

Joint Publication of the Association of International Pharmaceutical Manufacturers in Russia and Remedium Group

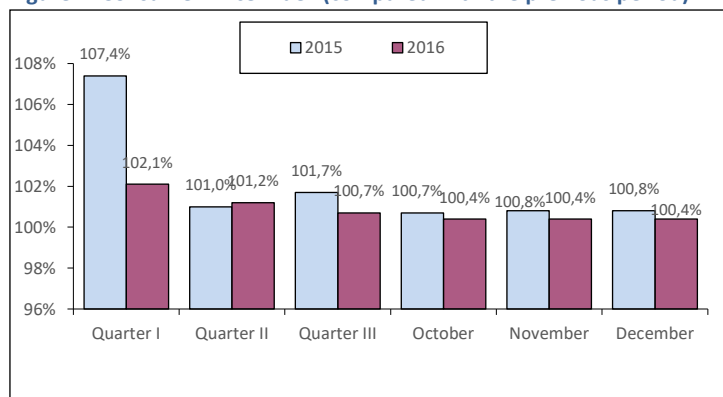
MACROECONOMIC INDICES

Inflation

According to Federal State Statistics Service's data, in December 2016, the Consumer Price Index was estimated at 100.4% compared to November, and 105.4% since the beginning of the year.

In December this year, Industrial Producer Price Index (for goods intended for sale on the domestic market) was 100.6%, whereas in the month-earlier period it had amounted to 100.7%. The index accounted for 107.4% against December of the previous year.

Figure 1. Consumer Price Index (compared with the previous period)



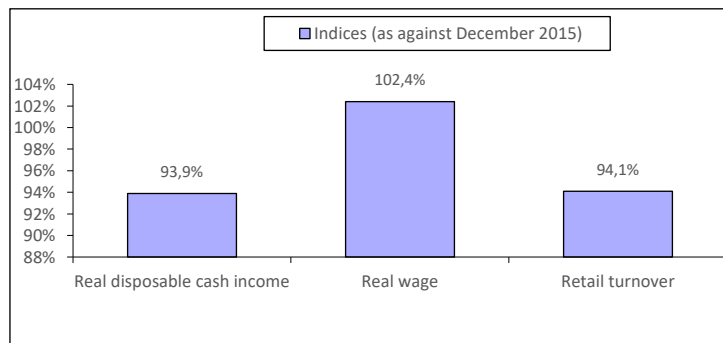
Living standard

According to preliminary Federal State Statistics Service's data, in December 2016 a gross monthly average salary per worker reached RUB 47,054 (USD 756.74) which accounted for 130.0% compared to the previous month and 107.9% compared to December 2015. The real wages in December 2016 accounted for 102.4% as compared with December 2015. In December 2016, the real value of disposable cash incomes accounted for 93.9% compared to the same period of 2015 (Fig. 2).

Retail turnover

In December 2016, the retail turnover was equal to RUB 2899.2 bil., which in comparable prices accounted for 94.1% compared to the same period a year ago, in 2016 - RUB 28,137.1 bil. or 94.8% as against 2015 (Fig. 2).

Figure 2. Real values of cash incomes, wages and retail turnover in December 2016



Industrial Production

According to Federal State Statistics Service's data, in December 2016 Industrial Production Index accounted for 103.2% compared to the same period a year ago, and in 2016 - 101.1%.

According to Federal State Statistics Service's data, Industrial Production Index in December 2016 accounted for 112.9% compared to the relevant period of the previous year, and 98.1% to the previous month. According to the results of 2016, Pharmaceutical Production Index accounted for 103.7%.

Domestic production

Table 1 provides the top 10 domestic pharmaceutical manufacturers according to their volumes of sales in all segments of the market based on the results for December 2016.

Table 1. Top ten Russian chemical and pharmaceutical manufacturers by sales volume in December 2016

| Rank | Manufacturer | RUB mil. |
|------|----------------|----------|
| 1 | Otcpharm | 2662.9 |
| 2 | Valenta | 1604.3 |
| 3 | Stada | 1312.0 |
| 4 | Biocard | 1262.2 |
| 5 | Pharmstandart | 1178.6 |
| 6 | Materia Medica | 1002.7 |
| 7 | Sotex | 959.3 |
| 8 | Nearmedic Plus | 911.6 |
| 9 | Servier | 911.3 |
| 10 | Pharmasyntez | 782.6 |

Source - Remedium according to IMS Health's data

Table 2 provides pharmacy sales data from 10 regions of the Russian Federation. In November 2016 compared to October, all regions showed the negative growth in pharmacy sales (in terms of roubles). The deepest drop in sales was reported in Krasnodar Krai (-9%), the shallowest one in Novosibirsk Region (-0.1%). The growth in sales was only reported in Krasnoyarsk Krai (+1%).

Table 2. Pharmacy sales in the regions, 2016

| Region | Pharmacy sales, \$ mil. (wholesale prices) | | | Growth gain, % (Roubles) | | |
|--------------------|--------------------------------------------|--------------|---------------|--------------------------|----------------------|---------------------|
| | September 2016 | October 2016 | November 2016 | September/August 16 | October/September 16 | November/October 16 |
| Moscow | 169.6 | 163.4 | 150.6 | 51% | -7% | -5% |
| St. Petersburg | 55.0 | 54.6 | 48.8 | 47% | -4% | -8% |
| Krasnodar Krai | 42.8 | 36.0 | 31.8 | -4% | -18% | -9% |
| Novosibirsk Region | 19.9 | 20.9 | 20.3 | 20% | 2% | -0.1% |
| Tatarstan | 20.9 | 23.0 | 20.9 | 26% | 6% | -6% |
| Krasnoyarsk Krai | 22.3 | 23.9 | 23.6 | 17% | 4% | 1% |
| Rostov Region | 22.1 | 22.9 | 21.8 | 10% | 0.3% | -2% |
| Voronezh Region | 15.4 | 15.9 | 14.8 | 20% | -0.3% | -5% |
| Perm | 7.2 | 7.6 | 6.8 | 27% | 2% | -8% |
| Tyumen | 6.3 | 6.2 | 5.7 | 28% | -5% | -6% |

Advertising

The largest advertisers and pharmaceutical brand names highly publicized in mass media (TV, radio, press, outdoor advertising) are shown in Tables 3 & 4.

Table 3. Top five advertisers in mass media in December 2016

| Rank | Company* | Quantity of broadcasts |
|------|------------------------------|------------------------|
| 1 | GSK Consumer Healthcare | 14,857 |
| 2 | Otcpharm | 11,010 |
| 3 | Sanofi Aventis | 7,468 |
| 4 | Berlin-Chemie Menarini Group | 7,296 |
| 5 | Teva | 6,777 |

Source - Remedium according to TNS Russia's data

Table 4. Top five trade names in mass media in December, 2016

| Rank | Brand* | Quantity of broadcasts |
|------|----------|------------------------|
| 1 | Coldrex | 2,767 |
| 2 | Nurofen | 2,531 |
| 3 | Evalar | 2,531 |
| 4 | Lasolvan | 2,505 |
| 5 | Otrivin | 2,440 |

Source - Remedium according to TNS Russia's data

* Only products registered with State Register of Medicines were considered

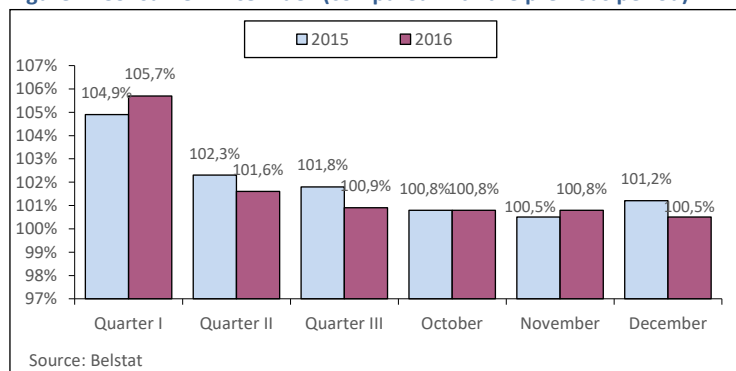
MACROECONOMIC INDICES OF THE REPUBLIC OF BELARUS

Inflation

According to data of National Statistical Committee of the Republic of Belarus, in December 2016 the Consumer Price Index was estimated at 100.5%, compared to the previous month, 110.6% to December 2015. In January - December of 2016, the Consumer Price Index was 111.8% as compared to the same period of 2015.

In December 2016, Industrial Producer Price Index was 101.0% compared to November 2016, and 109.4% as compared to December 2015. In 2016, the Industrial Producer Price Index was 112% as compared to 2015.

Figure 1. Consumer Price Index (compared with the previous period)



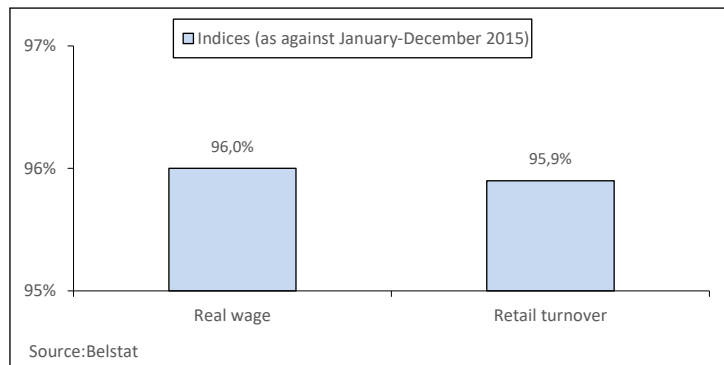
Living standard

According to the preliminary Balstat's data, in December 2016 the average monthly nominal accrued wage of the workers of the Republic of Belarus was BYR 801,6 (USD 408.98¹), in January-December 2016 - BYR 722.0 (USD 362.81). In December 2016, the real wage accounted for 97,4% as compared to the same period of 2015, in January-December 2016 – 96.0% (Fig. 2). According to Balstat's data, in January-December 2016 the real disposable cash income accounted for 92.5% as against January-December 2015.

Retail turnover

In December 2016, the retail turnover was estimated at RUB 3,505.5 mil., which accounted for 119.8% compared to the previous period and 94.2% compared to the same period of the last year. In January-December 2016, the turnover amounted to RUB 36,199.9 bil. or 95.9% to 2015 (Fig. 2).

Figure 2. Real monthly wage and retail turnover in January-December 2016



Industrial Production

According to Belstat's data, in January-December 2016 the industrial output by economic activities "Mining industry", "Processing Industry" and "Production and distribution of electricity, gas and water" at current prices amounted to BYR 79,414.8 mil. or 99.6% in comparable prices to 2015 level.

According to Belstat's data, in January-December 2016 the pharmaceutical production output was estimated at BYR 992.0 mil., which accounted for 104.4% to January-December 2015 in comparable prices.

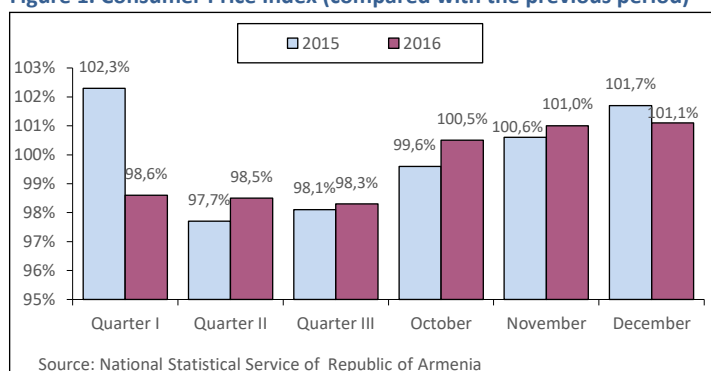
MACROECONOMIC INDICES OF THE REPUBLIC OF ARMENIA

Inflation

According to the National Statistical Service of the Republic of Armenia, in December 2016 the Consumer Price Index was estimated at 101.1%, compared to December 2015 – 98.9%. The Consumer Price Index accounted for 98.6% since the beginning of the year compared to the previous period.

In December 2016, the Industrial Producer Price Index was 100.7%, as compared to the previous month, while as against December 2015 – 107%. Since the beginning of 2016, the index accounted for 101.5% as compared with the same period of 2015.

Figure 1. Consumer Price Index (compared with the previous period)



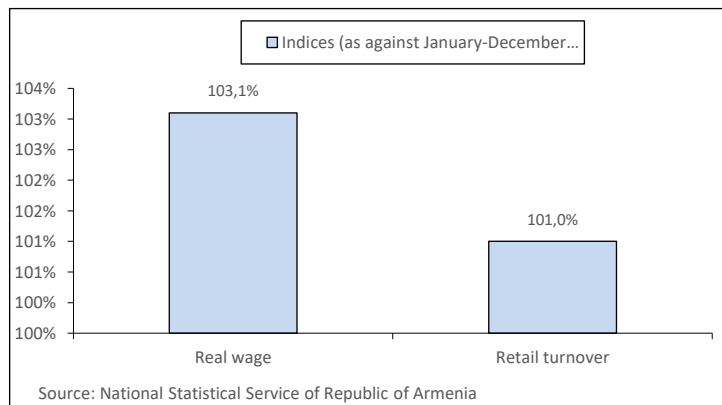
Living standard

According to the preliminary data of the National Statistical Service of RA, in December 2016 the average monthly nominal accrued wage of the workers in the Republic of Armenia was Dram 221,835 (USD 459), which accounted for 99.6% to the same period of the last year. In January-December 2016, the average monthly nominal wage per worker was Dram 187,850 (USD 391) or 101.7% to the same period of 2015 (Fig.2). In December 2016 against the same period of 2015, the real wage accounted for 100.7%, in January-December 2016 it accounted for 103.1% as compared to January-December 2015. Calculation of real disposable income in accordance with State Statistical Efforts Program for 2008 has not been performed in the Republic of Armenia since January 1, 2008.

Retail turnover

The retail turnover amounted to Dram 283823.7 mil. in December 2016, and Dram 2233593.7 mil. since the start of the year, which accounted for 104.4% and 101% respectively, as compared to the same period of the previous year (Fig. 2).

Figure 2. Real monthly wage and retail turnover in January-December 2016



Industrial Production

According to the preliminary data of the National Statistical Service of RA, in December 2016 the industrial output by economic activities "Mining industry", "Processing Industry" and "Supply (service) of electricity, gas, steam and conditioned air" and "Water supply, sewage water, management and disposal of waste" at current prices amounted to Dram 143400.3 mil., from the start of the year - Dram 1429044.0 mil. or 105.9% and 106.7% respectively to the same period of 2015.

According to the National Statistical Service of RA, in December 2016 the pharmaceutical production output was estimated at Dram 1022.1 mil., and from the start of the year - at Dram 8098.9 mil., which accounted for 142.9% and 100.6% respectively against the same periods of the previous year.

¹ The average exchange rate to calculate the above indices was used from the official website of the National Bank of Belarus www.nbrb.by. On July 1, 2016, in the Republic of Belarus

the re-denomination was made in a ratio of 1:10,000

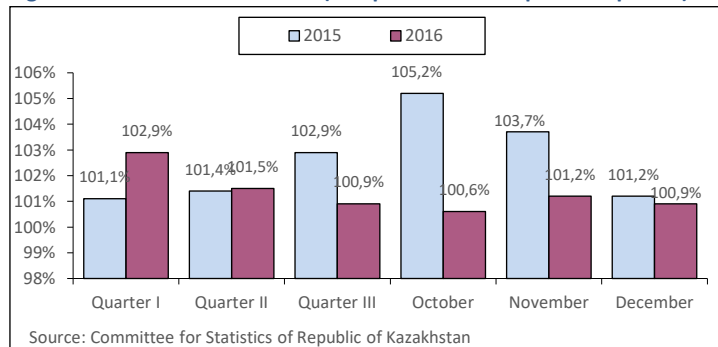
MACROECONOMIC INDICES OF THE REPUBLIC OF KAZAKHSTAN

Inflation

According to the Committee of the Ministry of National Economy for Statistics of the Republic of Kazakhstan, in December 2016 the Consumer Price Index was estimated at 100.9%, as against to December 2015 – 108.5%. In January-December of 2016, the Index reached 114.6% as compared to the same period of 2015.

In December 2016, the industrial producer price index (with due account for the production services) accounted for 98.3% compared to the previous month of 2016, as against December 2015 – 115.5%. In January-December 2016, the prices of producers of industrial products increased by 16.8% as compared to January-December 2015.

Figure 1. Consumer Price Index (compared with the previous period)



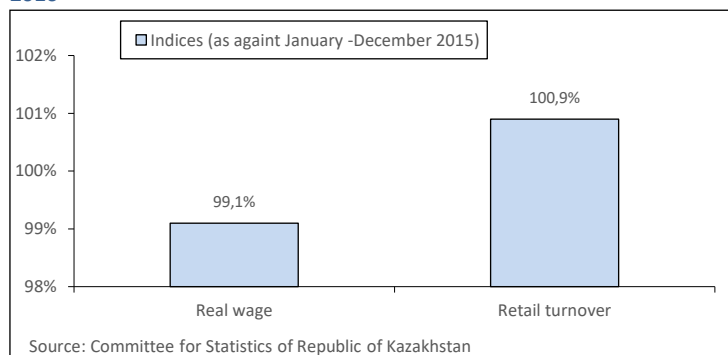
Living standard

According to the preliminary data of the National Statistical Service of RK, in December 2016 the average monthly nominal wage per worker was KZT 151,770 (USD 454.77²), in January-December of 2016 - KZT 140,702 (USD 411.22). In December 2016, the Nominal Wage Index against the respective period of 2015 accounted for 104.6%, in January-December of 2016 - 111.8%, the Real Wage Index – 96.4% and 99.1% respectively. In January-November 2016, the Real Cash Income Index was 95.3% compared to the same period of the previous year (Fig. 2).

Retail turnover

In December 2016, the retail turnover was KZT 920.819 bil., whereas in January-December 2016 it amounted to KZT 7,661.8 bil. or 106.4% and 100.9% compared to the same period in 2015 (in comparable prices) (Fig. 2).

Figure 2. Real monthly wage and retail turnover in January-December 2016



Industrial Production

According to data of the Committee for Statistics of RK, in December 2016 the industrial output was KZT 1,895.6 bil., in January-December of the last year KZT 18,559.2 bil. As compared to the same period of 2015, the indices accounted for 101.8% and 98.9%, respectively.

According to data of the Committee for Statistics of RK, in December 2016 the essential pharmaceuticals output amounted to KZT 6,087 mil., in January-December 2016 it was KZT 42,431 mil. At the end of December 2016, the Index of Physical Volume of Industrial Production for Pharmaceuticals was 98.6% as compared to December 2015, in January-December 2016 as against 2015 – 102.5%.

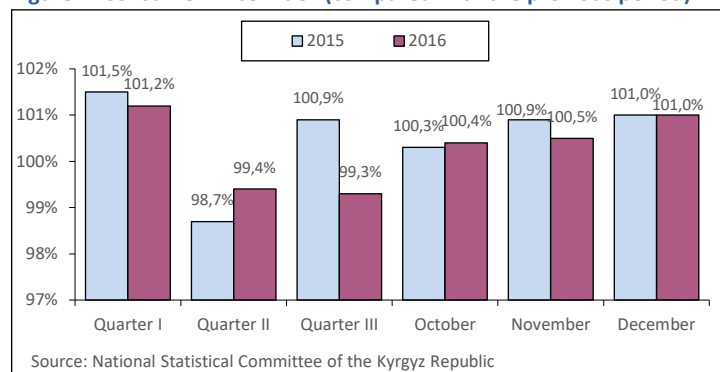
MACROECONOMIC INDICES OF THE KYRGYZ REPUBLIC

Inflation

According to data of the Committee for Statistics of the National Statistical Committee of the Kyrgyz Republic, in December 2016 the Consumer Price Index was estimated at 101.0%, as against December 2015 – 99.5%. In January-December 2016, the Index accounted for 99.5% as compared to the same period of 2015.

In December 2016, the Industrial Producer Price Index was 102.4% as compared to the previous month. Throughout the republic, the prices of industrial manufacturers have reduced by 0.3% since the beginning of 2016.

Figure 1. Consumer Price Index (compared with the previous period)



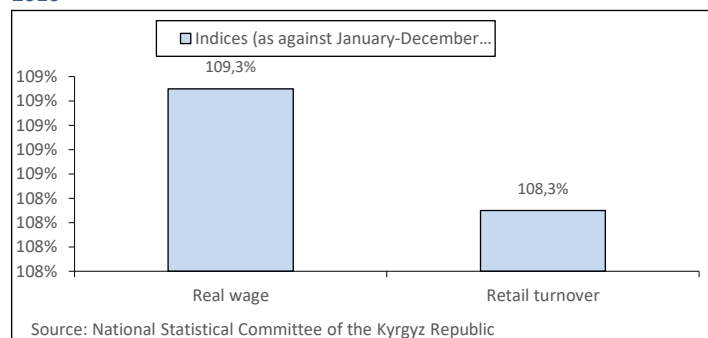
Living standard

According to data of the Committee for Statistics of the Kyrgyz Republic, in November 2016 the average monthly nominal wage per worker was KGS 13,939 (USD 202.13³), in January-November of 2016 - KGS 14,017 (USD 200.3), which is 3.9% and 9.8% more than in the same period of 2015, respectively. In January-November 2016, the real wage accounted for 109.3% as compared to 2015, in November 2016 – 104.4% (Fig. 2).

Retail turnover

In December 2016, the retail turnover (without cars and motorcycles sales) amounted to KGS 41144.1 mil, in January-December 2016 - KGS 245,400.5 mil. The Volume of Retail Turnover Index accounted for 109.7% and 108.3% to the same period of the previous year (Fig.2).

Figure 2. Real monthly wage and retail turnover in January-September 2016



* Data for January-November 2016

Industrial Production

According to data of the National Committee for Statistics of the Kyrgyz Republic, in December 2016 the industrial output was KGS 26,915.5 mil., and in January-December 2016 it was KGS 205,265.6 mil. In 2016, the Volume of Industrial Products index accounted for 104.9% as compared to the same period of 2015 (in December 2016 as compared to December 2015 – 123.9%).

According to data of the National Committee for Statistics of the Kyrgyz Republic, in December of 2016 the essential pharmaceuticals output amounted to KGS 49.6 mil., in January - September of the last year - KGS 229.6 mil. At the end of December of 2016, the Physical Index of Industrial Production for Pharmaceuticals was 151.6% compared to the same period of the last year, and in January-December 2016 it was 98.8% compared to January-December 2015.

² The average exchange rate to calculate the above indices was used from the official website of the National Bank of Kazakhstan www.nationalbank.kz

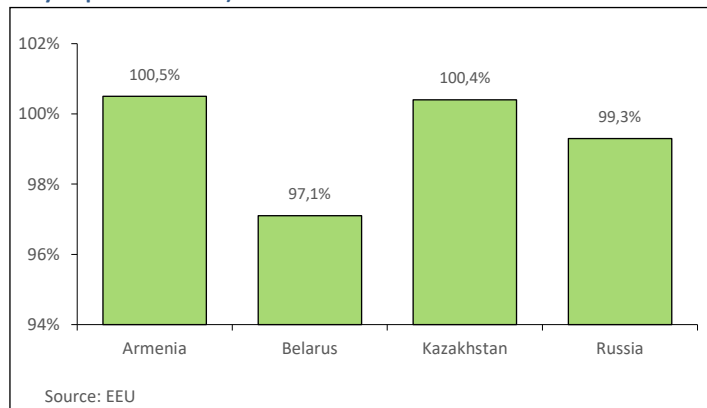
³ The average exchange rate to calculate the above indices was used from the official website of the National Bank of the Kyrgyz Republic <http://www.nbrk.kg/>

COMPARATIVE MACROECONOMIC INDICES OF THE EURASIAN ECONOMIC UNION (EAEU)

GDP

According to Eurasian Economic Commission's data (EAEU), at the end of January-December 2016 GDP of EAEU member-states amounted to USD 1027.5 bil. and reduced by 0.7% as compared to 2015 in fixed prices. GDP growth was reported in Armenia (+0.5%) and Kazakhstan (+0.4%). In Russia (-0.7%) and Belarus (-2.9%) GDP reduced as compared to the same period of 2015 (Fig. 1). According to preliminary estimates, in January-September of 2016 the Kyrgyz Republic GDP Index accounted for 100.4%.

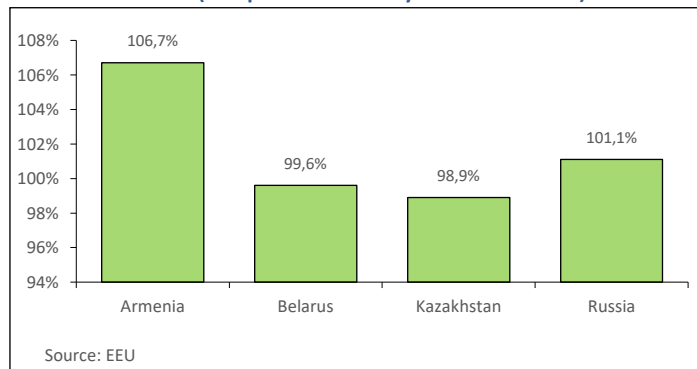
Figure 1. GDP growth of EAEU countries (January-September 2016 to January-September 2015)



Industrial Production

According to preliminary ECE data, in January-December 2016 the volume of industrial production (in fixed prices) of the EEU Member States amounted to USD 858.8 bil., increasing by 0.9% as compared with the same period of 2015. In individual countries, the Industrial Production Index accounted for: Armenia – 106.7%, Belarus – 99.6%, Kazakhstan – 98.9% and Russia – 101.1% (Fig. 2). In the Kyrgyz Republic, in January-December of 2016 the volume of industrial production accounted for 104.9%.

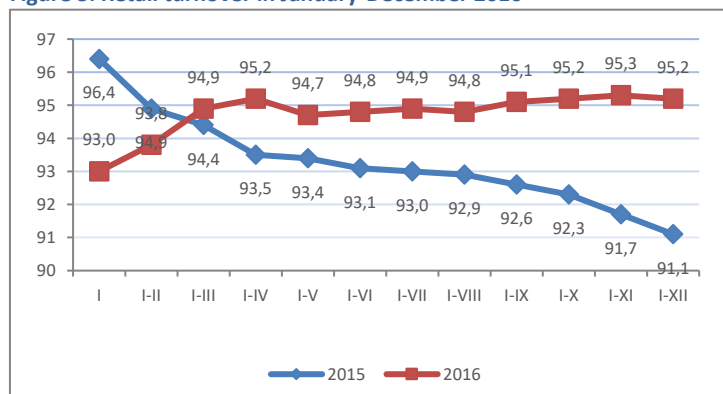
Figure 2. Industrial production in the EAEU member-states in January-December of 2016 (compared to January-December 2015)



Retail turnover

According to the EEC, the retail trade turnover (through all sales channels) of EEU member-states in January-December 2016 amounted to USD 466.2 bil. Compared with the same period of 2015, the volume of retail sales (in comparative prices) decreased by 4.8%. The main reason for the overall decline was the marked decline in retail turnover in Russia (94.3%) and Belarus (95.9%), and in Armenia (98.0%). In Kazakhstan and Kyrgyzstan, the trade turnover increased by 0.9%, and 5.3%, respectively.

Figure 3. Retail turnover in January-December 2016



Nominal and real wage

According to the EEC data, in January-December 2016 the average monthly nominal wage accrued on the average in January-December climbed over its level in the same period of 2015 in all EEU member-states. It increased by 1.7% in Armenia, by 7.3% in Belarus, by 13.6% in Kazakhstan, by 9.8% in Kyrgyzstan (in January-November of 2016), by 7.7% in Russia. Given the increase in consumer prices for goods and services, the real wage in the respective period increased by 3.1% in Armenia, by 9.3% in Kyrgyzstan (in January–November 2016), by 0.6% in Russia; reduced by 4% in Belarus, by 0.9% in Kazakhstan.

Table 1. Nominal and real wage in January-December 2016

| Country | Real wage, as % to the same period of 2015 | Nominal wage, USD |
|-------------------------|--------------------------------------------|-------------------|
| Armenia | 103.1 | 391 |
| Belarus | 96.0 | 363 |
| Kazakhstan | 99.1 | 416 |
| Russia | 100.6 | 549 |
| Kyrgyzstan ¹ | 109.3 | 200 |

¹ January-May 2016

Budget performance

According to the EEC, in January-September of 2016, the republican budget in all EEU member-states except for Belarus was implemented with a deficit. Most of the EEU member-states showed an increase in the revenue and expenditure sides of the budget compared with the corresponding period of the previous year.

The revenue growth amounted to 104.8% in Belarus, 123.5% in Kazakhstan, 101.8% in Kyrgyzstan. The budget revenues declined by 2% in Armenia, and by 8.4% in Russia.

Budget expenditures increased in all EEU member-states, except for Armenia, where they fell by 3.3%. The rate of growth of spending accounted for 111% in Belarus, 116.1% in Kazakhstan, 128% in Ukraine, 100.1% in Russia.

Table 2. Republican budget in January-September 2016

| Country | USD bil. | | |
|------------|----------|-------------|-------------------|
| | Income | Expenditure | Deficit (surplus) |
| Armenia | 1.7 | 1.9 | -0.2 |
| Belarus | 6.3 | 5.9 | 0.4 |
| Kazakhstan | 15.5 | 17.2 | -1.6 |
| Russia | 137.0 | 158.8 | -21.8 |
| Kyrgyzstan | 1.1 | 1.4 | -0.3 |
| EEU | 161.7 | 185.2 | -23.5 |

Mutual trade of EEU member-states in January-August of 2016

The volume of mutual trade in commodities of EAEU member-states in January-November 2016 amounted to USD 37.4 bil. or 89.2% as against the same period of 2015.

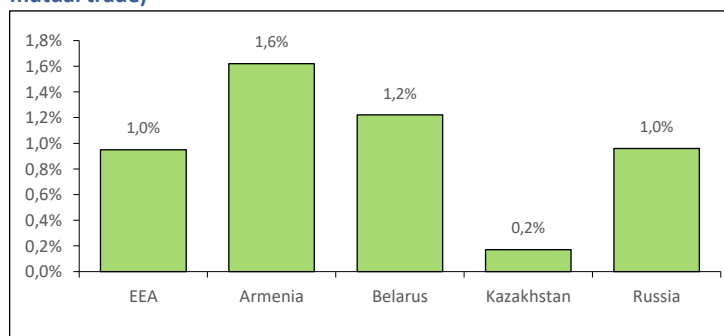
Table 3. Export volumes of the EEU member-states in the mutual trade in January-November 2016*

| Countries | USD bil. | % As against January-November 2015 | As percentage of total |
|------------|----------|------------------------------------|------------------------|
| EAEU | 37419.6 | 89.2 | 100.0 |
| Armenia | 357.5 | 156.1 | 1 |
| Russia | 337.3 | 154.0 | 94.3 |
| Belarus | 10173.9 | 100.2 | 27.2 |
| Russia | 9777.1 | 102.1 | 96.1 |
| Kazakhstan | 3480.6 | 73.2 | 9.3 |
| Russia | 3114.9 | 74.0 | 89.5 |

* Volume of export transactions in the mutual trade

Pharmaceutical products account for a small share in the structure of mutual trade (less than 1%) (Figure 4).

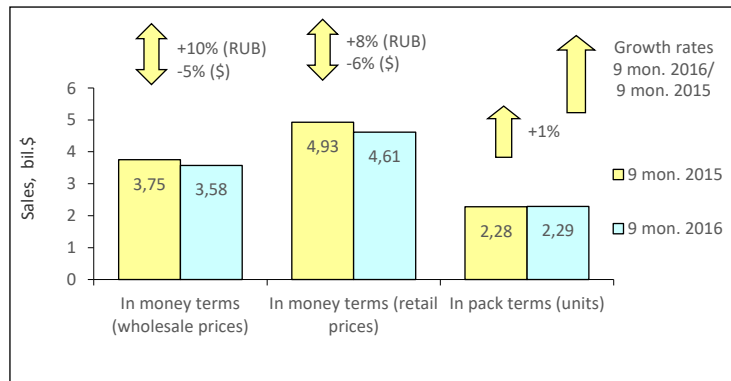
Figure 4. The structure of mutual trade between EEU member-states within the EEU Customs Commodity Code group "Pharmaceutical products" in January-November of 2016 (as percentage of the total volume of mutual trade)



PHARMACY OTC MARKET IN RUSSIA: 2016 FIRST NINE MONTHS RESULTS

According to the results of the Retail Audit of Finished Pharma Products (FPP) in the Russian Federation™, at the end of the first nine months of 2016 the sales of drugs in physical terms in the pharmacies of Russia saw a 1% increase to 2.290 bil. packs. In money terms, the OTC drugs market increased by 10% in rouble terms and reduced by 5% in dollar terms and reached RUB 244.402 bil. (USD 3.577 bil.) at wholesale prices (Fig. 1). The share of Over-the-Counter (OTC) drugs accounted for 69.9% of sales in physical terms and 52.8% in retail prices in terms of roubles. The average cost of a pack reduced as compared to the same period of 2015 and reached USD 2.01 (vs. USD 2.17) in retail prices. At the end of the first nine months of 2016, the average amount spent by residents of Russia for OTC drugs in pharmacies amounted to USD 31.48.

Figure 1. Russian pharmacy OTC market for 9 months of 2015 – 9 months of 2016



Based on the results for the first nine months of 2016, the Russian manufacturer OTCPHARM (+28%⁴) became the leader of the top ten OTC drugs manufacturers, displacing BAYER (+10%) one rank down from that position (Table 1). Apart from the leader, another five manufacturers of the top ten managed to rise in the ranks. GLAXOSMITHKLINE (+11%) moved up to rank three from five, and the manufacturer STADA (+9%) and JOHNSON & JOHNSON (+17%) moved up one rank, coming in at numbers five and seven. The newcomers of the top ten VALENTA (+51%) and RECKITT BENCKISER (+6%) moved up to ranks nine and ten respectively. At the same time, SANOFI-AVENTIS (-3%) and SANDOZ (-6%), which reduced their sales, and MENARINI (+5%), which showed relatively low growth rates, in contrast, moved down to the lower ranks 4, 6 and 8 respectively. The cumulative share of the top ten manufacturers increased by 0.2% to 38.2%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank | | Manufacturer* | Share in total pharmacy sales, % | |
|-------------|-------------|------------------------------|----------------------------------|-------------|
| 9 mon. 2016 | 9 mon. 2015 | | 9 mon. 2016 | 9 mon. 2015 |
| 1 | 2 | OTCPHARM | 6.0 | 5.1 |
| 2 | 1 | BAYER HEALTHCARE | 5.3 | 5.3 |
| 3 | 5 | GLAXOSMITHKLINE | 4.2 | 4.2 |
| 4 | 3 | SANOFI-AVENTIS | 4.2 | 4.8 |
| 5 | 6 | STADA | 3.8 | 3.9 |
| 6 | 4 | SANDOZ | 3.8 | 4.5 |
| 7 | 8 | JOHNSON & JOHNSON | 3.1 | 2.9 |
| 8 | 7 | MENARINI | 3.0 | 3.2 |
| 9 | 15 | VALENTA | 2.5 | 1.8 |
| 10 | 11 | RECKITT BENCKISER | 2.3 | 2.4 |
| Total | | | 38.2 | 38.0 |

*AIPM members are in bold

Two newcomers also broke into the top ten trade names ranking (table 2). ERGOFERON (+60%) and ARBIDOL (+24%) moved up to ranks eight and nine. As in the previous ranking, the leader of the top ten changed: the most dynamic brand name of the top ten ranking INGAVIRIN (+75%) moved up to rank one from seven. KAGOCEL (+10%) retained its previous rank two, and ESSENTIALE N (-14%) moved down to rank three from one. As before DETRALEX (+31%) kept its previous rank four, whereas CARDIOMAGNYL, which showed zero growth rates, and EXODERIL, which reduced its sales by 16%, moved down to ranks five and ten, respectively. Due to high growth rates, the brand names MIRAMISTIN (+29%) and PENTALGIN (+12%) in contrast, rose in the ranks, moving in at numbers six and seven. The total share of the top 10 brand names increased from 10.5% to 11.1%.

Table 2. The top ten brand names by pharmacy sales

| Rank | | Brand | Share in total pharmacy sales, % | |
|-------------|-------------|--------------|----------------------------------|-------------|
| 9 mon. 2016 | 9 mon. 2015 | | 9 mon. 2016 | 9 mon. 2015 |
| 1 | 7 | INGAVIRIN | 1.5 | 1.0 |
| 2 | 2 | KAGOCEL | 1.5 | 1.5 |
| 3 | 1 | ESSENTIALE N | 1.3 | 1.7 |
| 4 | 4 | DETRALEX | 1.3 | 1.0 |
| 5 | 3 | CARDIOMAGNYL | 1.1 | 1.3 |
| 6 | 10 | MIRAMISTIN | 0.9 | 0.8 |

⁴ Hereinafter, unless otherwise stated, growth gains are stated in the rouble equivalent or national currency.

| Rank | | Brand | Share in total pharmacy sales, % | |
|-------------|-------------|-----------|----------------------------------|-------------|
| 9 mon. 2016 | 9 mon. 2015 | | 9 mon. 2016 | 9 mon. 2015 |
| 7 | 8 | PENTALGIN | 0.9 | 0.9 |
| 8 | 22 | ERGOFERON | 0.8 | 0.6 |
| 9 | 12 | ARBIDOL | 0.8 | 0.7 |
| 10 | 6 | EXODERIL | 0.8 | 1.0 |
| Total | | | 11.1 | 10.5 |

In contrast to the above rankings, XYLOMETAZOLINE (+6%) and PANCREATIN (+8%) remained the leaders of the top ten INN and grouping names ranking (table 3). IBUPROFEN (+14%), DIOSMIN*HESPERIDIN (+34%) and IMIDAZOLYL ETHANAMIDE PENTANDIOIC ACID (+75%) move up to ranks three through five from the lower positions. At the same time, the latter became one of two newcomers of the top ten. The newcomer INTERFERON ALFA-2B (+23%) broke into the ranks of the top ten, coming in at number nine. The other four INNs from the top 10 moved down to much lower ranks. INNs KAGOCEL (+10%) and PHOSPHOLIPIDS (-13%), and the compositions CHONDROITINSULFURIC ACID* GLUCOSAMINE (+6%) and ACETYLSALICYLIC ACID* MAGNESIUM (+0.1%) moved down to ranks 6 through 8 and the last rank in the ranking. The total share of the top ten increased by 0.4 p.p. and accounted for 16.8%.

Table 3. The top 10 INNs and group names by pharmacy sales

| Rank | | INNs/Group Names | Share in total pharmacy sales, % | |
|-------------|-------------|----------------------------------------|----------------------------------|-------------|
| 9 mon. 2016 | 9 mon. 2015 | | 9 mon. 2016 | 9 mon. 2015 |
| 1 | 1 | XYLOMETAZOLINE | 3.0 | 3.1 |
| 2 | 2 | PANCREATIN | 2.1 | 2.1 |
| 3 | 4 | IBUPROFEN | 1.9 | 1.9 |
| 4 | 6 | DIOSMIN*HESPERIDIN | 1.7 | 1.4 |
| 5 | 16 | IMIDAZOLYL ETHANAMIDE PENTANDIOIC ACID | 1.5 | 1.0 |
| 6 | 5 | KAGOCEL | 1.5 | 1.5 |
| 7 | 3 | PHOSPHOLIPIDS | 1.5 | 1.9 |
| 8 | 7 | CHONDROITINSULFURIC ACID* GLUCOSAMINE | 1.2 | 1.3 |
| 9 | 12 | INTERFERON ALFA-2B | 1.2 | 1.0 |
| 10 | 8 | ACETYLSALICYLIC ACID* MAGNESIUM | 1.1 | 1.3 |
| Total | | | 16.8 | 16.4 |

J05 Antivirals for systemic use, which sales grew by 39%, became the best selling and dynamic OTC-group in the Russian market (Table 4). As the same time, N02 Analgesics and R01 Nasal preparations (+8% each) moved down one rank. A07 Antidiarrheals, intestinal anti-inflammatory/ anti-infective agents (+8%) also kept their previous rank four. The groups R05 Cough and cold preparations (+0.2%), A11 Vitamins (+10%), C05 Vasoprotectives (+14%) and M01 Anti-inflammatory and antirheumatic products (+4%) moved down to rank five through seven, and nine from the higher ranks. Due to high growth rates, the groups L03 Immunostimulants (+22%) and R02 Throat preparations (+16%) moved up to ranks eight and ten, respectively. On top of that, the latter became the only newcomer of the top 10 ranking. The consolidated share of the top 10 under review expanded from 49.1% to 50.1%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------------|-------------|----------|--------------------------------------------------|----------------------------------|-------------|
| 9 mon. 2016 | 9 mon. 2015 | | | 9 mon. 2016 | 9 mon. 2015 |
| 1 | 7 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 6.1 | 4.8 |
| 2 | 1 | N02 | ANALGESICS | 5.9 | 6.1 |
| 3 | 2 | R01 | NASAL PREPARATIONS | 5.9 | 5.9 |
| 4 | 4 | A07 | ANTIDIARR.,INTEST. ANTIINFL./ ANTIINFECT. AGENTS | 5.5 | 5.6 |
| 5 | 3 | R05 | COUGH AND COLD PREPARATIONS | 5.4 | 5.9 |
| 6 | 5 | A11 | VITAMINS | 5.2 | 5.2 |
| 7 | 6 | C05 | VASOPROTECTIVES | 5.2 | 5.0 |
| 8 | 10 | L03 | IMMUNOSTIMULANTS | 3.9 | 3.5 |
| 9 | 8 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 3.6 | 3.9 |
| 10 | 12 | R02 | THROAT PREPARATIONS | 3.5 | 3.3 |
| Total | | | | 50.1 | 49.1 |

Conclusion. On the basis of the results for 9 months of 2016, the over-the-counter retail market of Russia achieved RUB 315.295 bil. (USD 4.614 bil.). That was 8% more in terms of roubles and 6% less in terms of dollars than during the same period a year ago. In pack terms, the market also showed the positive growth rates (+1%) and brought in 2.290 bil. packs. The average cost of an OTC-pack in the Russian pharmacies based on the results for January-September of 2016 was USD 2.01 which was more than in the year-earlier period (USD 2.17). The average expenses of Russian residents for the purchase of OTC drugs in pharmacies also reduced (USD 31.48 vs. USD 33.70).

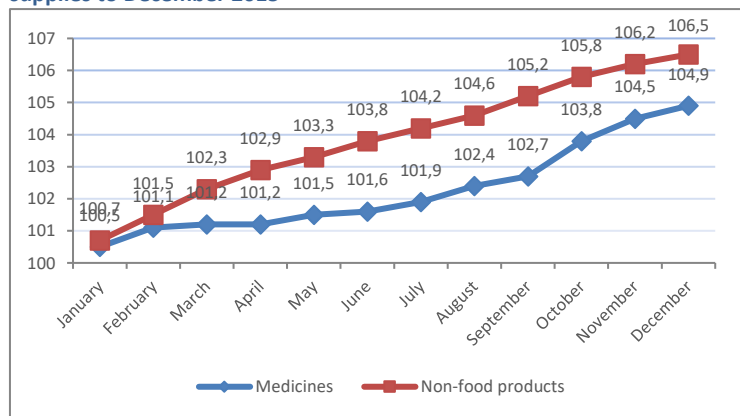
Price Indices

Table 1. Inflation rates in the Russian Federation, December 2016

| | December 2016 vs. December 2015 | January-December 2016 vs. January-December 2015 |
|---------------------------|---------------------------------|-------------------------------------------------|
| CPI | 105.4 | 107.1 |
| CPI for non-food products | 106.5 | 108.2 |
| CPI for medications | 104.9 | 106.0 |

Rosstat data

Figure 1. Dynamics of the price index for non-food items and medicines supplies to December 2015



Rosstat data

Indicators of dynamics of prices and retail margins (according to retail audit data)

Figure 2. Dynamics of weighted average prices and retail margins in Q 1-4, 2015 – Q 1-4, 2016

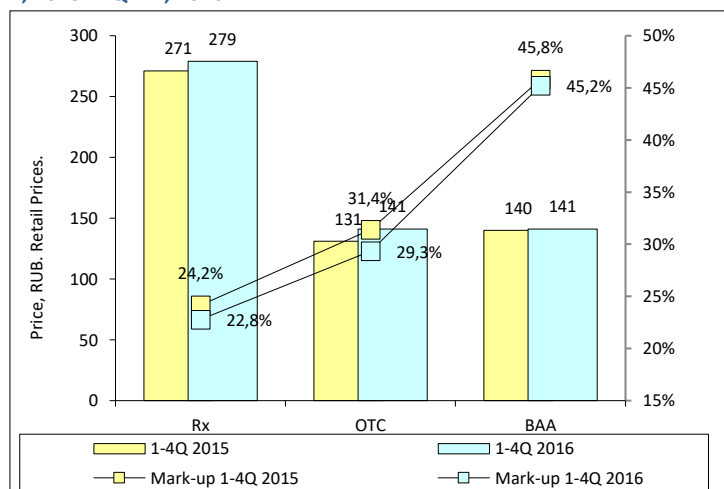


Figure 3. Dynamics of weighted average prices and retail margins in Q 1-4, 2015 – Q 1-4, 2016

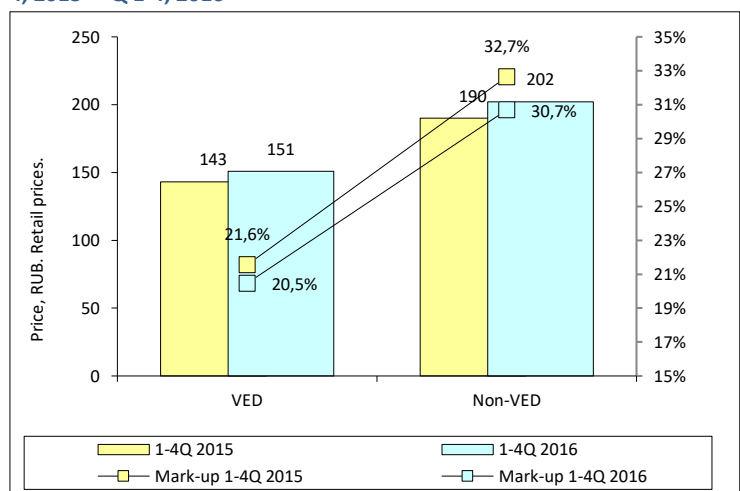
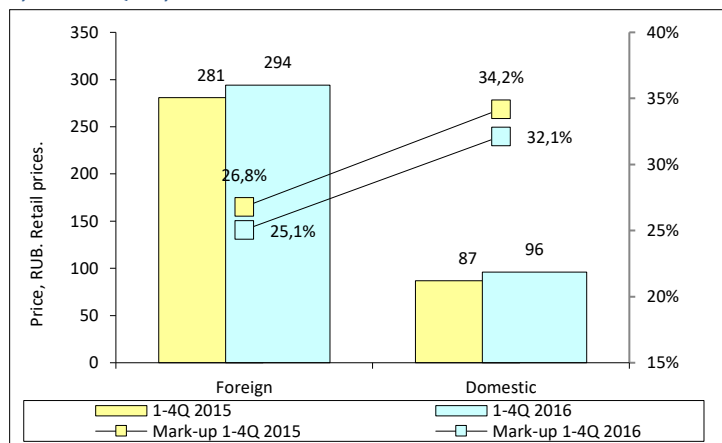


Figure 4. Dynamics of weighted average prices and retail margins in Q 1-4, 2015 – Q 1-4, 2016

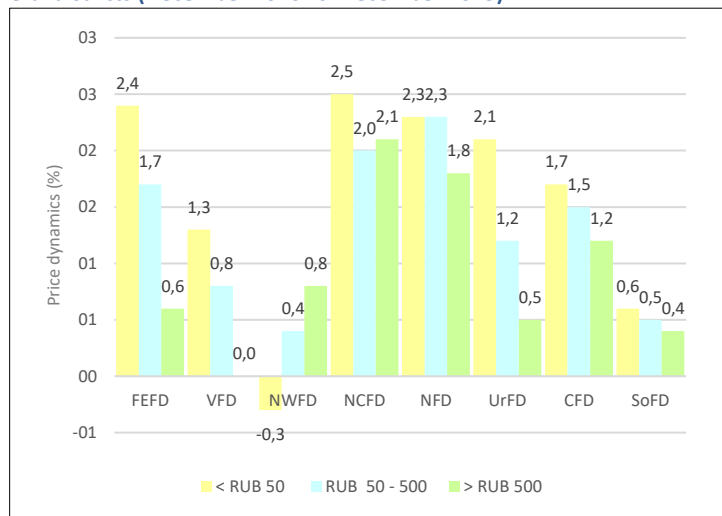


Indicators of dynamics of prices for vital and essential drugs (VED)

Table 2. Results of the VED price monitoring conducted by Roszdravnadzor in the Russian Federation

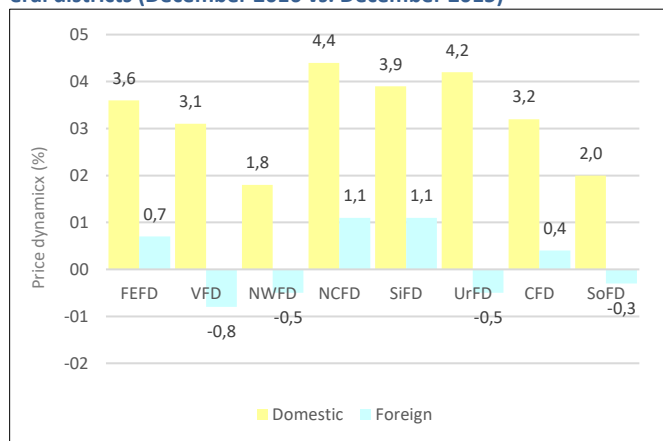
| | Price dynamics in December 2016 vs December 2015 (%) | | |
|--------------------|------------------------------------------------------|------------------|-----------------------|
| | Retail prices | Wholesale prices | Manufacturers' prices |
| VED total | 1.4 | 1.9 | 1.6 |
| Up to RUB 50 | 1.6 | | |
| From RUB 50 to 500 | 1.3 | | |
| Over RUB 500 | 0.9 | | |
| Domestic | 3.3 | | |
| Foreign | 0.1 | | |

Figure 5. Dynamics of retail prices for VED in various price ranges by federal districts (December 2016 vs. December 2015)



Roszdravnadzor data

Figure 6. Dynamics of retail prices for domestic and foreign VED by federal districts (December 2016 vs. December 2015)



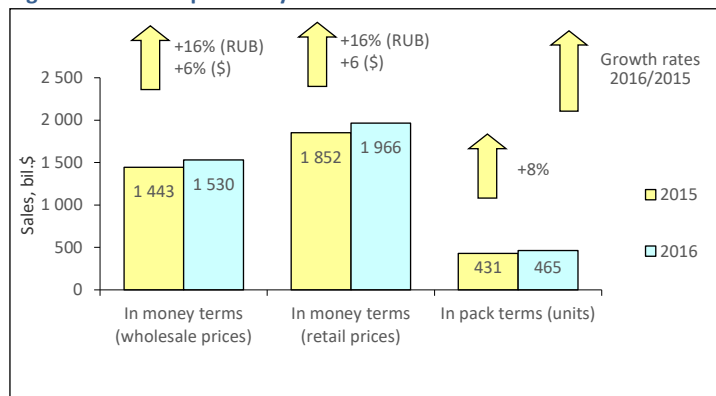
Roszdravnadzor data

MOSCOW CITY PHARMACY MARKET: 2016 RESULTS

According to Federal State Statistics Service, Moscow's estimated population as of January 1, 2016 was 12.330 mil., which accounted for 8.4% of the total Russian Federation population and 31.5% of Central FO (CFO). According to Federal State Statistics Service's data, based on the results for January-November of 2016 the average wage in Moscow was RUB 68,699.7 (USD 1,017.77), which was 92% higher than the average wage in Russia (RUB 35,754).

According to the results of the Retail Audit of Over-the-Counter Drugs (OTC) in Russian Federation™, at the end of 2016 the sales of OTC drugs in physical terms in pharmacies of Moscow saw an 8% increase to 464.543 mil. packs. In money terms, the market saw a 16% increase in terms of roubles and 6% in terms of dollars. At the same time, the market reached RUB 101.776 bil. (USD 1.530 bil.) at wholesale prices (Fig.1). The city market share accounted for 15.5% of the Russian pharmacy retail sales. The average cost of an OTC pack reduced as compared to a year earlier period (USD 4.30) and reached USD 4.23 at retail prices. At the end of 2016, the average amount spent by the Muscovites for OTC drugs in pharmacies amounted to USD 159.41.

Figure 1. Moscow pharmacy market in 2015 – 2016



At the end of 2016, the manufacturer BAYER (+18%) showed the largest retail sales in the Moscow market, moving up to rank number one in the top ten manufacturers ranking (Table 1). At the same time, SANOFI-AVENTIS (+4%) moved down one rank. Apart from the leader, another three drug manufacturers managed to rise in the ranks. The manufacturer ABBOTT (+21%) moved up to rank three from six, displacing GLAXOSMITHKLINE (+10%) down one rank. On top of that, the manufacturer MENARINI (+17%) moved up one rank, to number 9, and the only newcomer of the top ten the Russia-based manufacturer OTCPHARM (+30%) moved up to rank eight. In contrast, the manufacturers SANDOZ (+6%) and TEVA (+12%) lost two ranks each and moved down to ranks six and ten, respectively. SERVIER (+9%) and PFIZER (-2%) retained their previous ranks five and seven. The total share of the top 10 drug manufacturers decreased by almost 1 p.p. and accounted for 34.6%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank | | Manufacturer* | Share in total pharmacy sales, % | |
|-------|------|-------------------------|----------------------------------|------|
| 2016 | 2015 | | 2016 | 2015 |
| 1 | 2 | BAYER HEALTHCARE | 5.6 | 5.5 |
| 2 | 1 | SANOFI-AVENTIS | 5.1 | 5.7 |
| 3 | 6 | ABBOTT | 3.3 | 3.2 |
| 4 | 3 | GLAXOSMITHKLINE | 3.3 | 3.5 |
| 5 | 5 | SERVIER | 3.3 | 3.4 |
| 6 | 4 | SANDOZ | 3.2 | 3.5 |
| 7 | 7 | PFIZER | 2.8 | 3.1 |
| 8 | 12 | OTCPHARM | 2.7 | 2.5 |
| 9 | 10 | MENARINI | 2.7 | 2.6 |
| 10 | 8 | TEVA | 2.6 | 2.7 |
| Total | | | 34.6 | 35.6 |

*AIPM members are in bold

The antiviral drug INGAVIRIN, which increased its sales by 72%, became the best selling FPP in the regional market (Table 2). Note that almost all brand names in this top ten ranking showed the outstripping growth in sales. Three of them, the brand names XARELTO (+59%), AMIXIN (+37%) and VIAGRA (+24%) managed to move up to the higher ranks three, nine and ten, respectively. At the same time, CIALIS (+35%) and DETRALEX (+36%) moved down one rank, to numbers 4 and 5, whereas KAGOCEL (+27%) moved down from rank five to eight despite the outperformance rates. The medicinal products CRESTOR (+48%) and MIRAMISTIN (+39%) held their previous ranks two and six, respectively. Only one brand name of the top ten showed negative growth rates. The last year leader ESSENTIALE N (-6%) moved down to rank seven. The total share of the top-ten increased by 1.1 p.p. and achieved 7.7%.

Table 2. The top ten brand names by pharmacy sales

| Rank | | Brand | Share in total pharmacy sales, % | |
|------|------|------------|----------------------------------|------|
| 2016 | 2015 | | 2016 | 2015 |
| 1 | 7 | INGAVIRIN | 1.0 | 0.7 |
| 2 | 2 | CRESTOR | 0.9 | 0.7 |
| 3 | 8 | XARELTO | 0.8 | 0.6 |
| 4 | 3 | CIALIS | 0.8 | 0.7 |
| 5 | 4 | DETRALEX | 0.8 | 0.7 |
| 6 | 6 | MIRAMISTIN | 0.8 | 0.7 |

| Rank | | Brand | Share in total pharmacy sales, % | |
|-------|------|--------------|----------------------------------|------|
| 2016 | 2015 | | 2016 | 2015 |
| 7 | 1 | ESSENTIALE N | 0.8 | 0.9 |
| 8 | 5 | KAGOCEL | 0.7 | 0.7 |
| 9 | 11 | AMIXIN | 0.7 | 0.6 |
| 10 | 14 | VIAGRA | 0.6 | 0.5 |
| Total | | | 7.7 | 6.6 |

XYLOMETAZOLINE (+18%) remained the leader of the top 10 INN and group names ranking (Table 3). Seven INNs of the top 10 managed to rise in the ranks. INNs ROSUVASTATIN (+41%), IBUPROFEN (+32%) and the composition DIOSMIN*HESPERIDIN (+34%) move up to ranks two through four from the lower ranks. The newcomers IMIDAZOLYL ETHANAMIDE PENTANDIOIC ACID (+72%), TILORONE (+62%) and RIVAROXABAN (+59%) broke into the ranks of the top ten, coming in at numbers five, seven and ten. Due to 39% growth in sales, MIRAMISTIN moved up from rank ten to nine. And only INNs PANCREATIN (+16%) and PHOSPHOLIPIDS (-3%) moved down to the lower ranks six and eight, respectively. The total share of the top ten under review increased by over 1 p.p. to 10.1%.

Table 3. The top 10 INNs and group names by pharmacy sales

| Rank | | INNs/Group Names | Share in total pharmacy sales, % | |
|-------|------|----------------------------------------|----------------------------------|------|
| 2016 | 2015 | | 2016 | 2015 |
| 1 | 1 | XYLOMETAZOLINE | 1.7 | 1.7 |
| 2 | 4 | ROSUVASTATIN | 1.1 | 0.9 |
| 3 | 5 | IBUPROFEN | 1.0 | 0.9 |
| 4 | 6 | DIOSMIN*HESPERIDIN | 1.0 | 0.9 |
| 5 | 16 | IMIDAZOLYL ETHANAMIDE PENTANDIOIC ACID | 1.0 | 0.7 |
| 6 | 3 | PANCREATIN | 1.0 | 1.0 |
| 7 | 20 | TILORONE | 0.9 | 0.6 |
| 8 | 2 | PHOSPHOLIPIDS | 0.8 | 1.0 |
| 9 | 10 | MIRAMISTIN | 0.8 | 0.7 |
| 10 | 23 | RIVAROXABAN | 0.8 | 0.6 |
| Total | | | 10.1 | 8.9 |

At year-end 2016, J05 Antivirals for systemic use (+43%) headed the top ten ATC groups ranking on the metropolitan market (Table 4). At the same time, the former leaders of the top ten R01 Nasal preparations (+20%) and M01 Anti-inflammatory and antirheumatic products (+14%) moved down one rank. J01 Antibacterials for systemic use (+25%) moved up to rank four from six, displacing C09 Agents acting on the rennin-angiotensin system (+15%) and A07 Anti-diarrheals, intestinal anti-inflammatory/anti-infective agents (+14%) down one rank. As before, G03 Sex hormones (+19%) and A11 Vitamins (+14%) held their previous ranks seven and eight respectively. The last position in the ranking was taken by its only newcomer – G04 Drugs to treat urologic diseases (+22%). In total, the top ten ATC groups accumulated 36.5% of the regional market, 35.2% - in the year-earlier period.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|------|----------|---------------------------------------------------|----------------------------------|------|
| 2016 | 2015 | | | 2016 | 2015 |
| 1 | 3 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 4.8 | 3.9 |
| 2 | 1 | R01 | NASAL PREPARATIONS | 4.1 | 4.0 |
| 3 | 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 3.9 | 4.0 |
| 4 | 6 | J01 | ANTIBACTERIALS FOR SYST USE | 3.9 | 3.6 |
| 5 | 4 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 3.6 | 3.6 |
| 6 | 5 | A07 | ANTIDIARR.,INTEST. ANTI-INFL./ANTIINFECT. AGENTS | 3.5 | 3.6 |
| 7 | 7 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.4 | 3.3 |
| 8 | 8 | A11 | VITAMINS | 3.3 | 3.3 |
| 9 | 10 | B01 | ANTITHROMBOTIC AGENTS | 3.1 | 3.0 |
| 10 | 11 | G04 | UROLOGICALS | 3.0 | 2.9 |
| Total | | | | 36.5 | 35.2 |

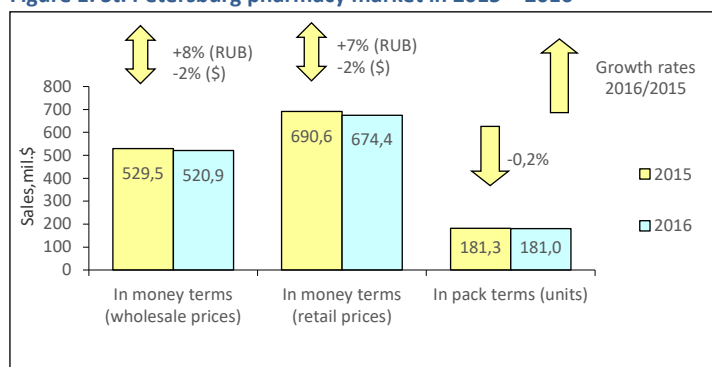
Conclusion. On the basis of the results for 2016, the retail pharmacy market of Moscow brought in RUB 130.678 bil. (USD 1.966 bil.), which is by 16% in terms of roubles and 6% in terms of dollars less than in 2015. In pack terms, the market increased by 8% and amounted to 464.543 mil. packs. According to the results for 2016, the average cost of an FPP pack in the regional pharmacies was USD 4.23 which is less than in the year-earlier period (USD 2.17) and as much as the national average (USD 2.77). However, the average medicine expenses of the CFD residents were higher than the national average expenses in Russia (USD 159.41 vs. USD 86.20).

SAINT PETERSBURG PHARMACY MARKET: 2016 RESULTS

According to Federal State Statistics Service, St. Petersburg's population as of January 1, 2016 was estimated at 5.226 mil., which accounted for 3.6% of the total Russian Federation population and 37.7% of North West FO (NWFO). According to Federal State Statistics Service's data, based on the results for January-November of 2016 the average wage in St. Petersburg was RUB 47,192 (USD 699.14), which was 32% higher than the average wage in Russia (RUB 35,754).

According to the results of the Retail Audit of FPP (Finished Pharmaceutical Products) in Russian Federation™, at the end of 2016 the sales of drugs in natural terms in pharmacies of St. Petersburg saw a 0.2% decrease to 180.952 mil. packs. In money terms, the market saw a 8% increase in terms of roubles, whereas it showed a negative decline (-2%) in terms of dollars. At the same time, the volume of the market achieved RUB 34.804 bil (USD 520.950 mil.) at wholesale prices (Fig. 1). The regional market share accounted for 5.4% of the Russian pharmacy sales. The average cost of an OTC pack reduced as compared to a year earlier period (USD 4.30) and reached USD 4.23 at retail prices. For 12 months of 2016, the average amount spent by residents of the region for drugs in the pharmacies amounted to USD 129.05.

Figure 1. St. Petersburg pharmacy market in 2015 – 2016



Based on the results for 2016, the upper part of the top ten manufacturers on the St. Petersburg pharmacy market remained unchanged - the first four manufacturers of the top ten held their own in the ranking (Table 1). These were the drug manufacturers BAYER (+23%), SANOFI-AVENTIS (+5%), SANDOZ (+7%) and SERVIER (+4%). On top of that, TEVA (+12%) and MENARINI (+9%) also held their previous ranks nine and ten. Three manufacturers of the top 10 managed to rise in the ranks. ABBOTT (+18%) moved up one rank, to number 5, displacing GLAXOSMITHKLINE (+5%) down one rank. The newcomers OTCPHARM (+19%) and STADA (+32%) broke into the top 10 ranking, coming in at numbers seven and eight. The total share of the top 10 drug manufacturers increased by 1.4 p.p. and accounted for 37.3%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank | 2016 | 2015 | Manufacturer* | Share in total pharmacy sales, % | |
|-------|------|------|-------------------------|----------------------------------|------|
| | | | | 2016 | 2015 |
| 1 | 1 | | BAYER HEALTHCARE | 6.5 | 5.7 |
| 2 | 2 | | SANOFI-AVENTIS | 5.4 | 5.5 |
| 3 | 3 | | SANDOZ | 4.1 | 4.1 |
| 4 | 4 | | SERVIER | 3.7 | 3.9 |
| 5 | 6 | | ABBOTT | 3.5 | 3.2 |
| 6 | 5 | | GLAXOSMITHKLINE | 3.5 | 3.6 |
| 7 | 11 | | OTCPHARM | 2.7 | 2.5 |
| 8 | 14 | | STADA | 2.7 | 2.2 |
| 9 | 9 | | TEVA | 2.7 | 2.6 |
| 10 | 10 | | MENARINI | 2.5 | 2.5 |
| Total | | | | 37.3 | 35.8 |

*AIPM members are in bold

The leader of the top 10 brand names ranking was changed: The drug XARELTO (+47%) moved up to rank one from three (Table 2). At the same time, the former leaders of the top ten ESSENTIALE N (-6%) and KAGOCEL (+8%) moved down one rank, coming in at numbers 2 and 3. In addition to the leader, another five brand names managed to rise in the ranks. INGAVIRIN (+17%), VIAGRA (+2%) and HEPTRAL (+5%) moved up to ranks four, seven and eight, and the newcomers CRESTOR (+55%) and AMOKSIKLAV (+12%) broke into the ranks of the top ten, coming in at ranks six and 10. In contrast, the other two brand names fell in the ranks. DETRALEX (+14%) and EXODERIL (-9%) moved down to ranks five and nine, respectively. The total share of the top 10 brand names increased from 6.6% to 6.9%.

Table 2. The top ten brand names by pharmacy sales

| Rank | 2016 | 2015 | Brand | Share in total pharmacy sales, % | |
|------|------|------|--------------|----------------------------------|------|
| | | | | 2016 | 2015 |
| 1 | 3 | | XARELTO | 1.0 | 0.8 |
| 2 | 1 | | ESSENTIALE N | 0.9 | 1.0 |
| 3 | 2 | | KAGOCEL | 0.9 | 0.9 |
| 4 | 5 | | INGAVIRIN | 0.7 | 0.6 |
| 5 | 4 | | DETRALEX | 0.7 | 0.7 |
| 6 | 21 | | CRESTOR | 0.6 | 0.4 |
| 7 | 8 | | VIAGRA | 0.5 | 0.6 |
| 8 | 10 | | HEPTRAL | 0.5 | 0.6 |

| Rank | | Brand | Share in total pharmacy sales, % | |
|-------|------|------------|----------------------------------|------|
| 2016 | 2015 | | 2016 | 2015 |
| 9 | 6 | EXODERIL | 0.5 | 0.6 |
| 10 | 13 | AMOKSIKLAV | 0.5 | 0.5 |
| Total | | | 6.9 | 6.6 |

XYLOMETAZOLINE (+9%) remained the leader of the top 10 INN and generic names ranking (Table 3). INNs RIVAROXABAN (+47%), ROSUVASTATIN (+45%) and ATORVASTATIN (+23%) showed high growth rates and moved up to ranks two through four. At the same time, the latter became one of two newcomers of the top ten. Another newcomer of the top ten AMOXICILLIN*CLAVULANIC ACID (+16%) moved up to the last rank of the ranking. INNs IBUPROFEN (+17%) and the composition DIOSMIN*HESPERIDIN (+19%) held their previous ranks five and eight. The other three INNs from the top 10 fell in the ranks. PHOSPHOLIPIDS (-4%), PANCREATIN (+17%) and KAGOCEL (+8%) moved down to ranks six, seven and nine, respectively. The cumulative share of the top10 increased from 9.2% to 10%.

Table 3. The top 10 INNs and group names by pharmacy sales

| Rank | 2016 | 2015 | INNs/Group Names | Share in total pharmacy sales, % | |
|-------|------|------|-----------------------------|----------------------------------|------|
| | | | | 2016 | 2015 |
| 1 | 1 | | XYLOMETAZOLINE | 1.7 | 1.7 |
| 2 | 10 | | RIVAROXABAN | 1.0 | 0.8 |
| 3 | 12 | | ROSUVASTATIN | 1.0 | 0.7 |
| 4 | 7 | | ATORVASTATIN | 0.9 | 0.8 |
| 5 | 5 | | IBUPROFEN | 0.9 | 0.9 |
| 6 | 2 | | PHOSPHOLIPIDS | 0.9 | 1.1 |
| 7 | 6 | | PANCREATIN | 0.9 | 0.9 |
| 8 | 8 | | DIOSMIN*HESPERIDIN | 0.9 | 0.8 |
| 9 | 4 | | KAGOCEL | 0.9 | 0.9 |
| 10 | 13 | | AMOXICILLIN*CLAVULANIC ACID | 0.8 | 0.7 |
| Total | | | | 10.0 | 9.2 |

The leading two ATC groups of the top ten held their own in the ranking: the groups C09 Agents acting on the rennin-angiotensin system (+12%) and M01 Anti-inflammatory and antirheumatic products (+9%) held their own and the former reinforced its positions (Table 4). The most dynamic of the top ten ATC groups J05 Antivirals for systemic use (+20%) moved up to rank three, displacing R01 Nasal preparations (+7%) and A11 Vitamins (+9%) down one rank, to numbers four and five. INNs with high growth rates also rose in the ranks, moving up to numbers six through eight, respectively. Among them were G03 Sex hormones (+11%), B01 Antithrombotic agents (+16%) and J01 Antibacterials for systemic use (+11%). A07 Antidiarrheals, intestinal anti-inflammatory/ anti-infective agents (+7%) and R05 Cough and cold preparations (+1%) showed low growth rates and moved down to the last ranks of the top ten. In total, the top ten ATC groups accumulated 37.9% of the regional market, whereas in the year-earlier period 37.1%.

Table 4. The top ten ATC Groups by pharmacy sales

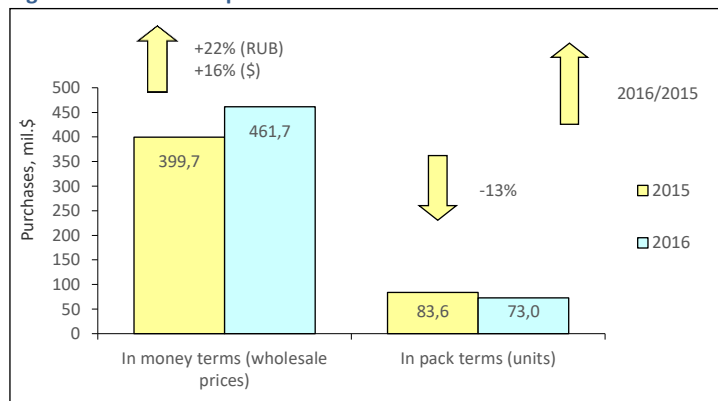
| Rank | 2016 | 2015 | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|------|------|----------|---------------------------------------------------|----------------------------------|------|
| | | | | | 2016 | 2015 |
| 1 | 1 | | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 4.4 | 4.3 |
| 2 | 2 | | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 4.2 | 4.2 |
| 3 | 5 | | J05 | ANTIVIRALS FOR SYSTEMIC USE | 4.1 | 3.7 |
| 4 | 3 | | R01 | NASAL PREPARATIONS | 4.1 | 4.1 |
| 5 | 4 | | A11 | VITAMINS | 3.8 | 3.8 |
| 6 | 7 | | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.6 | 3.5 |
| 7 | 10 | | B01 | ANTITHROMBOTIC AGENTS | 3.6 | 3.3 |
| 8 | 9 | | J01 | ANTIBACTERIALS FOR SYST USE | 3.4 | 3.3 |
| 9 | 8 | | A07 | ANTIDIARR.,INTEST. ANTI-INFL./ANTIINFECT. AGENTS | 3.4 | 3.4 |
| 10 | 6 | | R05 | COUGH AND COLD PREPARATIONS | 3.3 | 3.5 |
| Total | | | | | 37.9 | 37.1 |

Conclusion. On the basis of the results for 2016, the pharmacy market of St.Petersburg brought in RUB 45.042 bil. (USD 674.358 mil.). It was 7% more in terms of roubles and 2% less in terms of dollars than in 2015. In physical terms, the market saw a 0.2% decrease and was equal to 180.952 mil. packs. At the end of 2016, the average cost of an FPP pack in the city pharmacies was USD 3.73, which was lower than in the year-earlier period (USD 3.81), but more than the national average (USD 2.77). The average medicine expenses of the St.Petersburg residents in the pharmacies were higher than the national average expenses in Russia (USD 129.05 vs. USD 86.20).

MOSCOW CITY HOSPITAL MARKET: 2016 RESULTS

According to the results of the Budget Audit of Finished Pharma Products (FFP) in the Russian Federation, at the end of 12 months of 2016 the Moscow hospital market in physical terms reduced by 13% compared to the previous year and amounted to 72.956 mil. packs. In money terms, the market showed positive growth rates both in terms of roubles (+22%) and in terms of dollars (+16%) and reached RUB 30.113 bil. (USD 461.717 mil.) in wholesale prices. At the end of 2016, the average cost of an FFP pack in the hospital sector of Moscow was USD 6.33, whereas in the year-earlier period its cost was USD 4.78.

Figure 1. Moscow hospital market in 2015 – 2016



According to the results for 2016, the top ten drug manufacturers on the hospital market of Moscow changed in composition and underwent numerous transformations; as a result none of its manufacturers managed to hold its own in the ranking (Table 1). The leaders also changed: the manufacturers PFIZER (4.9-fold growth in sales) and ABBVIE (+66%) moved up to the top two ranks in the top ten, displacing MICROGEN (-18%) down from rank one to three. The newcomers PETROVAX (6.7-fold growth in sales), BIOCAD (4-fold growth in sales) and PHARMASYNTEZ (+69%) broke into the ranks of the top ten, coming in at numbers four through six respectively. Another newcomer FORT (27-fold growth in purchases) rounded out the top ten ranking. The other three drug manufacturers of the top ten showed negative growth rates and fell in the ranks. SANOFI-AVENTIS (-30%), JOHNSON & JOHNSON (-12%) and MERCK SHARP DOHME (-23%) moved down to ranks seven through nine respectively. The total share of the top ten trade names expanded by over 14 p.p. and accounted for 46.4%.

Table 1. The top 10 drug manufacturers by hospital purchases

| Rank in the top ten | Rank in the top ten | Manufacturer* | Share in total hospital purchases, % | |
|---------------------|---------------------|------------------------------|--------------------------------------|------|
| | | | 2016 | 2015 |
| 1 | 4 | PFIZER | 15.6 | 3.9 |
| 2 | 3 | ABBVIE | 5.5 | 4.1 |
| 3 | 1 | MICROGEN | 5.3 | 7.8 |
| 4 | 30 | PETROVAX | 3.9 | 0.7 |
| 5 | 24 | BIOCAD RF | 2.9 | 0.9 |
| 6 | 11 | PHARMASYNTEZ | 2.9 | 2.1 |
| 7 | 2 | SANOFI-AVENTIS | 2.9 | 5.0 |
| 8 | 5 | JOHNSON & JOHNSON | 2.8 | 3.8 |
| 9 | 6 | MERCK SHARP DOHME | 2.4 | 3.8 |
| 10 | 49 | FORT OOO | 2.4 | 0.1 |
| Total | | | 46.4 | 32.2 |

*AIPM members are in bold

The top ten brand names ranking on the hospital metropolitan market was noticeably updated - five newcomers broke into the ranks of the top ten ranking (Table 2). The brand names GRIPPOL PLUS (6.9-fold growth in purchases), ULTRIX (27-fold growth), VIKYRA PAK and GRIPPOL moved up to ranks three through six, and KEMERUVIR (+64%) moved up to rank 9. The market of the brand name PREVENAR 13 also developed at a fast pace, increasing its purchases 18 times, which allowed it to move up to rank one from eight. The former leader SOVIGRIPP (+11%) moved down to rank two. SYNAGIS (+1%), NATRIUM CHLORIDUM (+21%) and REYATAZ (+19%) moved down to the lower ranks, coming in at numbers seven, eight and ten respectively. Thanks to the emergence of newcomers, the cumulative share of the top 10 brand names increased by 21.6% to 32.5%.

Table 2. The top 10 brand names by hospital purchases

| Rank in the top ten | Rank in the top ten | Brand | Share in total hospital purchases, % | |
|---------------------|---------------------|--------------|--------------------------------------|------|
| | | | 2016 | 2015 |
| 1 | 8 | PREVENAR 13 | 13.1 | 0.9 |
| 2 | 1 | SOVIGRIPP | 4.9 | 5.4 |
| 3 | 17 | GRIPPOL PLUS | 3.9 | 0.7 |
| 4 | 40 | ULTRIX | 2.4 | 0.1 |
| 5 | N/A | VIKIRA PAK | 2.3 | 0.0 |
| 6 | N/A | GRIPPOL | 2.2 | 0.0 |
| 7 | 3 | SYNAGIS | 1.1 | 1.3 |

| Rank in the top ten | | Brand | Share in total hospital purchases, % | |
|---------------------|------|-------------------|--------------------------------------|------|
| 2016 | 2015 | | 2016 | 2015 |
| 8 | 6 | NATRIUM CHLORIDUM | 1.0 | 1.0 |
| 9 | 16 | KEMERUVIR | 1.0 | 0.7 |
| 10 | 9 | REYATAZ | 0.9 | 0.9 |
| Total | | | 32.5 | 10.9 |

VACCINE, PNEUMOCOCCAL moved up to rank number one in the top ten INNs and group names ranking, showing ten-fold growth in purchases (Table 3). The former leader, but less dynamic VACCINE, INFLUENZA (+57%), moved down one rank. The newcomers AZOXIMER*VACCINE, INFLUENZA (7-fold growth in purchases), VACCINE, PNEUMOCOCCAL (7-fold growth) and DASABUVIR*OMBITASVIR* PARITAPREVIR*RITONAVIR and VACCINE, POLIOMYELITIS (+59%) broke into the ranks of the top ten, coming in at numbers two through four. Another newcomer SODIUM (+22%) rounded out the top ten ranking. Four INNs fell in the ranks, moving down to ranks six through nine respectively. These were DARUNAVIR (-13%), MEROPENEM (+17%), IMMUNOGLOBULIN BASE (-35%) and PALIVIZUMAB (+1%). The total share of the top 10 under review increased significantly from 18.3% to 36.1%.

Table 3. The top 10 INNs and Group Names by hospital purchases

| Rank | Rank | INNs/Group Names | Share in total hospital purchases, % | |
|-------|------|----------------------------------------------|--------------------------------------|------|
| | | | 2016 | 2015 |
| 1 | 4 | VACCINE, PNEUMOCOCCAL | 13.3 | 1.6 |
| 2 | 1 | VACCINE, INFLUENZA | 9.5 | 7.4 |
| 3 | 26 | AZOXIMER*VACCINE, INFLUENZA | 3.9 | 0.7 |
| 4 | N/A | DASABUVIR*OMBITASVIR* PARITAPREVIR*RITONAVIR | 2.3 | 0.0 |
| 5 | 11 | VACCINE, POLIOMYELITIS | 1.4 | 1.1 |
| 6 | 3 | DARUNAVIR | 1.3 | 1.8 |
| 7 | 6 | MEROPENEM | 1.3 | 1.3 |
| 8 | 2 | IMMUNOGLOBULIN BASE | 1.1 | 2.1 |
| 9 | 7 | PALIVIZUMAB | 1.1 | 1.3 |
| 10 | 12 | SODIUM | 1.0 | 1.0 |
| Total | | | 36.1 | 18.3 |

In contrast to the above ranking, the leader of the top ten ATC groups didn't change. Due to two-fold growth in purchases J07 Vaccines held and reinforced its rank number one (Table 4). J05 Antivirals for systemic use (+45%) moved up to rank two from four, whereas J01 Antibacterials for systemic use (+1%), which has held that rank earlier, in contrast, moved down to rank four. L01 Antineoplastic agents (+30%), B05 Blood substitutes and perfusion solutions (-18%), N01 Anesthetics (-7%) and V08 Contrast media (+0.3%) held their previous ranks three, five, eight and nine in the top ten ranking. The only newcomer of the top ten moved up to the last rank of the top ten: the group J02 Antimycotics for systemic use (+20%) moved up to that rank from eleven. In addition, despite the negative growth rates B01 Antithrombotic agents (-13%) moved up one ranks, to number six. The group J06 Immune sera and immunoglobulins (-17%) moved down from rank six to seven due to more considerable reduction in purchases. The cumulative share of the top 10 under review increased by 9 p.p. to 74.0%.

Table 4. The top ten ATC groups by hospital purchases

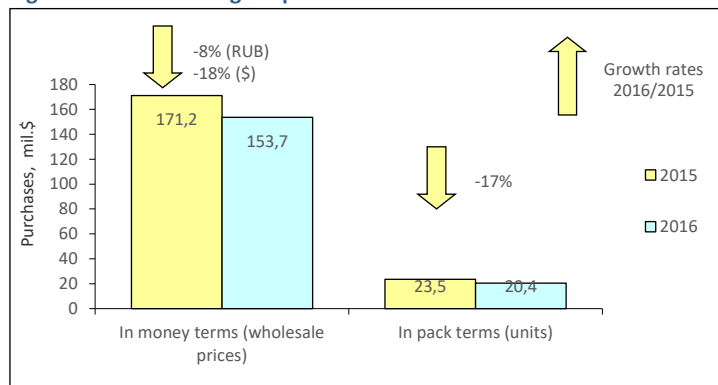
| Rank | Rank | ATC code | ATC group | Share in total hospital purchases, % | |
|-------|------|----------|--------------------------------------------|--------------------------------------|------|
| | | | | 2016 | 2015 |
| 1 | 1 | J07 | VACCINES | 29.3 | 15.0 |
| 2 | 4 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 9.9 | 8.4 |
| 3 | 3 | L01 | ANTINEOPLASTIC AGENTS | 9.1 | 8.6 |
| 4 | 2 | J01 | ANTIBACTERIALS FOR SYST USE | 8.5 | 10.2 |
| 5 | 5 | B05 | PLASMA SUBSTITUTES AND PERFUSION SOLUTIONS | 3.7 | 5.5 |
| 6 | 7 | B01 | ANTITHROMBOTIC AGENTS | 2.9 | 4.0 |
| 7 | 6 | J06 | IMMUNE SERA & IMMUNOGLOBULIN | 2.8 | 4.2 |
| 8 | 8 | N01 | ANESTHETICS | 2.7 | 3.6 |
| 9 | 9 | V08 | CONTRAST MEDIA | 2.6 | 3.2 |
| 10 | 11 | J02 | ANTIMYCOTICS FOR SYSTEMIC USE | 2.5 | 2.6 |
| Total | | | | 74.0 | 65.2 |

Conclusion. At the end of 2016, the Moscow hospital market increased by 22% in rouble terms and by 16% in dollar terms and brought in RUB 30.113 bil. (USD 461.717 mil.). In pack terms, the market reduced by 13% and amounted to 72.956 mil. packs. The average cost of an FFP pack in the Moscow hospital market increased as compared to the previous year (USD 6.33 vs. USD 4.78).

SAINT PETERSBURG HOSPITAL MARKET: 2016 RESULTS

According to the results of the Budget Audit of FPPs in the Russian Federation (without DLO and regional benefit), at the end of 2016 the St. Petersburg hospital market reduced in physical terms by 13% and amounted to 20.399 mil. packs. In value terms, the purchases movement was negative both in rouble (-4%) and in dollar terms (-10%), and the volume amounted to RUB 10.040 bil. (USD 153,707 mil.) in wholesale prices. In 2016, the average cost of an FPP pack in the hospital sector of the city was USD 7.53, whereas in the year-earlier period its cost was USD 7.29.

Figure 1. St. Petersburg hospital market in 2015 – 2016



Following the results for 2016, the drug manufacturer JOHNSON & JOHNSON (+20%) held and reinforced its leading position in the top-ten drug manufacturers ranking in the St. Petersburg hospital market (Table 1). NOVARTIS (+65%) moved up to rank two from seven, and ABBVIE (+12%) held its previous rank three. On top of that, PFIZER (-15%) also held its previous rank six. The other top 10 drug manufacturers shifted their ranks; moreover, three of them improved them. BRISTOL MYERS (+32%) moved up from rank eight to five, and the newcomers ASTRAZENECA (+13%) and BAYER (-4%) broke into the top ten ranks, coming in at numbers seven and ten. In contrast, the drug manufacturers MERCK SHARP DOHME (-12%), ROCHE (-42%) and SANOFI-AVENTIS (-45%) reduced considerably their sales and moved down to the lower ranks four, eight and nine, respectively. The total share accumulated by the top 10 manufacturers increased 1.2 p.p. and escalated to 44.6%.

Table 1. The top 10 drug manufacturers by hospital purchases

| Rank in the top ten | Rank | Manufacturer* | Share in total hospital purchases, % | |
|---------------------|------|------------------------------|--------------------------------------|------|
| | | | 2016 | 2015 |
| 1 | 1 | JOHNSON & JOHNSON | 8.8 | 7.7 |
| 2 | 7 | NOVARTIS | 6.0 | 3.5 |
| 3 | 3 | ABBVIE | 5.9 | 5.1 |
| 4 | 2 | MERCK SHARP DOHME | 5.0 | 5.4 |
| 5 | 8 | BRISTOL MYERS SQU | 4.2 | 3.1 |
| 6 | 6 | PFIZER | 3.7 | 4.2 |
| 7 | 12 | ASTRAZENECA | 2.9 | 2.4 |
| 8 | 5 | ROCHE | 2.8 | 4.7 |
| 9 | 4 | SANOFI-AVENTIS | 2.7 | 4.7 |
| 10 | 11 | BAYER HEALTHCARE | 2.6 | 2.6 |
| Total | | | 44.6 | 43.4 |

*AIPM members are in bold

The top ten brand names ranking in the hospital city market has been half updated: Five brand names entered it for the first time (Table 2). Antineoplastic drugs IMBRUVICA (4-fold growth in purchases), SPRYCEL (+69%) and RIBOMUSTIN (+47%) moved up to ranks 5 through 7, and the antineoplastic drug TASIGNA (+56%) and Angiogenesis inhibitor LUCENTIS (+15%) moved up to the lower part of the ranking. Apart from them, another two brand names showed high growth rates. The drug REYATAZ (+48%) moved up to rank two from four, and ISENTRESS (+87%) moved up to rank three from nine. At the same time, due to 12% reduction in purchases, the traditional hospital drug NATRIUM CHLORIDUM and neuroleptic drug XEPLION (+4%) which showed low growth rates, in contrast, moved down to ranks four and eight. The drug KALETRA (+15%) held and reinforced its leadership in the ranking. The total share of the top 10 brands expanded from 13.4% to 18.9%.

Table 2. The top 10 brand names by hospital purchases

| Rank | Rank | Brand | Share in total hospital purchases, % | |
|------|------|-------------------|--------------------------------------|------|
| | | | 2016 | 2015 |
| 1 | 1 | KALETRA | 4.3 | 3.6 |
| 2 | 4 | REYATAZ | 2.4 | 1.5 |
| 3 | 9 | ISENTRESS | 2.1 | 1.1 |
| 4 | 3 | NATRIUM CHLORIDUM | 1.9 | 2.1 |
| 5 | 36 | IMBRUVICA | 1.5 | 0.3 |
| 6 | 13 | SPRYCEL | 1.5 | 0.9 |
| 7 | 12 | RIBOMUSTIN | 1.4 | 0.9 |
| 8 | 7 | XEPLION | 1.4 | 1.3 |

| Rank | | Brand | Share in total hospital purchases, % | |
|-------|------|----------|--------------------------------------|------|
| 2016 | 2015 | | 2016 | 2015 |
| 9 | 18 | TASIGNA | 1.2 | 0.7 |
| 10 | 11 | LUCENTIS | 1.2 | 1.0 |
| Total | | | 18.9 | 13.4 |

The top INN and group names leader managed to hold its own in the ranking (Table 3). Due to strong positive growth rates, the composition LOPINAVIR*RI-TOXAVIR (+15%) extended its market share and reinforced its leadership. Note that most INNs of the top ten ranking showed high positive growth rates. Among them there were six newcomers. RALTEGRAVIR (+87%), IBRUTINIB (4.3-fold growth in purchases), DASATINIB (+69%), BENDAMUSTINE (+47%), NILOTINIB (+56%) and RANIBIZUMAB (+15%) moved up to rank three, five through seven and the last two ranks. Apart from that, ATAZANAVIR (+48%) moved up from rank five to two. Following its respective brand name, SODIUM (-11%) reduced its purchases and moved down one rank, coming in at number four. INN PALIPERIDONE PALMITATE (+4%) held its previous rank eight. The total share of the top ten ranking increased by almost 6 p.p. and achieved 18.9%.

Table 3. The top 10 INNs and Group Names by hospital purchases

| Rank | Rank | INNs/Group Names | Share in total hospital purchases, % | |
|-------|------|------------------------|--------------------------------------|------|
| | | | 2016 | 2015 |
| 1 | 1 | LOPINAVIR*RI-TOXAVIR | 4.3 | 3.6 |
| 2 | 5 | ATAZANAVIR | 2.4 | 1.5 |
| 3 | 11 | RALTEGRAVIR | 2.1 | 1.1 |
| 4 | 3 | SODIUM | 1.9 | 2.1 |
| 5 | 44 | IBRUTINIB | 1.5 | 0.3 |
| 6 | 19 | DASATINIB | 1.5 | 0.9 |
| 7 | 17 | BENDAMUSTINE | 1.4 | 0.9 |
| 8 | 8 | PALIPERIDONE PALMITATE | 1.4 | 1.3 |
| 9 | 22 | NILOTINIB | 1.2 | 0.7 |
| 10 | 16 | RANIBIZUMAB | 1.2 | 1.0 |
| Total | | | 18.9 | 13.4 |

As in the above rankings, the leader of the top ten ATC groups held its own in the ranking - L01 Antineoplastic agents (+12%) held and reinforced its leading positions (Table 4). In addition, another three ATC groups held their own in the ranking. As before, the groups J05 Antivirals for systemic use (+6%), B05 Plasma substitutes and perfusion solutions (-15%) and V08 Contrast media (-26%) maintained their previous ranks two, five and six. Five ATC groups of the top 10 rose in the ranks. N05 Psychoanaleptics (+8%), B01 Antithrombotic agents (-5%) and N01 Anesthetics (-7%) moved up to ranks three, seven and eight. The newcomers J02 Antimycotics for systemic use (+4%) and L02 Endocrine therapy (+32%) broke into the ranks of the top ten, coming in at numbers nine and ten. And only J01 Antibacterials for systemic use (-13%) moved down one rank, coming in at rank four. The total share of the top 10 ATC groups increased from 67.9% to 72.2%.

Table 4. The top ten ATC groups by hospital purchases

| Rank | Rank | ATC code | ATC group | Share in total hospital purchases, % | |
|-------|------|----------|--------------------------------------------|--------------------------------------|------|
| | | | | 2016 | 2015 |
| 1 | 1 | L01 | ANTINEOPLASTIC AGENTS | 23.3 | 19.9 |
| 2 | 2 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 17.8 | 16.0 |
| 3 | 4 | N05 | PSYCHOLEPTICS | 6.5 | 5.8 |
| 4 | 3 | J01 | ANTIBACTERIALS FOR SYST USE | 6.5 | 7.1 |
| 5 | 5 | B05 | PLASMA SUBSTITUTES AND PERFUSION SOLUTIONS | 4.4 | 5.0 |
| 6 | 6 | V08 | CONTRAST MEDIA | 3.4 | 4.4 |
| 7 | 9 | B01 | ANTITHROMBOTIC AGENTS | 3.1 | 3.1 |
| 8 | 10 | N01 | ANESTHETICS | 2.6 | 2.7 |
| 9 | 12 | J02 | ANTIMYCOTICS FOR SYSTEMIC USE | 2.4 | 2.2 |
| 10 | 14 | L02 | ENDOCRINE THERAPY | 2.3 | 1.6 |
| Total | | | | 72.2 | 67.9 |

Conclusion. At the end of 2016, the St. Petersburg hospital market reduced by 4% in rouble terms and by 10% in dollar terms and brought in RUB 10.040 bil. (USD 153.707 mil.). In pack terms, the market also showed significant negative growth rates (-13%) and achieved 20,399 mil. packs. In January-December 2016, the average cost of a FPP pack on the city hospital sector was higher than that in the year-earlier period (USD 7.53 vs. USD 7.29).