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Market Adaptation of Enterprises and Defense Sector in Russia

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Summary.

Focus of presentation is on the analysis of adaptation of the defense enterprises in the context of the systemic transformation of Russian economy and society.

Data used: longitudinal survey of the managers that have carried out in Russian defense sector in 1995-2004. Questionnaires were sent annually to approximately 1000 defense enterprises and addressed to their directors (CEOs). Each questionnaire "Military enterprise in transition to the market system" included 70-100 questions aimed to reflect all major characteristics of enterprise's performance. The core questions were the same for all surveys allowing for the monitoring of changes. The industrial structure of the sample reflects that in defense sector in general (table 1).

The major findings are as follows:

1. Managers and blue colors were adopted of the idea of market system; they started to understand what it means in practice. They prefer market system in compare with the system of soviet-type central planning economy (tables 2 and 3).
2. Russian defense sector had enjoyed fast economic growth in the beginning of 2000s. However this growth dramatically has slowed down recently and now this sector near economic stagnation (see table 4).
3. State support of the Russian defense sector has been seriously increased during 2000s in a 20-30 percents annually and in 2006 it is near 240 bln. rubles or around 9 bln. USD. At the moment polled leaders of defense enterprises are much less complaining about state disregarding in this realm – only 32% complained that 'government doesn't fulfill its obligations in the realm of state order' in 2004 in compare with 67% of those in 2000 (table 6).
4. Meantime, institutional and technical obstacles for market adaptation and normal operation of the Russian defense enterprises are expanding during the 2000s. Though focus of state policy is on the development of the market system in Russia (table 5), its specific influence on the position of enterprise is still negative in total (table 6), and some new disturbing aspects are emerged in both levels, federal and regional. The major troubles are permanent restructuring of the government operation and high payments for

land (tables 7 and 8). Authorities are more frequently interfering into enterprise operation, they are losing their 'art of economic policy' in compare with the beginning of 2000s (table 9).

5. There are contradictory changes in the system of ownership (tables 10-14). In the one hand, the share of insiders is obviously, decreased (table 10) – total percentage of state (this package usually controls by managers), labor and administration slumped from 78% in the mid-90s to 33% in 2004. But in the other hand, some indirect forms of insider's control are emerging via 'private enterprises' and 'individuals' – 54% totally. These items are often over control of an enterprise administration. Furthermore, private ownership now is less attractive for the economic actors than in the previous period – polled managers answering to the question, why they do not want to be the owner of enterprise outlined that this isn't provide the increase of their income (table 14). This is because of the recent bureaucratic expansion to the economy, when to be bureaucrat enjoying entrepreneurship is more profitable that to be honest businessman.

6. Level of internationalization of the defense enterprises is still very low, it didn't increase during the last decade and even less than it was in the middle of 90s (table 15). Though the sales at the international markets are increased during last five years, share of these sales is only $\frac{1}{4}$ in total sales of defense entities (table 16). The most of sales are only in the markets of China and India (table 17). Thus, access to the international markets wasn't important factor of the defense enterprise's adaptation to the market system.

7. More and more serious obstacle to the market adaptation becomes outdated technology of the defense industry. Technological level is dramatically decreased during last decade: in the middle of 90s this level was competitive in the domestic markets; but now more than a half of the polled directors estimate this level as absolutely uncompetitive (table 18). They think that this factor now is the major obstacle for the market adaptation among the internal characteristics of enterprise (table 19).

As per external factors unfavorable for enterprise' operation directors estimated high prices on the energy and raw materials (table 20). The most remarkable trend is the increase of the role of government officials' bribery among these factors, meantime roles of political instability, high taxes and overdue payments by state and partners are decreased.

Conclusion: in Russian defense sector has emerged industrial enterprise that is 'intermediate entity', something between Soviet enterprise and real capitalist firm (table 21) operating within market economy. I suggest the term 'business clan' to describe this phenomenon. The major features of enterprise as 'business clan' are as follows: 1) fuzzy enterprise's borders, when outsider cannot see what assets and labor are really within certain enterprise, in particular many satellite companies near the mother enterprise; 2) widespread of informal (shadow) relations within and outside of enterprise when informal rules based on personal contacts are more important than formal norms; 3) the lack of transparency in the firms' operation; 4) the vagueness of property rights; 5) the

distortion of the aims of enterprise – often economic efficiency isn't not so important in a decision-making because someone become the winner in competition using non-economic (for example, political and criminal) tools in the current situation when there is no equal conditions for competition; 6) instability in the enterprise's operating.

Behind every above feature are the certain economic institutions (as institution of shadow owners) forming during the last period in Russia. The aggregate of such institutions is the current economic system that I suggest to call "clan capitalism". This system generates obstacles for market adaptation and rigid restrictions on the enterprise development.

Tables.

Table 1. Industrial structure of defense sector in general and in the sample, 2004

Industries	In general		In sample	
	%	Rank	%	Rank
Aviation	17	3	22	2
Rockets and Space	6	7	6	7
Electronics	18	2	18	3
Radio and liaison	25	1	30	1
Ship construction	13	4	9	4
Ammunition and special chemicals	11	5	9	5
Arms	10	6	6	6
Total	100		100	

Table 2. Values of the directors – choice between full economic freedom and taught state regulation

Values	2000	2001	2002	2003	2004
Taught state regulation	43	32	43	26	30
Full economic freedom	57	68	57	74	70
Total	100	100	100	100	100

Answers on the question: “Taking into account your experience, what do you prefer – to operate under the taught state regulation, full state order but under the lack of economic freedom, OR under full economic freedom but without state support?”

Table 3. What Russia needs now – to continue market transformation or to move to centralized soviet-type economy?

Russia needs	1996	1997	1998	1999	2000	2001	2002	2003	2004
To continue market transformation	54	49	58	70	66	69	59	70	72
To move to centralized soviet-type economy	46	51	42	30	34	31	41	30	28
Total	100	100	100	100	100	100	100	100	100

Table 4. Director’s estimates of the changes in company production during 1995-2004 (%)

Estimates of the changes in production	Years									
	1995	1996	1997	1998	1999	2000	2001	2003	2004	
Production was increased	9	15	33	26	81	81	77	70	63	
Production was stable	77	42	34	30	5	14	13	17	23	
Production was decreased	14	43	33	44	14	5	10	13	14	
Total	100	100	100	100	100	100	100	100	100	
Decrease (-), increase (+) of production, total (%)	-20	-15	+5	-2	+63	+42	+23	+18	+7	
Official data	-20	-27	-16	-14	+33	+29	+15	+18*	+4	

(*) These data are concerning the first six months of 2003 in compare with the first half of 2002 (Prime-TASS, 23.07.2003).

Table 5. Focus of the current economic policy – on the development of market system or on the expanding of state role

Focus of the current economic policy	1996	1997	1998	1999	2000	2001	2002	2003	2004
On the development of market system	87	76	77	70	81	83	78	87	72
On the expanding of state role	13	24	23	30	19	17	22	13	28
Total	100	100	100	100	100	100	100	100	100

Answers on the question: “How do you think, what is the principal focus of the current economic policy - on the development of market system or on the expanding of state role?”

Table 6. How state policy influences on your enterprise in total?

Influence is	1999	2000	2001	2002	2003	2004
Positive	20	21	27	25	21	19
Negative	62	50	36	55	46	56
No influence	18	29	37	20	33	25
Total	100	100	100	100	100	100

Table 7. What are the main defects of the federal government policy in the realm of defense sector that are preventing of the activities of enterprises?

Defects of the federal government policy*	2000	2001	2002	2003	2004
State doesn't provide restructuring and conversion of defense sector	50	55	57	44	51
Government doesn't fulfill its obligations in the realm of state order	67	54	58	37	32
Governance is stopped by the permanent transitions	34	34	43	39	77
Too high taxes	73	74	53	66	45
Wrong implementing of the privatization policy	17	30	35	33	23
Too many obstacles to the arm export	15	8	18	24	20
Some specific mistakes in the economic policy (too big reserved facilities, and etc.)	20	14	18	15	19

* Since every respondent could select more than one answer the total is not equal 100 percents.

Table 8. What are the main defects of the regional government policy in the realm of defense sector that are preventing of the activities of enterprises?

Defects of the regional government policy: regional bodies...*	2000	2001	2002	2003	2004
Cannot provide normal operation of the infrastructure	34	43	48	26	26
Refuse to accept social assets (hospitals, houses, and etc.) that my enterprise obliged to transfer to regional bodies	35	18	19	23	12
Put too high regional taxes	63	62	44	30	22
Cannot provide security from the criminal takeover	8	10	16	16	8
Buy goods in other regions that my enterprise can produce	21	30	33	23	45
Want to takeover my enterprise	11	14	16	6	11
Put too high payments for lands that my enterprise using	**	**	**	58	61

* Since every respondent could select more than one answer the total is not equal 100 percents.

** This variant of answer didn't offered because this problem has emerged after 2002

Table 9. What are the changes in the relations between the government and the business in the last period, if any?

Changes	2001	2002	2003	2004
No changes	46	42	30	46
Government interference into enterprise activities is expanding, provoking more troubles in daily operations	16	27	39	35
Government more effectively regulates economic relations, interfere only in necessary cases and support enterprise development	14	12	15	7
Government interference into enterprise activities is decreasing, there is more opportunities for the normal operation of enterprise	24	19	16	12
Total	100	100	100	100

Table 10. Structure of ownership (non-state enterprises)

Owners	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
State	48	65	64	15	22	18	18	21	24	10
Labor	27	16	16	37	31	38	36	22	18	14
Administration	3	3	3	7	6	12	10	9	12	9
Investment funds	5	2	2	6	2	6	2	1	2	1
State enterprises	8	2	4	3	1	2	6	7	7	2
Private enterprises	4	5	6	12	18	12	9	21	17	34
Foreign owners	1	1	0	3	1	0	0	2	1	1
Banks	1	1	1	3	1	1	1	2	4	0
Individuals (Russians)	2	4	4	9	16	5	16	14	15	20
Others	1	1	0	5	2	0	2	1	0	9
Total	100	100	100	100	100	100	100	100	100	100

Answers on the question: "If 100% is the capital of your enterprise, what percentage is owned by various kinds of proprietors?" (Question is only for the directors of non-state enterprises)

Table 11. What is your role at the enterprise – are you official owner or actual owner but officially not registered, or hired manager?

Roles	1996	1997	1998	1999	2000	2001	2002	2003	2004
Official owner	7	16	14	13	20	26	11	14	8
Actual owner but officially not registered	10	9	15	15	18	8	19	15	15
Hired manager	83	75	71	72	62	66	70	71	77
Total	100	100	100	100	100	100	100	100	100

Table 12. Why you aren't an official owner?

Answers*	1997	1998	1999	2000	2001	2002	2003	2004
Labor opposition	1	0	2	1	1	0	1	0
Criminals are resisting	1	0	0	0	0	0	0	0
Property was distributed among many minor owners during privatization	22	12	41	28	28	32	22	20
State owns by percentage of the capital	22	22	34	24	23	37	33	31
Privatization of this enterprise is banned	51	61	34	40	43	31	45	36
I have no start capital	17	16	17	22	26	28	15	32

* Since every respondent could select more than one answer the total is not equal 100 percents.

Table 13. Do you want to be official owner of this enterprise?

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Yes	47	49	52	51	52	55	50	61	55
No	53	51	48	49	48	45	50	39	45
Total	100	100	100	100	100	100	100	100	100

Table 14. Why you don't want to be official owner of this enterprise?

Answers*	1997	1998	1999	2000	2001	2002	2003	2004
Too many troubles: too high taxes, huge responsibility, and etc.	17	9	18	18	19	34	38	33
I cannot gain additional income	13	17	7	7	23	22	28	58
Fear of racket	1	6	0	0	6	0	7	11
Worsening relations with labor	4	19	13	47	17	14	3	20
Enterprise in bad position	14	17	14	2	11	8	14	15
Disorder in the Russian society and economy	81	72	46	56	68	52	55	28

* Since every respondent could select more than one answer the total is not equal 100 percents.

Table 15. Forms of activity of Russian defense enterprises on international markets, director's estimates in 1995-2003, %

Forms of activity on international markets*	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Export of goods	48	55	45	42	40	55	43	43	53	45
Export of technologies	No data	12	14	11	9	8	4	11	9	11
Import of equipment	25	20	17	20	14	36	28	33	32	34
Production in joint ventures	27	15	12	12	9	11	3	9	17	15
No activities	18	26	37	38	55	27	42	39	30	35

* Annual column sums aren't equal 100%, because every respondent can report on several kinds of activity

Table 16. The percentage of sales in the international and domestic markets in total sales since the 2000 (%)

Percentage of sales	2000	2001	2002	2003	2004
On international markets	16	15	19	18	25
On domestic markets	84	85	81	82	75
Total	100	100	100	100	100

Table 17. Regional distribution of export sales of the Russian defense enterprises (percentage)

Regions	2003	2004
Europe	15	12
USA	6	6
China	27	26
India	23	28
Other countries of South East Asia	9	12
Middle East	4	3
Latin America	0	0
Africa	2	0
CIS (former Soviet republics)	14	13
Total	100	100

Table 18. Technological level of the Russian defense enterprises, director's estimates in 1995-2004 (%).

Technological level	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Competitive at the international market	9	8	5	3	3	2	2	2	2	0
Competitive only at the domestic level, but satisfactory	62	58	60	55	46	45	42	34	47	42
Outdated	29	34	35	42	51	53	56	64	51	58
Total	100	100	100	100	100	100	100	100	100	100

Table 19. What are the features of your enterprise preventing to the market adaptation?

Answers*	1997	1998	1999	2000	2001	2002	2003	2004
Too high percentage of the military production	13	33	38	33	32	18	20	8
Uncompetitive production	16	23	19	19	15	21	12	20
Low quality of production	7	7	1	5	7	8	10	9
Lack of the power in hands of the director	3	6	7	2	1	2	4	2
Bulky system of management	5	8	13	6	8	6	6	9
Lack of labor motivation	7	18	16	6	8	11	9	13
Lack of the capital	76	58	68	59	50	51	51	39
Outdated technology, equipment	33	42	42	40	53	72	71	67
Lack of skilled professionals	2	20	6	9	23	27	41	33
Too much reserved facilities	16	29	35	37	35	22	24	16

* Since every respondent could select more than one answer the total is not equal 100 percents.

Table 20. What are the external conditions preventing normal operation of your enterprise?

Answers*	1998	1999	2000	2001	2002	2003	2004
Political instability in the country	41	56	52	25	22	13	17
Bribes by government officials	12	9	9	14	20	26	34
Too high taxes	88	88	84	87	72	77	58
Overdue payments by state and partners	86	75	66	53	53	29	38
Too high prices on energy and raw materials	86	77	66	81	71	77	70
Too high criminality and racket	0	2	1	3	1	4	1
Too many changes in legislation	36	22	17	22	45	38	46
High competition at the international markets	10	11	7	9	20	20	19

* Since every respondent could select more than one answer the total is not equal 100 percents.

Table 21. How do you think, is it possible to call you enterprise as capitalist entity?

	1998	2001	2002	2003	2004
Yes	11	17	26	26	29
No	89	83	74	74	71
Total	100	100	100	100	100