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Tax Regulation of the Russian Economy Real Sector Crediting

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ABSTRACT: This article is devoted to one aspect of the tax regulation of the credit policy of banks in relation to the real economy – the possibility of differentiating tax rates on profits of banks. The Russian model of tax does not involve the differentiation of tax rates on income, including for banks. The study showed that differentiation of the profit tax rates of banks would release financial resources to banks for lending to the real sector, which in turn, will cover the need for short-term and long-term loans to the real economy in order to update the fixed assets, innovation and creating added value. The application of differentiated rates of tax on income will bring the multiplier effect in the direction of both tax and non-tax revenues. So, by expanding the resource base of the enterprises, will increase the amount of taxes paid to the budget due to the expansion and creation of added value.

Keywords: Banks, taxation, tax regulation, tax banks, differentiation in rates of tax, credits for the real sector of the economy, interest rates on loans

I. INTRODUCTION

The total assets of the banking sector as a percentage of GDP increased from 61% in 2008 to 85 % in 2018. However, on this indicator Russia still lags behind developed countries. So, Banking assets in percentage to GDP are: in the Czech Republic is 112%, in Germany – 146%, in Japan – 168%, in Canada – 152%. The indicators "index of industrial production" and "investments in fixed capital" has significantly decreased, which may reflect the fact that the banking sector does not try to invest in the real sector of the economy, giving preference to short-term loans. The share of credit portfolio in total assets of Russian banks is quite high: at the beginning of 2018 it amounted to 56.9%, the share of lending to the real sector of the economy is only 31.5%. In developed countries Bank credits to nonfinancial organizations and population make up more than 100-300% of GDP. In the structure of sources of financing investments in fixed capital the share of loans from Russian banks in 2017 is 11 percent (9.3 percent in 2013, 7.9 per cent - 2012). For comparison, in China through Bank loans financed about 25% of all investments. Thus, during the period from 2006 to 2018 the volume of loans granted to enterprises and organizations grew from 4 to 32 trillion rubles. An analysis of the structure of issued bank credits showed that more than 50% of loans fall to trade and industry [1].

In the structure of tax payments of commercial banks, the share of income tax varies in the range from 50 to 92 %. Income tax, as well as the total amount of tax paid by the Top-5 Russian banks have heterogeneous dynamics, which suggests that the financial results of credit institutions is quite unstable and depend primarily on the nature of the transactions made by banks in the reporting period.

II. METHODS

Studies of many authors confirm the impact of the development of the banking sector to the real economy and investment. Adoption E.Clark the importance of the banking sector in the real economy sector development is current interest for Russia [2]. Russian banking sector must increase assets to reach the level of countries with developed market economy and play a significant role in it [3]. Banks, having massive amount of cash, are reluctant to participate in investment projects [4]. Russian scientists confirm the failure of long-term financing of the real sector of the Russian economy [5].

Tax methods of economic regulation are recognized effective and important both at national and international economies level [6-8]. Reasonable use of fiscal instruments allows step up investments. Tax rates are recognized as one of the most active fiscal instruments. Lower business investment taxes can increase the competitiveness of the economy [9]. Tax regulation of commercial banks activity is one of stimulation real sector of economy crediting [10]. Important researching results, related this article problems, state that tax rate policy is acyclical in developed countries and mostly procyclical in developing countries and that developing countries change their tax rates by larger amounts than industrial economies. Developing countries show more volatile fiscal policy than industrial economies [11].

The logic of this study consisted in the following aspects: the 1st - is the definition of the acute needs of the real economy in the short and long-term borrowed resources at the same time high liquidity of the banking sector; the 2nd - the identification of the fact of the predominance of the profit tax in the tax payments of Russia's banking sector; the 3rd - the analysis of advantages of application of differentiated rates of tax on profits, the proposal of a model of differentiation in rates of tax depending on the

term of the loan and the interest rates on loans; the 4th - comparing the proposed model with common in the Russian way of stimulating lending to the real economy – state subsidies; the 5th - calculate the volume of the released resources from banks using the technique of differential rates and the subsequent reinvestment of these funds in lending to the real sector; the 6th - define the ability to cover all the needs of the real sector for extra resources through the application of differentiated rates of tax on profits.

III. RESULTS AND DISCUSSION

The logic of the study was in the following aspects:
Model application of differential rates based on the dependence of indicators such as the term of the loan and the interest rate at which commercial banks issued loans. As was established previously, especially the real sector is in need of long-term resources. In addition, the study of foreign experience of the banking interest rates on bank loans in our country disproportionately large.
The baseline in our model will be a key rate of the Bank of Russia, the deviation from which in combination with another term of the loan will result in a decrease in tax rate on banks ' profits. The basis for the calculation, let's assume the key rate of the Bank of Russia as on 1 January 2015, which amounted to 17%. The rejection rate for Bank loan in the amount of up to 10 units will reduce the coefficient of differentiation, which affects the rates for income tax. The study from the point of view the perspective of this approach is appropriate and interesting, not only for banks but also for the real sector, as the key rate takes into account inflation, without taking into account the interest margins of banks that can be broadly differentiated. Enter the original values of the coefficients used to determine the differential rates of income tax. Tables 1 and 2 are the coefficients assigned depending on the values of a particular indicator.

Depending on the size of interest rates on granted loans and term of the loan is the ranking of these indicators to further determine differentiated rates on income tax.

Since the priority factors in our study is a long-term loan and a minimum interest rate on bank credit ranking is made inversely proportional to the loan term and is directly proportional to the rate of a bank loan. That is, the lower the rate on issued by a bank loan, the lower the coefficient of differentiation is assigned by a particular percentage value. Term of crediting on the contrary, the shorter the term of the loan granted, the higher value of coefficient of differentiation will be assigned. Combining the values of the presented indicators, we get the matrix of coefficient values that will be used to determine differentiated rates of tax on profit of banks. The calculation of the performance matrix presented in Table 3.

Table 1: The coefficient, used to determine differentiated tax rate for profit percentage rate on the loan.

Interest rate loan	Used the coefficient	Interest rate loan	Used the coefficient
8	0,1	14	0,4
9		15	
10	0,2	16	0,5
11		17	
12	0,3		
13			

Table 2: The value of the coefficient, used to determine differentiated rates on income tax depending on the term of the loan.

The loan period	applicable rate	The loan period	applicable rate
up to 30 days	0,5	from 1 year to 3 years	0,2
from 30 to 180 days	0,4	from 3 years	0,1
from 180 to 365 days	0,3		

Table 3: The values of the coefficient used for the differentiation of tax rates on profits of banks ($К_д$).

The loan period	% rate									
	8	9	10	11	12	13	14	15	16	17
до 30 дней	0,6	0,6	0,7	0,7	0,8	0,8	0,9	0,9	1	1
от 30 до 180 дней	0,5	0,5	0,6	0,6	0,7	0,7	0,8	0,8	0,9	0,9
от 180 до 365 дней	0,4	0,4	0,5	0,5	0,6	0,6	0,7	0,7	0,8	0,8
от 1 года до 3 лет	0,3	0,3	0,4	0,4	0,5	0,5	0,6	0,6	0,7	0,7
от 3 лет	0,2	0,2	0,3	0,3	0,4	0,4	0,5	0,5	0,6	0,6

Thus, subject to the application of this factor, the tax on banks' profits will be calculated by the formula:

$$H=H_б*H_с*K_д \quad (1)$$

where: H –income tax;
$H_б$ – the tax base for profit tax ;
$H_с$ –the current tax rate on income tax;
$K_д$ - the coefficient of differentiation, used to calculate income tax.

For the purposes of tax incentives for banks in investing in the real sector of the economy proposed the application of the coefficient of differentiation in the amount of from 0.2 to 1 %, which would entail a proportional reduction of the profit tax of banks for the purpose of redistribution of the released funds on additional placement of credit resources to the real sector to cover their acute needs. The market weighted average rate set by the Bank of Russia in 2015 - in the amount of 15% will be applied as the base rate for subsequent calculations.
Let's evaluate the effectiveness of the use of differentiated tax rates on banks' profits
Example. As a next option, consider the differentiation of the rates of profit taxation for banks. Under the terms, the rate on profit tax differentiated depending on the loan term and the interest rate under which the loan was made. The calculation presented in Table 8 for a more correct display of operations in the financial statements appropriate to calculate the fair value of the loan at the

time of issuance, which will help us to calculate the loss on issuing of loans at below-market rates.

In accordance with IFRS (IAS) 39 "Financial instruments – recognition and measurement", the fair value of loan provided at an interest rate different from market represents the sum of the future receipts (principal and interest), discounted to reflect market interest rates for similar loans at the time of the loan from the date of issue until the date of return.

The calculation of the fair value of the loan at the reporting date is based on the following source data: debt in ruble equivalent; the interest rate on the loan; the term of the loan, calculated as the difference between the maturity date and the date of involvement; the market interest rate at the date of the loan.

To calculate the fair value of the loan used Excel function BS, or the present value. The fair value of the loan at the time of issuance = PS (market rate/12, the frequency of payment of interest, term of the loan/ (365/12) The carrying value of the loan at the reporting date * loan rate / frequency of interest payments, the loan carrying value of the reporting date; 0) . Loss on issuing loans at below market rates - The carrying value of the loan at the reporting date - Fair value of the loan at the time of issue. A detailed calculation of the financial results presented in Table 4.

Using a model of differentiated rates of income tax positive dynamics of profit tax, which ensures the growth of tax revenues. With regard to the effect of this model for the banks, the value of net profit is slightly lower than when using the method of subsidization, recognizing loss from lending at below market rates. However, this approach provides a steady growth in tax revenues and the possibility of redistribution of funds of the bank, are exempt from taxation in the reinvestment of them in the real economy.

Table 4: The use of differentiated rates of tax on profits for the banks.

% rate on the loan	10%	11%	12%	13%	14%	15%
Interest income of the Bank	100000	110000	120000	130000	140000	150000
Differentiated tax rate	50%	60%	70%	80%	90%	100%
The income tax	10000	13200	16800	20800	25200	30000
The fair value loan at the time of issuance	953 836,20	963 068,96	972 301,72	981 534,48	990 767,24	1 000 000,00
The loss on the loan at a rate below market	46 163,80	36 931,04	27 698,28	18 465,52	9 232,76	0,00
Net profit of the Bank	43 836,20	59 868,96	75 501,72	90 734,48	105 567,24	120 000,00

Use as a tool of tax rate adjustment is, in our opinion, the most appropriate way to tax banking regulation at the moment. In this regard, this study proposed the introduction of a model use of differential rates of tax on profits of banks. The use of this approach could contribute to the release of the funds obtained from the minimization of income tax and reinvest them in the real economy. Such a model could help banks to refocus from speculative operations on the investment.

Continuing the study of the model of application of the differentiated rates of tax on profits of banks predicted the volume of resources made available by the bank due to the application of differentiated rates of income tax. As a key indicator used to calculate the required rate of the asset balance of credit institutions' loans and other funds provided to non-financial organizations.

The values of this indicator in UZS designation of all Russian banks on 1 January 2015 was 29 536 billion. Rub. Calculate these assets for 10 years ahead, determined the amount of interest that will be received by credit institutions subject to the borrower the loan agreement. Table 5 shows the calculation of interest income received by credit institutions from providing funds for the period stated terms of the contract. Calculation of interest is produced by the formula:

$$S = (I / 100 / K \times T) \times P, \quad (1)$$

where: S -estimated amount percent;

I - the annual interest rate (%per annum);

K – the actual number of days in a year (365 or 366);

T - the number of days in the period for which interest is calculated;

P - the outstanding balance on the loan at the date of calculation.

Table 5: Estimated interest income of banks in accordance with rates on the loan.

The term of credit, days	The amount of interest income received by credit institutions provided credit discount rate assets for the term of the loan billion rubles.									
	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%
30	194,20	218,48	242,76	267,03	291,3	315,59	339,86	364,14	388,41	412,69
180	1165,2	1310,9	1456,5	1602,2	1747,8	1893,5	2039,2	2184,8	2330,5	2476,1
365	2362,8	2658,2	2953,6	3248,9	3544,3	3839,6	4135,0	4430,4	4725,7	5021,12
1095	7088,6	7974,7	8860,8	9746,8	10632	11519	12405	13291	14177	15063,3
1825	11814,	13291,2	14768	16244	17721	19198	20675	22152	23628	25105,6
3650	23628,8	26582,4	29536	32489	35443	38396	41350	44304	47257	50211,2

The amount of tax on income derived from interest income of the Bank using differentiated rates for 10 years, is comparable to the amount of tax that would be paid by the banks for 10 years for the traditional method of taxing the profits of the Bank. Thus, we can conclude that the result from the application of differentiated rates of tax on profit may be the release from 827 to 4 607

billion rubles, subject to the discounting of the existing credit supply to the real sector for 10 years.
The highest amount released is reached when the rate of the loan at the rate of 13% per annum and loan period of 10 years.

IV. SUMMARY

After analyzing the data obtained, we can conclude that the largest amount of tax, and, accordingly, released from taxation under the Bank's profit is achieved when the tax rate is 8% (Fig. 1). However, as you can see, at long-term crediting its use leads to a lower value than at the rate of 13% and 17%. Usage rates of 17% becomes effective only at long-term crediting, in this case for a period of 5 years. The highest efficiency shows the usage rate of 13%. Already credit for a term of 1 year maximum value of profits released.
As part of this research was discussed the most relevant, in our view, the issue of redistribution of excess liquid resources of banks in the real sector of the economy, which is currently experiencing an acute need for extra resources, as was proven by calculations. The application of differentiated rates of tax on profits, whose main goal is to stimulate lending by banks under the longer terms and lower interest rates could contribute to covering the needs of the real sector to borrowed resources. In addition, the use of a differentiated approach to tax rates for income tax, according to the calculations given in the study is more advantageous than the application of the method of government subsidy when lending to the real sector.

V. CONCLUSIONS

The application of differentiated rates of tax on income will bring the multiplier effect in the direction of both tax and non-tax revenues. So, by expanding the resource base of the enterprises, will increase the amount of taxes paid to the budget due to the expansion and creation of added value. With respect to banks, with the released funds are also expected to pay tax on profits from interest income on new loans.
Thus, the interaction of banks with the real sector can be achieved by strengthening the capital base of the tanks and increase their interest in the distribution of assets in the industrial sector. At present, the current system of taxation of banks in our country, unlike other countries hardly provides opportunities to attract long-term financial resources on the one hand, and on the other - the incentives to direct existing resources directly to the financing of the subjects of the real economy.

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