# STRENGHTENING THE CAPACITY OF DEVELOPING AND TRANSITION ECONOMIES TO LINK TO GLOBAL SUPPLY CHAINS THROUGH THE REDUCTION OF TRADE OBSTACLES

#### United Nations Development Account; 7th tranche

(the study is prepared by a consultant and is presented in the form and language as received by the UNECE secretariat)

#### **UNECE** study on global supply and logistics chains at CIS region

Global supply chains started developing rapidly since mid1990s along with processes globalization, market opening up and international trade development. The prime trend of the period was cutting production costs thanks to low wages in the countries of South-East Asia, Eastern Europe and Latin America. However, in the last 10 years due to rising wages in the developing countries and escalating transportation costs a trend towards restructuring of international supply chains (ISCs) emerged. On the one side, it could result in back-sourcing and re-industrialization processes, i. e. relocating some production capacities back to Europe and the US. On another side, priority change in the development of ISC is about to bring into the limelight, instead of production cost reduction, issues of closeness to strategic natural resources, ports, transportation hubs, etc., which activates the process of using means and concepts of ISC management in countries in transition, including the CIS member states.

Besides, due to its geographical position the CIS region is a natural transportation/logistics intermediary between the two major centres of international economic activities, i. e. the European Union (EU) and Asia-Pacific region. For a number of territories within the CIS (especially those having access to the seas) the active involvement in ISCs may serve as an engine for sustainable economic development, new jobs creation and augmentation of budgetary incomes.

One can undoubtedly state that currently the market on logistics services in the CIS countries lags considerably behind the one in the Western countries. According to experts' estimates, its annual volume currently lies within US\$80-90 bn., of which US\$ 50-60 bn. Accounts by Russia, with the rest US\$20-30 bln. spreaded among other CIS states (mainly Ukraine and Kazakhstan). For comparison, in Europe the respective market volume is estimated at Euro 600 bln. The share of transportation and forwarding sector comprises 55% of the CIS logistics services market with that of warehousing services standing at 13% and integration/SCM (supply chain management) services - at 32%<sup>1</sup> Thus, the total annual capacity of the CIS market for SCM services may be optimistically estimated at US\$ 20–25 bln., whereas that of the Russian Federation – at US\$ 15–20 bln.

Botnarjuk M. V. Partnership Relations as an Imperative to Logistics Business Operation. Society: Politics, Economics, Law (2011, № 1), p. 54 (in Russian).

#### **CIS Countries in International Logistics Rankings**

In early 2012 the World Bank published a new (third in a row) Connecting to Compete: Trade Logistics in the Global Economy report on the development of logistics industry in various countries of the world <sup>2</sup> containing their rating on the basis of Logistics Performance Index – LPI, which the World Bank has produced every two years since 2007. The LPI, a multidimensional assessment of logistics performance, measures on-the-ground trade logistics performance, helping national leaders, key policymakers, and private sector traders understand the challenges they and their trading partners face in reducing logistical barriers to international commerce. It may also serve as a tool showing the effectiveness of ISC management practices in country its ability trade as to globally depends on its traders' access to global freight and logistics networks and the efficiency of a country's supply chain (in terms of costs, time, and reliability) depends on specific features of its domestic economy (logistics performance).

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<sup>&</sup>lt;sup>2</sup> Connecting to Compete 2012. Trade Logistics in the Global Economy. The Logistics Performance Index and Its Indicators. © 2012 The International Bank for Reconstruction and Development/The World Bank.

CIS Countries Logistics Performance Compared to the Top 10 2012 LPI Performers <sup>3</sup>

	Rank	Score	% of highest performer
Singapore	1	4.13	100.0
Hong Kong SAR, China	2	4.12	99.9
Finland	3	4.05	97.6
Germany	4	4.03	97.0
Netherlands	5	4.02	96.7
Denmark	6	4.02	96.6
Belgium	7	3.98	95.3
Japan	8	3.93	93.8
United States	9	3.93	93.7
United Kingdom	10	3.90	92.7
Ukraine	66	2.85	59.3
Georgia	77	2.77	56.8
Kazakhstan	86	2.69	54.2
Belarus	91	2.61	51.6
Russian Federation	95	2.58	50.7
Armenia	100	2.56	50.0
Azerbaijan	116	2.48	47.4
Uzbekistan	117	2.46	46.9
Kyrgyz Republic	130	2.35	43.3
Moldova	132	2.33	42.6
Tajikistan	136	2.28	41.1

Source:

Connecting to Compete 2012. Trade Logistics in the Global Economy. The Logistics Performance Index and Its Indicators. © 2012 The International Bank for Reconstruction and Development/The World Bank. P. viii.

In the 2012 LPI rating Russian Federation stood at only 95<sup>th</sup> position of 155, whereas Georgia was at 77<sup>th</sup>, Kazakhstan - 86th, Byelorussia - 91<sup>st</sup>, Armenia – 100<sup>th</sup>, Azerbaijan – 116<sup>th</sup>, Uzbekistan – 117<sup>th</sup>, Kirghizia – 130<sup>th</sup>, Moldova – 132<sup>nd</sup>, and Tajikistan – 136<sup>th</sup>. Inadequate logistics development leads to longer lead times and high costs of delivery of goods within the ISCs, which is especially typical for Central Asian states.

It is worth noting that another renowned international logistics and ISC development rating - The Agility Emerging Markets Logistics Index covering the world's major developing logistics markets in 2013 included only 3 CIS countries, namely Russia, Kazakhstan and Ukraine which took 7<sup>th</sup>, 18<sup>th</sup> and 20<sup>th</sup> positions, respectively.

Note. The ratings are based on 6,000 individual country assessments by nearly 1,000 international freight forwarders, who rated the eight foreign countries their company serves most frequently. The LPI's six components include:

<sup>•</sup> The efficiency of the clearance process (speed, simplicity, and predictability of formalities) by border control agencies, including customs.

<sup>•</sup> The quality of trade- and transport-related infrastructure (ports, railroads, roads, information technology).

<sup>•</sup> The ease of arranging competitively priced shipments.

<sup>•</sup> The competence and quality of logistics services (transport operators, customs brokers).

<sup>•</sup> The ability to track and trace consignments.

<sup>•</sup> The frequency with which shipments reach the consignee within the scheduled or expected delivery time.

#### Average distances, lead times and costs of delivery of import/export goods in the international supply chains in some CIS countries

	Export time and cost				Import time and cost							
	Port or airport supply chain <sup>1</sup> Land supply chain <sup>2</sup>		Port or airport supply chain <sup>3</sup>			Land supply chain <sup>2</sup>						
	Distance <sup>4</sup> (kilometers)	Lead time (days)	Cost <sup>5</sup> (US\$)	Distance <sup>4</sup> (kilometers)	Lead time (days)	Cost <sup>6</sup> (US\$)	Distance <sup>4</sup> (kilometers)	Lead time (days)	Cost <sup>5</sup> (US\$)	Distance <sup>4</sup> (kilometers)	Lead time (days)	Cost <sup>6</sup> (US\$)
Belarus	300	2	1000	775	3	1061	750	3	1500	387	3	2121
Kazakhstan	25	2	500									
Kirghizia	25	1	500									
Moldova				300	4	1500	•••			300	7	1500
Russia	750	2	2000	3500	5	5000	1620	3	3162			
Tajikistan	3500	2	•••	•••			3500	2				
Ukraine	87	2	866	137	2	1061	75	2	5000	150	6	1732
Uzbekistan	•••		•••	•••			474	25	1118	474	23	1000

<sup>&</sup>lt;sup>1</sup> From the point of origin (the seller's factory, typically located either in the capital city or in the largest commercial center) to the port of loading or equivalent (port/airport), and excluding international shipping (EXW to FOB).

Note. The ratings are based on individual country assessments by international freight forwarders, who rated the eight foreign countries their

company serves most frequently.

Source: Connecting to Compete 2012. Trade Logistics in the Global Economy. The Logistics Performance Index and Its Indicators © 2012 The In-

ternational Bank for Reconstruction and Development/The World Bank.

<sup>&</sup>lt;sup>2</sup> From the point of origin (the seller's factory, typically located either in the capital city or in the largest commercial center) to the buyer's warehouse (EXW to DDP).

<sup>&</sup>lt;sup>3</sup> From the port of discharge or equivalent to the buyer's warehouse (DES to DDP).

<sup>&</sup>lt;sup>4</sup> Aggregates of the distance indicator for port and airport.

<sup>&</sup>lt;sup>5</sup> Typical charge for a 40-foot dry container or a semi-trailer (total freight including agent fees, port, airport, and other charges).

<sup>&</sup>lt;sup>6</sup> Typical charge for a 40-foot dry container or a semi-trailer (total freight including agent fees and other charges).

# Agility Emerging Markets Logistics Index

Rank	Country	2013 Index	2012 Index
1	China	8.30	8.55
2	India	6.94	7.03
3	Brazil	6.89	6.83
4	Saudi Arabia	6.67	6 69
5	Indonesia	6.60	6.54
6	UAE	6.55	6.47
7	Russia	6.44	6.32
8	Malaysia	6.11	6.05
9	Mexico	6.07	5.90
10	Turkey	5.99	5.89
11	Chile	5.95	5.99
12	Qatar	5.78	5.72
13	Oman	5.73	5.78
14	Thailand	5 56	5.51
15	South Africa	5.47	5.32
16	Kuwait	5.12	5.21
17	Morocco	4.99	4.89
18	Kazakhstan	4.99	4.70
19	Argentina	4.96	4.66
20	Ukraine	4.90	4.77
21	Uruguay	4.88	4 96
22	Bahrain	4.87	5.18
23	Tunisia	4.86	4.90
24	Peru	4.83	4.85
25	Vietnam	4.81	4.70
26	Jordan	4.68	4.66
27	Egypt	4.66	5.18
28	Philippines	4.66	4.55
29	Colombia	4.62	4.53

Rank	Country	2013 Index	2012 Index
30	Sri Lanka	4.53	-
31	Pakistan	4.44	4.51
32	Bangladesh	4.43	4.45
33	Nigeria	4.37	4.36
34	Libya	4.35	4.27
35	Venezuela	3.98	3.84
36	Algeria	3.94	4.23
37	Ecuador	3.91	3.92
38	Ethiopia	3.81	2.89
39	Lebanon	3.81	-
40	Paraguay	3.62	3.58
41	Tanzania	3.48	3.51
42	Cambodia	3.45	-
43	Kenya	3.43	3.47
44	Bolivia	3.40	3.38
45	Uganda	3.31	-

Note: 2012 scores have been restated to account for additional countries.

Agility Emerging Markets Logistics Index 2013. A detailed ranking and analysis of the world's major developing logistics markets. January 2013. © Transport Intelligence Ltd. Jan 2013 Source:

It is obvious that the CIS market of SCM services needs strategically considered and balanced innovative decisions which could substantially improve various aspects of key business process integration in the region. According to various research reports by Supply Management Institute (SMI) of the European Business School (EBS, Germany), western suppliers point at ineffectiveness of logistics processes in the CIS countries. Efficient, reliable and flexible supply chain is rather an exception than a rule in the CIS with many technical standards routinely accepted in the West being at the early stage of introduction in the region.

In the CIS countries supply chain actors have to overcome problems of substandard quality of goods, inadequate infrastructure, lacking efficient production and distribution capacities and general unreliability of logistical operations. The existing transportation/logistics networks are inclined towards handling raw materials at the expense of higher value-added goods. That could be added to vast geographical scope of the internal markets and quite dynamic consumer demand for various goods and services. The situation is aggravated by the growing lack of highly qualified logistics and SCM personnel, which consequently causes insufficient customer and service dedication of the logistics operations.

# **Current State of the Research on SCM at CIS**

Currently the level of SCM research in the CIS countries lags behind the world average, both in quantitative and qualitative terms. It can be seen, inter alia, from a small number of flagship specialized publications as well as of academic periodicals in related fields (economy, management, transportation and technical disciplines) which systematically publish articles on supply change management. One could name just three regularly and continuously issued Russian-language flagship magazins – 'Logistica' ('Logistics'), 'Logistica i Upravlenie Tsepyami Postavok' ('Logistics & Supply Chain Management') and 'Logistica Segodnya' ('Logistics Today') coming out in the region and none in other languages of the CIS countries.

Historically, in the post-Soviet countries topics related to supply chain management were partially covered by periodicals on economics, transportation and engineering/technical sciences. However, those magazins, e. g. Rossiykii Zhurnal Menejmenta (Russian Management Journal), Rossiyskoye Prendprinimatelstvo (Russian entrepreneurship), Science & Technology Herald of St. Petersburg Polytechnic University, pay less attention to the topics in question. Occasionally articles on SCM issues could be found in magazins on transportation (the leader of which is 'Transport Rossiyskoy Federazii' (Transport of the Russian Federation') bi-monthly. Especially striking is the fact of scarcity of the respective articles in periodicals on marketing, e. g. 'Upravlenie kanalami distribuzii' (Management of Distribution Channels) quarterly. Most of articles on various SCM issues look like one-time publications and to a great extent of promotional nature.

Analysis shows that there were hardly few academic articles in the flagship magazins in 2004 – 2012 summarizing the results and actual trends of domestic SCM research in the CIS countries.

Apart from the lack of information another factor negatively influencing developments in supply chains is also a lack of understanding of logistics issues by many policy makers. An efficient global supply chain depends on the ability of a company to deliver a product through established transport logistics. Transport congestion is one of the major factors hindering trade between CIS countries and appearance of global supply chains. For example, the lack of reliable and economically viable logistics corridors is one of the reasons behind the falling share of fruits and vegetables from Central Asia at the Russian market.

The CIS policy makers are constantly discussing ways of improving the work of transport corridors both within the region and also a transit link Asia-Europe through CIS. The suggested solution is usually new investments into physical infrastructure. Very little attention is currently devoted to raising the efficiency of regulatory controls (which is one of the major complaints from business; see, for example, the position of the CIS countries in the World Bank "Doing Business" index <sup>4</sup>) through introducing risk management techniques , schemes of "authorized economic operator", better transboundary cooperation on transit, establishing green lines for transit trucks, etc. In our opinion, better understanding of realities and how global supply chains work by policy-makers and by control state agencies will help to promote and to bring the holistic vision and integrated complex solutions to logistics challenges at the CIS region.

# Implementation of SCM systems in the CIS countries

The first notable cases of SCM system implementation in Russia and Ukraine are dated back to 2006 – 2007. The very concept of SCM as an integrated approach to logistics started its rapid entering into the business practice in the CIS in the pre-crisis period of 2004 – 2007. That time in the organizational structures of advanced companies operating in the CIS market first SCM units appeared, as well as respective positions of a personnel, such as supply chain planning manager, integral SCM-manager, supply chain control & monitoring supervisor, etc. Besides, SCM tools are widely used by over 40 potent international logistics companies (DPWN, UPS, TNT, Panalpina, FM Logistic, Kuhne & Nagel, Gedios, Gefco, Welz, Shenker, Frans Maas, etc.) operating at the CIS market. Indigenous supplier and logistics companies facing the new reality have to struggle with foreign competitors coming to the local market and bringing modern supply chain management concepts.

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DOING BUSINESS 2013. Smarter Regulations for Small and Medium-Size Enterprises. Comparing Business Regulations For Domestic Firms in 185 Economies. 10<sup>th</sup> edition. A Co-publication of the World Bank and the International Finance Corporation, © 2013 International Bank for Reconstruction and Development / The World Bank. P. 3.

# Most important cases of SCM system implementation in Russian Federation in 2005 – 2010

System name	Company	Local Partner
i2 Supply Chain Strategist	TNK-BP	i2 CIS
Microsoft Dynamics NAV SCM	Lukomorye retail chain (baby goods)	IBS
Microsoft Dynamics AX	O'KEY	Corus Consulting
Oracle Logistics Management	Kosaya Gora Iron Works (KMZ)	Corus Consulting
SAP SCM	Federal Grid Company of Unified Energy System (JSC FGC UES) 1)	TopS BI
FOLIO SCM	'Moscow' Department Store	FOLIO

<sup>1)</sup> Federal Network Company of United Energy System (power transmission line operator)

Source: DSS Consulting, 2010.

## **Major Technologies Used**

The major technologies of integrated interaction between supply chain actors which already now are actively applied in the Russian business environment, are CPRF (Collaborative Planning, Replenishment and Forecasting), VMI (Vendor-Managed Inventory), SCPM (Supply Chain Planning and Monitoring), EVCM (Extended Value Chain Management), SCEM (Supply Chain Event Management), ECR (Efficient Consumer Response)..

It is well known that leading suppliers of information systems of the ERP class offer supply chain management modules as a part of their packages. It is supposed that suppliers and trading partners in most cases exchange data in the EDI and XML formats. However, direct integration of such modules into numerous corporate information system belonging to hundreds of suppliers and clients requires essential expenses of time and resources. Therefore in the CIS countries specialised solutions providing a standard interface for integration with various information systems and a standard format of data presentation are increasingly used.

The local business environment in the CIS countries determines rather limited interest in SCM technologies. Regular operation of SCM systems requires almost simultaneous execution of business processes for all supply chain participants. It means that all these participants should be transparent for each other. But the enterprises in the CIS countries are not yet well prepared to it.

At the moment the Russian and Ukrainian companies generally introduce only single components of supply chain management. To a certain degree separate components of complex SCM solutions are already now applied by all large Russian retailers. In reality there are two key approaches to implementation of these decisions in the CIS countries: use of SCM blocks which have been incorporated into enterprise resource planning (ERP) systems, or use of specialised SCM software integrated in the corporate information system.

For instance, warehouse management systems (WMS) are being implemented widely and successfully enough in Russia, Ukraine, Belarus and Kazakhstan as demand for them is steadily growing. Network enlargement is accompanied by complication of logistic processes, emergence of one or several distribution centres involving the introduction of WMS systems. Other blocks of SCM systems: planning, demand forecasting, etc. in the local conditions are implemented more seldom. The local companies in most cases apply single blocks of ERP systems separately. But now many companies are coming to a conclusion that modules of existing ERP systems do not possess the characteristics required for efficient management of supply chains, and for effective performance of such tasks as planning and a demand forecasting, the organization of reverse logistics, service enhancement specialized SCM systems compatible and connected with a universal ERP system are needed.

# **SCM Solutions: Suppliers and Customers**

It should be noted that experience of supply chain management in the CIS countries is still insignificant. Immense introduction of SCM practices in Russia, in Ukraine and in Kazakhstan could be expected in 2015 - 2020, in the republics of Central Asia and Transcaucasia these terms should be moved further to 2025. However, the largest Russian retail and distribution companies are already able not only to build distribution networks with annual turnovers amounting to US\$ billions, but also to standardize major business processes using IT support on the basis of solutions of such international companies as SAP, Oracle, Microsoft, etc.

International experience shows that the next step of the development of an IT support is supply chain optimisation as within a large distribution network transportation & logistics costs make up 10 - 25% of a purchase price. In this case we can see the transition from simple information coordination and operational cooperation to complete interaction in supply chains that leads to understanding of management of chains of deliveries as a business management concept.

Among SCM software developers in the CIS market there are international giants with products of global popularity (SAP, Infor, Microsoft, Oracle, Manhattan Associates, i2, etc.), companies with the mixed capital, and indigenous local developers (i. e. "Monolit-Info", "Parus Corporation", "Folio" in Russia). Western suppliers of SCM solutions prevail considerably both by number of developers

and by sales volume. Thus, in 2007 the share of the Russian developers in total number of SCM systems implementation in the Russian Federation stood only at 16%, while in 2008 (the latest data available) no cases of implementation of indigenous systems was reported at all.

Among today's customers of SCM systems in the CIS countries the overwhelming share is comprised of medium-sized and large companies. According to DSS Consultation (data for Russia covering the period of 2006 - 2010), these are enterprises having 500 - 1500 employees (42%), 1500 - 5000 (17%) and over 5000 (33%). It should be noted that for users of ERP systems the average number of personnel is smaller (approximately 600 - 1000).

From the organizational point of view the majority of companies having implemented SCM systems during the last several years are holdings. A major share belongs to affiliates as corporate headquarters start duplicating SCM solutions in the territorially remote or legally isolated divisions.

# Retail Networks as a Major Driver of SCM Use in the CIS

Currently the most potent demand for complex SCM services in the CIS countries comes from the retail trade in consumer goods, especially from the vibrant FMCG (fast moving consumer goods) sectors. The actual scenario of consumer market development in the CIS countries from the SCM point is characterized by a natural evolutionary trend which has taken shape in terms of lack of balanced regulation activities by the government which has recently resulted in growing monopolization of communicational access to the consumer by large retail chains. The latter have been developing largely through capital concentration instead of organic growth and multiplication in numbers. The dysfunction in the system of state regulation of structural development of distribution chains has formed a large-scale distortion towards strengthening the market power of retail chains at the expense of commodity production sector of the economy. Transformation of merchandise distribution systems, transition from mostly producer-owned to distributor- and retailer-owned supply chains in terms of liberalization of commodity circulation has stimulated symmetric displacement of centres of added value and market power accumulation in the distribution sphere.

On the other side, , formation of supply chains on the consumer market was actually resulted in strengthening of a competitive potential of retail networks against other participants of commodity chains, in particular, producers and wholesalers.

In the domestic market of the CIS countries the process was actively implemented through concentration of the capital in the retail network trade accompanied by strengthening of the market power (oligopolistic situation) of large national operators and of foreign retail networks which actively moved ahead to regions in the last decade forcing out local operators. In 2012, in 35 subjects (regions) of the Russian Federation the share of network players in total retail turnover exceeded the average national level, while in 15 Federation subjects networks provide less than 10% of the total retail turnover. The share of networks in Moscow reached 18,8%, and in St. Petersburg – as much as 56,1%. Small regional networks find it more and more difficult to compete with federal players, and many prefer investing in joint projects to avoid bankruptcy or takeover (for example, in early 2013 "Frov", the jointly-owned warehouse for storage of fruits and vegetables started working in the Arkhangelsk Oblast/region). Experts believe that the network retail market in non-metropolitan regions still remains unsaturated and there is a considerable space for growth of distribution networks. In 2013 – 2014 expansion to regions both of retail operators and of distributors will proceed. In 2012, retail networks opened over 3,000 outlets in Russia alone. Thus, Magnet and X5 Retail Group have added 800 outlets, FixPrice doubled their outlets number to 400. From 2009 to 2012 the number of stores of Gloria Jeans sewing company grew 2.5-fold, and in 2013 the company plans to get their total number to 600. Thus, network operators have developed various retail formats: hypermarkets, supermarkets, convenience stores which become more and more popular.

In the foreseeable future the competition between federal and regional players is expected to grow. After absorption of Victoria and Kopeyka networks only eight federal-level players have remained on the market: six Russian networks (X5, Magnit, DIKSI, Lenta, Sedmoy Continent and O'KEY) and two foreign ones (Auchan and METRO/Real). Most likely, foreign networks will grow further (thanks to the large format of their outlets requiring a lot of investments), gradually forcing out regional players. The Russian operators can move ahead to non-metropolitan regions either through their own expansion or rather through acquisition of the local retailers.

In spite of the fact that a number of analysts consider the active penetration of international networks into the Russian market improbable, the majority of participants of the Ernst and Young 2011 survey are certain of the opposite. According to respondents, emergence of foreign players is most possible in the grocery and in the clothing supply chains. There is no doubt that sooner or later 3PL- and 4PL service providers will enter into CIS countries. It will happen when the share of network trade in the total retail turnover in the region will exceed 50%. According to the estimates of the majority of the Russian experts, it is going to take at least 4 - 5 years more. This term will be considerably shorter if the largest world retail giants, i. e. Wal-Mart and Carrefour begin an active expansion to the CIS market.

Some of the international retailers' motives to expand to the CIS countries may include 'push' and 'pull' factors. The 'push' factors include saturation of domestics markets, legislation blocking expansion, shareholder pressures for growth, high operating costs, and market driven pressures for growth. The 'pull' factors involve attractive conditions at the host markets and represent economic growth, changing consumer spending habits and general attractiveness of the foreign markets. Limited and saturated market at home countries combined with favorable conditions for retail trade in Russia and Ukraine motivate foreign retailers to expand internationally and to explore the new market opportunities abroad and, thus, bringing in 'Western' ideas about new retail and SCM systems.

Representation of retail networks in various cities of Russia

	_		I and the second	1
City	I	II	III	IV
Moscow	1	97	1	93
St. Petersburg	2	56	2	79
Yekaterinburg	3	41	3	75
Rostov-on-Don	4		6	68
Krasnodar	5	30	8	66
Kazan	б	25	7	67
Nizhny Novgorod	7	24	4	73
Novosibirsk	8	23	5	71
Samara	9	21	9	62
Voronezh	10	17	17	52
Omsk	11	16	14	56
Perm	12	16	13	"
Krasnoyarsk	13	14	12	58
Chelyabinsk	14	14	10	61
Ufa	15	13		60
Tyumen	16	12	15	54
Volgograd	17	11	18	51
Saratov	18	9	16	53
Vladivostok	19	9	33	33
Togliatti	20	9	21	47
Orenburg	21	9	20	48
Irkutsk	22	7	22	-с
Khabarovsk	23	7	35	28
Tomsk	24	6	32	34
Izhevsk	25	6	23	45
Ryazan	26	6	24	45
Kemerovo	27	5	29	37
Yaroslavl	28	5	19	49
Barnaul	29	4	28	37
Novokuznetsk	30	4	27	38
Lipetsk	31	4	25	41
Penza	32	3	31	35
Ulyanovsk	33	3	34	28
Naberezhnye Chelny		3	30	35
Astrakhan	35	3	26	40
Other cities		26	-	84
		1	1	

Note: I – city rank by a number of international retail chains represented, II – percentage of international retail chains represented in the city to the total number of international retail chains represented in Russia (%), III – city rank by a number of international retail chains represented, IV – percentage of federal retail chains represented in the city to the total number of federal retail chains represented in Russia (%).

Source: Retail Networks. Extent of Their Development in Russia. Research carried out by Shop of Shops company in association with CBRE. Moscow, 2012, p. 7 (in Russian).

In Ukraine the leader among retail networks by the number of outlets is ATB-Market The top 9 network retail players of grocery segment in the country control 1170 stores with the total of 2700 outlets (2011 data). Fozzy Group accounts for about 20 % of the total turnover of the 9 largest players, while the total share of the top 9 grocery retailers stands at 76 %.

**Top 9 retail networks in the Ukraine in 2011** 

Rank		No of outlets
1	ATB- Market	530
2	Fozzy Group	276
3	Fourshet	117
4	EKO	88
5	Retail Group	54
6	Tavria-V	42
7	Metro	31
8	Amstore	24
9	Auchan	8

Source: The Review of the Retail Trade Market in Ukraine. Kiev, Capital Times, July 2012 (in Russian).

It is worth noting that the very logic of development of retail networks as a dominating form of distribution channels in the CIS countries in the last decade fits perfectly well into organizational features of building supply chains. The need for SCM solutions is the more acute, the wider is the geographical spread of a network, the more number of outlets and their formats it has and the higher the competition by price and assortment is in the market.

Ernst and Young research 'Russian retail market, 2011' underlined that the majority of grocery retail networks seek to develop several formats simultaneously, while 63% of respondents prefer the convenience store format, 50% - plan to develop hypermarkets and supermarkets and only 13% – discount outlets (discounters). According to RBC information agency, discounters and large-sized stores provide over 70% of grocery network retail turnover in Russia. All the above mentioned formats assume using high-level SCM systems: optimised delivery chains, cost optimisation and management, centralization of deliveries through distribution hubs, cutting expenses on keeping stocks, outsourcing logistics operations to professional providers.

According to many analysts, expansion from the large cities to the smaller ones as well as from metropolitan regions to peripheral areas is becoming the main avenue for retail trade development in the CIS countries for the near future. Retail networks are not present at many regions at all due to logistics problems, to lack of suitable commercial space and low consumer power of the population. According to Ernst & Young surveys, the city of Moscow remains the most popular area for expansion of grocery retail networks in Russia (86% of respondents as of 2011). Apparently, the high income of the population and the developed infrastructure still outweigh the factor of a saturation of the Moscow market, therefore, while the population of the city and its income grow, its market will remain attractive to retailers. Nevertheless, it should be noted that for the vast majority of respondents Moscow is only one of many Russian regions in which opening of new outlets is planned. The second place is shared by Urals and Central federal districts (71% respondents each), while the third belongs to the Northwest federal district (57 %), whereas the Southern and Volga federal districts have the 4th position (14% each).

The regional growth of retail networks inevitably requires solving of problems related to supply chain operation. Obviously, this question is more actual for grocery networks due to limited of the goods, taking into account the trend of growing sales of products with shorter shelf lives. Therefore many companies are increasingly relying on the development of their own logistics/SCM systems, including investment into regional distribution centres. Consequently, they start seeing SCM solutions as a major competitive advantage.

#### **Integration into Global Supply Chains**

Many international companies, expanding the geographical spread of their sales, include the territory of CIS countries as markets for finished goods, and also for the purpose of placement of manufacturing capacities, thus integrating local partners in their own supply chains.

A good example is the activities of Electrolux, one of the largest players in the international market of washing machines. In Russia Electrolux has been operating since 2004. To get a firm stand on the growing CIS market of household appliances the company opened its own factory for production of washing machines under Electrolux and Zanussi brands in St. Petersburg. Another case is the experience of Ford automotive group which opened its plant in the city of Vsevolozhsk in the Leningrad blast' (region) in 2002.

Another way for involvement of the Russian business into global integration processes is the development by the Russian companies of their own supply chains with their subsequent integration into global chains. The Baltika brewery being the leader of the Russian market and one of world leaders in beer sales can serve as an example. The company considers SCM as one of the most significant reserves for creating extra competitive advantages. Since 2006 such projects, as automation of warehouses, transfer to direct deliveries to distributors and the organisation of consignment storage of production have been executed using SCM principles. Besides, active work on optimisation of loading of vehicles, routings, and also on improvement of production and shipments planning was carried out. In cooperation with JMAC Europe SpA (Italy) implementation of the project on improvement of business creation best processes and of the supply chain the **CIS** brewing industry.

Among the first users of SCM systems in Russia one could name Golder Electronics Company (VITEK, Röndell, Maxwell and Coolfort trademarks), a leader in the CIS market of low-cost household appliances (produced by contractors in China). The company claims that as a result of an introduction of SCM software solutions from JDA it achieved a full transparency of a distribution network, stock optimization, improvement of quality of services to clients and reduction in costs through greater accuracy of demand forecasting.

# **Summary and Conclusions**

At present the supply chain management (SCM) in the CIS countries is at an early stage of a development. The competitive environment in the market for SCM services is generally influenced by the activities of domestic companies. However, the key players are represented mainly by the Western logistic providers possessing vast experience and a competence in solving problems of servicing large industrial and commercial companies with which they deal on the global scale. As a rule, the scope of operations of the Western logistic providers on the CIS market in directly connected with the intensity of activities in the region of their permanent international clients. Meanwhile, the expansion of the presence on the CIS market is still a strategic direction of development of many 3PL (third-party logistic) providers.

Recently in the SCM activities at the CIS market a trend emerged towards transition from simple informational co-ordination and business process cooperation to holistic supply chain interaction that results in understanding supply chain management as a major business administration concept.

In spite of the fact that a lot of logistic managers in the CIS countries stay devoted to (and proud of) their capabilities of providing ad-hoc solutions for operational problems, a growing number of companies is building up end-to-end SCM processes which provide for complex solutions related to distribution, production, logistics and to business economy in general. Thus, there is a gradual orderly transition from the constant 'firefighting' approach to a business structure in which a company gets more realistic and feasible plans for every stage of a supply chain, incl. purchasing, production, warehousing, and delivery. This approach is being adopted by a growing number of leading companies in various industries of the CIS countries.

Therefore one can conclude that SCM services market will remain quite attractive in the fore-seeable future. Thanks to ICT developments, the range of services will widen and new actors specializing in innovative fields will appear on the CIS SCM services market.

Among the basic problems and barriers hampering the use of SCM systems in the CIS in the area of logistic operations it is necessary to point out the following ones:

- 1. Lack of investments (including foreign ones) into logistic infrastructure of the companies and in international transport corridors (ITCs), restraining possibilities for implementation of hi-tech SCM projects.
- 2. Long payback periods of investment projects into building logistic infrastructure, high credit charges, insufficient development of transport (incl. motorways) and warehouse infrastructure.
  - 3. Low rates of commissioning of new warehouse and transport capacities.
  - 4. Congestion at the basic commodity distribution routes.
  - 5. Absence of the mature market of services of 3PL-providers.
- 6. Inability of the majority of the local logistic operators to provide modern level of complex servicing to clients (especially in peripheral regions).
- 7. Deficiencies and disparities in legislative and regulatory base in the field of logistics, the customs and land ownership laws.
  - 8. Bureaucratic barriers.
  - 9. Absence of an effective system of a certification of SCM services.
- 10. Oligopolistic position of the large retail networks on the consumer goods market, hindering the development of competitive forces in the supply chains, including the international ones.
- 11. Limited scope of popularization of logistics and SCM in the mass media and of understanding of logistics issues.

From the point of the organization of information flows in international supply chains in the CIS countries the following points shall be noted.

The current study was not intended to look into global information requirements for supply chains that are analyzed and shown in details in a special UNECE study "Roadmap to Enhancing information Exchange in International Supply Chains". This later study also contains so-called readiness or "maturity grids" so that countries can make their self-assessment (for more information, please see Roadmap study).

If we use the suggested "grids" approach with respect to CIS region, then the European countries of the region (Belarus, Russia, Ukraine) and also Kazakhstan may be considered to be at the "good" and "advanced" stages with respect of a "maturity grid for technical capabilities" and, for example, Moldova, Central Asian countries will be primarily in a "basic" category.

Roadmap to Enhancing Information Exchange in International Supply Chains (see at UNECE website: http://www.unece.org/fileadmin/DAM/trade/TF\_JointUNRCsApproach/GlobalSupplyChains\_UNDA7th\_TrancheStudy.pdf.)

At the same time if we look at the CIS region from the point of 'maturity grid for policies', practically all countries do not perform well and are in "basic" category. The same evaluation level applies for "behavioral maturity grid".

It means that at this moment at CIS we can talk primarily of supply chains level development aimed primarily at internal markets. There are very few examples of CIS companies participating in global supply chains and the economic significance of such SCs is currently negligible. It brings a paradox situation when underdevelopment of infrastructure (information, legal and physical) might hinder development of new cross-border supply chains but at the same time the lack of efficient supply chains reduces the importance of this issue for state officials in the area of simplification of documents and their e-interchange.

The numerous initiatives on electronization of trade and regulatory procedures (for instance, within the Customs Union of Russian Federation, Byelorussia and Kazakhstan) have not been able up to now to produce the expected results. Within the last decade the initiative on development and application of information systems in the foreign trade of CIS countries has come comes mainly from the official state bodies (for example, the Federal Customs Service – FCS in Russia). However, the government-initiated attempts of documents flow automation have not necessarily simplified performance of the foreign trade and other operations, not to mention additional costs borne by supply chain actors. In our opinion, it is due to the fact that state bodies have problems in agreeing on a uniform format for an e-data interchange even within a country, not to mention trans-boundary operations. The problem is aggravated by the fact that there is no single agency/ministry which has a competence and authority to coordinate the e-data exchange issues on a national level.

Ideally national efforts in this area shall be complemented by the activities on a regional level and it could be recommended to Governments to create relevant interagency/interdepartmental and government-business coordination mechanisms on national and regional levels, as well as to intensify involvement into the relevant work done at the global level (at UN, APEC, etc.).

In this context we can support some of the recommendations done in the Roadmap study and which are relevant to the CIS region, in particular, recommendation 1 "Analyze the supply chain and identify those areas of the supply chain where simplification and automation of information flows can improve the supply chain process (as is analysis)" and recommendation 2 "Governmental agencies can play an instrumental role in developing a "relationship environment" that is conducive to information exchange". We also believe that at present one of the obstacles to creating SCM conducive environment is also of a "behavioral" nature. Namely it is the way how governmental agencies see information and data requirements, and that they consider that they "own" this information without seeing it being a part of a transaction and of a supply chain and do not understanding that simplified documents

and procedures can be a factor supporting competiveness of national companies at the global arena.

In this context building awareness, for example, in the form of the UNECE global supply chains project could be one of the means of advising state agencies in the CIS countries to take up a more partnering approach in their relations with business.

In the CIS countries, the data on the foreign trade material flows, necessary for making operative management decisions, are kept at various non-interconnected sources belonging to numerous partners of supply chains: exporters and importers, freight forwarders, carriers, cargo agents, customs and logistic intermediaries, banks, insurance companies, etc. A major bottleneck is the organization of their information exchange with the state agencies supervising and accompanying processes of foreign trade activities, as well as coordination of their direct interaction. Untimely and unpredictable reception of the information from international supply chain actors leads to diminishing efficiency and quality of transport & logistical services, duplication of functions, greater volume of paperwork, and to longer periods of decision-making.

The prevalent customs policies at CIS countries are aimed primarily at ensuring fiscal interests of the state and rigid customs administration methods (implemented with large supporting documentation burden) used in the CIS countries have resulted in a situation when the majority of foreign trade actors that are under excessive burden of customs duties and taxes have started to look for various schemes of "simplification" (often – evasion) of tax burden and of minimizing customs payments. The foreign trade started to be criminalized, thus providing a fertile soil for the abuse of power and corruption leading to huge losses for the state budget.

Therefore in order to enhance the movement of goods through the borders of CIS states (incl. the external borders of the Customs Union) it is necessary to specify a schema for data exchange between international supply chain actors and government bodies and agencies at various levels, which requires designating a procedure for such exchange, defining its purposes, noting participants, etc.

The information interaction between foreign trade actors and state agencies should be considered as a process of communication of operators of the international supply chains interested in moving goods and vehicles through a customs border in interaction with supervising state agencies through a transfer of data on actual performance of the international trade transaction (either in exports, imports or transit procedures) with strict observance of customs and (or) other legislation.

At present there are perspective models of information interaction of business with state bodies using mechanisms of a 'single window' and of public-private partnerships and such schemes are actively developing that will allow to achieve acceleration of economic growth due to elimination of bureaucratic barriers, better transparency of customs procedures, reducing time for proceeding customs and other formalities in trade.

It is important to understand that the issue of trade facilitation can have much wider implications than only procedural ones and can improve, for example, transport congestion. The majority of policy makers at CIS countries have a rather simplistic view of transport problems corridors, namely that the only way to improve them is to build new roads, airports or customs terminals. Totally (and often deliberately) is ignored the international experience which shows that the capacity of corridors could be increased through simpler, quicker and more efficient procedures and regimes of movement of the goods.

The international experience proves that effective management of supply chains is impossible without information support which provides for fast flow of documents and for a common information space. The information systems providing interaction within the supply chain should be based on open specifications and technologies. In addition, it is necessary to develop business initiatives in the field of introduction of information and communication technologies.

Customs clearance is one of key stages in the organization of an effective international chain of deliveries. Today at the Customs Union (a new regional grouping of Russia, Belarus & Kazakhstan) the process of customs clearance is a complicated and inefficient procedure which can take several days, unlike, for instance, Singapore (the global best practice) where it is conducted within a few hours.

In order to accelerate this process within the Customs Union the system of electronic declaring, institute of preliminary informing, technology of single point of contact, as well as a procedure of a remote release of the goods and other modern means of customs controls are being implemented. In spite of the fact that the management of Federal Customs Service of Russia plans to reduce the duration of customs operations six-fold by 2020, not all participants of foreign economic activity use these technologies of customs registration and few of them find them easy and convenient.

An effective mechanism providing for the balance of interests of the state and of international trade actors during customs clearance may be provided by using customs risk management systems widespread around the world. This system should become one of the main components in the efforts to upgrade the procedures of customs control at the Customs Union in compliance with quality criteria of the customs administration under the WTO standards.

Among the major tasks that shall be performed during the next few years at the CIS region in order to create a favourable environment for development of SCs and SCM the following ones can be recommended:

# At governmental/intergovermental level:

#### a) short-term

- i) improving customs clearance management process
  - reengineering of border clearance procedures including a task to simplify and streamline documentary flow
  - upgrading customs IT and e-data interchange systems to capture the most of trade data at border posts
- ii) Improving classification & valuation of goods and services
  - comprehensive re-assessment of problems in valuation & classification of goods and designing solutions to this problem based on international best practice;

#### b) medium/long-term

- i) implementing the integrated border management system
  - simplification of transit procedures, introduction of a "Single Administrative Document" type of documents (like in Russia) and a legal review/database of customs/border legislation;
- ii) streamlining documentation flow
  - removal of the need for business to submit documents already available with government agencies;
  - assessment of the need (and reducing it, whenever possible) for notarization in the trade process & organizing public trade service centers;
- iii) integration of IT and of e-data interchange systems using open-type standards and protocols
  - reviewing existing and prospective ICT systems & infrastructure to identify synergies & best practice solutions in coordination with integrated customs/border management strategy and the process of streamlining of documentation;
  - for state agencies, when creating IT standards and systems, to analyze and whenever relevant use existing business experiences in the context of international supply chains;

# At a corporate level:

- concentration of efforts of the main supply chain actors on cost reduction, on labour productivity growth and on improving the quality of services;
- promoting selectivity approach in dealing with clients when offering a range of services and using modern technologies;
- more active implementation of schemes of partnership with clients and contractors (transportation and logistic companies), aimed at adequate and flexible response to change of their requirements;
- consolidation of efforts and resources of the companies actors of commodity supply
  chains that will allow to use the economy of scale in logistics in the interests of clients
  with an expansion of possibilities for creating an added value in every link of the clients' production and supply stages;
- build-up investments by the logistic companies in their own hi-tech projects, originally
  within the framework of servicing certain clients with the subsequent expanding that
  practice (with accumulation of experience and technology development) on to other
  customers;
- increasing coordination in introduction of the advanced SCM systems with optimisation of the general pattern of intra-corporate business processes among the main actors of supply chains;
- improving business culture of partner relations between supply chain actors, including the proper use of contractual and legal mechanisms.
- extension of the range of high value-added services offered to clients (as activities focusing on application of low value-added technologies can lead to the risk of losses) as they get more attractive offers from other market players;
- increasing outsourcing of logistic functions of the main supply chain actors with the respective widening choice opportunities to clients (as to transportation routes, delivery schedules, warehousing schemes, etc.);
- development of a warehousing and information network of the logistic companies under specific projects of the clients. (for example, as does FM Logistic company);
- strengthening specialization of the logistic companies on commodity-specific supply chains (for instance, "ItellaNLC" clothing chain, STS Logistics automotive components and auto parts).
- Intensification of consolidation processes in the logistics industry mainly through mergers and acquisitions thus creating possibilities for larger investment projects that

enable creating higher added valu\e within the supply chain (among recent examples of such mergers are : 'DPD-Armadillo', 'ItellaNLC', 'Sanna-Liter' and other alliances).

To sum up, it can be noted that in today's global economic environment the successful international supply chains (besides other factors) have behind them efficient logistics schemes which are based, inter-alia, on a reliable and timely access to commercial and regulatory information. The capacity of the CIS countries' governments to provide a more favourable environment for business and information exchange will have direct implications for their national companies's ability to join and to successfully work in global supply chains.

#### Annex I

# **Agri-Food Supply Chains in the CIS (case study)**

The agricultural sector in most CIS countries is still a mixture of small-scale – even household – production and large-scale farming. To reduce the complexity of their supply chains, retailers favor large-scale production. But small-scale farmers find their place in vertically coordinated chains. Additionally, some international retailers demand that small-scale farmers set up horizontal cooperation to provide products that are meeting the qualitative and quantitative requirements of the retailers. If these requirements are not met, farmers are excluded from the procurement systems. Foreign investors are striving to raise the level of quality of their suppliers in order to meet their own global quality requirements. Further on, foreign companies impose high (global) private standards to differentiate their products from those of the competitors, i.e., standards are used as strategic tools.

As for international agri-food manufacturers, such companies as Danone, Campina and Mars run their production facilities in Moscow suburbs and other large regions of Russia. According to the study of A.T. Kearney (2011), Russia is considered to be an attractive target for global expansion of retail business and provides one of the best opportunities for food retailers, heading the list of 30 emerging markets worldwide. Russia witnessed an increased consumer spending and a demand for consumer products that ultimately led to considerably increased retail sales. Food processors in Russia can be divided into the following main groups: (1) large vertically integrated holdings focused on development of their production facilities using their own raw material resources (began in the mid 90s), such as Cherkizovsky meat processing plant, Wimm-Bill-Dann juice/dairy producer, etc.; (2) international manufacturers having their production facilities in Moscow suburbs and other large regions of the country (started to appear in early and in mid 90-s), such as Danone (France), Campina (Netherlands), Mars (USA), Dirol Cadbury (UK), Sun Interbrew (Belgium), etc.; (3) Russian holding companies with participation of foreign capital, such as OJSC "Baltika" Brewery Company, KampoMos, and others; (4) regional food processing companies that started their activity under the Soviet times and successfully passed through the period of structural management and production reorganization in the second half of the 90s; (5) small regional producers/entrepreneurs most of whom produce and sell their products in the region where they are located.

Russia's food processing industry keeps growing very quickly, with an annual increase rate of 10 - 15%. The number of food processing plants in Russia is estimated at 8,000 - 10,000. Domestic sources of raw resources and specialized ingredients for meat, bakery, confectionary, juice, and dairy processing have not kept pace with the expansion of the sector. Food processors often build their production facilities close to a source of raw materials.

The development of a modern food retail sector in the CIS countries is still in the fledgling stage. For example, though in Russia supermarkets, hypermarkets, and discount stores can be found in almost all cities with more than 1 million of inhabitants, the market share of the whole-food retail market for the top-10 retail chains constitutes less than 15%. Despite the relatively low level of market penetration by foreign retailers, the process of verticalization is clearly observed as an outcome of retail internationalization in the CIS countries.

#### Russian Agri-food Sector: Retail Trade

#### Retail trade formats in Russia

- Supermarkets
- Hypermarkets
- Discounters
- Open markets

- Convenience stores
- Cash & Carry
- Kiosks, street trade, small shops
- Shopping centers and malls

#### Retailers

- International (Metro, Auchan, etc.)
- National (X5 Retail Group, Magnit, etc.)
- Local and regional (Azbuka Vkusa, etc.)

Most international retailers and branded food processors operating in Russia and Ukraine introduce their business models in their work with local suppliers, which proved to be successful in their home countries. Furthermore, it is known that international food producer and retailer companies entering new markets are trying to bring their established supplier relationships with them. However, as imports of ready for-consumption products keep decreasing, most foreign companies prefer to invest in their local production and open new production facilities in Russia and Ukraine in order to make products affordable for the large number of local consumers. To this end, the western food manufacturers such as Nestlé, Danone, Campina, etc. have also established their subsidiaries in CIS countries. Activities of foreign retailers and food manufacturers have spillover effects on their local competitors who imitate the "imported" business concepts. However, the effects of the process of internationalization on the local business environment in general and the food supply chain in particular have been poorly examined.

The food industry continues the process of integration of smaller companies into bigger holdings. Quality pressure from the retail sector, combined with competitive pressures from foreign multinationals is pushing the sector forward. Many companies have upgraded their technology and equipment. Many Russian food processors are now concentrating on international quality standards and seek quality ingredients. A combination of domestic and foreign investments has produced a fairly dynamic sector providing a significant market for inputs and ingredients.

Because the quality of some agricultural supplies is not sufficient for starting production by foreign food processors some of them import their supplies from abroad. Milk processing companies often have to collect milk from so many small farms and in such small quantities that it is difficult to stay efficient. Also the quality of milk is diverse and cannot be relied upon when producing according to new technologies. For example, German confectionery manufacturer Alfred Ritter closed the production facilities in Russia in 2008. The official reason for stopping the production was the insufficient quality of raw supplies in Russia. Another example is Petmol, a big milk processor in St. Petersburg, which buys raw milk from the Finnish Valio. In the bakery sector the basic raw materials for bread are easily available from Russian suppliers, but when high quality is required it is necessary to use imported inputs. Meat companies use as much as 75 - 80 % of imported inputs.

Currently there are 1700 dairy processors in Russia, ranging from small local operators to large national and multinational firms. The largest players are the Russian Wimm-Bill-Dann, which has 30 factories across Russia, the German Ehrman, French Danone, Dutch Campina, and Petmol owned by the Russian Unimilk. About half of the milk production in Russia falls on the agricultural enterprises and the other half of the milk is produced mostly by individual households. The share of production by private farms is small (4%).

Danone became active in the Russian market in the early 1990s. Fermented milk products have always been popular and are in great demand in Russia. The first Danone store opened in Moscow in 1992 and became popular very quickly. In 1994, the Danone Group bought the controlling stake of the Bolshevik company, one of the oldest Russian confectionery plants with the production capacity of about 30 thousand tons per year. In May 1995, the first Danone dairy plant in Togliatti began producing Danone yogurt.

Campina Melkunie, a large farmer-owned Dutch cooperative specializing in dairy products, began importing long-shelf-life yogurt into Russia through a subsidiary in 1992. Campina's share of the Russian yogurt market quickly grew to greater than 50%, but the Russian financial crisis of August 1998 caused the currency to plummet, making imported dairy products too expensive for the average consumer.

The market for those products dramatically declined almost overnight. To retain market share, Campina accelerated its early plans to produce yogurt and other dairy products 100% locally in Russia in order to maintain its brand and take advantage of the market opportunity left by the reduction in foreign imports.

In the meat sector Cherkizovsky is the biggest meat processing enterprise in Russia with an estimated 10-12% market share in the processed meat sector. Cherkizovsky controls more than 30 meat-processing companies located in various regions. Tsaritsyno and Mikoyan in the Moscow area as well as Camponos, the largest foreign-owned (Spanish) meat processing company are next in line biggest

companies in Russia. However, while evaluating the market share of companies in the meat sector one need to take into account that processed meat accounts for up to a quarter of all meat consumed in Russia. Thus, companies might have a big share in the processed meat segment, but the overall market share remains rather insignificant.

Another trend in the food supply chain is a consolidation of assets: major companies of the sector tend to acquire the smaller players. For retailers however the big target group remains the agricultural enterprises, because it is easier for them to adjust to new quality and production requirements of international retailers. However, lack of large-scale whole salers means that retailers are forced to rely on many small suppliers.

Changes in the food-processing sector have a positive impact on the agricultural sector in Russia pushing the need of producing more raw materials for further processing. However, the current status of the agriculture in Russia is far from meeting demand for raw materials in the local food-processing sector. Due to the fact that the imports of goods by foreign companies is complicated by the existing tax and customs regulations in Russia, international supermarket chains are forced to use locally produced resources and goods.

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