

# RUSSIA: A DYING NATION

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“Russia: It is fitting that Russia is at the bottom of the list on everything. It is a nation that has nothing going for it but oil. Large segments of its educated population have moved out; the birth rate is plummeting, the median age is rising, and the government only cares about enriching itself. Things have been going wrong in Russia since Catherine the Great. And she died in 1797.”

In this treatise, I explore the long-standing problems with the Russian economy, including demography and the health and social problems and business.

## **Section 1: Terminal Demography: An Aging Nation**

The study of the future of any nation inevitably begins with a study of its demography and two principal elements: the **ratio of children-bearing age men to women** and, concomitantly, **the natural birth rate**.

A basic demographic premise: for a **first world economy** to grow and prosper, it is necessary to have two children for every man and women. That can occur through the traditional process of a couple having children or through in-migration. The key to continual prosperity is continued population growth.

On June 22 1941 Hitler's Wehrmacht invaded the Soviet Union to initiate what would become the most brutal and costly war between two countries in history.

The surprise attack on the woefully unprepared Red Army led to devastating losses for the Soviet Union in the early phase of the war: Within the first six months, the Red Army had lost **nearby 5 million men** – the size of the Soviet Union's entire prewar army.

Some of that loss was recovered in the decade after the war, but has been on a downhill course in recent decades.

### Population Russia 1930-2020

1930	100,948,000	
1940	110,333,000	9,385,000
1950	102,798,657	<b>(7,534,343)</b>
1960	119,871,700	17,073,043
1970	130,148,653	10,276,953
1980	138,053,150	7,904,497
1990	147,531,561	9,478,411
2000	146,404,903	<b>(1,126,658)</b>
2010	143,479,274	<b>(2,925,629)</b>
2020	145,934,462	2,455,188

Source: Macrotrends

1.1

The past few years provide some indication of the future of Russia:

### Annual Population Change Russia 2015-2020

Year	Population	Change
2015	144,985,057	n/a
2016	145,275,383	290,326
2017	145,530,082	254,699
2018	145,734,038	203,956
2019	145,872,256	138,218
2020	145,934,462	62,206

Source: Macrotrends

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## Emigration/Immigration

Russia has suffered major population losses in the 2000-2010 period. Mr. Putin came into office in 2000. Five million persons left Russia during the first 20 years of Mr. Putin's rule.

A recent study revealed that one in five Russians wanted to emigrate, with younger people twice as likely to want to emigrate than older Russians. The study found that 55% of those who actually left Russia were between the ages of 20 and 40. Of those 92% had a university degree and 14% had a Ph.D.

I suspect that the Ukrainian war will result in an uptick in out-migration.

Net migration (the difference between the number of persons entering and leaving a country during the year per 1,000 persons) in Russia is 1.7 migrants per 1,000 population compared to 3.8 for the United States.

## Russia's Birth Rate

During World War II, Russia lost 25 million people in battle. Russia never recovered. Since the 1940's, Russia has had an imbalance between men and women.

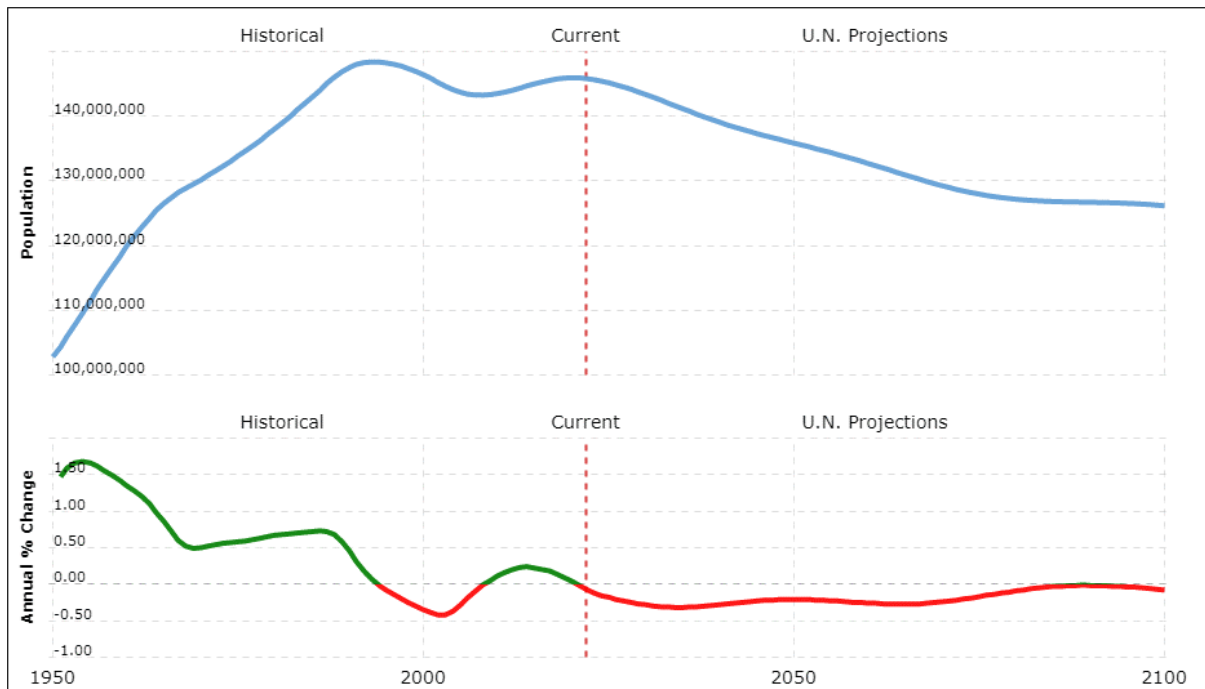
Huge **losses during World War II** have caused Russia to have the **lowest overall male-to-female ratio in the world**, especially among the elderly.

Men to Women Russia 1950-2020		
Year	Men	Women
1950	76.6	100.0
2020	86.8	100.0

1.3

The irregularities of this pyramid will continue to have an impact on the number of births and the rate of population growth and aging for several decades.

Based on research by the U.S. Census Bureau and the United Nations, Russia's population will shrink to 111 million by 2050, a loss of 35 million people.



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There are multiple factors involved in this decline:

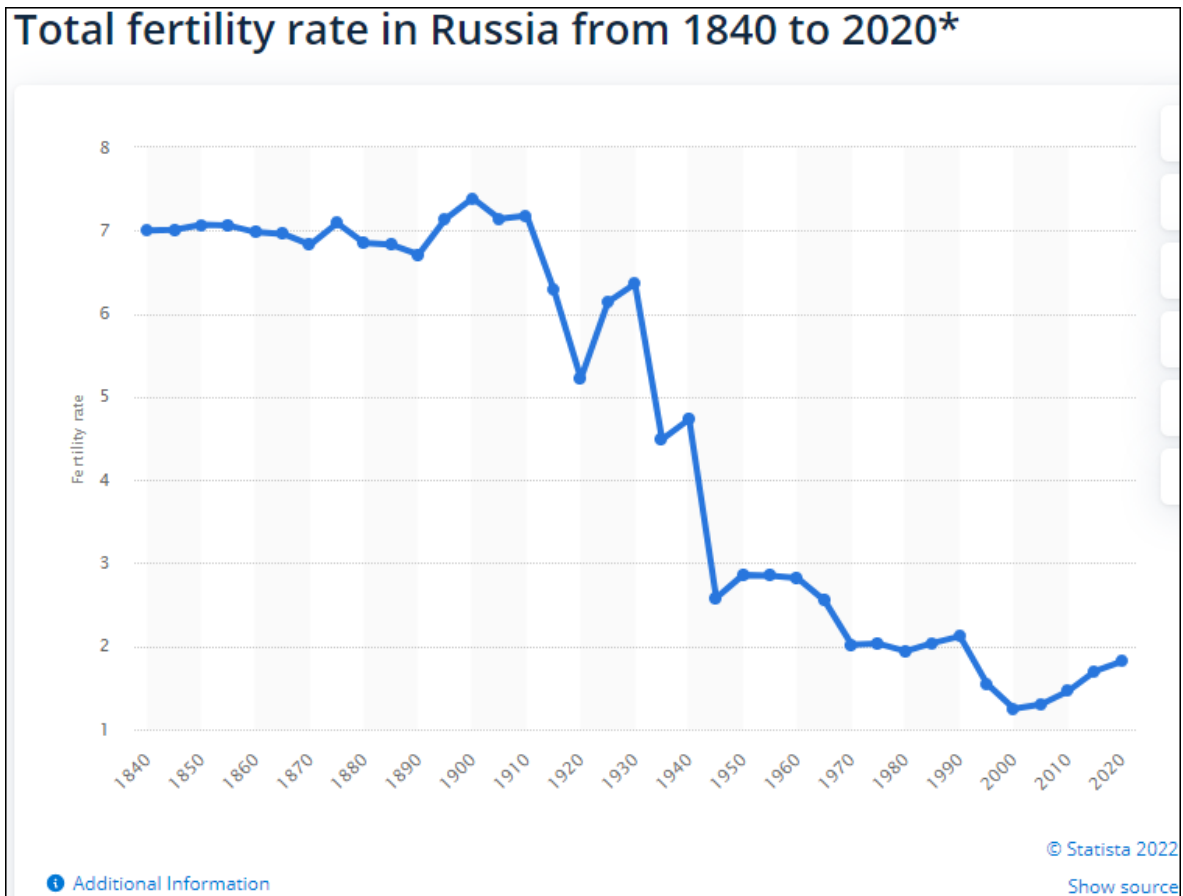
### 1. Fertility Rate

The Russian fertility rate (births per women ages 15-45) has been steadily sinking since 1970 with a 50-year low in 2000.

Total Fertility Rate Russia 1970-2020	
Year	Fertility Rate
1970	2.02
1980	1.88
1990	1.90
2000	1.55
2010	1.98
2020	1.74

## 1.5

In 2006, Mr. Putin directed his nation's parliament to develop a plan to reduce the country's falling birthrate. The president called on parliament to provide incentives for couples to have a second child in order to stop the country's plummeting population. Those incentives had a short-term positive effect.



1.6

Russia, unfortunately, also has other problems that coincide with the fertility rate:

## **2. Abortions**

Many Russian women use abortion as their sole course of birth control. According to a 2017 article in Foreign Policy, Russia has a ratio of around 480 abortions per 1,000 live births, compared to European or American 200 per 1,000.

## **3. High Death Rate**

Russia's death rate is 13.4 per 1,000 people each year. This compares with 8.2 per 1,000 in the United States and 9.4 in the United Kingdom. The death rates relate to poor health care, alcoholism and smoking.

The life expectancy of Russian males is significantly lower than many other nations – including countries with much lower economic bases:

Life Expectancy Males Russia & Other Countries	
Country	Life Expectancy (yrs.)
Israel	81.0
Japan	81.0
U.S.	76.3
China	75.0
Egypt	70.0
<b>Russia</b>	<b>68.2</b>
India	68.0

Source: World Bank

1.7

Projections for the balance of this century indicate that Russia's life expectancy will pale in comparison with other first world countries.

### Future Life Expectancy Major Countries 2020-2099

Country	2020	2099	Change	% Change
Japan	85	94	9	11%
Germany	81	91	10	12%
United States	79	89	10	13%
China	77	88	11	14%
<b>Russia</b>	<b>72</b>	<b>84</b>	<b>12</b>	<b>17%</b>

Source: United Nations

1.8

#### 4. Alcoholism

Alcoholism is rampant in Russia. A recent survey of 60,000 men revealed that 4 out of 5 drink at least a half litre of vodka each week. The other 1/5<sup>th</sup> of the men drank more.

### Vodka Consumption by Men Russia

Consumption	Respondents	%
1/2 litre per week	63,964	81%
1-3 half litre bottles	12,050	15%
More than 3 Bottles Per Week	2,842	4%
Total	78,856	100%

1.9

#### 5. Smoking

Concomitant with alcohol consumption is smoking: the vodka consumers typically smoke a pack a day.

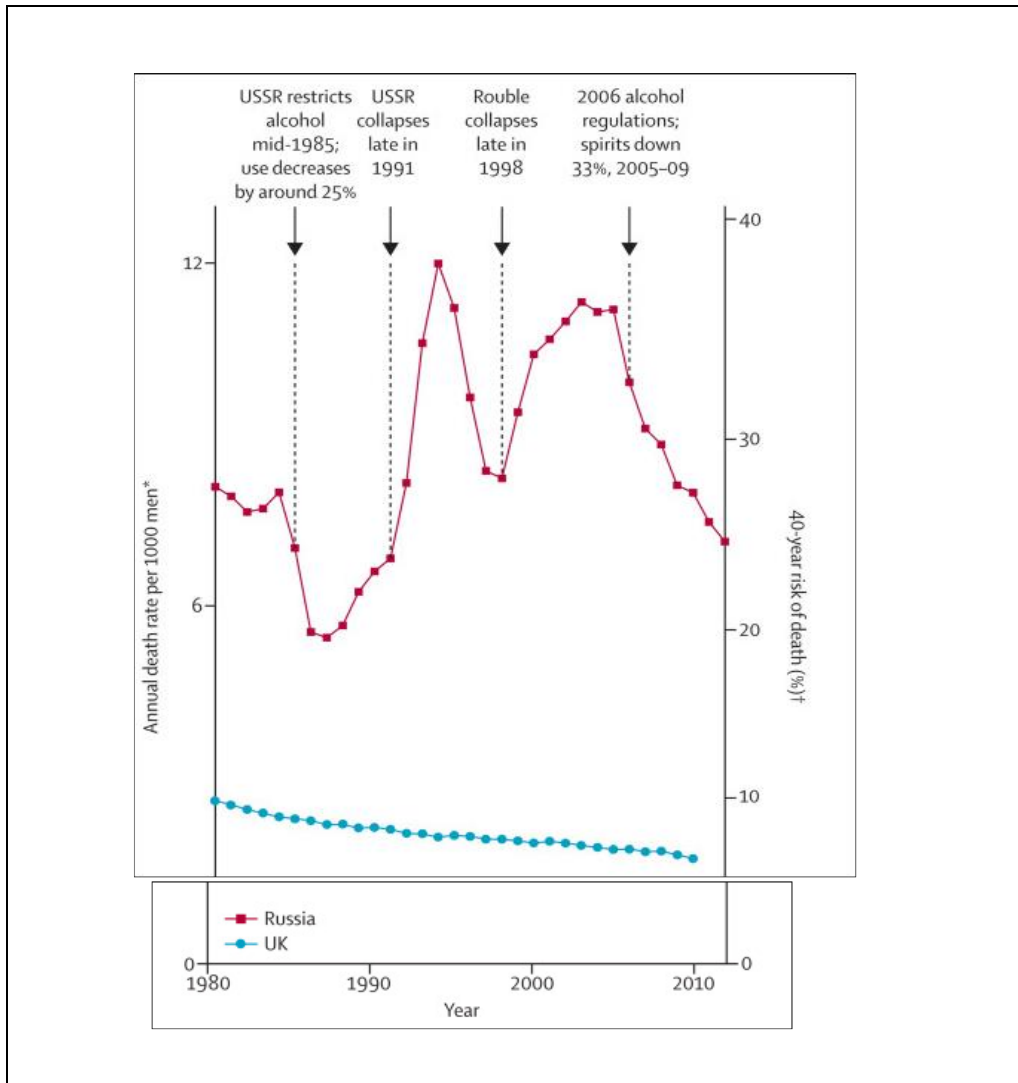
## Smoking Characteristics Vodka Consumption by Men Russia

Consumption	Respondents	Current Smoker	Cigarettes Per Day
1/2 litre per week	63,964	69%	16.10
1-3 half litre bottles	12,050	86%	19.10
More than 3 Bottles Per Week	2,842	89%	21.30
Total	78,856		

1.10

This graph shows the death rate for Russian men compared to those in the United Kingdom:





1.11

Source: World Health Organization

## 6. Ravages of Disease

“Tuberculosis (TB) is highly endemic in Russia. It is a major public health problem in this country and there is a rising incidence of multi-drug-resistant TB.”

International Assoc. of Medical Assistance of Travelers (IAMAT)

Bacterial 'superbugs' are getting ever more potent. Tuberculosis (TB) strains in Russia carry mutations that not only make them resistant to antibiotics but also help them to spread more effectively, according to an analysis of 1,000 genomes from different TB isolates — one of the largest whole-genome study of a single bacterial species so far.

## Section 2: Education System

“Russia has implemented reforms aimed at giving pupils an equal shot at a good education. But the introduction of centralized university entrance examples has so far failed to end corruption in the school system.”

Evlalia Samedova, DW's Russian service.

Russia's schools also get bad marks when it comes to social concerns – with serious consequences. **The country has the highest suicide rate among young people.**

In Russia, parents can decide what their children should learn. Very often, the parents want their children taught subjects that the teachers know nothing about.

Apparently, Mr. Putin's government has made drastic cuts of financing for education. Today in Russia, there is a vast redistribution of money from education, health, science and culture in favor of the huge military, police and state administration spending. Over the past five years, spending on education in Russia declined rapidly on all budget levels. **In the 2012-2016 period, federal spending on education decreased 26%.**

## Section 3: The Russian Economy

Russia's Gross Domestic Product, on a per capita basis, ranks among the lowest in first world countries and only marginally above China and Brazil. Its per capita GDP is one-sixth that of the United States.

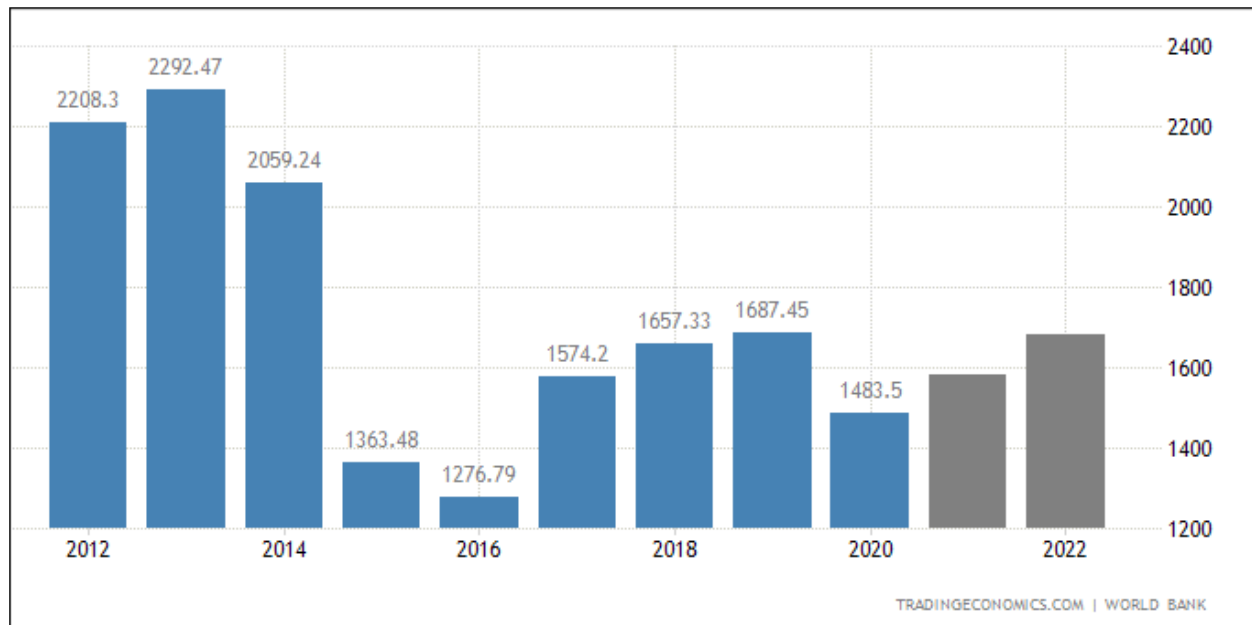
## Gross Domestic Product Per Capita Major Countries 2022

Country	GDP	GDP/Capita
United States	\$ 20.50	\$ 59,939
Canada	\$ 1.71	\$ 44,841
Germany	\$ 4.00	\$ 44,680
France	\$ 2.80	\$ 39,827
United Kingdom	\$ 2.80	\$ 39,532
Japan	\$ 4.97	\$ 38,214
Italy	\$ 2.00	\$ 32,038
<b>Russia</b>	<b>\$ 1.50</b>	<b>\$ 10,846</b>
Brazil	\$ 1.87	\$ 9,881
China	\$ 13.40	\$ 8,612
India	\$ 2.70	\$ 1,980

Source: Worldometer

3.1

The annualized GDP for the past decade is shown in this graph. Note the severe decline in GDP in 2015 and 2016. That decline was the result of the Russian invasion of Crimea and a precipitous fall in oil prices. The price of oil per barrel fell from \$100 in May 2014 to \$60 in December 2014. Reportedly, Russia needs to have \$100 per barrel to achieve a balanced budget.



3.2

Note the decline in 2020 on the above graph which shows the effect of COVID. COVID interrupted a rising GDP just as Russia was on a path to economic recovery.

Russia manufactures very little. Its primary economic output is natural resources. Eight of its top ten exports are natural resource-based

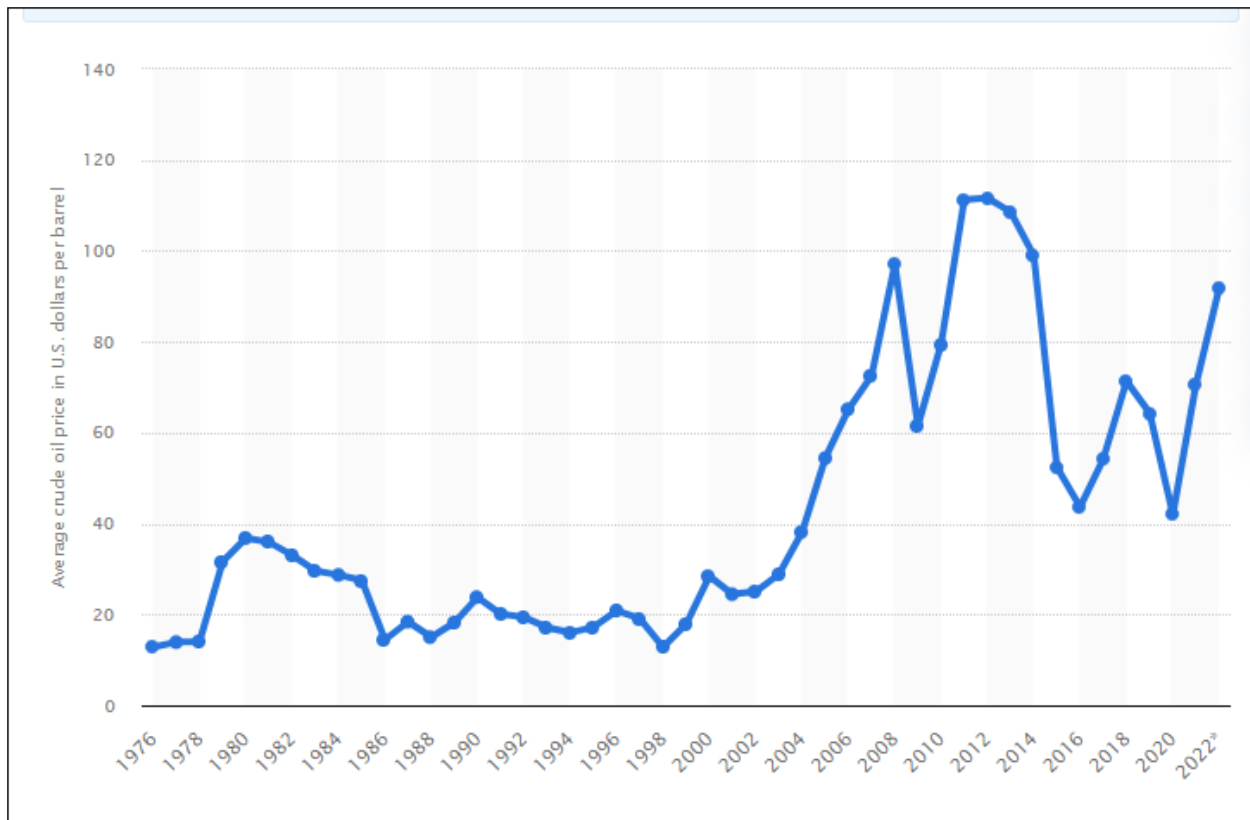
## Russian Global Shipments 2021

Product	\$ Billions	%	Natural Resource	% Natural Resource
Mineral Fuels including oil	\$ 211.5	62.5%	X	62.5%
Gems, Precious Metals	\$ 31.6	9.3%	X	9.3%
Iron, Steel	\$ 28.9	8.5%	X	8.5%
Fertilizers	\$ 12.5	3.7%	X	3.7%
Wood	\$ 11.7	3.5%	X	3.5%
Machinery including Computers	\$ 10.7	3.2%		
Cereals	\$ 9.1	2.7%	X	2.7%
Aluminum	\$ 8.8	2.6%	X	2.6%
Ores, Slag, Ash	\$ 7.4	2.2%	X	2.2%
Plastics, Plastic Articles	\$ 6.2	1.8%		
<b>Total</b>	<b>\$ 338.4</b>	<b>100.0%</b>		<b>95.0%</b>

Source: Fintech 250

3.3

And 50% of the government's revenues are **oil sales**. When the price per barrel declines, the Russian government suffers. The only way that Russia can afford to fight the Ukraine is because oil prices have skyrocketed of late. When the barrel price declines, and it always does, Russia's governmental income will plummet. And its population will suffer as well.



### 3.4

Russia does have the benefit of **mining minerals** that are very important to the development of chips. Russia produces neon and palladium which are important in chip manufacturing.

According to Fortune Magazine, Ukraine is a leading exporter of **highly purified neon** gas which is necessary for the lasers that are used to etch circuit designs into silicon wafers to create chips. And disrupting their economy will cause a shortage of the neon. The last time Russia invaded Ukraine, in 2014, the price of neon shot up 600%.

Russia is the world's leading producer of **palladium** which is essential for many memory and sensor chips. The country also produces several other key raw materials for computer chips, including the rare-earth scandium.

Russia and Ukraine together account for almost one-third of world **wheat production** with much of that shipped to countries in the Middle East and North Africa. The price of wheat has risen to some of the highest levels seen in a decade.

### Russia's Infrastructure and Ranking

The World Economic Forum ranks countries for their infrastructure. Russia ranks very low on road quality, technological adaptation and burden of government regulation.

Of the 141 countries ranked, Russia ranks in the bottom 1/3<sup>rd</sup> in soundness of banks, homicide rate, transportation infrastructure and property rights.

The graph below compares the ranking of Russia with the United States, China, Germany and Israel in eight categories. We have included Israel because 15% of its population are Russian emigrants (1.2 million).

Infrastructure Ranking World Economic Forum Major Countries								
141 Countries								
Country	Soundness of Banks	Homicide Rate	Transport Infrastructure	Utility Infrastructure	Property Rights	Skills of Current Workforce	Entrepreneurial Culture	R&D
Russia	115	114	113	50	113	49	77	23
U.S	25	96	12	23	30	5	2	3
China	93	15	24	65	43	37	34	10
Germany	64	33	7	24	30	16	9	2
Israel	16	47	26	13	29	17	1	16

Source: Global Competitiveness Report 2019

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### Russia's GDP and Economy in 2022

The Russian magazine "The Bell" has released a new update for Russian economic prospects for 2022.

The forecast calls for a fall of Russian GDP and the growth of inflation. The Bank of Russia has projected a decline in GDP of 8.0% (the maximum since 1998) and inflation at 20.0%. One week after the start of the "special military operation" inflation accelerated by a multiple of four.

The European Bank for Reconstruction and Development (EBRD) projects a shrinkage of the Russian economy by 10% this year and Ukraine's by 20%.

To combat the effects of inflation on the population, Russia has increased pension funding and an adjustment in the price of drugs and medical goods. Russia has also adjusted the rules of admission to Russian higher educational establishments for Russians who have had to stop their education abroad due to the actions of foreign states.

Russia will regard U.S. and other nation's companies that have ceased doing business in Russia as performing a "deliberate bankruptcy" and could have criminal verdicts imposed upon them in addition to huge fines.

In its update EBRD said North African countries were “greatly exposed” to the reduced global supply of wheat from Russia and Ukraine. It also warned that Central Asian economies that are heavily dependent on remittances from Russia have been badly hit by the fall in the value of the ruble and restrictions on its convertibility.

In addition, tourism is expected to take a hit in a number of countries including Armenia, Estonia, Georgia and Montenegro.

Assuming the Ukraine invasion will subside in 2022, it will take Russia and Ukraine many years to recover from the economic damages.

And from a demographic standpoint, Russia will suffer two demographic disasters in the near-term future: the loss of thousands of young men who were conscripted into the military and were killed and the permanent out-migration of a multitude of well-educated citizens.

**On balance, the future of Russia is not bright, either demographically or economically. Its population will continue to decline and its finances will continue to hinge on high oil and wheat prices.**