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Activities of licensed exchange bureaus in Bishkek

Prepared by Tchoro Seyitov and Akylai Muktarbek kyzy¹

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Views expressed in this paper are solely those of the authors and do not necessarily reflect the views of the National Bank of the Kyrgyz Republic.

Abstract

This paper presents methodological approaches to the study of the activities of licensed exchange bureaus, results of the effectiveness of the exchange bureaus' activities and recommendations for change in approaches to control and reporting of exchange bureaus.

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For information related to this publication, please contact: 7 T.Umetaliev Street, Bishkek, the Kyrgyz Republic 720040 Telephone: +996 (312) 45-64-28; +996 (312) 45-53-09 Fax: +996 (312) 61-07-30 E-mail:<u>tseyitov@nbkr.kg; akylay@gmail.com</u> The National Bank of the Kyrgyz Republic Economic Research Center

¹ Tchoro Seyitov, Economic Research Center of the National Bank of the Kyrgyz Republic, expert. Akylai Muktarbek kyzy, Economic Research Center of the National Bank of the Kyrgyz Republic, consultant.

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INTRODUCTION

The size of the shadow economy in the Kyrgyz Republic, according to various estimates, has reached significant volumes, making it difficult to define the true extent of the country's economy. According to the National Statistics Committee of the Kyrgyz Republic (hereinafter - NSC), the share of non-observed economy in 2014 amounted to 19.9 percent of the country's GDP². In particular, the big problem is the illegal circulation of funds by business entities engaged in foreign currency exchange.

As at January 1, 2015 on the territory of the Kyrgyz Republic operated 309 exchange bureaus licensed by the National Bank and approximately 300 non-licensed exchange bureaus³. Inspections of exchange bureaus' activities by the National Bank showed that there is underreporting of currency turnover, violation of cash discipline, failure to use cash machines, and as a result, resistance to checks in licensed exchange bureaus. Thus, the inspections in a number of licensed exchange bureaus found unaccounted cash of unknown origin in foreign and national currency.

Exchange bureaus turnover amounted to 97 billion soms in 2014 in the Kyrgyz Republic. According to the National Bank, the amount of taxes paid (compulsory patent) in the budget was to be 36.6 million soms, whereas the State Tax Service reports actual payments of 24.4 million soms.

The market for exchange of foreign currency in the Kyrgyz Republic is quite competitive. Besides exchange bureaus, services for the purchase and sale of foreign currency are offered by 23 commercial banks, with more than 1000 branches, savings banks, exit box bureaus, and exchange bureaus throughout the country. In addition, currency exchange services can be provided by microfinance institutions (1 specialized financial institution, 5 microfinance companies, 114 microcredit companies, 59 microcredit agencies, 127 credit unions), widely represented in the country.

In periods of sharp exchange rate fluctuations population, mass media and regulatory bodies increase their interest in the activities of the exchange bureaus. However, so far there is no empirical work dedicated to the review of the exchange bureaus activities in Kyrgyzstan.

A study of the exchange bureaus turnover is arised from:

- violations by the exchange bureaus;

- lack of information on their actual turnover;

- the need to argument the position of the National Bank in conducting monetary policy and banking and non-banking supervision by using scientifically-based approaches and solutions;

- lack of assessment (methodology) of exchange operations of licensed exchange bureaus;

- public interest in the exchange bureaus.

In this paper, the *object* of the study is the licensed exchange bureaus in Bishkek, which submit reports to the National Bank. The *subject* of research is the accounting of exchange operations of licensed exchange bureaus. The *purpose* of the work is to study the activities of licensed exchange bureaus in Bishkek for possible non-disclosure of turnover.

In accordance with the stated purpose the following *goals* have been identified:

- the study of literature, which describes the informal financial (including foreign exchange) operations and activities of exchange bureaus;

² In particular, R.Hasanov (2012) points out that the size of the shadow economy amounted to 39.0 percent of GDP. ³ According to statistics of the National Bank

³ According to statistics of the National Bank.

- preparation of research instruments of the exchange bureaus activities in Bishkek;

- analysis of interviews with experts and reported data of exchange bureaus;

- development of proposals and recommendations on the activities of exchange bureaus.

The results of this study should confirm the *hypothesis* that licensed exchange bureaus conceal the real volume of sales of foreign currency.

LITERATURE REVIEW

Review of literature on the informal sector in the Kyrgyz Republic (Ibragimova et al., 2012; Hasanov, 2012) showed that there is a need to use both qualitative (interviewing) and quantitative (survey, economic modeling) research methods. A methodological provision on assessment of the size of the non-observed economy (NSC, 2009) is current methodology to determine the shadow turnover of exchange bureaus. According to this methodology, for the calculation of the non-observed volume of exchange bureaus NSC uses data from three exchange bureaus, which regularly submit reports. Information of these three exchange bureaus is then expanded to the general population. Thus, results obtained by the National Statistics Committee do not reflect the real situation in the market and cannot be used for decision making.

Review of foreign literature (Grosse, 1994; Dornbush et al., 1983; Jianping, 1998) on the shadow financial transactions showed that there are following differences between Kyrgyzstan and countries (Brazil, China, Jamaica) where the studies on determining the shadow turnover of foreign exchange markets were carried out:

a) in other countries there was either lack of dollarization of the economy or the dollarization was to a far lesser extent than in Kyrgyzstan (the population kept the major part of savings in local currency, major purchases were also done in the local currency), which did not require the study of demand for currency;

b) there were restrictions for the amounts of exchanged currency; that is why the majority of intermediaries exchanged currency illegally;

c) as a result of restrictions and illegality of exchange, the rate of exchange in the "parallel market" was higher than in the official one;

d) the study of the shadow economy was conducted by method of demand-supply for money (Cagan, 1958; Tanzi, 1980, 1983). In our case the principle of method is that the difference between supply and demand for foreign currency in the country is calculated and it is assumed that excess demand is covered by the shadow market.

RESEARCH METHODOLOGY

In the course of the study, qualitative and quantitative *methods* of study were planned to be used.

Taking into consideration the purpose and goals of the research, the decision was made to use the following approaches:

1. Integrated approach. This approach for studying the activities of exchange bureaus includes:

- depth and expert interviewing;
- time study (stopwatch study);
- overt observation of the exchange bureaus activities;
- interviewing and questioning workers of exchange bureaus;
- analysis of exchange bureaus reports.

The integrated approach allows for the most objective information on shadow activities of licensed exchange bureaus. As a result of interviewing representatives of the National Bank, commercial banks and exchange bureaus, we prepared the questionnaires for the workers of the exchange bureaus in Bishkek. It was assumed that information on exchange transactions obtained through survey would be compared with reported data, and the positive difference between reported and collected data would be defined as hidden currency sales. The latter together with reported data would reflect a potentially broad picture on the size of foreign currency sold in Bishkek (1.1).

$$S^{act} = \sum_{i=1}^{n} S^{rep} + (\sum_{i=1}^{n} S^{obs} - \sum_{i=1}^{n} S^{rep}), S^{obs} \ge 0$$
(1.1)

where:

 S^{act}

S – actual sales of foreign currency, Kyrgyz som; S^{rep}

- sales of foreign currency according to reported data, Kyrgyz som;

 S^{obs} – sales of foreign currency according to data from observations (questionnaires), Kyrgyz som⁴.

2. Expert approach. The actual sales of foreign currency are determined by the coefficient of revaluation, the value of which is determined by expert assessments. Thus, according to the results of interviews with experts it was revealed that only 10-20 percent of the actual turnover of currency exchange is entered in the Journal of exchange transactions by exchange bureaus. Accordingly, the equation was constructed to determine potential sales of i^{th} currency by the exchange bureau:

$$S^{act} = \sum_{i=1}^{n} S^{rep} * \Delta$$
(2.1)

where,

 Δ – coefficient of revaluation of sales of foreign currency (Δ =5 when 20% of the turnover is reflected; Δ =10 when 10% of the turnover is reflected).

3. Cost-based method. Some minimum amount is required for the monthly maintenance of the i^{th} exchange bureau. It consists of the following costs:

- the cost of a patent;

- rent for the premises of the exchange bureau;

- payment for workers of the exchange bureau;

- payment of utility bills;

- other expenses.

$$C_j = \sum_{k=1}^n C_k \tag{3.1}$$

where,

 C_j total costs of one exchange bureau in area *j*;

 $k - k^{th}$ expenditure item of the exchange bureau.

The size of the exchange bureau revenue is determined as the volume of m^{th} foreign currency sold multiplied by the margin per unit of currency sold (3.2).

⁴In this context data from questionnaires should equal to or greater than the reported data.

$$R = V_{i,i,m}^s * \pi_{i,i,m} \tag{3.2}$$

R – revenue from sales of i^{th} exchange bureau in area j;

V – number of currency m sold at the exchange bureau *i* in area *j*;

n – margin of currency m of the exchange bureau i in area j.

We assume that the signs that the exchange bureau is concealing the real volumes of foreign currency sold are the following:

- there is an excess of costs over revenues of the exchange bureau for several months or 2-3 months in a row of the calendar year (the so-called "conditional loss-making"⁵);

- costs of the exchange bureau are equal to its revenues for several months or 2-3 months in a row of the calendar year (zero efficiency).

$$C \le R \tag{3.3}$$

The peculiarity of the cost method is that it only shows the conditional break-even point. The latter is achieved by the sale of a minimum amount of foreign currency at a certain amount of margin, which would just cover an aggregate cost of maintaining the exchange bureau. Conditional minimum value of the sale of foreign currency to get non-negative profit is defined as equality of costs and revenues:

$$C = R \tag{3.4}$$

DATA ANALYSIS

The study of exchange bureaus activities (N=243) started with their zoning. According to the tax rates (patent prices) Bishkek $city^6$ was divided into four areas (Figure 1).

We used reports of licensed exchange bureaus in Bishkek for 2013-2014 for data analysis. During this period, a number of exchange bureaus showed no movement of funds, or the suspension and / or termination of activities⁷.

As a relevant research method an integrated approach was chosen, which includes the use of qualitative and quantitative approaches.

Interviewing with workers of the National Bank, commercial banks and exchange bureaus showed the following:

- a number of banks in setting the exchange rate follow the exchange rates set by exchange bureaus located on the Y.Abdrahmanov Street, limited by Moskovskaya Street and J.Bokonbaev Street (hereinafter – "Mossovet");

- exchange bureaus are faster and more mobile in their activities than banks;

- exchange transactions in Bishkek are controlled by well-established regional groups – representatives of Talas, Naryn and Osh regions⁸;

- actions of exchange bureaus are coordinated when determining the exchange rate at "Mossovet", "Dordoi", "Shlagbaum" (intersection of D. Xiaoping and J. Fučik Streets);

- exchange bureaus are capable of influencing the exchange rate;

⁵By "conditional loss-making" of the exchange bureau we mean the activity of the exchange bureau, which keeps operating despite losses. Presence and the size of losses are defined by 3.3 and 3.4.

⁶ Tax rates on the basis of the compulsory patent for the services of the exchange bureau, approved by the Governmental decree of the Kyrgyz Republic #58 dated January 28, 2009.

⁷Nevertheless, such exchange bureaus were also included in a sample.

⁸ In the sphere of influence of Talas oblast representatives are exchange transactions at "Mossovet" and "Dordoi" market, of Naryn oblast representatives – "Dordoi" market, of Osh oblast representatives – supply of cash in rubles.

- exchange bureaus act as authorized representatives of commercial banks when buying and selling currency;

- economic agents prefer anonymousness of transactions and thus, choose exchange bureaus.

<u>Figure 1</u>

Zoning chart of the exchange bureaus in Bishkek



Interviews with experts showed that the majority of exchange bureaus disclose 10-20 percent of information in their reports. We were able to conduct a survey of workers of exchange bureaus due to their refusal to participate in the study. As a result, alternative approaches – expert and cost methods – were applied. The results obtained by the expert approach turned out to be biased and their use carries the risk of making wrong decisions by management by management of the NBKR. In particular, as shown by the expert approach, turnover of exchange bureaus for 2013 and 2014 is equal to or greater than the volume of foreign trade turnover. Exchange bureaus probably are not able to concentrate such turnover, which raises doubts about the relevance of the estimations. Thus, we referred to the cost method, the results of which can be used to justify the position of the National Bank on the activities of exchange bureaus.

COST-BASED METHOD

According to the cost method the approximate monthly cost of running foreign exchange business in Bishkek was determined and calculated (Table 1)⁹. It includes the following:

- purchase of the patent, the price of which depends on the location of the exchange bureau;

- rent of premises of the exchange bureau (also, opportunity costs were taken into account);

⁹The cost of patent and rent of premises depend on the location of the exchange bureau.

- salary of workers of the exchange bureau (presumably a minimum of 2 workers work in the exchange bureau);

- utility bills (electricity, water supply, drainage, etc.) and other expenses.

<u>Table 1</u>

Costs of maintaining one exchange bureau, som

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#	Cost item	
1	Patent	
	Center 1: L.Tolstoy Street-Erkindik blvdM.Frunze Street-S.Ibraimov Street	15 000
	Center 2: K.Skryabin Street-Ala-Archa river-K.Minin Street-N.Isanov Street-	12 000
	Jibek-Jolu avenue-A.Suyumbaev Street-railroad-T.JPudovkin Street	
	Periphery 1: I.Ahunbaev Street-Sh.Rustaveli Street-J.Turusbekov Street-	10 000
	M.Kurenkeev Street-Alamedin market-"Dordoi" bazaar	
	Periphery 2: Other areas of the city, including "Manas" airport	6 000
2	Rent of premises for the exchange bureau	
	"Dordoi"	12 000-24 000
	"Mossovet"	from 90 000
	Other parts of the city	12 000-30 000
3	Salary for one worker	20 000
4	Utility bills and other expenses	5 000

Source: Authors' own estimates based on data of the State Tax Service of the KR, results of the interview

We identified minimum costs for maintaining for each of four areas where exchange bureaus are located (Table 2).

Table 2

Costs of maintaining an exchange bureau in different areas of Bishkek

#	Cost item	Name of the area										
	Cost hell	Center 1	Center 2	Periphery 1	Periphery 2							
1	Patent	15 000	12 000	10 000	6 000							
2	Rent of premises for the exchange bureau	90 000	12 000	12 000	12 000							
3	Workers salary	40 000	40 000	40 000	40 000							
4	Utility bills and other expenses	5 000	5 000	5 000	3 000							
5	Total	150 000	69 000	67 000	61 000							

Source: Authors' own estimates based on data of the State Tax Service of the KR, results of the interview

Then, revenues of the exchange bureaus in each of the four areas were calculated as the sum of the margin and the volume of currency sold (on the basis of reported data). For all the areas and periods a common minimum margin was adopted, which was determined according to experts estimates (Table 3). The maximum margin rate was not used in the calculations, since it depends on the situation on the currency market - the sharp fluctuations, night sale.

<u>Table 3</u>

Minimum margin rate when exchanging currency in exchange bureaus of Bishkek

		-	
i	#	Currency name	Margin rate, som
	1	US dollar	0.08
	2	Russian rouble	0.02
	3	Kazakh tenge	0.02
4	4	Euro	0.20
ã			

Source: On the basis of the survey of exchange bureaus workers, staff of the National Bank and commercial banks

Analysis of the reported data provided by the exchange bureaus, showed that in 2013 and 2014 a number of exchange bureaus worked at a loss for a long time. Revenues of exchange

bureaus did not cover costs for covering them (Appendix 1). On average, in 2013 and 2014 the following number of bureaus was loss-making:

- out of 78 exchange bureaus in "Center 1", 12 and 32 accordingly;
- out of 18 exchange bureaus in "Center 2", 5 and 9 accordingly;
- out of 36 exchange bureaus in "Periphery 1", 7 and 12 accordingly;
- out of 111 exchange bureaus in "Periphery 2", 18 and 43 accordingly.

At a time of explicit growth in sales of currency in exchange bureaus and increased number of inspections by the National Bank the number of conditionally loss-making exchange bureaus significantly increased (by 1.6-2.8 times). which gives a counterintuitive result. In our view, therefore, inspections of exchange bureaus conducted by the National Bank to achieve reliable reporting by exchange bureaus are not entirely effective.

In 2014, in comparison with the previous year there was a significant increase in the number of exchange transactions (Table 4), produced by:

- demand and supply of economic agents;
- exchange rate fluctuations in the exchange market;
- panic behavior of economic agents;
- intensification of inspections of the exchange bureaus by the National Bank¹⁰.

To find out the reasons for the sharp increase in sales (growth rate of 200.0 percent or more) of foreign currency, reports of the exchange bureaus were analyzed. It was assumed that the sale of foreign currency increased due to the activities of exchange bureaus and increased number of inspections. However, the increase in sales of foreign currency in 2014 was achieved mainly by 18 exchange bureaus only (out of 243).

In order to neutralize the factor of a sharp rise in sales of currency by 18 exchange bureaus and introduce possible sales without unusual fluctuations, we used the method of values substitution (replacement). Calculations have shown that when the replacement of extreme values in 2014 by corresponding values of 2013 was made, the volume and growth rate of sales of foreign currencies decreased tens of times¹¹ (Table 4).

<u>Table 4</u>
Comparison of the sales of foreign currency in exchange bureaus in Bishkek

	Name	2013 actual	2014 actual	Changes, percent	2014 Value substitution	Changes, percent					
		Centre 1									
1	Dollars	184 889 946	516 697 864	279.5	217 583 332	117.7					
2	Roubles	1 342 910 356	10 374 391 905	772.5	1 573 126 381	117.1					
3	Tenge	2 880 948 333	9 826 981 895	341.1	3 674 444 570	127.5					
4	Euro	22 118 955	25 505 411	115.3	20 310 570	91.8					
			Centre 2								
1	Dollars	12 779 763	441 232 662	3 452.6	13 465 985	105.4					
2	Roubles	100 884 494	16 253 716 139	16 111.2	104 339 799	103.4					
3	Tenge	254 669 926	325 587 469	127.8	309 990 669	121.7					
4	Euro	1 674 093	8 678 810	518.4	1 537 996	91.9					
			Periphery 1								
1	Dollars	20 109 631	309 192 498	1 537.5	34 654 169	172.3					
2	Roubles	567 549 501	1 185 806 093	208.9	1 163 980 493	205.1					

¹⁰ 400 and 1280 inspections of the exchange bureaus were conducted in 2013 and 2014, respectively, throughout the country.¹¹ As an extreme value, growth of foreign currency sales by 200 percent or greater was applied.

3	Tenge	1 254 975 292	43 142 860 163	3 437.7	1 543 273 846	123.0
4	Euro	2 469 080	2 421 477	98.1	2 391 432	96.9
			Periphery 2			
1	Dollars	68 843 343	210 023 610	305.1	88 628 638	128.7
2	Roubles	678 803 993	3 172 773 073	467.4	873 428 183	128.7
3	Tenge	2 845 651 270	7 833 659 664	275.3	4 251 433 821	149.4
4	Euro	2 856 448	4 566 367	159.9	3 091 267	108.2
C	4 .1 ,		(1 1) $(1 N)$	· 1D 1		

Source: Authors' own estimates based on the data of the National Bank

In our opinion, these results confirm the hypothesis on concealment of actual volumes of currency sales by licensed exchange bureaus, which is proven by the following:

- the estimated costs of maintaining a number of exchange bureaus exceed revenues;

- despite the loss-making, exchange bureaus continued to conduct financial and operating activities during the observed period.

CONCLUSION

With the emergence of market relations, when there was no wide network of financial institutions, exchange bureaus actively promoted the free circulation of foreign currency in cash in the country as an intermediary institution. Thanks to exchange bureaus, commodity-money transactions were facilitated, competition emerged among financial institutions, supply of foreign currency in cash was created.

Today, as practice shows, the activity of exchange bureaus is not transparent and not cost-effective. First, despite the increase in the number of inspections by the National Bank the number of conditionally loss-making exchange bureaus increased. It appears that it is due to the reluctance to show the actual turnover of currency in cash. Second, with exchange bureaus' turnover of 97 billion soms in 2014, information on their supposed and actual tax payments from the National Bank and the State Tax Service was 36.6 million and 24.4 million soms respectively. Third, today exchange bureaus activities should be organized in another way. For example, one might consider creating specialized payment institutions, which would be engaged in currency exchange, receiving payments, money transfers, etc. with the inclusion of exchange bureaus in the Interbank Processing Center¹².

The original objective of this work was to identify and develop the methodology for calculating the volume of shadow turnover of licensed exchange bureaus. Using qualitative and quantitative research methods was impossible because of the unavailability of information and erroneous calculations. Therefore, it was decided to use the cost method to study the issue in question as it turned out to be the most relevant one, and use it to confirm or refute the hypothesis posed.

The results of the cost method confirmed the hypothesis posed: exchange bureaus conceal their actual sales of foreign currency. For example, exchange bureaus continue to operate even being conditionally loss-making.

The increase in sales of foreign currency in 2014 was mainly ensured by 18 exchange bureaus. Under conditions of increased activity of foreign exchange operations on the market the number of conditionally loss-making exchange bureaus increased by 1.6-2.8 times in 2014.

¹² For example, in Germany there is Reisebank AG, which is specialized in the currency exchange. In fact, the bank represents a big exchange bureau, which has more than one hundred exchange bureaus in airports, railway stations and around 150 interchangers.

As before, the Economic Research Center is actively looking for a relevant methodology, which will give an answer to the research question of this paper and will allow calculating exact volumes of shadow turnover of funds in licensed exchange bureaus.

RECOMMENDATIONS

1. Involve representatives of exchange bureaus in improving inspection procedures to promote openness and transparency of financial activities of exchange bureaus.

2. Consider the possibility of the survey of activity of exchange bureaus with a frequency of once every 2-3 years.

3. Bring up for discussion a draft legal act on the transfer of operations for the exchange of foreign currency in cash to payment institutions of the Kyrgyz Republic.

REFERENCES

1. Gurkov A. O monetah, banknotah i voobshe o valyutah[On coins, bills and currencies in general] [Electronic resource]/Andrey Gurkov//DW.-2006–Nov.15. Access mode: <u>http://www.dw.com/ru/O-монетах-банкнотах-и-вообще-о-валютах/а-2240268</u> (accessed July 3, 2015).

2. Ibragimova S., Kasymbekov K., Baimatova G., Berdigulova A. Rezultaty obsledovaniya prigranichnoi torgovli i reexporta tovarov, ne okhvatyvaemyh oficialnoi statistikoi [Results of cross-border trading research and re-exports of goods, which are not covered by the official statistics] // Collection of scientific articles of the National Bank of the Kyrgyz Republic- B., 2012.-p. 16-20.

URL:<u>http://www.int.nbkr.kg/DOC/13062012/0000000016215.pdf</u> (accessed November 29, 2014).

3. Metodologicheskoe polojenie po ocenke obyomov nenablyudaemoi ekonomiki [Methodological provisions on assessment of volumes of non-observed economy]. NSK KR-B., 2009. 14 p.

4. Hasanov R., Koichumanov T., Umurzakov K., Dzhamankulov N., Krasnikov A., Mokrousova E., Kotulyova P. Issledovanie tenevoi ekonomiki v Kyrgyzskoi Respublike [Research of shadow economy in the Kyrgyz Republic].-B., 2012. 93 p.

5. Cagan P. The demand for currency relative to total money supply//The Demand for Currency Relative to Total Money Supply.-NBER, 1958.-C. 1-37.

6. Dornbusch R. et al. The black market for dollars in Brazil//The Quarterly Journal of Economics.-1983.-C. 25-40.

7. Grosse R. Jamaica's foreign exchange black market//The Journal of Development Studies.-1994.-T. 31.-№. 1.-C. 17-43.

8. Jianping D. China's foreign exchange black market and exchange flight: analysis of exchange rate policy//The Developing Economies.-1998.-T. 36.- №. 1 - C. 42-44.

1. Tanzi V. The Underground Economy in the United States: Annual Estimates, 193080) //Staff Papers-International Monetary Fund.-1983.-C. 283-305.

APPENDIX

Assessment of efficienc	v of exchange bu	reaus activities in Bishkek
rissessifient of efficience	, or enemange ou	field activities in Distinct

#	Exchange						20	13											20)14					
	bureaus											Center 1	l												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Profitable	36	42	38	39	39	38	41	37	37	38	37	42	17	15	13	15	13	12	20	20	21	25	18	19
2	Loss-making	15	8	14	13	13	13	10	13	13	12	12	6	32	35	39	33	31	36	27	28	28	24	36	33
3	Zero activity	27	28	26	26	26	27	27	28	28	28	29	30	29	28	26	30	34	30	31	30	29	29	24	26
4	Total	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
5	Loss-making, percent	29	16	27	25	25	25	20	26	26	24	24	13	65	70	75	69	70	75	57	58	57	49	67	63
												Center 2	2												
1	Profitable	5	8	5	8	5	7	6	6	5	8	9	7	2	2	1	3	1	1	4	3	4	3	2	2
2	Loss-making	7	4	5	3	6	5	6	5	6	3	2	3	9	9	10	10	11	10	7	8	7	8	10	9
3	Zero activity	6	6	8	7	7	6	6	7	7	7	7	8	7	7	7	5	6	7	7	7	7	7	6	7
4	Total	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
5	Loss-making, percent	58	33	50	27	55	42	50	45	55	27	18	30	82	82	91	77	92	91	64	73	64	73	83	82
											Pe	eriphery	· 1												
1	Profitable	16	18	17	20	19	21	19	18	19	19	20	21	15	11	13	17	12	11	18	18	20	22	18	20
2	Loss-making	7	5	7	7	10	6	6	6	7	7	8	7	11	16	16	13	16	17	10	11	9	7	11	10
3	Zero activity	13	13	12	9	7	9	11	12	10	10	8	8	10	9	7	6	8	8	8	7	7	7	7	6
4	Total	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
5	Loss-making, percent	30	22	29	26	34	22	24	25	27	27	29	25	42	59	55	43	57	61	36	38	31	24	38	33
											Pe	eriphery	2												
1	Profitable	44	53	52	55	57	59	58	56	54	61	61	58	36	26	25	31	23	22	45	44	43	44	32	41
2	Loss-making	21	15	19	18	18	15	17	19	22	16	16	19	41	50	51	46	51	55	30	33	37	35	49	42
3	Zero activity	46	43	40	38	36	37	36	36	35	34	34	34	34	35	35	34	37	34	36	34	31	32	30	28
4	Total	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
5	Loss-making, percent	32	22	27	25	24	20	23	25	29	21	21	25	53	66	67	60	69	71	40	43	46	44	60	51