

**Ukraine,  
the country with  
the most dynamic  
economy in Europe,  
has achieved  
significant progress  
in opening  
its market to exports  
and investment,  
particularly in the  
last few years.**

**The level of direct  
foreign investment  
will continue to rise  
dramatically in 2006,  
as the Ukrainian  
market provides  
enhanced stability,  
lower risks,  
more clear-cut  
opportunities,  
and a decline  
in state involvement  
and politicization  
of business**

## Doing Business In Ukraine

### Market Overview

Ukraine is an emerging market economy at the crossroads of Eastern Europe, Russia, and the Middle East. It holds great potential as a new market for trade and investment. Ukraine's resources and economic strengths include rich agricultural land, a strong scientific establishment, an educated and skilled workforce, and significant mineral reserves. Ukraine has achieved significant progress in opening its market to exports and investment, particularly in the last few years.

Ukraine is officially an \$80 billion economy, comprising heavy and light industry, oil and gas transit, coal and mineral extraction, oil refining, chemicals, agriculture, food processing and nearly 48 million consumers. Its official GDP (gross domestic product) is under-recorded because the local currency hryvnya (UAH) is artificially pegged to the U.S. dollar and much activity takes place «in the shade». GDP per capita estimates based on purchasing power parity are more than 300 percent higher than the official numbers. Ukraine's economy, perhaps the most dynamic in Europe, expanded by over 12 percent in 2004. In 2003–2005 the economic growth was driven by exports of manufactured goods, construction and other capital investment, oil and gas transport services, private consumption and government spending.

In 2005, Ukraine received above \$8 billion of direct foreign investment. Annual capital investments for the same year totaled UAH 111,2 billion (\$21,4 billion). Production machinery and equipment account for more than 50 percent of capital investment. Food processing, agricultural processing, machine building, coal, oil and gas, and light industry are among the main recipients of investment.

Ukraine is an export-driven economy. In January-October 2004, its exports grew 43,3 percent, totaling \$26,5 billion while imports grew 28 percent, totaling \$23,3 billion. Russia is Ukraine's main foreign trade partner. It accounts for about 20 percent of Ukrainian exports and above

40 percent of Ukrainian imports. The other major export destinations for Ukraine-made goods are Germany, Turkey, USA, Italy, Poland, China and Hungary. Most of Ukraine's imports come from Germany, Turkmenistan, Poland, Italy, USA, UK and China.

### Market Challenges

Because Ukraine's economy depends heavily on exports, its regulatory system is built to promote exporting and to protect the local market from competing imports. This is why importers have to face troublesome customs, licensing and certification procedures. On the other hand, local companies are subject to oppressive taxation and unfair tax collection practices. Although Ukraine is improving its regulatory environment on its way to joining the World Trade Organization (WTO), prerequisites for sustained economic growth, such as improvements in rule of law and corporate governance, remain incomplete. Until these basic weaknesses are corrected, and an independent judiciary is established to support and protect them, Ukraine's economic development is likely to lag behind its Eastern European neighbors and will be unable to attract the volume of foreign or domestic investment; the country needs to raise living standards.

### Market Opportunities

Highly qualified and relatively cheap labor, developed transportation and communications infrastructure, and favorable location determine Ukraine's attractiveness for companies interested in this part of the globe. The list of best prospects sectors includes IT and telecommunications (ICT), energy efficiency, oil & gas field machinery, agricultural machinery, airport/ground support equipment, drugs & pharmaceuticals, electrical power systems, food processing & packaging equipment, medical equipment, computers & peripherals, agricultural chemicals, automotive parts/services equipment, building materials, pollution control equipment, travel & tourism, security &

safety equipment, computer software & services, and retail.

In the near future there may be significant investment opportunities for the foreign investors in electrical power systems, energy efficiency, oil & gas equipment, commercial real estate, transportation infrastructure development, and banking. Ukraine also looks like an attractive place to deploy manufacturing sites and service centers for customers located in the European Union (EU) and Russia. In addition, Ukraine's geographic location and infrastructure layout in conjunction with improving political and economic situation create favorable conditions to position the country as a transport corridor between the EU, Russia and the rest of the Commonwealth of Independent States (CIS).

### Investment Climate

2004–2005 have been marked by a number of significant events which led to dramatic changes in the Ukrainian investment climate. The privatization processes were stepped up and more than quadrupled in value compared to 2003. Specifically, the metals and mining, chemicals, and telecoms industries will be targeted.

As for foreign direct investment to Ukraine, according to the State Statistics Committee of Ukraine, total direct foreign investment received by Ukraine since Ukrainian independence constituted \$16,4 billion as of January 1, 2006. The annual value for 2005 stands at \$8 billion. It is equal to the volume of all investments since Ukrainian independence and is almost 5 times increase y/y to 2004! It is expected that the level of direct foreign investment will continue to rise dramatically in 2006, as the Ukrainian market opens up to Western investment projects, providing significantly enhanced stability, lower risks, more clear-cut opportunities, and a decline in state involvement and politicization of business.

What improves the short-term outlook even further are the continuous promises by the EU and US authorities as to the improvement of relationships with Ukraine, including abolishing tariffs and sanctions, installing free economic areas, accepting Ukraine as a free market economy and other benefits.

Under the 1996 Law on Foreign Investment, foreign investors may choose any type of business, invest in



any project, or be engaged in any activity that is not explicitly prohibited by the law and is in line with the company's articles of association. With few exceptions, foreign investors are not required to obtain special government permission to acquire or establish a private company that has no maximum limit on foreign ownership.

Ukraine has entered into investment-protection treaties designed to protect foreign investors against specific restrictions, as well as for the indemnification of losses resulting from expropriation or similar actions. Ukraine also ratified the Convention on the Procedure for the Settlement of Investment Disputes Between Governments and Foreign Entities and/or Individuals of March 18, 1995. Thus, national legislation on foreign investment, together with international law, creates a substantial legal basis for the regulation and development of foreign investment process.

In terms of risks, Moody's and Standard & Poor's are currently reviewing their grades for Ukraine, with the intent to improve them, as the situation stabilizes and the first reforms are accomplished. They both currently rate

Ukraine at B+. Fitch and R&I have already upgraded Ukraine to BB-, setting their outlook at stable.

### Into the Future

The political events of 2004–2005 have dramatically changed the outlook for the growth of the market in Ukraine.

Foreign investors, softened by extremely positive Western media coverage of the Orange Revolution and follow-up elections in 2005, and pulled in by promises of major reforms in privatization, taxation, land legislation, and other areas, are planning to continue a major shopping spree which they hold throughout 2005.

This, however, will depend on the ability of the new government and Parliament to push through the promised reforms, especially concerning the privatization issues. Higher transparency of the privatization system and introduction of equal rights for foreign investors and domestic holdings should result in large financial inflows. At the same time, it is expected that most of the new foreign investment will likely be coming in the form of joint ventures with Ukrainian counterparts and as greenfield investment.

“Overcoming the long economic crisis, which is rooted in the soviet era, has become an important conclusion of the previous stage of economic reforms.

Today, Ukraine has a clear perspective for dynamic growth and qualitative development of the economy, increase of people's living standards

## Macroeconomic Indices of Ukraine

Thirteen years of independence of Ukraine have not gone for nothing in forming of economic potential. They proved the country's ability to self-affirmation and development by the important and interdependent strategic results: the main and deciding issue is solved – the country gained sovereignty and independence, dismantled administrative command system, formed a foundation for market economy, overcame a long and destroying transformation crisis, assured not only macroeconomic stability, but also a growth. Solving problems of market transformation and withdrawal of the economy from crisis have become the deciding preconditions for realization of complex tasks of stable development, which are defined by the world community as the development strategy for XXI century.

Today, Ukraine has a clear perspective for dynamic growth and qualitative development of the economy, increase of people's living standards.

Overcoming the long economic crisis, which is rooted in the soviet era, has become an important conclusion of the previous stage of economic reforms. A ten year crisis had clearly defined stages: 1990–1994 – a stage of fast (progressive) decline of **GDP volumes**; 1995–1999 – a stage of gradual decrease of decline intensity and accumulation of prerequisites for overcoming the crisis. Five years running (2000–2004), Ukrainian economy demonstrates high pace of economic growth. These results are one of

the highest not only for countries with transitive economies, but also among European countries. However, the country has not managed to fully overcome the GDP decline of the crisis years. In 2004, the volume of real GDP amounted to 61 % of 1990's level, and reached only to the level of 1994.

During 2005, despite the inertial preservation of positive indices in the most influencing (industrial manufacturing, agriculture, transport and communications) fields of real sector of economy, deceleration of economic growth takes place. At the moment, the volume of real GDP is 102,8 %. During 2000–2004, the country made a number of considerable steps towards improving **budgetary process in Ukraine**.

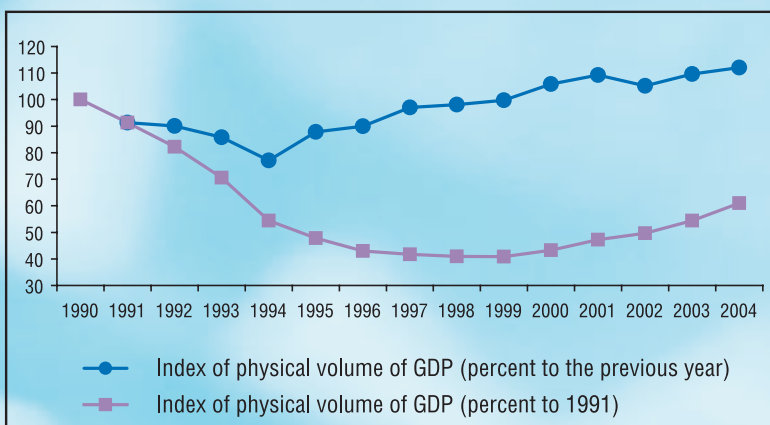
The most important step was to adopt the Budget codex of Ukraine in 2001, which provided for necessary legal foundation for budgetary relations.

At the same time, effective measures were taken in order to balance the structure of the State budget, its income and supply. In 1994, the deficit of the Consolidated budget was 8,9 % of GDP and it was covered primarily by NBU direct emission; in 1999, the deficit size decreased to 1,5 % of GDP. In 2004, the deficit of the Consolidated budget amounted a minimal value (3,2 %), and in January–September, 2005, the profit came to 2,0 % of GDP, which is one of the governing factors of macroeconomic stability.

Monetary and credit policy has gained some positive results. During 2000–2003, monetization level has almost doubled – from 16 to 31 %. Money offer (aggregate M) has substantially increased – from UAH 32,3 billion in 2000 to UAH 125,8 billion in 2004. The money structure has improved: in 2000, deposit accounts share (this is the main investment resource of economy) was 33,2 %, and in 2003 – 42,5 %. In 2000, bank deposits of the population amounted to UAH 6,8 billion, at the end of 2003 this figure was UAH 22,4 billion, and in 2004 – UAH 41,6 billion. Money turnover beyond banks has essentially decreased. Currency stability of hryvna is amazing: official exchange rate in 2000 was UAH 5,44, in 2001 – UAH 5,33, and in 2004 – UAH 5,32 for U.S. dollar.

### GDP Rates

Source: State Statistics Committee of Ukraine, Statinformconsulting



During 2000–2004, bank system of Ukraine had a stable increase tendency in all indices – capital, assets and liabilities. At the same time it is necessary to note a substantial increase (more than 4,5 times) of credits into real economy made by commercial banks. During this time, the NBU rate went down from 30,6 to 7,5 %, accordingly, commercial banks decreased rates for national currency from 40,3 to 17,3 %. This is a quite considerable result.

Stability of economy development noticeably depends upon **price situation** on the market, which was extremely complex during first years of independence. The first price liberalization in 1992 caused a violent rise of inflation both in consumer and industrial sectors. Only after the crisis year of 1993, a tendency outlined toward decrease in rate of price rise in economy. Starting from 1995, a gradual stabilization of price processes is observed.

During last five years, the average monthly increase of prices in consumer and industrial sectors of economy was within the limits of 12 %. With that, the consumer prices increase rate in Ukraine in 2000–2004 was the lowest among countries of the European part of CIS. The prices in industrial sector also were increasing slower than in Byelorussia and Russian Federation, but slightly faster than in Moldova.

The price situation on consumer market in 2005 is characterized by the highest average monthly price rise rate (except for 2004). It was caused by several reasons. First, it is an increase of social payments, which started at the end of 2004, continued throughout the current year, and caused inflation tension on certain consumer markets. Second, it is fluctuation of world oil prices, which caused increase of prices for petroleum and influenced prices of the majority of consumer goods over the increase of transportation costs. Besides, prices and tariffs for public utilities increased in several regions, which affected consumer goods price index.

The price rise rate in industrial manufacturing has dramatically decreased compared to 2004. At the same time, there was a substantial increase of prices in extractive industry, particularly in coal and ore mining, and oil production. Prices for metallurgy and industrial manufacturing products continued to rise, which is

concerned with increase of prices for extracting industry products, energy carriers, and state of the world market. Increase of prices for food industry products during current year is caused by rising prices for agricultural raw material resources.

The analysis of situation in **industry of Ukraine** for the last 15 years shows that in the course of 1994–1995, industrial manufacturing reduced by almost one third, which makes these years the most crisis ones. During the next years, the situation was gradually stabilizing, and starting from 1999, industry shows a yearly increase of production.

During 2000–2004, industrial manufacturing achieved quite high development rates – average annual growth amounted to 12,5 %. During this period, the extracting industry has doubled production volume, and its share in the structure of industrial products sold increased by 12 points. Progressive Production of industries that are aimed at domestic market has been growing with progressive rates. In particular, food and agriculture products processing industries, pulp and paper and printing industry, machinery construction and woodworking industry increased production volumes 24 times.

Food industry was one of the first to adapt to market relations, overcome aftereffects of crisis of the 90's, and achieve high results. It was governed by structural modifications, entry of new effective owners, and increase of investment attractiveness of the industry. By October 1, 2005, food industry received 1,2 billion U.S. dollars of investments from 63 countries of the world. This amount equals 12 % of the total investments in economy of Ukraine. From the beginning of the current year, increase of production volume of the industry reached 14,5 %. If this trend remains, food industry will reach 1990's production level by the end of the year.

At the same time, sectoral structure of industrial production has not come to proportions typical for economically developed countries or countries of transitive economy, which achieved economic growth as a result of active production investment policy.

The output of fuel and raw materials branches dominates in the structure of industry; it makes up more than 60 % of volume of industrial products sold. At

that, the base branch is metallurgy. Its output takes up almost a fourth of industrial products sold, and more than a third of Ukrainian export volume.

Accordingly, the industry retains its orientation to foreign demand, which makes it dependant upon international market conditions and practically makes it impossible to steadily grow. Worsening of foreign market situation has become one of the main reasons for deceleration of industrial production, which started in the middle of the last year and continues in 2005. Industrial production rates of the current year are one the lowest among CIS countries, while Ukraine had one of the best economic indices, and in 2004 they were the highest. As a result of nine months of 2005, industry production increase was 3,2 %. At that, there is a decrease in production of two base branches – metallurgy and metalworking, and oil processing and coke production (correspondingly by 2,9 and 9,7 %), which together amount to 40 % of the total industrial production.

Yet, the results shown by metallurgical enterprises during last months testify to a gradual coming out of crisis. Metallurgical furnaces and rolling mills resume operations after reconstruction, assortment of production changes according to demand.

Machinery construction branch has a substantial influence on dynamics of industrial production, and its share is 13 %. In 2003–2004, it demonstrated the highest growth rates in industry (correspondingly 35,8 and 28 %). The most weighty categories were motorcar construction, production of electrical machines and equipment, railway and tram locomotives and rolling-stock, which totaled up to a half of all machinery products sold. After a substantial increase in the previous years, this year is characterized by a considerable deceleration of production rates. It is caused primarily by shortening production of electrical and electronic equipment, and three times decrease of growth rate in motorcar construction. Machinery construction has a considerable development potential. First of all, it needs conditions to set production of competitive investment products for domestic market in order to renew the economy's fixed assets, which are deteriorated by almost 50 %.

**Forming of Domestic Market** is an important step in development of

the country. So far, its qualitative and quantitative parameters and infrastructure do not answer the needs of progressive development policy and stable economic growth. Ukrainian economy remains oriented to foreign markets, which consume in the limits of 60 % of GDP. It makes the economy extremely dependent upon the world market situation and puts possibility of stable growth under a threat. Ukraine carries on **foreign trade** of goods and services with almost 200 countries of the world. During 1996–1999, there was a slight decrease in foreign trade volumes. Starting in 2000, the volumes of foreign trade show an increase tendency.

In 2005, a decrease tendency of export growth rate, and increase of import are observed. As a result, the balance of 9 months of the current year is negative and amounts to 748,1 million U.S. dollars. The main reasons for decrease of export growth are revaluation of hryvna to U.S. dollar and overall decrease of commodity production growth rates in export-oriented branches of economy, and orientation of these branches to export of raw materials. Ukrainian economy intensifies its orientation to the west. Increase of commodity trade took place almost in all geographical directions. In 2004, compared to 1996, the highest export volume increase was to Europe (2,5 times), Africa (8,4 times), and Asia (3 times). Import volume has also rose – Asia (3,8 times), Europe (2,1 times), and Africa (2 times). Russian Federation remains the biggest trade partner of Ukraine (export volume is 20 % and import – 40 %). Besides, the most important partners in foreign trade over

the years are Germany, Italy, China, Turkey, Turkmenistan, and Poland. During these years, the main export articles were non-precious metals and its manufacture, mineral products, mechanical and electrical equipment, output of chemical and related branches.

The main import articles were mineral products, including energy carriers, oil and its derivatives, mechanical and electrical equipment, vehicles and road equipment, output of chemical and related branches.

Starting from 1996, volume of foreign service trade has been fluctuating; and only in 2001, it began showing a certain increase. The most weighty export service of Ukraine is transportation. Imported services include government, transportation, business, professional and technical, financial services.

Within the last years, shortening of export-import relations with CIS countries, and their increase to other countries of the world, especially to Europe, Asia and America are observed.

The most important service trade partners are Russian Federation, Germany, UK, Italia, Poland, Hungary, USA, Cyprus, and Turkey.

Ukraine is rapidly forming a **civilized domestic consumer market**.

With the development of market relations, the system of centralized state supply has been liquidated, and it created conditions for formation of wholesale market with a free choice of economic relations. In 2004, compared to 2000, the volume of wholesale commodity turnover increased more than 3 times and totaled up to UAH 550 billion.

Last years' economic growth caused increase of income of population and its paying capacity. As a result, there is an increase in retail trade.

Starting from 2001, the retail trade shows stable growth rate of 10–20 % a year. In 2004, physical volume index was 120 %. During the current year, this tendency remains, and retail trade volume has increased by almost 22 %. Preservation of such a stable growth will provide for a new quality level of consumer market.

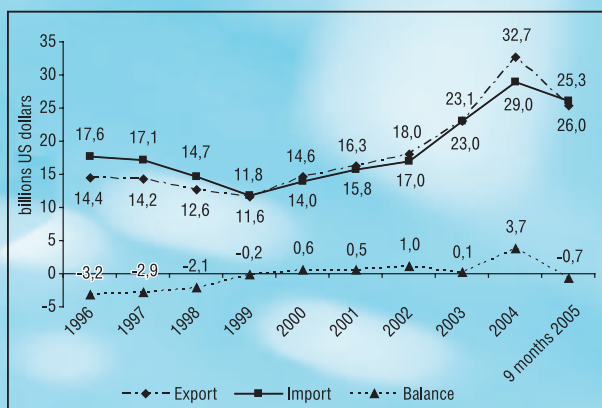
At the same time, it is necessary to note qualitative changes on consumer market which are characterized by formation of ratio of food and nonfood commodities in retail turnover at the level of 1990 – 44 and 56 % accordingly. At times of economic crisis, especially in 1993–1997, the share of non-food commodities was within 34–38 % of the total retail turnover. During the last years, there was an increase in sales of long-term usage commodities, especially consumer electronics.

Changes in the structure of commodity sale by trade forms also testify to qualitative changes on consumer market. During the last years, the share of open markets in the overall retail trade volume has been reducing (from 31,6 % in 1999 to 20,7 % in 2004). Open markets get a more civilized shape and often are replaced by modern shopping malls.

Turnover share of unofficial markets has also decreased from 6,6 % in 1999 to 4,1 % in 2004. At the same time, the quantity of modern super and hypermarkets is increasing (from 622 as of January 1, 2003 to 826 as of January 1, 2005).

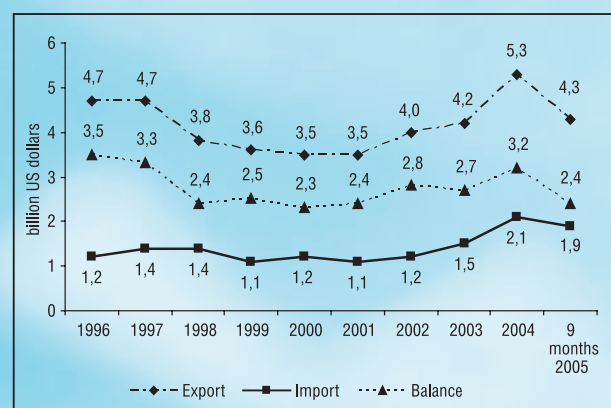
## Volumes Of Foreign Commodity Trade

Source: State Customs Service of Ukraine, enterprises' reports, Statinformconsulting



## Volumes Of Foreign Service Trade

Source: State Customs Service of Ukraine, enterprises' reports, Statinformconsulting



Starting from 1998, there is a progressive growth tendency in **investment in fixed capital** compared to dynamics of GDP, which testifies to strengthening of investment constituent of economic growth.

At the same time, in spite of increase of investments during the last seven years, the total volume remains insufficient for stable development of economy: capital investment of 2004 (UAH 75,7 billion) is only 55,7 % of the volume of 1990.

Gradual ageing of fixed assets also testifies to insufficient volume of capital investment. During the last four years, the degree of wear has been increasing by 0,82 % items annually, and amounted to 49,3 % by the end of 2004. As before, enterprises' and organizations' own capital remains the main source of investments. It constantly covers almost two thirds of all capital investment, while the state budget covers 510 %, and foreign investors – 36 %. In general, the economy of Ukraine has received 9,5 billion U.S. dollars of **direct foreign investments** from 177 countries of the world. Residents of Cyprus, USA, United Kingdom, Virginia Islands, Netherlands, Germany, Russian Federation, Switzerland, Austria, and Poland show a stable to the economy of Ukraine. The mentioned countries cover more than 75 % of direct investments in Ukraine.

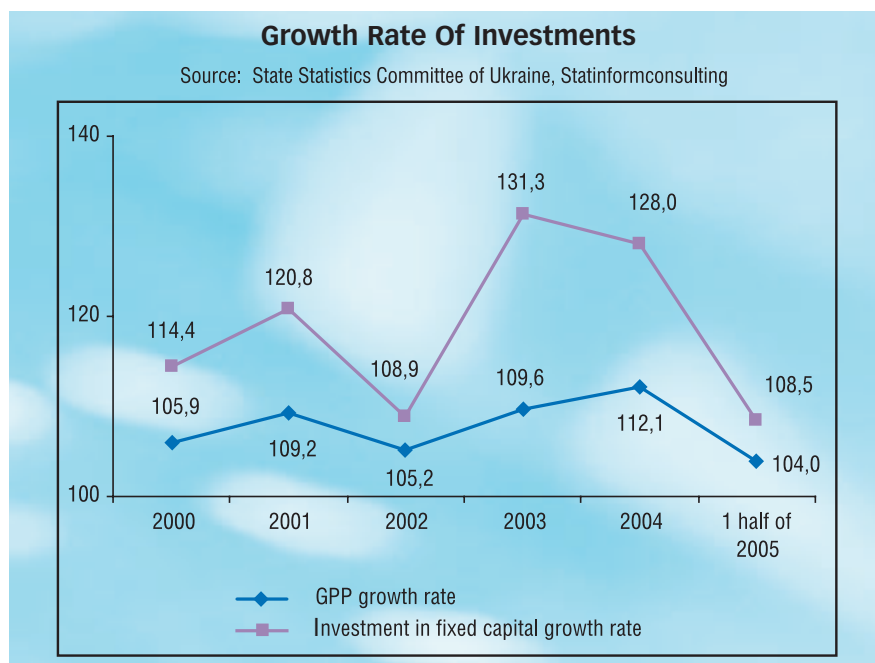
At the same time, the cumulative volume of foreign investments counted per head of population remains insignificant – 202 U.S. dollars. According to IMF, by this index Ukraine passes ahead of only Kyrgyzstan, Tajikistan, and Uzbekistan.

Investment in industries with fast recoupment is a character of direct investment. Almost a third of total volume of investment is directed to wholesale trade, food industry and agriculture products processing.

Transport and communications, machinery construction, metallurgy and metal working, chemical and petrochemical industry are also attractive to non-resident investors, and received a fourth of all foreign investments.

Economic situation observed in the main industries, undoubtedly influences **financial performance of enterprises of real sector**.

There are disproportions between financial results of certain types of economic activities, despite a comparative improvement of financial performance of



enterprises in general (profitability increased from 4,3 to 6,4 % through out 2004), increase of profit (1,6 times), and decrease in the number of unprofitable enterprises to 34,8 %. During 2005, as in the previous year, the main part of profit (82 %) is formed in industry, trade, transport and communications.

The profit share of enterprises aimed at the domestic market (construction, real estate, hotel and restaurant business) practically does not change and remains insignificant.

Activity of the unprofitable enterprises is a factor which affects financial performance of economy in general, as well as diminishes investment attractiveness. The biggest concern is caused by the fact that along with increase of losses by 4,5 % in general for Ukraine, the losses of construction companies and real estate and service enterprises increased by 45,3 and 84,6 %. For comparison, the share of unprofitable enterprises in 2003 was 46 % in Moldova, 41 % in Russia, 27 % in Byelorussia, and 37 % in Ukraine.

As a result of dismantling the administrative command system, there was a turning point in forming of **property relations**. The character and amount of changes which happened during 1991–2005 undoubtedly confirm that deregulation of state property has been the most dynamic and resulting social process and became the base for economic reform in the country. It is necessary to note that private sector of economy has set economic precon-

ditions for development of market competition between entities of different property forms. It creates conditions for development of **small business** which is considered one of the main factors of economic and social stability of the state; and it is characterized by forming of competitive market environment, solving tasks of employment, and saturating the market with goods and services.

Since declaration of independence of Ukraine, development dynamics of small business is characterized by stable growth tendency. During 1991–2004, the number of small businesses increased 6 times and amounts to 283 thousand.

The number of small businesses counted per 10 thousand of present population has increased from 9 enterprises in 1991 to 60 enterprises in 2004.

Industrial specialization of small businesses is aimed at trade activity, which concentrates 36 % of the total number of enterprises. At the same time, there is a tendency to decrease of the share of small mercantile enterprises. At that, there is an enlargement of business in service businesses, in particular real estate, lease, and transportation.

In any civilized country, human capital must be the main strategic resource of the state and the main factor of economic growth.

In 2005, the population of Ukraine is 47,1 million people, which makes it seventh in Europe or fifth among countries fully located in Europe.

**“The volume of Ukrainian IT industry in 2005 has grown more than 13 % up to \$1,5 billion, and the market will double to \$2,5 billion within five years from 2004 till 2009”**

## IT MARKET

Ukrainian IT industry has been demonstrating steady growth for the last years with its rate outpacing the world, Western Europe and CEE figures. 2005 was an extremely difficult year for the industry: political events of late 2004 and early 2005 restrained full-scale expansion of the market until August. Nevertheless, IDC analysis shows that the volume of Ukrainian IT industry during the year has grown more than 13 % up to \$1,5 billion, and the market will double to \$2,5 billion within five years from 2004 till 2009 (fig. 1). As for the IT spending per person, the level is still low in Ukraine – \$34. These figures closely correlate with GDP per person. For example, in Czech Republic, where GDP is 7 times higher (\$10 426 as opposed to \$1460), IT spending is eight times higher (\$296).

### Computers

According to IDC figures, computer shipments (desktop, notebooks and x86 servers) grew by 28 % during 2005 – from 849 000 to 1 084 000 (fig. 2). The further 20 % growth is expected in 2006.

Shipments of complete desktop systems grew by 18 % last year, from 784 000 in 2004 to 928 000 units in 2005, which is 85,5 % of the total computer market. PC sales are expected to pass one million mark, i. e. complete PCs sales will reach 1 065 000 units, which is the 15 % growth (fig. 3). As percentage of

computers assembled by users on their own is 16–17 % (i. e. every sixth PC), total market volume in 2005 can be evaluated as 1,1 million units. In total, installed PC base is more than 4,2 million (penetration rate is about 10 %).

Several desktop market trends could be observed rather clearly in 2005. First, market positions of large local vendors became stronger. In 2005 top 10 manufacturers (AMI, Versia, DiaWest, everest, Incom, K-Trade, Kvazar-Micro, MKS, Navigator, Foxtrot) shipped 315,000 PCs in total (18 000–45 000 PCs each), which is 34 % of the total market (in 2004 the figure was 27,3 %, see fig. 4). Further consolidation of PC conveyer assembly is expected, which means that the number of «grey» handicraft PCs will continue to decrease.

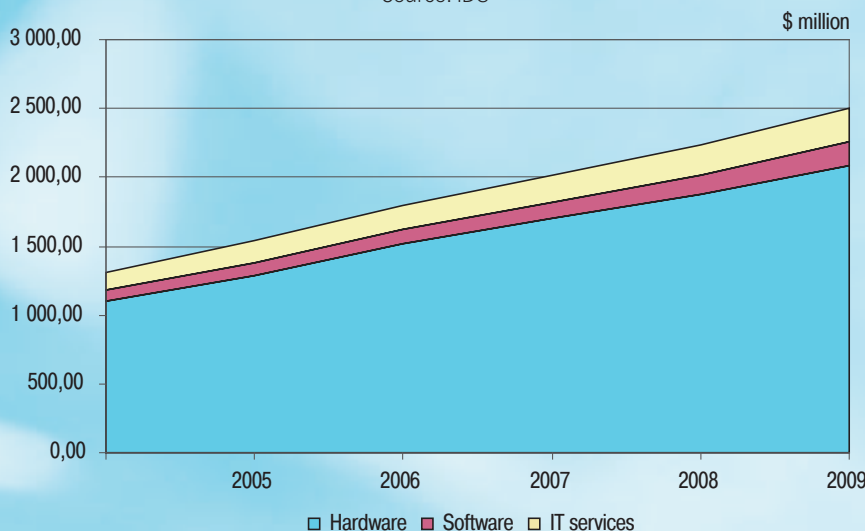
Second, A-brands were extremely weak in this segment – last year their sales were 2,8 %, which is a lot less than in other Central and Eastern Europe countries. For example, in Czech Republic and Hungary this figure is 40–45 %. Nevertheless, A-brands already take serious actions to strengthen their positions. PCs manufactured by Acer and Fujitsu Siemens went to retail in 2005. Hewlett-Packard opened its own manufacturing lines in Ukraine in 2005 capable to produce 10 000 desktop PCs monthly.

Third, retail sector grew dramatically in 2005. Positions of retail channel grew from 15 to 20 %, mainly due to increased buying activities of individual customers, small and medium companies, and cash-and-carry expansion (by December 2005, three largest Ukrainian networks – MKS, Unitrade and DiaWest – had 142 retail points. There were 85 points a year earlier). It is worth mentioning that the number of home desktop users doubled compared to 2004 (from 20,5 to 40,1 %).

Notebook segment showed the most impressive growth in 2005 (fig. 5). Last year's notebook unit sales were 143 000 (174 % growth), which is more than two times higher than the most optimistic forecasts said. Growth was expected, still not as intensive as it actually was. This can be primarily explained by prices of mobile solutions falling to the level of \$600–650, which practically eliminated

**Fig. 1. Ukrainian IT market growth rate, 2004–2009**

Source: IDC



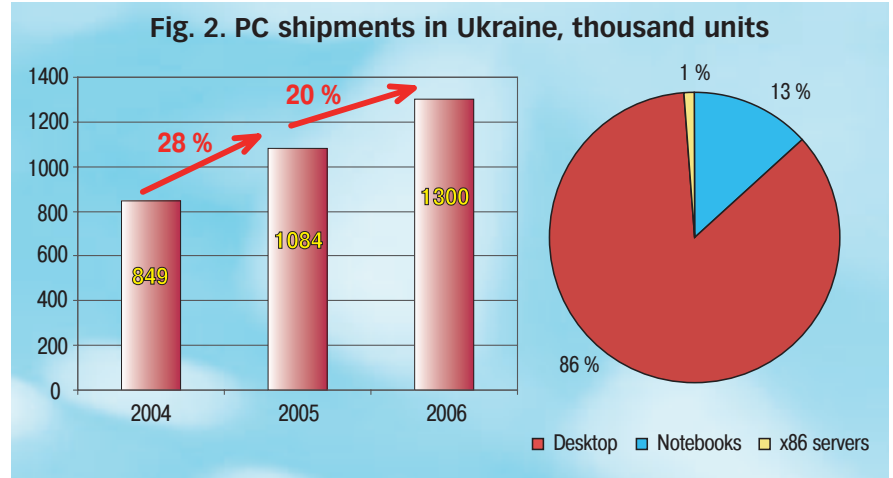
price gap between notebooks and desktop PCs. IDC analysts consider that in 2006 notebook market will continue growing, but its rate will not be so tremendous – 53 %. Still, the share of mobile solutions in the total volume of PC market will grow from 13,2 % in 2005 to 16,8 % in 2006. Mobile sales will most probably match PC sales only within four to five years. As for the vendor shares, Samsung, ASUS and Acer showed almost the same results: 18,9, 18,6 and 18,3 % correspondingly. They are followed by HP (11 %) and Toshiba (9,6 %). Local brands occupied 10,5 % of the market in total.

Shipments of x86 servers reached 13 400 units (19,9 % belongs to HP, followed by Incom with 10,8 %), which is 8 % growth.

### Components

IDC estimates that 1 230 000 CPUs were shipped to Ukraine in 2005. Traditional for Ukrainian processor market segmentation was seen again: AMD had rather big share compared to other countries – about 40 %. Lower-end AMD Sempron processors lead in its sales structure (about 75 %). The other 25 % were AMD Athlon chips. Situation with Intel processors is almost the same: 75 % of sales are Celeron and 22–23 % are Pentium 4 chips. According to IDC, 3–4 % of processors are used for PC upgrade, 4–5 % are channel inventory, 16–17 % are sold to smaller PC integrators, and 75–76 % is used for PC manufacturing.

Motherboard shipments reached 1 170 000 in Ukraine during 2005. More



than 35 % of the market is controlled by ASUS immediately followed by ASRock.

Hard disk drive market expanded to 1 420 000 HDDs. About 50 % of the market belongs to Samsung followed by Seagate and Western Digital. Demand for budget models is stably high. Almost half of HDDs sold are 80 GB devices, another 25 % have capacity of 40 GB. The share of Parallel ATA devices is still high: about 75 %, but, as integrators estimate, SATA-devices will dominate in 2006.

Optical disk drive segment shows almost the same figures. Their sales volumes can be estimated at the level of 1 400 000–1 500 000 units. DVD drives with writing capability became the most popular in 2005. Their market share increased to 40 % and will possibly reach 70 % in 2006.

### Imaging and printing devices

2005 was a breakthrough year for the domestic display market. For the

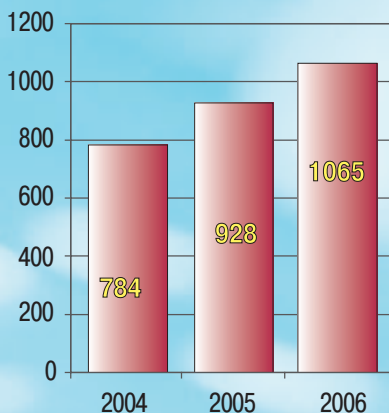
first time LCD displays took the leading position over CRT devices. About 740 000 LCD displays of the total 1 300 000–1 400 000 unit sales volume were sold in 2005. LCD market growth was impetuous, as in 2004 only 240 000 LCD panels were sold in Ukraine.

Demand for 17" LCD models is still the highest. Their sales reached 75 %. Growing popularity of 19" devices from 10 to about 18 % became a pleasant surprise for the vendors. The market structure by brands, despite appearance of new players such as Xerox and ASUS, has not changed significantly: about 70 % of the market is controlled by Samsung and LG, followed by ViewSonic, BenQ, Philips, Sony and Acer having 3–6 % of the market each.

CRT monitors lost a third of their market segment last year, and their sales were slightly less than 600 000 units compared to 860 000 in 2004. 17" models were in greatest demand, as 94 % of users bought

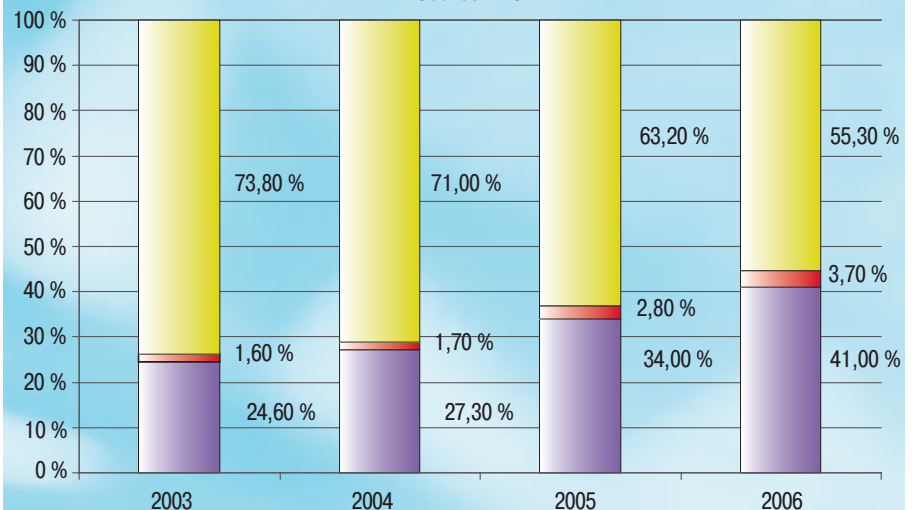
**Fig. 3. Desktop shipments, thousand units**

Source: IDC



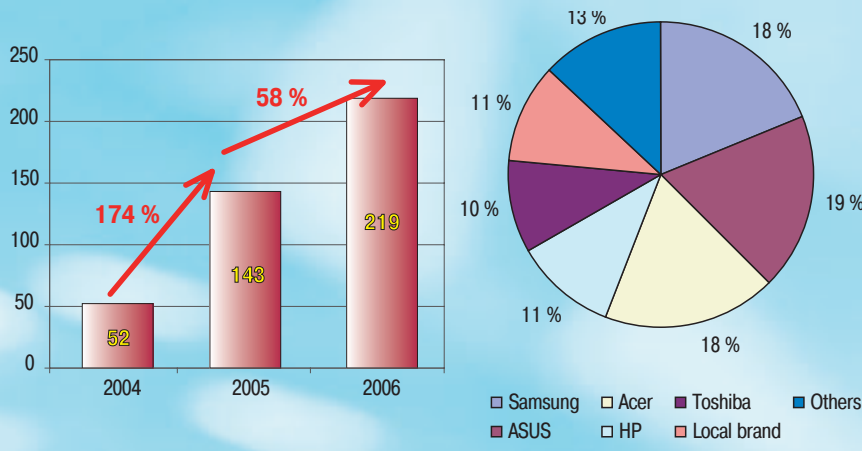
**Fig. 4. Ukrainian desktop market structure, 2003–2006**

Source: IDC



**Fig. 5. Notebook shipments, thousand units**

Source: IDC



them. 6 % of users have chosen displays with 19" diagonal and more. Vendors' market shares were traditional: about 90 % of sales were accounted by two Korean manufacturers – Samsung and LG.

According to IDC estimates, 782 000 printing devices were shipped to Ukraine in 2005, which is 26 % more compared to 2004 (fig. 6). Growth will slow down to 7 % in 2006.

Due to their lower prices inkjet devices still lead the market with 56 % share with laser printers having 42 % (fig. 7).

Analysts note significant, almost three-fold, growth of MFD sales, from 67 000 to 198 000 units. This year MFD sales are estimated to reach the level of 237 000 units.

Printer shipments slightly grew last year, from 514 000 in 2004 to 554 000

units in 2005. It is primarily explained by significant growth of MFD popularity. Printer sales are estimated to be at the level of 580 000 units this year.

Popularity of stand-alone copiers continuously decreases (41 000 units in 2004 and 30 000 units in 2005. This year their sales are estimated to be at the level of 22 000 units).

**Digital cameras**

According to IDC figures, digital camera shipments grew more than 2,5 times in 2005 to more than 350 000 units. Total vendor revenues were more than \$100 million. Quarter-to-quarter growth continued during the whole year, and finally, Q4 shipments were more than two times higher compared to Q1. This actually made Ukraine the fourth market in

Central and Eastern Europe by sales volume, and its growth rate can bring it to the third or even the fourth place, as forecasts show.

Consumer preferences changed significantly during 2005 towards devices with higher technical characteristics. For example, 4 megapixel devices took the lead over 5 megapixel cameras during the first quarter, but the situation changed dramatically in the fourth quarter, as 60 % more 5 megapixel cameras compared to 4 megapixel units were shipped. According to IDC, 5 megapixel and higher resolution cameras took 57 % of sales in terms of money during the first quarter, and 80 % in the fourth quarter.

**Software**

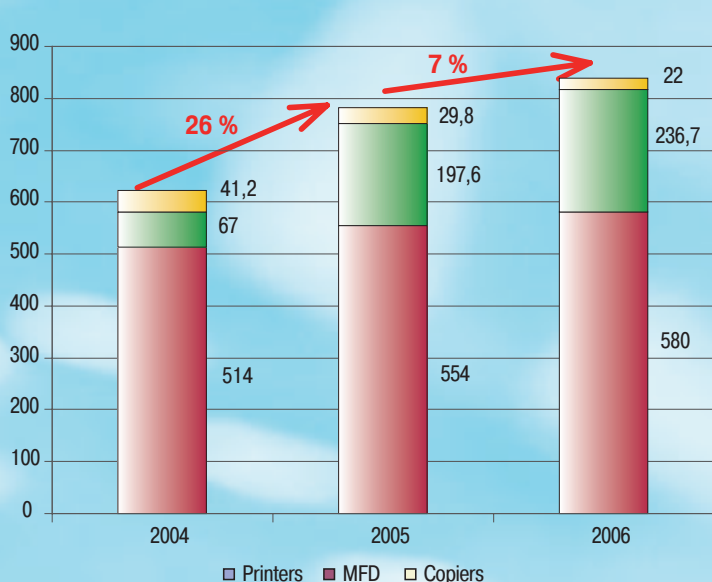
Sales of complete software grew 15 % last year, from \$77 million to \$89 million. The growth rate is expected to continue this year with sales exceeding \$100 million.

EAS (Enterprise Application Suite) sales grew insignificantly, from \$17,6 million to \$20 million. More than 50 % of EAS software market is controlled by SAP, number two is Oracle, and number three is Information Technologies.

Ukrainian IT outsourcing market shows high growth rate. Average annual growth was 40 % during last years. Experts of Ukrainian Hi-Tech Initiative estimate that the volume of IT outsourcing services market reached \$500 million in 2005. Forecasts for 2006 indicate growth of 25–30 %.

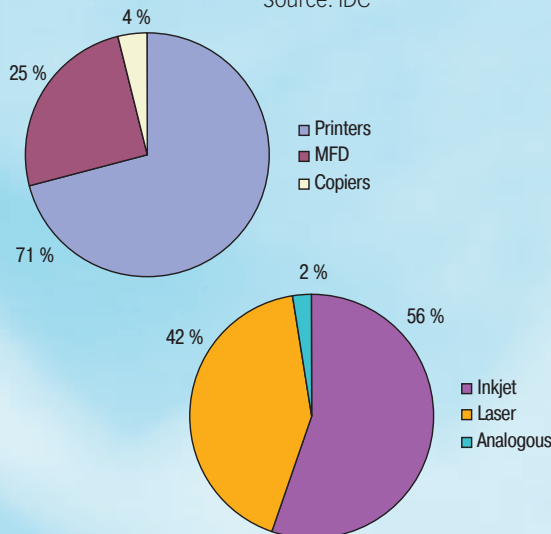
**Fig. 6. Printing devices market, thousand units**

Source: IDC



**Fig. 7. Printing devices market structure, 2005**

Source: IDC



# TELECOMMUNICATIONS

## General overview

Compared to 2004, the growth rate of the telecommunication industry slowed down a bit, but market growth is still impressive. In 1H2005 income from providing communications services amounted UAH 12 414,5 million (5,1 UAH = 1 USD), which is more than 32,6 % compared to the same period of 2004. As before, mobile cellular communications market shows the most dynamic growth — in 1H2005 the income increased by 56,8 % in comparison with the same period in 2004 up to UAH 6129 million. Long distance and local telephony are still important aspects of Ukraine's telecommunication branch; however, their income growth rates are not as high as cellular communications.

Despite the lower rate, the income growth in telecommunication services still outpaces that of the Ukrainian economy as a whole.

At the end of 2004 the number of mobile communications subscribers exceeded the number of fixed communications subscribers and this gap is further widening. The mobile communications are grabbing a significant share from the local communications, foreign traffic and domestic long distance communications, data transfer and Internet access services.

## Market development 2005–2007

In the nearest future, the political instability and economic development problems will not allow for rapid growth in telecommunication industry. The market will be supported mostly by internal factors. The most important among them will be development of the other sectors of Ukrainian economy requiring telecommunication solutions, such as banking and finances, metallurgy industry, large-scale retail networks, transportation etc.

The Ministry of Transport and Communication expects 20–25 % growth from providing communications services in 2005. The share of modern communications (Internet, satellite communications and mobile cellular communications) in total income will continue to grow and the share of traditional communication services (city telephone communications, mail service) will decrease.

## Mobile communications

Cellular mobile communications still show fast growth in both income and the number of subscribers. In 1H2005 the

“Despite the lower rate, the income growth in telecommunication services still outpaces that of the Ukrainian economy as a whole.

As before, mobile cellular communications market shows the most dynamic growth”

”

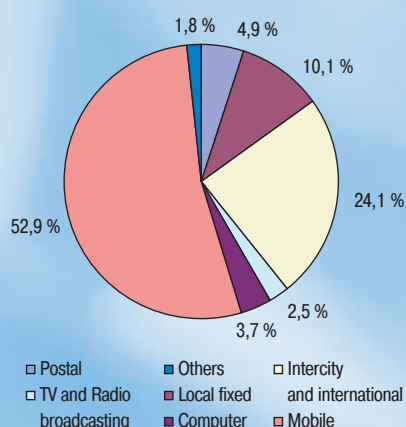
## Communication services income in 2005

Communication services	General income*, UAH mn	From population*, UAH mn
Total	27 447,4	11023,9
Including		
Postal	1340,3	325,3
Telegraph	60	15,8
Local telephony	2583,3	1495,2
Telephony in rural areas	195	165,6
Intercity and international	6623,7	2908,4
Cable broadcasting	47,9	32
Special communications	193,5	3,3
TV and Radio broadcasting	673,1	406,2
State inspection of communications	158,3	1,3
Satellite	50,6	0,2
Computer	1009,5	143,9
Mobile	14 512,2	5526,7
Including		
Cellular	14 489,4	5525,7
Paging	8,4	0,1
Trunking	14,4	0,9

Source: State Committee of Statistics  
\*Including VAT 20 %; 5,1 UAH = 1 USD

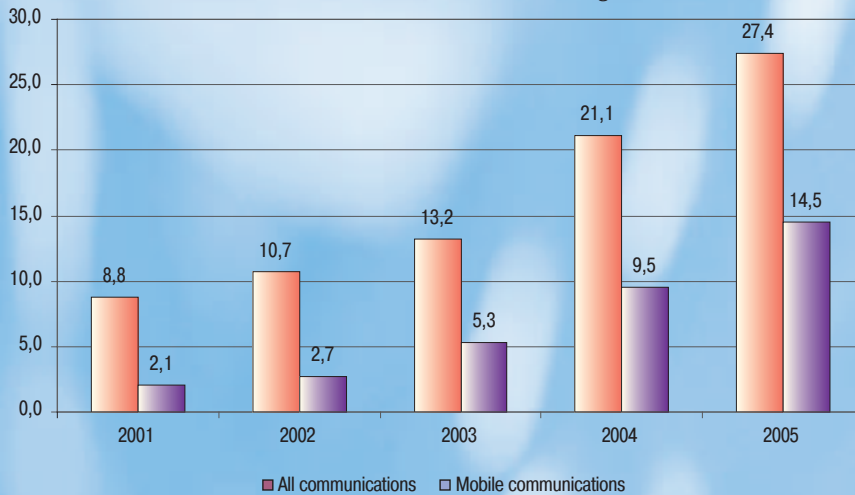
## Income from communication services in 2005

Source: State Committee of Statistics



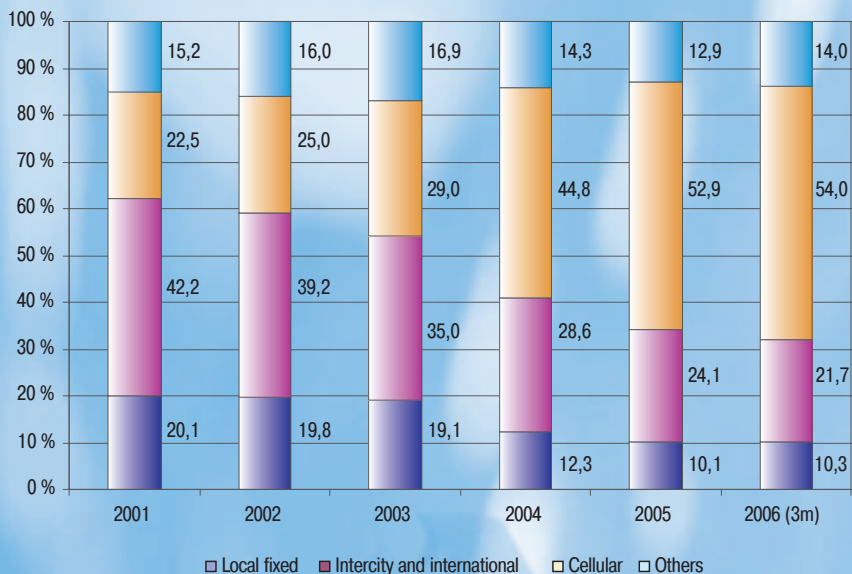
### Proceeds from providing communications services in 2001–2005 (inclusive of VAT 20 %)

Source: National Commission for Communications Regulation of Ukraine



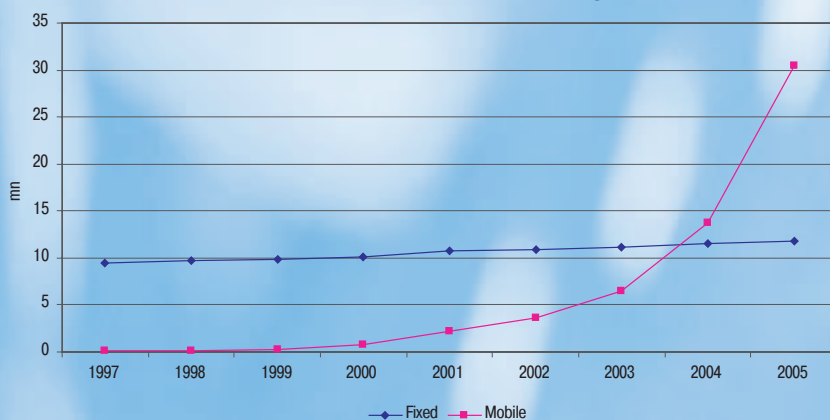
### Distribution of income from providing communications services in 2001–2005

Source: State Committee of Statistics



### Subscriber numbers for mobile and fixed communications in Ukraine in 1997–2005

Source: National Commission for Communications Regulation of Ukraine



income of cellular operators was more than 56,8 % higher than in the same period of 2004. The cellular operators' share in total communication services income increased from 46 % at the end of 2004 to 50 % in 1H2005.

As in 2004, the income growth of mobile communications services in 1H2005 exceeds the growth of subscribers number. However, the ARPU rate (monthly income per one user) remains quite stable within USD 12–13 (incl. VAT) during the first half of the year. In 2004 the average annual rate ARPU equals to USD 16,72.

Mobile cellular communication services are provided in Ukraine by the following companies: Ukrainian Mobile Communications (brands: UMC, Jeans, Sim-Sim), Kyivstar (brands: Kyivstar, Ace&Base, Djuce), Golden Telecom (brands: Golden Telecom and UNI), Ukrainian Radio Systems (brands: Beeline, WellCOM and MOBI), Astelit (brands: life:) and DCC. All companies' services are based on GSM standard (except DCC which works in TDMA standard).

In 1H2005 the number of subscribers of GSM standard mobile telecommunications increased by 41 %. At the end of 2005, UMC was leading by the number of subscribers, but within last 6 months Kyivstar has considerably shortened the gap.

As in previous years the number of subscribers has been increasing mainly due to UMC and Kyivstar which remain the absolute market leaders.

#### UMC

In 1993 the company was the first one in Ukraine to provide mobile communication services. 100 % of the company property is under the control of Russian mobile communications operator MTS. In 2H2005 UMC showed the 29,12 % subscriber base growth. A considerable part of it are users of the virtual operator Jeans. As of July 2005, Jeans served to 43,8 % of the whole UMC subscriber base (increasing its share from the beginning of the year by 4,7 %). Other customers use subscription contracts and prepaid communication services under the Sim-Sim brand.

UMC provides the full cycle of sales of mobile phones including placing orders and importing phones into Ukraine, distribution of terminals among their dealers, organization and control of phone retailing. UMC actively uses subsidized phone sales to boost its subscriber base growth.

## Kyivstar

Kyivstar is still the second place leader by the number of subscribers in Ukraine just slightly behind UMC. The Norwegian company Telenor owns 56,5 % of the company. The other 43,5 % belong to Storm company (the main shareholder Alfa-Telecom, a subdivision of the Alfa-Group).

In 2005 by the growth rate of subscribers base (49,3 %) the company leaves behind its main competitor UMC.

## Market outlook 2006–2010

In the last two years, due to instable market situation, the growth of mobile communications subscribers has been exceeding all expectations and predictions. As of April 2006, the number of subscribers of cellular communications of Ukraine reached 32,8 millions which means the y-o-y growth by 2,1 times and penetration about 70 %. In 2006 the market conditions will not change and the market development will continue to increase in rate.

By its development, the Ukrainian mobile communications market is very close to that in Poland, with an insignificant time lag. Macroeconomic conditions in both countries are somewhat close to other neighbours, the Czech Republic, Slovakia, Hungary and Russia; the countries also have approximately similar landscape and population density. Therefore, the Ukrainian mobile communications market development in 2006–2010 can be more or less predicted based on the Polish experience. In 2006–2010 the development of mobile communications will depend much upon economic progress in the country and the state policy towards telecommunications market, in particular, tariff policies. We assume that the main factors impeding the development of mobile communications in Ukraine in coming years will be:

- low incomes of population compared to the other countries in Europe
- insufficient coverage of the territory compared to the neighboring countries which does not allow the majority of population to fully benefit from the use of mobile communication services
- high prices of mobile communication services; the cost of mobile communications in Ukraine is currently one of the highest in Europe despite permanent price drops.

## Local and long-distance domestic telephony

According to State Committee on Communications and Information, about 85 % of 11,4 million subscribers of fixed communications are served by Ukrtelecom state-owned company, and the share of private operators is less than 15 %. Ukrtelecom dominates in the sector of services for population. The Ukrtelecom and Utel companies control the most services for international and long distance domestic communications despite the fact that some private operators (Golden Telecom, UMC) are actively developing their own international channels of communications.

At the beginning of 2006, 9 Ukrainian operators have licenses for international and long distance domestic communication services.

In Ukraine there are 4 operators working in the segment of wireless fixed communications (CDMA-800 standard): ITC, Velton Telecom, CST-Invest and International Telecommunications. They serve more than 132 thousand subscribers.

## Market outlook

In 2006, the development of the market trends of 2005 should be expected, which will mainly include a concentration of the market, A&M cases in order to

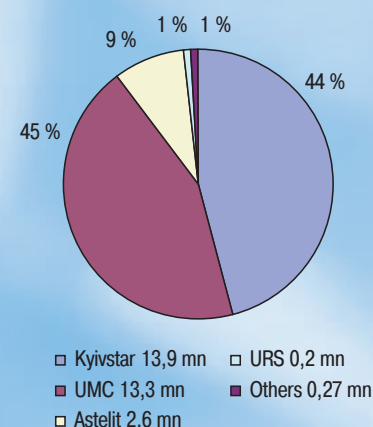
increase penetration and geography of the services.

The Ministry of Transport and Communications plans to launch one million numbers of fixed communications. The majority of private communication operators agree with such plans.

The CDMA standard communications in Ukraine is allowed only for fixed and not mobile usage, which substantially narrows the market. Since the state authorities can not effectively deal with violations in this sphere, the practice of reprogramming of GSM phones to CDMA standard is being actively developed. In 2005 the market development of CDMA services corresponds to 2004.

## Mobile operators market (Subscriber numbers as of 01.01.2006)

Source: National Commission for Communications Regulation of Ukraine



In 2003 UMC, Kyivstar and Ukrtelecom applied for CDMA-450 license. However, frequency capacities let only one company work on it. At the moment this frequency belongs to UMC. In 2005 the Ukrtelecom has received the license for mobile communication 3G (UMTS) and has declared plans of construction of such network up to the end of 2006.

## Leaders of communications market

Company	Proceeds, 2004, billion UAH	Proceeds, 2005, billion UAH
Ukrtelecom	6143,6	7747
UMC	5125,5	over 7000 (5287,7 for 3 quarter)
Kyivstar	4070,4	6486,2
Utel	1666,1	

Source: State Committee of Statistics, Telenor, MTS  
notice: 5,1 UAH = 1 USD

## Mobile communications subscribers

Year	Number of subscribers, th	Growth, %	Penetration, %
2006	35 000	40	72,92
2007	39 000	11,43	81,25
2008	40 000	2,56	83,33
2009	41 000	2,5	85,42
2010	42 000	2,44	87,5

Source: UBL report

“The computer communication services market boosted by the events of Orange Revolution and recent elections features big potential, quick growth and high attractiveness for investors”

## INTERNET AND DATA TRANSMISSION

### General Overview

In 2004 the rate of computer communications market (Internet and data transmission) growth decreased a little. In 2004 the number of Internet service providers practically did not change in comparison with 2003 and equals to 425 companies. In 2002 the number of Internet service providers increased by 54 % which substantially exceeded rates of 2003 and 2004. The most money on the computer communications market as before are made by the provision of services to business clients.

The most important characteristics of the market development in 2003 continued to be the same in 2004: market consolidation, mergers and acquisitions by the large telecommunications market players. DSL, Wi-Fi, data transmission via cable channels and local area networks should be named as the most important technologies that being developed in 2004.

### Future developments

In the near future the following major market trends will prevail:

- Continuous market consolidation and decreasing (or stability) of the number of service providers;

- Regional development for providing Internet access and data transmission services that will be stimulated by the development of local telephone networks and data transmission networks, with market saturation in big cities;
- Fast development of technologies for Internet access and data transmission. There can be expected an increase in providing DSL access services, an increase in the number of dedicated lines, the construction of satellite and wireless data transfer (e.g. Wi-Fi standard) networks.

As before, the market of computer communication services due to its potential and quick growth will be very attractive for investors

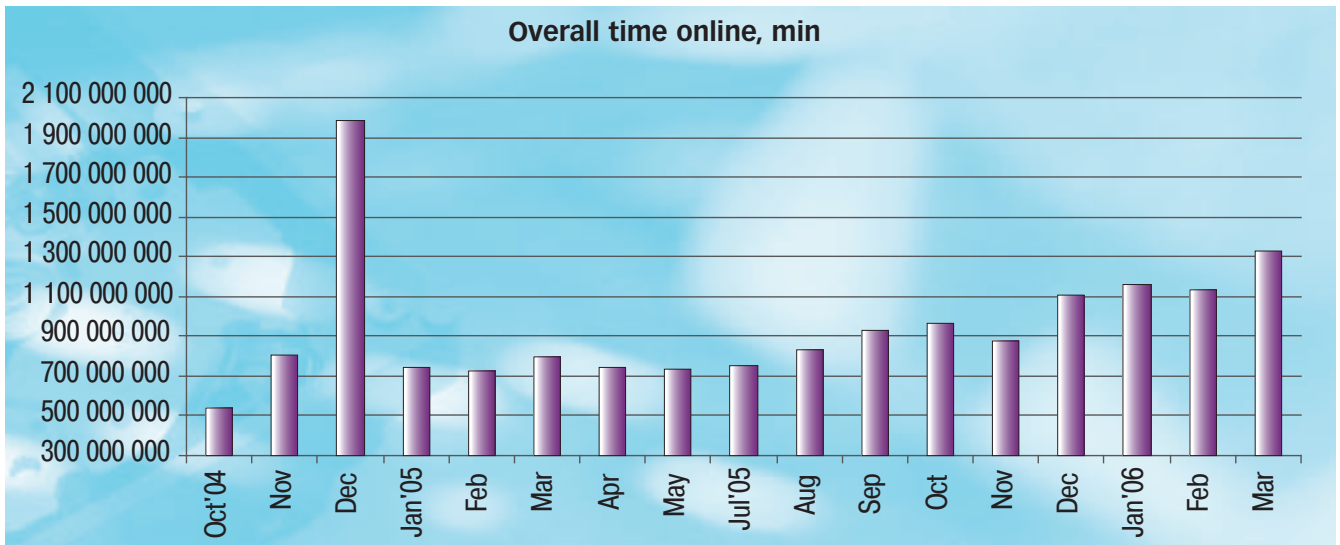
### Market participants

According to the State Committee on Communications and Information, currently 425 Internet service providers are operating in Ukraine. The obvious leaders are Ukrtelecom, LuckyNet, IP Telecom, UkrNet, Relcom, Golden Telecom (the company provides the services to business clients under the GT brand and services to private subscribers under the

### Internet Usage in Former USSR

Country	Population ( 2006 Est. )	Internet Users, Latest Data	Population (Penetration)	Usage Growth (2000-2005)
Belarus	9 714 257	2 461 000	25,3 %	1267,2 %
Moldova	3 815 677	406 000	10,6 %	1524,0 %
Russia	143 682 757	23 700 000	16,5 %	664,5 %
Ukraine	46 231 759	5 278 100	11,4 %	2539,1 %
Armenia	2 967 116	150 000	5,1 %	400,0 %
Azerbaijan	8 388 479	408 000	4,9 %	3300,0 %
Georgia	4 435 046	175 600	4,0 %	778,0 %
Kazakhstan	14 711 068	400 000	2,7 %	471,4 %
Kyrgystan	5 377 484	263 000	4,9 %	409,7 %
Tajikistan	6 620 008	5 000	0,1 %	150,0 %
Turkmenistan	6 723 715	36 000	0,5 %	1700,0 %
Uzbekistan	26 311 197	880 000	3,3 %	11 633,3 %
Former USSR	278 978 563	34 162 700	12,25 %	n/a

The European Internet Stats were updated on March 31, 2006. The Asian Internet Statistics were updated for December 31, 2005. ©Copyright 2006, www.internetworldstats.com. All rights reserved



«Svit online» brand), Alkar Teleport and others. Some leading Internet service providers are combined in holdings or are the parts of holdings which provide complex telecommunications services (Internet, data transmission, telephone and satellite communications, system integration etc.).

### VoIP services

After several difficult years, in 2004 the market for VoIP services received a legal background for the development and began to move out of stagnation. However, it is clear that the market development of VoIP services will be quite difficult in the future and focused mostly on corporate segment where it has fairly good prospects. The market of such services for private subscribers will be in its current, close to stagnation, stage for a great while yet.

### UANet audience survey

According to the latest statistics, the total number of Internet users in CIS countries is about 34 million people. Generally, internet usage in the countries of former USSR shows very high growth rate and penetration dynamics

More than 15 % of internet users from countries of former USSR (1/6th of the Earth's surface) live in Ukraine. It features the third highest penetration rate of about 11,5 % and growth dynamics.

The results of the survey of internet usage in Ukraine done by SputnikMedia.net company regularly since October 2004, show the stable and dynamic growth of internet users audience, the rate of which sometimes (e. g. in March 2005) reaches 13,5 % per month. Within last

10 months (July 2005 – April 2006) the unique internet audience has grown by 57 % and today it is close to 3 million people – every 15th person in the country or 9 % of people 14+ years old.

There was very dramatic development of internet usage dynamics in Ukraine within last one and a half a year. A fairly slow growth of the online community of UANet before Nov'04 transformed at the end of 2004 within just few weeks into explosion-like process. By less than 30 days the unique Internet audience in Ukraine had grown by 40 %.

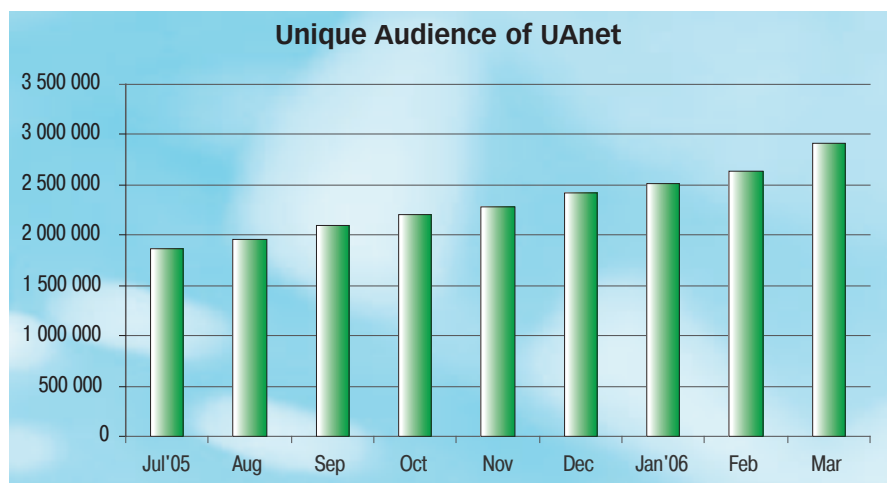
The reason was Orange Revolution. Just like the US Presidential elections gave the tremendous boost to blogging, the Orange Revolution has changed the nation's attitude towards the Web. In those times millions of people all of a sudden realized that the classic media they got used to – newspapers, magazines, TV and radio channels – are either not trustworthy (because almost 100 % were controlled by the regime) or very slow in reacting on the situation changes

(which did change dramatically literally every minute). To them knowing the real situation was not just a matter of curiosity but sometimes a one of personal safety for themselves and the loved ones. In those dramatic days many realized what the Internet could really give them. The chart representing overall time spent online shows this effect.

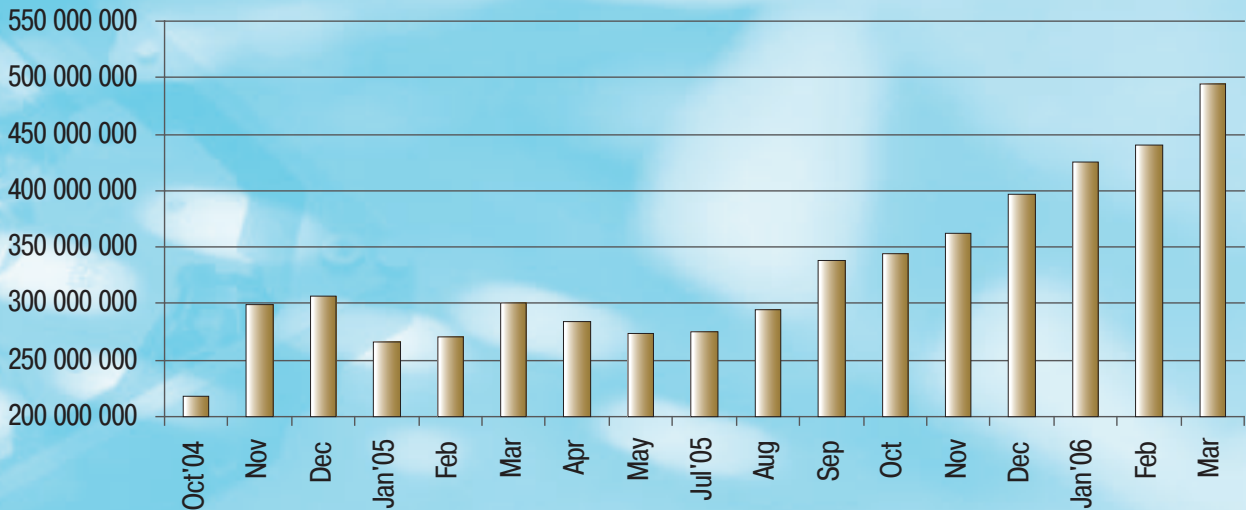
Tremendous leap in December 2004 is purely the result of Orange Revolution when people were sitting online days and night to follow the coup dynamics. Again, in 2005 the numbers remained on the Nov'04 level; then, since fall 2005 we see the steady growth.

At the end of March 2006 the unique monthly audience of UANet (i. e. the number of different people from UA domain going online at least once during the month) was 2 913 193 people. In comparison with the beginning of the year the number of unique internet users grew by about 400 thousand people or by 15,8 %.

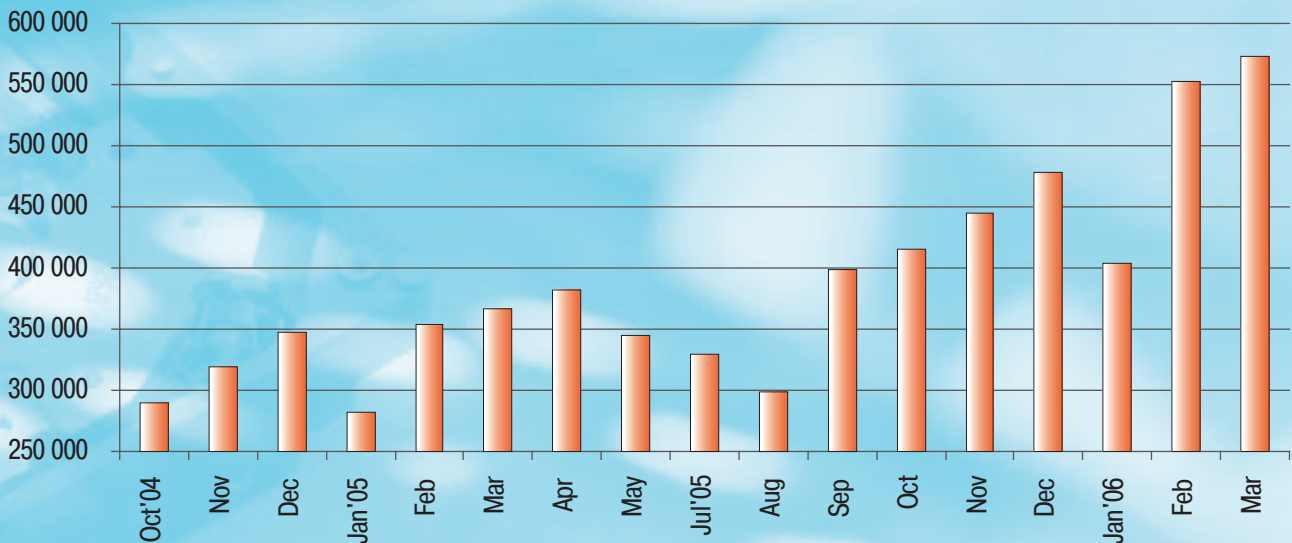
The general dynamics of Internet audience in Ukraine within last 10 months



### Generated Hits



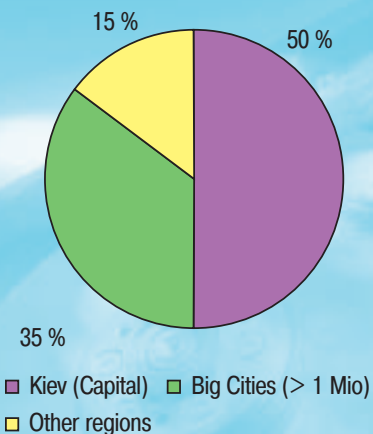
### The Core of Users



looks like this. It is calculated in flat numbers of people.

Ukrainians spent in March 2006 online overall time 22,2 million hours. The dynamics since Oct'04 see above.

### Audience Geography (Mar'06)



Ukrainians generated during March 2006 almost half a billion hits (see the chart).

The figures are given in flat numbers of generated hits. The growth in Nov–Dec'04 is again the result of Orange Revolution. Notice another 12 % growth in Mar'05 which even gets the number close to Nov–Dec'04 results. Then, after slight seasonal decline in summer 2005, there is a tremendous growth which continues today. Within a year the number of generated hits grew by 64 %. At the same time the depth of web page viewing which today is 2.7, grew within the same period just by mere 10 %, so the number of web sites visited increased substantially.

It is interesting to see how the core of the UAnet is developing.

The core is defined as a number of people who go online regularly (at least once a week). Since October 2004, when the surveys became regular, the core

shows impressive steady growth with natural temporary seasonal drops on Christmas and summer time, which is a clear evidence of actively forming the web community in Ukraine.

Also: Average UAnet user works online about 40min per day, spends in average about 3 minutes on each site with the view depth about 2,7 pages. 80 % of users have PCs with screen resolution 1024x768 and higher, 82 % use MS Internet Explorer for web surfing.

Geographically, 50 % of UAnet users today live in Kiev (capital city). Their monthly growth is currently 14 %. The 35 % share belongs to the big cities of Ukraine (Dnepropetrovsk, Odessa, Kharkov, L'vov, Zaporozhie, Donetsk). The rest of regions have about 15 % share. Western regions show the higher growth rate up to 40 % per month, Central and Eastern regions feature lower rate – 10–18 %.