Ministry
of Finance

Republic
of Poland

THE PUBLIC FINANCE SECTOR DEBT MANAGEMENT STRATEGY in the years 2019-2022

Ministry of Finance

Warsaw, September 2018 r.

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I. INTRODUCTION

Pursuant to Article 75 of the Public Finance Act of 27 August 2009, the Minister of Finance is obliged to develop annually a 4-year strategy on managing the State Treasury (ST) debt and influencing the public finance sector debt. This document is presented by the Minister of Finance to the Council of Ministers for approval, and then it is submitted by the Council of Ministers to the Sejm, together with the justification to the draft Budget Act.

Public debt management is conducted at two levels:

- in a broader sense, debt management is a part of the fiscal policy and covers decisions on what portion of State expenditures is to be financed through debt, accordingly, what should be the level of public debt (this aspect is discussed in documents updated on an annual basis, devoted to the government economic programme, especially in the justification to the draft Budget Act and the Convergence Programme Update);
- in a narrower sense, debt management means the way of financing the State borrowing requirements and designing the debt structure, in particular by selecting markets, instruments and dates of issuance.

The macroeconomic and fiscal assumptions adopted in the Strategy are compliant with the assumptions of the draft Budget Act for 2019.

Table 1. Public debt and debt servicing costs – summary of the Strategy forecasts

Item	2017 (execution)	2018	2019	2020	2021	2022
1. Public debt						
GDP %	48.5%	47.0%	46.6%	45.2%	42.9%	40.7%
2. The amount specified in the article 38a (3) of the Public Finance Act*						
GDP %	47.7%	45.9%	45.4%	44.1%	41.7%	39.7%
3. General government debt						
GDP %	50.7%	49.2%	48.9%	47.7%	45.4%	43.4%
4. State Treasury debt servicing costs**						
a) PLN bn	29.6	30.7	29.2	30.4 - 31.3	31.9 - 32.7	33.9 - 34.6
b) GDP %	1.50%	1.46%	1.31%	1.28% - 1.32%	1.27% - 1.30%	1.27% - 1.30%

**) The amount of public debt recalculated using the yearly average of foreign currency exchange rates for the year concerned and reduced by the value of State budget liquid funds raised to finance the borrowing requirements for the following budget year.*
***)Forecasts of the debt servicing costs for the years 2020-2022 account for the exchange rate risk provisions.*

Under the adopted assumptions, at the end of 2018 the public debt-to-GDP ratio will decrease to 47.0%, to fall subsequently to 46.6% at the end of 2019. In the timeframe of the Strategy, the downward trend will continue and the public debt-to-GDP ratio will reach a level of 40.7% by the end of 2022. The ratio of the amount specified in Article 38a (3) of the Public Finance Act to GDP shall reach the level of 45.9% in 2018 and 45.4% in 2019, i.e. below the threshold of 48% included in the stabilizing expenditure rule, to decrease to 39.7% in 2022.

The general government debt-to-GDP ratio (according to the EU definition) will decrease to 49.2% in 2018 and 48.9% in 2019, to reach the level of 43.4% in the timeframe of the Strategy.

In nominal terms, the limit of ST debt servicing costs assumed in the draft Budget Act for 2019 will be lower than in 2018 (PLN 29.2bn compared to PLN 30.7bn). In relation to GDP, debt servicing costs will decrease from 1.46% in 2018 to 1.31% in 2019. It was assumed that in the timeframe of the Strategy, the debt servicing cost-to-GDP ratio will decrease to the level of 1.27% - 1.30%.

This *Strategy* is a continuation of the strategy developed last year. The objective of minimization of the long-term debt servicing costs subject to the adopted risk constraints remained unchanged. The tasks aimed at implementation of the *Strategy* objective, associated with the development of the financial market, i.e. ensuring liquidity, efficiency and transparency of the Treasury Securities (TS) market, as well as the task related to effective management of the State Budget liquidity have been maintained.

The following has been assumed for the accomplishment of the *Strategy's* objective in the years 2019-2022:

- the flexible approach towards shaping the financing structure in terms of selecting the market, currency and instruments shall be maintained, to the extent that cost minimization is achieved, subject to the assumed risk level limitations and avoiding distortions of monetary policy;
- the domestic market shall remain the main source of financing the State budget borrowing requirements;
- the share of foreign currency debt in the ST debt will be reduced to the level below 30% and in the timeframe of the *Strategy*, its gradual reduction will continue;
- building large and liquid fixed rate issues, both in the domestic, as well as the euro market, shall be a priority of the issuance policy;
- the average maturity of domestic ST debt shall be maintained at a level of around 4.5 years, subject to market conditions;
- the average maturity of ST debt shall be maintained at a level close to 5 years.

The *Strategy* comprises four annexes, including the glossary of terms.

II. VOLUME OF PUBLIC DEBT AND COSTS OF ITS SERVICING

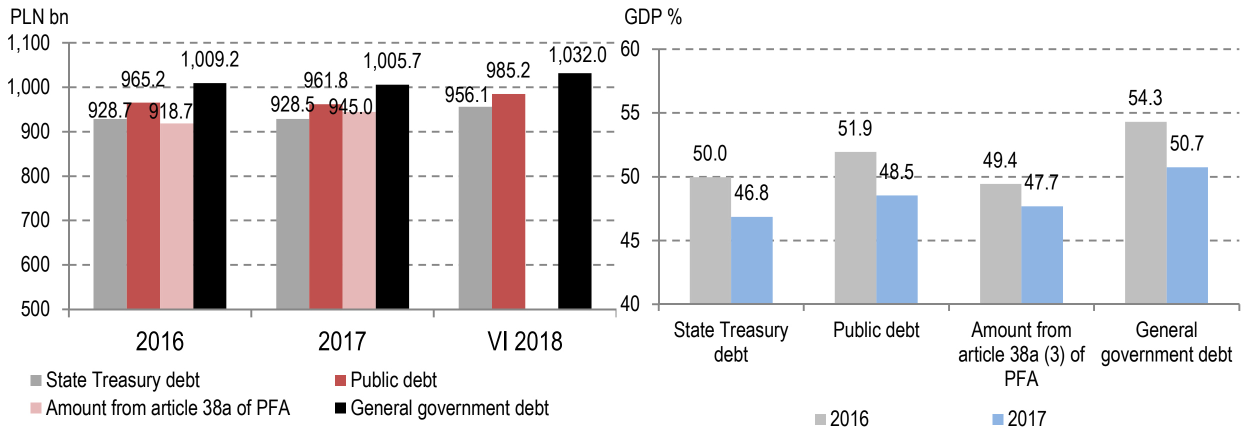
2017 was the first year with a nominal decline of public finance sector debt since this sector was legally defined and calculating of public debt became possible, i.e. since 1999 (excluding 2014 when the decrease in debt resulted from cancellation of bonds transferred by OFE (Open Pension Funds) to ZUS (Social Insurance Institution) under the pension system reform). At the end of 2017:

- public debt (i.e. public debt according to the domestic definition) amounted to PLN 961.8bn and was lower by PLN 3.4bn as compared with the end of 2016;
- general government debt (i.e. public debt according to the EU definition) amounted to PLN 1,005.7bn and compared to the end of 2016 fell by PLN 3.5bn.

In 2017 also the ratios of debt-to-GDP decreased:

- the public debt-to-GDP ratio stood at 48.5% compared to 51.9% at the end of 2016 (down by 3.4 percentage points);
- the general government debt-to-GDP ratio amounted to 50.7% compared to 54.3% at the end of 2016 (down by 3.6 percentage points) and was much lower than the ratio for the entire European Union (81.6% of GDP) and the euro area (86.7%)[1];
- the ratio of the amount specified in the Article 38a (3) of the Public Finance Act (public debt recalculated using average exchange rates reduced by the value of funds for pre-financing of borrowing requirements in the following budget year) at the end of 2017 reached a level of 47.7% of GDP, i.e. below the threshold of 48% defined in the stabilizing expenditure rule, as compared to 49.4% of GDP at the end of 2016.

Chart 1. Volume of public debt

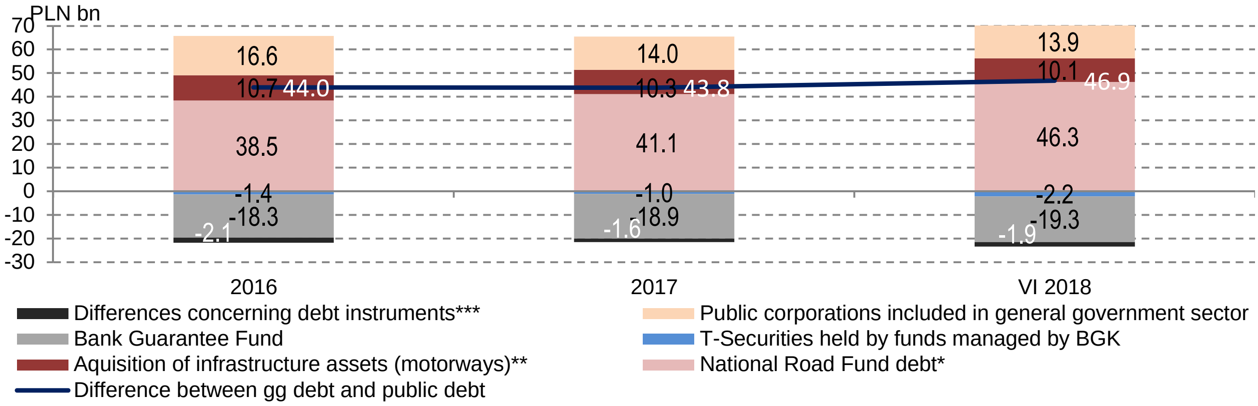


The differences between public debt and the general government debt arise from the following factors:

- different scope of public finance sector, including, inter alia, recognizing in the sector, according to the EU definition, of the National Road Fund – KFD (whose indebtedness increases the debt of the sector) and the Bank Guarantee Fund – BFG (TS held by it reduce the debt of the sector);
- differences related to liabilities, mainly matured payables, which are treated as public debt according to the domestic definition and are not included therein according to the EU definition.

[1)] The specification of the deficit and general government debt for EU Member States is presented in Annex 4.

Chart 2. Differences between general government debt (gg) and public debt



**) Debt consolidated within gg sector, i.e.: decreased by the nominal value of T-bonds held by Demographic Reserve Fund (FRD).*

***) In compliance with Eurostat guidelines on sector classification, general government debt figures include capital expenditures of certain infrastructure projects.*

****) Matured payables, debt assumption – activation of guarantee, CIRS transactions, restructured/refinanced trade credits, sale-lease-back operations.*

The detailed description of differences related to public debt according to the Polish and EU definition is included in Annex 3.

Changes in the volume of public debt in 2017 and in the 1st half of 2018 resulted mainly from changes in the ST debt, constituting approx. 93% of the public debt and approx. 89% of the general government debt. The decrease in the ST debt in 2017 was possible due to a very favorable situation of the state budget resulting in a significant reduction of borrowing requirements compared to the planned values. The appreciation of the zloty also played a significant role, which contributed to the reduction of the ST foreign debt recalculated into zloty. In the first half of 2018, the increase in debt was mainly a resultant of negative borrowing requirements, depreciation of the Polish zloty and accumulation of funds for financing of borrowing requirements in the course of the year. As of the end of August 2018, the level of financing gross borrowing requirements for 2018 amounted to 68% of the needs assumed in the Budget Act and 78% of the expected execution of 2018 resulting from the draft Budget Act for 2019.

Table 2. Factors affecting change in ST debt in 2017 and the first half of 2018 (PLN bn)

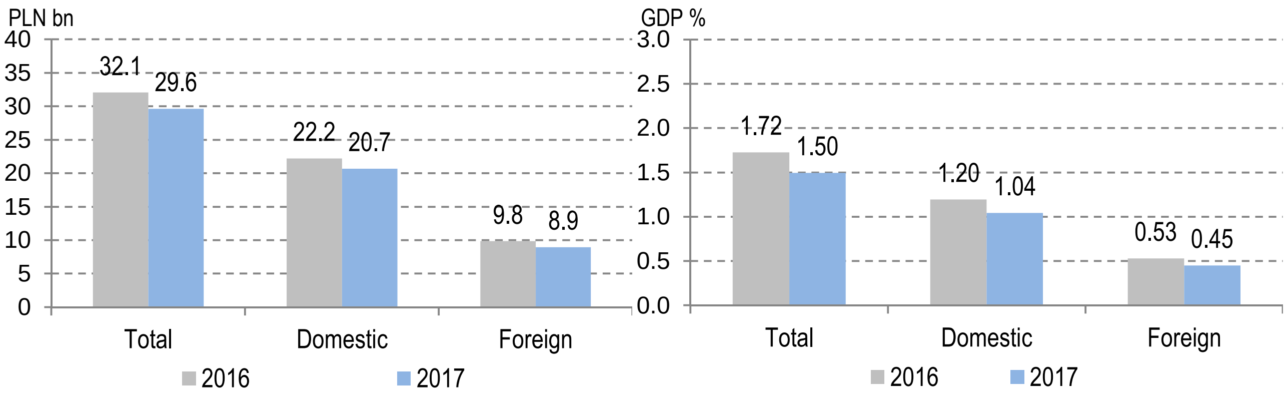
Item	2017	I-VI 2018
Change in ST debt	**-0.2**	**27.7**
1. State budget borrowing requirements::	**26.2**	**-17.9**
1.1. State budget deficit	25.4	-9.5
1.2. EU funds budget deficit	0.4	2.4
1.3. Pension reform costs [1)]	3.2	1.7
1.4. Proceeds from privatization	0.0	0.0
1.5. Balance of deposits from public finance sector entities and court deposits	-2.4	-5.9
1.6. European funds management	0.2	-5.9
1.7. Granted loans balance	0.0	0.1
1.8. Other borrowing requirements [2)]	-0.5	-0.8
2. Changes not resulting from State budget borrowing requirements::	**-28.6**	**43.1**
2.1. FX rates movements	-26.3	15.0
2.2. Changes in budget accounts balance	-10.9	27.6
2.3. Other factors [3)]	8.6	0.5
- transfer of bonds to BGK to increase its statutory fund	5.0	0.0

3. Change in other State Treasury debt:	**2.2**	**2.5**
3.1. Deposits from public finance sector entities [4)]	1.3	1.1
3.2. Court deposits [5)]	0.2	1.4
3.3. Other ST debt	0.7	0.0

1) Funds transferred to Social Security Fund (FUS) as compensation for contributions transferred to open pension funds (OFE).
2) Changes in pre-financing balance (of tasks co-financed with EU funds), capital payments to international financial institutions, other domestic and foreign settlements.
3) TS discount, TS indexation, sell-buy-back transactions.
4) Deposits from public finance sector entities with legal personality – their value does not increase public debt.
5) Court deposits from public finance sector entities with legal personality and entities outside public finance sector and collateral deposits connected with CSA agreements.

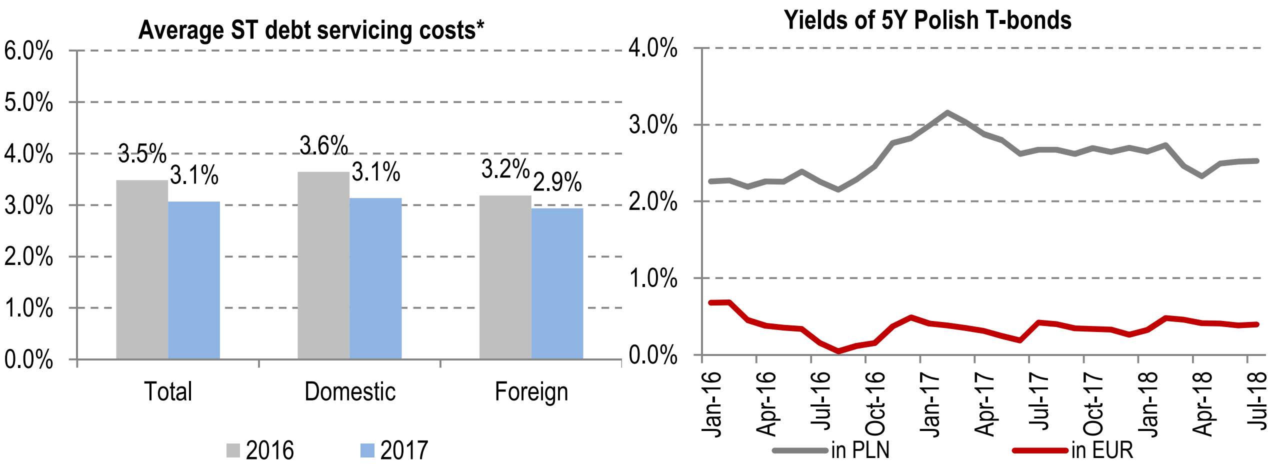
In 2017, ST debt servicing costs in nominal terms decreased from PLN 32.1bn in 2016 to PLN 29.6bn. The debt servicing cost-to-GDP ratio also decreased - from 1.72% in 2016 to 1.50% in 2017. Debt servicing costs for foreign debt were lower than for domestic debt, which resulted mainly from smaller share of foreign debt in ST debt.

Chart 3. ST debt servicing costs



The average debt servicing costs in 2017 decreased from 3.5% in 2016 to 3.1%, mainly as a result of reduction in domestic debt servicing costs. The level is still higher than the current cost of market financing, which results from servicing of debt incurred in the past at higher yields.

Chart 4. Market interest rates and average ST debt servicing costs

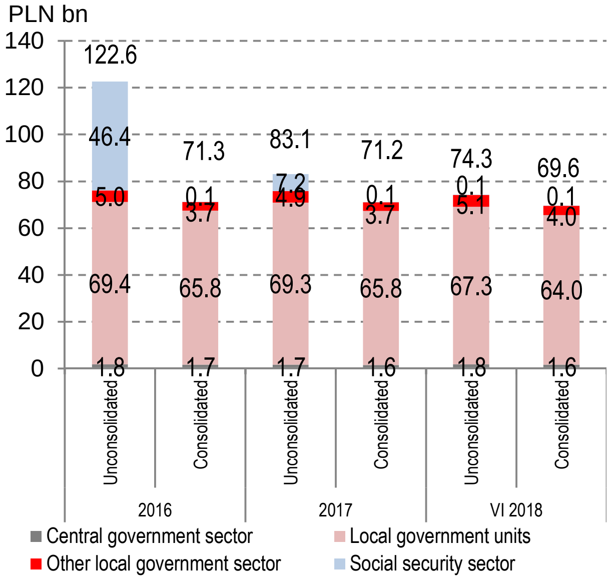


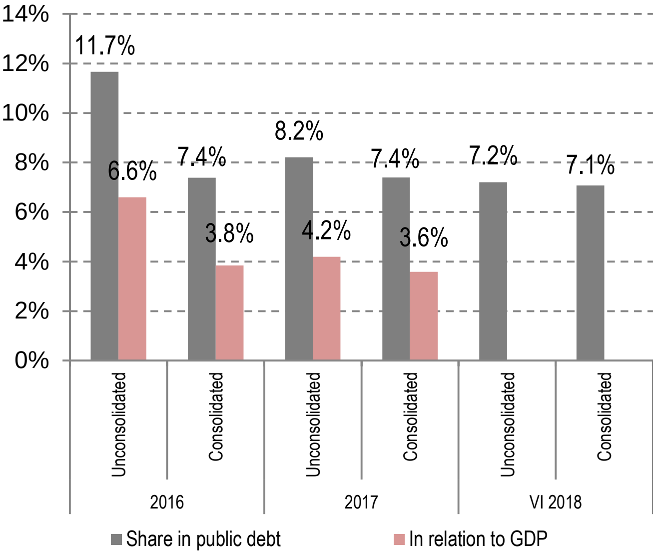
**) Average ST debt servicing costs were calculated as a ratio of the difference between debt servicing costs and revenues in a particular year to the average debt volume in this year.*

At the end of 2017, debt of entities other than ST accounted for 8.2% of public finance sector debt prior to consolidation (7.4% after consolidation), compared to 11.7% prior to consolidation (7.4% after the consolidation) at the end of 2016. At the end of the second quarter of 2018, these values reached the level of 7.2% and 7.1%, respectively.

The local government sector debt, in particular that of local government units (LGUs) and their associations, had the highest share in this part of the debt. Social insurance fund (FUS) liabilities constituted almost entire debt of social security sector. The difference between the level of unconsolidated and consolidated debt of social security sector resulted from the past financing of a part of FUS deficit with loans from the State budget (cancellation of all State budget loans granted to FUS in the first quarters of 2017 and 2018 reduced this difference, however, it had no impact on the level of public debt).

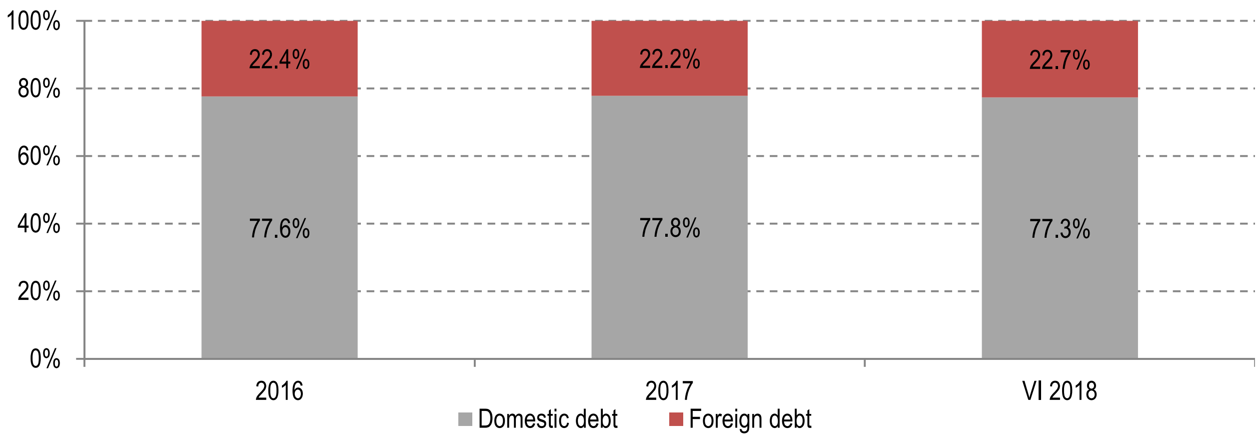
Chart 5. Volume and structure of debt of public finance sector entities other than the ST





Over the recent years, debt of LGUs and their associations has been decreasing. At the end of 2017, unconsolidated debt of this group of entities amounted to PLN 69.3bn compared to PLN 69.4bn at the end of 2016. At the end of the first half of 2018 LGUs debt reached the level of PLN 67.3bn.

Chart 6. Structure of debt of LGUs and their associations according to the place of issue



The structure of liabilities of LGUs and their associations is dominated by domestic debt (77.8% at the end of 2017 and 77.3% at the end of the first half of 2018). Loans prevailed in the debt of LGUs and their associations (94.3% both at the end of 2017 at the end of the first half of 2018).

III. EVALUATION OF IMPLEMENTATION OF THE STRATEGY'S OBJECTIVE IN 2017 AND IN THE FIRST HALF OF 2018

In 2017 and in the first half of 2018, debt management was conducted in accordance with *The Public Finance Sector Debt Management Strategy in the years 2017-2020,* adopted by the Council of Ministers in September 2016 and *The Public Finance Sector Debt Management Strategy in the years 2018-2021*, adopted by the Council of Ministers in September 2017.

Both documents defined the same debt management objective, i.e. long-term minimization of debt servicing costs, with the adopted constraints related to the levels of risk. Minimization of debt servicing costs was understood in terms of two aspects: selection of instruments and ensuring the effectiveness of the TS market.

III.1. Minimization of debt servicing costs – selection of instruments

In accordance with the assumptions of the *Strategy*, the domestic market remained the basic source of financing borrowing requirements. In 2017, on the domestic market TS with the face value of PLN 128.6bn were issued, including PLN 6.0bn of T-bills used for the management of the State budget liquidity through a year. On the other hand, funds with the face value of PLN 7.8bn were raised on foreign markets (almost entirely from the issue of bonds). In the first half of 2018, funds at a level of PLN 58.4bn were raised on the domestic market and PLN 9.0bn - on foreign markets, including PLN 4.8bn of loans from international financial institutions (IFIs).

Table 3. Sale of Treasury securities on domestic and foreign markets and loans from IFIs

Instrument	2016		2017		January - June 2018	
	PLN bn	%	PLN bn	%	PLN bn	%
Domestic TS	156.1	82.4	128.6	94.3	58.4	86.7
Foreign TS	28.9	15.3	7.7	5.7	4.2	6.2
IFIs loans	4.4	2.3	0.1	0.05	4.8	7.1

Among instruments issued on the domestic market, securities offered at auctions continued to dominate although the share of savings bonds significantly increased (from 5.3% in 2017 to 9.9% in the first half of 2018).

In the sale structure of TS offered on the primary market in 2017 and in the first half of 2018, medium- and long-term securities prevailed (with the maturity over 4 years). The share of these securities in sale increased from 66.2% in 2016 to 92.3% in the first half of 2018. In 2016 and 2017, after a three-years break, T-bills (with the maturity of 27-37 weeks) used for management of the State budget liquidity throughout a year, have been included in the sales offer.

Table 4. Sale of marketable TS on the domestic market by maturity

Instrument	2016	2017	January - June 2018
T-bills	4.3%	4.9%	0.0%
T-bonds with maturity up to 4 years (incl.)	29.4%	13.5%	7.7%
T-bonds with maturity over 4 years up to 6 years (incl.)	35.9%	43.4%	59.4%
T-bonds with maturity over 6 years	30.3%	38.2%	32.9%

Securities with a fixed interest rate had a predominant share in the sale structure of domestic TS in auctions, with a clearly increasing share of instruments with a floating interest rate (growth from 20.3% in 2016 to 40.0% in the first half of 2018) and a decreasing share of zero-coupon bonds (from 20.3% in 2016 to 7.7% in the first half of 2018).

Table 5. Sale of TS on the domestic market by the type of interest rate

Instrument	2016	2017	January - June 2018
Fixed rate bonds	54.3%	48.4%	52.4%
Zero-coupon bonds	20.3%	13.5%	7.7%
Floating rate bonds	20.3%	33.2%	40.0%
Inflation-linked bonds	0.8%	0.0%	0.0%
T-bills	8.0%	4.9%	0.0%

In the analysed period, on foreign markets, four issues of euro denominated bonds were conducted with the total value of EUR 2.8bn, including 10- and 20-year securities with the value of EUR 1.5bn. The issue of 2-year *private placement* bonds with the face value of EUR 300 million in November 2017, including the conducted hedging swap transaction (of IRS type), changing the floating rate to the fixed rate allowed to achieve a negative yield of transactions at a level of -0.15%.

In January 2018, for the second time in history, Poland issued euro denominated *Green Bonds* with 8.5 years. A high demand (EUR 3.25bn) allowed to reach the issuance amount of EUR 1bn. Proceeds from the issuance has been allocated for financing of environmental projects.

Table 6. Issuance of bonds on foreign markets in 2017 and in the first half of 2018

Period	Maturity (years)	Currency	Face value (in millions)	Yield
2017	10	EUR	1 000	1.471%
	20	EUR	500	2.198%
	2	EUR	300	-0.150%*
January - June 2018	8	EUR	1 000	1.153%

** yield after including the swap transaction*

In total, in 2017 and in the first half of 2018, loans from IFIs with the value of EUR 1.17bn were drawn, including EUR 1.15bn from the EIB.

Main factors which affected the process and financing structure of borrowing requirements in 2017 and in the first half of 2018 included:

1) external factors, in particular:

- the monetary policy carried out by the main central banks in the world:
  - **USA**: continuation of monetary policy normalization: three increases of interest rates in 2017 and two in 2018, each by 25 bp, accordingly the interest rate of federal funds ranged between 1.75-2.00%; implementation of the balance sheet normalization program from October 2017;
  - **euro area**: continuation of accommodative monetary policy stance and the announcement of interest rates maintaining at their low levels for an extended period of time (key interest rate at a level of 0.00%, deposit rate at a level of -0.40%); reducing the monthly scale of net asset purchase to EUR 60bn (from April 2017), including extension of the program at least until December 2017; announcing (in October 2017) the decision on decreasing the asset purchase program from January 2018 to EUR 30bn per month and continuation of the program at least until September 2018 or longer, if needed; announcing the decision (in June 2018) on reducing the monthly scale of the net purchase program to EUR 15 bn in the fourth quarter and termination of the program in December 2018, including the declaration on maintaining the rates at their present levels at least until summer 2019;
  - **China**: increasing interest rates in open market operations in March 2017 which, in accordance with the announcement of the Bank of China, did not mean an increase of interest rates (the key lending rate remained at a level of 4.35%);

- **Japan**: continuation of accommodative monetary policy: the asset purchase program at a level of JPY 80bn per annum, the key rate at a level of -0.1% (from January 2016), the yield curve control program (a possibility to buy back government bonds in order to maintain the yield of the 10-year tenor at a level close to 0.0%);

- geopolitical situation in the world affecting financial markets, including, among others:
  - presidential election in France (in April 2017) and the victory of E. Macron that was positively assessed by the markets (noticeable strengthening of bonds in the European debt markets, including the Polish bond market and the appreciation of the euro against the dollar, followed by the appreciation of Polish zloty);
  - election to the German Parliament (in September 2017) and concerns about establishment of the new coalition government that resulted depreciation of the euro against the dollar and substantial weakening of the zloty against the major currencies;
  - parliamentary election in Italy (in March 2018) and problems with establishment of the new government that raised concerns about early election and budgetary situation, affecting the euro depreciation against the dollar and depreciation of the zloty;
  - escalation of tensions in trade conditions between the USA and China and USA-EU, resulting from implementation of protectionist policy by President D. Trump's administration (from March 2018); this factor temporarily influenced the appreciation of the euro against the dollar and triggered a growth of risk aversion and depreciation of other currencies, including the zloty;

- strong euro appreciation towards the dollar (by 14.1% in 2017), followed by its depreciation in the first half of 2018 (by 2.6%), affected by a considerable euro depreciation in the second quarter of 2018 (by 6.7%);

2) local factors, in particular:

- monetary policy of Monetary Policy Council (RPP) and the developments in the domestic economy, including:
  - the policy of stable interest rates (including repo rates at a level of 1.5%) and the *wait-and-see* stance in monetary policy and statements of the President of the NBP concerning probable maintaining of unchanged interest rates by the end of 2018 or even 2019;
  - high GDP growth rate in 2017 and in the first quarter of 2018 and a positive outlook of the economy, with inflation remaining within the inflation target (1.5%-2.5%);
  - ratings of credit rating agencies: Moody's – upgrading Poland's rating outlook from negative to stable (in May 2017); S&P – upgrading rating outlook from stable to positive (in April 2018), Fitch – maintaining the rating at A- level with a stable outlook (throughout the entire analyzed period);
  - changes in the flows of foreign capital in the domestic TS market (capital inflow at a level of PLN 10.2bn in 2017, followed by its outflow in the first half of 2018 – PLN 10.6 bn) arising to a major extent from changes in flows of capital in the global financial market and normalization of the monetary policy by Fed;
  - strengthening of the Polish zloty against EUR and USD in 2017 (volatility in the EUR/PLN exchange rate – 4.6% against 7.5% in 2016, the exchange rate at the end of the year decreased to 4.17 from 4.42 at the end of 2016; in the case of USD/PLN exchange rate the volatility reached 9.0% against 11.6% in 2016, whereas the exchange rate at the end of the year decreased to 3.48 from 4.18), followed by its depreciation against two main currencies in the first half of 2018, with a lower volatility (EUR/PLN: volatility – 3.4%, exchange rate at the end of June 2018 – 4.36; USD/PLN: volatility – 7.4%, average exchange rate at the end of June – 3.74);

– decline in yields of domestic Treasury bonds in 2017 and, to a lesser extent, in the first half of 2018;

- uneven distribution over time of the State budget borrowing requirements, arising from budget execution (in 2017, almost all executed net borrowing requirements occurred in December) and from the redemption of bond issues falling in January, April, July and October;
- significantly better execution of the State budget in 2017, resulting in decreasing of net borrowing requirements to PLN 26.2bn compared to PLN 79.0bn assumed in the budget Act;
- maintaining a safe level of state budget liquidity, through pre-financing of a significant part of gross borrowing requirements of the next year at the end of the preceding year (26.0% of the requirements for 2017 and 27.7% of 2018).

III.2. Minimization of debt servicing costs – ensuring the effectiveness of the TS market

The most important measures aimed at minimization of debt servicing costs, in terms of ensuring the effectiveness of the Treasury securities market include:

- issuance policy assuming creation of liquid benchmark bond series. In mid-2018, the value of 12 issues exceeded PLN 25 bn whereas at the end of 2017, there were 11 such issues (10 issues at the end of 2016). Issues exceeding PLN 25bn constituted 66.3% of the face value of medium- and long-term bonds with fixed interest rate, compared to 60.9% at the end of 2017 (53.9% at the end of 2016). High value of issue significantly supports the level of liquidity in the secondary market;
- expanding the current offer of bonds issued on the domestic market by a 30-year bond. The WS0447 bond with the redemption date on 25 April 2047 and 4.0% coupon was issued for the first time at an auction in February 2017 after almost 10-years' break since the last issue of this type. At that time, the auction sale amounted to PLN 2.1 bn and the yield - to 4.27%. The bonds were purchased almost exclusively by the domestic insurance sector (99.3%). By the end of the first half of 2018, the 30-year bond was offered at 6 tenders and its total sale amounted to PLN 2.6 billion;
- issue of 5-year Treasury bonds with floating interest rate based on 6-month WIBOR, maturing on 21 July 2022 (PP0722) and the face value of PLN 2bn. The bond issued in the *private placement* system, dedicated to the Bank Guarantee Fund (BFG), contains the put option. The issuance enabled to raise funds at a lower cost than standard bonds issuance at the auctions. From the BFG perspective, the purchase of bonds allowed to obtain a higher yield than the alternative investment in NBP money bills while maintaining the liquidity for the execution of BFG statutory tasks;
- issues of bonds with the value ensuring liquidity of a particular series in the EUR market (three issues with the value of EUR 500m or higher, including two with the value of EUR 1 bn);
- adjusting the level and structure of the TS supply to the current market situation and influencing this situation through information policy;
- extension of the offer of saving bonds:

– since October 2017 new bonds with a fixed interest rate and a 3-month maturity has been implemented. The objective of the issue was to extend the investor base, increase propensity to save and promote saving bonds;

– in June 2018, a pilot issue of a new saving instrument was performed - 10-month premium Treasury bonds. These instruments have fixed interest rate and additional premium can be won by drawing lots. Premium bonds were issued as a part of measures encouraging savings growth and building saving culture;

- the *sell-buy-back* (SBB) type transactions between TS primary dealers (PD) and PD candidates and BGK under special terms (the mechanism was introduced in February 2014 in order to support the clearing under the circumstances of temporary and significantly limited availability of bonds of a given series in the secondary market). In 2017 and in the first half of 2018, transactions with the face value of PLN 17.3bn were concluded, which constituted 0.2% of all SBB transactions in the TS market;
- change in the method of determining the supply structure of bonds offered at auctions (as of January 2017). The new model assumes, among others:
  - offering at each auction (outright and switching one) a package of 5 series on-the-run Treasury bonds (2-, 5- and 10-year fixed interest rate bonds as well as floating interest rate with shorter and longer maturity); in addition, the offer may include fixed rate bonds with the maturity exceeding 10 years or inflation-indexed bonds, depending on reported investors' interest;
  - the total quarterly, monthly or specific auction supply remains maintained in relation to the previous model;
  - sale of a single bond at an auction does not exceed 50% of the upper value of the supply range for a given auction, as long as the reported demand permits;
  - rules concerning sale of bonds at supplementary auctions remained unchanged.

  The objective of introducing the new model was to limit the volatility of bond prices in the secondary market, particularly in periods before auctions and to minimize the risk of failure to adjust the supply to the current market conditions. The new model has met the issuer's expectations and its introduction was accompanied by an increase in the bid-to-cover ratio as compared to previous years.

III.3. Constraints on the level of risk

Table 7. Assessment of implementation of the Strategy objective constraints related to the level of risk

Constraints of the *Strategy* objective						
Constraint	Level of implementation*	Implementation method	Measure	Value		
				2016	2017	June 2018
Refinancing risk	High	• High share of sale of medium and long-term bonds in 2017 and in the first half of 2018 (respectively, 81.6% and 92.3% of all TS sold at outright and switching auctions); • Significant role of switching auctions (37.4% of the initial debt in bonds maturing in the period from January 2017 to June 2018 was bought back); • Maintaining the average maturity of domestic debt safely above the minimum level of 4 years defined in the *Strategy* for the years 2017-2020 and growth towards the target level of 4.5 years; • Maintaining the average maturity of ST debt safely above the level of 5 years defined in the *Strategy*; • Issuance of Treasury bills at a limited scale in the 1st quarter of 2017 as an instrument of State budget liquidity management.	ATM (in years)			
			- domestic	4.36	4.49	4.45
			- foreign	6.92	6.46	6.36
			- total	5.27	5.12	5.07
			Share in domestic TS:			
			- TS up to 1Y	10.5%	10.7%	11.2%
			- T-bills	0.0%	0.0%	0.0%
Foreign exchange risk	High	• Decreasing the share of foreign debt, in accordance with the *Strategy* assumptions; • Maintaining the effective share of euro denominated debt in total foreign debt (including derivative transactions) above the minimum level assumed in the *Strategy* (70%).	Share of foreign debt in ST debt	34.4%	30.6%	30.7%
			Share of euro denominated debt in foreign debt	75.2%	78.3%	78.8%
Interest rate risk	High	• Maintaining ATR of domestic debt in the range of 2.8-3.8 year, set in the *Strategy*; • Maintaining interest rate risk for foreign debt at a safe level, not posing a constraint to cost minimization.	ATR (in years)			
			- domestic	3.35	3.33	3.24
			- foreign	5.23	4.92	4.96
			- total	4.02	3.84	3.79
			Duration (in years)			
			- domestic	3.07	3.04	2.96
			- foreign	4.71	4.49	4.48
			- total	3.70	3.54	3.47

Constraints of the *Strategy* objective		
Constraint	Level of implementation*	Implementation method
Liquidity risk	High	The main instruments used in liquidity risk management included: • switching auctions at the spot market (in 2017, bonds of the face value of PLN 47.3bn were bought back, while in the first half of 2018, the value reached PLN 19.3bn); • interest-bearing PLN-denominated deposits at the NBP- deposits of the total value of PLN 104.1bn were placed in 2017, while those placed in the first half of 2018 amounted to PLN 53.9bn; • PLN denominated deposits where BGK acted as an intermediary - in 2017 transactions with the total value of PLN 1,943.6bn were concluded, whereas those concluded in the first half of 2018 amounted to PLN 1,138.9bn; • PLN denominated BSB deposits hedged by Treasury securities - in 2017 transactions of the total value of PLN 2.5bn were concluded, whereas those concluded in the first half of 2018 amounted to PLN 0.8bn; • FX deposits – in 2017 deposits of EUR 14.8bn were placed and in the first half of 2018 - of EUR 3.6bn; • sale of a part of foreign currency funds from the EU budget and those associated with the debt management directly on the FX market (in 2017, foreign currencies equivalent of EUR 1.5bn were sold) and in the NBP (EUR 8.0bn in 2017); • deposits of liquid funds of public finance sector units on the account of the Minister of Finance in BGK as part of liquidity management consolidation - at the end of 2017 accumulated funds amounted to PLN 42.2bn and the end of June 2018 - PLN 48.1bn. The level of State budget liquid assets in 2017 and in the first half of 2018 provided for smooth execution of budgetary flows.
Credit risk	High	• Deposits in BGK, secured with TS, do not generate credit risk; • For unsecured deposits in BGK, a system of credit limits is in place; • Credit risk connected with derivatives is limited by selection of counterparties with high credit rating; • Derivative transactions are be secured through blocking TS in the Central Securities Depository (KDPW) or mutual collateral in the form of cash deposit. Secured transactions do not generate credit risk; • The credit risk generated by unsecured transactions is diversified through limits imposed on the total value of transactions made with individual partners. Creditworthiness of potential partners is monitored on an on-going basis.
Operational risk	Satisfactory	• Debt management conducted in one department in the Ministry of Finance; • Technical infrastructure adequate to the requirements of conducting market transactions; • Security of information related to debt management; • Integrated database of the ST debt; • Situation on the labor market as a source of risk in the scope of possibility to maintain qualified staff.
Distribution of debt servicing costs over time	High	• Coupons of new issues were set at a level slightly below their forecast yields. Yields of both domestic and foreign bonds remained at levels allowing to issue new debt with coupons lower than those for bought back instruments, what had a positive impact on debt servicing costs; • Switching auctions in domestic market and USD denominated bond buy-back auctions contributed to smooth distribution of costs. The level of debt servicing costs was affected by swap transactions concluded in 2017 with the aim of distribution of debt servicing costs over time by using current savings. As a result, in 2017, costs increased by PLN 2.10bn while in 2018 they were reduced by PLN 2.13bn). In 2018, transactions aimed at distributing debt servicing costs over time throughout a year were also conducted.

**) In accordance with the scale: high, satisfactory, moderate and low.*

IV. ASSUMPTIONS OF THE STRATEGY

The following subchapters present the main macroeconomic assumptions of the *Strategy* and the market conditions that affect debt management. The issues discussed include the role of both domestic and foreign investors in the domestic TS market as well as the potential developments in the major international markets.

IV.1. Macroeconomic assumptions of the *Strategy*

The assessment of the macroeconomic situation and directions of the fiscal policy was presented in the justification to the draft Budget Act for 2019. Table 8. contains the macroeconomic assumptions of the *Strategy*, compliant with the assumption of the draft Budget Act.

Table 8. Macroeconomic assumptions adopted in the Strategy

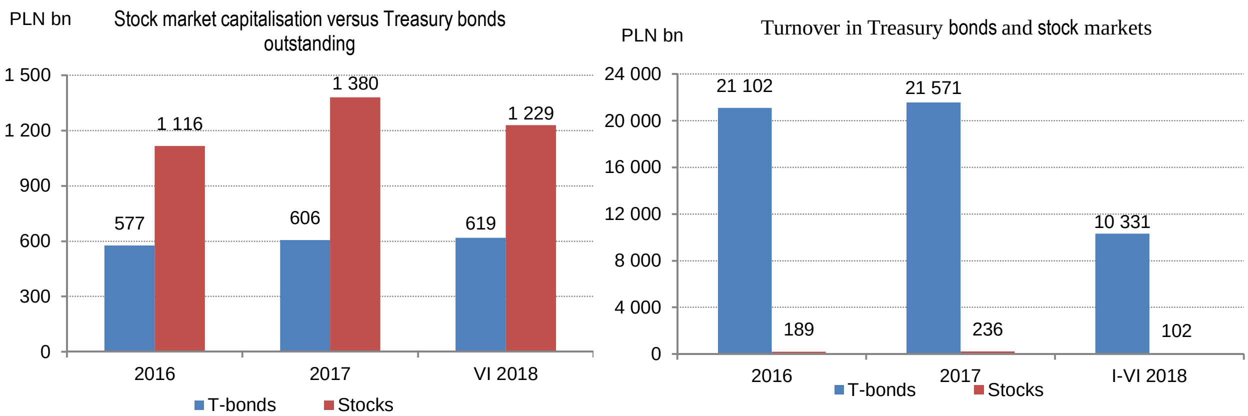
Item	2017	2018	2019	2020	2021	2022
Real GDP growth (%)	4.6	3.8	3.8	3.7	3.6	3.5
GDP at current prices (PLN bn)	1,982.1	2,104.6	2,233.7	2,372.3	2,517.7	2,670.0
Average CPI (%)	2.0	2,3	2,3	2,5	2,5	2,5
USD/PLN - end of period	3.4813	3.3442	3.3442	3.3442	3.3442	3.3442
EUR/PLN - end of period	4.1709	4.1461	4.1461	4.1461	4.1461	4.1461

IV.2. Domestic TS market

The level of development of the domestic financial market, including the domestic investor base, as well as the involvement of foreign investors in this market are significant determinants of debt management. Under the conditions of free capital flow, a well-developed and deep domestic market allows for absorption of external shocks and outflows of foreign capital.

In terms of value of traded securities, the value of the domestic TS market at the end of June 2018 corresponded to 54% of stock market capitalization. However, this market demonstrates a definitely higher liquidity - turnover in T-bonds exceeded trade in the stock market by over hundred-fold.

Chart 7. Comparison between Treasury bonds and stock markets



Entities investing in the domestic TS market can be divided into three main groups: domestic banking sector, domestic non-banking sector and foreign investors. In 2017 and in the first half of 2018, the following changes in the holders' structure of domestic TS debt were observed:

- an increase in domestic banks' holdings (by PLN 27.6bn in total) and maintaining their prevailing share in the debt holders' structure (41.3%);

- an increase of TS portfolios of domestic non-banking investors by the total of 21.4bn, stemming mainly from the growth of holdings of investment funds, individual investors, so-called other entities (including mainly BFG and FRD) as well as insurance companies;
- holdings of foreign investors at the end of the first half of 2018 remained at a similar level compering to the end of 2016 - the inflow of foreign capital in 2017 was followed by, outflow of non-residents from the domestic TS market in the first half of 2018.

Chart 8. Structure of domestic TS portfolios held by main groups of investors

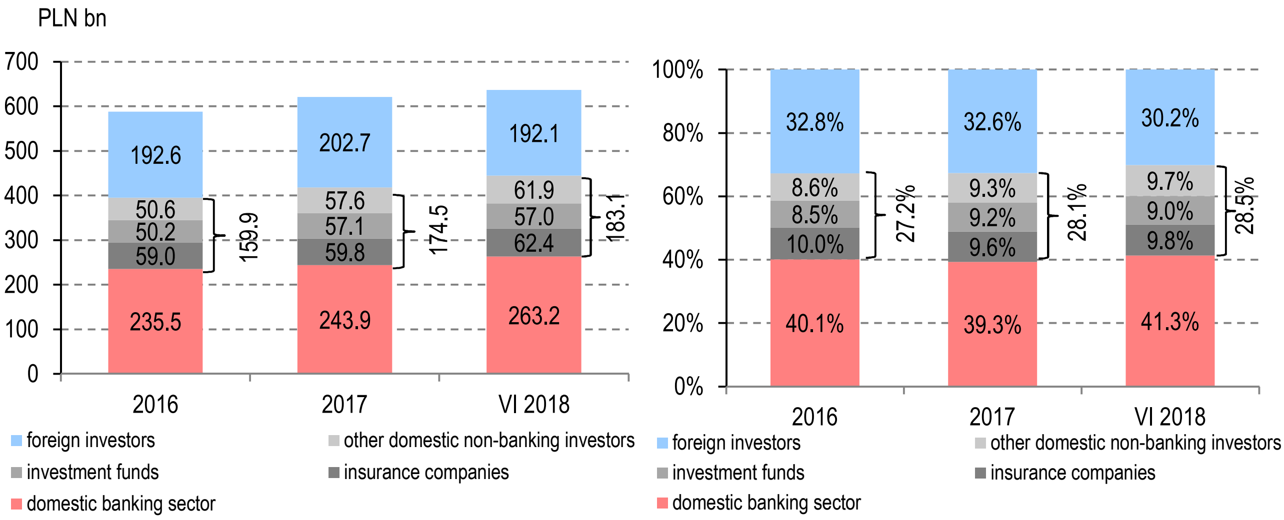
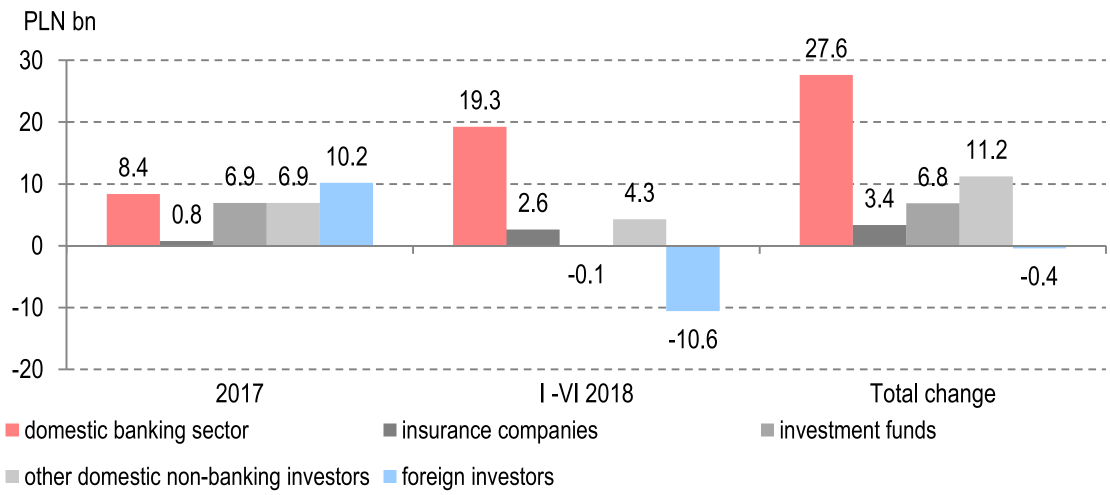


Chart 9. Changes in domestic TS portfolios held by main groups of investors

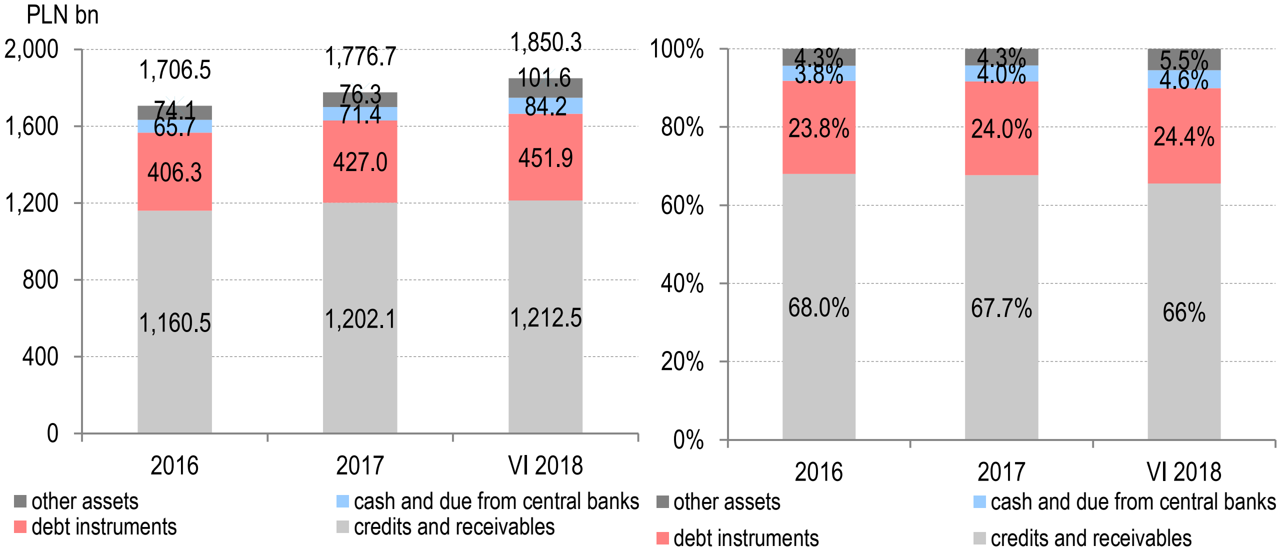


As at the end of June 2018, domestic investors held 69.8% of domestic TS debt, which means an increase by 2.6 pp compared to the end of 2016. Institutional investors prevailed among domestic investors, however, over the recent year, a growth in the TS portfolio held by individual investors showed the highest dynamics. Since the end of 2016, their holdings have increased from PLN 11.8bn to PLN 18.0bn, i.e. by 53.2%, which resulted mainly from growing interest in the offer of saving bonds.

IV.2.1. Domestic banks

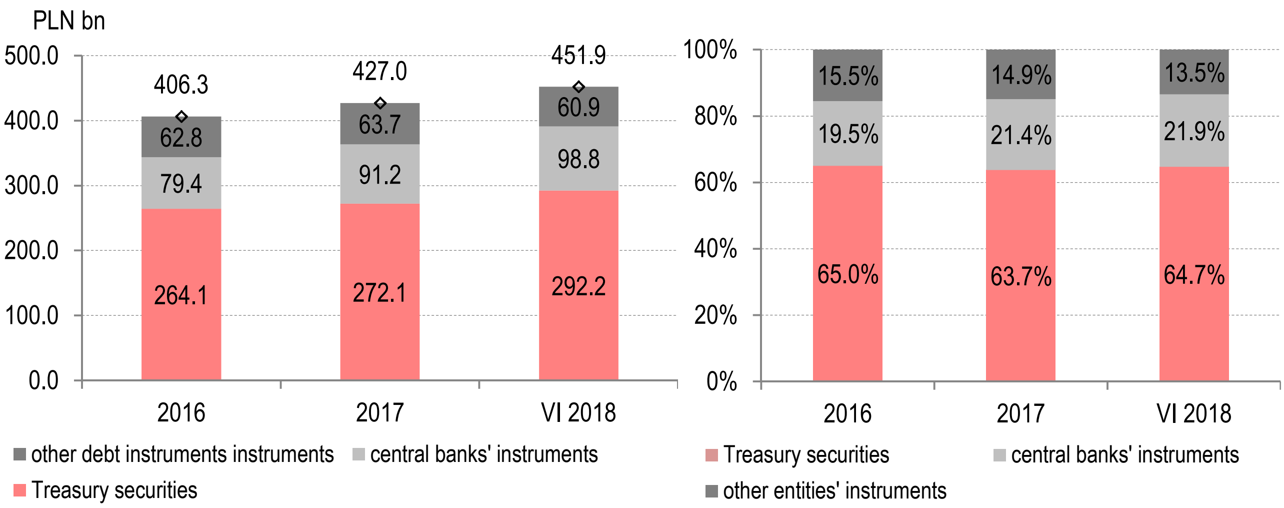
At the end of June 2018 assets of domestic banks reached almost PLN 1.9bn (an increase by 8.4% compared to the end of 2016), with the dominant share of credits and receivables (ca. 66%). Debt instruments were the second largest component of assets; their share increased from 23.8% at the end of 2016 to 24.4% at the end of June 2018. The prevailing share in the structure of debt instruments had Treasury securities, mainly Polish ones (above 99%) and NBP money bills. Over the recent years the growth of banks' assets was accompanied by an increase in banks' holdings of both Treasury bonds and NBP money bills. A factor contributing to maintaining a significant increase in banks' demand for TS was introduction from February 2016 of the tax on certain financial institutions, comprising mainly banks and insurance companies.[2)] At the same time, the value of the banks' credits and receivables portfolio was also increasing.

Chart 10. Structure of domestic banks' assets



Source: Data of Polish Financial Supervision Authority, according to biding pricing methods

Chart 11. Debt instruments in domestic banks' assets



Source: Data of Polish Financial Supervision Authority, according to binding pricing methods

The most significant factors to affect banks' demand for domestic TS in the timeframe of the *Strategy* include:

- development of economic situation affecting the size and structure of banks' assets, including the scale of loans granted and development of the level of deposits;
- the level of over liquidity of the banking sector;
- persisting low interest rates and their probable growth in a medium-term timeframe;
- tax on certain financial institutions.

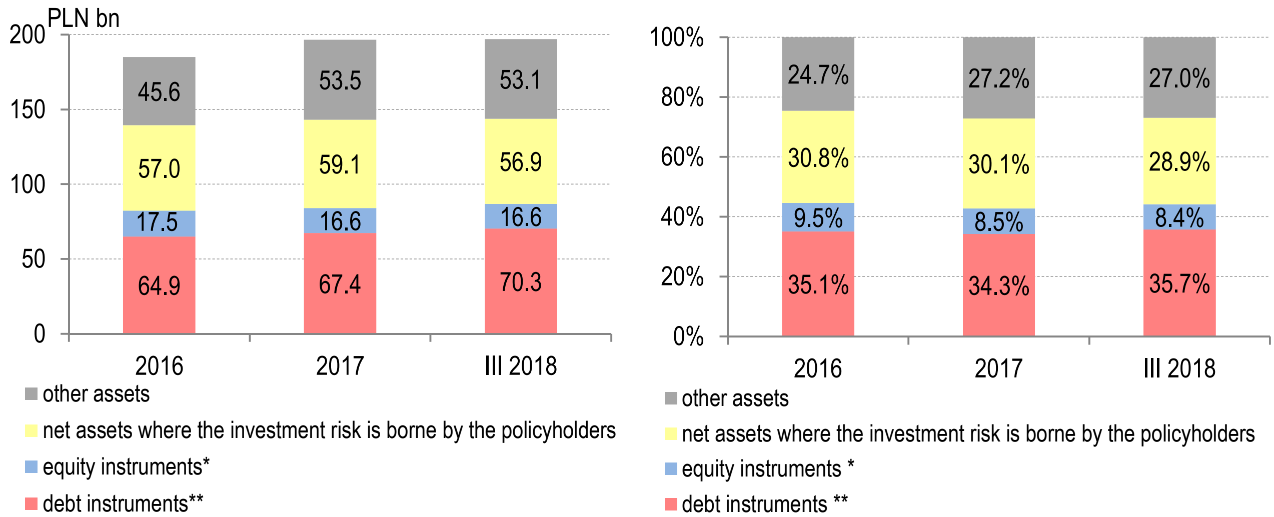
[2)] Tax base are assets decreased by, inter alia, own funds and Polish TS.

IV.2.1. Domestic non-banking investors

Insurance companies and investment funds represent two largest groups of domestic non-banking sector investors. As of the end of June 2017, these entities held 9.8% (a decrease by 0.2 pp compared to the end of 2016) and 9.0% (a growth by 0.4 pp compared to the end of 2016) of domestic TS, respectively. The main factors affecting the value of TS portfolio held by investment funds and insurance companies include the value of assets and the investment policy of those entities.

The level of insurance companies' assets reached PLN 196.9bn as at the end of March 2018, which means an increase by PLN 11.9bn, i.e. by 6.4% compared to the end of 2016. Since the end of 2016, the portfolio of debt instruments and other fixed income securities where TS prevail, has increased by PLN 5.4 bn, i.e. by 8.3%.

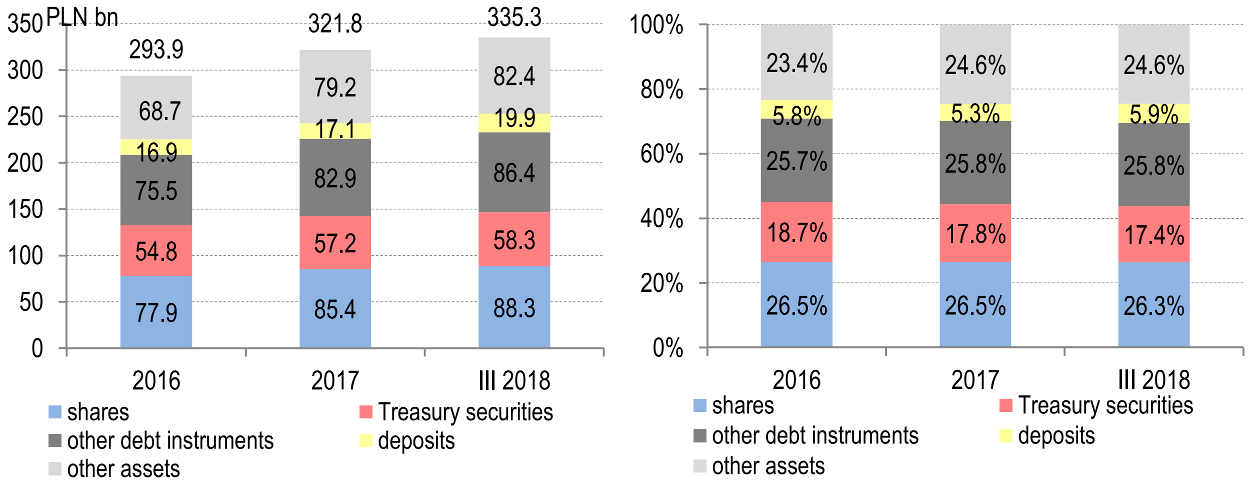
Chart 12. Structure of insurance companies' assets



Source: Data of Polish Financial Supervision Authority, according to binding pricing methods
**) Shares, participating interests and other variable-yield securities, units and investment certificates in investment funds*
***) Debt securities and other fixed-income securities*

As at the end of March 2018, net assets of investment funds amounted to PLN 335.3bn, which meant an increase by PLN 41.4bn (14.1%) compared to the end of 2016. The value of T-bonds held by investment funds increased by PLN 3.5bn whereas their share in assets remained at a stable level (17-19%).

*Chart 13. Structure of investment funds' net assets**



Source: Data of National Bank of Poland, according to binding pricing methods
**) Excluding money market funds and funds in liquidation as defined in the ECB methodology*

The main factors to determine the value of TS portfolio in assets managed by non-banking financial institutions in the forthcoming years include:

- further development of the insurance and investment funds markets;
- development of domestic savings, including implementation f the Capital Accumulation Programme aimed at increasing the scale of savings in the economy as well as building the culture of households' long-term savings. One of its pillars are the Employee Equity Schemes (PPK) to be established with the aim of regular accumulation of long-term savings by their participants, allocated for disbursement after the end of professional activity. In August 2018, the Council of Ministers adopted the draft Act on the PPK, pursuant to which contributions to the PPK will be made by an employer and the participant of the scheme; special support of the state for PPK participants has been also foreseen. Funds accumulated in the PPK will constitute private ownership of participants while saving in the PPK will be optional (each employee will be automatically enrolled to the programme, with a possibility to withdraw from it). First groups of employees will start accumulation of savings in the PPK from mid-2019. Establishment of the PPK will significantly increase assets of financial institutions qualified as PPK management companies (after fulfilment of the conditions defined in the Act) and, consequently, increase the demand from non-banking domestic investors for domestic TS;
- situation in the stock market, which is one of the factors determining households' decisions on savings allocation;
- persisting low interest rates, encouraging households to search for capital investment opportunities, alternative to bank deposits.

Besides the aforementioned factors, the development of the share of domestic investors in the holder's structure of domestic TS debt in the forthcoming years will largely depend on the level of borrowing requirements, determining the TS supply offered to investors.

IV.2.1. Role of foreign investors

Foreign investors play a significant role in financing the state budget borrowing requirements on the domestic market. The inflow of foreign investors to the domestic market in 2017 was followed by an outflow of non-residents' capital in the first half of 2018, mainly in the scope of bonds with short maturity (up to 3 years). The share of foreign investors in domestic TS debt at the end of June 2018 amounted to 30.2% and decreased by 2.6 pp against the end of 2016. The decline in the share of non-residents was driven on the one hand by local factors, including lower TS supply in 2017 and in the first half of 2018 resulting from good budgetary situation, as well as the continuing high demand from domestic investors, and on the other by international factors, such as the monetary policy of major central banks and the global geopolitical situation.

The foreign investors' demand depends, to a large extent, on international situation and, as a consequence, is highly volatile. However, the risk of sudden outflow of foreign capital from Poland is limited due to high diversification, both institutional and geographical, of the non-resident structure. The structure of debt held by non-residents is dominated by stable institutional investors, in particular, central banks and public institutions which constitute over a quarter of the total debt.[3)]. The geographical structure of domestic TS holders also demonstrates high diversification - as at the end of June 2018 TS were held in the portfolios of investors from 59 countries.

The most important factors to affect non-residents' demand for Polish TS in the timeframe of the *Strategy* include:

- actions undertaken by central banks;

[3)] The structure does not include omnibus accounts.

- Poland‘s strong economic foundations;
- assessment of Poland's credit risk;
- persisting disparity in interest rates;
- functioning of a large and liquid financial market in Poland (in particular, the TS market) and its adequate infrastructure (the development of a comprehensive Capital Market Development Strategy is to support the development of the Polish capital market).

Due to free flow of foreign capital, non-residents' investment in domestic TS, as well as raising funds in international markets, may be the source of exchange rate risk for ST debt, due to their impact on the zloty exchange rate. Therefore, this factor determines a flexible approach to shaping the financing structure in terms of selection of the market and currency.

IV.3. International conditions

The most important international conditions from the perspective of ST debt management include:

- the situation on the interest rate markets for the currencies in which liabilities will be incurred, predominantly in the EUR and USD markets, and actions undertaken by central banks:
  - declared gradual normalization of the monetary policy by Fed – successive increases of interest rates and reducing the bank's balance sheet; according to the June projection of interest rates Fed members forecast acceleration of the pace of monetary policy normalization in this year, while maintaining unchanged scale of its tightening in a 3-year forecast horizon;
  - continuation of accommodative monetary policy announced by the ECB – despite a gradual reduction of a monthly scale of assets purchases and the declaration of termination of the programme in December 2018, the central bank maintained the intention to reinvest the principal payments from maturing securities purchased under the asset purchase programme for an extended period after the end of the net asset purchases, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample pace of monetary policy. The ECB expects to maintain the key interest rates at least until the summer of 2019, or when adjustment of inflation to target level (2.0%) is sustainable;
  - continuation of the asset purchase programme by the Bank of Japan and maintaining of the reference interest rate at a negative level as long as the inflation target is achieved;
  - maintaining the negative deposit rate and the negative fluctuation band for the three-month LIBOR for CHF by the Swiss National Bank and the readiness to intervene in the foreign currency market, if it is required to counteract excessive CHF appreciation;
  - tightening of the monetary policy by the People's Bank of China;
- the perception of Poland's credit risk and liquidity preferences of buyers of Polish T-bonds operating in global markets, which affect the level of the premium in relation to core markets;
- economic and political conditions affecting the level of risk appetite in global financial markets, including, among others:
  - the risk of enhanced protectionism in the US trade policy and response of other countries to this policy;
  - uncertainty about the future of the negotiations between the EU and the UK concerning the terms and conditions of this country's exit from the European Union.

V. OBJECTIVE OF THE STRATEGY

The objective of the *Strategy* will remain **the minimization of the long-term debt servicing costs subject to the constraints at the level of:**

1) refinancing risk,
2) exchange rate risk,
3) interest rate risk,
4) State budget liquidity risk,
5) other risks, in particular credit risk and operational risk,
6) distribution of debt servicing costs over time

This objective, determining the debt management, is understood in terms of two aspects, as:

- **selection of instruments**, aimed at cost minimization within the timeframe defined by maturity of the longest maturity instruments and a significant share in debt, through the adequate selection of markets, debt management instruments, structure of financing borrowing requirements and issuance dates;
- **ensuring the efficiency of the TS market**, contributing to the lowering of TS yields. It means striving to eliminate or limit potential unfavorable factors in market organization and infrastructure.

The approach to accomplishment of the objective of minimization of debt servicing costs has not changed in relation to the previous year's *Strategy*. This means the possibility of a flexible financing structure in terms of selection of the market, currency and type of instruments, including with the use of derivative instruments. The choice of this structure should result from an assessment of market conditions (level of demand, interest rates and the shape of the yield curve in individual markets, as well as the expected levels of exchange rates) and the financing cost in the long term, taking into consideration constraints resulting from the acceptable risk levels.

Experience in debt management indicates a significant role of flexibility and diversification of sources of financing borrowing requirements, subject to market situation. It contributes both to ensuring the security of financing the State budget borrowing requirements as well as to the reduction of its cost, which is particularly important in the period of disruptions in financial markets.

The domestic market shall remain the main source of financing the State budget borrowing requirements. The supply of instruments in this market will be developed in a flexible manner, adapted to the current market situation, i.e. the reported structure and level of demand, so that the TS supply impact on the yields can be minimized. Financing in international markets will supplement domestic financing and its level should:

- take into account the borrowing requirements of the budget in foreign currencies as well as inflow of EU funds;
- ensure diversification of funding sources through the access of Poland to the investor base in major financial markets;
- maintain the position of Poland in the euro market;
- stabilize the domestic market through ensuring the security of financing the State budget borrowing requirements in case of temporary disturbances in the domestic market;

- utilize the attractive financing in international financial institutions;
- allow for selling currencies on the financial market or in the NBP as a financing instrument of foreign currency borrowing requirements and managing the foreign currency funds, while taking into account monetary and economic policy considerations as well as financial rationale.

Minimization of long-term debt servicing costs will be subject to constraints related to the debt structure. Therefore, the following assumptions have been made in the scope of:

1) refinancing risk

- maintaining of the dominant role of medium and long-term instruments in the State budget borrowing requirements financing in the domestic market subject to market situation;
- maintaining of the ATM of domestic debt at the level close to 4.5 years, subject to market conditions;
- maintaining the average maturity of ST debt at a level close to 5 years;
- aiming at an even distribution of redemptions in the following years;

2) exchange rate risk

- decrease in the share of foreign currency debt below 30% and continuation of its gradual reduction within the timeframe of the *Strategy*;
- possibility to use derivative instruments in order to shape an adequate debt currency structure;
- within the timeframe of the *Strategy*, the effective (i.e. taking into account derivative transactions) share of euro in the foreign currency debt at a level of at least 70%;

3) interest rate risk

- keeping ATR of the domestic debt in the range of 2.8-3.8 years;
- separating the management of the interest rate risk from the management of the refinancing risk by using floating-rate bonds and inflation-linked bonds, and a possibility to use derivatives;
- the current level of foreign debt interest rate risk does not restrain cost minimisation;

4) State budget liquidity risk

- maintaining the safe level of State budget liquidity while managing liquid assets in an effective way. Their level will be determined on the basis of current and forecasted budgetary and market situation, including budget seasonality and smoothing of TS supply over the year;
- a possibility to use FX funds and derivative transactions in managing the currency structure of liquid assets;

5) other risks, in particular credit risk and operational risk

- concluding derivative transactions with entities of high creditworthiness;
- using solutions mitigating credit risk (including collateral agreements) and allowing for its diversification while concluding derivative transactions. In the timeframe of the Strategy, concluding further collateral agreements that are in line with the current best practices in the market and enable to conclude transactions on more favorable terms without bearing credit risk;
- diversification of credit risk generated by uncollateralized transactions;

6) distribution of debt servicing costs over time

- aiming at an even distribution of debt servicing costs in subsequent years, including the use of derivative instruments;
- setting bond coupons at a level slightly below their forecasted yield in the period of sale.

VI. TASKS OF THE STRATEGY

The following tasks have been recognized as essential for implementing the objective of the *Strategy*:

1) ensuring liquidity of the TS market,

2) ensuring efficiency of the TS market,

3) ensuring transparency of the TS market,

4) effective State budget liquidity management.

The tasks assumed in the *Strategy* connected with TS market development are long-term and cover measures implemented on a continuous basis. These tasks are to a large extent interdependent, i.e. individual measures may contribute to the implementation of more than one task at a time. Accordingly, the measures undertaken should be mainly aimed at maintaining the proper functioning of the market or its further improvement, in order to contribute to the better implementation of the *Strategy* objective.

The measures aimed at effective management of the State budget liquidity have been distinguished as an independent task.

VI.1. Ensuring liquidity of the TS market

This task relates to liquidity of both the entire TS market and individual issues, and it is associated with striving to eliminate the premium for insufficient liquidity (and the associated high costs of exit form investment) as well as to the increase in demand from investors interested only in liquid issues. Both of these factors contribute to decreasing TS yields and, accordingly, to the minimization of ST debt servicing costs. In the timeframe of the *Strategy*, continuation of the former policy is planned, i.e.:

- building large series of bonds (benchmarks) in the domestic market - in case of medium- and long-term bonds with fixed interest rate their value should amount to at least PLN 25 bn, taking into account the aim of an even distribution of redemption over time;
- large liquid bond issues in the euro market and, subject to market conditions, also on the US dollar market;
- adapting the issuance policy, including sale, switching and buy-back auctions to market circumstances, including the demand in particular segments of the TS market.

VI.2. Ensuring efficiency of the TS market

This task is aimed at minimizing debt servicing costs under the second out of two aspects of implementation of this objective, discussed in Chapter V and covers measures both in the primary and in the secondary market:

- adjusting the issuance timing in the domestic and foreign market to the market and budgetary conditions;
- increasing and strengthening the role of the PD system in the scope of development of the TS market and in debt management operations - in the areas where participants of the PD system are at least as competitive as other financial market participants, conclusion of transactions and selection of partners will be carried out taking into account preferences resulting from their participation in the system; within the development of the system linking of the PD activity with a possibility of TS purchase on additional offer on a sale auction is planned;
- sustaining relations with domestic and foreign investors, including through:
  - regular meetings with banks participating in the PD system (within the TS Market Participants' Board),

  - meetings with non-banking sector entities;
  - meetings with foreign investors and foreign banks;
  - ongoing meetings and phone consultations with investors;
- broadening of the investor base, including regular meetings with foreign investors on key foreign markets in order to promote TS issued on both domestic and foreign markets;
- active participation in conferences and seminars with investors.

VI.3. Ensuring transparency of the TS market

This task is aimed at limiting the uncertainty connected with TS market functioning and enables its participants to receive reliable information on current market prices and to formulate expectations concerning the developments in future market prices. Both predictability of the issuance policy and transparent functioning of the secondary market contribute to the transparency of the market as a whole. In this scope, the following activities will be undertaken:

- maintaining transparent issuance policy, including TS issuance calendars covering current year, quarter and month;
- promoting the electronic market through:
  - the adequate regulations in PD system that ensure competitiveness and transparency, in particular with regard to PD duties related to TS quotations, sustaining adequate spread levels and the share in TS fixing;
  - adjusting the organizational status of the electronic market to the current needs stemming from the regulatory environment.

VI.4. Effective State budget liquidity management

This task includes, on the one hand, acquiring and maintaining funds at a level ensuring timely implementation of the State's tasks as well as budget resilience to the changing market situation and, on the other hand, investing these funds, so that the net cost of their maintaining is as low as possible. These measures are performed taking into consideration the budgetary and market conditions, and constraints related to risk, including credit and operational risk.

Maintaining an adequate level of liquidity triggers direct cost resulting from higher yields of TS sold on the auctions in relation to the income earned on short-term deposits. However, maintaining the adequate level of liquid funds allows for indirect savings arising from the fact that the issuer has a possibility to sell TS in periods adapted to the market situation and at a level adjusted to the demand.

The following instruments will support the implementation of the task:

- depositing PLN and FX funds in NBP or in the financial market via BGK (the State own bank);
- concluding *buy-sell-back* transactions directly in the financial market, as an instrument of depositing budgetary funds without bearing a credit risk;
- sales of a part of FX funds in NBP and on the FX market;
- utilizing liquid funds of public finance sector entities and court deposits placed on the account of the Minister of Finance in BGK; starting from 2019, entities of the general government sector (EU definition) which are not part of the public finance sector (domestic definition) will have a possibility to place deposits on the account of the Minister of Finance;
- FX swap transactions allowing to shape the currency structure of liquid funds;
- short-term loans in the interbank market.

VII. IMPACT ON THE PUBLIC FINANCE SECTOR DEBT

Pursuant to Article 74 of the Public Finance Act of August 27, 2009, the Minister of Finance exercises control over the public finance sector as regards the rule that the public debt must not exceed 60% of the annual GDP.

In the case of public finance sector debt, including the debt of units other than the State Treasury, which are autonomous in incurring liabilities, the influence on their debt level is indirect and is derived from the provisions of the Public Finance Act. Above all, they include constraints imposed on the way of incurring liabilities by LGUs as well as the prudential and remedial procedures, which apply to the public finance sector entities when both the public debt-to-GDP ratio and at the same time the ratio to GDP of the amount of public debt recalculated using for the foreign currency denominated debt the yearly average of the NBP foreign currency exchange rates for the year concerned less the value of the funds for pre-financing of borrowing requirements in the preceding budget year (Article 38a), exceed 55%.

Moreover, the stabilizing expenditure rule included in the Public Finance Act sets the thresholds for the ratio of the amount specified in article 38a(3) of the Public Finance Act to GDP at 43% and 48%. Exceeding the thresholds and fulfilment of additional conditions defined in the Act triggers an automatic correction mechanism, limiting the growth rate of expenditure for a specified budgetary year.

Annex 3 presents constraints related to incurring public debt, provided in the Public Finance Act (arising from prudential and remedial procedures and rules of incurring liabilities by the LGUs), as well as the correction mechanism of the expenditure rule.

VII.1. Changes in the regulations relating to local government units

On 11 July 2018, the Council of Ministers adopted the draft Act amending the Public Finance Act and certain other acts. The draft aims to rationalize incurring of debt by LGUs, make their financial management more flexible and strengthen legal mechanisms to increase their financial security. The most important planned changes are as follows:

- enabling the LGUs debt restructuring through repayment of the existing debt with a new debt with lower servicing costs or early repayment of the debt with own financial resources (e.g. budget surplus from the previous years, funds from the repayment of loans granted) or free funds from the settlement of incurred liabilities;
- strengthening legal mechanisms to increase LGU financial security through:
  - taking into account, when calculating the individual debt repayment ratio, such liabilities which have economic effects similar to a loan (i.e. non-standard financial instruments), which will eliminate circumvention of the debt ratio, consequently increasing the LGUs financial security;
  - imposing constraints on liabilities which have economic effects similar to a loan, such as for traditional loans;
  - covering all expenditure for debt servicing under the debt repayment limit;
  - obliging LGUs to obtain the opinion of the regional chamber of auditors concerning a possible repayment of a liability which has economic effects similar to a loan, consequently strengthening the process of LGU debt monitoring;
  - excluding free funds from the rule related to budget balancing as defined in Article 242 of the Public Finance Act, in order to refrain LGU from incurring excessive loans.
- precise defining of a possibility of incurring debt by the LGUs, consisting in:

- excluding the revenue from the sale of assets, as an element improving debt repayment capability, while calculating the debt ratio;
- replacing the total revenue with current revenue less subsidies and funds for current purposes, including EU funds, in the denominator of the ratio defined in Article 243 of the Public Finance Act;
- excluding the amounts of current revenue and expenditure related to the execution of an EU project while calculating the debt repayment limit;
- extending the period of which the limit of debt repayment is calculated to 7 years;
- excluding all current expenditure on debt servicing in the right-hand section of the formula;
- relying in calculations of an individual debt repayment ratio on the most recent data (based on budget execution), which will eliminate artificial increasing of a capability to incur debt.

VII.2. Medium-term budgetary framework

In the timeframe of the *Strategy*, introduction of a medium-term budgetary framework and further integration of multiannual and annual planning processes is envisaged. The budget classification as well as the data collection systems, i.e. budgetary reporting and financial reporting, shall be also subject to change. Developed solutions will be implemented step by step.

Within the first stage it is planned to introduce changes supplementing the current budgetary system, facilitating subsequent works related to the implementation of target comprehensive system solutions.

The first changes related to optimization of multiannual planning, including closer linking with the annual budget planning, were introduced under the Regulation of the Minister of Development and Finance of 13 June 2017 concerning the detailed method, procedure and deadlines for elaboration of materials for the draft budget act.

As a next step, introduction of a medium-term budgetary framework is foreseen. The proposed changes may generate significant benefits arising from extending of the planning timeframe and enhancing the reliability of budgetary forecasts, thus contributing positively to the ST debt management and impact on the public debt.

VIII. EXPECTED EFFECTS OF IMPLEMENTING THE STRATEGY

The expected effects of the *Strategy* implementation include forecasts of:

- the volume of public debt and the costs of its servicing,
- changes in the scope of risk related to public debt,
- the level of debt of public finance sector entities other than ST.

These are the expected results of the implementation of the *Strategy* objectives under the adopted macroeconomic and budgetary assumptions. Moreover, the most important threats to the implementation of the *Strategy* objectives are indicated in subchapter VIII.4.

VIII.1. Debt volume and its servicing costs

Under the adopted assumptions, at the end of 2018 the public debt-to-GDP ratio will decrease to 47.0%, to fall subsequently to 46.6% at the end of 2019. In the timeframe of the *Strategy*, the downward trend will continue and the public debt-to-GDP ratio will reach a level of 40.7% by the end of 2022. The ratio of the amount specified in Article 38a(3) of the Public Finance Act to GDP shall reach the level of 45.9% in 2018 and 45.4% in 2019, i.e. below the threshold of 48% included in the stabilizing expenditure rule, to decrease to 39.7% in 2022.

The general government debt-to-GDP ratio (according to the EU definition) will decrease to 49.2% in 2018 and 48.9% in 2019, to reach the level of 43.4% in the timeframe of the *Strategy*.

In nominal terms, the limit of ST debt servicing costs assumed in the draft Budget Act for 2019 will be lower than in 2018 (PLN 29.2bn compared to PLN 30.7bn). In relation to GDP, debt servicing costs will decrease from 1.46% in 2018 to 1.31% in 2019. It was assumed that in the timeframe of the *Strategy*, the debt servicing cost-to-GDP ratio will decrease to the level of 1.27% - 1.30%.

Table 9. Forecasts of the level of debt and debt servicing costs

Item	2017	2018	2019	2020	2021	2022
1. State Treasury debt						
a) PLN bn	928.5	962.9	1,018.3	1,049.0	1,051.8	1,058.6
- domestic	644.5	683.3	745.2	783.2	796.3	807.3
- foreign	283.9	279.6	273.2	265.7	255.5	251.2
b) GDP%	46.8%	45.8%	45.6%	44.2%	41.8%	39.6%
2. Public debt						
a) PLN bn	961.8	988.7	1,040.9	1,073.1	1,078.9	1,087.9
b) GDP%	48.5%	47.0%	46.6%	45.2%	42.9%	40.7%
3. The amount specified in the article 38a (3) of the Public Finance Act*						
a) PLN bn	945.0	967.0	1,014.7	1,045.9	1,050.7	1,058.7
b) GDP%	47.7%	45.9%	45.4%	44.1%	41.7%	39.7%
4. General government debt						
a) PLN bn	1005.7	1036.0	1093.3	1131.0	1,142.0	1,157.6
b) GDP%	50.7%	49.2%	48.9%	47.7%	45.4%	43.4%
5. State Treasury debt servicing costs (cash basis)**						
a) PLN bn	29.6	30.7	29.2	30,4 - 31,3	31,9 - 32,7	33,9 - 34,6
- domestic	20.7	21.1	20.8	23.2	25.1	27.7
- foreign	8.9	9.6	8.4	7,2 - 8,1	6,8 - 7,6	6,2 - 6,9
b) GDP%	1.50%	1.46%	1.31%	1,28% - 1,32%	1,27% - 1,3%	1,27% - 1,3%

**) The amount of public debt recalculated using the yearly average of foreign currency exchange rates for the year concerned and reduced by the value of State budget liquid funds raised to finance the borrowing requirements for the following budget year.*
***)Forecasts of the debt servicing costs for the years 2020-2022 account for the exchange rate risk provisions.*

Chart 14. Debt-to-GDP ratio

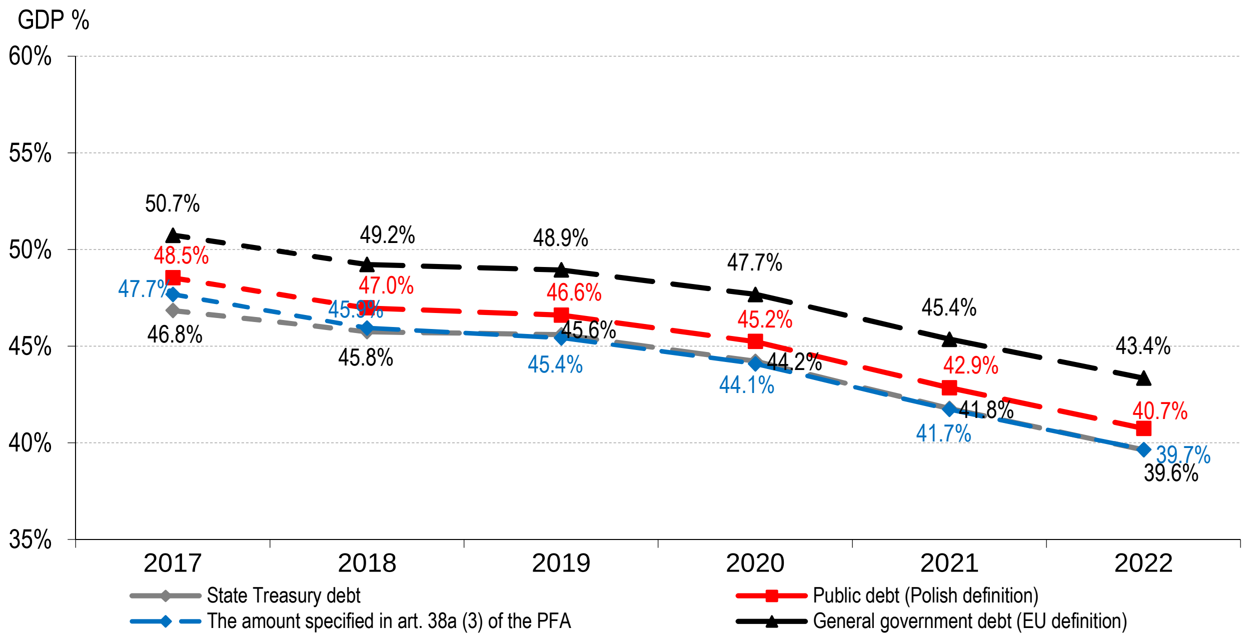


Chart 15. ST debt servicing costs-to-GDP ratio

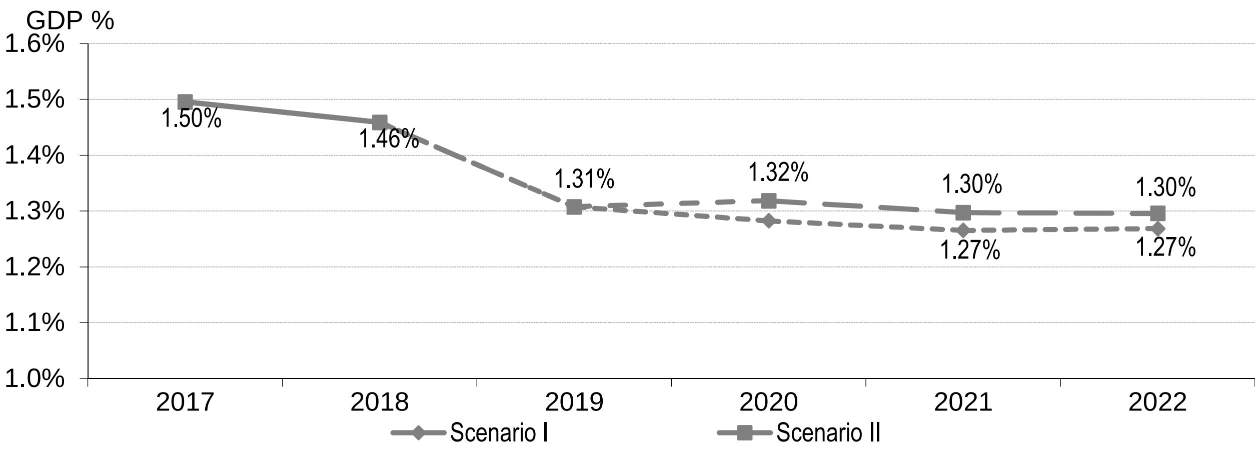
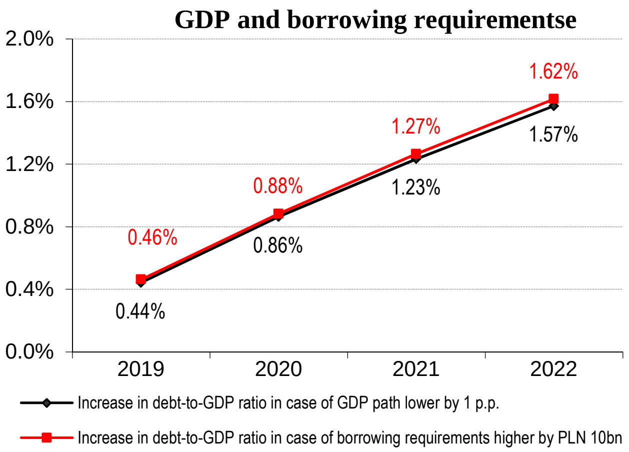
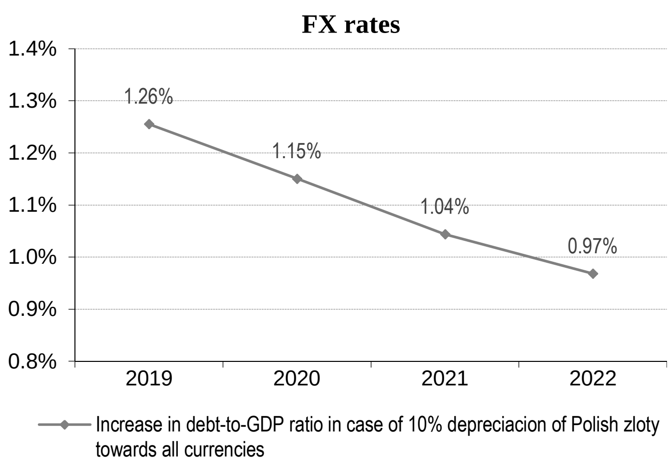


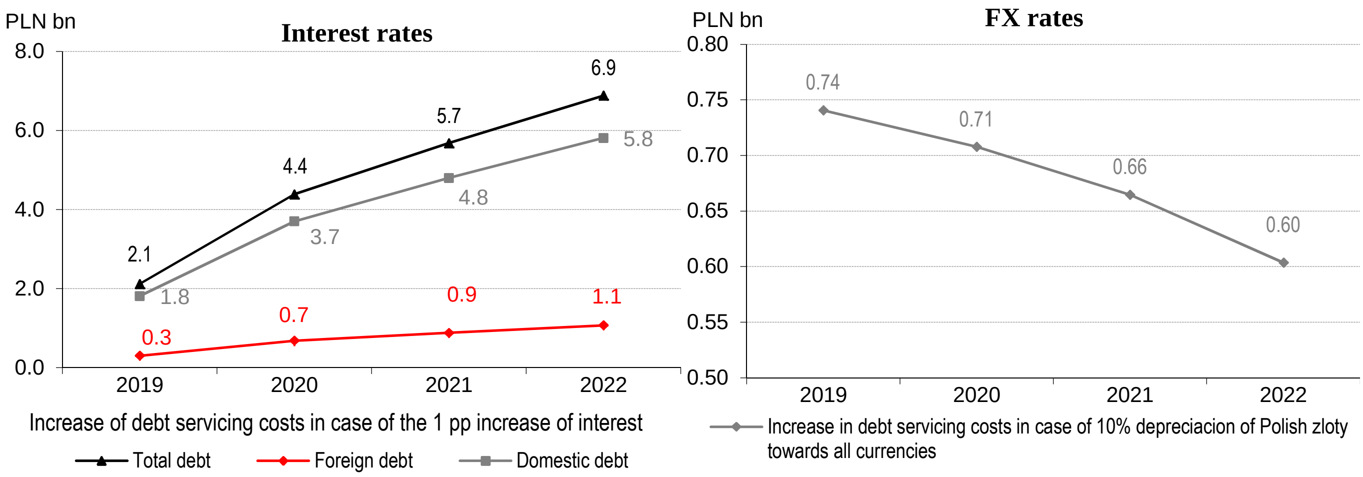
*Chart 16. Sensitivity of public debt-to-GDP ratio to changes in assumptions**





**) Assuming the change of paths since 2019, partial sensitivities without changes in other assumptions.*

Chart 17. Sensitivity of ST debt servicing costs-to-GDP ratio to changes in assumptions



VIII.2. Structure of the State Treasury debt

It is expected that in the timeframe of the *Strategy*:

- regarding the refinancing risk – the direction of changes in the ATM of the ST domestic marketable debt will depend on market conditions, so that the average maturity in 2022 may reach the value in the range 4.2-4.9, and for the total ST debt, 4.7-5.2 years compared to respectively, 4.5 and 5.0 years at the end of 2018;
- the interest rate risk will remain within the range set in the *Strategy*, depending on the adopted financing structure, the ATR of the domestic marketable debt will remain within the range of ca. 2.9-3.5 years compared to 3.2 at the end of 2018, and for the total debt - ca. 3.4-3.8 years, whereas the *duration* of the domestic marketable debt will stay in the range of ca. 2.7-3.2 years compared to ca. 3.0 years at the end of 2018, while that of the total debt in the range of approx. 3.1-3.5 years;
- the share of foreign currency debt will be reduced and in the timeframe of the *Strategy* it will fall below 24%. In the baseline scenario, a decline below 30% should occur as early as in 2018.

Chart 18. ATM of the ST debt

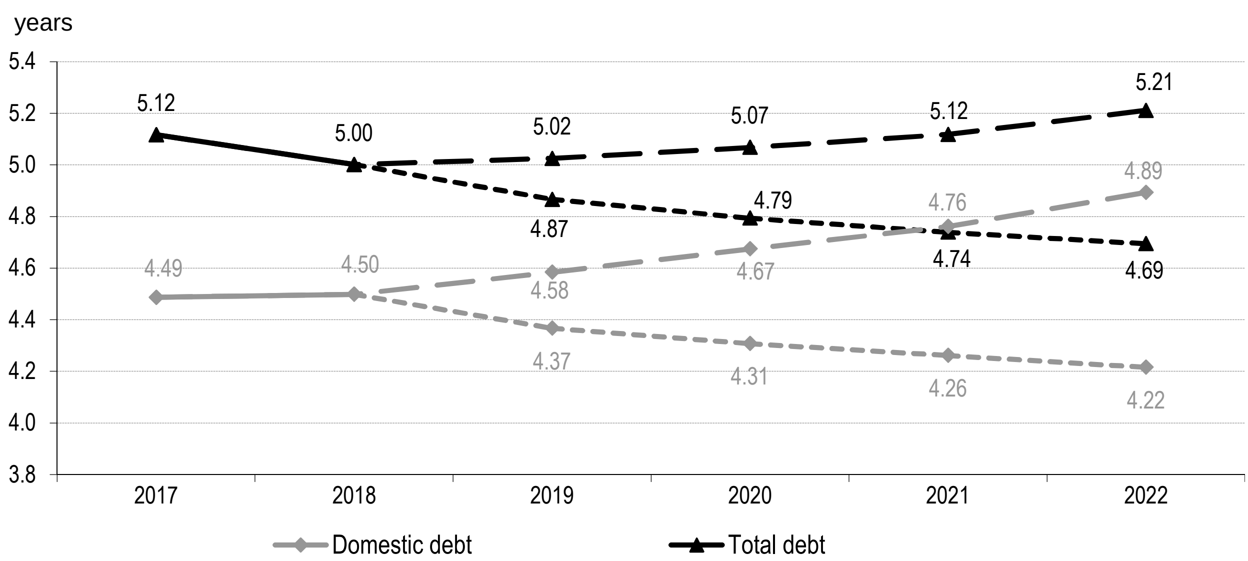


Chart 19. ATR of the ST debt

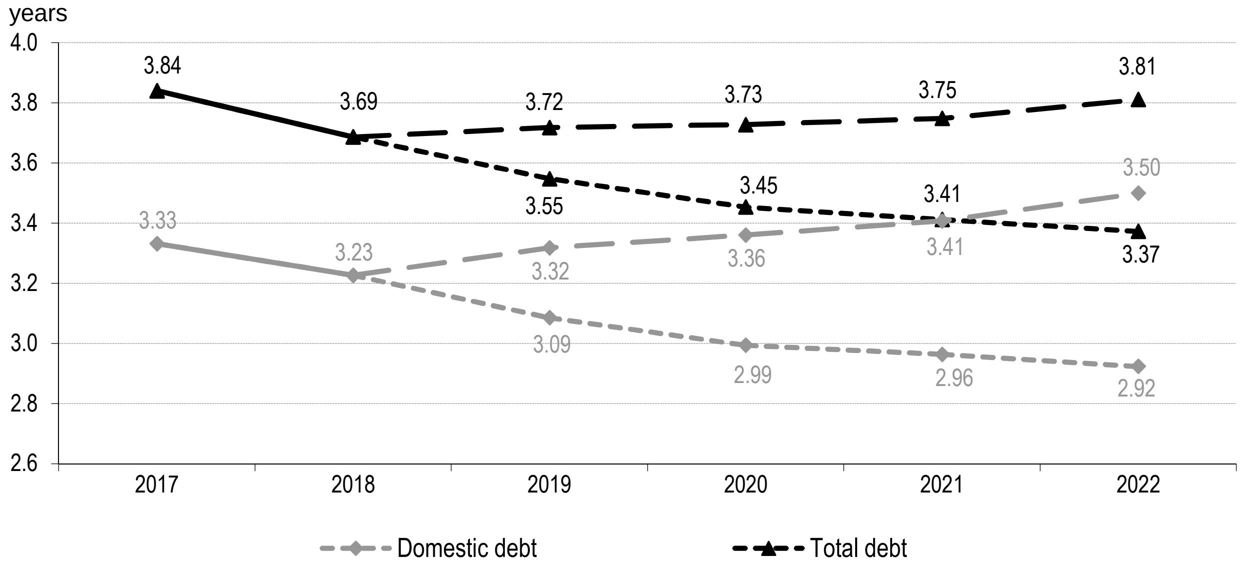


Chart 20. Duration of the ST debt

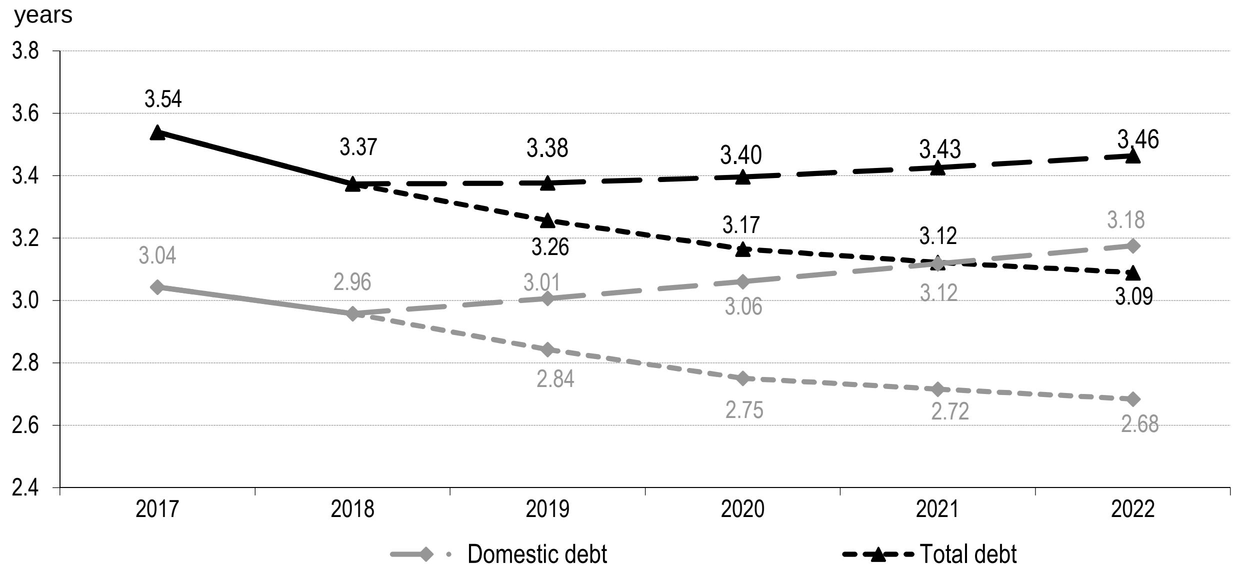
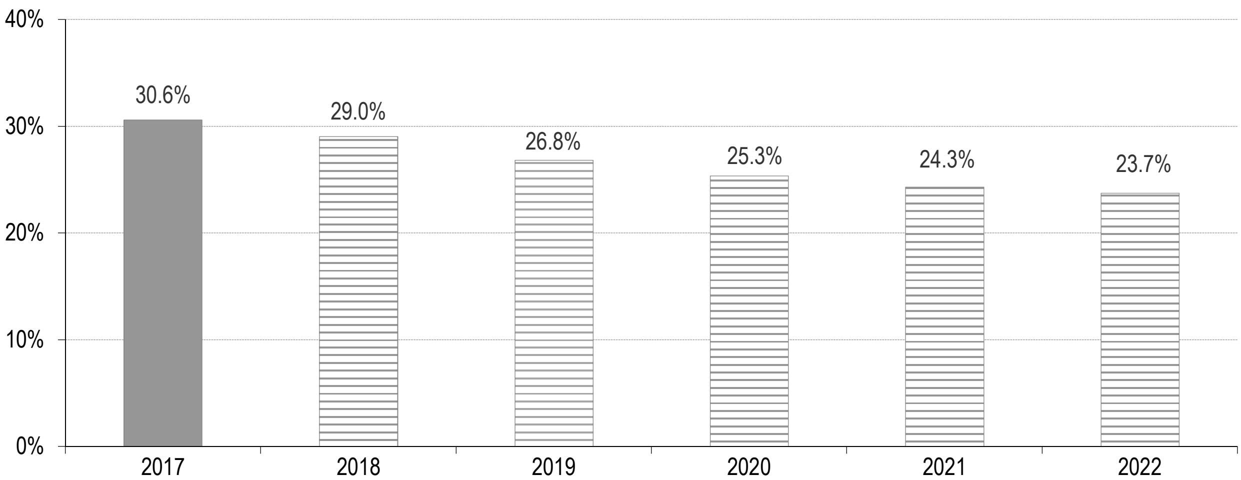


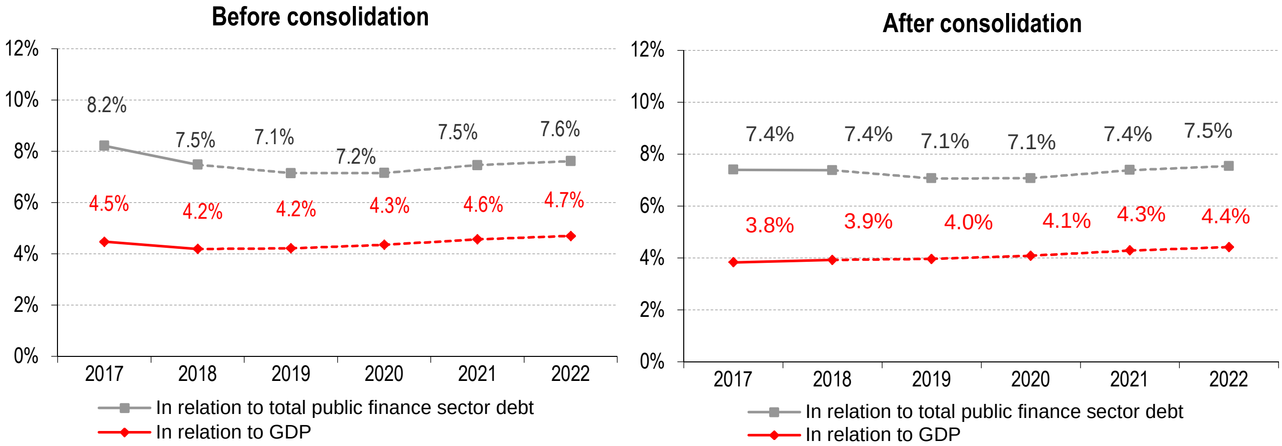
Chart 21. Share of foreign currency debt in the total ST debt



VIII.3. Debt of public finance sector entities other than the State Treasury

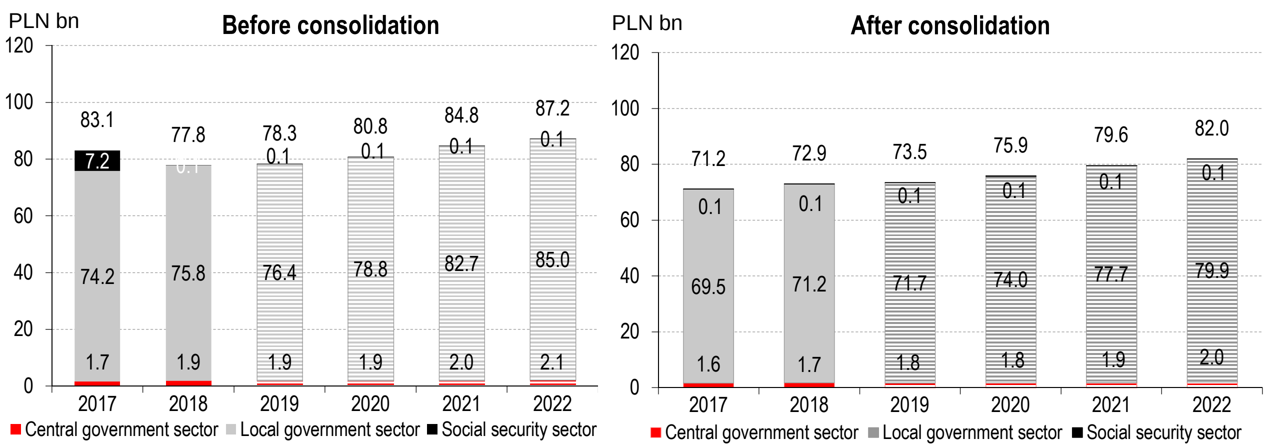
Under the adopted assumptions, in the timeframe of the *Strategy*, the unconsolidated-debt-to-GDP ratio of the remaining sector will increase from 4.2% to 4.7%, and the consolidated debt from 3.9% to 4.4%. The share of this group of entities in the unconsolidated public finance sector debt will range from 7.1% to 7.6%, and in consolidated debt - from 7.1% to 7.5%.

Chart 22. Debt of public finance sector entities other than the State Treasury before and after consolidation – in relation to GDP and as a share of total public finance sector debt



In the timeframe of the *Strategy*, the gross unconsolidated debt of public finance sector entities other than ST will increase from PLN 77.8bn to PLN 87.2bn, mainly as a result of growth in debt of the local government sector. In the years 2018-2019, the debt of LGUs and their associations will remain at a relatively stable level, and then will increase due to the projected budgetary deficits of this group of entities. The debt level of the LGUs will be also affected by the rules of incurring liabilities by those entities, including the individual debt ratio.

Chart 23. Debt of public finance sector entities other than the State Treasury before and after consolidation by sector



VIII.4. Threats to the Strategy implementation

The main threats to the implementation of the presented *Strategy* are primarily associated with:

- a macroeconomic situation in Poland varying from the assumed scenario, in particular, a slower GDP growth, higher interest rates, as well as volatility in foreign exchange rates;
- conditions in the international markets, including:
  - a slower growth rate in the global economy than expected, in particular, in Europe;
  - monetary policy of major central banks, including the ECB and Fed;
  - trade policy pursued by major economies, including the USA, China;
  - capital outflow towards core markets or other markets as a result of, inter alia, geopolitical situation;
- the risk of excessive growth of public debt-to-the-GDP ratio, in connection with:
  - higher State budget borrowing requirements depending, among others, on the trends in the Polish economy;
  - depreciation of the Polish zloty as compared to the assumptions of the *Strategy*;
  - considerable increase in debt of public finance sector entities other than ST;
  - the necessity to execute sureties or guarantees granted by public finance sector entities.

IX. GUARANTEES AND SURETIES GRANTED BY PUBLIC FINANCE SECTOR ENTITIES

IX.1. Assumptions of the strategy of granting guarantees and sureties

In order to limit the risk associated with granting ST guarantees and sureties while preserving the advantages of using them as an instrument of the State economic policy, the following principles should be maintained:

- granting sureties and guarantees mainly to support development-oriented projects, in particular, in the scope of infrastructure, environmental protection, creating new jobs and regional development, financed inter alia with the EU funds, as well as to support other investment tasks arising from potential new support programs stipulating granting sureties and guarantees;
- sureties and guarantees may be also used to support possible measures undertaken in case of potential deterioration in the Polish financial system.

The value of new sureties and guarantees granted in a given year is limited through the Budget Act. Pursuant to Article 31 of the Act of May 8, 1997 on sureties and guarantees granted by the State Treasury and certain other legal persons, each year the Budget Act stipulates the total amount to which guarantees and securities can be granted by the ST. The limit for 2018 in the draft Budget Act was determined at a level of PLN 200bn. The extent of use of the ST sureties and guarantees will result primarily from the continuation of infrastructural investments. Moreover, a substantial part of the limit has been planned to secure potential measures that may be undertaken in case of deterioration of the Polish financial system. An increase in contingent liabilities resulting from sureties and guarantees granted by the ST will be affected to a large extent by sureties and guarantees granted to the following entities:

- BGK for bonds issuance and repayment of loans incurred for the KFD in order to co-finance the construction of a road infrastructure;
- PKP Polskie Linie Kolejowe S.A. for the repayment of loans incurred in order to co-finance the modernization of the railway infrastructure and rolling stock.

IX.2. Analysis and forecasts of the level of guarantees and sureties

Contingent (undue) liabilities arising from guarantees and sureties granted by public finance sector entities at the end of the first half of 2018 amounted to PLN 129.1bn, compared to PLN 120.4bn (6.1% of GDP) in 2017 and PLN 128.2bn (6.9% of GDP) in 2016.

Liabilities due to guarantees and sureties granted by the ST had a dominant share in the contingent liabilities. At the end of the first half of 2018 they amounted to PLN 125.6bn, as compared to PLN 116.9bn (5.9% of GDP) in 2017 and PLN 124.5bn (6.7% of GDP) in 2016. The decrease in contingent liabilities in 2017 resulted mainly from a lower than expected pace of granting new guarantees and appreciation of the Polish zloty. The hitherto ST operations related to sureties and guarantees do not pose significant risks to public finance. At the end of 2017, c.a. 98% of contingent liabilities due to sureties and guarantees granted by the ST belonged to the low-risk group.

The biggest amounts of potential ST contingent liabilities (as at 30 June 2018) resulted from:

• guarantees granted to BGK	PLN 96.2bn
including, for the support of KFD	PLN 95.0bn
• guarantees granted to PKP Polskie Linie Kolejowe S.A.	PLN 13.1bn
• guarantees of payments from the KFD for Gdańsk Transport Company S.A.	PLN 7.9bn
• guarantees of payments from the KFD for Autostrada Wielkopolska II S.A.	PLN 6.2bn
• guarantees granted to PKP Intercity S.A.	PLN 1.8bn

The ratio of the contingent ST liabilities under sureties and guaranties to GDP is expected to amount to approx. 6.5% at the end of 2018, and then to increase. However, in the consecutive periods it is expected to remain below 10%.

Table 10. Contingent liabilities under guaranties and sureties granted by the ST and the public finance sector units

	2016	2017	2018	2019	2020	2021	2022
Contingent liabilities under guaranties and sureties granted by:							
a) Public finance sector							
- PLN bn	128.2	120.4	140.2	149.9	156.1	168.4	190.3
- in relation to GDP	6.9%	6.1%	6.7%	6.7%	6.6%	6.7%	7.1%
b) State Treasury							
- PLN bn	124.5	116.9	136.8	146.5	152.7	165.1	187.0
- in relation to GDP	6.7%	5.9%	6.5%	6.6%	6.4%	6.6%	7.0%

Annex 1. Abbreviations and glossary

A. Abbreviations used in the Strategy

ATM – average time to maturity
ATR – average time to refixing
BFG – the Bank Guarantee Fund
CIRS – currency interest rate swap
EBC – European Central Bank
Fed – the Federal Reserve System in the USA
FUS – Social Security Fund
IFIs – international financial institutions
KFD – National Road Fund
LGUs – local government units
NBP – National Bank of Poland
PD – Primary Dealers
PDP – public debt
PFS – Public Finance Sector
PPK - the Employee Equity Schemes
SPZOZ – independent public health care units
ST – State Treasury
TS – Treasury securities

B. Glossary

Average maturity *(*also *ATM – average time to maturity)* – the measure of public debt refinancing risk. Average maturity is the average period, expressed in years, after which the issued debt would be redeemed. The further the maturity dates, the lower the refinancing risk and the higher the average maturity. Average maturity of domestic marketable TS is calculated according to the following formula:

$$ATM = \frac{\sum_{t\in T} tN_t I_0}{\sum_{t\in T} N_t I_0}$$

where:
t – maturity date,
T – set of all maturity dates,
N_t – face value paid at time t,
I_0 – current indexation coefficient of inflation-linked instruments' face value (for non-indexed TS I_0 =1).

ATR (*average time to refixing*) – the measure of interest rate risk related to the public debt. *ATR* is interpreted as the average period, expressed in years, for which the debt servicing costs are set. The larger the share of short-term and floating rate instruments, the higher the interest rate risk and the lower ATR. The *ATR* of domestic marketable TS is calculated according to the following formula:

$$ATR = \frac{\sum_{r\in R} rNZ_r + \sum_{t\in T} tNS_t + \sum_{j\in J} \frac{1}{12} NI_j I_0}{\sum_{r\in R} NZ_r + \sum_{t\in T} NS_t + \sum_{j\in J} NI_j I_0}$$

where:
r – payment date of the nearest fixed coupon for floating rate instruments.
t – maturity date for fixed rate instruments.
j – maturity date for inflation-linked instruments.
R – set of all payment dates of the nearest fixed coupons for floating rate instruments.
T – set of all maturity dates for fixed rate instruments.

J – set of all maturity dates for inflation-linked instruments.
NZ_r – face value of floating rate instruments.
NS_t – face value of fixed rate instruments.
NI_j – (non-indexed) face value of inflation-linked instruments.
I_0 – current indexation coefficient of inflation-linked instruments' face value.

Benchmark

1. (*issue*) the large amount of TS issue with a liquid secondary market. Yield of benchmark bond is the reference point for yields in a given maturity segment. Benchmark issues subject to trading on the electronic market Treasury BondSpot Poland are TS issues defined by the Minister of Development and Finance, in particular fixed rate bonds, with maturity of at least one year and total face value of at least PLN 10bn or on-the-run issues with total face value of at least PLN 2bn. When setting benchmarks on the Polish yield curve in Reuters and Bloomberg the criterion of time to maturity is applied.

2. *(portfolio)* target characteristics of the public debt portfolio, which constitutes a reference portfolio for the existing portfolio and determines the direction of public debt management. The characteristics of the reference portfolio may include the share of particular currencies, interest rates and types of instruments, as well as the values of synthetic indicators which most often constitute the risk measures, e.g. the average maturity or duration.

Buy-sell-back – transaction which consists of two agreements: spot purchase and forward sale of securities at a price set upfront at the day of the transaction.

Credit risk – associated with the risk that the other party of the transaction will fail to meet its obligations in whole or in part. The risk occurs as a result of transactions with receivables. For the debt management unit such a situation occurs with financial transactions on derivatives. Credit risk also occurs in management of liquid assets, e.g. through making deposits with banks and purchase of securities. Credit risk is managed mainly by choosing partners with high creditworthiness (measured by their ratings) and by setting limits for total transaction size for partners, dependent on their credit credibility and type of transaction.

Duration – the measure of vulnerability of debt servicing costs to changes of interest rates and thus the measure of interest rate risk related to public debt. Duration is interpreted as the average period (expressed in years) of debt servicing costs adjustment to the change of interest rate levels. The higher the level of interest rates and the larger the share of short-term and floating rate instruments, the higher the interest rate risk and the lower duration.

$$Duration = \frac{\sum_{r \in R} \left[r \sum_{s \in S_r} \frac{CFZ_s}{(1+i_s)^s} \right] + \sum_{s \in S} \frac{sCFS_s}{(1+i_s)^s}}{\sum_{s \in S} \frac{CFZ_s}{(1+i_s)^s} + \sum_{s \in S} \frac{CFS_s}{(1+i_s)^s}}$$

where:
s – payment date (of interest or face value),
S – set of all payment dates (of interest or face value),
r – payment date of the nearest fixed coupon for floating rate instruments,
R – set of all payment dates of the nearest fixed coupons for floating rate instruments,
S_r- set of all payment dates for these floating rate securities which the nearest fixed maturity is r,
CFZ_s - payment (of interest or face value) for floating rate instruments,
CFS_s – payment (of interest or face value) for fixed rate instruments,
i_s – zero-coupon interest rate for term *s*.

Duration of total debt of ST is a weighted average of appropriate duration coefficients for every currency, where weights are market value of debt in particular currency.

Exchange rate risk **–** arises from the vulnerability of the foreign currency denominated debt level and its servicing costs to exchange rate fluctuations. The Polish zloty appreciation or depreciation against a given foreign currency results in a proportional increase or decrease (in the Polish zloty terms) of debt volume and debt servicing costs denominated in this currency.

Interest rate risk **–** risk that payments related to the debt servicing costs will change as a consequence of a change in interest rates. It stems from the necessity to finance the debt maturing in the future at unknown rates and from volatility of coupon payments of the floating rate debt.

Operational risk **–** risk associated with the threat that the costs related to the debt management or to the level of other types of risk will increase due to infrastructure, organization and supervision of the debt management, that is inadequate to the scope of tasks. Operational risk the most difficult risk to be measured. Limiting the operational risk can be achieved by integration of public debt management procedures in one organizational entity, having its structure, infrastructure and procedures adjusted to efficient operations in the environments of government administration and financial markets.

Place of issue criterion **–** the criterion of the division of public debt into domestic and foreign debt, according to which the domestic debt is the debt issued on the domestic market.

Potential debt **–** liabilities that are not public debt, but which can become public debt once after a specific event takes place. Guaranties and sureties granted by the public finance sector units are a classical example of potential debt. In case of execution of a guaranty or surety, the liabilities become due and increase expenditures of an entity that granted them, thus increasing its borrowing requirements and public debt.

Primary Dealers **–** a group of institutions (banks) selected through a competition that have specific rights and obligations related to the participation in the primary and secondary TS market. The dealers act as intermediaries between the issuer and other entities in TS trading and have the exclusive access to the primary market.

Private placement **–** an issuance addressed to a selected investor or group of investors.

Refinancing risk **–** associated with debt issuance in order to finance the State borrowing needs resulting from the redemption of the existing debt. The risk applies to both the ability to redeem maturing debt and conditions on which it is refinanced (including in particular servicing costs generated by newly issued debt). The larger the payment related to the redemption of maturing debt and the closer the date of redemption, the larger the risk related to refinancing of this debt. Refinancing risk is influenced by the level of outstanding debt and its maturity profile. An extension of the debt maturity and an even distribution of debt redemption over time contribute to the reduction of refinancing risk.

Residency criterion - the criterion of the division of public debt into domestic and foreign debt, according to which the domestic debt is the debt owned by domestic investors (i.e. investors with the place of residence or registered seat in Poland).

Spread **–** the difference between yields of two debt securities. In narrower sense credit spread (also credit margin) – the difference between yields of two securities with all the characteristics (especially maturity date) except for issuer identical (or almost identical). Spread is often understood as a difference between yields of credit risk-burdened and credit risk free (or characterized by the lowest risk in the class) security.

State budget liquidity risk **–** risk associated with the loss of the state budget's ability to meet the current obligations and to timely execute budget expenditures. In order to reduce this risk the State budget should have an access to the adequate amount of liquid financial assets, enabling the independence from temporary disruptions which prevent or make difficult financing borrowing needs on the financial market at rational cost.

State budget liquidity risk is managed, on one hand, by keeping safe reserve of funds at the lowest possible level (by improving the process of state budget liquidity planning and monitoring) and on the other hand, by the management of liquid assets in a way that they generate budget revenues which in the highest possible extent compensate for costs of keeping a given level of liquidity.

Swap – a derivative contract through which two parties exchange cash flows based on a notional principal amount with rules of calculating their value specified in advance. Swap may be a separate financial instrument or it may accompany other instruments.

Annex 2. Cyclical publications of the Ministry of Finance regarding public debt and TS market

- Annual reports
- State Treasury debt, monthly bulletin
- Public debt, quarterly bulletin
- Monthly information on TS supply and its background
- Monthly information on investors structure on domestic TS market
- Monthly information on transaction on secondary TS market

Publications available on the Ministry of Finance website: www.mf.gov.pl

Annex 3. Legal regulations applied to public debt in Poland and the EU

Table 1. Public debt – basic legal regulations

Polish regulations	EU regulations
1. Constitution of the Republic of Poland • ban on incurring loans and granting guarantees and sureties resulting in the public debt exceeding 3/5 of GDP (Article 216(5));	1. Treaty on the functioning of the European Union • level of general government debt and restrictions applied to general government deficit constitute the criterion on the basis of which the Commission examines the compliance with budgetary discipline in Member States (Article 126) – specifies the Excessive Deficit Procedure (EDP);
2. Public Finance Act • regulations on public debt: definitions, basic principles of issuing public debt and debt management, prudential and remedial procedures applied to public debt levels; • definition of the scope of the public finance sector.	2. Protocol on the excessive deficit procedure annexed to the Treaty establishing the European Community and the Treaty on the functioning of the European Union • definition of general government debt and reference value of debt to GDP ratio at 60%;
	3. Council Regulation (EC) No 479/2009 of 25 May 2009 on the application of the Protocol on the Excessive Deficit Procedure annexed to the Treaty establishing the European Community • definition of general government debt with specification of categories of liabilities which constitute it;
	4. Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (ESA 2010) • definition of categories of financial liabilities; • definition of general government sector.

Table 2. Limits on the public debt to GDP ratio in Public Finance Act

Public Finance Act

I. Legal procedures regarding limits on public debt to GDP ratio

1) the ratio in year *x* is greater than 55% and lower than 60%:

a) it is assumed the lack of deficit or the difference between state budget revenues and expenditures in draft budget act adopted by the Council of Ministers for the year x+2 must ensure the decrease in State Treasury debt to GDP ratio as compared to the ratio announced for the year x;

b) budget deficit of local government unit diminished by cumulated budgetary surplus from previous years and liquid funds in budget resolution for the year x+2 can only derive from expenditures for current tasks co-financed from EU funds or non-returnable financial aid provided by EFTA member countries;

c) in draft budget act adopted by the Council of Ministers for the year x+2:
- no increase in salaries of public sector employees is assumed,
- revaluation of pensions must not exceed the CPI level in the budgetary year x+1,
- ban on granting new loans and credits from the State budget is introduced,
- the increase in expenditures of the Sejm (lower house of Polish Parliament), the Senate (upper house of Polish Parliament), Presidential Chamber of the Republic of Poland, Constitutional Tribunal, Supreme Audit Office (NIK), Supreme Court, Primary Administration Court, common courts of law and provincial administration courts, Spokesman of Citizen Rights, Spokesman of Child Rights, National Board of Radio and Television, General Inspector for the Security of Personal Data, The Institute of National Remembrance – Commission for the Prosecution of Crimes against the Polish Nation, National Electoral Office, National Labor Inspection must not be higher than expenditures in the government administration;

d) the Council of Ministers make a review of:
- State budget expenditures financed by foreign credits,
- long- term programs;

e) the Council of Ministers presents a remedial program ensuring the fall in public debt to GDP ratio;

f) the Council of the Ministers make a review of regulations in force to propose possible legal solutions which influence state budget revenues, including VAT rates,

g) State Fund for the Rehabilitation of Disabled Persons receives earmarked subsidies from the state budget for co-financing of disabled workers salaries at the level of 30% of planned funds for that year,

Public Finance Act
h) new liabilities can be incurred by government administration if the investments are co-financed from EU funds or non-returnable financial aid provided by EFTA member countries at the maximum level, set in the rules or procedures for particular type of investment, not lower than 50% of the total costs, however these restrictions do not apply to state road rebuilding or repairs required for road traffic hazard removal, anti-flood infrastructure investments, electronic toll service and compensations for properties taken over for public roads investments;
2) the ratio in year x is equal to or greater than 60%: a) procedures provided in point 1, letters a, c, d, f, g and h in case of the ratio greater than 55%, and lower than 60% are in force; b) budgets of local government units for the year x+2 must at least be balanced; c) a ban on granting new sureties and guarantees by public finance sector entities is introduced; d) the Council of Ministers presents to the Parliament a remedial programme with the main objective to prepare and implement actions aimed at reducing the public debt-to-GDP ratio below 60%;
Procedures provided in point 1 are not applicable if the amount of debt determined by recalculating public debt using for the foreign currency denominated debt yearly average of NBP exchange rates and reducing it by the value of State budget liquid funds raised to finance borrowing requirements of the following year does not exceed the threshold of 55%.
II. Principles and limits on incurring liabilities by local government units
a) planned and executed current expenditures must not exceed planned and executed current revenues including liquid funds and budgetary surpluses from previous years;
b) executed current expenditures can be higher than executed current revenues including liquid funds and budgetary surpluses from previous years only by amounts linked to the current tasks co-financed from EU funds or non-returnable financial aid provided by EFTA member countries if these funds were not forwarded in specified year;
c) Local government units can incur loans and issue securities for: • repayment of previously incurred liabilities resulting from securities and loans, • covering transitional budget deficit of local government within the fiscal year, • financing of planned budget deficits; • financing in advance of the tasks co-financed from UE funds;
d) Loans incurred and securities issued for covering temporary budget deficit of local government have to be paid off or redeemed in the same year as they were incurred or issued;
e) Local government can only incur liabilities of which servicing costs are borne at least once a year, while: • discount of securities issued by local government cannot exceed 5% of their face value, • capitalization of interest is forbidden;
f) For a local government unit, the total ratio of: • instalments of loans and interest payable in this fiscal year, • redemption of securities and interest (including discount) payable on them, • potential payments resulting from sureties and guarantees granted, to planned revenues cannot exceed in the budgetary year and any other year following the budgetary year the arithmetical average for last three years of current revenues including proceeds from privatization minus current expenditures to total revenues ratio;
g) Limitations on debt repayments of local government do not apply to: • instalments and interest payable on loans drawn in connection with a programme, project or task co-financed with the EU funds; • redemption and interest (including discount) payable on securities issued in connection with a programme, project or task co-financed with the EU funds; - but no later than 90 days after the end of the programme, project or task and receiving a refund; this cut-off date does not apply to liabilities incurred for national contribution; • instalment of loans and redemption of securities, and interest (including discount) payable on them, incurred or issued to finance national contribution of a programme, project or task with the EU co-financing level exceeding 60%.

Table 3. Correction mechanism of the stabilising expenditure rule.

Public Finance Act
The correction amounts of the stabilizing expenditure rule pursuant to Article 112aa(4):
1) – 2 percentage points: • the general government deficit in year x-2 exceeds GDP 3% (including costs of pension system reform) or • the amount specified in article 38a point 3 of the Public Finance Act (the amount of public debt recalculated using the yearly average of foreign currency exchange rates for the year concerned and reduced by the value of State budget liquid funds raised to finance the borrowing requirements for the following budget year) exceeds in year x-2 GDP 48%.
2) – 1.5 percentage points: • the general government deficit in year x-2 does not exceed GDP 3% (including costs of pension system reform) and the amount specified in article 38a point 3 of the Public Finance Act exceeds in year x-2 GDP 43% but is not higher than GDP 48% and • the forecasted dynamics of the real GDP for year x (assumed in the draft budget act for the year x) is not lower than the medium term average by over 2 percentage points;
• the general government deficit in year x-2 does not exceed GDP 3% (including costs of pension system reform) and • the amount specified in article 38a point 3 of the Public Finance Act in year x-2 is lower or equal to GDP 43% and • the sum of the differences between the general government nominal balance and the medium-term budgetary objective (MTO) exceeds in year x-2 GDP 6% and • the forecasted dynamics of the real GDP for year x (assumed in the draft budget act for the year x) is not lower than the medium term average by over 2 percentage points;
3) + 1.5 percentage points: • the general government deficit in year x-2 does not exceed GDP 3% (including costs of pension system reform) and • the amount specified in article 38a point 3 of the Public Finance Act in year x-2 is not higher than GDP 43% and • the sum of the differences between the general government nominal balance and the MTO exceeds in year x-2 GDP 6% and • the forecasted dynamics of the real GDP for year x (assumed in the draft budget act for the year x) is not higher than the medium term average by over 2 percentage points
4) in other cases there is no correction element

Table 4. Differences between public debt (Polish definition)and general government debt (EU definition).

Polish regulations	**EU regulations**
public debt	**general government debt**
1) scope of the public finance sector	
• Public Finance Act defines limited catalogue of units included in the public finance sector, i.e.: – bodies of public authority, including bodies of government administration, bodies of state control and legal protection, courts and tribunals; – local government units and their associations; – metropolitan associations; – budgetary units; – local government budgetary entities; – executive agencies; – institutions of budgetary management; – state special-purpose funds; – Social Security Institution and funds under its management; – Agricultural Social Insurance Fund (KRUS) and funds under management of the President of KRUS; – National Health Fund; – independent public health care units; – public universities; – Polish Academy of Sciences and organizational units founded by it; – state and local government cultural institutions; – other state or local government legal persons founded under separated acts in order to execute public tasks, excluding enterprises. research institutes, banks and commercial companies.	• scope of *general government*[1)] sector is defined in ESA2010[2)]; no limited catalogue of units is defined;
differences in the scope of sector depending on regulations	
a) funds formed within Bank Gospodarstwa Krajowego (BGK), f. ex. : the National Road Fund (KFD), the Railway Fund (FK)	
• are excluded from the public finance sector;	• are included in the general government sector [3)];
b) public corporations that are deemed non-marketable (f. ex. PKP PLK S.A., Port Lotniczy Łódź, health care institutions)	
• are excluded from the public finance sector;	• are included in the general government sector;
c) Bank Guarantee Fund public (including funds for protection of the guaranteed assets)	
• is excluded from the public finance sector;	• is included in the general government sector;
2) liabilities which constitute public debt	
• securities (excluding shares); • loans (including securities whose disposal is limited); • deposits; • matured payables (i.e. liabilities due but not settled, which have not been lagged nor cancelled);	• securities; • loans; • cash and deposits;
differences in liabilities depending on regulations	
• matured payables;	• [4)] • restructured or refinanced trade credits (including those with original maturity of one year or less) are included in loan category[5)]
3) valuation of liabilities denominated in foreign currencies	
• liabilities denominated in a foreign currency shall be converted into the national currency on the basis of the middle exchange rate applicable on the last working day of each period.	• liabilities denominated in a foreign currency, or exchanged from one foreign currency through contractual agreements to one or more other foreign currencies shall be converted into the other foreign currencies at the rate agreed on in those contracts and shall be converted into the national currency on the basis of the representative market exchange rate prevailing on the last working day of each year.

Polish regulations	EU regulations
public debt	**general government debt**
4) contingent liabilities	
differences in treatment of contingent liabilities in debt-to-GDP ratio	
• is not included;	• EU limitations do not take directly into account contingent liabilities generated by issued sureties and guarantees; • when specific criteria are met contingent liabilities should be treated as debt assumed by the entity which issued surety or guarantee;

1) Polish Central Statistical Office (GUS) is responsible for the scope of general government sector (in line with EU regulations). The list of general government sector entities is available on the internet website of GUS: http://stat.gov.pl/download/gfx/portalinformacyjny/pl/defaultaktualnosci/5483/6/7/1/lista_jednostek_wg_stanu_na_31_grudnia_2016_r..xlsx
2) ESA2010 (Regulation (EU) No 549/2013 of the European Parliament and of the Council of May 21, 2013 on the European system of national and regional accounts in the European Union) states that an entity is classified to the general government sector if it is not a separate institutional unit from government or is a separate institutional unit controlled by general government and it is non-market. The ability to undertake market activity is checked notably through the usual quantitative criterion, i.e. if the ratio of sales revenues to production costs is above 50% , the unit is in principle deemed market. However, in order to decide whether a producer that operates under the control of government is a market unit some qualitative criteria must also be taken into account.
3) In compliance with Eurostat guidelines on sector classification of some infrastructure projects, general government debt figures may, under specified conditions, include capital expenditures of the projects in question (imputed loan)
4) Matured payables are expenditure on accrual basis and thus are included in net borrowing/net lending calculated (balance of general government) in accordance with EU methodology.
5) Pursuant to decision of Eurostat of 31 July 2012 on *The statistical recording of some operations related to trade credits incurred by government units* .

Annex 4. Selected statistical data concerning public finance and credit rating in Poland and EU

Table 5.General government deficit, debt[1)] and yields on 10-year bonds[2)] in the EU countries in 2016-2017

	2016			2017		
	GG balance	GG debt	10Y interest rate	GG balance	GG debt	10Y interest rate
	% GDP	% GDP	%	% GDP	% GDP	%
Greece	0.6	180.8	8.4	0.8	178.6	6.0
Italy	-2.5	132.0	1.5	-2.3	131.8	2.1
Portugal	-2.0	129.9	3.2	-3.0	125.7	3.1
Belgium	-2.5	106.0	0.5	-1.0	103.4	0.7
Spain	-4.5	99.0	1.4	-3.1	98.3	1.6
Cyprus	0.3	106.6	3.8	1.8	97.5	2.6
France	-3.4	96.6	0.5	-2.6	96.8	0.8
United Kingdom	-3.0	87.9	1.2	-1.9	87.5	1.2
Euro area	**-1.5**	**89.0**	**0.9**	**-0.9**	**86.7**	**1.1**
European Union	**-1.6**	**83.2**	**1.1**	**-1.0**	**81.6**	**1.3**
Austria	-1.6	83.6	0.4	-0.7	78.3	0.6
Croatia	-0.9	80.2	3.5	0.8	77.5	2.8
Slovenia	-1.9	78.6	1.2	0.0	73.6	1.0
Hungary	-1.7	76.0	3.1	-2.0	73.6	3.0
Ireland	-0.5	73.4	0.7	-0.3	68.4	0.8
Germany	1.0	68.2	0.1	1.3	64.1	0.3
Finland	-1.8	63.0	0.4	-0.6	61.3	0.6
Netherlands	0.4	62.0	0.3	1.1	57.1	0.5
Slovakia	-2.2	51.8	0.5	-1.0	50.9	0.9
Malta	1.0	56.2	0.9	3.9	50.7	1.3
Poland	**-2.3**	**54.3**	**3.0**	**-1.7**	**50.7**	**3.4**
Sweden	1.2	42.1	0.5	1.3	40.5	0.7
Latvia	0.1	40.5	0.5	-0.5	40.1	0.8
Lithuania	0.3	40.1	0.9	0.5	39.7	0.3
Denmark	-0.4	37.9	0.3	1.0	36.1	0.5
Romania	-3.0	37.1	3.3	-2.9	35.0	4.0
Czech Republic	0.7	36.8	0.4	1.6	34.7	1.0
Bulgaria	0.2	29.0	2.3	0.9	25.4	1.6
Luxemburg	1.6	20.8	0.3	1.5	23.0	0.5
Estonia	-0.3	9.4	:	-0.3	9.0	:

[1)] Data on general government balance and debt – Eurostat. Data on Poland – MF.

[2)] 10-year interest rate – average of average monthly 10-year T-bond yields from last twelve months, from January to December; Eurostat.

Table 6. Long-term government debt rating in foreign currency of EU Member States as of September 14, 2018

	Standard&Poor's	**Fitch**	**Moody's**
Austria	AA+	AA+	Aa1
Belgium	AA	AA-	Aa3
Bulgaria	BBB-	BBB	Baa2
Croatia	BB+	BB+	Ba2
Cyprus	BBB-	BB+	Ba2
Czech Republic	AA-	AA-	A1
Denmark	AAA	AAA	Aaa
Estonia	AA-	A+	A1
Finland	AA+	AA+	Aa1
France	AA	AA	Aa2
Greece	B+	BB-	B3
Spain	A-	A-	Baa1
Netherlands	AAA	AAA	Aaa
Ireland	A+	A+	A2
Lithuania	A	A-	Baa1
Luxembourg	AAA	AAA	Aaa
Latvia	A-	A-	A3
Malta	A-	A+	A3
Germany	AAA	AAA	Aaa
Poland	**BBB+**	**A-**	**A2**
Portugal	BBB-	BBB	Ba1
Romania	BBB-	BBB-	Baa3
Slovakia	A+	A+	A2
Slovenia	A+	A-	Baa1
Sweden	AAA	AAA	Aaa
Hungary	BBB-	BBB-	Baa3
United Kingdom	AA	AA	Aa2
Italy	BBB	BBB	Baa2

Source: Reuters

Table 7. Public debt in Poland in 2007 – VI 2018

Item	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	VI 2018
1. State Treasury debt												
a) PLN bn	501.5	569.9	631.5	701.9	771.1	793.9	838	779.9	834.6	928.7	928.5	956.1
domestic *	380.4	420.2	462.7	507	524.7	543	584.3	503.1	543.3	609.2	644.5	662.5
foreign *	121.1	149.7	168.8	194.8	246.4	250.9	253.8	276.9	291.3	319.5	283.9	293.6
b) GDP %	42.2%	44.3%	46.0%	48.6%	49.2%	48.7%	50.6%	45.3%	46.4%	50.0%	46.8%	-
2. Public debt (domestic definition)												
a) PLN bn	527.4	597.8	669.9	747.9	815.3	840.5	882.3	826.8	877.3	965.2	961.8	985.2
b) GDP %	44.4%	46.5%	48.8%	51.7%	52.0%	51.6%	53.2%	48.1%	48.8%	51.9%	48.5%	-
3. General government debt (EU definition)												
a) PLN bn	524.4	595.4	678.3	767.8	847.7	875.3	922.8	867.3	923.2	1 009.2	1 005.7	1 032.0
b) GDP %	44.2%	46.3%	49.4%	53.1%	54.1%	53.7%	55.7%	50.4%	51.3%	54.3%	50.7%	-

**) place of issue criterion*

Table 8. GDP and exchange rates in 2007 – VI 2018

Item	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	VI 2018
1. Gross Domestic Product												
PLN bn	1 187.6	1 286.1	1 372.2	1 445.3	1 566.8	1 629.4	1 656.9	1 719.8	1 799.4	1 858.5	1 982.1	-
2. Exchange rate (end of period)												
a) EUR	3.5820	4.1724	4.1082	3.9603	4.4168	4.0882	4.1472	4.2623	4.2615	4.4240	4.1709	4.3616
b) USD	2.4350	2.9618	2.8503	2.9641	3.4174	3.0996	3.0120	3.5072	3.9011	4.1793	3.4813	3.7440

Source: GUS, NBP