

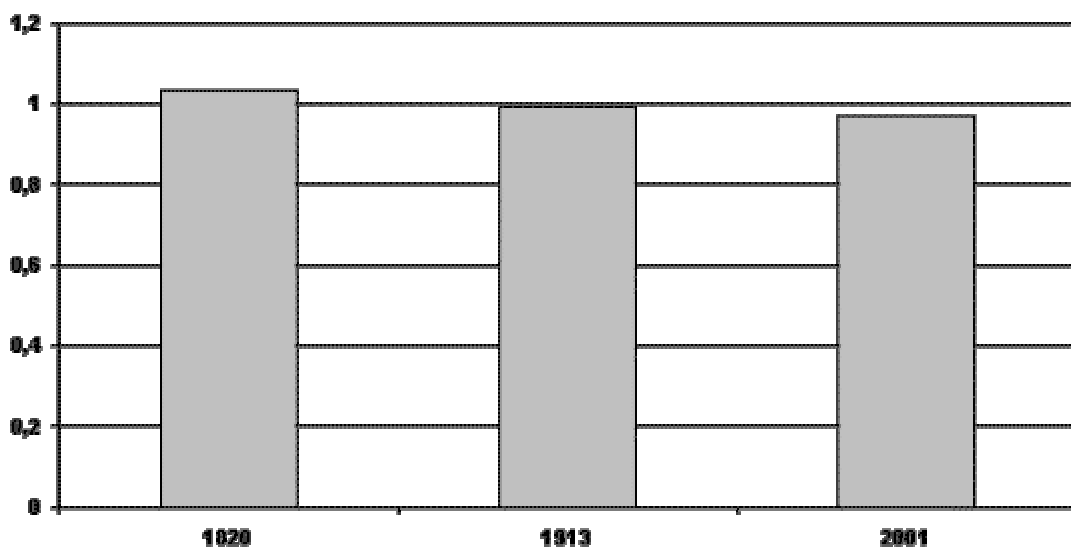
Yegor Gaidar

## On modern economic growth and catch-up development

The debates on long-term economic growth in Russia often center on the question as to under which growth rates and when can Russia catch up with Portugal. However, another important question is often overlooked. What happens once we caught up with that country, and what takes place afterwards – would we leave it far behind us, or would we find ourselves once again breathing in Portugal's neck? I would like to remind to the participants in the discussion that Russia once had caught up with Portugal - in the late 1930s. I have not heard of anyone in the country benefiting from that. In the late 1960s, under serious long-term problems caused by a socialist industrialization model we once again saw Portugal's rear lights, and the gap has been there until the end of the 20<sup>th</sup> century. The question is – is the chase after Portugal in order for the 21<sup>st</sup> century?

In discussing Russia's long-term prospects, it is important to analyze how the country was developing along a long historical distance, say, the last two centuries, rather than three or ten years. If we consider the evolution of Russia's economy against the background of the global development over the last two centuries, we would find out that in 1820 Russia's per capita GDP was close to the average worldwide indicators and it remained roughly on the same average worldwide level (with account of the accuracy of computations) both in 1913 and 2001 (*see Fig.1*).

**Fig.1 Correlation between Russia's GDP per capita to the world GDP per capita between 1820 through 2001**



Source 1. For 1820 and 1913: A. Maddison. *The World Economy. A Millennial Perspective*. 2. For 2001 – the IET computations basing on the data of A. Maddison. 3.

*Reconstruction of the World Bank data over the period up to 1950 provides similar results within the limits of accuracy of computations.*

It is fairly easy to explain the reasons for the selection of these particular dates. Most of researchers believe that the modern economic growth – the process of a drastic acceleration of the pace of economic development accompanied by large-scale shifts in the structure of economy and social relations – started in the 1820s[1] ; 1913 – is the peak of the Russian Empire’s development, while 2001 is the most recent date for which data is currently available.

Naturally, Russia’s GDP was deviating from the average world one between these three points, but such fluctuations were fairly moderate. The gap between Russia and the nations-leaders of world development (UK in the 19<sup>th</sup> century and the US –in the 20<sup>th</sup>) has been fluctuating over these two centuries, too, but, again, these happened within rather a narrow range (see *Table 1*).

**Table 1 Correlation between Russia’s GDP per capita and GDP per capita of the nations-leaders of modern economic growth\***

<b>year</b>	1820	1870	1913	1950	2001
<b>ratio</b>	0,44	0,32	0,28	0,30	0,25

\* - 1820-1870 – UK, 1913-2001 – US

Over the past quarter of the 20<sup>th</sup> century, it is China’s successful record of economic performance that has drawn everyone’s special attention. Ironically the fact that a drastic fall in China’s share in the world economy has constituted one of the most profound structural shifts in the latter between 1820 and the 1970s is often ignored. Nowadays, after some 25 years of rapid growth, the country’s share in the world GDP is a third of its equivalent in 1820, while its per capita GDP currently roughly accounts for a half of the average global level o while in 1820 it was on a par).

Against such a background, the closeness of Russia’s economic indicators to their respective global averages is worth the attention, and it becomes even more important considering that the world economic development has undergone unprecedented changes over the last two centuries.

It was an outstanding US economist S. Kuznets who introduced the concept of modern economic growth in economics. He believed the phenomenon emerged in the late 18<sup>th</sup> century [2] . Today , this view is being challenged by some of the most authoritative experts who are more inclined to dating it back to the 1820s – the aftermath of the Napoleonic wars.

Such discussion of dates is of no fundamental significance – what matters is a sharp acceleration of growth rates of the world economy and per capita GDP between the late 18<sup>th</sup> and the early 19<sup>th</sup> centuries that was taking place against the background of radical structural transformations in employment, geographical expansion, and demography.

Prior to the modern economic growth era it took Western Europe, the region that had been developing abnormally fast over the previous millennium, eight centuries (roughly between 1000 to 1800) to double its per capita GDP during the period. The leader of modern economic growth in the 20<sup>th</sup> century the US, has seen its productivity rising on average by 2 % for over the last two centuries 2%. It means that during a single generation’s lifetime (75 years) per capita GDP has grown more than 4-fold.

A number of common sweeping mutually related transformations have been taking place in countries with seemingly different cultural traditions, resource bases, and geographical locations. It would only be logical to assume that understanding of these general processes that follow similar scenarios related to economic development would provide a potent tool to a researcher dealing with long-term economic growth.

It is no coincidence that a faith in the ability of such absolute laws of historical development to predict and logically explain the world formed the core of Marxism, a theory which between the late 19<sup>th</sup> - early 20<sup>th</sup> century dominated the study of long-term prospects for evolution of socio-economic relations. Yet the 20<sup>th</sup> century has also exposed an important feature of modern economic growth that neither Marx, nor Marxists had apprehended in their time -, modern economic growth is accompanied by rapid and unpredictable changes to the dominating trends in socio-economic systems and nation economies. The history of socio-economic theory over the last two centuries is rife with dramatic errors of great thinkers who attempted to extrapolate the trends they had witnessed in their time onto the future. Notably among them were T. Malthus, with his prophecy of overpopulation and global starvation which he based on actual facts he witnessed in his lifetime such as rise in life expectancy and lower infant mortality – all of which we now know were attributes of an early stage of demographic transition; K. Marx, with his prognosis of an absolute and relative impoverishment of proletariat, social destabilization and collapse of capitalism, which he in his turn based on actual social problems of early stages of modern economic growth; J. Shumpeter, who in his book entitled ‘Capitalism, Socialism and Democracy’ forecasted fading of entrepreneurship, bureaucratization of economic life, in no doubt a product of a grim reality of assembly line manufacturing dominant in his time.

In financial and fiscal theory, the concept of impossibility of exceeding the then existing upper marginal taxation rates has been a convention until the late 19<sup>th</sup> century. . In 1870s A. Wagner questioned that paradigm and was the first to formulate a hypothesis stating that the share of resources subject to government’s re-allocation would rise in parallel with the size of the economy. The hypothesis found its empirical proof in the 20<sup>th</sup> century, when a drastic expansion of the modern states’ capacity against the background of rising living standards allowed considerable increases in state withdrawals from GDP. Between 1910 to 1970 the idea of unlimited horizons for increasing state tax revenues has become an accepted view in the financial literature, while the researchers who tried to argue that even in industrial economies there is a limit to state taxation compatible with economic growth, were ridiculed. .

In the 1970s the conventional view has come under scrutiny as the evidence grew that in the developed nations where taxation rate have hit levels close to 50% of GDP were plagued by serious problems of politically organized taxpayers’ resistance, expansion of shadow economy, slowdown of economic growth and loss of competitiveness on international markets.

From the current perspective, it is evident that the process of tax withdrawals rising from the levels characteristic of agrarian societies (some 10% of GDP) to the one available for highly developed post-industrial economies (30-50% of GDP) was transitional. It was practically impossible to forecast its development until it was over.

Whilst advocating the gold standard in UK after the end of World War 1 and pursuing a deflationary policy for the sake of re-establishing the British Pound’s parity with gold, W. Churchill was guided by a two-century-long national tradition that had ensured the United Kingdom’s role as the world economic leader. Mr. Churchill essentially repeated what had been done in the aftermath of the Napoleonic wars, yet, given radically changed conditions, such a policy was encouraging the world towards one of the most intense economic crises of the past

century – the Great Depression. The gold standard that had played a crucial part in launching modern economic growth later proved to be incompatible with consequent stages of growth.

The fact that modern economic growth appears an incomplete, ongoing process, of which rapid and radical changes in dominating trends are characteristic, substantially complicates the use of exposed regularities to forecast development of leading countries that form a vanguard of the mankind's economic development. But the leading nations, i.e. those that had begun their economic growth in the first decades of the 19<sup>th</sup> century hold a different position than those who underwent modern economic growth and the respective socio-economic transformations somewhat later [3]. The experiences of the pioneering group allow important conclusions on challenges and trends that would be facing the latter group, i.e. the so-called –catch-up development nations, in the future.

## **Nations-leaders and catch-up economies**

There are authors that assume inevitability of a further development of the globalization process, and those who believe that the world is on the threshold of de-globalization. It is impossible to prove either assumption, but one can argue, with a high level of probability, that over the upcoming 50 years Russia will have to cope with the problems the nations- leaders of modern economic growth were tackling over the second half of the 20<sup>th</sup> century, at the stage now called post-industrial.

One of the greatest economists in the world history, A. Smith avoided numerous mistakes characteristic of his followers exactly because he analyzed problems related to catch-up development [4]. He was not concerned about problems and prospects of Holland – then a European economic leader, for he believed that the country had reached the level of its maximum possible productivity and would from there on slide into stagnation [5].

K. Marx has extended the concept that the more developed nations' present is a preview of a future for their less developed peers into a stern determinism. He argued that, “ It is not the high or low level of development of those social antagonisms which proceed from natural laws of capitalist production. It is the laws and tendencies themselves that function and realize themselves with a strict necessity. A more industrially developed country shows a less developed one but a picture of its own future” [6]. However, K. Marx underestimated three important factors that separated the paths taken by catch-up development nations from nations-leaders, development trajectories of which have already manifested themselves in the 20<sup>th</sup> century.

The first of them is the sustaining gap between leaders and catch-up development nations. The dissemination of knowledge and technologies born by modern economic growth appears unevenly dispersed: for instance, a mass application of modern anti-epidemiological means in catch-up development nations is occurring at a far greater pace than the spread of modern business technologies. The fall in mortality rate and rise in life expectancy rate now takes place during earlier stages of economic development. Since in the today's poor countries the lower mortality is also combined with high birth rate, their share in the world populations is rising

The second factor is the importance of conditions of the global economic environment set by its leaders. The latter undergo different stages in their structural transformations that impact the whole world economy. More specifically, between the 1870s through the 1910s the world economy has been functioning in the conditions of a global commodity and capital market based on the gold standard. That influenced economic strategy options of the nations that entered the process of modern economic development during those decades. Between 1914-50 the global

development found itself under a strong impact of wars, the crisis of gold standard, and a protectionist policy That pre-set limits for maneuver values for the catch-up development nations, thus forcing them towards opting for a protectionist policy and import-substitution industrialization. In the late 20<sup>th</sup> century, the world once again entered the era of globalization marked by lowered customs tariff rates, opening capital markets, - all taking place under floating rates of major world currencies, rather than the gold standard. That

Creates new opportunities favoring strategies aligned towards boosting exports and integration into the world economy.

Regretfully, however hard we try, in the coming decades the world development context will be set by developments advanced by US, Western Europe and Japan, rather than Russia, India, or Brazil. The economic and political processes that manifest themselves in the nations-leaders will have a strong effect on national development strategies of nations following in their footsteps.

The third factor that determines the specificity of the catch-up development path is various national traditions inherited from the respective agrarian civilizations. For instance, family relations emerged in Western Europe over last millennium appear different from those in Muslim countries, as well as those dominated by Buddhism or Confucianism. The spread of a small or big family, family solidarity customs exercise a substantial impact on the development of social protection systems, national savings standards, and economic development as a whole.

The significance of the leading countries' experiences for catch-up development nations lies with the appreciation of strategic challenges that would face them, a way of minimizing risks and avoiding a predecessor's mistakes, rather than blindly copying them.

Had Marxism been as popular in today's Russia as it was in the early 20<sup>th</sup> century, the context and key terms of the debate on the national long-term development problems would be as follows: trends of transformations of socio-economic establishments in the countries-leaders of economic growth; Russian national institutions' ability to adapt accordingly; measures that would allow to adjust Russian establishments to relevant challenges in economic development [7].

The collapse of the socialist experiment has seriously undermined the popularity of Marxism in the country. But as the saying goes, do not throw the baby out with the bathwater. In other words the experiences of the most advanced nations' socio-economic development over the last half-century has some valuable lessons for understanding the challenges Russia would face in the first half of the 21st century.

If one compares Russia's current per capita GDP with that of the nations- leaders of economic growth one will be able to fully appreciate the gap that exists between them (see *Table 2*).

Table 2

The years when per capita GDP of the nations-leaders in modern economic growth was equal to Russia's

<b>Country</b>	<b>Year</b>
USA	1935
Australia	1936

Canada	1941
New Zealand	1948
UK	1934
Sweden	1944
Germany	1953
France	1951
Italy	1959

*Source:*

1. Russia's per capita GDP – data from World Development Report, World Bank, 2003, in USD equivalent- Geary-Khamis, 1990. 2. The data on per capita GDP in other countries, see: *A.Maddison. Monitoring the World Economy 1820–1992, OECD 1995.*

The accuracy of computations of per capita GDP in purchasing power parity (PPP) terms appears rather limited, so one should exercise caution while drawing conclusions from such comparisons. But the data presented in Table 2 on the whole show that the gap between Russia and nations-leaders today amounts to about 40 to 60 years.

Let us compare the evolution of Russia's GDP over a long time with those of large countries of continental Europe (France and Germany). While considering the distance between Russia and the countries– leaders, it is worthwhile to take these particular countries as a starting point: like Russia, they were involved in two world wars in their territories in the 20th century and those likewise had a distorting effect on their development

**Table 3 Russia's backwardness form Germany and France in terms of GDP\* per capita (as years)**

Countries	Years			
	1870	1913	1950	2001
France	» 60	63	46	50
Germany	» 60	63	55	48

\*Russia's GDP per capita until 1913 implies the Russian Empire within the USSR borders, on 1950 – the USSR, on 2001 – the Russian Federation

*Source: 1. The data on GDP per capita over 1870-1950, see: A. Maddison. Monitoring the World Economy 1820–1992. Development Center Studies, OECD, 1995. 2. The data on GDP per capita over 2001 – see: World Development Report 2003. The World Bank. The data in USD equivalent - Geary-Khamis 1990.*

The data presented in Table 3 show that Russia's backwardness from Germany and France in terms of GDP per capita has been fairly stable over some one and a half centuries [8] .

These are not random, out-of—the-context data on per capita GDP of Russia, France, and Germany - the noted changes generated other significant structural transformations in these particular economies.

**Table 4 The proportion of urban population in the overall population in Germany, France and Russia, with a time 50 lag (as %).**

Countries	Years			
	1850 – Russia 1800 – Germany, France.	1910 – Russia 1850 – Germany, France	1950 – Russia 1910 – Germany, France	2000 – Russia 1950 – Germany, France
Russia	7	14	44,7	77,7
Germany	9	15	49	71,9
France	12	19	38	56,2

Source:

1. Over 1800-1900 : P.Bairoch, *Cities and economic development: from the dawn of history to the present*, Chicago, 1988

2. Over 1950-2000: The UN database (<http://esa.un.org/unpp>)

Table 4 contains the data on dynamics of the share of Russia's urban population in Russia, Germany and France over the last two centuries with a 50-year lag and shows a similar picture, i.e. Russia's backwardness roughly amounts to two generations (50 years).

Table 5

**The share of employed in the agrarian sector in the overall number of economically active population in Germany, France and Russia, with a 50 time lag (as%)**

Countries	Years		
	1900 – Russia, 1850 – Germany, France.	1950 – Russia, 1900 – Germany, France.	2001 – Russia, 1950 – Germany, France.
Russia	59,11 (1897) <sup>(*)</sup>	45,83 (1959)	10,02 <sup>(3)</sup>
Germany	-	36,84 (1907)	23,63 <sup>(2)</sup>
France	51,72 (1856)	41,43 (1901)	24,06 <sup>(2)</sup>

\*- Here and throughout the Table the year on which the respective index (the closest to the required year out of the data available) is given in parenthesis

Source:

1. (if not stated otherwise) B.R.Mitchell, *International Historical Statistics 1750-1993*, Macmillan Reference LTD, 1998

2. Groningen Growth&Development Center Sectoral database (<http://www.eco.rug.nl/ggdc>)

3 Rossiisky statistichesky ezhegodnik, Goskomstat Rossii, 2002.

Table 6

**The share of employed in the industrial sector in the overall number of economically active population in Germany, France and Russia, with a 50-year lag (as %)**

Countries	Years		
	1900 – Russia 1850 – Germany, France.	1950 – Russia 1900 – Germany, France	2001 – Russia 1950 – Germany France
Russia	13,87 (1897) <sup>(*)</sup>	40,27 (1959)	24,97 <sup>(3)</sup>
Germany	-	33,84 (1907)	35,21 <sup>(2)</sup>
France	23,30 (1856)	26,53 (1901)	26,82 <sup>(2)</sup>

\*- Here and throughout the Table the year on which the respective index (the closest to the required year out of the data available) is given in parenthesis.

Source:

1. (if not stated otherwise): B.R.Mitchell, International Historical Statistics 1750-1993, Macmillan Reference LTD, 1998
2. Rossiisky statistichesky ezhegodnik, Goskomstat Rossii, 2002.
3. Groningen Growth&Development Center Sectoral database (<http://www.eco.rug.nl/ggdc>)

Tables 5 and 6 illustrate similar structural changes in employment; notably, a faster contraction in employment in Russia's agrarian sector is most likely to be associated with specific features of the socialist industrialization model. In the USSR, a large-scale reallocation of resources out of the agrarian sector to finance investment in the industrial sector created strong incentives to peasants' exodus from the countryside.

We consider the countries' development paths over the period of one and half centuries that covers the stage of drastic socio-economic transformations. In Russia, this particular period comprised two revolutions, the collapse of two empires, two world and one civil wars, the greatest socio-economic experiment in the world history called socialism, and its break-up. Nevertheless, during the period in question the gap between Russia's level of development and that of the largest nations of the continental Europe has remained fairly stable and roughly amounted to two generations (50 years). Having started modern economic growth as early as in some two generations after the Western Europe, i.e. in the 1880s, Russia has maintained that gap. This, by no means should point us to a conclusion that such lag is somehow pre-destined to remain forever. Nonetheless, a careful analysis of development of socio-economic processes in the nations- leaders of economic growth over the last five decades clearly proves to be useful to estimating Russia's long-term prospects,.

W. Easterley demonstrated vulnerability of existing models that attempt to explain differences in national economies' growth rates [9] . He showed that for each factor, believed to be the single most important determinant of growth, (be that the share of investment in GDP, educational expenditure, etc.), there will always be a number of countries which satisfy that criteria yet do not exhibit growth. With that hypothesis W. Easterley also introduced an imprecise, but an interesting term 'national institutions' capacity to secure economic growth'. Should we apply this concept to realities of Russia's development over the last one and a half centuries, it can be argued that Russia's socio-economic institutions' capacity to secure economic growth has been at the average worldwide level over the entire period in question.

If we agree with the hypothesis that the gap remained over one and a half centuries would survive further on, then in 50 years Russia's living standards, lifestyle, employment structure, and infrastructure would roughly be the same as those currently noted in Germany or France. That suggests an annual growth rate in GDP per capita being at some 2%, i.e. the pace of growth in the world economy over the past five decades. Should Russian economy be developing at the



present pace, i.e. by some 4% annually, over the forthcoming decades, this gap could be partly bridged in 25 years, thus allowing reduction in its backwardness from the leaders down to one generation.

The awareness of the scale of the gap that has long separated Russia from the leading nations is needed not for the sake of manipulation with figures of growth and creation of forecasts on their basis. Rather, it is needed, first, to form a clear vision on where the difference between Russia's past development from that of leading nations lied and apparently will remain lying; and second, what structural challenges will be facing the country on future stages of its economic development.

## **Russia's demographic dynamics: the specific legacy of socialism**

As far as the set of key socio-economic characteristics is concerned, the area where Russia's development appears different from the nations- leaders is its demographic dynamics (see *Table 7*)

**Table 7 The share of nations in the world population (as %)**

<b>Countries</b>	<b>Years</b>			
	<b>1900<sup>(2)</sup></b>	<b>1950</b>	<b>2000</b>	<b>2050</b>
Russia	4,31 <sup>(4)</sup>	4,03	2,34	1,04
US	4,63	6,26	4,55	3,96
Japan	2,67	3,32	2,04	1,09
UK	2,33	2,01	0,95	0,59
France	2,46	1,66	0,95	0,62
China	24,24	22,01	20,47	14,59

*Source*

1. (if not stated otherwise) Population Division of the Department of Economic and Social Affairs of the UN Secretariat, *World Population Prospects: The 2000 Revision and World Urbanization Prospects: The 2001 Revision*. <http://esa.un.org/unpp> (moderate projections for 2050).

2. Development Center Studies. *Monitoring the World Economy 1820-1992* by A.Maddison. OECD, Paris, 1995.

3. Russia's population in 1897 (according to Source 4) to the world population in 1900 (according to source 2) ratio

4. *Naselenie Rossii za 100 let (1897–1997)*, Goskomstat Rossii, M., 1998.

The decline in Russia's share of population in the overall global population does not constitute a unique phenomenon. The non-immigrant nations-leaders have also experienced a steady decline in their respective shares over the last century. The difference in this respect lies with the fact that Russia, which started its modern economic growth in two generations later compared with the leaders and had its share in the world population rapidly increasing in the

early 20<sup>th</sup> century, was supposed, providing an inertial development of the situation, to have by late 20<sup>th</sup> century a far greater proportional weight than it actually has now.

What happened in Russia was related both to large-scale social catastrophes (two world wars, the civil war, collectivization, repressions) and the specifics of the socialist industrialization model the country pursued for the most part of the past century.

*Table 8*

**The share of women in the total number of economically active population (as%)**

Country	Years		
	1900 <sup>(1)</sup>	1950 <sup>(2)</sup>	2000 <sup>(2)</sup>
<b>Germany</b>	30,7(1907)	38,9	42,3
<b>Russia</b>	16,4(1897)	51,5	49,2
<b>France</b>	35,3(1901)	31,8	45,1

\* - Here and throughout the table the year on which the respective index (the closest to the required year out of the data available) is given in parenthesis.

*Source:*

1. Computed basing on:: *B.R.Mitchell*- International Historical Statistics 1750-1993, Macmillan Reference LTD, 1998.

2. Computed basing on the data of United Nations Common Database, Economically active population by sex, 13 age groups (ILO estimates/projections).

The data presented in *Table 8* show that the socialist model of industrialization suggested an unusually early involvement of women in employment outside the household. As early as in 1950 the women's share in the overall number of employees in Russia has already been greater than it would be in France and Germany by 2000, i.e. at the stage of developed post-industrial society. The process of getting women involved in employment entails a parallel process of contraction in the number of births per woman. The data of *Table 9* show the development of this particular process in Russia, Germany, France, and Spain [10] . From the perspective of demographic processes associated with modern economic growth, Russia had begun to witness the fall in the average lifetime fertility per woman roughly in two generations earlier than the nations-leaders.

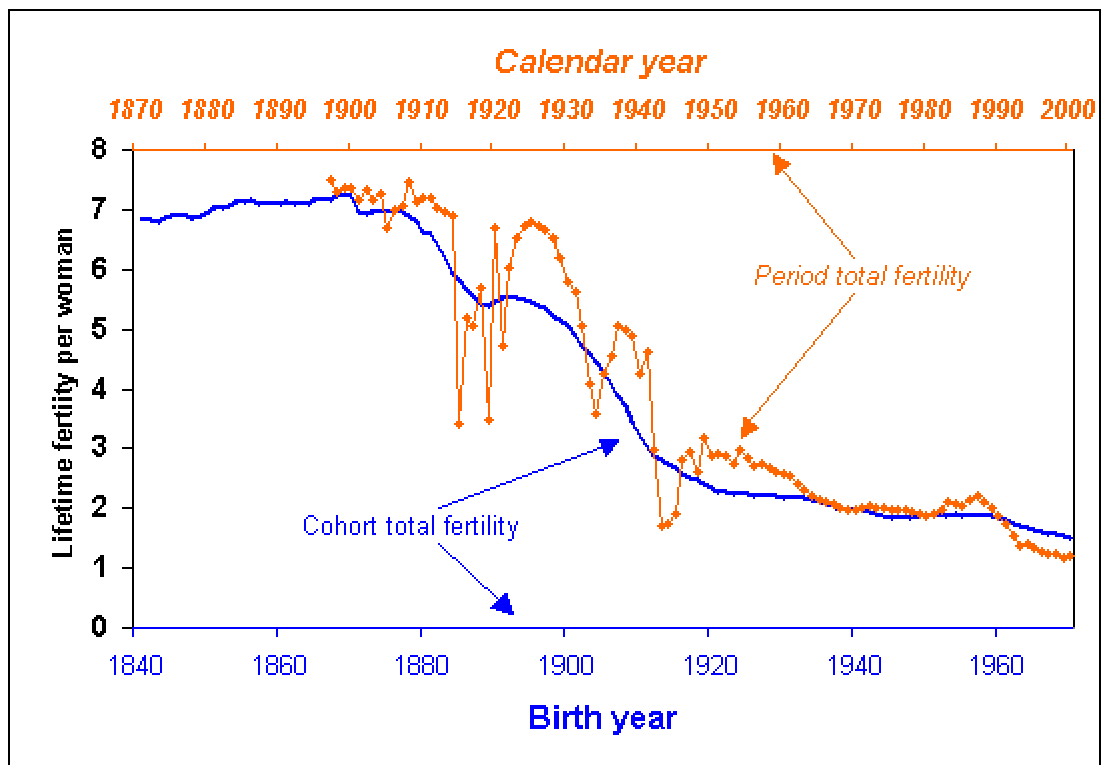
**Table 9 The average lifetime fertility per woman**

Countries	Years		
	1950–55	1975–80	1995–2000
<b>Germany</b>	2,16	1,52	1,34
<b>Spain</b>	2,57	2,57	1,19
<b>Russia</b>	2,85	1,94	1,25
<b>France</b>	2,73	1,86	1,76

*Source:*the UN database (<http://esa.un.org/unpp>)

The statistics of births is distorted by the impact of demographic waves caused by world wars. The data arranged by S. Zakharov concerning the lifetime fertility rate per woman in Russia across total age cohorts and presented below in *Table 10* and *Fig.2* built on their basis show a correlation between the path of demographic transition and the socialist model of industrialization.

Fig.2



*Source:* Zakharov S.V. “Rozhdayemost v Rossii: pervy i vtoroy demographichesky perekhod”/”Demographicheskaya modernizatsia, chastnaya zhisn i identichnost v Rossii”, abstracts of presentations of a scientific conference, Moscow February 27-28, 2002. M., TSDECH RAN, 2002, pp. 19-26. These materials are available courtesy of Mr. S.V. Zakharov.

*Table 10*

**Final fertility rate across total and period cohorts in Russia \* (female cohorts born between 1841–1970, calendar years – 1896–2000)**

Women’s year of birth	Final birth rate of completed cohorts	Calendar years**	Final birth rate of period cohorts
1841-1845	6,84		
1846-1850	6,90		
1851-1855	7,08		
1856-1860	7,11		
1861-1865	7,12		

1866-1870	7,20	1896-1900	7,30
1871-1875	6,96	1901-1905	7,12
1876-1880	6,85	1906-1910	7,17
1881-1885	6,20	1911-1915	6,30
1886-1890	5,49	1916-1920	5,23
1891-1895	5,50	1921-1925	6,16
1896-1900	5,23	1926-1930	6,38
1901-1905	4,59	1931-1935	4,51
1906-1910	3,66	1936-1940	4,74
1911-1915	2,82	1941-1945	2,60
1916-1920	2,46	1946-1950	2,89
1921-1925	2,25	1951-1955	2,86
1926-1930	2,20	1956-1960	2,67
1931-1935	2,15	1961-1965	2,33
1936-1940	2,01	1966-1970	2,03
1941-1945	1,91	1971-1975	2,01
1946-1950	1,85	1976-1980	1,93
1951-1955	1,89	1981-1985	2,02
1956-1960	1,87	1986-1990	2,08
1961-1965	1,71***	1991-1995	1,48
1966-1970	1,56***	1996-2000	1,23

**\*Final birth rate across period cohorts.** *Source: Andreev E.M., Darsky L.E. Kharkova T.L. Demographicheskaya istoria Rossii: 1927-1959. Moscow.: «Informatika», 1998. p. 166, and the authors' unpublished computations, courtesy of E.M. Andreev. Final birth rate across completed cohorts* was computed by S. V. Zakharov by direct method basing on 1979 and 1989 Censuses complemented by specially processed data on the current account of generations. To compute respective indices across the cohorts prior to 1909 the authors applied indirect method using long series of quantity of births and estimates of the number of mothers survived up to the average age. (See: *Blum A., Zakharov S.V. Demographic history of the USSR and Russia in the mirror of generations// Naselenie i obschestvo. Informatsionny bulluten TSDECH INP RAN # 17. 1997. Reprinted: Mir Rossii, vol. 4, 1997. p. 3-11; Energia, vol. 2, 1998, p. 42-46).*

\*\* The calendar years match the year of the cohorts presented in the left part of the Table reaching the age of 30.

\*\*\* Preliminary estimates.

Yet another factor that determined the decline in Russia's proportion in the overall global population is also associated with the socialist industrialization model. As the data presented in *Table 11* show, one could note a gradual convergence between Russia's life expectancy indices and those of leaders of economic growth until the mid-1960s, while the process has discontinued hence [11]. The sustainability of Russia's life expectancy indices against the background of the growing gap between the nation and the leaders nearly over 40 years has constituted a very unusual fact in the world demographic history.

*Table 11*

The average life expectancy rates at birth (as years)

Country	Years					
	1950	1960	1970	1980	1990	2000
Russia	64,5	67,9	69,7	68,3	66,9	66,1
USA	68,9	70,0	71,5	74,0	74,9	76,2
Japan	63,9	69,0	73,3	76,9	79,5	80,5
UK	69,2	70,8	72,0	74,0	76,4	77,2
France	66,5	71,0	72,4	74,7	77,5	78,1
Germany	67,5	70,3	71,0	73,8	76,2	77,4

*Source:*

Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2000 Revision and World Urbanization Prospects: the 2001 Revision (<http://esa.un.org/unpp>).

Most likely, there were two factors that played their role in this respect: demographers have long established a link between women's nutrition during pregnancy and children's nutrition during their first years with the average height of a new generation and the life expectancy rate. As concerns the age cohorts born between the 1920s through early 1950s, these indicators appear substantially worse than those of the preceding and subsequent generations. The risk that a man born in the mid-1920, when the overwhelming majority of births fell on free peasants' families, would die at the age of 30-40 was roughly twice as lower compared to one born between the late 1940s through early 1950s. It was only the mid-1950s that these indices showed some improvement [12]. The connection between such destinies with collectivization and World War II is obvious.

*Table 12*

Consumption of alcohol per capita (for residents aging over 15 years) in ethyl alcohol equivalent between 1960- 2000 (as liters)

Years	Countries		
	Russia	France	Germany
1960	4,88 <sup>(2)</sup>	32,62 <sup>(*)</sup>	10,71 <sup>(*)</sup>
1970	10,38 <sup>(2)</sup>	33,87	15,11
1980	13,40	33,34	16,18
1990	7,09	22,60	14,67
1999	10,80	19,87	12,99

\* - 1961

*Source:*

1. if not stated otherwise: <http://www3.who.int/whosis>. WHO Statistics, Global Alcohol Database.

2. Estimated (basing on the data of Goskomstat, review "Naselenie I obschestvo", № 19-20 (May 2001) <http://www.demoscope.ru>.)

Another factor is a country-specific environment of mass alcoholization of Russia's population in the 20<sup>th</sup> century. As the data presented in *Table 12* show, Russian's absolute alcohol consumption per capita, while substantially behind France, Russia is close to Germany. The distinctiveness of Russia's situation, however is not in the volume of consumption per capita but in its style, which is characterized by prevalence of strong drinks, intemperance, and a widespread habit of drinking at workplaces. At the same time, this is not only Russians' national specifics – papers on the history of alcoholism and alcoholic behavior in Germany in the 19<sup>th</sup> century expose similar challenges facing that country in late 19<sup>th</sup> century with those facing Russia in the 20<sup>th</sup> [13].

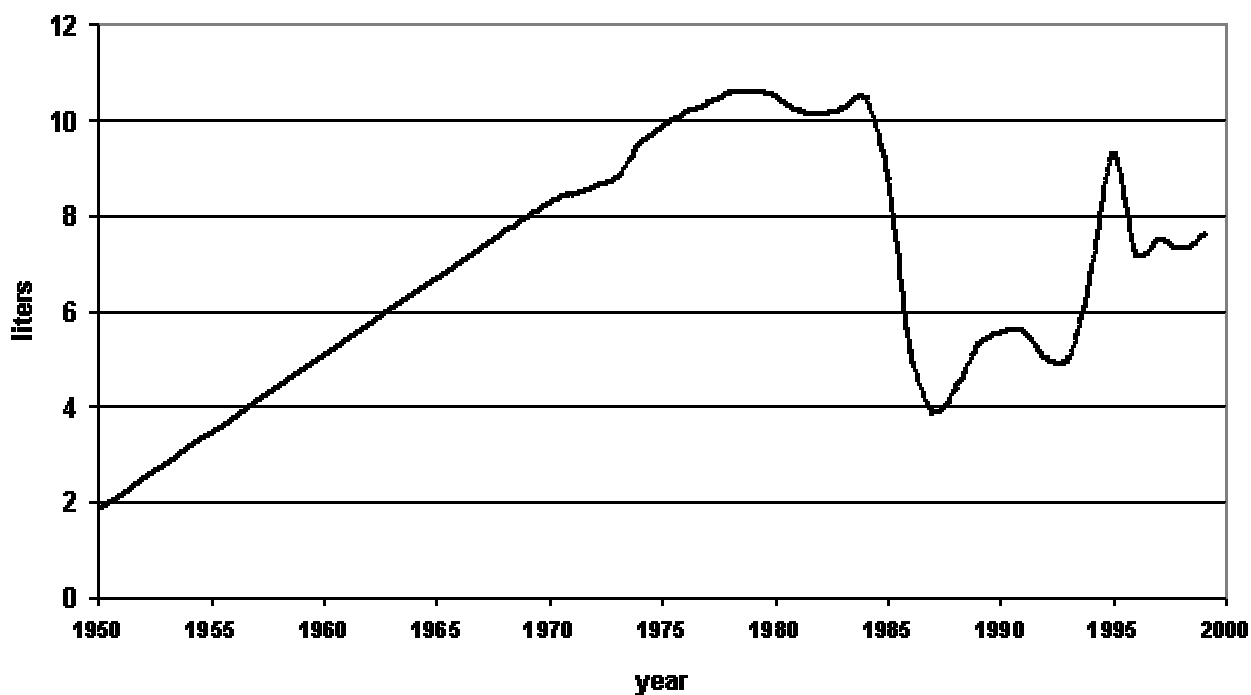
In the Northern European countries, the consumption of alcohol was considered to be compatible with economic activity in the agricultural sector – it was, after all, one way of retaining body warmth not to mention its purpose as a social lubricant and a source of additional calories. In the mid-19<sup>th</sup> century, having left his village for a city and found a job at a factory, a German peasant would keep on preserving the tradition he had adopted in his village. The custom of a mandatory bottle of vodka as a pass for an apprentice to his new collective; rejection of a member of the collective who does not contribute to collective feasts – these customs mirror well known realities of the German life of the late 19<sup>th</sup> century. The workers' struggle for the right to drink at work formed one of the German working-class movement's major demands.

It was only by the late-19<sup>th</sup> century that Germany had reached the level of the development similar to the one noted in the USSR in the 1930-50s, when the situation began to change, and both employers and trade- unions' embraced ideas of abstinence at work, and replacing it with a happy-hour at local *beerstube* outside the factory's wall instead.

This transition has never been noted in the USSR. Against the background of *uravnilovka* (*equal labor compensations everyone was entitled for.*- transl.), a weak sense of communal responsibility, the absence of an initiative setting some socially acceptable norms of alcoholic behavior characteristic of the early industrial stage, the mass alcoholism problem is aggravating further. Moreover, it significantly contributed to the discontinuation of the rise both of an average life expectancy and the growing gap between men and women's average life expectancy. The extrapolation of the data presented in this chart onto commonly known data on the change in men's life expectancy over the period between the late 1980s through the early 1990s (*see Fig.3*) exposes a connection between these particular indices and the fiasco of the Gorbachev's anti-alcohol campaign (*see Table 13*).

*Fig. 3*

Consumption of alcohol in absolute alcohol equivalent per capita in Russia in 1950-2002



Source:

Demoscope, №19-20, May 7-20, 2001. (<http://www.demoscope.ru/weekly/019/tema01.php>)

1 BSE. – M., 1950, vol.2, p.118, <http://optimalist.narod.ru/bro01.htm> (the data on 1950)

Table 13

The level Russian male life expectancy (the average life expectancy at birth) between 1950 through 2000

Years:	Life expectancy (as years)
1950-1955	60,5
1955-1960	62,5
1960-1965	63,3
1965-1970	64,5
1970-1975	63,8
1975-1980	62,7
1980-1985	62,6
1985-1990	64,9
1990-1995	60,8
1995-2000	60,2

Source:

Population division of the Department of Economic and Social Affairs of the United Nations, World Population Prospects: The 2000 Revision and World Urbanization Prospects: the 2001 Revision. <http://esa.un.org/unpp>

It is safe to assume that had the social cataclysms of the 20th century, earlier than average women's accession to employment and the strong-rooted alcoholic traditions of the early industrialization stage, have not taken place Russia's population currently would have counted some 300 million (assuming Russia's share of global population stayed at its 1913 level).

The leading countries of our times have only a vague vision of their future and the long-term challenges they will face. They created many of their important institutions and establishments meant to address a certain set of circumstances only to see those circumstances alter dramatically in the year ahead. Today, some of the key structural challenges facing the nations of Western Europe, North America, and Japan are directed towards securing sustainability of their pensions, health care and education systems. The latter were developed in the conditions of young populace, seemingly vast opportunities for increasing tax revenues, and modest respective expenditures in GDP. The situation has changed radically over 50 years of post-industrial development. And the leading nations are now realizing that fundamental strategic reforms are difficult to implement in mature, stable democracies.

Russia must analyze the challenges facing developed nations not for a blind replication of Western solutions but for carefully adjusting Western experiences to Russian specifics and ensuring that a possible problem is addressed before it entrenches and a needed reform is overdue. . A. Gershenkron argued that both Russia and the whole world had paid a high price for the belated emancipation of the Russian peasantry [14] , for Russia's belated start of modern economic growth and the backwardness from the leading Western European economies in which it resulted. It is ever more important then to take advantage of the earlier beaten track: that is, to profit by both mistakes of our own and others'.

---

[1] *A. Maddison* . The World Economy. A Millennial Perspective.-OECD, 2001

[2] *Kuznets Simon*. Modern Economic Growth. Rate, Structure, and Spread. New Haven-London: Yale University Press, 1966

[3] There is, of course, a group of countries that started modern economic growth notably later than the leaders, but managed to catch up with them. The shining example in this respect is Japan that had started its economic growth practically at the same time as Russia did and managed to enter the group of leaders by the 1970s.

[4] As emphasized by A. Maddison. See: *Maddison A*. Dynamic Forces in Capitalist Development. A Long-Run Comparative View. – Oxford- New York: Oxford University Press, 1991. P 15.

[5] He was keen to explore on how the catch-up development countries, less developed compared with the Netherlands and UK and the countries of continental Europe could introduce such changes to the system of their national institutions and their economic policies which would allow them to reach the Dutch level of development.

[6] *Marx K* . Das Capital. (Russian edition) . Vol.1. M ., 1973. P. 8-9.



[7] A characteristic example in this respect is Prof. V.I. Grinibetsky's paper 'Poslevoyennye perspektivy russkoy promyshlennosti (" Post war prospects of Russia's industrial sector") that had a serious impact on development of the *GOELRO* (the nationwide electrification) plan in the Soviet Union. The author uses analysis of the difference of Russia's fuel balance from those of more developed nations as one of the starting points

[8] Table 3 can form a basis for overly optimistic conclusions on a gradual trend towards reduction of the distance between Russia and the nations-leaders. However, it should be taken into account that in the early 1950s both Germany and France's indicators were still under a strong impact of effects of World War II

[9] >*Easterly W.* The Elusive Quest for Growth. Cambridge-Massachusetts-London; The MIT Press, 2000

[10] The data on Spain is provided because that country's path of demographic transition is close to Russia's

[11] According to the annual data of GKS of RF, it was the period between 1965-66 when life expectancy rate reached its peak in Russia. See: Demographicheskyy ezhegodnik Rossii. M., 2001

[12] See: *Zakharov S.* Kohortny analiz smertnosti naseleniya Rossii (dlogosrochnye I kratkosrochnye effecty neravenstava pokoleniy pered litsom smerti)//Problemy prognozirovaniya, 1999. # 2/ P 114-31

[13] *Roberts J.S.* Drink and Industrial Discipline in Nineteenth-century Germany. The Industrial Revolution and Work in Nineteenth-Century Europe. London–New York, 1992. P. 102–124.

[14] *Gerschenkron A.* Economic Backwardness in Historical Perspective.- Cambridge- Massachusetts: The Belknap Press of Harvard University Press, 1962