loss.

The level of collateral depended on the level of risk generated by the transaction, in particular – the type and length of transaction.

Setting the value of collateral, the Bank admitted the rule of prudent valuation. When choosing the type of collateral, the Bank considered:

- 1) due protection of Bank's interests,
- 2) costs associated with the establishment of particular collateral,
- 3) possibility to guickly liquidate particular collateral.

When assessing and monitoring a value of a collateral the Bank uses external databases, including AMRON database and Cenatorium Sp. z o.o. database for the purposes of verification and update the real property value.

Tools/techniques used in risk measurement

The customer and the transaction were subject to comprehensive credit risk assessment taking into account supervisory requirements in this regard.

Risk assessment models were differentiated by the Bank depending on the client and credit transaction type.

Credit risk assessment model for individuals applying for funding for the purposes unrelated with economic activities included a quantitative analysis - consisting in determining the amount and stability of the sources of repayment of the credit obligation – and qualitative analysis, consisting in evaluation of characteristics of a retail client, which have a significant impact on the customer's ability to repay the debt within the deadlines specified in the contract, including scoring and assessment on the basis of information from the "Credit Information Bureau". In the evaluation process, T and S Recommendations of PFSA were taken into account, in particular the implementation of the appropriate levels of DtI and LtV ratios and the possibility to use a simplified assessment of creditworthiness.

The credit risk assessment model for individuals applying for funding related to running a business or statutory activities (public finance) focused on two areas: assessment of client and assessment of transaction (rating). Client's assessment was performed on the basis of quantitative and qualitative elements. Quantitative assessment concerned basic, from the point of view of net profit generation and keeping liquidity, client's activities areas. Qualitative assessment included in particular: assessment of development plans, experience and skills of managers, quality of the relation between client and external environment, including the Bank. Client's assessment was performed taking into account, the economic situation of the industry, local market and country. Additionally, evaluation concerns the scale of client's exposure to the adverse effects of interest rate and exchange rates changes and client's security policies against exchange rate and interest rate risk.

In the case of funding a client functioning in the group of capital-related or organizational-related entities, the Bank assessed credit risk taking into account the influence of related-parties.

Transaction assessment was performed in particular on the basis of the purpose of funding, length of the credit period and the collateral value for repayment. Bank established the financing structure to provide risk-sharing between the borrower and the Bank, mainly by the exposure of the borrower's own funds adequate to the scale of the risk.

Credit risk valuation tools

In order to measure credit risk, the Bank uses various tools/ applications, which implement, among others, the binding rating/ scoring models and methodology for credit capacity assessment.

Diversification of used applications relates to customer segmentation and/ or types of credit transactions.

Currently, the Bank is realizing the program including:

- optimization of the credit processes, including all significant elements, such as: offer stage, risk assessment, decision on concluding the transaction, monitoring and remedial actions in case of identification of a threat to timely repayment and
- 2) the implementation of new process solutions in the modernized "workflow" tool which will be used in all the segments of clients served by the Bank.

Description of particular concentration risks, their valuation and monitoring

The Bank performed risk concentration management in accordance with the policies described in the "Policy for risk concentration management". The requirement of operating by the Bank of policy-type regulations concerning risk concentration management results from the issuance by Polish Financial Supervision Authority (PFSA) of an update for Recommendation C, which represents a set of best practice concerning concentration risk management.

The Bank identifies, measures, monitors and reports the concentration risk on the following levels:

- 1) individual client/transaction and
- 2) credit portfolio.

On the level of a customer and transaction, the engagement concentration risk was managed by the abidance of supervisory limits of engagement, especially those related to Regulation (EU) of the European Parliament and the Council No. 575/2013 of 26 June 2013 or the Banking Law and by application of the principle that risk's assessment process and risk monitoring depends on the amount of credit exposure.

On the level of loan portfolio, engagement concentration management was performed by complying with internal limits or warning values, approved by the Bank's Management Board or Supervisory Board for limits through which the Bank sets the acceptable level of credit risk appetite.

In particular, the Bank applied the following limits:

- 1) geographical limit setting exposure toward other countries;
- 2) limits referring to product parameters (e.g. maximum LTV);
- 3) limits referring to the portfolio of mortgage loans and loans financing real property resulting from PFSA recommendations,
- 4) limit related to the share of foreign currency loans in the Bank's loan portfolio,
- 5) limit of the acceptable total exposure in equity-related or organizationally related parties/ group of related parties, which exceeds 10% of the Bank's recognized capital;
- 6) limit of acceptable total exposure to equity-related or organizationally related parties/ group of related parties,, depending on rating awarded to the parent entity or entity with highest exposure;
- 7) industry limits;
- 8) limit on credit exposures towards the Bank's subsidiaries.

In 2018, the Bank established an early warning ratio system which applies to every external limits in the area of credit risk. Principal assumptions of the system are three levels of limit usage and gradual implementation of actions mitigating the risk of exceeding the limit depending on the level of the limit usage.

The level of limits usage was periodically monitored and reported to the authorities of the Bank in accordance with internal regulations of the Bank.

5.1.1. Description of the methodology for recognition of impairment on loan exposures

For every reporting day, the Bank performs a review of credit exposures, by identifying credit exposure with threat of value loss the exposures for which significant increase of credit risk was noted, from the moment of initial recognition - taking into account rational and possible to be documented information, including data concerning the future. Then the allowance for expected credit losses is recognized, based on the breakdown by three Stages, depending on changes in terms of credit quality. By principle, all exposures recently granted except POCI assets are classified as Stage 1 exposures.

In order to do so the Bank divides its credit exposures taking into account the amount of engagement and the risk features. The exposures are valued using individual or group method, with respect to the potential evidence of impairment.

Apart from POCI assets, the Bank considers impaired exposures for which occurred indicators of impairment resulting from one or more events occurring after the initial recognition of the exposure in the Bank's ledgers and that loss event has an impact on the expected cash flows from this exposure and the cash flows can be reliably estimated.

The Bank regards in particular the following factors as evidence for impairment:

- 1) a delay in repayment of capital or interest instalments over 90 days, excluding loans granted to banks, in the case of which payments delayed over 7 days are classified as past due,
- 2) deterioration of the economic and financial standing of a client, which causes a reclassification of the debtor to the rating classes 14 and worse, reflecting a threat to the repayment of the loan,
- 3) granting to the Client a credit facility (concluding a restructuring agreement) due to the economic or legal aspects resulting from financial and economic difficulties of the client,
- 4) deterioration of financial indicators relating to, among others: customer liquidity and debt service ability,
- 5) declaration of bankruptcy, high probability of bankruptcy or another reorganization resulting in deterioration of financial standing and solvency of the debtor,
- 6) any other event being equivalent to entering a client into a state of insolvency, that results in that the timely repayment of debt may be not possible.

To supplement to the above, in the case of credit exposures arising from financing of wind farm projects, is considered as an impairment indicator a cash deficit occurring over the period of the term of the loan as well as bad will under potential debt restructuring scenario in the Bank-modelled perspective to the end of the period of financing.

The impairment allowance for individual loan exposures is measured on the basis of the calculation of the present value of the estimated future cash flows discounted using the original effective interest rate. In the case of credits for which the collateral has been established, the present value of expected future cash flow includes cash flows that could be obtained from the enforcement of the collateral, less cost of enforcement and the sale of the collateral. In the case of credit exposures arising from wind farm projects financing, the present value of the expected future cash flows is estimated based on the developed valuation model which allows simulation of individual cash flows that are possible to generate under individual projects with the adopted, modifiable, valuation parameters. As result of reduction of the present value of the realizable cash flows, an impairment allowance is recognized that corresponds to the expected credit loss, because of the failure to meet the obligations towards the Bank.

The assessment of an individual impairment is applied with reference to:

- 1) individually significant credit exposures:
 - a) meeting the condition of individual impairment or in the 'quarantine' period or
 - b) regarding a client that holds other loans towards which the Bank has recognized an individual impairment indicator (impairment propagation) or
- 2) individually not significant credit exposures, towards which the Bank has recognized evidence for impairment or which are in the 'quarantine' period, if they were material as of the moment of impairment recognition and they fulfilled additional requirements specified by the Bank,
- 3) individual not significant credit exposures including non-typical credit risk characteristics.

The level of impairment losses write-offs for receivables defined as individually immaterial, for which the evidence of impairment was identified, is performed based on the impairment parameters valuation, assessed with statistical methods using historical data for chosen portfolios, selected for the purpose of a valuation of collective impairment, divided into groups with the similar credit risk characteristics. One-off items are excluded from the analysis.

For the collective valuation purposes, the Bank applies division into 8 homogenic risk portfolios, for two segments of clients (individual and institutional):

- 1) retail customers mortgage loans (portfolio segmented by level of LTV and loan currency),
- 2) retail customers cash loans,
- 3) retail customers mortgage loans,
- 4) retail client credit exposures to micro-enterprises (excluding mortgage loans), except for the microenterprises applying the accounting rules arising from the Accounting Act (maintaining full accounting), classified as retail clients,
- 5) retail client credit exposures to the micro-enterprises applying the accounting rules arising from the Accounting Act (maintaining full accounting), classified as retail clients,
- 6) other retail clients,
- 7) corporate clients, including financial institutions and environmental funds,
- 8) for public finance entities

The reversal of loss which means reclassification of the credit as non-impaired is possible after the disappearance of impairment evidence and after a certain period of quarantine in which the evidence is not identified.

For non-default exposures, the Bank recognizes a write-off for the expected credit losses calculated using the group/collective method.

For the purposes of verifying, whether from the moment of initial recognition of the financial asset a significant increase of risk occurred, the Bank compares the level of risk of failure to meet the obligation within the expected time of the funds' granting as at the reporting date and the date of initial recognition. The Bank assumes that the significant increase of credit risk is identified for the given asset when quantitative or qualitative criterium is met or an overdue exceeding 30 days occurs. Any of these criteria are verified at the exposure level.

Quantitative criteria

The reference underlying the classification to Stage 2 for the retail customers' exposures, is calculated by the Bank as a difference:

- 1) current credit risk assessment defined as a lifetime PD in time horizon from the reporting date to the maturity date, determined based on characteristics applicable at the reporting date,
- 2) initial credit risk assessment defined as a lifetime PD in time horizon from the reporting date to the maturity date, determined based on characteristics applicable at the date of initial recognition,

Assessment of a significant deterioration in credit risk is performed by comparison of the observable value of a relative change in the risk assessment with the theoretical value which is a threshold above which the Bank considers that a significant deterioration in credit risk occurred.

Allocation threshold at the level of an individual exposure is defined using the statistical model based on information regarding the credit risk assessment at the date of initial recognition and for the period from the date of initial recognition for the given exposure.

Classification to Stage 2 for the exposures regarding institutional clients takes place in case of deterioration of the debtor's economic and financial standing, during the credit period. This deterioration is expressed by classification to 12 or 13 rating class or reclassification to the rating 9-11 for the rating at the moment of the financial recognition which was lower than 6.

Quantitative criteria

The Bank classifies to Stage 2 in the following cases:

- 1) There is a payment delay (above a define materiality threshold) over 30 days as at the reporting date or at least once taking into account last three reporting dates,
- 2) restructured credit exposure with impairment indicator and with finished quarantine period without the impairment indicator being identified,
- 3) forborne status,

Apart from the above-mentioned criteria, the Bank defined other specific qualitative criteria, e.g.: specific for the customers from a given segment, identified during the monitoring of institutional customers

(high-risk exposures "a watch list") or identified as result of a multifactorial and comprehensive credit risk analysis.

In accordance with Paragraph 5.5.10 of the Standard IFRS 9, the Bank selects exposures with low credit risk. Credit exposure is linked with a low risk of default regarding the given liability, in case the borrower has a high short-term ability to fulfill contractual obligations and the adverse changes of economic and business conditions in the long term can - but they don't necessarily have to - limit the borrower's ability to fulfill his obligations resulting from the cashflows agreement.

The Bank applies low credit risk criteria to those exposures from the public finance clients portfolio that do not meet qualitative criteria of classification to the Stage 2 and for those for which the impairment indicator was not identified.

For estimating the expected loss allowances the (expected losses) Bank continues to use own estimations of risk parameters based on internal models, taking into account IFRS 9 requirements (such as the estimation of parameters over the horizon of lifetime or consideration of future macro-economic conditions). The Bank developed a methodology for model parameters and built models which are compliant with IFRS 9. The expected credit losses constitute the product of the values, individual for each exposure of the assessed values, of PD, LGD and EAD parameters estimated individually for each exposure and the final amount of expected losses is the sum total of expected losses in each period (depending on the stage over a 12-month horizon or the remaining lifetime) discounted using the effective interest rate. The estimated parameters in accordance with IFRS 9 are subject to adjustment due to expectations resulting from macro-economic scenarios. The Bank adjusts risk parameters in order to take into account future macro-economic information (such as: Gross Domestic Product, unemployment rate, WIBOR, foreign exchange rates, inflation) for portfolios for which receivables were identified. Scenarios developed internally were used. Forecasts prepared by economic analysts of the Bank are source of information about the values of macroeconomic factors.

Valuation of Impairment write-offs (for expected credit losses), of provisions on financial guarantees and granted liabilities, made in Polish zloty and in foreign currencies (including the exchange differences) are recognized respectively as expenses or revenues of the Bank arising from the write-offs and provisions.

The methodology and assumptions adopted by the Bank for the valuation of the impairment are regularly analyzed to reduce the discrepancies between the assessed and actual losses. In order to assess the adequacy of impairment provisions both as part of collective and

individual analysis the back testing is carried out, the results of which are taken into account when determining actions having an impact on the improvement of the process quality.

5.1.2. Receivables from other banks

The table below presents gross amounts of receivables from other banks, divided into groups based on the Moody's, Fitch and Standard & Poor's (S&P) ratings.

Specification	31-12-2018 31-12	2-2017
Moody's		
A1	27,879	34,494
A2	41,917	7,110
A3	1,150	144,967
Aal	18,565	-
Aa2	496	65,957
Aa3	48,567	689
Baal	31,583	5,480
Baa3	43	413
Fitch		
A-	4,200	72,868
BBB+	245	, -
BBB-	-	865
S&P		
Α	9,149	10,700
no rating		
	12,310	32,205
Total	196,104	375,748

Internal rating	Respective Moody's rating	31-12-2018	Respective Moody's rating	31-12-2017
С	Baa1, Baa2, Baa3		Baa2, Baa3	135
D	Ba1, Ba2		Ba1, Ba2	32,070
G	B3	12,310		
Total		12,310		32,205

5.1.3. Receivables from customers

Specification	31-12-2018
Receivables from customers measured at amortized costs	
Receivables from customers without impairment indicator, in which:	10 314 827
- Stage 1 - exposures without significant increase of credit risk from the moment of initial recognition	8 291 717
- Stage 2 - exposures with significant increase of credit risk from the moment of initial recognition, in which:	2 023 110
- wind farms	1 039 500
Stage 3 - Receivables from clients having evidence of impairment, with no impairment identified due to value of expected cash flows, in which	772 254
- wind farms	603 282
Stage 3 - Receivables from clients having evidence of impairment and with identified impairment, in which:	1 656 193
- wind farms	124 874
Total of receivables from clients - measured at amortized cost (gross)	12 743 274
Impairment losses write offs for:	
Receivables from customers - (Stage 1)	-59 012
Receivables from customers - (Stage 2), in which:	-107 416
- wind farms	-36 867
Receivables from customers - (Stage 3) with no impairment identified, in which:	-23 346
- wind farms	-21 378
Receivables from customers - (Stage 3) with impairment identified, in which:	-853 659
- wind farms	-31 876
Total of impairment losses write offs	-1 043 433
Total of receivables from clients measured at amortized cost (net)	11 699 841
Receivables from clients measured at fair value through the financial result	
Fair value, in which:	104 653
- wind farms	53 083
Total of receivables from clients measured at fair value through the financial result	104 653
Security deposits	5 023
Other receivables	10
Total receivables from customers	11 809 527

Specification	31-12-2017
Receivables from clients without impairment indicator:	10 194 240
Receivables from the customers that are not arrears	10 031 725
Receivables from the customers that are arrears	162 515
Receivables from clients having evidence of impairment, with no impairment identified due to value of expected cash flows, in which:	1 228 794
- wind farms	1 056 694
Receivables from clients having evidence of impairment and with identified impairment, in which:	1 539 448
- wind farms	373 521
Total of receivables from customers (gross)	12 962 482

Impairment write-offs, in which:	-625 780
- wind farms	-119 422
Security deposits	7 062
Other receivables	9
Total receivables from customers (net)	12 343 773

Classification of receivables from clients, on measurement method by, sector:

	•		,	•	
	Instituti onal	Individual	- Clients individual	- Clients	
31-12-2018	Client	Client	Mortango	individual	Total
	Institution al	Institution al	Mortgage Ioan Mortgage	other	
			loan Mortgage Ioan	loans	
Receivables from the customers					
at amortized cost					
Receivables from clients without impairment indicator: , including:	6,720,296	3,594,531	2,993,105	601,426	10,314,827
 exposures without significant credit risk increase 					
from the moment of initial recognition from the moment of initial recognition (Stage 1)	4,858,511	3,433,206	2,861,987	571,219	8,291,717
- exposures with significant credit risk increase from the moment of initial recognition from the moment of initial recognition (Stage 2), in which:	1,861,785	161,325	131,118	30,207	2,023,110
- wind farms Receivables from the customers	1,039,500	-	-	-	1,039,500
with impairment indicator (stage 3)					
but with no impairment identified, in connection with estimated cash flows	769,676	2,578	1,756	822	772,254
, in which:					
 wind farms Receivables from the customers 	603,282	-	-	-	603,282
having evidence of impairment and with identified impairment indicator (stage 3)	1,306,307	349,886	210,919	138,967	1,656,193
individually assessedwind farms	1,202,614 124,874	90,124	72,419 -	17,705 -	1,292,738 124,874
Total of receivables from clients	8,796,279	3,946,995	3,205,780	741,215	12,743,274
gross					
Impairment write offs for:	47.694	11 220	4 420	6.000	FO 013
receivables from clients - Stage 1 receivables from clients - Stage 2 in which:	-47,684 -100,351	-11,328 -7,065	-4,420 -4,026	-6,908 -3,039	-59,012 -107,416
 wind farms receivables from clients - Stage 3 with no impairment identified, in which: 	-36,867 -23,341	- -5	-3	- -2	-36,867 -23,346

 wind farms receivables from clients - Stage 3 with identified impairment, including: 	-21,378 -632,300	- -221,359	- -126,550	- -94,809	-21,378 -853,659
- individually assessed - wind farms	-569,833	-44,436	-37,190	-7,246	-614,269
Total of impairment losses write offs	-31,876 -803,676	-239,757	-134,999	-104,758	-31,876 -1,043,433
Total net value	7,992,603	3,707,238	3,070,781	636,457	11,699,841
Receivables from the customers	,	, ,		•	
- measured at the fair value					
through financial result					
Fair value, in which:	101,552	3,101	904	2,197	104,653
- wind farms	53,083	-	-	-	53,083
Total net value	101,552	3,101	904	2,197	104,653
Security deposits	5,023	-	-	-	5,023
Other receivables (net)	-	-	-	-	10
Total of receivables from					
	8,099,178	3,710,339	3,071,685	638,654	11,809,527
the customers net					

31-12-2017	Institution al customer	Individual Client	Individual Client - Mortgage loans	Individual Client - other credits	Total
Receivables from clients without	6,376,878	3,817,362	3,130,229	683,943	10,194,240
impairment indicator: Receivables from clients having evidence of impairment, with no impairment identified due to value of expected cash flows, in which: - Receivables from clients having	1,223,610	5,184	4,303	881	1,228,794
evidence of impairment and with identified impairment	1,056,694				1,056,694
in which: - individually assessed	1,246,682	292,766,1	179 398	113,368	1,539,448
- Wind farms Impairment	1 207 617	, ,		,	1 342 869
allowances on loans and advances	373 521	35,252	108 197	27,055	373 521
with no impairment identified (IBNR), including:	-49,201	-13,062	-5,541	-7,522	-62,263
- Wind farms Impairment	-23 216 -423	-140 347	-76 254	-64,093	-23 216 -
allowances for loans with identified impairment, of which:	170 -398	-60 263	-47 305	-12,957	563 517 -
- individually assessed	903				459 166
- wind farms	-96,206				-96,206
Total net value	8,374,799	3,961,903	3,232,135	726,577	12,336,702
Security deposits Other receivables					7,062
net					9
Net total of receivables from clients					12,343,773

Receivables od customers measured at amortized cost (gross value), which are not past due and not impaired

Receivables measured at amortized cost which are not past due (for even one day) are considered as not impaired if there is no other evidence of impairment. Receivables from such loans come from clients with good financial and economic standing and regular payments, for which no evidence of impairment occurred and allowances were recognized for incurred but not identified losses.

General features of rating classes are as following:

Rating 1 Best-quality loans
Rating 2 Very high loan quality
Rating 3 High loan quality
Ratings 4-5 Very good loan quality
Ratings 6-7 Good loan quality
Ratings 8-9 Acceptable loan quality

Ratings 10-11 Average and poor loan quality

Ratings 12-13 Very poor loan quality

Ratings 14-16 Not creditworthy (loan quality does not exist).

Gross amounts of loans and advances which were not past due and not impaired, analyzed by customer class are presented below.

	Rating	31-12-2018	31-12-2017
Receivables from institutional clients	(1-3)	4,123	40,952
	(4-5)	304,114	370,692
	(6-7)	1,213,136	1,264,069
	(8-9)	1,722,978	1,775,498
	(10-11)	2,361,148	1,776,560
	(12-13)	905,575	1,003,205
	(14-16)	-	16,437
	No rating	143,899	122,610
Total receivables from institutional clients		6,654,973	6,370,023
Receivables from individual customers	No rating	3,463,811	3,661,702
Total of receivables from individual customers		3,463,811	3,661,702
Total		10,118,784	10,031,725

Rating classes are presented as at the reporting date.

^{*\} Rating is in line with internal Bank classification, where "1" stands for the best and "16" for the worst rating.

Receivables from the customers are measured according to amortized cost (gross amount) which are past due but not impaired divided into classes of customers and days past due together with general characteristics

Past due exposures are deemed to be the sum of exposures in respect of customers for which at least one of the Bank's receivables is past due for one day or more. In respect of receivables from clients past due for less than 90 days, no impairment is recognized unless other available information stipulates otherwise.

Gross amounts of receivables from clients measured at amortized cost which were past due but not impaired, analyzed by customer class are presented below.

31-12-2018 Delay in payment	Institutional customers	Individual Client	Total
From 1 to 30 days	25,522	100,838	126,360
From 31 to 60 days	10,394	24,094	34,488
From 61 to 90 days	4,407	5,788	10,195
More than 90 days	· -	-	-
Total	40,323	130,720	171,043

31-12-2017 Delay in payment	Institutional customers	Individual Client	Total
From 1 to 30 days	3,146	116,999	120,145
From 31 to 60 days	2,378	27,592	29,970
From 61 to 90 days	1,333	11,067	12,400
More than 90 days	-	-	-
Total	6,857	155,658	162,515

Receivables from the customers measured at amortized cost with impairment divided into classes of customers together with general characteristics

Receivables from the customers measured at amortized cost with impairment divided into segments of customers.

Specification	31-12-2018	31-12-2017
Receivables from institutional clients	1,306,307	1,246,682
Receivables from individual customers	349,886	292,766
Total	1,656,193	1,539,448

Portfolio of receivables from clients of BOŚ Group (gross amount) break down, according to rating/scoring, by segment of customers:

	Rating*\	31-12-2018	31-12-2017
Receivables from institutional clients	(1-3)	4,123	40,952
	(4-5)	351,254	433,753
	(6-7)	1,225,210	1,292,538
	(8-9)	1,964,472	1,831,151
	(10-11)	2,867,509	2,300,987
	(12-13)	1,396,826	1,960,150
	(14-16)	864,944	821,542
	no rating	223,493	166,097
Gross total of receivables from institutions		8,897,831	8,847,170
Receivables from individual customers	no rating	3,950,096	4,115,312
Total of receivables from individual customers		3,950,096	4,115,312
Total		12,847,927	12,962,482

Rating classes are presented as at the reporting date.

Description of collaterals for credits and loans

The Bank accepted material and personal guarantees as collaterals. The rules for establishing transaction collateral assume that a collateral is adequate to the level of risk generated by the transaction.

The bank favors collateral for loans:

- 1) that enable the reduction of the write-offs,
- 2) that are easily transferable, giving the possibility of acquiring a price covering the Bank's receivables.

When selecting the form of collateral, the Bank verifies the main criteria which decide

- on collateral efficiency, including:
- 1) collateral marketability i.e. the ability to sell the collateral without significant decrease in its price in the period of time that does not cause that the Bank is required to change the value of its collateral due to price fluctuations specific to the given collateral item,
- 2) possible recovery value during the course of possible debt recovery procedure, after considering legal, economic and other restrictions that may affect the real possibility of satisfying the Bank's debt from the collateral.
- 3) access and possibility to control the collateral during the term of the exposure.

The principle applied in the Bank was to establish legal collateral, if it was required, before the initiation of the loan.

The Bank adjusted value of collateral using adjustment ratios established individually for particular types of collateral. As a rule, collaterals are monitored throughout a whole financing period.

Regarding mortgage collateral, the Bank was in compliance with Recommendation S on the maximum LTV levels and the required own contribution.

In the process of monitoring the value of the property the Bank used, among others, the portfolio revaluation using statistical methods.

In the case of real estate collateral, the basis for determining the value of accepted collateral pricing was prepared by a person with the necessary qualifications and experience in the evaluation of the property value.

1 experience regarding valuation of the real property. The Bank verified the valuation, using data inter alia from the AMRON System (Analysis and Monitoring System of Real Estate Transactions) and Cenatorium Database.

^{*\} The ratings are consistent with the internal classification of the Bank, where "1" means the best and "16"

Assets foreclosed

The Bank classifies seized collateral as 'assets foreclosed' and measures it in accordance with the accounting policies specified in the Note 2.18 of the consolidated financial statements.

Prior to the collateral seizure, it is mandatory to create a concept of the management of the collateral seized. The document that depicts the concept of the management includes all information necessary to make a decision about the seizure, including:

- 1) estimated costs of potential surveillance, warehousing, insurance and taxes, etc.;
- 2) information on a potential buyer, negotiated price and payment terms in case of a planned sale of the collateral;
- 3) profitability of the transaction.

In most cases, collateral seized by the Bank has already had a buyer and the sale transaction was profitable for the Bank. In such cases, the debt was reduced by the amount of the collateral sale price, and not the value of the collateral specified by an appraiser (usually, the sale price on sale is lower than the value specified by the appraiser).

One of the forms of debt recovery is sale of receivables. The selling price of receivables depends on, among others, property assets serving as the collateral. Where sale of loans (where debt was collateralized by property assets) is more profitable for the Bank than assets foreclosure with a view of selling them, the Bank enters into sales agreements, which include the underlying collateral.

As at 31 December 2018 and as at 31 December 2017, the Bank did not have foreclosed assets.

The BOS Group's credit exposure to the wind farms

The Group's total exposure to the wind farm funding as at 31 December 2018 amounted to PLN 1,820.7 million.

In 2018, the Group has not granted any new financing in the wind-farms sector.

Relevant risks in terms of the BOS Group's financing of RES

Risks identified by the Group detailed below were allocated to the farm exposure valuation model applied by the Group, due to the level of forecasted energy and green certificate prices and prudential approach to the amount of the real property tax.

The Group assesses the risk of wind farm projects by accepting as an impairment indicator the existence of a potential cash deficit and of negative enterprise assessment for the scenario of potential debt restructuring in the Group-modelled long-term perspective. Valuation of the above-mentioned projects is performed based on the valuation model that allows a simulation of individual cash flows for specific projects by applying requested and modifiable valuation parameters (variable and periodically updated), among which:

- 1) amount of the calculated real property tax
- 2) Project productivity determined on an individual basis for each project, based on breeziness analysis reports (P90/P75) and current breeziness obtained during the period of wind farm operation,
- 3) price paths for the prices of electric energy and green certificates, based on the Bank's internal analysis and the analysis of the reports of the external firms with which the Bank has been cooperating since 2016 (independent experts), the adopted price scenario provides for:
 - a) increase of prices in 2019, compared to 2018, as an expression of the CO2 emission costs increase and of energy production rising costs,
 - b) slight decrease of the upward trend in 2020 compared to the level of prices in 2019,
 - c) further increase of prices within the perspective 2021-2024 by c.a. 1.5-5% on a yearly average basis,
 - d) slowdown of prices from 2025 on a stable level of 2025 prices was adopted for the model in the long term, which is a prudential assumption as compared to the external firms reports,

- e) a stable level of green certificate prices below the current market value,
- 4) the weighted average cost of capital (WACC) adopted for the restructuring scenario at the level of effective interest rate for individual exposures and at the level of 10.9% **for debt recovery scenario**,
- 5) valuation scenarios defining, individually for each project, the probability of regular debt servicing, debt restructuring and debt recovery.

Risk of decline of green certificates' prices

As part of creditworthiness assessment of wind farms, before granting the credit, an assessment of sensitivity of each project to changes of parameters was performed as well, to the changes of parameters related to incomes and costs, especially a decrease of green certificates' prices, whilst conservative scenario of project productivity (P90) was assumed. In order to hedge against the seasonal decrease of revenues, the financed projects would normally be provisioned in the form of Debt Service Reserve Account (DSRA) where funds are accumulated in the amount corresponding to several times a monthly principal and interest instalment. The relevant contractual clauses require that customers supplement funds if provision for repayment of debt is used.

During 2018, a positive trend in growing green certificates' prices was observed. Nevertheless, by applying prudent valuation principle in estimating future cash flows the Group adopted the green certificate price for the forecasted period below the current market value. The Group based on the forecasts of the renowned external advisors.

Risk arising from amendments related to the basis for real property tax calculation

On 29 June 2018, Amendment to the act on renewable energy sources and certain other laws was published. The RES Amendment modifies a definition of the wind farm, according to which, under the Polish construction law, is defined as a building only a built part of the wind farm (foundations, tower), with effect from 01 January 2018. The above-mentioned Amendment provides for a restoration of legal status more beneficial for investors, regarding taxation of wind farms with respect to property tax perceived, applicable before 01 January 2017.

From the other hand, the Amendment did not eliminate doubts related to adequacy of the rules with respect to calculation of real property tax for 2017. This issue will finally be settled by the Supreme Administrative Court, which will solve individual cassations against appeal judgments of the taxpayers. It means that is not excluded materialization of the risk consisting of confirming by the Supreme Administrative Court (SAC) that according to the legal status applicable in 2017, a building with technical tools of the wind farm were taken into account as a tax basis. Such a position of the SAC would confirm existence of risk for a part of clients who should make adjustments to their tax forms for 2017, they should as well pay arrear tax including interests. Taking into account the above, till 31 December 2018 the Group realized a prudential approach as concerns the question of real property tax in the wind farm valuation model for selected projects.

Risk of legal dispute of the Bank's customers with Energa-Obrót S.A.

On 11 September 2017, Energa S.A. published a current report no. 37/2017 in which it informed about its intention to bring an action related to determination of non-existence of legal relations resulting from 22 framework agreements concluded by a related company Energa Obrót S.A. - with electrical energy RES producers, for the withdrawal of property rights resulting from "green certificates", due to forming their content in a manner contrary to the provisions of the Public Procurement Law ("PPL agreements") Consequently, the Management Board of Energa Obrót S.A. decided to stop realization of PPL agreements and to bring an action in competitive courts, for declaration of concluded contracts being absolutely void, against contractors and banks - grantees, due to the contracts concluded for assignment of receivables (resulting) from PPL agreements (which is a credit collateral for a credit granted to realize projects - construction of wind farms).

Actions of Energa - Obrót S.A. taken in September 2017 concerned 8 clients that had obtained credits from the Group; In two cases brought by Energa Obrót S.A. BOŚ S.A and clients acted as defendants, however, once the Bank and clients signed refundable assignment agreements regarding PPL agreements and thus taking into account disappearance of interest in bringing proceedings, Energa withdrew its claims against the Bank.

Currently, BOŚ S.A. does not act directly as co-defendant in any ongoing court litigation. Therefore, the Group does not expect any additional expenses resulting from the disputes run by the clients.

As at 31 December 2018, 6 clients are in court litigations, for the total engagement of the Group amounting to PLN 129.5 million, i.e. 7.1% of the total engagement for exposures linked with the wind farms portfolio. The Group conducts a special monitoring of the economic and financial situation of these clients, and of the court proceedings in progress; the Group stays in current touch with Shareholders and Sponsors of Projects. There are three court disputes settled positively for the Group's Customers, i.e. a dismissal of the Energa Obrót S.A. claim, two dismissals pronounced by the common court (I instance) and the third dismissal by decision of Court of Arbitration (pol: Sąd Arbitrażowy).

Servicing obligations for credits granted by the above mentioned Customers is performed in a timely manner, despite transitional liquidity problems related to the partial abandonment of sale of green certificates during the court disputes or to the possibility to be exposed to increased costs of legal assistance related with disputes. Potential risk not to generate sufficient cashflows for covering capital and interest instalments may be mitigated by using funds gathered on provision accounts of the projects, established by the Group as a standard collateral for financing granted within a *project finance* formula. Depending on individual strategy of conducting the dispute by Sponsors that determine the customer's situation and the level of the cash generated, it is also possible to agree with the Customer to temporarily adapt financing conditions to the current flows generated by the project.

Risk arising from abolition of the obligatory energy (re)purchase

Amendments of RES Act dated 22 June 2016 and of some other Laws, starting from 01 January 2018, limits the obligatory energy purchasing by the obliged seller, produced by the mean of a RES installation for the price published by the Polish Energy Regulatory Authority(Urząd Regulacji Energetyki), exclusively to installations that started their operations before 01 July 2016 and with thermal input lower than 0.5 MW. Abolishment of the repurchase obligation under long-term contracts with the obliged seller, resulted in dependence of the RES producers' revenue on contractual terms of energy sales contracts (PPA), which are concluded with the entity acting in character of an obliged seller or with other companies in the market. This risk was addressed in the valuation model for each exposure by implementing the price paths of the black energy forecasted by the Group in a middle-term and long-term perspective, adopted based on current reports of the renowned external firms.

Another important fact is that the market started to conclude PPA agreements that guarantee prices at least at a one-year perspective. Prices guaranteed in the agreements are higher than the price paths prudentially adopted by the Bank.

Taking into account identified risks related to financing the wind farm portfolio, the Group adopted mitigation measures, by monitoring on a current basis the customers' financial situation and changes in legal and regulatory environments, impacting the operations of RES industry, jointly with the Group's actions, focused on:

- encouraging customers to optimize operating and financial costs incurred by companies, in particular costs of service and maintenance and project management – the majority of customers have already negotiated O&M contracts by achieving considerable cost savings,
- 2) obtaining additional support for projects from Shareholders/Sponsors by recapitalizing companies in the form of: additional allocations to capital, granting subordinated loans, credit repayment, conversion of the existing loans to capital, granting additional surety/guarantee and/or extension of the existing sureties/guarantees granted by Sponsors – the effect of the above actions is among others to ensure the possibility of supplementing funds on debt reserve accounts, assistance in the timely payment of trade liabilities, realization of contractual covenants.
- 3) inserting additional clauses to loan contracts obliging the customers to prepay a debt using the current surplus funds generated by the project (cash sweep),
- 4) introducing the obligation of current sale of property rights accumulated as stocks to improve the current liquidity.
- 5) introducing additional conditions limiting the possibility of distributing the funds to Sponsors,

Impairment losses recognized as at the balance sheet date 31 December 2018 for this portfolio are presented below:

Specification	31-12-2108
Receivables from clients measured at amortized cost	
Receivables from clients without impairment indicator, including:	
Stage 2 - comprising exposures for which significant increase in credit risk since initial recognition has occurred.	1,039,500
Stage 3 - Receivables from clients having evidence of impairment, with no impairment identified due to value of expected cash flows,	603,282
Stage 3 - Receivables from clients having evidence of impairment and with impairment indicator (stage 3)	124,874
Gross total of receivables from clients	1,767,656
Impairment write offs:	
Receivables from clients - Stage 2	-36,867
Receivables from clients - Stage 3	-21,378
receivables from clients - Stage 3	-31,876
Total of impairment losses write offs:	-90,121
Total of receivables from clients measured at amortized cost net	1,677,535
Receivables from clients measured at fair value through the financial result	
Fair value	53,083
Total of receivables from clients measured at fair value through the financial result	53,083
Total of receivables from clients	1,730,618

The Group assesses the risk of wind farm projects by accepting as an impairment indicator the existence of a potential cash deficit and of negative enterprise value for the scenario of potential debt restructuring in the modelled by the Group long-term perspective. Valuation of the above-mentioned projects is performed based on the valuation model that allows simulation of individual cash flows for specific projects by applying requested and modifiable valuation parameters (variable and periodically updated).

The share of the wind farm portfolio in institutional credit segment of the Group amounted (gross) as at 31 December 2018 to 20.5%, which accounted for 14.2% of credits portfolio. In terms of value, the portfolio of wind farms amounted as at 31 December 2018 to PLN 1,820.7 million.

Level of impaired credits coverage as at 31 December 2018 in segment of institutional credits amounts to 48.4%, including 25.5% for the wind farms portfolio.

5.1.4. Debt securities

The tables below present the rating assigned to debt securities, by issuer:

31-12-2018	State Treasury	National Bank of Poland	Public finance	Financial auxiliaries	Corporate	Total
AAA	-	-	-	49,391	-	49,391
Α	3,650,490	-	-	-	-	3,650,490
BBB+	-	-	10,248	-	-	10,248
BB	-	-	-	-	-	-
None	-	1,439,760	241,376	-	2,903	1,684,039
Total	3,650,490	1,439,760	251,624	49,391	2,903	5,394,168

31-12-2017	State Treasury	National Bank of Poland	Public finance	Financial auxiliaries	Corporate	Total
Α	3,508,684	-	-	-	-	3,508,684
BBB+	-	-	20,475	-	-	20,475
BB	-	-	-	-	-	-
None	-	1,599,551	292,865	59,784	3,218	1,955,418
Total	3,508,684	1,599,551	313,340	59,784	3,218	5,484,577

The tables present a unified rating scale, according to the table below. If the issuer has received a rating of more than one agency, the highest one is presented.

Moody's	S&P	Fitch	Unified rating
AAA	AAA	AAA	AAA
A2	Α	Α	Α
A3	A-	A-	A-
Baa1	BBB+	BBB+	BBB+
Ba2	BB	BB	BB
Ba3	BB-	BB-	BB-

In case of municipal bonds, for which an active market does not exist, internal rating system is used using following category:

Rating 5 Very good loan quality

Ratings 6-7 Good loan quality

Ratings 8-9 Acceptable loan quality

Rating 10 Average and poor loan quality

The risk classes for issuers of municipal bonds handled by Bank Ochrony Środowiska S.A. are assigned in accordance with the methodology adopted by the Bank for assessing the creditworthiness of local government units:

	Public finan	ce
Internal rating	31-12-2018	31-12-2017
	12,327	9,526
6	4,975	17,819
7	69,642	92,723
8	159,995	183,801
9	-	9,471
10	4,685	<u>-</u>
Total	251,624	313,340

5.1.5. The structure of the concentration of exposure by industry and geographical area, including exposure risk assessment

Analyzing the share of individual industries in the loan portfolio of the Group as at the 31st of December 2018, it is noticeable that the dominant industry is: "Production and supply of electricity, gas, steam, hot water and air conditioning supply" - 15.0% and "Activity related to real estate services" - 10.1%.

Industry involvement is outlined below.

Industry	Credit risk exposure	Share (%) in the total amount as at 31-12-2018
Production and supply of electric energy, gas, water vapor, hot water and air to air conditioning systems	1,928,142	15.0%
Activities related to real estate services	1,296,577	10.1%
Public administration, national defense: compulsory social security	1,126,393	8.8%
Construction works connected to construction of buildings	705,006	5.5%
Wholesale trading, excluding cars	646,715	5.0%
Accommodation	381,004	3.0%
Financial service activities, excluding insurance and pension funds	225,969	1.8%
Manufacture of chemicals and chemical products	237,872	1.9%
Production of groceries	244,116	1.9%
Manufacture of fabricated metal products, except machinery and equipment	178,283	1.4%
Manufacture of goods using non-metallic mineral products	130,674	1.0%
Production of basic pharmaceutical ingredients and medicines and other pharmaceutical products	125,789	1.0%
Other sectors, including:	5,621,387	43.8%
- Individual clients	3,950,096	30.7%
Gross total of receivables from clients	12,847,927	100.0%
Impairment write offs:	-1,043,433	
Security deposits	5,023	
Other receivables	10	
Net total of receivables from clients	11,809,527	

Industry	Credit risk exposure	Share (%) in the total amount as at 31-12- 2018
Production and supply of electric energy, gas, water vapor, hot water and air to air conditioning systems	2,115,107	16.3%
Public administration, national defense, compulsory - social security	1,430,973	11.0%
Activities related to real estate services	1,227,234	9.5%.
Construction works connected to development of buildings	633 452	4.9%,
Wholesale trading, excluding cars	579,061	4.5%,
Accommodation	288,175	2.2%
Manufacture of chemicals and chemical products	261,241	2.0%,
Activities of head offices (head offices); management consultancy	171,303	1.3%
Manufacture of fabricated metal products, except machinery and equipment	153	1.2%
Production of basic pharmaceutical ingredients and medicines and other pharmaceutical products	142,545	1.1%
Manufacture of goods using non-metallic mineral products	126,2	1.0%
Other sectors, including:	5,834,191	45.0%
- private individuals	4,115,312	31.7%
Gross total of receivables from clients	12,962,482	100%
Impairment write offs	-625,78	
Security deposits	7,062	
Other receivables	9	
Net total of receivables from clients	12,343,773	

5.1.6. Concentration structure by individual entities and capital groups

Exposures, which are equal to or exceeding 10% of the Bank's own funds in relation to one entity, together with entities related by capital or organization as at 31 December 2018, occurred in two cases and totaled PLN 605,070 thousand, which accounted for 25.2% of the Bank's eligible capital.

Exposure to the largest entities or groups of entities related by capital or by organization is presented below: *\ The exposure of the given entity includes gross credit exposures, contingent liabilities i.e. open credit lines and guarantees, debt securities issued by the entity and concluded transactions FX Spot, FX Forward and FX Swap.

	Exposure	31-12-2018
1		316,473
2		288,597
Total		605,070
	Exposure	31-12-2017
1		345,598
2 3		305,719
4 5		270,642
		242,498
		221,346
Total		1,385

Ten clients with the largest exposure:

	Principal + off balance		31-12-2018			
No.	sheet commitments	Equity	Off-balance sheet commitments*\	Share in the Bank's exposure in total		
1	314,020	313,928	92	2.2%		
2	284,826	284,826	-	2.0%		
3	200,742	200,742	-	1.4%		
4	197,871	197,871	-	1.4%		
5	172,487	115,435	57,052	1.2%		
6	150,000	150,000	· -	1.0%		
7	127,268	127,268	-	0.9%		
8	118,669	66,823	51,846	0.8%		
9	112,698	45,049	67,649	0.8%		
10	103,112	103,112	· -	0.7%		

	Dringing Loff halance	31-12-2017			
No.	Principal + off balance sheet commitments	Equity	Off-balance sheet commitments* \	Share in the Bank's exposure in total	
1	338,918	338,826	92	2.3%	
2	301,426	301,426	-	2.0%	
3	226,776	226,776	-	1.5%	
4	221,226	221,226	-	1.5%	
5	214,356	134,411	79,945	1.4%	
6	138,290	138,290	-	0.9%	
7	111,106	111,106	-	0.7%	
8	110,442	61,015	49,427	0.7%	
9	110,073	110,050	23	0.7%	
10	101,622	98,702	2,920	0.7%	

^{*\} The off-balance sheet exposures include the following items: credit lines, guarantees granted, open import letters of credit, accepted losses, accepted export letters of credit and other liabilities granted.

5.1.7. Maximum credit risk exposure

The table below presents the credit exposure arising from the financial assets.

	31-12-2018				
Specification	Gross carrying	Impairment losses write-	Maximum exposure to		
	amount	offs	credit risk		
Receivables from other banks	198,868	-2,764	196,104		
Financial assets held for trading	87,761	-	87,761		
Derivative financial instruments	75,727	-	75,727		
Securities held-for-trading	12,03 4	-	12,034		
Investment securities	5,476,398	-105	5,476,293		
- equity securities measured at the fair value through	85,027	-	85,027		
other comprehensive income					
- debt securities measured at the fair value through	4,015,998	-	4,015,998		
other comprehensive income					
 debt securities measured at the amortized cost 	1,375,373	-105	1,375,268		
Receivables from clients	12,852,960	-1,043,433	11,809,527		
Measurement at amortized cost	12,743,274	-1,043,433	11,699,841		
- receivables from institutional clients	8,796,279	-803,676	7,992,603		
- from individual customers	3,946,995	-239,757	3,707,238		
Measured at the fair value through financial result	104,653	-	104,653		
- receivables from institutional clients	101,552	-	101,552		
- from individual customers	3,101	-	3,101		
Other receivables	5,033	-	5,033		
Other financial assets* \	207,996	-8,807	199,189		

	31-12-2017				
Specification	Gross carrying amount	Impairment losses write- offs	Maximum exposure to credit risk		
Receivables from other banks	375,7 4 8	-	375,748		
Financial assets held for trading	198,065	-	198,065		
Derivative financial instruments	178,424	-	178,424		
Securities held-for-trading	19,641	-	19,641		
Investment securities	5,540,678	-958	5,539,720		
- equity securities available for sale	59,319	-958	58,361		
- debt securities available for sale	4,075,095	-	4,075,095		
 debt securities held to maturity 	1,406,264	-	1,406,264		
Receivables from clients	12,969,553	-625,780	12,343,773		
Measurement at amortized cost	12,962,482	-625,780	12,336,702		
- receivables from institutional clients	8,847,170	- 4 72,371	8,374,799		
- from individual customers	4,115,312	-153,409	3,961,903		
Other receivables	7,071	-	7,071		
Other financial assets* \	303,444	-6,814	296,630		

 $^{*\}$ The item mainly consists of: the cash surplus and the receivables from transactions concluded on financial instruments.

The credit risk exposure of particular contingent liabilities items is as follows:

Specification	Maximum exposure to credit risk 31-12-2018	Maximum exposure to credit risk 31-12-2017
Contingent financial liabilities, of which:	1,477,738	1,672,625
- open credit facilities, of which:	1,461,556	1,635,709
- revocable	1,206,274	1,373,802
- irrevocable	255,282	261,907
- open import letters of credit	14,065	24,880
- commitments to grant loans, of which:	2,117	12,036
- irrevocable	2,117	12,036
Guarantees and pledges	328,933	252,928
Issue underwriting	· -	13,035
Foreign currency and interest rate transactions*\	5,746,956	6,814,306

*\ Items include: in 2018

Currency exchange transactions and currency derivatives transactions in the amount of PLN 821,807 thousand Transactions of interest rate swap amounted to PLN 4,389,149 thousand. Transactions of interest rate secured swap amounted to PLN 536,000 thousand.

*\ Items include: in 2017

Currency exchange transactions and currency derivatives transactions in the amount of PLN 1,533,326 thousand. Transactions of interest rate swap amounted to PLN 4,744,980 thousand. Transactions of interest rate secured swap amounted to PLN 536,000 thousand.

According to the Bank's policies, contingent liabilities are subject to the same collateral requirements and monitoring procedures, as other balance-sheet transactions.

The frequency of monitoring of institutional clients (Corporate sector) depends mainly on the level of credit exposure and economic and financial standing of the client (client's rating). Monitoring of institutional client includes the verification of: 1) client's rating (including verification of chosen external bases),

- 1) capital group rating,
- 2) assessment of the transaction (collateral monitoring, contract terms (covenants) monitoring, and monitoring of investments co-financed by the Bank).

The frequency and scope of monitoring of institutional clients (microenterprises, housing communities) are dependent on the amount of exposure to the particular client. Monitoring of microenterprises, housing communities includes:

- 1) monitoring of events covered by monitoring,
- 2) monitoring of the economic and financial standing.

In case of microenterprises, an additional verification of the client is performed in chosen external bases.

5.1.8. Forbearance practices

forbearance status is assigned to these exposures for which the terms of agreement, liabilities or investments measured at amortized cost were restructured, if this restructuration results from:

- 1) financial difficulties of debtor or issuer or
- 2) if lack of change of the terms of the agreement would lead to cessation of repayment, which would not be granted by BOŚ Bank, if the debtor were not in a difficult financial situation.

In particular, the Bank defines forbearance practices as:

- 1) granting a grace period for repayment of capital and / or side debt,
- 2) reducing capital and / or side debt,
- 3) extending the term of the loan,
- 4) reduction in the interest rate,
- 5) accepting not to execute the agreement while failing to meet the financial forecasts by the borrower,
- 6) permission of BOŚ Group to repay the liability through realization of collateral,
- 7) capitalization of interest,
- 8) change of debtor, acquisition of a debt or debt accession by third parties.

Restructuring constitutes an impairment trigger.

Regarding the individually significant exposures, the event of entering into a forbearance agreement, modifying the terms of the agreement due to financial difficulties of the debtor, results in a necessity to analyze the level of impairment allowances.

Regarding the exposures, which are not individually significant, entering into a forbearance agreement that modifies the terms of the agreement due to financial difficulties of the debtor, results each time in the recognition of impairment allowance.

Reversal of loss (reclassification to a non-default portfolio) is possible after the impairment trigger is no longer present and after the 12-month quarantine period. Restructured transactions with impairment indicator and with finished quarantine period without the impairment indicator being identified and for which impairment is not recognized, are classified in Stage 2. For such exposures the expected losses are recognized over the horizon of the remaining lifetime of exposure.

Restructuring agreements are constantly monitored for fulfilment of contractual obligations included in the agreements.

Exposure is ceased to be classified as forborne (forbearance status is removed), when all the following conditions were met:

- a loan agreement is considered as non-risk, where the exposure was reclassified from the "at risk" category, after performance of debtor's financial standing assessment, which confirmed the enduring improvement of debtor's financial standing,
- 2) at least 24 months have passed (trial period) since the date on which the exposure was identified as "not at risk", during at least a half of which no delays in principal and interest repayment of more than 30 days are identified
- 3) at the end of the trial period, none of the exposures of a given debtor is past due for more than 30 days.

The accounting policies with respect to the financial assets subject to forbearance practices do not differ from the policies used in reference to the other assets of BOŚ Group. BOŚ Group values its loans and receivables at amortized cost using the effective interest rate. In case of renegotiating the terms of the loan, a receivable or an investment measured at amortized cost, due to difficult financial standing of the debtor or issuer, such exposure is valued using the original effective interest rate determined before the change of the terms.

The table below presents exposure of the credit risk of individual forborne transactions (where Forbearance was used).

	Re	eceivables imp	aired	Rece	ivables unim _l	paired
31-12-2018	Values balance	Write-offs for	Maximum exposure	Values balance	Write-offs for	Maximum exposure
	gross	impairment	risk	gross	impairmen t	risk
		of the value	credit		of the value	credit
Receivables from clients, in which:	714,234	-413,236	300,998	71,641	-1,894	69,747
- Receivables from individual customers, in which:	173,183	-109,445	63,738	35,493	-1,414	34,079
- individually assessed *\	58,369	-27,109	31,260	-	_	-
- Receivables from institutional clients, in which:	541,051	-303,791	237,260	36,148	-480	35,668
- individually assessed *\	525,158	-291,508	233,650	-	-	-

	R	eceivables imp	aired	Rece	ivables unim	paired
31-12-2017	Values balance	Write-offs for	Maximum exposure	Values balance	Write-offs for	Maximum exposure
	gross	impairement	risk	gross	impaireme nt	risk
		of the value	credit		of the value	credit
Receivables from clients, in which:	494,215	-203,641	290,574	96,131	-2,108	94,023
- Receivables from individual customers, in which:	159,418	-67,030	92,388	58,124	-1,820	56,304
individually assessed *\	101,086	-40,512	60,574	-	-	-
- Receivables from institutional clients, in which:	334,797	-136,611	198,186	38,007	-288	37,719
- individually assessed *\	328,136	-133,132	195,004	-		

^{*\} Receivables from clients having evidence of impairment, with no impairment identified due to value of expected cash flows, are valued in groups.

5.1.9 Effects of possible regulatory solution of the issue of housing loans expressed in CHF and in other foreign currencies

Currently no harmonized solution was reached at the market concerning housing loans expressed in CHF and other currencies. As at the date of the publication of this report, the final wording of the related regulations is not known, hence it is not possible to determine the final negative impact on the financial results of the entire banking sector and BOŚ Group.

5.2. Techniques of the measurement of the financial risk (in the trading and banking books) and limits

The financial risk in BOŚ Group is concentrated mainly in BOŚ S.A. and in DM BOŚ S.A. and includes:

- 1) liquidity risk;
- 2) interest rate risk (in banking and trading book);
- 3) currency risk (in the banking and trading book).
- 4) Other market risks (risk due to positions in equity instruments and stock price risk).

The liquidity risk and interest rate risk occurs mostly in the Bank, while the currency risk - in DM BOŚ S.A (in the trading and non-trading book) and in the Bank (first of all, in the trading book; the currency risk is transferred from the banking book to the trading book). In DM BOŚ S.A., there is also a risk due to positions in equity instruments and stock price risk in the trading book.

In line with BOŚ Group's strategy, activities in the trading book compensate activities in the banking book. The function of the trading book is to provide the Bank's customers the highest quality services. In order to achieve this, the Bank maintains open positions, within the binding risk limits. According to the definition adopted by BOŚ S.A., trading book contains transactions that were performed on the Bank's own account with the aim of trading, i.e. of gaining financial profits in short-term periods due to real or expected differences between bid and offer prices in the market as well as other deviations of prices or price parities, including especially: interest rates, exchange rates and stock exchange indices. Sale of transactions held in the trading book is not used to maintain liquidity.

Transactions in the banking book represent the core business of the Bank, which means that they result from commercial operations, in which: acquiring sources of financing and efficient management of financial liquidity.

Banking book includes positions, which are not included in the trading book, in particular:

- 1) credits granted, guarantees, advances, term deposits and deposits received,
- 2) transactions, which secure liquidity and interest rate risk of operations included in the banking book,
- 3) purchase of securities with purpose other than trading.

In order to define BOŚ Group's appetite for financial risk, BOŚ S.A. has put in place policies applicable to the management of liquidity risk , interest rate risk in the banking book and market risk. The policy sets, among others, maximum levels of financial risk, according to the risk appetite adopted by the Bank's Supervisory Board.

The level and profile of financial risk is regularly monitored in the Department for Financial and Operational Risk (second line of defense department) and reported to: The Bank's Supervisory Board, Supervisory Board of DM BOŚ S.A., Risk Committee (at the Supervisory Board), Management Board of the Bank, Management Board of DM BOŚ S.A., the Committee of Assets and Liabilities Management (ALCO) and the Liquidity and Market Risk ALCO Committee.

The process of risk management in BOŚ Group is supported by appropriate informatic systems that are systematically modernized, according to the requirements resulting from the management of individual types of risk. The Bank, within its financial risk management system, pays special attention to the data management area. Principles of data quality management are applicable in the Bank. The scope of these principles is adapted to the scale and specificity of the Bank's activities and to the significance defined by the Bank for each data group.

Moreover, BOŚ Group ensures staff resources with relevant preparation (education level, experience, trainings), necessary for an effective management of this risk.

5.2.1. Liquidity risk

The BOŚ Group's purpose of the liquidity management is to maintain the Group's BOŚ ability to finance assets and pay liabilities in a timely manner and to maintain sustainable structure of assets and liabilities, which ensures safe liquidity profile in particular periods of time, split into liquidity in PLN and the main foreign currencies, but mostly - for the total liquidity position. Liquidity risk management strategy is defined in the Liquidity Strategy of BOŚ S.A., approved by the Supervisory Board. The strategy defines the Bank's risk appetite and sets out the main directions and quantitative targets for the selected positions and is an integral part of the Bank's Actions Framework Strategy. Liquidity risk tolerance adjusted to the adopted risk appetite was determined in the liquidity risk management Policy approved by the Supervisory Board and realized through the system of internal limits and warning or monitory values, obligatory in the Bank.

Liquidity in the Bank is considered in the following time horizon: intraday liquidity – up to 1 day, current liquidity – up to 7 days, short-term liquidity – up to one month; medium-term liquidity – from 1 month to 12 months; long-term liquidity – over 12 months.

The primary source of financing for the Bank remains a systematically built, diversified deposit base with a large share of stable deposits from retail customers (supplemented with deposits of corporate customers and public sector) and additionally, loans received from international financial institutions (which, along with long-term bilateral interest swap contracts secured by debt securities and FX Swap transactions, are also a source of funding liquidity in foreign currencies).

Liquid assets (excess liquidity) owned by the Bank, are held mainly in the NBP bills characterized by high liquidity (as at 31 December 2018 representing 45% of the portfolio of liquid unencumbered securities) and Treasury bonds (as at 31 December 2018 - 54%), with low specific risk. The portfolio of these securities is supplemented by cash and deposits held with NBP (above the declared level of reserve requirement) and nostro accounts with other banks, as well as by other bonds with multilateral development banks. Liquid assets are the buffer to protect liquidity in possible emergency situations, i.e. there is a possibility of a lien, liquidation through repo transactions or sales at any time, without significant loss of value. Possibility to sell liquid assets (liquidity risk of the product) is systematically monitored. In these analyses the Bank takes into account primarily the following: size of issue, market turnover and volatility of the price of purchase/ sale.

In accordance with the recommendations of the Polish Financial Supervision Authority and the National Bank of Poland, the Bank has the ability to use additional sources of financing in the form of technical and lombard loan at the NBP, the Bank can as well apply for obtaining a refinancing loan.

Internal capital to cover the liquidity risk, that is considered to be a significant constant risk, is determined in the Bank in accordance with the applicable process of internal capital estimation. This capital is estimated based on the cost of restoring supervisory and internal measures and liquidity limits under the conditions of stress test scenarios.

The Bank determines supervisory measures of liquidity in accordance with the following regulations: Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 and Delegated and Execution Regulations referring to the above-mentioned Regulation with regard to liquidity and Resolution No. 386/2008 of Polish Financial Supervision Authority of 17 December 2008 on setting liquidity standards which are binding for banks.

Currently applicable norms regarding the short-term liquidity include the liquidity coverage requirement - LCR (ratio of liquid assets to net outflows (i.e. difference between net outflows and net inflows) through the period of extreme conditions, it is 30 calendar days). Following the entry into force on 01 January 2018 of the LCR measures at the final level of 100%, measures for coefficients are as follows: M1 (short-term liquidity gap) and M2 (liquidity ratio) ceased to be obligatory. However, for prudential reasons, the Bank still measures and maintains them above the supervisory limits, in force till the end of 2017. Long-term standards

include the following ratios: M3 (illiquid assets coverage by own funds - ratio) and M4 (illiquid assets and those with

limited liquidity coverage by own funds and not-owned fixed funds - ratio) The Bank determines and reports to the Polish Financial Supervision Authority the level of net stable funding ratio (NSFR) and introduced an internal warning value for this ratio at the level of target supervisory limit, i.e. 100%. Moreover, the Bank, in accordance with Commission Implementing Regulation (EU) 2016/313 of 1 March 2016 amending Implementing Regulation (EU) No 680/2014 with regard to additional monitoring metrics for liquidity reporting, implemented and delivered to the National Bank of Poland, as part of its statutory reporting, the ALMM reports. In March 2018, these reports were modified and adopted to new requirements, especially regarding monitoring of maturity mismatches.

In 2018, as in 2017, supervisory liquidity measures i.e. LCR and M3-M4 were determined daily (i.e. every working day), and remained at a safe level, significantly above the regulatory levels. As at 31 December 2018, these measures were as follows:

Measure	31-12-2018	31-12-2017
LCR	132%	134%
M1*\	PLN 1,378 million	PLN 1,449 million
M2*\	1,59	1,50
M3	99.33	71.80**\
M4	1,33	1,31

^{*\} from 01 January 2018, M1 and M2 are not supervisory standards

^{**\}Comparative data for 2017 were adjusted in relation with the adjustment of the opening balance, described in the Note 3.

To measure liquidity and an intraday, current and short-term liquidity risk, the Bank introduced the following measures and tools:

- 1) liquid assets (excess liquidity) they are a buffer for expected and unexpected outflows in a horizon of 30 days;
- 2) liquidity stock measures the level of liquid assets, less the expected, unexpected outflows of liquidity defined in 30 days, including the mark-up on the concentration;
- 3) stability of deposit ratio assessment;
- 4) short-term liquidity gap (PLN, EUR, CHF, USD) shows the level of mismatch in the financing structure in foreign currencies, the gap includes mainly cash flows from derivative and interbank transactions;
- 5) the stress tests (i.e. allowing for the verification of the ability to maintain liquidity as defined in the Bank's term in different scenarios).

In order to measure liquidity and liquidity risk in medium- and long term, Bank sets and monitors:

- 1) the contractual liquidity gap and liquidity gap in real terms (which is supplemented by a systematically carried out analysis: the stability of the deposit base, concentration of the deposit base, the size of prepayment of credits and the level of deposits' withdrawals);
- 2) coverage ratio of long-term assets by long-term liabilities;
- 3) coverage ratio of loans used to finance long-term needs of customers as the most stable sources of funding;
- 4) LCR forecast, liquid assets and long-term liquidity measures (i.a. NSFR).

In 2018, the Bank introduced an intraday liquidity limit - a measure that reflects the level of funds necessary to be maintained on the NBP account, for settlement of the Bank's obligations during the day, in normal and stress situation.

According to Resolution No. 386/2008 of the Polish Financial Supervision Authority, the Bank also performs a deepened analysis of long-term liquidity. The results of performed analyses are used to manage the Bank's liquidity. At the same time, process of preparing short- and long-term financial plans of the Bank includes an assessment of liquidity, to ensure adequate financing structure and compliance with supervisory liquidity measures.

In order to evaluate the effectiveness of the process of managing liquidity risk, for the majority of above-mentioned measures, limits or warning values which are determined within the set of internal limits of liquidity risk. They are hierarchical, which means that they are determined at the level of the Supervisory Board, Management Board and the Committee of Assets and Liabilities Management). The applicable limits and warning values are regularly reviewed in order to allow effective monitoring of liquidity. The limits and warning values set the framework for the tolerance of the Bank's liquidity and are consistent with the adopted by the Bank appetite for risk. Developing an appropriate liquid risk profile is supported by taking into account the cost of liquidity in the Bank's current transfer pricing system.

In its developed analyses of liquidity, the Bank also takes into account the possibility of unfavorable changes in the foreign exchange rates, particularly CHF and EUR, potentially causing an increase in liquidity needs.

In accordance with annexes to the security framework agreements signed with contractors (Credit Support Annex, CSA), Credit Support Annex for Variation Margin (CSA VM) the Bank, in case of adverse market changes (i.e. exchange rates), is obliged to submit additional collaterals; in the case of positive changes - the Bank receives additional collaterals from contractors. This documentation does not include decision changing the amount of the collateral submitted, because of the rating change. This means that reducing the level of creditworthiness does not affect the amount and method of collaterals calculation.

Moreover, the Bank has an action plan approved by the Management Board, for maintaining liquidity in emergency situations, which determines potential sources of deterioration / loss of liquidity, rules of conduct and competences required in emergency situations, in order to estimate the horizon of survival, as well as the possibility and the cost of restoring the stable liquidity condition. Except for scenario analysis of liquidity in emergency situations (the assumptions of which are consistent with the stress tests that were carried out), the plan includes also measurable and immeasurable symptoms leading to emergency situations, allowing for the systematic monitoring of the source of crisis regarding liquidity.

The scenario analysis of liquidity in emergency situations and stress tests include three types of scenarios:

1) internal crisis - its source is a loss of trust to the bank by market participants (a so-called "run on the bank"), a reduced availability of financing, materialization of concentration risk and downgrading of the Bank's rating;

- 2) external crisis assumes materialization of currency risk, rise of interest rates, crisis in financial markets and a possible second-round effects, and;
- 3) mixed crisis combines elements of both, internal and external crisis.

Performed stress tests help to identify some factors that can have, in case of their materialization, an impact on liquidity risk. They also allow to develop measures to be taken in the event of emergencies.

As part of its analyses, the Bank also performs the sensitivity analysis of the Bank's individual factors generating liquidity risk and reversed tests. The plan of action for maintaining liquidity in emergency situations is regularly reviewed and updated, so as to guarantee the operational preparation of the Bank to launch potential actions in the event of a liquidity threat. The scenario analysis of liquidity in emergency situations is prepared in semi-annual mode and stress tests - on a monthly basis. The assumptions adopted for stress tests are regularly reviewed in line with conclusions of the scenario analysis of liquidity in emergency situations. The conclusions of the tests performed are taken into account in the current liquidity management and liquidity risk management, as well as when building the structure of assets and liabilities.

The stress tests performed in the 2018, similarly as in 2017, show a stable liquidity position of the Bank and that its liquid assets (excess liquidity) allow for the survival of the assumed stress test scenarios in which the Bank envisages survival in a defined time horizon.

Measures and tools used by the Bank are regularly reviewed and updated, which allows for a better mapping of liquidity profile. The process of monitoring liquidity and liquidity risk in the Bank is supported by a dedicated information systems (particularly in terms of generating contractual and actualized liquidity gap and reporting supervisory liquidity measures, internal limits and preparing mandatory reporting). At least once a year, the Bank elaborates a review of the Internal Liquidity Adequacy Assessment Process (ILAAP), according to the guideline EBA/GL/2016/10 regarding information on ICAAP and ILAAP, gathered for the purposes of Supervisory Review and Evaluation Process (SREP). This review is to be subject to an opinion performed by the ALCO Committee and to be approved by the Management Board and the Supervisory Board of the Bank.

The results of the analysis of liquidity risk, together with the results of stress tests are presented on a monthly basis in reports prepared for the Management Board and the ALCO Committee and - on a quarterly basis - for the Supervisory Board of the Bank and the Risk Committee (at the Supervisory Board).

In 2018, similarly as in 2017, the BOŚ Group's liquidity situation was systematically monitored and remained at a safe level.

The following tables present liquidity gap in real terms (carrying amounts):

31-12-2018	1M	1-3M	3-6M	6-12M	1-5Y	Over 5Y	Total
Liquidity gap ratio	3.04	1.67	1.19	0.99	0.89	1.00	
							_
Total assets - in which receivables from clients	3,207,946 123,494	439,799 327,446	798,528 611,709	1,353,727 1,273,608	5,646,546 4,752,654	- / / -	18,251,025 11,809,527

Total receivables 1,053,574 1,135,355 1,551,055 2,147,690 6,909 539 5,453,812 18,251,025 In which liabilities to 905 1,132,973 1,361,549 2,061,765 6,459,509 2,964,408 14,799,109 customers

Cash flow derivatives (gross settlement)

Summary of maturities of derivative instruments according to the contractual terms as at 31 December 2018 and as at 31 December 2017 are presented in the following tables (not discounted values):

31-12-2018	1M	1-3M	3-6M	6-12M	Over 1Y	Total
Inflows, in which:	332,956	284,156	179,952	105,940	146,808	1,049,812
FX forward	29,730	48,753	26,073	1,290	-	105,846
FX Spot	129,786	-	-	-	-	129,786
FX Swap	168,978	226,690	133,185	57,323	-	586,176
IRS	4,462	8,713	20,694	47,327	146,808	228,004

Outflows, of which:	332,770	272,791	178,661	103,295	145,689	1,033,206
FX forward	29,613	48,491	26,121	1,321	-	105,546
FX Spot	129,753	-	-	-	-	129,753
FX Swap	168,221	214,526	133,581	57,249	-	573,577
IRS	5,183	9,774	18,959	44,725	145,689	224,330

31-12-2017	1 M	1-3M	3-6M	6-12M	Over 1Y	Total
Inflows, in which:	418,401	303,672	454,283	306,665	377,715	1,860,736
FX forward	43,025	94,684	114,402	35,008	-	287,119
FX Spot	173,950	-	-	-	-	173,950
FX Swap	189,472	196,302	318,063	219,946	148,473	1,072,256
IRS	11,954	12,686	21,818	51,711	229,242	327,411
Outflows, of which:	393,381	285,481	430,292	299,616	348,706	1,757,476
FX forward	42,227	95,371	120,336	35,951	-	293,885
FX Spot	173,938	-	-	-	-	173,938
FX Swap	165,424	178,417	288,340	214,380	124,852	971,413
IRS	11,792	11,693	21,616	49,285	223,854	318,240

31-12-2018	1M	1-3M	3-6M	6-12M	Over 1Y	Total
Inflows, in which:	137	43,442	8,213	208,390	-	260,182
Futures	137	12,798	320	539	-	13,794
Forward contracts	-	30,644	7,893	440	-	38,977
CFD	-	-	-	207,411	-	207,411
Outflows, of which:	-	52,684	8,373	237,035	-	298,092
Futures	-	21,358	8,060	549	-	29,967
Forward contracts	-	31,326	313	601	-	32,240
CFD	-	-	-	235,885	-	235,885

31-12-2017	1M	1-3M	3-6M	6-12M	Over 1Y	Total
Inflows, in which:	29	839	43	22,430	-	23,341
Futures	29	671	43	1	-	744
Forward contracts	-	168	-	-	-	168
CFD	-	-	-	22,429	-	22,429
Outflows, of which:	30	415	58	433	-	936
Futures	-	128	5	6	-	139
Forward contracts	30	287	53	-	-	370
CFD	-	-	-	427	-	427

5.2.2. Interest rate risk

Interest rate risk is a possible negative influence of the interest rates changes on forecasted financial result as well as on the economic value of equity and the current value of BOŚ Group's owned debt securities. Interest rate risk is mostly generated in the Bank, both in the banking book and trading book. Interest rate risk in the trading book is composed of the general risk and the specific risk of debt instruments.

The main purpose of interest rate risk management in the banking book is to seek stabilization and optimization of net interest income ('NII') while limiting the negative influence of market interest rate changes on economic value of equity ('EVE').

To achieve this, the Bank uses two tools: investment portfolio held and derivative transactions performed under hedge accounting. Investment portfolio, built in the banking book, should help to, among others, secure net interest income generated in Bank's equity and to secure core deposits in current account insensitive to variations of interest rate. On the other hand, this portfolio results in volatility of revaluation reserve.

The Bank uses fair value hedging. Its aim is to hedge the fair value of State Treasury fixed-rate bonds which represent a part of the portfolio of bonds within the model H2C&S (Held to Collect or Sale). The IRS hedging transactions carried out limit the capital fluctuations relating to changes in interest rates.

Monitoring of interest rate risk in the banking book is supported by a dedicated IT system, by means of which the Bank sets/performs in particular:

- 1) the repricing gap that represents values of assets, liabilities and balance items sensitive to the exchange rates changes in periods of maturity or of revaluation;
- 2) simulation of interest result dynamic analysis, reflecting WO projection in pre-set time intervals, based on assumed scenarios of Bank's development and assumptions regarding market factors' development;
- 3) simulation of the current value (net present value, NPV), representing discounted values, according to the present market parameters, for all cash flows; NPV analyses are the basis for setting the measures BPV and WEK;

- 4) various price shocks underlying the basis risk, which aim to assess the impact the diversified change of rates on products on the interest result. These products' rating is based on different basis rates;
- 5) The yield curve risk analysis, which aim is to assess the impact of non-parallel changes of the yield curve on the economic value of equity;
- 6) the risk of client options' analysis, which aims at assessing the impact of options realized by clients and embedded in interest products on the financial result of the bank;
- 7) stress tests including reversed tests, which aim is to determine total changes of market factors will result in a determined impact on the measurement of the interest rate risk in the banking book;
- 8) internal capital level to the interest rate risk in the banking book.

In order to control the interest rate risk in the Bank's banking book, the Bank applies two measures: net interest income sensitivity (N/I) to interest rate change by +/- 100 b.p. and economic value of equity sensitivity (EVE) to interest rate change by +/- 200 b.p. The comparison of these measures as at 31 December 2017 and as at 31 December 2018 is presented in the table below.

T KDI N	EVE		NII	
In KPLN	-200 b.p	+200 b.p	-100 b.p	+100 b.p
31-12-2018	19,631	-58,542	-50,171	36,338
31-12-2017	412	-42,416	-51,577	37,916
Change	19,22	-16,126	1,406	-1,578

In 2018, as in 2017, the above measures were within the limits/ warning limits.

The asymmetrical impact of interest rates fluctuations on NII and EVE results from the characteristics of interest rates for individual items sensitive to interest rates fluctuations, including, among others, limiting the increase in interest rates of credits (to the amount of doubled statutory interest) and restrictions of decrease in individual sources of finance to 0 level, with negative market interest rates.

In 2018, as in 2017, the risk of customer options, base risk and the risk of yield curve remained at a safe level.

The purpose of the interest rate risk management in the trading book is to achieve financial performance, which is assumed in the financial plan for this area, with an acceptable Bank's exposure to this risk and minimizing its negative effects on instruments sensitive to interest rate fluctuations held in the trading book.

In order to monitor the interest rate risk in the trading book, BOŚ S.A. applies:

- 1) the Value at Risk model (VaR) calculated with the confidence level of 99% based on daily volatility of interest rates from the last 250 working days that precede the analysis date,
- 2) BPV (i.e. sensitivity of securities and derivatives generating interest rate risk, in case of the interest rate fluctuation by \pm 1 b.p.),
- 3) a system of limits,
- 4) stress tests.

In 2018 there were no significant changes in techniques of measuring interest rate risk in the trading book.

The value of interest rate VaR in the trading book and the impact of the stress test - parallel shift of IRS and BOND yield curves by \pm 200 b.p. on the Bank's result on an annual basis, was as follows (provided are the following: the maximum, minimum and average values, and the value at the reporting date):

10-day		aR	NII	Stress tests ±20	0 b.p.
In KPLN	average	min	max	as at the date	as at the date
31-12-					
2018	361	1,082	41	351	-1,911
31-12-					
2017	460	1,103	46	273	-8,630

In order to verify the VaR model, the Bank performs a monthly back-testing calculated by comparing maximum losses arising from the model to actual gains and losses and theoretical performance fluctuations arising from revaluation of items. The results of back-testing on a monthly basis are presented in the reports prepared by the management.

The system of limits for interest rate risk in the trading book includes:

- 1) limit of the 10-day VaR,
- 2) BPV limit for instruments generating interest rate risk in the trading book applicable both through the day and at the end of the day, separately for debt securities items and IRSs, and jointly for these two instruments,
- 3) maximum, two-day loss and continuous monthly loss limits on assets in the trading portfolio.

Calculation and monitoring of the level of individual limits utilization is performed as per the balance of each working day, and with respect to the BPV limits – also during the day, and systematically reported to the management.

On a monthly basis, the Bank performs a stress-test analysis by examining the development of the interest rate risk level in the banking and trading books in case of materialization of extreme changes in risk factors.

In the banking book, the influence due to extremely unfavorable changes is primarily examined with regard to:

- 1) interest rates on:
 - a) net interest result (NII),
 - b) economic value of equity (EVE),
 - c) portfolio in the banking book: securities under hedge accounting, debt securities, IRS and FX swap transactions:
 - scenarios of parallel shifts in interest rate curves by ±100 b.p.: ±500 b.p.,
 - scenarios of flattening, bending and steep running of interest rate curves,
 - of exchange rates on the net interest income (NII) and economic value of equity (EVE) the scenarios of exchange rates fluctuations by $\pm 5\%$, $\pm 10\%$ and $\pm 25\%$,
- 2) interest rates and exchange rates, jointly on NII and EVE the scenarios of total fluctuations in exchange rates of ±10% and ±25% and in interest rates of ±100 b.p. (for NII), ±200 b.p. (for EVE) and ±500 b.p.

In trading book, an impact of extreme situations is tested regarding: changes in market interest rates on Bank's result and volatility in interest rates during the 250-working-day period or correlation between the volatilities of interest rates on VaR results using both the historical and parametric methods.

For the purpose of stress tests, the following scenarios are applied by the Bank:

- 1) historical:
 - a) the parallel shift of interest rate curves (including fat tails and spread),
 - b) the bending of the interest rate curves,
 - c) change in the slope of the interest rate curves,
- 2) parametric:
 - a) the parallel shift of interest rate curves,
 - b) increase in the volatility of interest rates,
 - c) extremely adverse change in the correlation of the interest rates.

Stress test scenarios are also performed under the assumption of changes in market liquidity and inability to close the position.

The results of this analysis show that where extremely unfavorable market conditions and increased Bank's positions in the instruments sensitive to the interest rate risk occur, the activities of the Bank in the banking portfolio remain at a safe level.

The results of interest rate risk monitoring in the banking and in the trading books, along with the results of performed stress tests, are presented in the reports prepared for the Management Board and the ALCO on a monthly basis, and - on a quarterly basis - for the Supervisory Board of the Bank and the Risk Committee.

In addition, results of the interest rate risk analysis in the trading book in the form of daily reports are provided to the Members of the Bank's Management Board and ALCO and are presented on a weekly basis in reports prepared for the Liquidity and Market Risk Committee.

Derivative financial instruments

The tables below contain the breakdown of derivatives on the basis of underlying instruments - in order to demonstrate their sensitivity to changes in interest rates (nominal values):

31-12-2018	1M	1-3M	3-6M	6-12M	Over 1Y	Total
Assets						
FX forward	29,730	48,753	26,073	1,290	-	105,846
FX Spot	129,786	-	-	-	-	129,786
FX Swap	168,978	226,690	133,185	57,323	-	586,176
IRS	976,080	862,594	1,022,426	263,882	1,800,166	4,925,148
Futures	-	176	65	-	-	241
Forward contracts	-	209	8	2	-	219
CFD	-	-	-	8,567	-	8,567
Total	1,304,574	1,138,422	1,181,757	331,064	1,800,166	5,755,983
Liabilities						
FX forward	29,613	48,491	26,121	1,321	-	105,546
FX Spot	129,753	-	-	-	-	129,753
FX Swap	168,221	214,526	133,581	57,249	-	573,577
IRS	231,331	958,773	1,129,726	269,989	2,335,329	4,925,148
Futures	-	64	8	-	-	72
Forward contracts	-	300	16	4	-	320
CFD	-	-	-	350	-	350
Total	558,918	1,222,154	1,289,452	328,913	2,335,329	5,734,766
Balance	745,656	-83,732	-107,695	2,151	-535,163	

31-12-2017	1M	1-3M	3-6M	6-12M	Over 1Y	Total
Assets						
FX forward	43,025	94,684	114,402	35,008	-	287,119
FX Spot	173,950	-	-	-	-	173,950
FX Swap	189,472	196,302	318,063	219,946	148,473	1,072,256
IRS	1,588,695	1,061,288	544,182	204,604	1,889,001	5,287,770
Futures	1,242	103,668	420	97	-	105,427
Forward contracts	-	4,315	-	-	-	4,315
CFD	-	-	-	388,396	-	388,396
Total	1,996,384	1,460,257	977,067	848,051	2,037,474	7,319,233
Liabilities						
FX forward	42,227	95,371	120,336	35,951	-	293,885
FX Spot	173,938	-	-	-	-	173,938
FX Swap	165,424	178,417	288,340	214,380	124,852	971,413
IRS	1,020,116	970,219	448,682	257,171	2,591,581	5,287,769
Futures	4	8,666	189	147	-	9,006
Forward contracts	1,176	12,990	542	-	-	14,708
CFD	-	-	-	449,399	-	449,399
Total	1,402,885	1,265,663	858,089	957,048	2,716,433	7,200,118
Balance	593,499	194,594	118,978	-108,997	-678,959	

5.2.3. Currency risk

Currency risk is an asset impairment losses risk, liabilities level increase risk or a change in the Group BOŚ S.A. financial result risk, as a result of sensitivity to fluctuations in exchange rates. The risk is generated mainly in DM BOŚ S.A. (in the trading and non-trading book) and in the Bank (most of all, in the trading book).

The Bank's purpose to manage currency risk in the banking book is not to maintain open individual items. Currency exposures resulting from activities carried out in the banking book are systematically transferred to the trading book on the same day or at the latest – on the next working day.

Main currency items of the Bank are: PLN, USD, EUR and CHF.

Currency risk in DM BOŚ S.A. in non-trading portfolio results from depositing cash in foreign currencies in foreign brokers accounts who enter into transactions of purchase and sale of financial instruments on foreign stock markets at the request of DM BOŚ S.A. clients. Currency risk in the trading book also implicates items connected with business conducted by DM BOŚ S.A. in the Czech Republic branch, which are not items within a trading portfolio. DM BOŚ S.A. has, in its non-trading portfolio, open currencies positions: USD, EUR, CZK and currency risk in this portfolio is managed within the limit of the overall currency position for trading and non-trading books jointly.

Currency position resulting from the activity of the Bank in the banking book that was not transferred the given day to the trading book, is submitted to the control with limits for open currency items in the banking book, at the end of the day.

Currency risk in the trading book is generated in DM BOŚ S.A as well as in the Bank. Currency risk in the trading book concerned mainly DM BOŚ S.A, to a less extent the Bank. Net open currency position in the trading book of DM BOŚ S.A. arises from services for clients within the scope of derivative instruments trading and services performed on regulated market.

The Group has a unified system of currency risk management, calculated separately for the Bank and DM BOŚ S.A.

In order to monitor currency risk on open foreign currency positions in the trading book (balance sheet and off-balance sheet ones) similarly as in the case of interest rate risk in the trading book, the following methods are applied:

- 1) the Value at Risk model (VaR) calculated with the confidence level of 99% based on daily volatility of exchange rates from the last 250 working days that precede the analysis date,
- 2) a system of limits,
- 3) stress tests analysis.

The value of foreign exchange VaR in the trading book of the Bank, DM BOŚ S.A. and BOŚ Group and the impact of the stress test scenario - decrease of all currency rates against PLN by 30% - on the BOŚ Group's result on an annual basis was as follows (provided are the following: the maximum, minimum and average values, and at the reporting date):

			10-day VaR			Stress tests
(Ab d 6						for the Group BOŚ
(thousands of PLN)	Bank			DM	BOŚ GROUP	increase/decrease in exchange rates by 30%
	average	max	min as at the date	as at the date	as at the date	as at the date
31-12-2018	184	820	6.35	1,657	1,672	-19,421
31-12-2017	167	640	6.20	3,120	3,098	-23,821

To verify the value at risk model, the Bank performs monthly back-testing analyses by comparing the maximum losses set using the VaR model with actual gains and losses and with theoretical fluctuations of the result arising from the positions' revaluation. The results of back-testing on a monthly basis are presented in the reports prepared by the management.

The system of limits concerning currency risk in the trading book includes:

- 1) limit of the 10-day VaR,
- 2) limits of the amounts of total and individual positions in main foreign currencies (applicable both through the day and at the end of the day),
- 3) limits of the daily and continuous monthly loss due to foreign exchange transactions.

Limits utilization control is performed every working day and with respect to the limits for the overall position and individual position for the main currencies of the Bank also during the day. As part of value limits for foreign exchange positions, additional limits for the client transaction handling are also monitored in the Bank during the day. Information on the level of utilization of limits is regularly reported to the management of BOŚ S.A.

Analyses show that the BOŚ Group's currency risk during the audited period remained at the moderate level.

Stress tests analysis is performed by the Bank on a monthly basis and it covers formation of currency risk level in the event of materialization of extreme changes in risk factors. The Bank tests mainly the impact of extremely unfavorable changes in the exchange rates against PLN and cross currency pairs EUR/ USD and EUR/CHF on foreign exchange result and changes in exchange rates volatility during the 250-working-day period and correlation between the volatility of exchange rates on the level of VaR, using both historical and parametric methods.

For the purpose of stress tests, the following scenarios are applied by the Bank:

- 1) historical:
 - a) historical increase/decrease in exchange rates against PLN (including fat tails),
 - b) increase/decrease in exchange rates of cross currency pairs EUR/CHF and EUR/USD.
- 2) parametric:
 - a) increase/decrease in exchange rates against PLN by 30%,
 - b) increase in exchange rates volatility,
 - c) extremely adverse change in exchange rates correlation.

Stress test scenarios are also performed under the assumption of changes in market liquidity and inability to close the position.

The results of the stress tests analysis show that in case of extremely unfavorable market conditions and increased exposure, the activities of the Bank in the field of currency risk remain at the safe level.

The results of the analysis of the interest rate risk in the trading book in the form of daily reports are provided to the Members of the Bank's Management Board and ALCO and are presented on a weekly basis in reports prepared for the Liquidity and Market Risk Committee, on a monthly basis in reports prepared for the Bank's Management Board and ALCO and on a quarterly basis - for the Supervisory Board of the Bank and Risk Committee.

Open foreign exchange positions as at 31 December 2018 and as at 31 December 2017 are presented in the tables below:

Currency risk (net carrying amounts)

31-12-2018	PLN	EUR	USD	CHF	Other	Total
Assets						
Cash and balances with the Central Bank	174,856	9,894	768	605	613	186,736
Receivables from other banks Securities held-for- trading	19,117 12,035	94,546 -	36,140 -	1,599 -	44,702 -	196,104 12,034
Derivative financial instruments Investment securities, in which:	67,741	2,297	4,890	-	798 -	75,727
- measured at the fair value through other comprehensive	5 476 136 4	136,1	21			5 476 293 4
income - measured at the amortized cost	100 868 1	36	21			101 025 1
	375 268					375 268
Receivables from clients Other assets*\	9,050,026 486,728	1,542,715 2,500	227,185 3,464	989,601 1,082	- 830	11,809,527 494,604
Total assets	15,286,639	1,652,088	272,468	992,887	46,943	18,251,025

 $^{*\}$ the item includes the following: intangible assets, property, plant and equipment, income tax assets and other assets

Off-balance sheet items that cr currency position	eate the	317,712	240,122	20,802	61,922	
Liabilities						
Amounts due to the Central Bank and to other Banks	2,413	44,161	11,580	513,630	-	571,784
Derivative financial instruments	53,775	244	253	-	64	54,336
Derivative hedging instruments	18,298	-	-	-	-	18,298
Amounts due to customers	12,954,524	1,606,332	154,191	45,123	38,939	14,799,109
Liabilities related to the issue	46,590	-	-	· -	-	46,590
of bank securities						-
Subordinated debt	370,672	-	-	-	-	370,672
Provisions	35,262	276	235	-	-	35,773
Other liabilities	188,406	19,889	7,811	-	791	216,897
Total liabilities	13,669,940	1,670,902	174,070	558,753	39,794	16,113,459
Off-balance sheet items that cr	eate the	219,420	335,170	448,198	81,606	
currency position						
Net balance sheet position		-18,814	98,398	434,134	7,149	
Net off-balance sheet position		97,752	-95,048	-427,396	-19,684	
Open currency position of BOŚ	Group	78,938	3,350	6,738	-12,536	

31-12-2017	PLN	EUR	USD	CHF	Other	Total
Assets						
Cash and balances with the Central Bank	469,255	161,744	985	359	429	632,772
Receivables from other banks	18,779	39,132	121,929	2,526	193,382	375,748
Securities held-for-trading	19,641	-	-	-	-	19,641
Derivative financial instruments	163,415	1,295	11,774	-	1,940	178,424
Derivative hedging instruments	4,722	-	-	-	-	4,722
Investment securities	5,539,570	132	18	-	-	5,539,720
 available for sale 	4,133,306	132	18	-	-	4,133,456
 held to maturity 	1,406,264	-	-	-	-	1,406,264
Receivables from clients	9,732,832	1,393,802	184,606	1,032,533	-	12,343,773
Other assets*\	567,047	5,740	7,533	810	790	581,920
Total assets	16,515,261	1,601,845	326,845	1,036,228	196,541	19,676,720

 $^{*\}$ the item includes the following: intangible assets, property, plant and equipment, income tax assets and other assets

Off-balance sheet items that create the currency position	ie	561,709	462,554	169,893	65,909	
Liabilities						
Amounts due to the Central Bank and to other Banks	10,689	68,886	87,318	312,641	-	479,534
Derivative financial instruments	66,999	372	736	-	131	68,238
Derivative hedging instruments	20,571	-	-	-	-	20,571
Amounts due to customers	13,436,521	1,667,207	183,874	23,398	152,833	15,463,833
Liabilities related to the issue of bank securities	829,980	-	-	-	-	829,980
Subordinated debt	595,692	_	-	-	-	595,692
Provisions	24,978	145	12	-	-	25,135
Other liabilities	274,049	8,342	15,403	-	43,106	340,900
Total liabilities	15,259,479	1,744,952	287,343	336,039	196,070	17,823,883
Off-balance sheet items that create the currency position	ie	372,508	557,336	867,075	130,433	
Net balance sheet position		-143,107	39,502	700,189	471	
Net off-balance sheet position		189,201	-94,782	-697,182	-64,524	
Open currency position of BOŚ Group		46,094	-55,280	3,007	-64.05	

Off-balance sheet foreign exchange position results in particular from concluded fx swap transactions that are used by the Bank to cover the liquidity mismatch in foreign currencies.

5.2.4. Other market risks

Other market risks are a general risk and separate risks regarding prices of capital instruments, as well as the risk of commodities prices. These risks result from the impact of changes in prices of capital instruments and of commodities on the assets impairment losses risk, and liabilities level increase risk or a change in the Bank's financial result risk.

These risks occur mainly in the activity of DM BOŚ S.A. in the trading books.

Transactions on capital instruments carried out in DM BOŚ S.A. account relate to the activity of DM BOŚ S.A. as market animator and in majority of cases they are closed at the end of day. Significant engagement in capital instruments is only noted in hedged transactions opened by DM BOŚ S.A (arbitrage transactions), including those within short selling. Hedged (arbitrage) transactions consist of using a temporary price imbalances between the two markets (i.e. between prices of derivative financial instruments and prices of underlying instruments). This risk is limited by total exposure limits for hedged (arbitrage transactions) and unhedged transactions. Monitoring of these limits is performed on the daily basis.

The risk of commodities' prices occurs mainly within the OTC market, for transactions with customers of DM BOŚ S.A. and hedging transactions with Saxo Bank A/S, X-Trade Brokers Dom Maklerski S.A. or Interactive Brokers (UK) Ltd.

5.3. Capital management

For capital adequacy purposes, BOŚ Group decided to apply transitional arrangements during the transitional period to mitigate the impact of IFRS 9 introduction on own funds based on Article 1 (9) of the Regulation (EU) 2017/2395 of the European Parliament and the Council dated 12 December 2017 (Regulation) amending Regulation (EU) No 575/2013 of 26 June 2013 on prudential requirements for credit institutions and investment firms, hereinafter the CRR. In addition, it was decided not to the apply Article 1 (4) of the Regulation (EU) 2395/2017.

Due to the decision on the use of transitional provisions, BOŚ Group discloses its own funds, capital ratios and leverage ratio, both using and not using the transitional arrangements resulting from Article 473a of the CRR Regulation.

The levels of capitals, risk-weighted asset, capital ratios, leverage ratio and internal capital in BOŚ Group, are presented below:

Own funds and capital requirements amounts were determined according to the CRROKU Regulation

Specification	31.12.2018 31.	12.2017
Available capital		
Tier I core capital Tier I core capital - without transitional provisions of IFRS 9	2,094,575 1,985,965	1,690,551
Tier I capital Tier 1 capital - without transitional provisions of IFRS 9	2,094,575 1,985,965	1,690,551
Own funds Own funds- without transitional provisions of IFRS 9	2,453,560 2,344,951	2,170,074
Risk-weighted assets		
Total amount of risk-weighted assets - credit risk and counterparty credit risk - Operational risk - Market risk - CVA Risk Total amount of risk-weighted assets - without transitional provisions of IFRS 9 capital ratios	13,671,845 12,423,510 996,100 231,851 20,384 13,559,014	14,458,688 13,159,814 913,126 342,744 43,004
Tier I core capital ratio Tier I core capital ratio - without transitional provisions of IFRS 9	15.32 14.65	11.69
Tier I capital ratio Tier I capital ratio - without transitional provisions of IFRS 9 Total capital ratio Total capital ratio - without transitional provisions of IFRS 9 Leverage ratio	15.32 14.65 17.95 17.29	11.69 - 15.01 -
The value of exposure Leverage ratio Leverage ratio - without transitional provisions of IFRS 9 Internal capital	19,439,206 10.8 10.3	20,791,872 8.2 -
Internal capital	1,414,652	1,518,452

In order to minimize the risk of the decrease of capital ratio, BOŚ Group monitors the range and the structure of the Group's operations and factors that may have an result in the decrease of the Group's own funds.

On a quarterly basis BOŚ Group calculates internal capital in order to cover:

- 1) Pillar I risks:
- for credit risk based on an internal model basing on unexpected credit losses and regulatory requirements,
- for specific types of risk within the market risk and for operating risk based on the regulatory requirements,
- 2) Pillar II risk with respect to the risks, the level of which has been assessed as significant.

In accordance with Article 92 of CRR, the Group is required to maintain the capital ratio at a minimum level of 8%. Tier I capital ratio should amount to at least 6% and Tier I core capital ratio should amount at least to 4.5%.

According to the CRR Resolution, and the Law of 5 August 2015 on macro-prudential oversight of the financial system and crisis management of the financial system, financial institutions are required to maintain additional capital buffers for capital ratios. From 01 January 2018, a safety buffer has been increased by 0.625 p.p. as at 31 December 2018 it amounts to 1.875 p.p. (On 01 January 2019, it achieved its target level of 2.5 p.p.) an obligatory system risk buffer amounts to 3 p.p. and anticyclic buffer 0 p.p. Bank Ochrony Środowiska S.A. is not required to have the buffer of another institution, with systemic importance.

On 29 November 2018, the Polish Financial Supervision Authority recommended maintaining by the BOŚ Group its own funds to cover additional capital requirements to hedge against the risk arising from foreign currency mortgage credits and loans for households at the level of 0.50 p.p. above the TCR ratio referred to in Article 92 (1) letter c) of the CRR Regulation, which should be composed of, at least, 75% of the Tier I capital (which corresponds to the capital requirement at the level of 0.37 p.p. above the value of Tier I core capital which corresponds to the capital requirement at the level of 0.28 p.p. above the value of Tier I core capital ratio referred to in Article 92 (1) letter a) of the CRR Regulation).

As a result, on 31 December 2018 the minimal capital ratio recommended by the Commission for the BOŚ Group , compared to 31 December 2017, decreased to the levels of: 11.245% for the Tier I capital ratio and 13.375% for the total capital ratio TCR.

The capital adequacy ratio of the BOŚ Group as at 31 December 2018 was above the levels recommended by the Polish Financial Supervision Authority, both with application of IFRS 9 transitional solutions and without them.

5.4. Operational risk

Operational risk is defined as a risk related to the loss resulting from inadequate or failed internal processes, people and systems, or from external events, including also legal risk, taking into account operational risk events characterized by low frequency but huge losses; operational risk does not cover the reputation risk and strategic risk.

The Bank applies the operational risk management system where the responsibility for the current management of operational risk is borne by all the employees of the Bank, and particular by managers of operational units/headquarters offices and Branches of the Bank - in line with the scope of responsibility and duties.

Information on significant operational risk events are collected in the Bank in the operational risk event base, in the dedicated IT application. This information is used to:

- 1) monitor the level of operational risk on a current basis,
- 2) monitor the actions of organizational units in connection with the events occurred,
- 3) assess or estimate losses arising from the operational risk,
- 4) generate reports concerning the operational risk events having occurred, including reports for the needs of external institutions.

The Banks sets basic limits for operational risk, in particular the operational risk tolerance limit and operational risk appetite for the entire Bank, and the target operational risk profile. The level of using the adopted operational risk tolerance and appetite is controlled through periodic monitoring of the amounts of losses incurred due to the operational risk events.

The measurement of operational risk level is made using quantitative, qualitative and mixed method, including by:

- 1) calculation of operational risk capital requirements according to the standardized approach,
- 2) calculation and monitoring of key risk indicator (KRI),
- 3) review of operational risk (self-assessment of potential operational risk),
- 4) conducting stress tests.

Stress tests for operational risk are conducted in the Bank using three methods:

- 1) sensitivity analysis,
- 2) inverse analysis,
- 3) scenario analysis.

Stress tests are conducted once a year. As a results of stress tests conducted to date, the value of losses adopted in the scenarios confronted with the value of available capital in the form of operational risk tolerance limit and capital requirement confirmed the ability to absorb losses due to the operational risk by limits set for this risk.

In order to limit exposure to operational risk the Bank applies the following instruments (methods, techniques and tools):

- organization of work ensuring the limitation of operational risk by, among others, separation of executive functions from controlling, setting limits concerning the decision-making or effecting operations in the Bank, managing the rights of access to rooms and systems in order to limit the possibility of actions by unauthorized persons,
- 2) internal control,
- 3) strategic internal limits for operational risk, i.e. tolerance limit and appetite,
- 4) HR policy,
- 5) periodic reviews of operational risk based on self-assessment process,
- 6) risk maps built to identify the sources of potential threats and assessment of related risk level,
- 7) operational risk stress testing,
- 8) thresholds of key risk indicators (KRI),
- 9) clauses limiting the operational risk in the agreements with external entities,
- 10) insurance of bank property with specialized firms,

- 11) documenting the methodic, process, organizational and IT solutions applied by the Bank,
- 12)automation of activities following the use of IT solutions and increasing the quality of activities by the use of specialized software,
- 13) continuity plans and contingency plans developed for the critical business processes of the Bank,
- 14)analysis of the adequacy of operational risk capital requirements to the actual operational risk faced by the Bank,
- 15)internal training for the Bank's employees aimed at raising their awareness and understanding the role, impact and ways of conduct with respect to operational risk.

The level and profile of operational risk, the level of the use of operational risk limits and amount of losses arising from the operational risk events are regularly monitored in the Department for Financial and Operational Risk and reported to: The Supervisory Board, the Management Board and the Operational Risk Committee.

The Bank analyses information on operational risk within BOŚ Group, assesses the materiality of subsidiaries in terms of generating operational risk, gives opinion on related internal regulations of the subsidiaries and provides recommendations concerning the systemic management of operational risk.

5.5. Non-compliance risk

The non-compliance risk is defined as a risk of effects of failure to comply with laws, internal regulations and market standards.

The Bank ensures compliance of its operations with laws, internal regulations and market standards through control function (applying control mechanisms and monitoring of compliance with these mechanisms) and non-compliance risk management that comprises identification, assessment, control and monitoring of the non-compliance risk and reporting about these matters to the Management Board and Supervisory Board.

Basic principles in order to ensure compliance in the Bank as part of control and non-compliance risk management process have been defined in the Compliance Policy of Bank Ochrony Środowiska S.A., elaborated by the Management Board and approved by the Supervisory Board, as well as in the executive acts to this policy, including the following:

- 1) Principles regarding non-compliance risk management in the Bank Ochrony Środowiska S.A.,
- 2) Principles of carrying out internal control in Bank Ochrony Środowiska S.A.

The Bank has a separate and independent compliance unit that reports directly to the President of the Bank's Management Board which is responsible for fulfillment of duties within control function and for organization of the non-compliance risk management process.

Goals of non-compliance risk management in the Bank:

- identification, assessment and control of the possibility of negative effects resulting from non-compliance with laws, internal regulations and market standards, in particular including legal sanctions, financial losses or loss of reputation which might be the consequence of non-compliance with laws, internal regulations and market standards,
- 2) strengthening the Bank's image as of an institution that acts in accordance with law, honest, reliable, environmentally friendly, reliable and business responsible.

The Bank distinguishes the following key areas to ensure compliance:

- 1) preventing any activity non-compliant with the law in the Bank, including counteracting of money laundering and financing of terrorism,
- 2) information protection,
- 3) implementation of and monitoring the compliance with ethical standards,
- 4) accepting or giving benefits and gifts,
- 5) carrying out advertising and marketing activities,
- 6) offering products,
- 7) customer complaints,
- 8) managing conflicts of interest.

In 2017 the Bank implemented changes in non-compliance risk management and in internal control, resulting from Regulation of the Minister for Development and Finance of 06 March 2017 on the risk management system and internal control system, remuneration policy and detailed method of estimating internal capital in banks and Resolution No. 141/2017 of the Polish Financial Supervision Authority of 25 April 2017 on issuing Recommendation H concerning internal control system in banks.

In 2018, changes introduced in the Bank concerned the following areas:

- 1) internal control system introduction of additional, independent vertical monitoring forms and adjusting to the current organization structure of the Bank,
- 2) anti-money laundering and counteracting terrorism financing system and procedure of anonymous reporting on legal provisions' infringements, as well as internal procedures and ethical standards applicable in the Bank. These measures are imposed by implementation of the Act of 01 March 2018 on counteracting money laundering and terrorist financing.

In 2018, no events that would significantly affect the level of non-compliance risk were noted, the Bank focused its operations on preventing the risk of non-compliance.

Taking into account the information campaign initiated in 2017 by PFSA and the National Bank of Poland regarding the risks related to investing in cryptocurrencies and for the sake of clients' and transactions' security, in 2018 the Bank continued actions already taken in this area, i.a. not to conclude bank account contracts with entities trading in virtual "currency". Existing contracts were terminated and remaining customers were subject to specific monitoring.

5.6. Model risk

Model risk is defined in the Bank in accordance with the supervisory requirements as a potential loss which may be incurred as a result of decision based on data obtained in the internal model application processes due to errors related to the development, implementation or application of such models (point 11 of Article 3 (1) of CRD IV).

The process of model risk identification, assessment and monitoring covers areas related to:

- 1) risk of using incorrect and incomplete data,
- 2) risk of erroneous assumptions of models which are inadequate to the estimated process,
- 3) methodological risks resulting from the use of inappropriate estimation methodologies and techniques in the model construction process,
- 4) risk of insufficient monitoring, validation and update of models, also the risk of applying an incorrectly implemented but correct model.

Due to the widespread use of models supporting basic processes in BOŚ S.A. such as: credit process, capital management processes, credit risk and market risk management processes, the risk of models is considered in the Bank as a constant risk.

Model risk is managed in the Bank in line with internal regulations, for instance principles of estimation and allocation of internal capital, model risk management policy and significant model validation methodologies. Actions in this area are coordinated by a independent unit of the Model Validation Office, reporting directly to the Vice-President of the Bank coordinating the performance of Risk Area tasks at the organizational level and the Operating Risk Management within the Financial and Operational Risk Department.

In order to identify the risk in the Bank quickly and precisely, there is a standardized, complex model management process in the Bank that comprises:

- 1) model life cycle,
- 2) principles of giving significance assessment to models in place in the Bank,
- 3) principles of operation of model logs model logs contain information regarding the models in place, sets of their parameters, changes introduced to models, their updates and reviews conducted. These logs form an information base concerning significance of models, monitoring results, validation and levels of risks implied by the models,
- 4) standards and principles of model risk monitoring and reporting in case of significant models the assessment of quality of the monitoring is made on a quarterly basis, for other models on an annual basis. Reporting is compiled on a quarterly basis, its results are presented in

the report "Banking Risk". Moreover, an annual evaluation of the Policy's realization approved by the Bank's Supervisory Board 5) Principles of model validation - validation of models is made by the independent Model Validation Office at least once a year for significant models. Other models are validated as part of the *ad hoc* validation at the request of the Management Board, the relevant Committee or the model owner.

As at 31 December 2018 there are 8 significant models in the Bank, out of 26 models in operation (including 4 non-production models).

Risks related to the Bank's models are evaluated on a periodic basis, in accordance with the standards adopted in the Bank's internal regulations, considering the calculation of internal capital related to the Bank's hedging against the model risk. Reporting to the Management Board concerning the status of actions in the area of model management and their validation comprises the model risk assessment, tolerance level and related level of capital allocated to the model risk. Reports on validation for significant models are presented and approved during the Meeting of the appropriate Risk Committee's meetings.

The aggregated assessment of significant model risk is at moderate level, no significant models generate risk at high level.

Model risk management within BOŚ Group is performed based on internal regulations concerning the model management policy. The policy defines the principles according to which the processes related to estimation, verification and management of the level of model risk take place. It imposes regulations on matters related to construction, verification, implementation, validation and monitoring of models applied in the Group.

6. Net interest income

Specification				01-01-2018 31-12-2018	01.01.2017 31-12-2017
Interest income and similar income from:	Financial assets measured at amortized cost	Assets measured at the fair value through other comprehensive income	Financial assets carried compulsorily at the fair value through profit or loss	Total	Total
Receivables from banks and the Central Bank	4,256	-	-	4,256	934
Receivables from institutional clients	349,069	-	3,939	353,008	378,287
Receivables from individual customers	132,449	-	61	132,51	150,044
Debt investment securities not held for trading	31,103	106,889	-	137,992	-
Financial instruments available for sale	-	-	-	-	84,196
Financial instruments held to maturity	-	-	-	-	41,446
Financial instruments held for trading	-	_	538	538	8,634
Total	516,877	106,889	4,538	628,304	663,541

Specification			01-01-2018 31-12-2018	01.01.2017 31-12-2017
Interest expense and similar charges relating to:	Financial liabilities measured at amortized cost	Financial liabilities measured at amortized cost through profit or loss	Total	Total
Bank accounts and deposits from banks Bank accounts and	1,328	-	1,328	1,605
deposits of institutional clients Bank accounts and	55,395	-	55,395	57,973
deposits of individual clients	138,495	-	138,495	160,623
Loans and advances from banks	320	-	320	189
Loans and advances from customers	1,135	-	1,135	1,359
Funds resources intended for lending (JESSICA)	0,418	-	0,418	755
Financial instruments - issued own debt securities	37,394	-	37,394	47,417
Hedging transactions	-	9,684	9,684	9,602
Other	20	-	20	
Total	234,505	9,684	244,189	279,523

7. Net fee and commission income

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Fee and commission revenue		
Fees of brokerage services	62,504	72,694
Fees for maintaining customer accounts and other domestic and international settlement transactions	39,648	39,578
Commissions on loans	27,740	27,255
Commissions on guarantees and letters of credits	4,636	3,988
Fees related to the portfolio management and other fees related to the management	497	708
Other fees	2	241
Total	135,027	144,464
Fee and commission expense		
Fees related to brokerage activity, in which:	21,859	22,850
- fiduciary services	1,849	1,922
Payment cards fees	7,456	6,529
Current account	2,198	1,291
Fees for services rendered by Euronet	1,225	1,225
Commissions for receivables from customers	858	601
Commissions paid to other banks for cash		
transactions	277	460
Other fees	3,260	2,453
Total	37,133	35,409

8. Dividend income

Specification	01.01.2018 31.12.2018	01.01.2017 31.12.2017
Securities held for trading measured at the fair value	137	-
through profit or loss		
Securities held-for-trading	-	237
Securities measured at the fair value through other	5,932	-
comprehensive income		
Securities available for sale	-	5,498
Total	6,069	5,735

9. Result on financial instruments measured at their fair value through the financial result

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Securities held-for-trading	-11,946	-8,094
Derivative financial instruments	57,699	73,806
Receivables from the customers	16,837	-
Total	62,59	65,712

10. Result on investment securities

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Result on sale of securities measured at the fair value through other comprehensive income	2,166	-
Result on investment securities available for sale	0	6,788
Total	2,166	6,788

11. Result on hedge accounting

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Result on fair value measurement of transactions hedging fair value	-2,366	6,689
Result on measurement of treasury bonds subject to fair value hedge accounting in the part subject to hedging	0	0
Total	3,679	-4,093

12. Foreign exchange result

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Realized result on valuation operations	20,959	22,528
Non-realized result on valuation operations	0	0
Total	3,292	685

13. Other operating revenues

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Release of provisions for liabilities, of which:	3,649	2,745
- provisions for liabilities and claims	2,581	531
- other provisions	1,068	2,214
Revaluation of fixed assets	2,804	2,465
Income from recoveries prescribed, remitted	2	2
and uncollectible		
Income from sale or liquidation of fixed	140	129
assets, intangible assets		
Revenues from recovery of collection costs	537	544
Sale of goods and services	6,739	5,871
Interest adjustment to terminated deposits	448	443
from previous years		
Income with respect to compensation,	43	236
penalties and fines		
Income from release of write-offs on	1,927	13
receivables		
Other	6,849	4,614
Total	23,138	17,062

14. Other operating expenses

Specification	01.01.2018	01.01.2017
Specification	31.12.2018	31.12.2017
Liquidation of property, plant and equipment, and intangible assets	375	783
Donations made	1,146	1,531
Provisioning for liabilities and claims	2,578	3,215
Write-offs on receivables	1,896	2,368
Costs of debt collection	7,181	3,269
Interest and commissions adjustment on loans from previous years	1,107	6,396
Costs of lease payments	-	1,325
Costs of maintenance or administration of own premises	360	608
rented		
Costs of compensation, penalties and fines	771	941
Costs of incorrect brokerage transactions	-	277
Other	6,262	3,221
Total	21,676	23,934

15. Net impairment losses

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Securities measured at the fair value through		
other comprehensive income	333	-
Securities measured at amortized cost	-105	-
Receivables from banks	-2,764	-
Receivables from clients and off-balance liabilities, in which:	-131,554	-137,832
- balance sheet receivables	-137,952	-130,186
- from individual customers	-45,894	-11,549
- receivables from institutional clients	-92,058	-118,637
Off-balance sheet liabilities:	6,398	-7,6 4 6
- from individual customers	326	-46
- receivables from institutional clients	6,072	-7,600
Total	-134,090	-137,832

Impairment losses write offs for receivables from clients:

Specification	01-01-2018 31-12-2018	01-01-2017 31-12-2017
Individual assessment	-117,418	-146,940
Group assessment	-20,534	16,754
Total	-137,952	-130,186

16. General administrative expenses

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Employee benefits	161,269	170,58
administrative expenses, in which:	156,191	168,161
- material expenses	115,6	120,948
- taxes and fees	5,518	5,156
- contribution and payments to the BGF	32,394	40,052
- contribution and payments to the PFSA	2,271	1,597
- contribution to cover operating costs of the Financial Ombudsman	106	109
- contribution to the Chamber of Brokerage Houses (Izba Domów Maklerskich, IDM)	91	91
- other	211	208
Amortization/ depreciation, of which:	39,783	41,964
- depreciation of fixed assets	14,24	14,091
- amortization of intangible assets	25,543	27,873
Total	357,243	380,705

17. Employee benefits

Specification	01-01-2018 31-12-2018	01-01-2017 31-12-2017
Remunerations, in which:	136,740	143,383
- retirement compensation	742	297
Social insurance contributions	24,529	27,197
Total	161,269	170,580

BOŚ Group does not finance retirement benefits based on programs for the chosen benefits except retirement benefits defined in the Statutes

18. Tax expenses

Specification	01-01-2018 31-12-2018	01.01.2017 31-12-2017
Current tax	-30,783	-36,100
Deferred tax*\	5,984	10,454
Total	-24,799	-25,646
Gross profit	88,923	71,708
Income tax at 19% tax rate	-16,820	-13,625
Permanent differences between profit before tax and tax base:	-7,979	-12,020
- decreasing:	2,336	3,282
released impairment allowance	631	1, 4 88
dividends received	1,101	1,090
Other	604	704
- increasing	-10,445	-15,592
recognition of impairment allowance	-2,327	-6,394
contributions to the BGF	-6,144	-
Other	-1,974	-9,198
Deduction from taxable income	130	290
Donations	130	290
Tax charges of the current year result	-24,799	-25,645
Total tax charges	-24,799	-25,645
Effective tax rate	28%	36%

^{*\} further details regarding deferred income tax are presented in the Note 34

19. Earnings per share

Basic earnings per share are calculated as profit/loss of the Bank's shareholders divided by the weighted average number of ordinary shares during the year.

Wyszczególnienie	01-01-2018 31-12-2018	01-01-2017 31-12-2017
Net profit/loss	63,728	46,062
Weighted average number of ordinary shares (in		
thousands) Basic earnings Basic loss (expressed in PLN,	77,831	62,835
groszy)		
The diluted earnings per share are equal to the basic earnings per share in the presented periods.	0,82	0,73

20. Cash and balances with the Central Bank

Wyszczególnienie	31-12-2018	31-12-2017
Cash in hand	29,569	28,626
Cash and balances with the Central Bank	157,167	604,146
Total	186,736	632,772

21. Receivables from other banks

Receivables from other banks by maturity are presented in note 25. Change in the gross carrying value of receivables from other banks:

Specification	Gross value				
Specification	Stage 1	Stage 2	Stage 3	POCI	TOTAL
At the beginning of the period 01-01-2018	356,478	-	-	-	356,478
Change of gross value resulting from acquisition of financial assets	65,358	-	-	-	65,358
Change of gross value for the existing portfolio	- 95,021	-	-	-	- 95,021
Change of gross value resulting from derecognition of the financial asset	- 147,217	-	-	-	- 147,217
including: change in gross value resulting from financial instruments that were written-off from the financial statements	-	-	-	-	-
Change of gross value resulting from reclassification of the financial asset to another Stage	-	-	-	-	-
Transfer to Stage 1	-	-	-	-	-
Transfer to Stage 2	-	-	-	-	-
Transfer to Stage 3	-	-	-	-	-
Other changes	-	-	-	-	-
At the end of the period 31-12-2018	198,868	-	-	-	198,868

22. Financial assets and liabilities held-for-trading

Assets	31.12.2018	31.12.2017
Derivative financial instruments, of which:	75,727	178,424
 currency exchange transactions and currency derivatives transactions 	15,494	93,125
- transactions using interest rate derivatives	51,206	61,958
- futures and options	9,027	23,341
Securities held-for-trading	12,034	19,641
- debt securities	2,903	3,218
- equity securities	9,131	16,423

Financial assets held-for-trading in total

87,761 198,065

Liabilities	31.12.2018	31.12.2017
Derivative financial instruments, of which:	54,336	68,238
- currency exchange transactions and currency derivatives transactions	5,546	12,919
- Interest rate derivatives transactions	48,049	54,383
- Futures and options	741	936
Financial liabilities held-for-trading in total	54,336	68,238

Financial assets and liabilities held for trading by maturity dates are presented in note 25.

23. Receivables from clients

			31-12-2017			
Specification		Impairment losses write-offs	Receivables from clients	Receivables from clients	Impairme nt losses write-offs	Receivables from clients
	gross	of the value	net	gross		net
Valuation	12,743,274	1,043,433	11,699,841	12,962,482	625,780	12,336,702
at amortized cost						
Receivables from individual customers	3,946,995	239,757	3,707,238	4,115,312	153,409	3,961,903
credits on current account	1,765	1,271	494	1,383	739	644
cash loans	335,927	60,252	275,675	331,277	38,776	292,501
mortgage loans	3,205,780	134,999	3,070,781	3,313,929	81,795	3,232,134
other credits and loans	403,523	43,235	360,288	468,723	32,099	436,624
Receivables from	8,796,279	803,676	7,992,603	8,847,170	472,371	8,374,799
institutional clients	FF0 226	100 530	440.006	444.654	66.054	245 600
Revolving loans	558,336	108,530	449,806	411,651	66,051	345,600
term credits and loans factoring receivables	7,450,853 412,687	677,853 9,927	6,773,000 402,760	7,909,305	400,567	7,508,738 367,373
leasing receivables	61,162	5,628	55,534	372,446 70,304	5,073	70,304
purchased receivables	69,595	804	68,791	83,464	680	82,784
commercial securities	243,646	934	242,712	-	-	02,707
Measurement at fair value through financial result	2.070.0	30.	104,653			nd
Receivables from individual customers			3,101			nd
credits on current account			-			
mortgage credits and loans			904			
other credits and loans			2,197			
Receivables from institutional clients			101,552			nd
Revolving loans			181			
term credits and loans			101,371			
Total			11,804,494			12,336,702
Security deposits			5,023			7,062
Other receivables			10			9
Total of receivables from clien	ts		11,809,527			12,343,773

Receivables from customers by maturity are presented in note 25.

Receivables from customers include preferential loans with subsidies for interest on loans from NFEPWM and WFOŚGW, which in the presented periods amount to (nominal value):

Specification	31-12-2018	31-12-2017
Preferential loans with subsidies, in which:	187,238	246,557
- measurement at amortized cost	142,117	nd
- measured at the fair value through profit or		
loss	45,121	nd

Change in the gross carrying value for receivables from customers:

Specification	Receivables fro	om individua	l customers	s - aross	value	Receivables f	rom instituti	onal clients -	gross valı	ie	
	Stage 1	Stage 2	Stage 3		Total	Stage 1	Stage 2	Stage 3	POCI	Total	Total
At the end of the period 31-12-	3,650,332	167,030	297,950	-	4,115,312	4,842,822	1,542,438	2,468,958	-	8,854,218	12,969,530
2017 (according to IAS 39) Gross carrying amount - change of definition Reclassification of exposures to those measured	-	-	34,053	-	34,053	-	-	147,284	-	147,284	181,337
- measured at the fair value through profit or loss financial	-4,680	-44	-5,500	-	-10,224	-55,975	-771	-73,992	-	-130,738	-140,962
At the beginning of the period 01-01-2018	3,645,652	166,986	326,503	-	4,139,141	4,786,847	1,541,667	2,542,250	-	8,870,764	13,009,905
Change of gross value resulting from acquisition of financial assets	196,887	190	-	-	197,077	1,131,378	31,982	-	-	1,163,360	1,360,437
Change of gross value for the existing portfolio Change of gross value resulting from	-200,605	-7,269	13,007	-	-194,867	-68,863	-197,772	-92,400	-	-359,035	-553,902
derecognition of the financial asset financial	-165,620	-5,105	-23,400	-	-194,125	-590,839	-197,345	-88,420	-	-876,604	-1,070,729
including: change in gross value											
value resulting from financial instruments that were written-off from the statement of financial position	-	-	-18,071	-	-18,071	-	-	-47,229	-	-47,229	-65,300
Change of gross value resulting from											
transfers of the financial asset to another Stage	-42,895	6,540	36,355	-	-	-400,907	685,851	-284,944	-	-	-
Reclassification to Stage 1	21,356	-20,829	-527	-	-	243,817	-228,843	-14,974	-	-	-
Reclassification to Stage 2	-40,034	59,606	-19,572	-	-	-510,995	1,090,180	-579,185	-	-	-
Reclassification to Stage 3	-24,217	-32,237	56,454	-	-	-133,729	-175,486	309,215	-	-	
Other adjustments	-213	-17	-1	-	-231	895	-2,598	-503	-	-2,206	-2,437
At the end of the period 31-12-2018	3,433,206	161,325	352,464	-	3,946,995	4,858,511	1,861,785	2,075,983	-	8,796,279	12,743,274

Specification	Write-offs on re	eceivables from inc	dividual customers		Write-offs	on receival	oles from ins	stitution	nal clients	
	Stage 1	Stage 2	Stage 3 POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total	Total
At the end of the period 31-12-	6,278	6,778	140,353 -	153,409	16,229	17,240	438,902	-	472,371	625,780
2017 (according to IAS 39) Impairment adjustment (Gross carrying amount - change of definition) Reclassification of exposures to	-	-	34,053 -	34,053	-	-	147,284	-	147,284	181,337
those measured at fair value those measured through financial result	-14	-	-5,497	-5,511	-40	-4	-20,789	-	-20,833	-26,344
Adjustment in value of impairment losses										
as at 31 December 2017, resulting from introduction of IFRS 9	8,440	2,508	5,104	16,052	26,238	70,459	26,905	-	123,602	139,654
At the beginning of the period	14,704	9,286	174,013 -	198,003	42,427	87,695	592,302	-	722,424	920,427
01-01-2018 Change of write-offs resulting from acquisition of financial assets	4,092	16		4,108	16,636	1,052	-	-	17,688	21,796
Change in write-offs' measurement Change of write-offs resulting from	-6,818	-2,630	68,344 -	58,896	-14,492	16,862	130,413	-	132,783	191,679
derecognition of the financial asset financial asset	-1,474	-215	-19,561	-21,250	-6,325	-7,432	-55,464	-	-69,221	-90,471
change of write-offs resulting from										
financial instruments that were written-off from the statement of financial position	-	-	-18,072	-18,072	-	-	-47,229	-	-47,229	-65,301
Change of write-offs resulting from										
transfers of the financial asset to another Stage	827	605	-1,432-	-	9,329	2,282	-11,611	-	-	-
Reclassification to Stage 1	1,292	-1,121	-171-	-	20,182	-19,774	-408	-	-	-
Reclassification to Stage 2	-254 211	6,300	-6,046-	-	-8,494	31,390	-22,896	-	-	-
Reclassification to Stage 3 Other adjustments	-211 -3	-4,574 3	4,785 	-	-2,359 109	-9,334 -108	11,693 1	-	- 2	2
At the end of the period 31-12-2018	11,328	7,065	221,364 -	239,757	47,684	100,351	655,641	-	803,676	1,043,433

Specification	Credits granted to retail customers	Credits granted to institutional customers	Total
At the beginning of the period 01-01-2017	204,724	358,369	563,093
Increase in impairment allowances	122,245	312,753	434,998
Decrease in impairment allowances	-113,310	-191,502	-304,812
Written-off credits during the year as uncollectible, including:	-60,506	-6,857	-67,363
- Receivables sold to securitization funds	-57,724	-6,461	-64,185
Other increases / decreases	256	-392	-136
At the end of the period 31-12-2017	153,409	472,371	625,780

24. Investment securities

	31-12-20	018		31-12-2017						
Specification	Measured at fair value through other comprehensive income	Measured at amortized cost	Total	available for sale	Held to maturity	Total				
Debt securities	4,015,998	1,375,268	5,391,266	4,075,095	1,406,264	5,481,359				
State Treasury bonds	2,324,613	1,325,877	3,650,490	2,102,420	1,406,264	3,508,684				
NBP money bills - recorded as cash equivalents	1,439,760	-	1,439,760	1,599,551	-	1,599,551				
local authorities bonds	251,625	-	251,625	313,34	-	313,34				
 bonds from other financial institutions 	-	49,391	49,391	59,784	-	59,784				
Equity securities	85,027	-	85,027	58,361	-	58,361				
– quoted	18,543	-	18,543	23,194	-	23,194				
- non-quoted	66,484	-	66,484	35,167	-	35,167				
Total	4,101,025	1,375,268	5,476,293	4,133,456	1,406,264	5,539,720				

Investment securities by maturity dates are presented in note 25.

Change in the gross carrying value of investment securities:

Specification	Debt securities measured at fair value through other comprehensive income	Debt serurities measured at amortized cost	Debt securities measured at the fair value through financial result	Equity securities measured at fair value through other comprehensive income	Total
At the end of the period 31.12.2017 (according to IAS 39)	4,097,862	1,406,264	-	35,593	5,539,720
Impact of IFRS 9 implementation	316,285	-282,583	-	-364	33,339
At the beginning of the period 01-01-2018	4,414,147	1,123,682	-	35,229	5,573,058
Increase (due to purchase)	94,612,364	251,453	6,440,503	21,732	101,326,053
Increase (due to) capitalization of interest, discounts, bonuses	146,846	51,706	382	-	198,934
Valuation Increase of the value	149,953	1,157	3,124	33,273	187,507
Decrease due to sale and purchase	95 017 807	3,726	6,440,503	-	101,462,036
Decrease (due to) realized interests, bonuses	142,997	48,063	382	-	191,443
Valuation Increase of the value	146,415	836	3,124	5,207	155,582
Other adjustments	94	-	-	-	94
At the end of the period 31.12.2018	4,015,998	1,375,374	-	85,027	5,476,398

Investment securities used as hedging:

	31.12	.2018	31.12.2017		
Wyszczególnienie	Measured at fair value through other comprehensive income	Measured at amortized cost	Available for sale	Held to maturity	
Hedging of loan agreements receivables from banks and from Financial International Organizations	790,201	424,309	698,712	643,531	
- up to 1 year	-	-	4,07	-	
- above 1 year	790,201	424,309	694,642	643,531	
Security of the fund for protection of the guaranteed sums	41,678	35,806		90,84	
- up to 1 year	36,615	-	-	-	
- above 1 year	5,063	35,806	-	90,84	
Security of liabilities in the form of contributions to the Guarantee Fund	4,05	7,73	-	5,765	
- above 1 year	4,050	7,73	-	5,765	
gross Security of liabilities in the form of contributions to the Resolution Fund	6,075	8,694	-	8,647	
- above 1 year	6,075	8,694	-	8,647	
securing REPO transactions	286,975	320,429	406,833	-	
- above 1 year	286,975	320,429	406,833	-	
Total	1,128,979	796,968	1,105,545	748,783	

25. Financial assets by maturity dates

31.12.2018	: up to 1 month	- Above 1 month up to 3 months	- Above 3 months up to 6 months	- Above 6 months up to 12 months	Above 1 year up to 5 years	over 5 years	with undefined maturity date	Total
Receivables from other banks (note 21)	183,794	-	75	-	-	12,235	-	196,104
Securities held-for-trading (note 22)	12,034	-	-	-	-	-	-	12,034
Receivables from clients (note 23)	225,671	318,209	569,520	1,436,295	3,915,546	5,344,286	-	11,809,527
Securities measured at the fair value through other comprehensive income (note 24)	1,439,760	763	216,486	214,766	1,540,720	603,503	85,27	4,101,025
Securities measured at amortized cost (note 24)	-	-	-	-	212,59	1,162,683	-	1,375,268
Total	1,861,259	318,972	786,081	1,651,061	5,668,851	7,122,707	85,027	17,493,958

31.12.2017	: up to 1 month	- Above 1 month up to 3 months	- Above 3 months up to 6 months	- Above 6 months up to 12 months	Above 1 year up to 5 years	over 5 years	with undefined maturity date	Total
Receivables from other banks (note 21)	360,673	-	75	-	-	15,000	-	375,75
Securities held for trading (Note 22)	-	16,376	-	3,265	-	-	-	19,64
Receivables from clients (note 23)	343,391	150,238	509,922	1,394,246	4,244,552	5,701,424	-	12,343,773
Investment securities available for sale (note 24)	1,657,548	641	21,288	351,166	1,503,411	541,423	57,98	4,133,456
Investment securities held to maturity (note 24)	-	-	-	-	554,68	851,589	-	1,406,264
Total	2,361,612	167,255	531,285	1,748,677	6,302,638	7,109,436	57,98	18,278,882

26. Intangible assets

Specification	31-12-2018	31-12-2017
Goodwill	973	973
Licenses and software, in which:	96,788	102,892
- internally developed software	1,149	1,340
Assets under development	22,222	17,392
Other	67	71
Total	120,050	121,328

Fully depreciated intangible assets still in use: 31-12-2018 98,511

31-12-2017 89,722

The goodwill is due to the acquisition of the brokerage enterprise Elimar by DM BOŚ.

As at 31 December 2018 there are no indicators for impairment losses, as indicated below.

As at 31 December 2018, BOŚ Group performed tests for impairment. Fundamental elements of these tests are as follows:

- 1) The forecast of future cash flows for a 5-year period, based on:
 - a) historical data reflecting the potential for CGU to generate cash flows,
 - b) projections of the balance sheet as well as profit and loss in the forecasting period,
 - c) assumptions contained in the budget of Dom Maklerski,
 - d) analysis of reasons for differences between past cash flow projections and actual cash flows received.
- 3) A growth rate after the period of cash flow projections at the level of 3%.
- 4) Cost of capital of 10.5%, taking into account the risk free rate (2.5%), the risk premium (7%), the premium related to the lack of direct support of international financial institution (1%).

The present value of future cash flows is compared to the carrying value (as at the date of the test) of goodwill and net assets of the CGU (PLN 742 thousand).

Based on the review of the outlays incurred for intangible assets under construction, no impairment indicators were noted as at 31 December 2018 and 31 December 2017.

Specification	Goodwill	Software license	Other	Assets under development	Total
As at 01-01-2018					
Gross carrying amount	973	303,228	86	17,392	321,679
Amortization	-	-200,336	-15	-	-200,351
Net carrying value	973	102,892	71	17,392	121,328
Period ending 31-12-2018					
Net carrying value at the beginning of the year	973	102,892	71	17,392	121,328
Increase (due to):	-	19,435	-	23,255	42,69
- purchase	-	2,141	-	23,255	25,396
- reclassification from investments	-	17,294	-	-	17,294
Decrease (due to):	-	-	-	-18,425	-18,425
- liquidation/sale	-	-	-	-	-
- reclassification from investments	-	-	-	-18,425	-18,425
Depreciation charge	-	-25,539	-4	-	-25,543

Net carrying value as at 31- 12-2018	973	96,788	67	22,222	120,05
As at 31-12-2018					
Gross carrying amount	973	322,663	86	22,222	345,944
Amortization	-	-225,875	-19	-	-225,894
Net carrying value as at 31.12.2018	973	96,788	67	22,222	120,05

Specification	Goodwill	Software license	Other	Assets under development	Total
As at 01-01-2017					
Gross carrying amount	983	297,792	86	6,075	304,936
Amortization	-	-173,616	-10	-	-173,626
Net carrying value	983	124,176	76	6,075	131,31
Period ending 31-12-2017					
Net carrying value at the beginning of the year	983	124,176	76	6,075	131,31
Increase (due to):	-	6,583	-	15,542	22,125
- purchase	-	2,432	-	15,541	17,973
- reclassification from investments	-	4,151	-	1	4,152
Decrease (due to):	-10	-1,147	-	-4,225	-5,382
- liquidation/sale	-10	-1,147	-	-74	-1,231
- reclassification from investments	-	-	-	-4,151	-4,151
Depreciation charge	-	-27,867	-5	-	-27,872
Write-off of accumulated depreciation	-	1,147	-	-	1,147
Net carrying value as at 31- 12-2017	973	102,892	71	17,392	121,328
As at 31-12-2017					
Gross carrying amount	973	303,228	86	17,392	321,679
Amortization	-	-200,336	-15		-200,351
Net carrying value as at 31.12.2017	973	102,892	71	17,392	121,328

27. Property, plant and equipment

Specification	31-12-2018	31-12-2017
Fixed assets, of which:	67,076	70,613
- land	203	203
- buildings and premises	18,793	19,514
- leasehold improvements	25,866	24,808
- computer equipment and technical equipment	19,922	22,482
- vehicles	265	377
- other fixed assets	2,027	3,229
Fixed assets under construction	1,320	2,107
Total	68,396	72,720

As at 31 December 2018, assets withdrawn from active use and intended for sale amounted to PLN 69 thousand. There were no temporarily unused assets with significant carrying amount.

As at 31 December 2017, assets withdrawn from active use and intended for sale amounted to PLN 86 thousand. There were no temporarily unused assets with significant carrying amount.

Specification	Land and buildings	Leasehold improvements	Plant and machinery, vehicles and others	Fixed assets under construction	TOTAL
As at 01-01-2018					
Gross carrying amount	31,394	74,550	118,024	2,107	226,075
Amortization	-8,910	-43,509	-91,936	-	-144,355
Impairment	-2,767	-6,233	-	-	-9,000
Net carrying value	19,717	24,808	26,088	2,107	72,720
Period ending 31-12-2018					
Net carrying value at the beginning of the year	19,717	24,808	26,088	2,107	72,720
Increases	-	3,501	5,435	1,105	10,041
- purchase	-	190	5,117	1,105	6,412
- reclassification from investments	-	1,146	318	-	1,464
- consolidation adjustments	-	2,165		-	2,165
Decrease	-	-2,991	-8,475	-1,892	-13,358
- liquidation/sale:	-	-2,991	-8,475	-55	-11,521
- reclassification from investments	-	-	-	-1,837	-1,837
Impairment adjustment	-	2,787	-	-	2,787
Depreciation charge	-721	-4,414	-9,105	-	-14,240
Write-off of accumulated	-	2,987	8,271	-	11,258
depreciation due to					
liquidation/sale					
- consolidation adjustments	-	-812	-	-	-812
Net carrying value as at 31-12-2018	18,996	25,866	22,214	1,320	68,396
As at 31-12-2018					
Gross carrying amount	31,394	75,060	114,984	1,320	222,758
Amortization	-9,631	-45,748	-92,770	-	-148,149
Impairment	-2,767	-3,446	-	-	-6,213
Net carrying value	18,996	25,866	22,214	1,320	68,396

Specification	Land and buildings	Leasehold improvements	Plant and machinery, vehicles and others	Fixed assets under construction	Total
As at 01-01-2017					
Gross carrying amount	38,994	80,124	118,550	2,602	240,270
Amortization	-7,943	-47,301	-91,838	-	-147,082
Impairment	-3,435	-8,030	-	-	-11,465
Net carrying value	27,616	24,793	26,712	2,602	81,723
Period ending 31-12-2017					
Net carrying value at the beginning of the year	27,616	24,793	26,712	2,602	81,723
Increases	-	2,010	57,248	32,760	92,018
- purchase	-	220	55,349	32,760	88,329
- reclassification from investments	-	1,790	1,899	-	3,689
Decrease	-7,600	-7,584	-57,774	-33,255	-106,213
- liquidation/sale:	-	-7,584	-57,774	-29,543	-94,901
- reclassification from investments	-	-	-	-3,712	-3,712
- consolidation adjustments	-7,600	-	-	-	-7,600
Impairment adjustment	668	1,797	-	-	2,465
Depreciation charge	-967	-4,105	-9,421	-	-14,493
Write-off of accumulated depreciation due to	-	7,897	9,323	-	17,220
liquidation/sale					
Net carrying value as at 31-12-2017	19,717	24,808	26,088	2,107	72,720
As at 31-12-2017					
Gross carrying amount	31,394	74,550	118,024	2,107	226,075
Amortization	-8,910	-43,509	-91,936	-	-144,355
Impairment	-2,767	-6,233	-	-	-9,000
Net carrying value	19,717	24,808	26,088	2,107	72,720

28.Other assets

Specification	31-12-2018	31-12-2017
Costs to be paid in advance	4,307	6,578
Settlements due to excess of cash	1,78	14,835
Interbank settlements	236	-
Settlements due to payment cards	172,643	421
Different debtors	584	270,082
Right of perpetual usufruct of land	506	607
Public and legal settlements	10,662	2,116
Accrued income	11,735	15,004
Non-current assets held for sale	69	86
Other	3,769	1,978
Total	206,291	311,707

29. Amounts due to the Central Bank and other banks

Specification	31-12-2018	31-12-2017
Deposits of the Central Bank	-	-
Deposits of other banks	58,154	164,284
Credits and Loans received	-	2,611
Repurchase Transactions	513,630	312,639
Total	571,784	479,534

Amounts due to the Central Bank and other banks at maturity date.

Specification	31-12-2018	31-12-2017
up to 1 month	15,311	164,272
Above 1 month up to 3 months	-	1,305
above 3 months up to 6 months	186,908	10,935
above 6 months up to 12 months	34,475	1,303
1 year up to 5 years	335,090	301,719
Total	571,784	479,534

30. Amounts due to Customers

Specification	31-12-2018	31-12-2017
Institutional customers	4,942,446	5,013,443
- current/settlement accounts	3,081,552	3,126,722
Long-term deposits	1,860,894	1,886,721
Individual clients	8,825,702	9,344,164
- current/settlement accounts	3,983,914	3,960,768
Term deposits	4,841,788	5,383,396
Other customers	92,448	100,806
Credits and loans from international financial institutions	881,593	943,881
Funds resources intended for lending	56,920	61,539
Total	14,799,109	15,463,833

In 2018 and 2017, BOŚ Group did not report any delays in the repayment of principal instalments or interest; it has not breached any other contractual covenants relating to its liabilities.

Amounts due to customers by maturity dates.

Specification	31-12-2018	31-12-2017
up to 1 month	8,387,066	8,533,755
Above 1 month up to 3 months	2,117,622	2,101,334
above 3 months up to 6 months	1,749,941	2,155,649
above 6 months up to 1 months	831,048	1,457,315
1 year up to 5 years	1,621,121	1,131,432
Above 5 years	92,311	84,348
Total	14,799,109	15,463,833

31. Liabilities related to banking securities issued

				31.12.20	18	31.12.2	017
Series	Currency	Terms of interest rate	Date of maturity/redemption	Nominal value	Balance of liabilities	Nominal value	Balance of liabilities
Debt Secur	ities:				46,590		829,980
N1 - series	PLN	WIBOR 6M + margin (6- months coupons)	5 years			200,000	201,172
N2 - series	PLN	WIBOR 6M + margin (6- months coupons)	4,5 years			200,000	200,522
O1 - series	PLN	WIBOR 6M + margin (6- months coupons)	4,5 years			200,000	200,563
S - series	PLN	WIBOR 6M + margin (6- months coupons)	3 years			100,000	101,096
T - series	PLN	WIBOR 6M + margin (6- months coupons)	3 years			80,000	80,053
U - series	PLN	WIBOR 6M + margin (6- months coupons)	4 years	46,000	46,590	46,000	46,574
Total				46,000	46,590	826,000	829,98

32. Subordinated debt

		Terms of	Date	31-12-2018		31-12-	2017
Series	Currency	interest rate	maturity/redemption	Nominal value	Balance of liabilities	Nominal value	Balance of liabilities
		WIBOR 6M +	10 years				
A-Series	PLN	margin (6-months coupons)	(repurchase option after 5 years)			120,000	120,893
	DIN	WIBOR 6M +	7 years	24.244	25.006	24.214	35.000
AA1- Series	PLN	margin (6-months coupons)	(repurchase option after 5 years)	34,214	35,086	34,214	35,080
442	DLN	WIBOR 6M +	7 years	CE 70C	66.402	CE 796	66 201
AA2- Series	PLN	margin (6-months coupons)	(repurchase option after 5 years)	65,786	66,403	65,786	66,391
D. G. :	DI N	WIBOR 6M +	10 years			100.000	102.226
D-Series	PLN	margin (6-months coupons)	(repurchase option after 5 years)			100,000	103,236
50.	5	WIBOR 6M +	10 years	450.000	452.006	450.000	450.004
P-Series	PLN	margin (6-months coupons)	(repurchase option after 5 years)	150,000	152,886	150,000	152,904
		WIBOR 6M +	10 years				
R1-Series	PLN	margin (6-months coupons)	(repurchase option after 5 years)	83,000	83,896	83,000	83,900
		WIBOR 6M +	7 years				
W-Series	PLN	margin (6-months coupons)	(repurchase option after 5 years)	32,500	32,401	32,500	33,288
Total				365,500	370,672	585,500	595,692

33. Provisions

Specification	31-12-20	18 31-12-2017
Provisions for contingent liabilities, of which:	20,798	10,577
- open credit lines	11,573	2,826
- guarantees	9,225	7,751
Provision for employee benefits (retirement and pension benefits)	3,076	2,652
Provisions for liabilities and claims	11,899	11,906
Total	35,773	25,135

Change in provisions:

Specification	31-12-2018	31-12-2017
Provision for contingent liabilities		
As at 31-12-2017	10,577	2,875
OB 01-01-2019 Implementation of IFRS 9	16,616	-
At the beginning of the period	27,193	-
- recognized provision for the impairment of off-balance sheet liabilities	44,916	16,151
- release of provisions for the impairment of off-balance sheet liabilities	-51,314	-8,505
- other	3	56
At the end of the period	20,798	10,577
Provision for employee benefits – provision for jubilee bonuses and retirement and pension benefits		
At the beginning of the period	2,652	2,513
- recognition of provision	723	424
- utilization of provisions	-238	-285
- release of provision	-61	-
At the end of the period	3,076	2,652
Provision for liabilities and claims		
At the beginning of the period	11,906	1,655
Adjustment from previous years (Note 3)	-	7,596
At the beginning of the period	11,906	9,251
- recognized provision for the impairment of liabilities	2,578	3,186
- release of provisions for the impairment of liabilities	-2,585	-400
- utilization		-131
At the end of the period	11,899	11,906
At the end of the period	35,773	25,135

The present value of future liabilities arising from retirement and disability benefits, as regards employees employed as at 31 December 2018:

Specification	31-12-2018	31-12-2017
Salary growth rate	2.5% (0% w	2.5% (0% w
The future liabilities interest rate for:	2018)	2017)
- Retirement and disability benefits	3,00%	3,25%
Benefit cost:	3,0070	3,23 70
Current service cost	212	211
Past service cost and settlement profit/loss Net interest expense	-	-
Net interest cost	65	65
The components of the defined benefit cost recognized in the financial result	277	276
Revaluation of net liabilities arising from defined benefit plans:		
Actuarial profits and losses arising from changes in demographic assumptions	-	9
Actuarial profits and losses arising from changes in financial assumptions	35	36
Actuarial profits and losses arising from experimental adjustments	-96	103
The components of the defined benefit cost recognized in other comprehensive income	-61	148
Total	216	424

The amounts recognized in total income in accordance with the discussed defined benefit programs:

Specification	31-12-2018	31-12-2017
Liabilities from defined benefits, opening balance	2 652	2 513
Current benefit cost Interest cost Revaluation profit/losses:	658	211
Net interest cost	65	65
(Profits) / revaluation losses:		
Actuarial profits and losses arising from changes in demographic assumptions	-	9
Actuarial profits and losses arising from changes in financial assumptions	35	36
Actuarial profits and losses arising from experimental adjustments	-96	103
Past employment cost, including profits/losses from cuts	-	-
Paid benefits	-238	-285
Liabilities from defined benefits, closing balance	3 076	2 652

The calculations of present value for future employee retirement and disability benefits relate to the current population of employees of Bank Ochrony Środowiska S.A. and do not account for the employees who will be hired in the future. These calculations rely on determining the employee's right vested in the year following the date of the calculation, to a certain part of employee allowance in accordance with the "Projected Unit Credit" method i.e. the actuarial method of calculation of present value of future liabilities. The value of employee vested right to a certain part of employee benefit which is to be paid out in the future was calculated on the assumption that the employee will remain in service at the Bank until benefit payment date and discounting upon calculations performance.

The vested right to a part of employee benefit is the quotient of employee current length of service (seniority) and the length of service required to obtain retirement and disability benefit.

Disability benefits are calculated as the sum of the products of probabilities of incurring disability in future years by a person of certain age and his vested rights to a part of benefits in each year over the entire forecast period, and are discounted at the time of valuation. The vested right to a part of disability benefit in each year is calculated as the quotient of the current length of employee service and his length of service in the next year. The present value of vested rights is calculated on the assumption of an increase in benefit calculation base to benefit payment base in accordance with salaries growth rate.

As at 31 December 2018, a 3.0% discount rate was assumed for the estimation of employee benefits liabilities. With the 3.25% discount rate, employee benefits liabilities would amount to PLN 2,594 thousand as at 31 December 2018, while with the 2.75% discount rate - these liabilities would amount to PLN 2,666 thousand.

As at 31 December 2017, a 3.25% discount rate was assumed for the estimation of employee benefits liabilities. With the 3.5% discount rate, employee benefits liabilities would amount to PLN 2,616 thousand as at 31 December 2017, while with the 3.0% discount rate - these liabilities would amount to PLN 2,689 thousand.

The Bank estimates that the outflows of economic benefits from the realization of these provisions will be affected in the following periods:

Specification	31-12-2018	31-12-2017
up to 1 year	598	650
above 1 year up to 5 years	894	868
from 5 to 10 years	619	507
from 10 to 20 years	784	550
Above 20 years	181	77
Total	3 076	2 652

Provisions for liabilities and claims were recognized based on expected outflows of economic benefits in the following periods:

	01-01-2018 31-12-2018		01-01-2017 31-12-2017	
Specification	Amount	Expected outflow of benefits	Amount	Expected outflow of benefits
Provision for contentious issue due to the remuneration received in advance	-	up to one year	470	up to one year
Provision for contentious issue with the Bank's client, DM BOŚ is a co-defendant	-	up to one year	1	up to one year
Provision for liabilities to customers in connection with the sales commission received	-	up to one year	930	up to one year
Provision for liability with regard to brokering the sale of the closed-end investment funds	600	up to one year	-	
Provision for negative balances in customer accounts resulting from the settlement of market transactions	50	up to one year	50	up to one year
Other provisions for claims*\	11,249		9,456	
	9,189	up to one year	191	up to one year
	2,06	over one year	9,265	over one year
Total	11,899		11,906	

^{*\} As at 31 December 2018, the amount of provisions for claims includes the provision for claims brought by former employees of the Bank in the amount of PLN 157 thousand and for other claims of Bank customers in the amount of PLN 3496 thousand. Moreover, provision was recognized for liabilities for flat-rate income tax, in the amount of PLN 7,596 thousand (Note 3).

Total value of pending litigation proceedings in presented periods:

Specification	31-12-2018	31-12-2017
Bank as defendant	80 491	54 055
Bank as plaintiff	37 075	96 651

According to the Bank's Management Board, the risk associated with these proceedings, except for those for which provisions for claims have been recognized, is estimated as possible but not probable. Any risks referred to the ongoing proceedings before the court or public administration bodies are secured by appropriate provisions.

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^{*\} As at 31 December 2017, the amount of provisions for claims includes the provision for claims brought by former employees of the Bank in the amount of PLN 151 thousand and for other claims of Bank customers in the amount of PLN 1709 thousand. Moreover, provision was recognized for liabilities for flat-rate income tax, in the amount of PLN 7,596 thousand (Note 3).

34. Deferred income tax

Deferred income tax is calculated in respect of all the temporary differences using the income tax rate of 19%.

Changes on the deferred income tax account were as follows:

Specification	01-01-2018 31-12-2018	01-01-2017 31-12-2017
At the beginning of the period	74,411	71,949
Adjustment Opening Balance (OB)	17,342	-393
Balance after adjustments OB	91,753	71,556
Change in the balance due to:	6,515	2,855
- impairment of receivables	3,346	11,379
- valuation of assets	-71	-5,986
- accrued expenses	-7,629	-1,486
- interest received from securities purchased previously by the Bank	933	1,560
- other differences	11,760	1,570
- tax loss	-2	-3,672
- commission settled according to EIR	1,908	-2,161
- fixed assets covered by investment tax relief not yet depreciated	-7,844	1,579
- provisions for non-personnel costs and employment costs	437	683
- accrued income	5,169	-611
- IBNR included in tax expenses costs	-1,492	-
At the end of the period	98,268	74,411

The deferred tax recognized in revaluation reserve:

Specification	01-01-2018	01-01-2017
Specification	31-12-2018	31-12-2017
At the beginning of the period	-2,486	6390
Adjustment Opening Balance (OB)	-11,506	-885
Balance after adjustments OB	-13,992	5,505
Change in the balance due to:	531	-7,991
At the end of the period	-13,461	-2,486

Deferred tax assets and liabilities are allocated to the following items:

Specification	31-12-2018	31-12-2017
Deferred tax liabilities in respect of:		
- accrued income	35,836	41,104
- increases in respect of valuation of assets	33,395	41,677
- fixed assets covered by investment tax relief not yet depreciated	23,858	16,141
- commission paid to be settled according to EIR	3,882	4,435
- IBNR included in tax costs in previous years	1,492	-
- other temporary differences	2,641	-
Total	101,104	103,357
Deferred tax assets in respect of:		
- write-offs on receivables	110,924	77,361
- commission received to be settled according to EIR	15,025	15,341
- provisions for non-personnel costs and employment costs	5,288	4,859
- accrued expenses	18,369	26,928
- interest from securities purchased previously by the Bank	8,677	7,744
- decreases in respect of valuation of assets	17,711	36,540
- tax loss	477	479
- other temporary differences	22,901	8,516
Total	199,372	177,768

Change in deferred income tax in the period:

Specification	01-01-2018 31-12-2018	01-01-2017 31-12-2017
At the beginning of the period	74,411	71,949
Adjustment Opening Balance (OB)	17,342	-
Balance after adjustments OB	91,753	71,949
- change in deductible temporary differences	-9,220	5,300
- change in taxable temporary differences	15,735	-2,838
total change in balance, of which:	6,515	2,462
- change in revaluation reserve	531	-7,991
- change in balance recognized in the statement of profit or loss	5,984	10,454
At the end of the period	98,268	74,411

35. Other liabilities

Specification	31-12-2018	31-12-2017
Inter-bank settlements	32,160	91,785
Amounts due to DM BOŚ counterparties	74,921	154,960
Accruals and deferred income	21,929	41,416
Public law settlements	8,635	8,313
Trade liabilities	36,774	26,065
Deferred commissions	5,287	3,664
Settlements due to payment cards	1,403	2,445
Other	30,816	10,487
Total	211,925	339,135

36. Contingent assets and liabilities

Specification	31-12-2018	31-12-2017
Contingent liabilities:	1,806,671	1,938,588
Financial, in which:	1,477,738	1,672,625
- open credit lines, of which:	1,461,556	1,635,709
- revocable	1,206,274	1,373,802
- irrevocable	255,282	261,907
- open import letters of credit	14,065	24,880
- commitments to grant loans, of which:	2,117	12,036
- irrevocable	2,117	12,036
Guarantees, including:	328,933	252,928
- loan repayment sureties and guarantees	14,833	17,003
- performance bonds	314,100	235,925
Issue underwriting	-	13,035
Contingent assets:	611,322	1,020,887
Financial, in which:	193,500	491,177
- open credit lines	193,500	312,817
- other	-	178,360
Guarantees	405,854	519,241
Other	11,968	10,469
Total contingent assets and contingent liabilities	2,417,993	2,959,475

37. Operating lease

The Bank, as lessee, concluded contracts for the lease of vehicles and property.

Lease payments are recognized as costs in the statement of profit or loss.

Operating lease of vehicles

Specification	31-12-2018	31-12-2017
below 1 year	424	906
from 1 to 5 years	1,793	1,268

Payments recorded in the statement of profit or loss as non-personnel expenses in the general administrative expenses amounted to:

Specification	31-12-2018	31-12-2017
Minimal lease payments	944	948

The level of monthly net lease payment is the product of the net price of leased vehicle and the percentage factor described in the annex to the Lease Contract, increased by VAT.

Operating lease of properties

The total value of future minimum lease payments in relation to the following periods amount to:

Specification	31-12-2018	31-12-2017
below 1 year	3,093	13,420
from 1 to 5 years	15,438	65,553
over 5 years	64,634	21,109

Payments recorded in the statement of profit or loss as non-personnel expenses in the general administrative expenses amounted to:

Specification	31-12-2018	31-12-2017
rental costs	26,537	31,049

Charges relate to long-term leases of real estate used by BOŚ Group in normal operating activities.

For all Euro-based agreements, the amount of net monthly lease instalment equates to the sum of payments for a defined type of leased space denominated in PLN (translated using the average NBP exchange rate) calculated as the product of Euro-based net price for one square meter of the given type of leased space and the area of effectively leased space, increased by VAT due.

For PLN-based agreements, the amount of net monthly lease instalment equates to the sum of payments for a defined type of leased space, calculated as the product of net price for one square meter of the given type of leased space and the area of effectively leased space, increased by VAT due.

Monthly lease instalments are subject to indexation (adjustment) based on the agreed ratio and schedule determined in the lease contract. The Euro-based lease contracts are updated using the indexes applicable in the EU. The value of PLN-based lease contracts is updated by the Consumer Price Index (CPI) for the prior period announced by the President of Central Statistical Office of Poland.

The concluded lease contracts do not provide for the possibility of post-lease acquisition of leased property.

Lease contracts are concluded for a fixed period of time; some of lease contracts do not provide for the possibility of their termination, while some contain a clause on contract earlier termination or expiry on the condition of branch liquidation, in which case the 6- or 12-month termination notice applies. Some of lease contracts provide for the possibility of contract extension based on the existing terms and conditions upon written declaration of intent of lessor, submitted six or eighteen months before contract termination date.

In case of terminating lease contract before its maturity date, the lessee is obliged to pay a contractual penalty in the amount equating the sum of monthly lease instalments for the period from contract termination date to contract maturity i.e. 100% of remaining lease payments.

38. Brokerage activity

Brokerage operations refer to the activities of Dom Maklerski BOŚ S.A.

Data concerning financial instruments kept in the security accounts of the customers and are presented at their fair value:

Financial instruments of clients	31-12-2018	31-12-2017
Dematerialized securities traded on the regulated stock exchange		
Stock traded and subscription rights for traded shares recorded on securities accounts	4,808,395	6,351,177
Other securities recorded on customers' securities accounts	370,047	339,653
Other financial instruments of clients	264,206	381,319
Property rights traded on Polish Power Exchange (PPE)	552,615	338,005
Materialized securities		
Shares	202,368	210,379
Bonds	1,244,557	1,410,321
Total securities belonging to the clients	7,442,188	9,030,854

On 21 December 2018, DM BOŚ received information on initiation of court administrative proceeding by the Polish Financial Supervision Authority (PFSA), for imposing on DM BOŚ an administrative penalty based on the art. 167-2 point 1 in connection with the art.167-1 point 1 of the Law dated 29 July 2005 on trading in financial instruments, in the version applicable before the entry into force of the Law dated 01 March 2018 amending the Law on trading in financial instruments and some other laws (Journal of Laws 2018, item 685) in connection with suspicion of violating article 79-6a of the Law on trading in financial instruments by insufficient realization of obligation to supervise the tasks performed by an agent of an investment firm, i.e. Bank Ochrony Środowiska S.A. and the art. 9-1 of Regulation of the Minister of Finance of 24 September 2012 on detailed technical and organizational conditions for investment companies and banks, referred to in the art. 70-2 of the Act On Trading In Financial Instruments, and custodian banks, as well as conditions of internal capital assessment by the brokerage house (Journal of Laws 2012, item 1072) in relation with not including the principles of responsibility and supervision regarding the agent of the investment firm, in the organizational Regulation of the Brokerage House.

39. Core capital

Registered share capital

As at 31 December 2018 the share capital of the Bank amounted to PLN 929,477 thousand and compared to 31 December 2017 (when it amounted to PLN 628,732 thousand.

Series/issue	Type of shares	Type of preference		Value of series/Issue at nominal value in KPLN	Method of payment of share capital	Date of registratio n	Right to dividend (since when)
Α	0	ordinary	236,700	2,367	paid up	09-01-91	01-01-92
В	0	ordinary	1,263,300	12,633	paid up	11-03-92	01-01-93
С	0	ordinary	477,600	4,776	paid up	30-12-92	01-01-93
С	0	ordinary	22,400	224	contribution in kind	30-12-92	01-01-93
D	0	ordinary	1,300,000	13,000	paid up	30-12-93	01-01-94
E	0	ordinary	647,300	6,473	paid up	30-06-94	01-01-95
E	0	ordinary	15,500	155	contribution in kind	30-06-94	01-01-95
E	0	ordinary	37,200	372	contribution in kind	30-06-94	01-01-95
F	0	ordinary	1,500,000	15,000	paid up	30-12-94	01-01-95
G	0	ordinary	1,260,000	12,600	paid up	30-06-95	01-01-96
Н	0	ordinary	670,000	6,700	paid up	30-06-95	01-01-96
I	0	ordinary	70,000	700	paid up	30-06-95	01-01-96
J	0	ordinary	1,055,000	10,550	paid up	21-06-96	01-01-96
K	0	ordinary	945,000	9,450	paid up	21-06-96	01-01-96
L	0	ordinary	1,200,000	12,000	paid up	29-11-96	01-01-96
M	0	ordinary	2,500,000	25,000	paid up	07-05-98	01-01-97
N	0	ordinary	1,853,000	18,530	paid up	13-06-07	01-01-07
0	Ο	ordinary	1,320,245	13,203	contribution in kind	25-06-10	01-01-10
P	0	ordinary	6,500,000	65,000	paid up	15-06-12	01-01-11
U	0	ordinary	40,000,000	400,000	paid up	12-07-17	01-01-16
V	0	ordinary	30,074,426	300,744	paid up	04-07-18	01-01-18
Total number of	shares		92,947,671				

Total share capital at nominal value 929,477

Total share capital 929,477

Par value of one share is PLN 10.00.

As at 31 December 2018 the total number of votes resulting from all issued shares by the Bank amounted to 92,947,671 and increased as compared to 31 December 2017. One share gives right to one vote at the General Shareholders Meeting.

As at 31 December 2018, structure of shareholders holding directly or indirectly (through subsidiaries) at least 5% of the total number of votes at General Meeting of the Bank:

	31-12-	31-12-2018 31-1		
		% share	Number of	% share
Shareholder	Number of votes at the AGM (shares)	% share in total number votes at the AGM (in share capital)	number of votes at the AGM (shares)	% share in total number votes at the AGM (in share capital)
National Fund for Environmental Protection and Water Management	53,951,960	58.05	32,951,960	52.41
Fund Investments Polish				
Enterprises Closed-End Fund for Non-Public Assets	8,000,000	8.61	6,000,000	9.54
Directorate General of State Forests	5,148,000	5.54	4,273,574	6.8

One share gives right to one vote at the General Shareholders Meeting.

Other shareholders hold in total 27.8% of shares in the Bank's share capital.

As at the date of preparation of the consolidated financial statements changes in the ownership structure of large block of shares are not known.

Own shares

As at 31 December 2018, the Bank held 37,775 own shares, which represent 0.04% of the share capital and 0.04% of the total number of votes at the General Meeting of the Bank, including:

- 33,095 shares, which the Bank acquired in 2012 as part of stabilization activities related to the issuance of shares of P series. The above shares represent 0.035% of the Bank's share capital and total number of votes at the General Meeting of the Bank; in accordance with the Code of Commercial Companies, Bank is not entitled to exercise the voting rights from those shares,
- 4,680 shares, which represent 0.005% of the share capital and of the total number of votes at General Meeting of the Bank, which the Bank acquired during the period from 22 June to 6 July 2015, during the trading sessions on the main market of the Warsaw Stock Exchange S.A. These shares were acquired on the basis of Resolution 34/2015 of the General Meeting of BOŚ S.A. dated 10 June 2015 regarding share repurchase Program of BOŚ S.A., in order to offer them to the Bank's employees holding managerial positions and having a material impact on the risk profile of the Bank.

Due to the existence of circumstances defined in PFSA's resolution no. 258/2011, and variable remuneration components Policy concerning employees holding managerial positions at BOŚ S.A., the Supervisory Board decided not to grant the members of the Management Board the variable remuneration for 2014, while variable remuneration for other employees holding managerial positions did not reach the threshold above which a part of the variable remuneration is paid out in shares. As a result, shares acquired for this purpose were not allocated.

In accordance with provisions the Code of Commercial Companies, the Bank is not entitled to exercise the voting rights related to its own shares.

Share premium

Share premium is recorded in the amount of the excess earned upon issue of shares after accounting for the costs of share issue.

As at 31 December 2018 and 31 December 2017 the supplementary capital amounted to PLN 532,851 thousand.

40. Revaluation capital

As at 31-12-2017

Specification	31-12-2018	31-12-2017
Revaluation of financial assets carried at fair value through other		
comprehensive income	66,953	9,246
Revaluation of employee benefit liabilities	3,898	3,838
Deferred income tax	-13,461	-15,947
Total revaluation capital	57,390	10,598
		_
Changes in revaluation reserve		
As at 31-12-2017		10,598
Adjustment of the value OB IFRS 9 as at 01-01-2018		49,054
As at 01-01-2018		59,652
Increase (due to):		162,9 4 8
- valuation of investment securities		162,888
- Revaluation of employee benefit liabilities		60
Decrease (due to):		-165,741
- valuation of investment securities		-165,741
- Revaluation of employee benefit liabilities		
Deferred income tax		531
As at 31-12-2018		57,390
As at 01-01-2017		-21,950
Increase (due to):		192,669
- valuation of securities available for sale		192,669
- Revaluation of employee benefit liabilities		
Decrease (due to):		-151,244
- valuation of securities available for sale		-151,096
- Revaluation of employee benefit liabilities		-148
Deferred income tax		-8,877

10,598

41. Retained earnings

Retained earnings comprise: other supplementary capital, general (banking) risk reserve and undistributed profit.

Specification	31-12-2018	31-12-2017
Other supplementary capital:	624,393	594,874
Statutory	44,000	44,000
Formed in accordance with the Statutes above the regulatory	576,068	546,549
required (minimum) level		
Other	4,325	4,325
Other reserve capital	23,605	23,605
Brokerage activity fund	22,249	22,249
Other	1,356	1,356
General risk fund	48,302	48,302
Retained earnings	-77,160	15,167
Retained profit/loss brought forward	-133,292	-23,299
Opening balance adjustment as at 01-01-2017 (Note 3)	-7,596	-7,596
Net profit/ (loss) for the current year	63,728	46,062
Total	619,140	681,948

Supplementary capital is created from annual profit appropriations amounting to at least 8% of the net profit, until such time as the total balance reaches at least one third of the share capital. A portion of the supplementary capital amounting to one-third of the share capital may be used exclusively for offsetting losses recorded in the financial statements.

Other reserves are created by appropriating the net profit for the year, irrespective of the supplementary capital, and are earmarked for covering specific losses and expenses.

The General Shareholders' Meeting makes decisions concerning the use of supplementary capital and other reserves.

The general (banking) risk reserve is assigned for hedging unidentified risks in the Bank's operations and is created from net profit write-offs, in accordance with the policies set forth in the Banking Law regulations.

42. Hedge accounting

Hedge accounting principles

Out of all BOS Group entities only the Bank applied hedge accounting.

Hedge accounting is an integral element of the financial risk management in BOŚ S.A. Financial risk management is carried out in accordance with the existing Bank's risk management process.

Hedge accounting principles are described in point 2.10

The interest risk in the banking book is a hedged risk. The Bank uses fair value hedges to hedge the fair value of State Treasury fixed-rate bonds.

Cash flow hedge accounting

In 2018 BOŚ Group did not apply cash flow hedge accounting.

Fair value hedge accounting

During the hedging period, the Bank hedges the fluctuation of fair value of fixed rate bonds depending on changes in market interest rates. The hedged item is the part of treasury bonds held in Ht&S business portfolio. The hedging instrument is Interest Rate Swap (IRS) transactions, in which the Bank

makes payments based on the fixed interest rate and receives a coupon based on floating rate (6-month WIBOR). By establishing a hedging relationship, the netting effect of changes in the fair value of the hedging instrument and the hedged item is obtained in the income statement. Only one type of risk (i.e. interest rate volatility risk) is hedged. The spread between the quotation of treasury bonds and IRS transactions is excluded from the hedge.

The hedge is expected to be highly effective in offsetting fair value changes resulting from the hedged risk. The effectiveness of the hedge is verified through the use of prospective and retrospective effectiveness tests. The prospective tests are based on the analysis of BPV measures of hedged item and hedging instrument. The retrospective test is performed on the basis of direct compensation method in which the changes of value of hedging transactions and hedged item resulting from hedged risk condition are compared. Retrospective tests give a positive results, when efficiency rating factor is within the range <0.8;1.25>. Tests are carried out on a quarterly basis. The Bank does not identify significant sources of inefficiency for hedging of fair value.

The change in fair value of hedged item resulting from fluctuation of market interest rates is recognized in the statement of profit or loss. Changes in fair value of bonds which are not resulting from fluctuation of hedged risk condition are recognized in the revaluation reserve. The changes in valuation of hedging instrument are recognized in the statement of profit or loss.

As at 31 June 2018, the Bank had two fair value hedge accounting arrangements - hedging established in July 2012 and hedging established on 20 October 2015. Hedged item according to the hedge accounting arrangement established in:

- 2012 covers State Treasury bonds: DS1019 with maturity in October 2019 for the nominal value of PLN 77 million and DS1020 with maturity in October 2020 for the nominal value of PLN 172 million;
- in 2015 it covers PLN 240 million for the State Treasury bonds DS0725 with maturity in July 2025.

As at 31 December 2018 the amount of PLN 4,795 thousand resulting from changes in fair value of bonds due to interest rate risk and the fair value of IRS transactions was recognized in the statement of profit or loss. The amount of PLN -8,894 thousand was recognized in the revaluation reserve. It represented the sum of the impact of bonds on equity established at the date of hedge relationship establishment (PLN -11,345 thousand) and change in the fair value of bonds resulting from the unhedged part of the risk (spread between bonds and IRS quotations).

	31-12-2018			31-12-2018		31	l-12-2017	
Specification	carrying value	nominal value	fair value*\	carrying value	nominal value	fair value*\		
Hedging instruments Interest Rate Swap (IRS) – negative valuation	18,298	536,000	13,694	15,849	536,000	11,327		
Hedged position Treasury bonds – positive valuation	520,571	489,000	18,489	517,148	489,000	14,810		
Total impact on result			-4,795			-3,483		

^{*\}for hedged bonds it is an adjustment of the fair value

43. Share-based payments

Management options program

In 2012, the three-year motivation plan for the key members of management team of the BOŚ Group, so called Management option program ("Program") covering 2012, 2013, 2014, has been launched. The Program was realized in 2013 only. The maturity date of the rights to acquire shares of Series S by the holders of Series B warrants expired on 31 December 2017.

Remuneration policy for managers in BOŚ Group.

In order to meet requirements defined in the Regulation of the Minister of Development and Finance of 6 March 2017 on the system of risk management and internal control system, remuneration policy and detailed method of calculating internal capital in banks as well as in accordance with the Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, BOŚ Group implemented remuneration policy for managers approved by the Supervisory Board of BOŚ S.A.

The Remuneration Committee (and from 27 June 2018 - Remuneration and Nomination Committee) appointed by the Supervisory Board of the Bank evaluates remuneration Policy, gives opinion on and develops the principles of remuneration of the Management Board and gives opinion on and monitors the variable remuneration of persons occupying managerial positions in the Bank responsible for risk management at the second level, persons responsible for managing the compliance unit and internal audit unit.

The remuneration policy assumes, among others:

- The payment of minimum 50% of established variable remuneration in shares of Bank Ochrony Środowiska, which value is estimated as the weighted average price of shares of the Bank in trading sessions at Warsaw Stock Exchange in the period from 01 December of the year preceding the grant date to 31 January of the year of the grant date,
 - Shares shall mean:
 - shares of Bank Ochrony Środowiska S.A. listed on the Warsaw Stock Exchange,
 - phantom shares, at a value corresponding to the share price listed on the Warsaw Stock Exchange,
- 2) deferral in payment of 40% of variable remuneration in the three equal annual installments, with the proviso that at least 50% of each tranche is paid in shares of the Bank and the remaining part is paid in cash. The deferred part may be suspended, reduced or not paid nor realized at all, among others in situation when the Bank's results differ significantly from the approved financial plan for a given year, or when conditions specified in Article 142.1 of the Act Banking Law have been met.
- 3) assessment of the 3-year periods results, so that the amount of performance or result-based remuneration took into account the business cycle (trade cycle) of the Bank and the risk associated with this business. Results shall mean the results of the tasks in the area of effectiveness, finance, sale and individual goals set forth in the Bank's strategy or financial plan for the given year.

The maximum level of variable remuneration for employees that occupy managerial positions does not exceed 100% of fixed remuneration. The General Shareholders Meeting of BOŚ S.A. may agree to increase the maximum level of variable remuneration to 200% of fixed remuneration, in accordance with the procedure provided in § 25.2 4), letter b) and c) of the Regulation of the Minister of Development and Finance. The increase of the maximum level of variable remuneration specified in the preceding sentence does not apply to Members of the Bank's Management Board.

In 2018 – due to realizing by the Bank its Recovery Program – in accordance with Article 142.1 of the Act – Banking Law, persons having an impact on the risk profile at the Bank (including to BOŚ S.A. Management Board Members) were not awarded with variable remuneration for 2017. During the reporting period the variable remuneration for 2018 results have not been settled and not granted yet.

44. Notes to the statement of cash flows Cash and cash equivalents

For the purpose of the statement of cash flows, cash and cash equivalents include the following highly liquid balances with the maturity period shorter than three months.

Specification	31-12-2018	31-12-2017
Cash and balances with the Central Bank	186,736	632,772
Deposits placed in other banks, recognized as cash equivalents	106,985	298,016
Investment securities	1,439,760	1,599,551
Total	1,733,481	2,530,339

Cash and cash equivalents include the amount of obligatory reserve held with the NBP by the Bank.

The Management Board of the National Bank of Poland (pol: NBP) on 21 June 2018 decided on exemption of the Bank from maintaining the 55% of the required minimum reserve. This exemption will apply from 02 July 2018 to 31 December 2021.

In accordance with Paragraph 12 of the NBP Resolution No. 40/2015, the Bank may use the funds held in the obligatory reserve for current cash settlements.

The obligatory reserve declared to be maintained in December 2018 amounted to PLN 197,648 thousand (in December 2017 it amounted to PLN 521,430 thousand). The Bank has to maintain an average balance of cash and cash equivalents above the declared obligatory reserve during each month.

Explanation of differences between the changes in balance sheet balances and the cash flow statement (operating activities) of these items:

Enocification	for the year ended				
Specification	31-12-2018	31-12-2017			
Change in receivables from other banks	179,6 44	-221,080			
Deposits placed in other banks, recognized as cash	-191,031	271,859			
equivalents					
Change of deposit balance held in other banks and receivables from other banks in total	-11,387	50,779			
Change in investment securities	63,428	-120,351			
Change in investment securities classified as cash and cash equivalents	-159 792	-479 958			
Purchase of securities measured at amortized cost	251 453	219 816			
Interest received on securities measured at amortized cost	-48 063	-41 088			
Reclassification of interest from securities measured at amortized cost to interest from investing activities	48,197	41,446			
Revaluation of financial assets carried at fair value through other comprehensive income	60,179	41,572			
Change in investment securities in total	215,402	-338,563			
Change in other assets and income tax	81,714	-15,745			
Deferred income tax presented in the statement of profit or loss	5,984	10,454			
Deferred income tax on valuation of investment securities	17,890	-7,987			
Non-cash changes in intangible assets and tangible fixed assets	-2,502	5,617			
Total change in other assets and income tax	103,086	-7,661			
Change in provisions	10,638	18,092			
Actuary's valuation impact on the revaluation reserve	60	-148			
Adjustment from previous years (Note 3)	-	-7,596			
Total change in provisions	10,698	10,348			
Change in other liabilities and in income tax	-124,003	120,581			
Current income tax charge	-30,783	-36,1			
Income tax paid	26,669	35,399			
Change in other assets	-128,117	119,88			

Explanation of differences between the changes in balance sheet and the cash flow statement (financing activities) items

Specification	for the year	ended
	31-12-2018	31-12-2017
Change in liabilities relating to banking securities issued	1,008,410	5,436
Inflows from issue of bonds - subordinated debt	-	100,000
Redemption of bonds, in which:	-1,000,000	-100,000
- subordinated bonds	-220,000	-100,000
- ordinary	-780,000	-
Interest paid on bonds issued by the Bank, of which:	-45,778	-52,662
- on subordinated bonds	-27,482	-24,600
- ordinary	-18,296	-28,062
Accrued interest on bonds issued by the Bank, of which:	37,368	47,226
- on subordinated bonds	22,461	18,920
- ordinary	14,907	28,306
Change in liabilities relating to banking securities issued, total	0	0

45. Description of derivative financial instruments and foreign exchange transactions

Currency exchange transactions and currency derivatives transactions

INSTRUMENT	31-12-2018	31-12-2017	31-12-2017	31-12-2018 31-12-2017			
	FX Sw		FX fo	rward	FX S	Spot	
Description of the instrument	A transaction whice parties of the contribution initial currency excesspecified date and price and returnable at a specific date in than the so-called called first "leg") a agreed at the itransactions (mostlet the initial exchange is the which the contractor the initial exchange is the contractor that initial exchange is the contrac	ract to make an change within a d at a specified (final) exchange the future (other settlement, co and at the rate nception of y different from ange rate). Thich one of the shall be obliged as a result of the esame currency, received during schange.	instrument is c forward outri delivery. All the t are fixed on the	urrency amount currency at a according to a vard rate. The haracterized as ight, i.e. with cransaction date.	specified currer another current rate agreed at transa Settlement of usually occurs wi days from the da	ensaction of a ncy amount into cy, at a forward the time of the action. the transaction ithin two working ate of conclusion.	
Purpose of	For trading,	/liquidity	For tr	ading	For tr	ading	
acquisition or issuing							
Number of	31	33	114	131	170	796	
transactions							
Nominal value							
nominal value of instruments (in PLN thousand)	562,555 844,099		105,623	284,736	157,211	334,844	
Fair value (in PLN thousand)	9,601	90,488	468	-5,693	-121	-4,589	
- positive	14,839	90,583	560	2,124	95	418	
- negative	-5,238	-95	-92	-7,817	-216	-5,007	
Future	.,		,, .		W. SHI		
revenues/	Varial	ole	Variable		Variable		
Average maturity	2019-03-18	2018-06-15	2019-02-28	2018-04-15	2019-01-02	2018-01-02	
Possibility of earlier settlement	None	e	On the client's request		None		
Possibility of exchange or replacement with another asset/liability	None	e	None		None		
Other terms	None	e	No	ne	No	ne	
Type of risk							
that is related to a given derivative	Operating risk, counterpa		Operating risk counterp	k, market risk, party risk	Operating risk, market risk, counterparty risk		
derivative							

Currency exchange transactions and currency derivatives transactions

Specification	31-12-2018	31-12-2017
Instruments at nominal value	825,389	1,463,679
Total currency exchange transactions and currency derivatives transactions:	·	
- assets	15,494	93,125
- liabilities	-5,546	-12,919

Transactions using interest rate derivatives

	31-12-2018	31-12-2017	31-12-2018	31-12-2017	31-12-2018	31-12-2017	31-12-2018	31-12-2017	
Instrument	Transactions Rate Sw			Swap	Transactions Rate (IRS he	Swap	Forward Transactions on bonds		
Description of the instrument	of the partic may be fixed may be varic may be va dependent or indexes). The also includ transactions,	to exchange est payments minal amount ireed period. Dayments are in the same and are cording to the fixed for each es (one rate and the other able, or both riable, but in the different his category es the IRS for which the iount varies amortized	both parties to exchange periodic interest payments on certain nominal amount during an agreed period. The interest payments are denominated in the same currency and are calculated according to the interest rate fixed for each of the parties (one rate may be fixed and the other		The transaction requiring both parties to exchange periodic interest payments on certain nominal amount for an agreed period. The interest payments are denominated in the same currency and are calculated according to the interest rate fixed for each of the parties (one rate may be fixed and the other may be variable, or both may be variable, but dependent on different indexes).		Forward transaction to buy or sell a specified amount of a security at a specified time, according to the agreed upon price. All the transaction terms are fixed on the transaction date.		
Purpose of acquisition or issuing	For tr	ading	as hedging (Fair value hedge accounting)		As hedging (cash flow hedge accounting)		For trading		
Number of transactions	158	188	8	8	-	-	-	1	
Nominal value									
nominal value of instruments (in PLN thousand)	4,389,148	4,744,980	536,000	536,000	-	-	-	12,000	
Fair value (in PLN thousand)	5,230	9,620	-18,298	-15,849	-	-	-	28,000	
- positive	51,206	61,930	-	4,722	-	-	-	28,000	
- negative	-48,049	-54,383	-18,298	-20,571		-	-	-	
Future									
revenues/	Vari	able	Vari	able	Varia	able	Vari	able	
payment									
Average maturity	03.09.2021	02.01.2021	02.12.2022	02.12.2022	-	-	-	25.07.2027	
Possibility of earlier settlement	in general, b	uch possibility out there is a the case of	No	ne	No	None None			

	transactions with non-bank clients in cases specified in the contracts. Possible, rarely applicable.			
Possibility of exchange or replacement with another asset/liability	None	None	None	None
Other terms	None	None	None	None
Type of risk	Operating risk, market risk, counterparty risk	Operating risk, market risk, counterparty risk	Operating risk, market risk, counterparty risk	Operating risk market risk, counterparty risk

Transactions using interest rate derivatives

Specification	31-12-2018	31-12-2017
Instruments at nominal value	4,925,148	5,292,980
Total interest rate derivatives transactions:		
- assets	51,206	66,680
- liabilities	-66,347	-74,954

Futures and options

	31-12-2018	31-12-2017	31-12-2018	31-12-2017	31-12-2018	31-12-2017		
Instrument	Future contract stock indexes a rate	nd exchange	index, exch	racts on stock lange rates, odities	Contract for Difference (CFD)			
Description of the instrument	Futures share/stock contracts is a s transaction that settlement in the underlying asse depending on the sl value of index of for and posi	tandardized requires cash future or the et's delivery, nare price or the preign exchange	purchase of va with detern settleme Such instrumer based on differ rates between th Standard forv concern transa given settlemen than two days,	acts for sale and rious currencies nined future ent date. nts allow to earn ences in interest ne currency pairs. ward contracts actions in which t period is longer which is typical ansactions.	This means the depends directly an underlying in are with the underlying in the either significant of the underlying in the either significant of the underlying in the exchange of the exchange of the underlying the exchange of the underlying in the exchange of the underlying is the exchange of the underlying in the exchange of the underlying is the exchange of the underlying is the exchange of the underlying is the underlying in the exchange of the underlying is the underlying in the underlyin	erivatives group. In their value If on the value of Instrument they If on the value of Instruments may If on the value of Instruments may If on the value If o		
Purpose of acquisition or issuing	For trace	ding	For to	rading	For trading			
Number of transactions	8,731	8,731 6,109		52	87,885	85,380		
Nominal value								
nominal value of instruments (in PLN thousand)	43,760	209,633	71,217	19,022	443,296	837,795		
Fair value (in PLN thousand)	169	605	-100	-202	8,217	22,002		
- positive	241	744	219	168	8,567	22,429		
- negative Future	-72	-139	-319	-370	-350 -427			
revenues/ payment	Varial	ole	Vari	iable	Variable			
Maturity	Variat	ole	Vari	able	Vari	able		
Possibility of earlier settlement	Yes		Y	es	Yes			
Price/ Price range	None	e	No	one	No	one		
Possibility of exchange or replacement with another asset/liability	None	е	No	one	None			
Additional hedging	None	e	No	one	No	one		
Other terms	None	e	No	one				
Type of risk	Operational risk, e		equity price risk,	k, currency risk, commodity price sk	None Operational risk, currency risk, interest rate risk, commodity price risk, equity price risk			

Specification	31-12-2018	31-12-2017
Instruments at nominal value	558,273	1,066,450
Total futures and options:		
- assets	9,026	23,341
- liabilities	-741	-936

Total derivative financial instruments:

Specification	31-12-2018	31-12-2017
Instruments at nominal value	6,308,810	7,823,109
Total derivative financial instruments		
- assets	75,726	183,146
- liabilities	-72,634	-88,809

Offsetting of financial assets and financial liabilities

BOŚ Group does not offset its own financial instruments value, in the financial assets and financial liabilities recognized in its consolidated financial statements . The presentation below provides information on the potential recognition of financial instruments, which - in accordance with relevant agreements – can be offset.

Financial assets and financial liabilities including amendments to IFRS 7 as at:

31 December 2018

Items	Gross financial assets recognized in the financial statement financial position of the Bank	Gross financial liabilities recognized in the financial statement financial position of the Bank		ted positions g to IAS 32 Net financial liabilities	Net financial assets recognized in the financial statement financial position of the Bank	Net financial liabilities recognized in the financial statement financial position of the Bank		at could be fset Net financial liabilities	Security deposits accepted within the frame agreements frame agreements	Collateral deposits placed within the frame agreements frame agreements	Financial assets not subject to netting for hedging	Financial liabilities not subject to netting for hedging
(a)	(b)	(c)	(d)	(e)	(f) = (b) - (d)	(g) = (c) - (e)	(h)	(i)	(j)	(k)	(I) = (b) - (j)	(m) = (c) - (k)
Derivative financial instruments (including hedging instruments)	75,726	-72,634	-	-	75,726	-72,634	15,465	-44,190	13,871	-40,993	61,855	-31,641

31 December 2017

Items	Gross financial assets recognized in the financial statement financial position of the Bank	Gross financial liabilities recognized in the financial statement financial position of the Bank		ted positions g to IAS 32 Net financial liabilities	Net financial assets recognized in the financial statement financial position of the Bank	Net financial liabilities recognized in the financial statement financial position of the Bank		at could be fset Net financial liabilities	Security deposits accepted within the frame agreements frame agreements	Collateral deposits placed within the frame agreements frame agreements	Financial assets not subject to netting for hedging	Financial liabilities not subject to netting for hedging
(a)	(b)	(c)	(d)	(e)	(f) = (b) - (d)	(g) = (c) - (e)	(h)	(i)	(j)	(k)	(I) = (b) - (j)	(m) = (c) - (k)
Derivative financial instruments (including hedging instruments)	183,146	-88,809	-	-	183,146	-88,809	124,233	-48,231	97,332	-41,583	85,814	-47,226

According to the amendments to IFRS 7,BOŚ Group in the table above presents the values of derivatives in which:

- a) the gross amount of financial assets and financial liabilities are recognized in the consolidated financial statements (columns b and c),
- b) amounts that are compensated in accordance with the criteria set out in paragraph 42 of IAS 32 when determining the net amount reported in the consolidated statement of financial position (column d and e),
- c) the net amount reported in the consolidated statement of financial position (column f and g),
- d) the amount covered by enforceable master netting arrangement or similar agreement for the netting that are not otherwise included in section 13C, point b), including: (i) the amounts related to recognized financial instruments that do not meet some or all of the offsetting criteria set out in the paragraph 42 of IAS 32 (columns h and j) and (ii) the amount of security-related financial instruments (including cash hedging) (columns j and k).

46. Fair value of financial assets and liabilities

The carrying amount and the fair value of financial assets and liabilities other than measured at fair value in the consolidated financial statements are presented below:

	Nominal value	Nominal value	Nominal value	Nominal value
Specification	carrying value	Fair value as at	carrying	Fair value as at
	as at		value as at	
	31-12-2018	31-12-2018	31-12-2017	31-12-2017
Receivables from other banks	196,104	197,639	375,748	374,275
Receivables from clients, in which:	11,809,527	11,734,365	12,343,773	12,233,446
- receivables denominated in Polish zloty	9,050,026	8,980,787	9,732,832	9,644,852
- receivables denominated in foreign	2,759,501	2,753,578	2,610,941	2,588,594
currencies				
Investment securities held to maturity	1,375,268	1,409,156	1,406,264	1,451,585
Debt securities, in which:	1,375,268	1,409,156	1,406,264	1,451,585
- State Treasury	1,375,268	1,409,156	1,406,264	1,451,585
Amounts due to Central Bank and	571,784	571,784	479,534	479,544
other banks	-		-	-
Amounts due to customers, of which:	14,799,109	14,805,470	15,463,833	15,476,538
-Institutional customer	4,999,366	5,000,003	5,074,982	5,076,023
- Individual Client	8,825,702	8,829,997	9,344,164	9,353,780
- Other clients	92,448	92,448	100,806	100,806
- International financial institutions	881,593	883,022	943,881	945,928
Liabilities related to banking	46,590	46,612	829,980	840,932
securities issued	•	,	•	,
Subordinated debt	370,672	444,568	595,692	558,695

Receivables from other banks

Amounts due from other banks comprise inter-bank deposits, nostro accounts and loans and advances. Due to the short maturity period of inter-bank deposits (up to 6 months, inter-bank deposits have fixed interest rate), their fair value is equal to the carrying value. Bonds issued by banks were valued at fair value, after accounting for a change in the credit spread calculated on the basis of comparable issues by similar banks.

Receivables from clients

Receivables from clients are presented net of impairment allowance. In the balance sheet, receivables from clients are mainly stated at amortized cost and using the effective interest rate (99% of the carrying value of credits).

The fair value of loans is calculated based on the present value of future cash flows arising from the capital and interest (separately for loans granted in Polish zloty and other currencies) calculated on the basis of the effective interest rate for each loan (except for loans without a schedule set or non-performing loans, for these the carrying amount is taken for the fair value) discounted using the average effective rate of loans granted in the last twelve months. For mortgage loans, advance payments were taken into account. In case of loans in foreign currency, which have been discontinued by the Bank, effective interest rate of the corresponding loans in PLN, adjusted with the difference between the levels of interest rates in the different currencies and PLN.

Investment securities measured at amortized cost

Investment securities measured at amortized cost include State Treasury bonds assigned to the HtC business model. A fair value for the bonds is assumed as the current valuation from the market quotation, increased by accrued interests.

Amounts due to Central Bank and other banks

Amounts due to the Central Bank as well as liabilities related to repo transactions were reported at carrying amount. Liabilities related to repo transactions were carried at carrying amount due to the lack of available market data necessary to calculate the fair value of basic repo transactions of the Bank with a customer.

Due to the short-term, interbank deposits were recorded at carrying amount, and the outstanding loans (principal and interest) were discounted using the average effective interest rate of liabilities towards banks incurred in 2018.

Amounts due to customers

Liabilities in the balance sheet are stated at amortized cost using the effective interest rate method. As the fair value of liabilities the Bank takes the value resulting from discounting of principal and interest for all deposits by applying weighted average interest rate that was in force for deposits taken in December 2018. Current accounts, due to the lack of schedules, are stated at carrying amount.

Liabilities (capital and interest) to international financial institutions were discounted using average effective interest rate of incurred liability over 2018 (for EUR) or the last transaction made in the given currency (for PLN).

Liabilities arising from the issue of securities

Liabilities arising from the issue of securities are valued at fair value including credit spread of bonds in PLN calculated on the basis of Bank's issue in 2015.

Subordinated debt

Subordinated debt is measured at fair value, after considering the difference in credit spread calculated on the basis of the Bank's issue in 2017.

47. Breakdown of financial instruments measured at fair value by the valuation model

The fair value in accordance with IFRS 13 is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction on the main (or most advantageous) market at the measurement date in the current market conditions (meaning the output price) regardless whether that price is directly observable or estimated using other valuation techniques. In estimating the fair value, BOŚ Group takes into account the adjustment for counterparty credit risk.

As at 31 December 2018 and as at 31 December 2017, BOŚ Group classified its financial assets and financial liabilities measured at fair value into three categories (levels), according to the valuation method:

- 1) Level 1: valuation method mark-to-market, directly from available market quotations of instruments. This relates to quoted equity and debt securities and NBP bills (quotations based on reference rate),
- 2) Level 2: valuation method mark-to-model with model parametrization based on quotations from an active market for the given type of instruments or prices obtained in transactions made on the date close to the balance sheet date on an arm's-length basis. Fair value is determined as well as based on reference to other, similar instruments, by analysis of discounted cash flows and other valuation methods commonly used by market participants and in the case of financial instruments whose valuation is not possible – at acquisition cost. It concerns unlisted banking securities,
 - equity securities and derivatives (including forward transactions on securities) except for those that fall under level 3. Additionally in the portfolio of assets measured at the fair value through other comprehensive income, DM BOŚ holds shares of an economic entity for which there is no active market. Due to the above the fair value of these securities is based on the valuation model developed by the Company, including the comparable values for entities listed on the Warsaw Stock Exchange,
- 3) Level 3: valuation method mark-to-model with model parametrization based on quotations from an active market for the given type of instruments and model parametrization based on estimated risk factors. This applies to municipal securities (valuation based on discounted cash flows when the credit spreads used for valuation are calculated on the basis of internal ratings), the securities of other banks (valuation is based on the securities margins quoted on the market at the moment of price determination, issued by carefully selected issuers), unlisted equity securities and low liquid capital securities (valued using the discounted cash flows method).
 - In case of DM BOŚ, those are financial instruments acquired with the intention of bringing them to a regulated market. Fair value is determined based on an analysis of the financial situation of the company, taking into account impairment allowance.

Breakdown of financial instruments by level:

31-12-2018	evel 1	Level 2	Level 3	Total
Financial assets held for trading, in which:	11,988	47	-	12,035
Debt securities	2,903	-	-	2,903
Equity securities	9,085	47	-	9,132
Derivative financial and hedging	240	75, 4 86	-	75,836
instruments				
Carried at fair value through comprehensive income	3,782,916	-	318109	4,101,025
- debt securities	3,764,373	-	251,625	4,015,998
- Equity securities	18,543	-		85,027
Receivables from other banks	-	-	197,639	197,639
Receivables from clients	-	-	11,734,365	11,734,365
Investment securities - measured at amortized cost	1,409,156	-	-	1,409,156
Total financial assets	5,204,300	75,643	12,250,113	17,530,056
Financial liabilities held for trading	72	72,562	-	72,634
Derivative financial and hedging	72	72,562	-	72,634
instruments				
Amounts due to other banks	-	-	571,784	571,78 4
Amounts due to customers	-	-	14,805,470	14,805,470
Liabilities related to the issue of bank securities	-	-	46,612	46,612
Subordinated debt	-	-	444,568	444,568
Total financial liabilities	72	72,562	15,868,434	15,941,068

31-12-2017	Level 1	Level 2	Level 3	Total
Financial assets held for trading	16,376	3,265	-	19,641
Debt securities	-	3,218	-	3,218
Equity securities	16,376	47	-	16,423
Derivative financial and hedging instruments	455	182,690	-	183,145
Financial assets available for sale	3,725,166	_	408,291	4,133,456
Debt securities	3,701,972	-	373,124	4,075,095
Equity securities	23,194	-	35,167	58,361
Receivables from other banks	-	-	374,275	374,275
Receivables from clients	-	-	12,236,266	12,236,266
Investment securities held to maturity	1,451,585	-	-	1,451,585
Total	5,193,582	185,955	13,018,832	18,398,369
Financial liabilities held for trading	139	88,670	-	88,809
Derivative financial and hedging instruments	139	88,670	-	88,809
Amounts due to other banks	-	-	479,544	479,544
Amounts due to customers	-	-	15,476,538	15,476,538
Liabilities related to the issue of bank securities	-	-	840,932	840,932
Subordinated debt	-	-	558,695	558,695
Total	139	88,670	17,355,709	17,444,518

Financial instruments carried at fair value through other comprehensive income	Level 3
At the beginning of the period 01-01-2017	561,735
Purchase	40
Sale and redemption	-159,359
Total profit or loss	-
- in the statement of profit or loss	-4 63
- in other comprehensive income	6,338
Reclassification from level 3	-
At the end of the period 31-12-2017	408,291

Reclassifications of financial instruments between Level 1 and Level 2 take place based on the availability of quotations from an active market at the reporting date. Reclassifications of financial instruments from Level 2 to Level 3 take place where in the process of instrument measurement, the observable inputs are changed to the unobservable ones, or where in financial instruments measurement the use of the unobservable inputs has material impact on financial instrument measurement. Reclassifications of financial instruments from Level 3 to Level 2 take place where in the process of financial instrument measurement, the unobservable inputs are changed to the observable ones, or where the impact of unobservable inputs on financial instrument measurement is no longer material. Transfers between the methods of valuation are made at the reporting date. In the period from 01 January 2018 to 31 December 2018, there were not reclassifications of financial instruments between the levels. In the case of instruments classified to Level 3, their measurement does not have any impact on the statement of profit or loss. The re-measurement to fair value of Level 3 financial instruments was accounted for in other comprehensive income.

The financial result includes interest accrued, interest paid, discount or premium, FX differences and released provisions (relates to equity securities).

As at 31 December 2018, the analysis of the sensitivity of municipal bonds classified to the Level 3 shows that with +/- 1 b.p. fluctuations in credit spread (unobservable model parameter), their value was PLN 94 thousand (as at 31 December 2017 – PLN 123 thousand).

48. Segment reporting

According to the requirements set by IFRS 8 operating segments were determined based on the internal management reports regarding components of the entity that is evaluated regularly by the chief operating decision maker. IFRS 8 defines operating segment as a part of the entity's operations that meets three criteria:

- 1) the component engages in business activities from which it may earn revenues and incur expenses,
- 2) the component's operating results are regularly reviewed by the entity's chief operating decision maker, and
- 3) discrete financial information is available for the component.

Segment reporting principles per operating segment for the periods ended 31 December 2018 and 31 December 2017 are split into the following types of business activities:

- 1) institutional customers
- 2) individual clients
- 3) treasury and investment activity,
- 4) brokerage activity,
- 5) other (non-allocated to the segments).

In the 4th quarter of 2018, the Bank performed re-segmentation and consequently, on the basis of corporate and public finance divisions, institutional division was created, while individual division appeared based on retail division.

The activity carried out in institutional segment involves transactions performed by Business Centers, service branches and the Head Office of the Bank with corporate customers, small and middle enterprises, and microenterprises. While the Bank's activity towards individual client relates to the transactions with customers being natural persons.

Treasury and investment activities comprise activities on the inter-bank, debt securities and derivatives markets as well as capital investments. Treasury and investment activities embrace liquidity management, foreign currency and interest rate risk management of the Bank and settlements of transfer prices in transactions between funds and other business segments.

Brokerage activity include services for individual, as well as institutional clients.

The type 'other' (non-allocated to the segments) includes parts of statement of profit or loss, which were not allocated to any of the segments mentioned in sub-item a-d types of activities, in particular income and costs generated from non-classified clients.

Financial data of the following companies: BOŚ Eko Profit S.A., BOŚ Capital sp. z o.o. and MS Wind sp. z o.o are classified as those of corporate and public finance clients.

Products of divisions and areas of activities specified in items sub-item a-e above have been described in the "Management Report of the Bank Ochrony Środowiska S.A. in the 2018", Item II sub-item 7.

Products of the segment of treasury and investment activities comprise financial instruments, current and term inter-bank deposits and ALM clients, loans from other banks and loans granted to other banks, equity and debt securities, as well as derivatives.

The brokerage activity includes mainly purchasing and selling of securities for its own or a third person account, maintaining securities accounts, managing securities at a third party's order and offering securities on the primary market or in the IPO.

Assets and liabilities of the segments specified in sub-items a-b above were separated based on the Bank's credit and deposit base.

Net interest income includes the transfer settlements between institutional and individual division versus treasury and investment area. The transfer valuation of the funds is based on reference rates, additional funding rates and variable transfer rates, including currency, stability of funds and terms, which are referenced to yield curve. All relevant assets and interest-bearing liabilities, as well as off-balance sheet items that generate demand for liquidity shall be a subject of transfer rates measurement. The valuation is carried out on a monthly basis and is based on the average (daily) individual transactions of interest attributable to each segment separately for each currency.

The result from the operating activity of institutional division and individual division is the result from bank activities of these divisions decreased by the administration costs allocated directly to the transactions or units of the given division, as well as allocated costs and impairment losses write-offs. The financial result also includes mutual settlements relating to the customer service for the institutional segment by operating bank branches (allocated to the individual customer segment).

The financial results of the above-mentioned segments represent the sum of the following components:

- 1) Net interest income i.e. the sum of the difference between the interest income on loans and customer municipal bonds, and the costs for the funds received from ALM (treasury and investment activities) and income from the transfer of funds to the ALM, reduced by interest expense paid to the Bank's clients.
- 2) Net fee and commission income calculated as the difference between revenues from fees and commissions and costs associated to the transaction allocated to the segment. The result includes one-off income and expenses as well as those settled over time on a straight-line basis, while revenues and expenses settled in time with attributed transactions according to the effective interest rate method are recognized in net interest income.
- 3) Foreign exchange result, i.e. income from negotiated currency exchange transactions (forwards and SPOTs) and income from currency exchange according to the Bank's exchange rate table. Position includes the result from derivative transactions.
- 4) Net impairment losses and measurement of receivables at the fair value through the financial result, i.e result of changes in value of impairment losses for credits and municipal and corporate bonds, as well as the result on credits and municipal and corporate bonds measured at their fair value and allocated to the given activity area. The result includes changes due to exchange rate fluctuations of foreign currency loan impaired portfolio.

Segment result from the treasury and investment activities comprise the total of the results on the treasury activities and in the area of equity investments of the Bank, which consists of the following elements:

- Net interest income calculated as total of net interest income from transactions with external clients and the
 result from the settlements with other segments regarding transfer prices. External interest income and
 expense relate to transactions on inter-bank market (deposits and loans) as well as debt securities purchased
 and issued. Result on settlements concerning transfer prices is calculated as the difference between income
 from financing other segments' assets and expense on deposits received from other segments.
- 2) Foreign exchange result includes the result of speculative currency exchange transactions, revaluation of hedging items that hedge FX loans and changes in the valuation of items hedging active FX forwards. Position includes foreign exchange result not allocated to other segments.
- 3) Hedge accounting result includes the result from transactions hedging the cash flows and the fair value.

- 4) Result on financial instruments measured at the fair value through profit or loss, result on activity registered in the trading book as well as on financial instruments' operations, including FX Swap operations.
- 5) Result on investment securities relates to stock, shares and debt securities and the valuation of financial instruments.
- 6) Dividend income
- 7) Difference of impairment write-offs values and measurement of receivables at their fair value through profit or loss, result concerning shares and stocks and interest held in financial institutions assigned to the area of treasury and investment activities.

The table below presents consolidated financial results of BOŚ S.A. Capital Group for the periods ended 31 December 2018 and 31 December 2017 attributable to reporting segments.

No.	Statement presenting components of the statement of profit or loss for the period of 12 months ended 31 December 2018	INSTITUTIONA L CUSTOMERS	INDIVIDUAL CLIENTS	TREASURY AND INVESTMENT ACTIVITIES	BROKERAGE ACTIVITY	OTHER (NON- ALLOCATED TO THE SEGMENTS).	BOŚ GROUP
I. 1.	Net interest income Interest income -transactions with external clients	190,220 480,180 363,535	106,645 339,255 131,963	82,151 -187,544 131,830	6,327 8,569 976	-1,228 13 -	
	-transactions with other segments	116,645	207,292	-319,374	7,593	13	12,169
2.	Interest expense -transactions with external clients	-289,960 -55,336	-232,610 -137,809	269,695 -50,220	,	-1,241 -	-256,358 -244,189
	-transactions with other segments	-234,624	-94,801	319,915	-1,418	-1,241	-12,169
II. III. IV.	Net fee and commission income Dividend income Result on financial instruments assessed according to their fair value basing on the statement of profit or loss	51,031 - 17,019	8,252 - -176	- 811 5,932 19,040	41,142 137 26,707	-1,720 - - -	97,894 6,069 62,590
V. VI. VII. VIII. IX.	Result on hedge accounting Result on investment securities Foreign exchange result Net banking income Net income on other operating income and expenses	- 14 8,203 266,487 5,283	- 4,377 119,098 178	1,313 2,152 10,760 120,537	- 853 75,166 1,687	- 58 -2,890 -5,686	578,398
X. XI.	Net impairment losses for credits and loans Result on financing activities	-86,206 185,564	-45,085 74,191	-2,805 117,732	76,853	6 -8,570	445,770
1.	Direct costs Result after direct cost	-30,691 154,873	-28,390 45,801	- 117,732	-63,104 13,749	-1,820 -10,390	
2.	Indirect costs and mutual services Result after direct and indirect cost	-65,339 89,534	-74,911 -29,110	-12,613 105,119	- 13,749	- -10,390	-152,863 168,902
3. 4.	Depreciation Other costs (taxes, BFG, PFSA)	-14,064 -18,896	-16,465 -16,949	-2,088 -110		-1,177 -886	-39,784 -40,591
XII. XIII. XIV.	Profit before tax ALM result allocated Profit before tax after allocation of ALM result	56,574 38,481 95,055	-62,524 62,017 -507	102,921 -100,498 2,423	4,009 - 4,009	-12,453 - -12,453	88,527 - 88,527
XV.	Tax expenses						-24,799
XVI.	Net profit/loss						63,728
	Segment's assets	8,352,748	3,708,555	5,790,326	256,834	142,562	
	- in which credits and loans granted to customers, deposits and credits with other banks	8,094 151	3,708,555	175,517	27,398	10	12,005,631
	Segment's liabilities	4,697,152	8,351,083	4,109,266	878,275	215,249	18,251,025
	in which amounts due to customers and banks	4,695,824	8,351,083	1,510,297	721,241	92,448	15,370,893
	Capital outlays on fixed assets and intangibles	11,523	12,461	1,349	6,448	1	31,782

No.	Statement presenting components of the statement of profit or loss for the period of 12 months ended 31 December 2017	INSTITUTIONA L CUSTOMERS	INDIVIDU AL CLIENTS	TREASURY AND INVESTMENT ACTIVITIES	BROKERAGE ACTIVITY	OTHER (NON- ALLOCATED TO THE SEGMENTS).	BOŚ GROUP
I.	Net interest income	188,824	109,383	78,639	5,948		384,018
1.	Interest income	504,223	373,612	-212,520	8,541	2,519	676,375
	-transactions with external clients	388,599	149,986	122,810	937	1,209	663,541
	-transactions with other segments	115,624	223,626	-335,330	7,604	1,310	12,834
	j	,	ĺ	, ·	,	1	•
2.	Interest expense	-315,399	-264,229		-2,593		-292,357
	-transactions with external clients	-56,655	-159,960	-62,084	-820	-4	-279,523
	-transactions with other segments	-258,744	-104,269	353,243	-1,773	-1,291	-12,834
II.	Net fee and commission income	48,788	11,357	66	50,552	-1,708	109,055
III.	Dividend income	-	-	5,498	237	_	5,735
IV.	Net trading income (with SWAP)	_	-	19,768	45,944	_	65,712
V.	Result on hedge accounting	_	-	2,596	-	_	2,596
VI.	Result on investment securities	23	-	-1	-50	6,816	6,788
VII.	Foreign exchange result	10,290	4,222	10,464	-1,656		23,213
VIII.	Net banking income	247,925	124,962		100,975		597,117
IX.	Net income on other operating income and	-	-	·	Ī	-	
	expenses	-739	-4,808	-	-4,731	3,406	-6,872
X.	Net impairment losses for credits and loans	-128,914	-8,996	79	-	-1	-137,832
XI.	Result on financing activities	118,272	111,158		96,244	9,630	452,413
1.	Direct costs	-36,618			-69 140		-154,254
	Result after direct cost	81,654	68,047	114,174	27,104	7,180	298,159
2.	Indirect costs and mutual services	-56,075	-69,385	-11,814	_	_	-137,274
2.		25,579	-1,338		27,104	7,180	160,885
	Result after direct and indirect cost	-	·	·	Ī	-	-
3.	Depreciation	-14,878	-16,848		-6,015		-41,964
4.	Other costs (taxes, BFG, PFSA)	-22,167	-20,588		-3,695		-47,213
XII.	Profit before tax	-11,466	-38,774		17,394	4,782	71,708
XIII.	ALM result allocated	37,720	53,261	-90,981	-	-	-
XIV.	Profit before tax after allocation of ALM result	26,254	14,487	8,791	17,394	4,782	71,708
XV.	Tax expenses	_	_	_	-	_	-25,646
XVI.	Net profit/loss	_	_	_	_	_	46,062
	Segment's assets	8,689,237	3,958,712	6,526,336	371,108	131,327	19,676,720
	- in which Receivables from the customers,	8,374,799	3,958,712	363,140	22,861	9	12,719,521
	deposits and credits with other banks	0,374,733	3,930,712	303,170	22,001	9	12,719,321
	Segment's liabilities	4,873,498	8,791,078	4,820,898	949,392	241,854	19,676,720
	in which amounts due to customers and banks	4,856,871	8,791,078	1	709,658	-	15,943,367
					-		
	Capital outlays on fixed assets and intangibles	10,989	12,939	1,496	5,118	2	30,544

49. Related-party transactions

As at 31 December 2018, Bank Ochrony Środowiska S.A. acted as the parent entity for the following entities: Dom Maklerski BOŚ S.A., BOŚ Eko Profit S.A., and MS Wind Sp. z o.o.

National Fund for Environmental Protection and Water Management (NFEPWM) was the parent entity in relation to BOŚ S.A.

Key management personnel is treated as related party as well. Description of transactions with the Bank's

main shareholder, i.e. NFEPWM

As at 31 December 2018, as part of the Prosument program relating to financing purchase and assembly of installations for renewable energy sources, the National Fund for Environmental Protection and Water Management (NFEPWM) entrusted funds for preference loans for the amount of PLN 31,991 thousand, while as at 31 December 2017 they amounted to PLN 24,438 thousand.

The NFEPWM granted subsidies to loan interests for the clients, which in the 12-month period ended 31 December 2018 amounted to PLN 552 thousand, and PLN 1,016 thousand in 2017.

Transactions with NFEPWM were conducted under general public offer conditions of the Bank.

NFEP&WM is the entity related to the State Treasury. The Bank concludes transactions with related parties of the State Treasury - mainly from the public finance sector entities.

Information on loans and deposits of Management Board and Supervisory Board Members of BOŚ Group

As part of the operating activities, the transactions concluded with members of the management body and the key management personnel comprise mainly loans and deposits. The balances of individual balance sheet items at 31 December 2018 and 31 December 2017, and the related costs and revenues for the 12-month periods ended 31 December 2018 and 31 December 2017 are presented below:

Key management personnel

Specification	31-12-2018	31-12-2017
Loans granted	3	4
Credit lines granted	31	16
Donations received	1,645	1,679

Specification	01-01-2018	01-01-2017
	31-12-2018	31-12-2017
Interest expense on deposits	24	18

The key management personnel uses the loans and deposits on the general terms of the Bank's offer to the public

Remuneration of the key management personnel of BOŚ S.A.

Bank's Supervisory	Remuner	Remuneration		subordinate units
Board	Paid for the year 2018	Paid for the year 2017	Paid for the year 2018	Paid for the year 2017
Janina Goss	113,000	104,000	-	-
Oskar Kowalewski (1)	13,000	116,000	-	-
Andrzej Matysiak	127,000	112,000	-	-
Paweł Mzyk (1)	13,000	104,000	-	-
Piotr Sadownik	109,000	104,000	-	-
Marian Szołucha	111,000	104,000	-	-
Emil Ślązak	127,000	86,000	-	-
Wojciech Wardacki	160,000	153,000	-	-
Iwona Duda (2)	98,000	-	-	-
Dariusz Wasilewski (2)	98,000	-	-	-
Total	969,000	883,000	-	-

 $^{^{\,1}}$ member of the Supervisory Board until 13 February 2018

Total amount of remuneration of the Members of the Bank's Supervisory Board paid in 2018 includes: remuneration of the Members of the Bank's Supervisory Board, return of overpaid social security contributions, reimbursement of cost of tickets, petrol, accommodation.

Double Management Decord	Remune	ration	For the function in subordinate units	
Bank's Management Board	Paid for the year 2018	Paid for the year 2017	Paid for the year 2018	Paid for the year 2017
Anna Milewska (1)	104,000	434,000	-	-
Bogusław Białowąs	569,000	221,000	-	-
Dariusz Grylak (1)	62,000	310,000	-	
Konrad Raczkowski (2)	389,000	0,000	-	
Arkadiusz Garbarczyk	498,000	26,000	-	-
Emil Ślązak (3)	0,000	36,000	-	
Stanisław Kolasiński (4)	0,000	439,000	-	-
Paweł Pitera (4)	0,000	391,000	-	-
Stanisław Kluza (5)	0,000	620,000	-	-
Total	1,622,000	2,477,000	-	
in which:				
- short-term employee benefits	1,536,000	1,635,000		
post-employment benefitsbenefits due to termination of	86,000	408,000		
employment	-	434,000		

member of the Management Board until 21 February 2018

The total amount of remunerations to the Members of the Bank's Management Board paid in 2018 includes remuneration resulting from contracts concluded for providing management services and benefits due to termination of employment.

² member of the Supervisory Board since 13 February 2018

³ all payments were short-term employee benefits.

² member of the Management Board from 21 February 2018

member of the Management Board from 22 June to 10 September 2017

member of the Management Board from 16 February 2017

member of the Management Board until 30 June 2017

50. Business disposal, liquidation and business combinations

In 2018 the Bank performed twice the merger process of the entities making part of BOŚ S.A. Capital Group.:

- 1) on 30 May 2018, BOŚ Ekosystem Sp. z o.o. merged with BOŚ Capital Sp. z o.o.,
- 2) on 28 November 2018, BOŚ Capital Sp. z o.o. merged with BOŚ Eko Profit S.A.

According to the decision of the Regional Court for the City of Warsaw in Warsaw, 12th Economic Division of the National Court Register dated 30 May 2018, the companies BOŚ Ekosystem sp. z o.o and BOŚ Capital sp. z o.o. merged. The merger took place in line with the art. 492 §1 point 1 of the Polish Commercial companies code by transposition of assets of the acquired company BOŚ Ekosystem sp. z o.o. for the benefit of BOŚ Capital sp. z o.o., in exchange of granting the shareholders of the acquired company with the shares of the acquiring company. The total accounting value for the resulting company BOŚ Capital sp. z o. o. was the sum of valuation regarding both joint companies and amounted to PLN 37,871,065.73.

According to the decision of the Regional Court for the City of Warsaw in Warsaw, 12th Economic Division of the National Court Register dated 28 November 2018, the companies BOŚ Capital sp. z o.o. (merger previously with BOŚ Ekosystem sp. z o.o.) and BOŚ Eko Profit S.A merged. The merger took place in line with the art. 492 §1 point 1 of the Polish Commercial companies code by transposition of all assets of the acquired company BOŚ Capital Sp. z o.o. for the benefit of BOŚ Eko Profit S.A., in exchange of granting the shareholders of the acquired company with the shares of the acquiring company. The total accounting value of the resulting company BOŚ Eko Profit was the sum of valuation regarding both joint companies and amounted to PLN 45,248,306.14.

In such a manner, the process of reducing the number of companies included in BOŚ S.A. Capital Group ended. As at 31 December 2018 the Group was composed of:

- 1) Dom Maklerski BOŚ S.A. (direct subsidiary),
- 2) BOŚ Eko Profit S.A. (direct subsidiary),
- 3) MS Wind Sp. z o.o. (indirectly related entity (100% of the BOŚ Eko Profit S.A. engagement).

Companies of strategic importance for the Bank are as follows: Dom Maklerski BOŚ S.A. and BOŚ Eko Profit S.A., with the profile of activity, respectively:

- DM BOŚ operations on a capital market, especially brokerage services and
- BOŚ Eko Profit S.A. leasing activity, financial and advisory services supplementary to the Bank's offer of services.

Both companies contribute to the increase of the whole BOŚ Capital Group financial results and to the strengthening of the Bank's position.

51. Dividends paid and declared

BOŚ S.A. did not pay any dividends in the 12-month period ended 31 December 2018.

On 19 June 2018, the Ordinary General Meeting of BOŚ S.A. adopted the Resolution on distributing the net profit of the Bank for 2017. The net Bank profit for 2017 amounted to PLN 24,423,393.03 and was intended as a capital reserve of the Bank.

On 19 June 2018, the Ordinary General Meeting of BOŚ S.A. adopted the Resolution to use the capital reserve of BOŚ S.A. for covering the costs of shares of U series of the Bank, issued in 2016-2017, classified as a loss from previous years, amounting to PLN 6,963,108.45.

According to PPN, the net profit for 2018 is intended to increase the equity.

52. Subsequent events

BOŚ S.A. informed as follows:

- 1) On 04 January 2019 (current report no. 1/2019), a credit contract was concluded, in connection with construction of an office building "Mennica Legacy Tower" in Warsaw, with Mennica Towers GGH MT a limited liability company a limited joint-stock partnership under a consortium (mBank SA, Santander Bank Polska SA, Bank Ochrony Środowiska SA) for the total amount of EUR 131,500,000, for the purpose of a construction and investment loan and PLN 28,000,000 of loan for VAT purposes.
 - The Bank's part in the construction loan amounts to 43,750,000 EUR and PLN 12,000,000 million in loan for VAT purposes. (Total amount VAT included is over PLN 200 million). The contract expires on 30 September 2025. The Contract includes guarantee backed by a mortgage and other standard collaterals for such a type of transactions. The loan is intended to co-finance an investment consisting of constructing the office building "MENNICA LEGACY TOWER" in Warsaw.

The interest rate for a construction and investment loan is composed of EURIBOR rate, increased by the margin of the Bank, while the interest rate for a loan for VAT purposes is based on the WIBOR rate increased by a margin of the Bank. Price terms of the loan are in line with arm-length principles for such type of transactions. Disbursement of funds is conditioned by meeting by the Borrower the terms of use.

- 2) on 11 January 2019 (current report no. 2/2019) Fitch Ratings Ltd (Agency) upgraded the rating of the Bank and at the same time maintained the Bank's outlooks:
 - Long-term Foreign Currency IDR was increased to 'BB-' from: 'B+', 'B+' with stable outlooks,
 - Short-term Foreign Currency IDR was maintained at the level 'B',
 - National Long-term Rating was upgraded to 'BBB-(pol) from 'BB+(pol)', with stable outlooks,
 - National Short-term Rating was maintained at the level `F3(pol)',
 - Viability Rating was upgraded to 'bb-' from 'b+',
 - Support Rating was maintained at the level '4',
 - Support Rating Floor was maintained at the level 'B',
 - National long-term senior unsecured bond program with the value up to PLN 2 billion was upgraded to 'BBB-(pol)' from 'BB+(pol)'
 - National Short-term Senior Unsecured Bond Program with a value of up to PLN 2 billion was maintained at the level `F3 (pol)',
 - Rating for Subordinated Bonds, series R1, with a value of PLN 83 million was upgraded to 'BB+(pol)' from 'BB-(pol)'.

In its report, as main reasons of decision the agency raised among others: strengthening capital buffers of the Bank, realizing assumptions used in the strategy and limiting the risk of concentration of the Bank's engagement in the wind farm exposures compared to the previous review of the Bank. The current rating level results from the Agency's opinion concerning the limited possibility of extraordinary support for the Bank from the State in particular in the light of BRRD (bank recovery and resolution directive). However, the Agency expressed an opinion that the State institutions could take anticipatory actions to avoid the excess of regulatory capital requirements by the Bank considering the indirect holding of the State in the Bank and its role in financing ecological projects in Poland. As factors that could lead to an upgrade of rating, the Agency gave the example of i.a. further increase of profitability and improvement of the assets' quality.

Signatures of Members of the BOŚ S.A. Management Board

Date	Name surname	and	Position/function Signature
13.03.2019 B	ogusław Białową઼ક	5	President of the Management Board
13.03.2019 A	rkadiusz Garbarcz	zyk	-Vice-President, First deputy of the President of the Management Board
13.03.2019 K	onrad Raczkowsk	i	Vice-President of the Management Board
Signature of the signat	•		
13.03.2019	Andrzej Kowalczyl	<	Director of the Accounting Department