

**NATIONAL UNIVERSITY FOOD TECHNOLOGY**

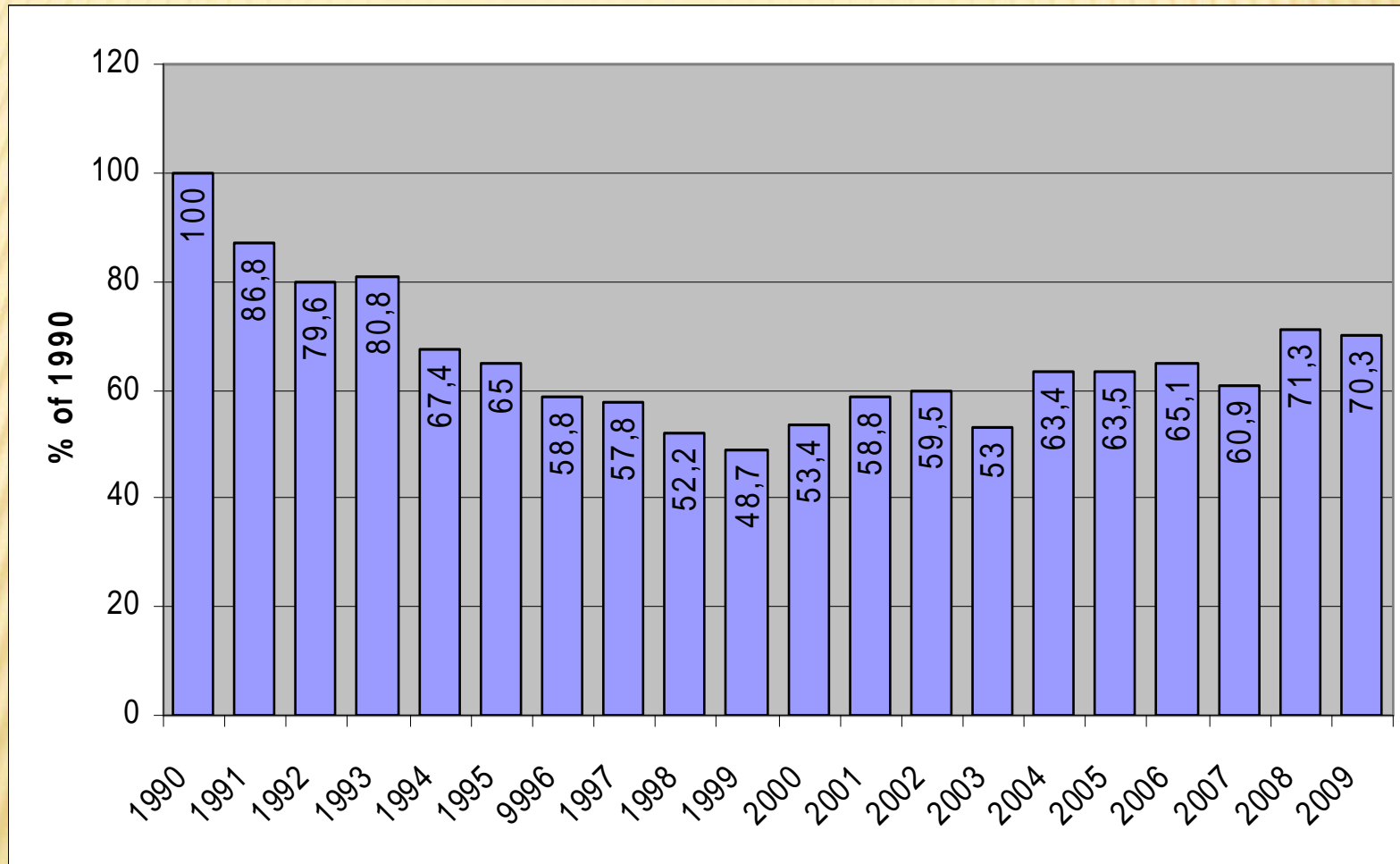
**STRATEGIC PRIORITIES FOR FOOD INDUSTRY  
OF UKRAINE IN THE CONTEXT OF FOOD  
SECURITY**

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***Based on the definition of food safety guidance  
should note:***

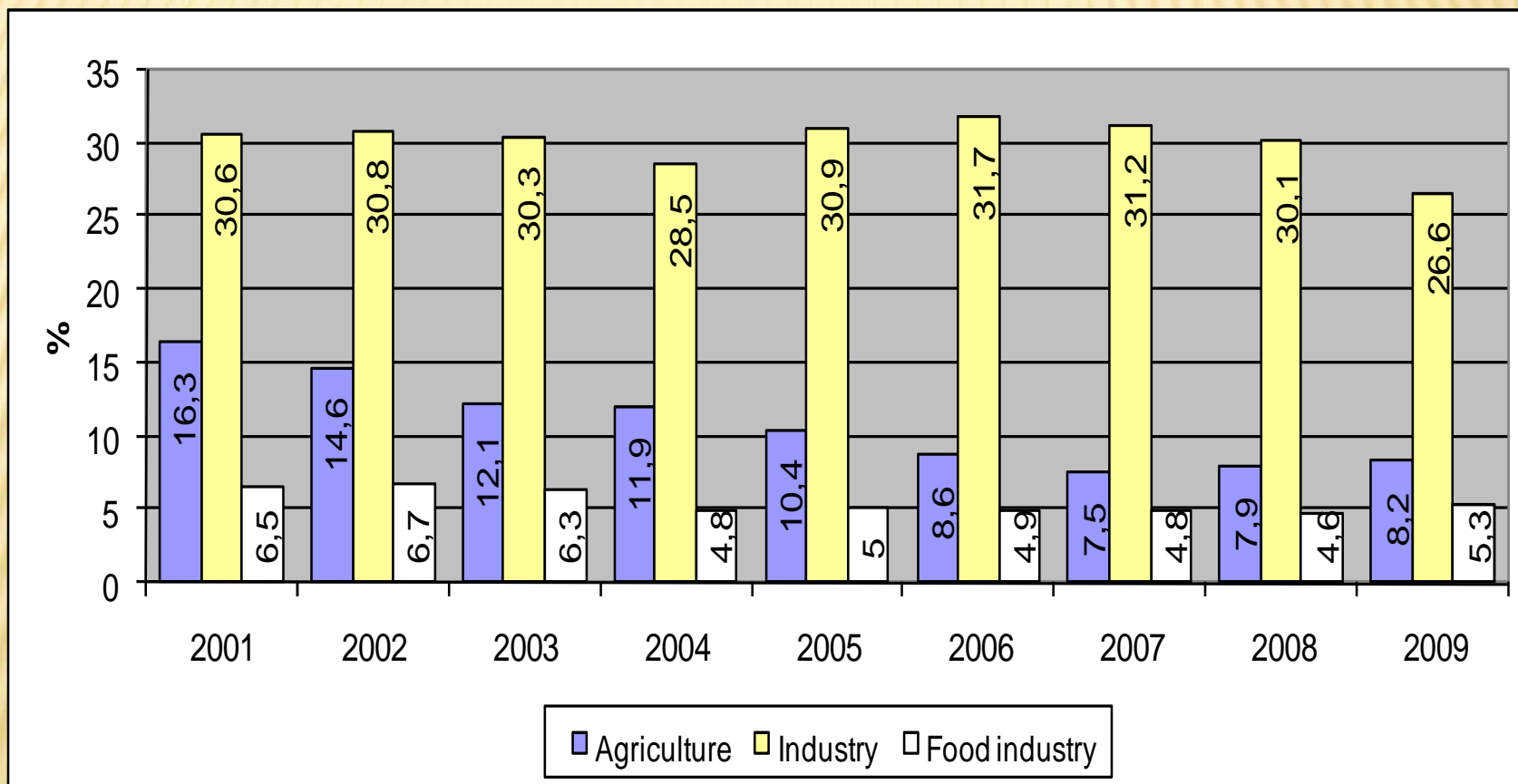
- ***physical access*** to sufficient quantities of safe food;
- ***economic access*** to food in adequate quantities and quality of all social groups of population;
- ***autonomy and economic independence*** of national food system (food independence);
- ***reliability*** - the ability of national food system to minimize the impact of seasonal, weather and other fluctuations in food supplies of the population of all regions of the country;
- ***durability*** - rational food system develops in the extended play mode.

# Indices of gross agricultural output





## Gross value added of industry and agriculture in total gross value added, %



The parameters that characterize food security, namely:

- *criterion of adequacy of food consumption;*
- *criterion of availability of food consumption;*
- *criterion of food independence*

The *criterion of adequacy of food consumption* can be determined by the following groups of indicators (indicators):

- dynamics of consumption of basic foodstuffs in per capita (country, region), kg. per year;
- consumption of staple foods (per kg. Per year) groups of consumers with different income levels;
- average daily calorie ration region's population of some consumer groups, kcal;
- relate to diet to scientific standards, the relative energy value and the actual composition of food.



The *criterion of accessibility of food consumption* can be estimated by the following group of indicators:

- level of physical and economic access to food for different categories of consumers (the structure of the diet, how much budget cover the costs of food;
- elasticity of demand for food for the price, income, etc.;
- proportion of the population with incomes below the subsistence minimum;
- inflation, price indices for food products;

## The *criterion of food independence*:

- dynamics of production of basic foodstuffs in per capita (country, region), kg. per year;
- self-sufficient entities (country, region, household) staples included in the consumer basket,%;
- size of carry-over of basic foodstuffs in the country.



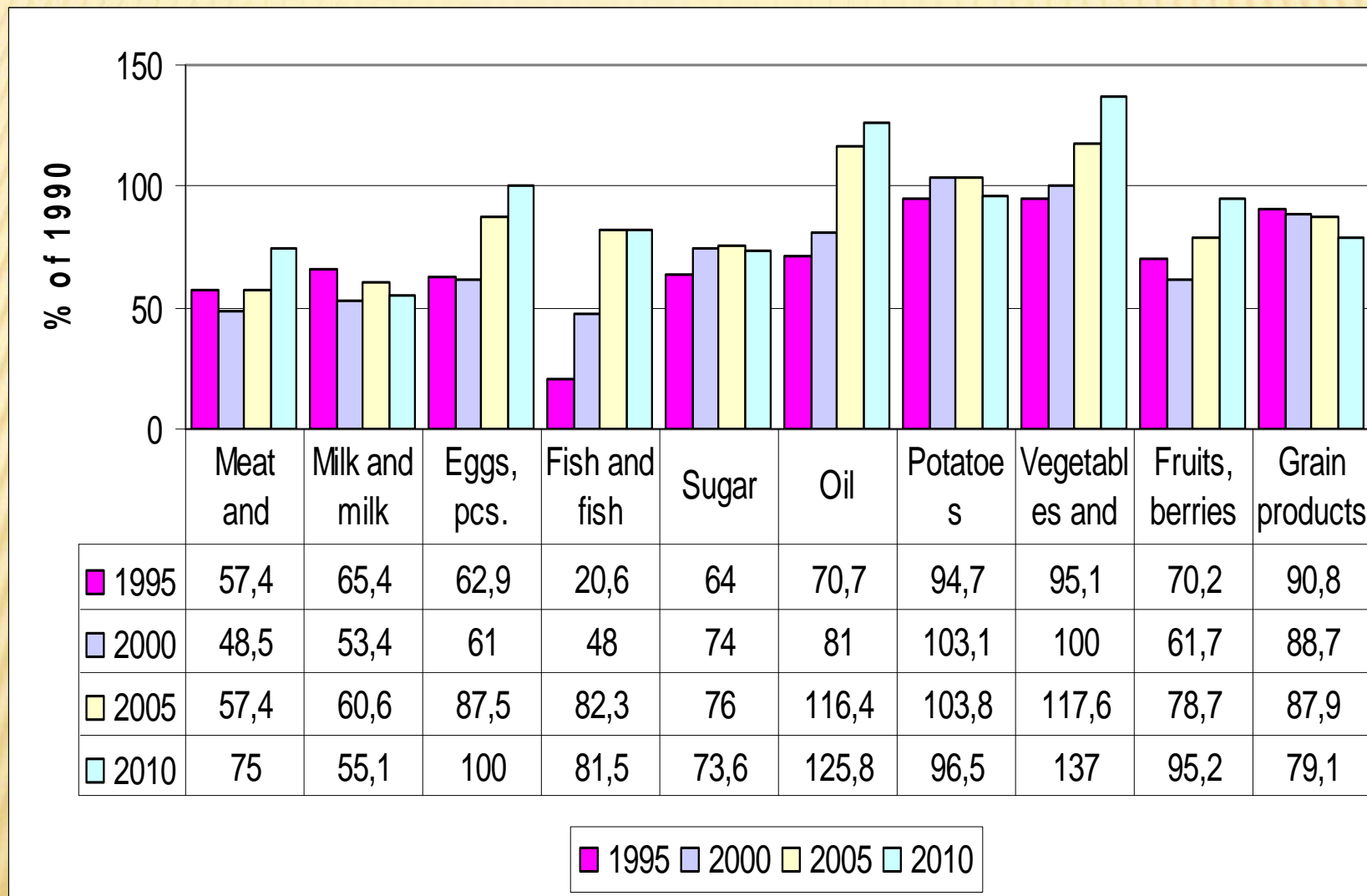
## Consumption of food per person per year, kg

Food	2000	2005	2006	2007	2008	2009	2010
<b>Meat and meat products (in terms of meat, including fat and offal in kind)</b>	<b>33</b>	<b>39</b>	<b>42</b>	<b>46</b>	<b>51</b>	<b>50</b>	<b>51</b>
<b>Milk and milk products (in terms of milk)</b>	<b>199</b>	<b>226</b>	<b>235</b>	<b>225</b>	<b>214</b>	<b>212</b>	<b>206</b>
<b>Eggs, pcs.</b>	<b>166</b>	<b>238</b>	<b>251</b>	<b>252</b>	<b>260</b>	<b>272</b>	<b>272</b>
<b>Fish and fish products</b>	<b>8,4</b>	<b>14,4</b>	<b>14,1</b>	<b>15,3</b>	<b>17,5</b>	<b>15</b>	<b>14</b>
<b>Sugar</b>	<b>37</b>	<b>38</b>	<b>40</b>	<b>40</b>	<b>41</b>	<b>38</b>	<b>37</b>
<b>Oil</b>	<b>9,4</b>	<b>13,5</b>	<b>13,6</b>	<b>14,3</b>	<b>15</b>	<b>15</b>	<b>15</b>
<b>Potatoes</b>	<b>135</b>	<b>136</b>	<b>134</b>	<b>130</b>	<b>132</b>	<b>133</b>	<b>126</b>
<b>Vegetables and melons food crops</b>	<b>102</b>	<b>120</b>	<b>127</b>	<b>118</b>	<b>129</b>	<b>137</b>	<b>140</b>
<b>Fruits, berries and grapes (excluding wine)</b>	<b>29</b>	<b>37</b>	<b>35</b>	<b>42</b>	<b>44</b>	<b>46</b>	<b>45</b>
<b>Grain products (bread, pasta in terms of flour, flour, cereals, legumes)</b>	<b>125</b>	<b>124</b>	<b>120</b>	<b>116</b>	<b>117</b>	<b>112</b>	<b>112</b>

**Consumption of main foodstuffs to rational norms of consumption,%  
(consumption rate 100%)**

<b>Food</b>	<b>2000</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Meat and meat products (in terms of meat, including fat and offal in kind)</b>	<b>41.3</b>	<b>48.8</b>	<b>52.5</b>	<b>57.5</b>	<b>63.8</b>	<b>62.5</b>	<b>63.8</b>
<b>Milk and milk products (in terms of milk)</b>	<b>52.4</b>	<b>59.5</b>	<b>61.8</b>	<b>59.2</b>	<b>56.3</b>	<b>55.8</b>	<b>54.1</b>
<b>Eggs, pcs.</b>	<b>57.2</b>	<b>82.1</b>	<b>86.6</b>	<b>86.9</b>	<b>89.7</b>	<b>93.8</b>	<b>93.8</b>
<b>Fish and fish products</b>	<b>42.0</b>	<b>72.0</b>	<b>70.5</b>	<b>76.5</b>	<b>87.5</b>	<b>75.5</b>	<b>71.3</b>
<b>Sugar</b>	<b>97.4</b>	<b>100</b>	<b>105.3</b>	<b>105.3</b>	<b>107.9</b>	<b>100</b>	<b>96.9</b>
<b>Oil</b>	<b>72.3</b>	<b>103.8</b>	<b>104.6</b>	<b>110</b>	<b>115.4</b>	<b>118.5</b>	<b>112.2</b>
<b>Potatoes</b>	<b>108.9</b>	<b>109.7</b>	<b>108.1</b>	<b>104.8</b>	<b>106.5</b>	<b>107.3</b>	<b>101.9</b>
<b>Vegetables and melons food crops</b>	<b>63.4</b>	<b>75.5</b>	<b>78.9</b>	<b>73.3</b>	<b>80.1</b>	<b>85.1</b>	<b>86.8</b>
<b>Fruits, berries and grapes (excluding wine)</b>	<b>32.23</b>	<b>41.1</b>	<b>38.9</b>	<b>46.7</b>	<b>48.9</b>	<b>51.1</b>	<b>49.7</b>
<b>Grain products (bread, pasta in terms of flour, flour, cereals, legumes)</b>	<b>123.8</b>	<b>122.8</b>	<b>118.8</b>	<b>114.9</b>	<b>115.8</b>	<b>110.5</b>	<b>110.5</b>

## Consumption of main foodstuffs per capita relative to 1990%

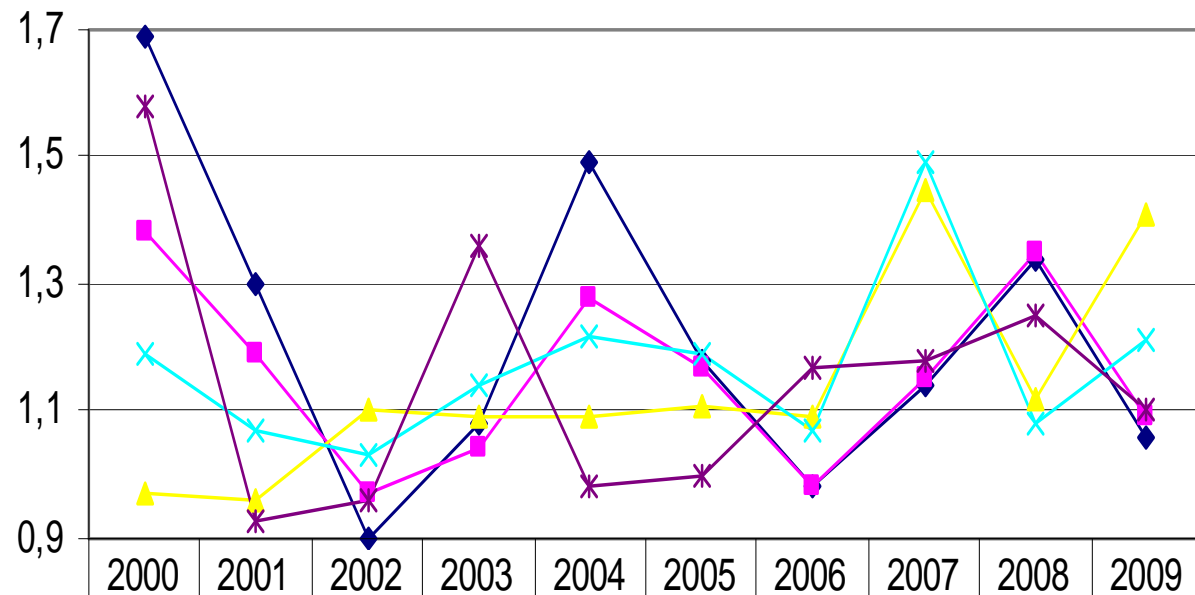




## Structure of total household expenditures on average per month per household and their dynamics, %

<b>Total expenditure of households</b>	<b>2000</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Total USD, per month</b>	<b>541,3</b>	<b>903,5</b>	<b>1229,4</b>	<b>1442,8</b>	<b>1722</b>	<b>2590,4</b>	<b>2754,1</b>
<b>to 2000, %</b>	<b>100</b>	<b>166,9</b>	<b>227,1</b>	<b>266,5</b>	<b>318,1</b>	<b>478,6</b>	<b>508,8</b>
<b>including consumer personal spending</b>							
<b>share, %</b>	<b>93,3</b>	<b>92,6</b>	<b>91,1</b>	<b>90,5</b>	<b>90</b>	<b>86,2</b>	<b>87,8</b>
<b>USD, per month</b>	<b>505,03</b>	<b>836,64</b>	<b>1120</b>	<b>1305,7</b>	<b>1549,8</b>	<b>2232,92</b>	<b>2418,10</b>
<b>to 2000, %</b>	<b>100</b>	<b>165,7</b>	<b>221,8</b>	<b>258,5</b>	<b>306,9</b>	<b>442,1</b>	<b>478,8</b>
<b>including:</b>							
<b>food, share, %</b>	<b>67,9</b>	<b>61,7</b>	<b>61</b>	<b>57,5</b>	<b>55,8</b>	<b>53,0</b>	<b>55,0</b>
<b>USD, per month</b>	<b>367,54</b>	<b>557,46</b>	<b>749,93</b>	<b>829,61</b>	<b>960,88</b>	<b>1372,91</b>	<b>1514,76</b>
<b>to 2000, %</b>	<b>100</b>	<b>151,7</b>	<b>204,0</b>	<b>225,7</b>	<b>261,4</b>	<b>373,5</b>	<b>412,1</b>

## Rise in prices of some food products in Ukraine for years, times the previous year



◆ Meat	1,69	1,3	0,9	1,08	1,49	1,18	0,98	1,14	1,34	1,06
■ Sausages	1,38	1,19	0,97	1,04	1,28	1,17	0,98	1,15	1,35	1,09
▲ Butter	0,97	0,96	1,1	1,09	1,09	1,11	1,09	1,45	1,12	1,41
✕ Milk and milk products	1,19	1,07	1,03	1,14	1,22	1,19	1,07	1,49	1,08	1,21
* Bread and bakery products	1,58	0,93	0,96	1,36	0,98	1	1,17	1,18	1,25	1,1

**Proportion of population with average per capita cash income in the month,  
below the subsistence minimum,% of total**

<b>2007</b>			<b>2008</b>			<b>2009</b>		
<b>all households</b>	<b>including those who live all households</b>		<b>all households</b>	<b>including those who live all households</b>		<b>all households</b>	<b>including those who live all households</b>	
	<b>in towns</b>	<b>in rural areas</b>		<b>in towns</b>	<b>in rural areas</b>		<b>in towns</b>	<b>in rural areas</b>
<b>39,8</b>	<b>31,3</b>	<b>57,4</b>	<b>25,6</b>	<b>17,3</b>	<b>42,7</b>	<b>30,4</b>	<b>22,8</b>	<b>46,1</b>



**Food consumption in households by quintile (20%) groups in terms of  
average total income,  
(Average per month per capita, kg)**

<b>Food</b>	<b>consumption for all households</b>	<b>including by quintile groups</b>		<b>of average total income per month, lower cost of living</b>
		<b>first</b>	<b>fifth</b>	
<b>Meat and meat products</b>	<b>4,8</b>	<b>3,3</b>	<b>6,9</b>	<b>3,1</b>
<b>Milk and milk products</b>	<b>19,8</b>	<b>14,7</b>	<b>26,2</b>	<b>14,1</b>
<b>Eggs, pieces</b>	<b>20</b>	<b>17</b>	<b>22</b>	<b>17</b>
<b>Fish and fish products</b>	<b>1,8</b>	<b>1,3</b>	<b>2,5</b>	<b>1,3</b>
<b>Sugar</b>	<b>3,2</b>	<b>2,7</b>	<b>3,7</b>	<b>2,6</b>
<b>Oil and other vegetable fats</b>	<b>1,9</b>	<b>1,6</b>	<b>2,1</b>	<b>1,6</b>
<b>Potato</b>	<b>8,0</b>	<b>7,6</b>	<b>8,1</b>	<b>7,6</b>
<b>Vegetables and melons</b>	<b>10,1</b>	<b>7,7</b>	<b>13, 0</b>	<b>7,5</b>
<b>Fruits, berries, nuts, grapes</b>	<b>3,6</b>	<b>2,2</b>	<b>5,7</b>	<b>2,0</b>
<b>Bread and cereal products</b>	<b>9,3</b>	<b>8,6</b>	<b>9,6</b>	<b>8,4</b>

**Food consumption in households by quintile (20%) groups in terms of  
average total income,  
(Average per month per capita, kg)**

<b>Food</b>	<b>consumption for all households</b>	<b>including by quintile groups</b>					<b>of average total income per month, lower cost of living</b>
		<b>first</b>	<b>second</b>	<b>third</b>	<b>fourth</b>	<b>fifth</b>	
<b>Meat and meat products</b>	<b>4,8</b>	<b>3,3</b>	<b>4,1</b>	<b>4,8</b>	<b>5,6</b>	<b>6,9</b>	<b>3,1</b>
<b>Milk and milk products</b>	<b>19,8</b>	<b>14,7</b>	<b>17,7</b>	<b>20,1</b>	<b>22,6</b>	<b>26,2</b>	<b>14,1</b>
<b>Eggs, pieces</b>	<b>20</b>	<b>17</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>17</b>
<b>Fish and fish products</b>	<b>1,8</b>	<b>1,3</b>	<b>1,7</b>	<b>1,9</b>	<b>2,1</b>	<b>2,5</b>	<b>1,3</b>
<b>Sugar</b>	<b>3,2</b>	<b>2,7</b>	<b>3,1</b>	<b>3,4</b>	<b>3,5</b>	<b>3,7</b>	<b>2,6</b>
<b>Oil and other vegetable fats</b>	<b>1,9</b>	<b>1,6</b>	<b>1,8</b>	<b>1,9</b>	<b>2,0</b>	<b>2,1</b>	<b>1,6</b>
<b>Potato</b>	<b>8,0</b>	<b>7,6</b>	<b>8,1</b>	<b>8,2</b>	<b>8,3</b>	<b>8,1</b>	<b>7,6</b>
<b>Vegetables and melons</b>	<b>10,1</b>	<b>7,7</b>	<b>9,2</b>	<b>10,5</b>	<b>11,4</b>	<b>13, 0</b>	<b>7,5</b>
<b>Fruits, berries, nuts, grapes</b>	<b>3,6</b>	<b>2,2</b>	<b>2,8</b>	<b>3,5</b>	<b>4,3</b>	<b>5,7</b>	<b>2,0</b>
<b>Bread and cereal products</b>	<b>9,3</b>	<b>8,6</b>	<b>9,2</b>	<b>9,6</b>	<b>9,6</b>	<b>9,6</b>	<b>8,4</b>

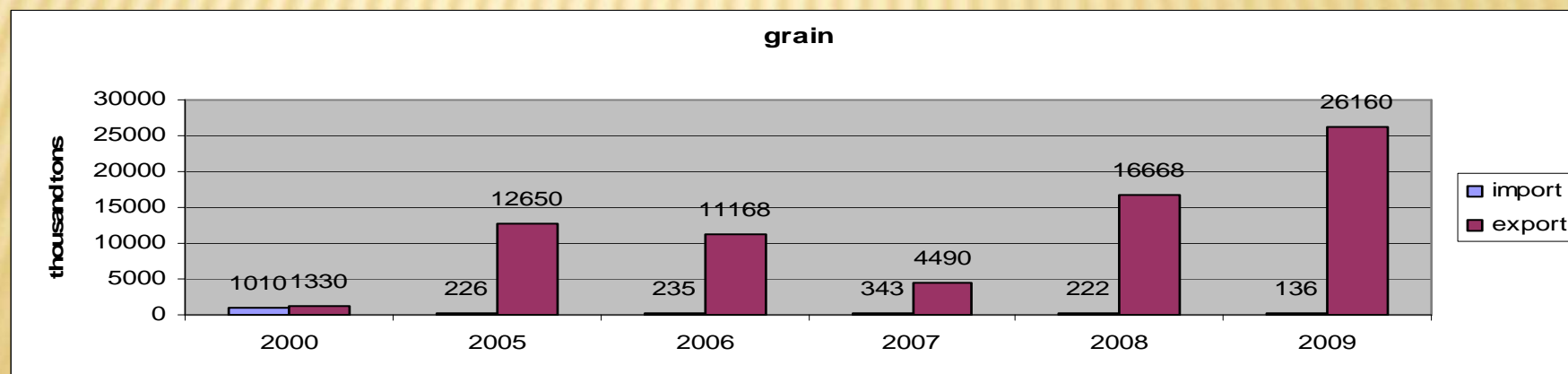
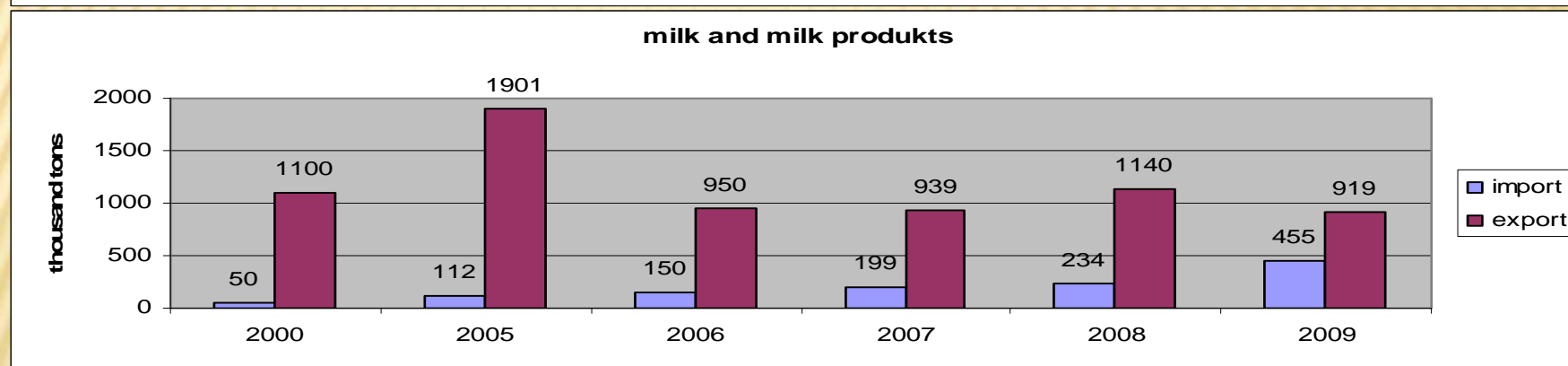
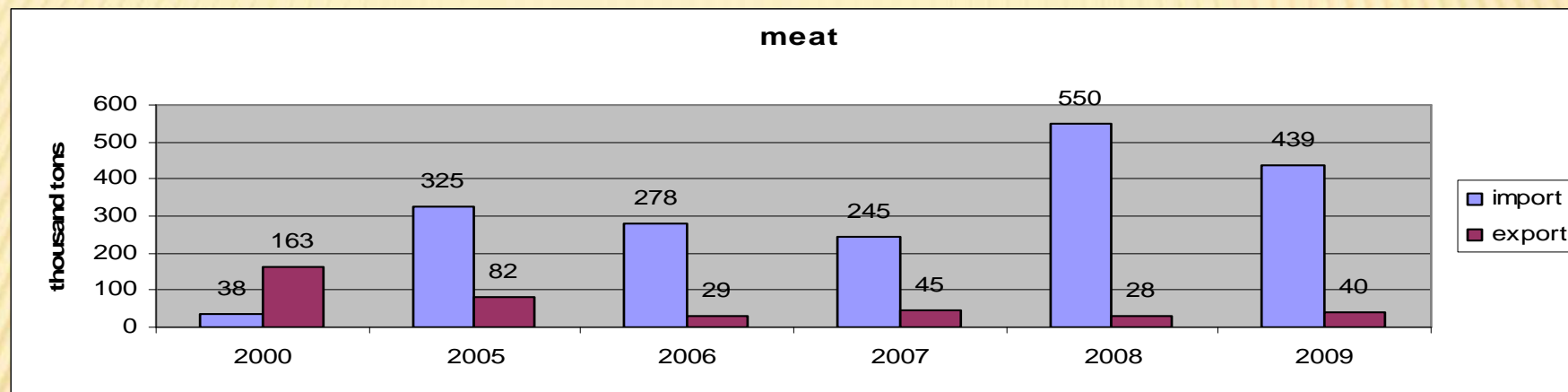


## The commodity structure of exports and imports of agricultural and food industry for 2008-2009

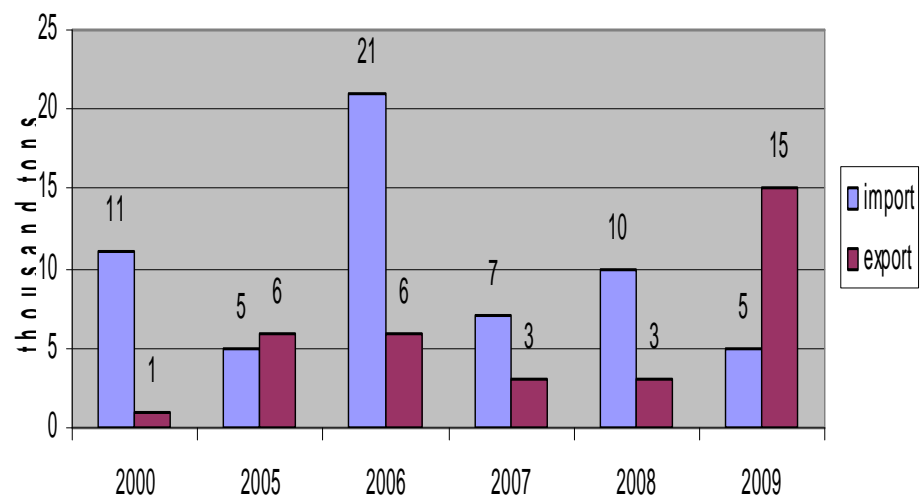
Food	share in total volume,%				Foreign Trade in separate groups of products in 2009, million USD	
	2008		2009			
	Import	Export	Import	Export	Import	Export
Live animals, animal products	1,2	2,0	1,5	2,8	596,0	1267,5
Products of crops- growing	8,3	1,7	2,7	2,8	5034,9	1259,9
Fats and oils of animal or vegetable origin	2,9	0,7	4,5	0,8	1796,0	374,3
Finished food products	3,8	3,1	5,3	4,5	2088,0	2034,3



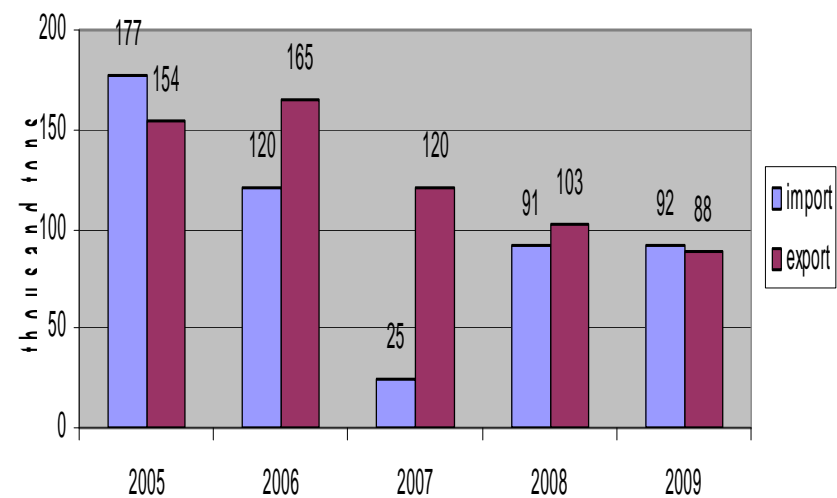
## Dynamics of exports and imports of basic foodstuffs in Ukraine, thousand tons



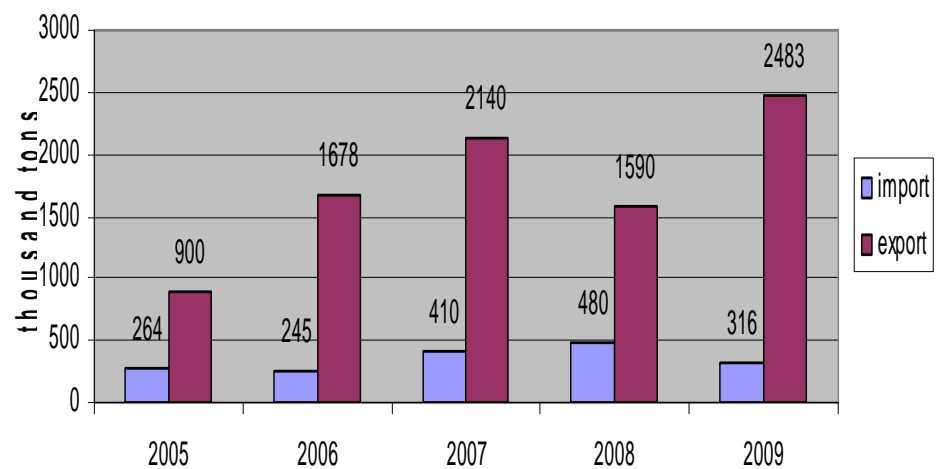
potatoes



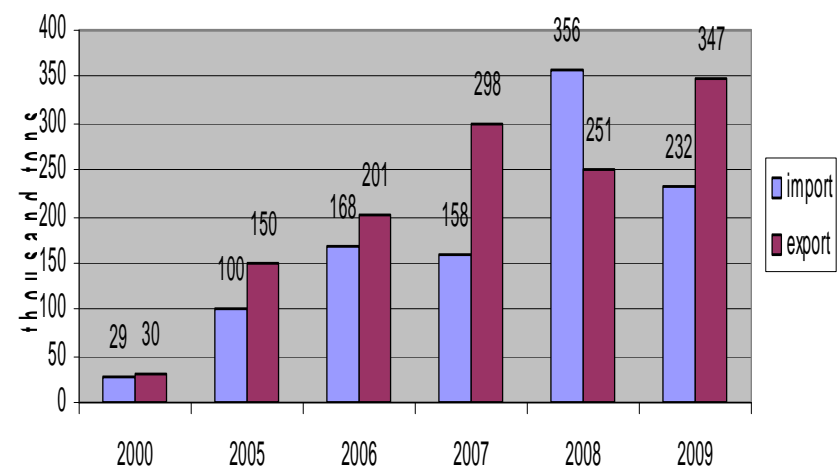
sugar



oil



vegetables



**Food security should be guaranteed by the state. From this perspective, it identifies the following main aspects:**

a) socio-economic, which means the state's ability to provide food for the population, organize and hold special food reserve funds;

b) political-economic, which the ability to mobilize domestic resources and agricultural potential of the country to meet those needs.



**Food security is based on the following basic principles:**

1) availability of food: Food should be available as a result of local production, the use of reserves (reserves) and / or import;

2) stability - the food should be in the right amounts and proportions of the time, regardless of circumstances and changes;

3) efficiency - products should accordingly be stored, processed, be of good quality, safe and beneficial to consumers;

4) availability - food should be accessible to all segments of the population as in the physical sense and in purchasing power.