

## Will Russian Federation survive until 2031?

### Russia, China and climate change predicament

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In 1969 Russian historian Andrei Amalrik wrote his famous essay “Will the Soviet Union survive until 1984?” At the time when Soviet Union appeared as a solid, unshakeable, almost eternal entity “forged forever by mighty Rus”<sup>1</sup> and no known western sovietologists were considering the possibility of the Soviet Union’s collapse. Amalrik anticipated, that within the next short 15 years the USSR would disintegrate. History proved him almost right.

To understand the boldness of his prediction, one has to recall the time when it was made. Just eight years earlier, the USSR succeeded in sending the first man to the space. Only one year earlier, the invasion of tanks sent to Czechoslovakia, destroyed hopes for “socialism with a human face” and broke the neck for the last chance to reform the Soviet Block.

When the Soviet Union’s successor meets the same end – as is suggested and outlined in this essay - will the U.S. and West be equally surprised and forced to chaotic improvisation as was the case in the aftermath of 1991? Or can the West – the United States in particular – this time prepare in advance and hopefully better for such a scenario?

Amalrik based his bold prediction on two main assumptions. One was the observed stagnation and gradual decline of the Soviet empire from within, its inner rigidity, apathy, deep demoralization of Soviet people and its inability to modernize. *“Soviet rockets have reached Venus, while in the village where I live, potatoes are still dug by hand. This should not be regarded as a comical comparison; it is a gap which may deepen into an abyss.”*<sup>2</sup>

Amalrik’s second assumption was the expectation of conflict with China. In this he was wrong - at least wrong so far. The border war between the Soviet Union and China was settled, China

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<sup>1</sup> Citation from the Soviet Union anthem

<sup>2</sup> <http://www2.stetson.edu/~psteeves/classes/amalrik2.html>, in Russian <http://www.vehi.net/politika/amalrik.html>

proved to be too weak to challenge Moscow in the late 1960's. Instead of war with China, it was a war in Afghanistan (December 1979 – February 1989), that gave the final blow to the Soviet Union.

However, China did not disappear and current China is not what she was in Amalrik's time. The current Russian Federation too, is just a pale shadow of the former Soviet Union. China's GDP in the 1960's was less than 100 billion USD<sup>3</sup>. In 2016, it is forecast to achieve almost 11 000 billion USD<sup>4</sup>. According economist Alexander Nemec, China's real GDP, if calculated by the U.S. standard methodology, may be as much as 60% higher than the official figure.<sup>5</sup> China's population in the 1960's was around 700 million – today it is 1.4 billion people<sup>6</sup>. The Soviet Union's GDP in the Amalrik's time was around 450 billion USD – 5-times the Chinese. In 2016, it is forecasted to be 1 300 billion USD – roughly 13% of China's official GDP. The Soviet Union's population in 1970 was 242 million people<sup>7</sup> – Russia's population in 2016 is just a little over 140 million – 10% of Chinese.

In 1969, China was a developing country. Today it is global industrial and technological powerhouse. One way to compare perspectives of the two countries is to look at the quality of their universities and science. There were only two Russian universities included among the top 500 world universities listed in "Academic Rankings of World Universities 2015"; namely Moscow and Saint Petersburg State Universities.<sup>8</sup> There are 32 Chinese universities on the same ARWU list.<sup>9</sup> For European comparison, Denmark, with 5 million people has five such universities. Finland, with the same number of citizens, has six. Chinese scientists published 453 000 scientific papers in 2014.<sup>10</sup> The same year Russian science produced 50 000 works. The last year Russian scientists published more than Chinese was in 1996 which was 20 years ago.

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<sup>3</sup> <http://www.tradingeconomics.com/china/gdp>

<sup>4</sup> <https://knoema.com/nwnfkne/world-gdp-ranking-2015-data-and-charts>

<sup>5</sup> <http://www.kasparov.ru/material.php?id=571535519464F>

<sup>6</sup> <http://www.tradingeconomics.com/china/population>

<sup>7</sup> [https://en.wikipedia.org/wiki/Demographics\\_of\\_the\\_Soviet\\_Union#Population](https://en.wikipedia.org/wiki/Demographics_of_the_Soviet_Union#Population)

<sup>8</sup> <http://www.shanghairanking.com/World-University-Rankings-2015/Russia.html>

<sup>9</sup> <http://www.shanghairanking.com/World-University-Rankings-2015/China.html>

<sup>10</sup> <http://www.scimagojr.com/countrysearch.php?country=CN&area=0>

Times have changed tremendously, and not in Russia's favor. Today's Russia is no match for China; and tomorrow's Russia even less so. While there are many possible scenarios for the fall of the last empire on the Earth, Amalrik's vision of China causing ultimate disintegration of Russia may still be ahead of us.

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The Kremlin's narrative after the occupation of Crimea and beginning of the Donbas war in 2014 was that Russia was turning its back on the West to embrace China. The emblematic sign of this geopolitical maneuver was supposed to be the 400 billion USD natural gas deal between Russia and China signed with much fanfare in May 2014. Facing hesitant and cautiously metered Western sanctions, Russia hastily signed the contact with China negotiated over the previous 10 years. According to this contract, starting in 2018, Russia should annually deliver 38 million cubic meters of natural gas to China. This is a volume equaling 1/3 of the recent annual flow to Europe. However, the "big turn to the East" does not seem to have worked as expected. In the first half of 2015, Russian trade with China dropped by 29%<sup>11</sup>. The celebrated gas deal signed in 2014, also failed to materialize and does not show any significant progress<sup>12</sup>.

March 15, 2014 China abstained from the UN Security Council's vote on the Crimean referendum about secession from Ukraine. China's abstention was appreciated by both sides of the dispute. The U.S. and other supporters of Ukrainian territorial integrity welcomed China (currently acting as a close ally of Russia) not voting against the proposal put forward by the United States. Russia interpreted Chinese abstention as an expression of China's silent support for the annexation of Crimea.

The most common explanation of the "balanced policy" approach chosen by the Chinese with regard to both Russia and Ukraine is China's intention to sustain good relations with both countries and to avoid alienation of both the aggressor and the victim. Hidden underneath this first level of explanation, however, may be a much less benevolent theme. The argument used by Russia in the Crimea debate at the UN Security Council and the political and military technology of Crimea occupation may once be re-used in an incomparably larger (albeit currently frozen) land dispute eight thousand kilometers east of Black Sea.

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<sup>11</sup> <http://www.bloomberg.com/news/articles/2015-09-01/putin-s-china-turn-hits-potholes-as-trade-drops-markets-slide>

<sup>12</sup> <http://thediplomat.com/2015/09/a-cold-summer-for-china-and-russia/>

## Historical context

To understand why the annexation of Crimea may prove to be one of the worst political decisions in the Russian history, we need to return to the 19<sup>th</sup> century. In 1858, Chinese Qing Dynasty was in the middle of the Taiping Rebellion, with more than 20 million estimated dead, in one of the most devastating wars in the entire human history. At the same time, China was also weakened by the Second Opium War (1856-1860) as Franco-British expedition forces were occupying Canton and were threatening other parts of China. On the other side of Eurasia, the Russian Empire was recovering from its defeat in the Crimean war, which ended in 1856. Encouraged by China's weakness, Russia amassed troops along the Chinese border and threatened China with an invasion. Under Russian guns, the Chinese government signed the Treaty of Aigun and surrendered a huge territory known as Outer Manchuria to Russia.

Annexation of Outer Manchuria appears to be well rooted in the Chinese historical memory. In the July 1964 meeting with a Japanese socialist delegation, Mao Zedong stated that Russia had stripped China of vast territories in Siberia and the Far East saying: *"There are too many places occupied by the Soviet Union. About 100 years ago, the area to the east of Lake Baikal became Russian territory and since then Vladivostok, Khabarovsk, Kamchatka and other areas have become Soviet territory. We have not yet presented our account for this list."* (Bolton 2009) Clearly, Mao Zedong's list goes well beyond the historical borders of Outer Manchuria.

## Sino-Russian friendship

The 2001 Sino-Russian Treaty of Friendship stipulates that both China and the Russian Federation have no territorial claims and intend to respect each other's territorial integrity. (Cohen 2001). However, as vividly illustrated by the fate of Budapest Memorandum of 1994, treaties tend to go away if they stand in the way of interests of certain political leaders.

From the perspective of Sino - Russian relations, a good recent example of how short lived international agreements and treaties can be is the termination of Sino-Soviet Treaty of Friendship, Alliance and Mutual Assistance signed in 1950. Despite the formal validity of this "Friendship treaty", Soviet and Chinese soldiers encountered each other violently, virtually thousands of times during the 1960s. This peculiar "friendship" between China and the Soviet Union culminated in 1969 – around the time, when Amalrik was writing his essay - in border clashes on the Ussuri River, claiming hundreds lives. Chinese troops were massacred by militarily superior Soviets, so badly that Mao ordered the digging of earth defenses around Beijing to stop the Soviets should they choose to advance. According to H.R. Haldeman, President Nixon's chief of staff at that time, *"In 1969 the Russians approached the USA for a joint strike against China. Nixon rejected the Russians, but was informed that they intended to proceed anyway. He warned Rus-*

*sia that the USA and China shared common world interests, and would send 1300 airborne nuclear weapons to Russian cities” (Bolton 2009).*

The Sino-Soviet friendship treaty of 1950 was eventually terminated by Deng Xiaoping within the context of the Sino-Vietnamese war of 1979. The Chinese pretexts for the invasion of Vietnam were: mistreatment of ethnic Chinese minority by Vietnamese authorities, Vietnamese occupation of Spratly Islands claimed by China, and Vietnam’s “intimacy” with the Soviet Union. (Elleman 1996) Practically an identical construction was used by Russia as the pretext for occupation of Crimea in 2014.

While from a military perspective, the Chinese war against Vietnam was a debacle (Howard 1999), it sent a clear and loud message to the Soviet Union - Vietnam’s main ally and patron - and by that achieved its strategic purpose. Despite a defense treaty signed between the Soviet Union and Vietnam in November 1978, Soviets were not willing to enter a full scale confrontation with China and to support Vietnam by military intervention. To prevent Soviet intervention, China put an estimated 1.5 million troops around the Sino-Soviet border on a full emergency alert. While militarily inferior to Soviet army, the concentration of Chinese troops gave a strong signal that China was prepared for a full-scale war against her nuclear - superpower neighbor (Zhang 2010).

### **“A gasoline station of the West”: Russia’s oil and natural gas dependency**

The history of Sino-Russian relationships provides ample evidence of abuse of power, tensions, suspicion and violence. The recent lull is the result of a delicate balance between the fast growing economic and military power of China and the relatively stabilized situation of Russia in the early 2000’s, fueled almost entirely by income from export of oil and natural gas. The whole economic and social improvements as well as military build-up of Putin’s era were almost exclusively built on the high price of oil and natural gas. To anticipate future balance of power between China and Russia, we need to consider several key trends that will unsettle this soft equilibrium.

Prior to the fall in oil and gas prices in 2014, around 60% of Russia’s federal budget depended on oil and natural gas revenues. Others put the estimates as close to 80% (Fin 2012). There are also estimates as low as 50% (Bush 2014). Russia’s oil and gas infrastructure is quite old and worn down, to sustain the current production would therefore require massive investments and western technologies. When oil prices dropped shortly in 2008, the Russian economy was hit very seriously. The same pattern is repeated since the major drop in oil prices in 2014. Russia’s economic, political and military power is fully dependent on oil and natural gas prices and on the country’s ability to sustain high export.

Since around 2010, Russian oil and natural gas exports have been practically stagnant, while the revenues from oil and gas export plummeted in 2015. Russia's income from the export of oil during the first three months of 2016 fell by 38% in comparison to the first three months of 2015.<sup>13</sup> According to Yegor Gaidar, former Prime Minister of Russia, stagnation in production and exports of oil from Soviet Union in 1980s and the sharp drop in world oil price at the same time, combined with the need to import grains to feed the Soviet population, were fundamental economic reasons for the collapse of Soviet Union and disintegration of the former Eastern Bloc (Gaidar 2007). It appears reasonable to assume that after Russian oil production reaches its peak and starts to decline – most likely in the not-so-remote future – the Russian economic and social system will be under big stress. This may, at the very least, lead to a weakening of the country's international position and, in the worst-case scenario, cause a deep social crisis, unrest and possibly even the disintegration of the Russian Federation not unlike the disintegration of the USSR.

### **Emerging water scarcity and food insecurity in China**

The other key factor which is likely to unsettle the current fragile Sino-Russian balance is rapidly advancing climate change and its impact on water resources and food production. While the Chinese population (1 367 million, as of July 2015)<sup>14</sup> continues to grow, albeit at a much slower rate than before, progressing climate change is likely to decrease the availability of water and reduce agricultural productivity in many countries of the world, including China. Despite having 19% of the global population, China has only 7% of world's arable land, which historically made the country extremely vulnerable to food insecurity and famines.

Chinese agricultural output is heavily dependent on irrigation, but agriculture competes for water with growing industrial and communal use of water. Ten years ago author Fred Pearce described the situation in the Yellow River's basin in the following words: *"... more than half the lakes have disappeared in the past twenty years, and a third of the pastures have turned to desert. In the river's middle reaches, irrigation canals are running dry, fields are being abandoned, and desertification is generating huge dust storms that spread east, choking lungs in Beijing...The desiccation of the Yellow River and its basin is an economic as well as an environmental disaster... The wheat harvest fell by a third in six years from 1990s. A new dust bowl looms in the breadbasket of China, reminiscent of the disaster in the U.S. High Plains in the 1930s. The World Bank warns that the desiccation will bring "catastrophic consequences" for China's ability to feed itself"* (Pearce 2006). On top of drying rivers, China also faces the problem of overused

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<sup>13</sup> <http://ria.ru/economy/20160511/1431367214.html>

<sup>14</sup> CIA estimate for July 2015, see <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>

underground water resources. Pearce writes: *“Every year perhaps 100 million Chinese eat food grown with underground water that the rains are not replacing”*.

The decrease in availability of water is extremely serious, already in the present time. A survey published in Beijing in 2001 suggests: *“...the water table under the North China Plain, an area that produces over half of the country’s wheat and a third of its corn, is falling fast... in the Hebei province in the heart of North China Plain, the average level of the deep aquifer was dropping nearly 3 meters per year. Around some cities in the province, it was falling twice as fast.”* Lester Brown quotes a World Bank report *“Anecdotal evidence suggests that deep wells around Beijing now have to reach 1,000 meters to tap fresh water”*. U.S. Embassy in Beijing reports: *“Wheat farmers in some areas are now pumping from a depth of 300 meters. Pumping water from this far down raises pumping costs so high that farmers are often forced to abandon irrigation”* (Brown 2008).

Major famines were a constant feature of Chinese history. The last big famine in Chinese history, the Great Chinese Famine of 1959-1961, caused by the combination of wrong policies (Great Leap Forward) and natural disasters (drought and bad weather), is still living in the memory of Chinese people and leaders (Weisman 2013). According to official figures, famine killed 15 million people. Scholars put the number of premature death due to famine at 20 to 43 million dead and Dutch historian Frank Dikotter puts the number at 45 million. Regardless of what was the exact number of famine victims, food security is very high on the list of China’s priorities.

It is only a matter of time when the Chinese food security will be seriously threatened by the advance of climate change. According to 2013-2014 World Resources Report, crop yields in large parts of southern and central China may decrease by 20 to 50% by 2050. Without going to sufficient geographical details, the Intergovernmental Panel for Climate Change states in its 2014 report: *“The effects of climate change on crop and food production are evident in several regions of the world (high confidence)... All aspects of food security are potentially affected by climate change, including food access, utilization, and price stability (high confidence)... Without adaptation, local temperature increases in excess of about 1°C above pre-industrial is projected to have negative effects on yields for the major crops (wheat, rice and maize) in both tropical and temperate regions, although individual locations may benefit (medium confidence)”* (IPCC 2014). At the time when the IPCC report was published, the average global temperature was 0.8°C above pre-industrial level. In 2015, the average global temperature was already 0.9 C above the 20<sup>th</sup> century average<sup>15</sup>. By 2016, fifteen out of the 16 hottest years on record were in this century.

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<sup>15</sup> <https://www.ncdc.noaa.gov/sotc/global/201513>

Crop ecologists expect grain harvest to drop 10% for each 1°C rise in average ambient temperature. *“Even at 0,8 °C (global temperature) increase, China barely missed losing its winter wheat crop in 2011. Thanks to last-minute March rains, the harvest was saved: few dared imagine the chaos had shaky Egypt, the world’s largest wheat importer, been forced to bid against China for grain”* (Weisman 2013). Even fewer dare to imagine a major heat wave or drought hitting central regions of United States of America and destroying wheat and corn harvest there for a few consecutive years. USA is by far the largest global exporter of grains and such a climate event would inevitably push global – including Chinese - food security over the edge.

Although the climate change predictions only provide very rough estimates as to how much of the future harvests may be destroyed by heat waves, droughts, floods or wildfires, the 2010 Russian heat wave gives a strong indication of how globally disruptive the climate instability can be. In the summer 2010, one third of Russian agricultural land was affected by a wave of extreme heat, reducing Russian grain harvest by around 40% to 60 million tons. This led to Moscow’s decision to ban grain exports from the country (Parfitt 2010). Russia was the world’s second biggest wheat exporter in 2009. Therefore, this move contributed to a steep increase in global food prices in the second half of 2010 and, according to some analysts, was one of the key triggers in destabilization of many Arab countries known as “Arab Spring” in early 2011 (Mesik 2010).

### **Warming China, warming Siberia**

However, just as the climate change will threaten food security in many parts of the world, China included, it also begins warming up the largely uncultivated land of southern Siberia and the Russian Far East, making it increasingly attractive to those in need of more land, water and food.

Warning predictions for future food security of China can be drawn from the study of Aiguo Dai. Maps published in Dai’s paper “Drought under global warming: a review” (Dai 2011) suggest that extreme and severe drought conditions may eventually develop over large parts of the Mediterranean and Black Sea regions, most of the United States, southern Canada and Mexico. Less intensive drought conditions are predicted in southern China already by the 2030-2039 decade. Drought conditions in North America and Europe are important in this context, because USA, Canada, European Union, Russia and Ukraine are the biggest exporters of wheat and corn, two of the three most important sources of food calories and staple foods of humankind. Higher incidence and extent of heat waves and droughts in North America and Europe may continue to push the prices of food up – a trend already well in progress, as illustrated by FAO’s Food Price Index.<sup>16</sup>

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<sup>16</sup> For overall trend and actual figures see <http://www.fao.org/worldfoodsituation/foodpricesindex/en/>



According to the FAO, China was still importing only a relatively small percentage of food as of 2010; a small percentage, if compared to let's say, Arabic countries. However, the situation may worsen. Chinese leaders are well aware of the risk and China is actively renting, or "grabbing", agricultural land in Africa, Latin America and wherever else possible. Climate change-induced decrease in grain exports from the United States, Canada or Europe will initially increase the economic burden of importing food to China. Eventually the current food exporters will, however, not be able to feed the world's and China's growing needs. In case of a disastrous harvest in China, the country will not have a choice but to grab any land and water resources that may be left available for food production. Only one country has enough land and water to support hundreds of millions of, by then possibly starving, Chinese; Russia.

### **China, Russian Far East and Siberia**

According to the 2010 census, the entire Siberian population was 25.6 million people. The Far Eastern Federal District, with a territory of 6.2 million sq. km, had a population of 6.3 million people; roughly 1 person per 1 sq. km. The population of the Russian Far East region dropped by 25%, from 8.3 million to 6.3 million, between the 1989 census and 2010. In comparison, the entire China with its 1,355 billion inhabitants covers an area of 9.6 million sq. km. Four north-eastern provinces of China bordering Russian Far East alone have a population over 130 million people.

The onset of the terminal downfall of Russian oil production is more likely a matter of years than decades. It may be further quickened by capital outflows accelerated after the annexation of Crimea. Private capital outflow from Russia in 2013, reached 59.7 billion (Fitch Ratings 2014), followed by around 150 billion in 2014<sup>17</sup> and another 59 billion in 2015<sup>18</sup>. Sanctions on exports of technology from the U.S. and EU further reduce the ability of Russia to sustain oil and natural gas production, for instance, by developing shale oil and gas extraction. It appears to be a matter of a relatively short time before Russian oil production starts to decline. A prolonged period of low oil prices (below 50 USD per barrel in May 2016) would make this decline sooner and sharper.

Russian oil and natural gas production is quite likely to reach its terminal decline around the same time, when worsening climate conditions and declining food production forces China to look aggressively for food security solutions for her 1.4 billion people. Thus China will be pushed

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<sup>17</sup> <http://europe.newsweek.com/putin-ukraine-sucked-black-hole-he-cannot-escape-334350?rm=eu>

<sup>18</sup> <http://www.themoscowtimes.com/business/article/russian-capital-outflow-hit-59-billion-last-year/556219.html>

to get access to Siberia's arable land and water resources at the same time, when Russia's economic and military strength and international influence quickly declines.

*"It is difficult to make predictions, especially about the future"*, goes the saying often attributed to Niels Bohr. To predict the exact form, pattern and extent of the Chinese "Reconquista of Siberia" would be largely speculative. If history can give us any clues, we should remember that some of the worst disasters in Russian history were set off by climate disturbances. Drought or floods-triggered conquests would not be unprecedented events at all. The most devastating period in Russian history was the Mongol invasion and subsequent 250 years of the Golden Horde rule over Russian principalities. This national disaster struck Russia after a period of drought in the steppes of Mongolia and Central Asia triggered unification of Mongolian tribes under Genghis Khan's leadership (Fagan 2008). In more contemporary times, the destabilization of climate attributed recently to the eruption of the Huaynaputina volcano in 1600 resulted in the most devastating famine in Russian history. Starvation killed 2 million people – one third of Russia's population – and led to a period of political chaos known as the Time of Troubles, which included the fall of Moscow to the Polish-Lithuanian invasion.

### **Siberia take - over scenarios**

In an article written in 2005 entitled "China's manifest destiny" its author speculates about four different scenarios for China's expansion to Siberia. In one of them, he writes: *"China will play a waiting game with Russia, hoping the country will eventually implode from a lethal combination of ethnic strife, government corruption, Islamic rebellion, fiscal mismanagement, and a commodities-driven economy that lacks diversity. When a total collapse does occur and chaos ensues, China will move in a deliberate and swift fashion across its 4,000 km boarder with Russia to secure what it can of the Russian Far East and Siberia"*. (Stakelbeck 2005)

Many years earlier, in the period of Sino-Chinese border clashes on the Ussuri River in 1969, American Pulitzer Prize winning journalist and author Harrison Salisbury arrived to very similar conclusions. According to him, food and population crisis will eventually result in China seeking space and resources in Siberia – *"China will not sit back and starve with the lands of Russia beckoning. They will – and must – fight"* (Salisbury 1969).

According to analyst Bobo Lo, many Russians living in the Russia's Far East would agree with Salisbury's or Stakelbeck's perspective: *"They (Russians) feel no matter how sweet the political relationship, nature abhors a vacuum and therefore as soon as China feels brave or confident enough to move into the Far East, it will"* (Garnaut, 2008).

A crisis in food production in China would almost certainly send hundreds of millions of refugees in all directions, but especially into Siberia – writes Australian science journalist Julian Cribb. He

also quotes former CIA director R.J. Woolsey: *“A small Russian population might have substantial difficulty preventing China from asserting control over much of Siberia and Russian Far East. The probability of conflict between two destabilized nuclear powers would seem high”* (Cribb 2010).

Reflecting on the consequences of the Russian invasion into Ukraine and the annexation of Crimea, Russian specialist Artyom Lukin is partly right stating *“China will be the principal winner in the battle for Ukraine... What is now occurring in Ukraine and around it will inevitably affect the games being played out on the opposite side of the board”*. A very important question, however, is also: Who will be the principal loser of “the game”?

### **Crimean Pandora box**

After falling victim to the classical resource curse and wasting an opportunity to develop a diversified and strong economy after 1991 and again in Putin’s era after 2000, Russia is now a giant with feet of clay having only very limited – basically two - geopolitical options. One was to cultivate a good relationship and trust with Europe and the USA. After annexation of Crimea and war in Ukraine, this option is practically lost. The second one is to try to stay afloat by selling as much oil, gas and weapons to China as possible, thus aiding China’s “peaceful rise” strategy. By choosing this option, Russia willy-nilly assists the growth of China to power which, when the time is ripe, will most likely reverse China’s humiliation by Russia in 1858.

How far will China go in a new partition of Siberia is a matter of speculation, but the possibility of annexation of a very large part of Siberia or even reduction of Russia to her European part cannot be entirely excluded. The process can take the form of a friendly takeover, in which Moscow will formally remain in control of the Far East and Siberia, while real decisions will be made in Beijing, but a violent takeover cannot be excluded either.

It is quite possible that even the best relationships with the West would not reverse Russia’s geopolitical predicament resulting from the consequences of the climate change and the peaking of Russian oil and natural gas production and export. When (how soon) and how (negotiated process versus violent takeover) Russia will lose the Far East and Siberia to China and how big a part of it, may, however, be significantly influenced by the current Russian aggression against Ukraine and the damage done to the relationship with Europe and USA.

Sanctions on export of advanced technologies and outflow of capital from Russia were already mentioned as important factors gradually weakening Russia alongside a drop in oil and gas prices. At the same time, increased tension with the West and possible geographic expansion of NATO (Ford 2014, Steffen 2014) will bind a large part of Russian military close to the western borders, leaving the Russian Far East much more vulnerable than would be the case if there

were friendly relationships or alliances with western neighbors. In addition, the withdrawal of U.S. and NATO forces from Afghanistan and Putin's Syria adventure will increasingly expose Russia's "underbelly" to growing pressure from the side of Moslem radicals. Thus, the quality of the relationships with the West may influence both the time and the size of the territory lost to China.

### **Geography and population working against Moscow**

When China decides to move, Russia will likely be in no position to stop a Chinese advance by conventional military power. In 1905, Russia lost a war against Japan largely due to the fact that Russia was unable to move its troops and resources from the European west to the east across huge distances in sufficient volumes and speed. Between 1918 and 1919, around 60 000 strong Czechoslovak legions controlled practically the entire Siberia for more than a year by holding the Tran-Siberian Railway. Indeed, one hundred years later, the situation is different, but not so much. From a transportation point of view, the only significant difference is the addition of the Baikal-Amur Mainline, completed in 1991. Air transport would play a role in modern conflict, but its capacity to transport large volumes of military supplies needed for a lasting defense is seriously limited and the vulnerability of transport planes to modern anti-aircraft weapons is very high.

Historically, Russia's large distances and harsh climate played in favor of Russians in European wars (1812 and 1941-45). In case of a conflict with China, huge distances and extremely low population density are incomparable to the Europe war theaters and would play the exact opposite role; they play in favor of China and against Russia.

Rail distance from Moscow to Khabarovsk, the largest Russian city in the Far East is 8500 km while Harbin – Khabarovsk distance is 1360 km. Moscow to Vladivostok rail distance is 9300 km. Meanwhile, the Harbin to Vladivostok distance is 820 km. Harbin is the north China city with a metropolitan population of 10.6 million people, thus comparable to Moscow. Rail distance between Khabarovsk (around 600 000 inhabitants in 2010) and the nearest Russian city with 1 million inhabitants – Novosibirsk with 1.6 million people<sup>19</sup> in western Siberia - is 6000 km. The distance from Harbin to Beijing with its population of 19.8 million, is 1250 km, or eight hours travel time. The railway map of China below provides a basic idea about the railroad density and quality in the north-east China.

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<sup>19</sup> <http://www.statista.com/statistics/275380/largest-cities-in-russia/>



Source: Wikipedia<sup>20</sup>

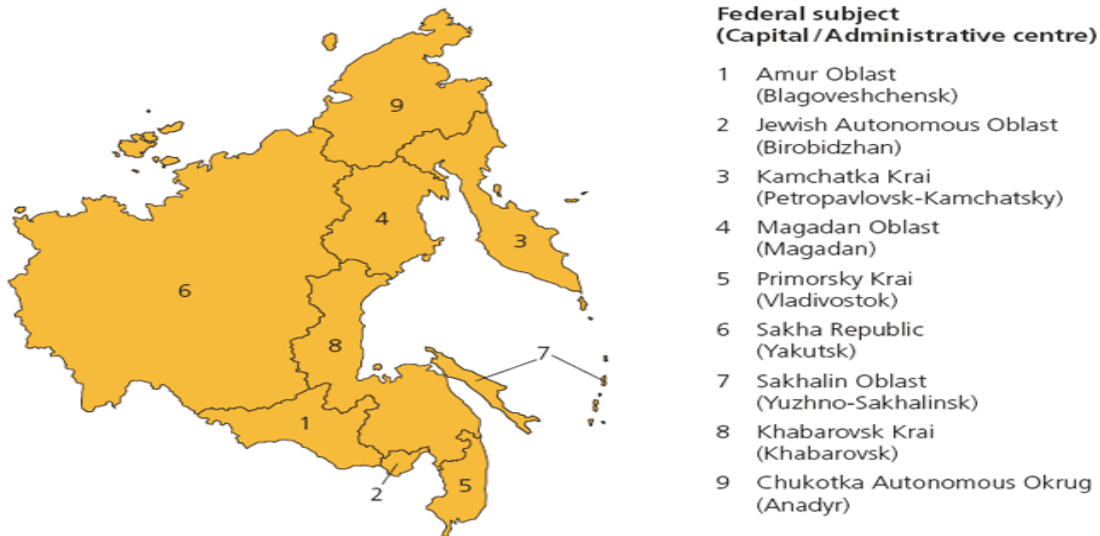
On the European war theaters of 1812 or 1941-45, comparable distances simply did not exist. The road distance from Paris to Moscow is 2 800 km. From Warsaw to Moscow is a meager 1300 km.

Conditions for supplying armies in case of conventional warfare in Eastern Siberia hugely favor China. As was already mentioned, whole the population of the Russian Far Eastern Federal district covering a territory of 6.2 million km<sup>2</sup> was 6.2 million people. The vast majority of them are concentrated along the border with China. By Chinese or European standards these are middle size towns: Khabarovsk and Vladivostok, both with 600.000 people, Komsomolsk on Amur with 260 000, Blagoveschensk with 200.000, Ussuriysk with 160.000, Nakhodka with 150.000, Artem with 100.000 people. All the cities named, except Komsomolsk and Nakhodka, are located within 50 kilometers from the border. Three regions further west towards Lake Baikal and beyond it

<sup>20</sup> [https://en.wikipedia.org/wiki/Rail\\_transport\\_in\\_China#/media/File:Rail\\_map\\_of\\_China.svg](https://en.wikipedia.org/wiki/Rail_transport_in_China#/media/File:Rail_map_of_China.svg)

- Zabaykalsky Krai, Buryat Republic and Irkutsk Oblast – have a combined population of 4.3 million people. The population of their respective capitals ranges between 300.000 and 600.000.

**Map of Far Eastern Federal District of Russia by Federal Subject**



Source: Federal State Statistics Service of Russia

Size and population of individual administrative units within the Far Eastern Federal District:

1.	Amur Oblast	- 364.000 km <sup>2</sup>	- 830.000 people
2.	Jewish Autonomous Oblast	- 36.000	- 180.000
3.	Kamchatka Krai	- 472.000	- 320.000
4.	Magadan Oblast	- 461.000	- 160.000
5.	Primorsky Krai	- 166.000	- 1.960.000
6.	Sakha Republic	- 3.102.000	- 960.000
7.	Sakhalin Oblast	- 87.000	- 500.000
8.	Khabarovsk Krai	- 753.000	- 1.340.000
9.	Chukotka Autonomous Okrug	- 738.000	- 50.000

China lost badly in the Sino – Russian border clashes in 1969 and ten years later in 1979, did not succeed militarily in the Sino – Vietnamese war. China and her military in 2016, however, is very different compared to 1979 - not to speak about 1969. Two-digit annual economic growth over

the period of 20 years enabled China not only to become an economic and industrial giant, but also to catch up militarily with Russia. After the split of the Soviet Union, during the twelve-year period of 1992 to 2004, the accumulated military budget of Russia reached 495 billion USD (in 2011 dollars); while that of China was 513 billion USD, e.g. more-less the same. However, between 2005 and 2013, military expenditures of China reached 1 219 billion USD – 2.1 times more than the Russian military budget of 582 billion USD. From 1992 to 2013 China invested 1.6 times more in military than Russia.<sup>21</sup>

The level of Russia's militarization is already extreme. In the first quarter of 2016, 37% of Russia's federal budget expenditures were used for military and security.<sup>22</sup> According to the Global Militarization Index published annually by Bonn International Center for Conversion, Russia is notoriously among the 5 most militarized countries in the world.<sup>23</sup> There is little room for more militarization of the country. Yet, the mighty Soviet Union was defeated by poor and badly equipped Afghans. What is the chance of much weaker Russia to stand up against rich China with its well-equipped and trained forces - especially when the vast majority of Russian forces are concentrated far away in Europe, while the Chinese army operates much closer to the Russian border?

### **Reading from the Crimea textbooks translated to Chinese**

We can assume that to defend their control of Far East and Siberia, Russians would try to compensate for their conventional weakness by threatening nuclear retaliation- just as they apparently intended in 1969. However recent Russian annexation of Crimea provided the Chinese with a ready-to-use methodology which would make the use of nuclear arms extremely complicated.

Instead of starting their "March to the North" by open military invasion, critical Siberian locations and infrastructure can be taken and eliminated from operation by well trained and armed "little green men" in camouflage uniforms without military markings. Proper training and equipment of such men could be copied, for instance, from the Russian 76<sup>th</sup> Pskov Shock Troops Division or any other Russian units known to be involved in the war in Ukraine.<sup>24</sup> To the Chinese

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<sup>21</sup> Author's own calculations based on data from Stockholm Peace Research Institute available at <http://milexdata.sipri.org/files/?file=SIPRI+military+expenditure+database+1988-2013.xlsx>

<sup>22</sup> <http://www.kasparov.ru/material.php?id=570FB3D6A64AD>

<sup>23</sup> <http://gmi.bicc.de/index.php?page=ranking-table>

<sup>24</sup> For details see Lev Shlosberg's Live Journal at <http://lev-shlosberg.livejournal.com/764399.html>

government “unknown individuals” could, for instance, destroy some thousands of critical rail-road bridges across Siberian rivers, or tunnels, such as the Severomuysky tunnel on Baikal – Amur railroad, the longest tunnel in Russia. This would further reduce any chance for Russia to wage successful warfare in Siberia, yet sabotages by “unknown individuals not controlled by the government of China” could hardly justify a Russian nuclear attack against China.

At the same time, following the Crimea manuscript, the Chinese government would hurry up to extend a helping hand to the population cut off from European Russia. It could, for instance, deliver pensions to impoverished Russian pensioners in Eastern Siberia, and - more importantly - silently buy and enlist willing Russian officers and soldiers. To save the region from slipping into anarchy, a quick Crimea - style referenda would be organized, demanding - with an arranged 95% participation – their own “people republics” of Khabarovsk, Vladivostok, Komsomolsk-na-Amure, Blagoveshchensk, Chita, Ulan-Ude or in any other strategically important town. People and elites of these “people’s republic” could be promised future legal status as “federal subjects” of China.

With this “Crimea toolbox”, China’s annexation of Far East and parts of Siberia from a weakened and internationally isolated Russia would be a matter of days or weeks. USA and Europe would hardly recognize the referenda organized quickly and without any international observers – but did it matter in Crimea?

Andrei Amalrik envisioned the war with China, its conduct and consequences in these words: *“Naturally, the beginning of a war against China which will be portrayed as the aggressor, will cause a flare-up of Russian nationalism “We’ll show them!” simultaneously raising the hopes of the non-Russian nationalities within the Soviet Union. As the war progresses Russian nationalism will decline while non-Russian nationalism will rise ... A major defeat at the front, or a serious eruption of popular discontent in the capital, such as strikes or an armed clash, will be enough to topple the regime. “*

### **Nuclear deterrence, which did not work**

On the other hand, even “limited nuclear war” between Russia and China would inevitably have global consequences, both environmental and political. The United States and Europe would strongly oppose the use of nuclear arms against China, as Americans apparently did in 1969. The one who uses them first would lose any diplomatic, economic or other support.

Both Russia and China have enough nuclear weapons to annihilate each other: the risk of ruining Russia into utter insignificance for a remote piece of land inhabited by five or ten million people may prove to be sufficient to cool the heads in Moscow.



Would Moscow choose to test China's determination by use of tactical nuclear weapons? It appears reasonable to expect that China would respond in tit for tat manner: each use of nuclear weapons against a Chinese target would result in a comparable nuclear strike against a selected Russian target. In case of an extreme escalation, China would lose 400 million people in a nuclear war. China would continue to exist as a major global power with 1 billion people. On the other hand, if Russia would lose 100 million of its inhabitants – basically all its urban population - the country would become totally insignificant. It would be left fragmented between ethnic Russians and the other ethnic groups. It is imaginable that China would selectively target population centers primarily inhabited by ethnic Russians, leaving the remaining 25% of Russia's ethnic minorities relatively intact to break free from the last "prison of nations".

**Russia: guaranteed loser of any larger nuclear war**

Russia can try to play a nuclear poker with Americans and Europeans, but not with Chinese. It has no chance to win a nuclear war with any nuclear power: in fact, Russia would be the number one loser of either a medium or large nuclear war, even if Russia itself would not be involved. This scientific fact is well known for decades and originates from our understanding on nuclear winter phenomenon.

According to calculations made by Alan Robock of Rutgers' University, even a "small" nuclear war between let say India and Pakistan – each using their arsenal of 100 Hiroshima-size bombs – would result in around 5 million tons of smoke ejected to the atmosphere. Part of this smoke would get to the stratosphere, where it would stay for more than a decade, creating a global dimming effect. With less sunshine reaching the surface of the planet, global temperatures would plummet by 1 - 2 degrees for several years. Such a sudden drop in temperature would significantly reduce global food production: according Alan Robock, up to 2 billion people could die around the world in ensuing nuclear famine, mainly in poor countries.<sup>25</sup>

Indeed, nuclear war between Russia and China could have even much worse consequences. What is important is that Russia would be the most seriously hit country in the world, even if all nuclear explosions happened outside of Russia (which is, indeed, an unrealistic proposition). Russia, alongside Canada and Mongolia, is the coldest country on the planet, measured by average yearly temperature. Russian cities, including Moscow, are among the coldest in the world. Nuclear winter would make Russia even more extremely cold: cold and nuclear famine would kill disproportionately large part of Russian population; including in Moscow, if miraculously spared of direct nuclear hits.

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<sup>25</sup> Alan Robock's TEDx lecture on the matter can be seen at <https://www.youtube.com/watch?v=qsrEk1oZ-54>

Use of nuclear weapons by Russia against China would be suicidal. Even if China would drop 100 nuclear bombs on her own territory, it is all that is needed to devastate Russia. Russian nuclear bombs dropped on Chinese cities would lead to self-destruction of Russia itself by nuclear winter. Yet, without attacking China by weapons of mass destruction, all left that is left for Russia in case of a war with China is to digest humiliation, just as Ukraine had to in March 2014.

### **Friendly takeover?**

China and Russia may possibly find a peaceful resolution of population and resource pressures and historical injustice. Such arrangements would however require acceptance of Chinese dominance by Moscow – a proposition hardly palatable to Russians, whose mentality is fixed to the idea of geographical greatness, military might and expansionism.

Open agreements unlocking large parts of Siberia and Russian Far East to economic exploitation by Chinese companies and colonization by Chinese population would mean the end of Russia's imperial dream and acceptance of a "younger brother" position. In this respect, historian Stephen Kotkin quotes Bobo Lo: *"By rejecting the role of junior partner to the United States, Russia has, perhaps unintentionally, become China's junior partner - an arrangement, furthermore, that will last only as long as it is convenient for Beijing. Lo concludes, "China's rise as the next global superpower threatens Russia, not with the military or demographic invasion many fear, but with progressive displacement to the periphery of international decision making"* (Kotkin 2009).

Challenging this benign view is the raise of Chinese nationalism and its effect on Chinese policymaking. Initiated by a "patriotic education" campaign launched by the authorities after 1989, the *"campaign effectively reconstructed a powerful narrative that portrays China as a victim of Western (and Japanese) imperial aggression"* (Pei, 2014).

Paradoxically, Russia's only possible strategy for keeping its current territory appears to be NATO and EU membership. Such option was likely never seriously considered by Russian elites accustomed to seeing Russia as a world superpower as opposed to recognizing the reality of being an important, but nonetheless mainly regional force. With a war against Ukraine and annexation of Crimea, even the theoretical possibility of future NATO and EU membership for Russia became surreal.

## Conclusions

Powerful global forces, many of them out of human control such as climate change, depletion of crucial resources like water, soil and oil, push China and Russia on a trajectory of conflict. The time when a breaking point may be reached is rather difficult to estimate as a number of economic, political, natural and other factors of both domestic (for China and Russia) as well as international nature can play an important role in speeding up or slowing down its pace. Unless events of a sudden catastrophic nature occur, time is working in China's favor and gives her an opportunity to choose when and how to move. It is quite imaginable that by the time China decides to move on Siberia, the main geopolitical challenge may not be China's move itself, but the overall situation in a collapsing Russia.

By refusing the option of being a junior, yet important partner to Europe and United States, Russia set herself on the path to gradually becoming an even more junior partner to China. This is a path that will most probably lead to a loss of a large part of its current territory, loss of Russia's international status and quite likely her disintegration. The collapse of the Soviet Union and ensuing violence in many post-Soviet states does not leave much doubt about how the end of Russian Federation may look.

Andrei Amalrik was wrong in 1969, when he envisioned the collapse of the Soviet Union by 1984. However, he missed the reality by only a very narrow margin of 7 years. After all, his choice of 1984 was inspired by George Orwell's book "1984" rather than by sophisticated research. The same is true for 2031 in the title of this essay. Year 2031 is just 15 years from 2016, as was 1984 from 1969. It is impossible to estimate how quickly Russia will weaken economically and politically, or when a major climate change - induced drought - will hit China or the United States and trigger major food insecurity or famine. And this does not speak about a range of other possible events that may trigger a Sino - Russian confrontation.

Russian economist Vladislav Zhukovskiy made the following dire prediction for economic perspectives of Russia: *"Today we live better than we shall live tomorrow, and tomorrow better than day after tomorrow. In the next 4 -5 years, the country will be worse and worse, it will roll down the hill. This may last 5, 7 or 10 years "*.<sup>26</sup>

It is hard to estimate when this development hits the wall. On the contrary, it is not difficult to imagine what forms and directions popular discontent will take if the Moscow regime loses its hold. *"The horrors of the Russian revolutions of 1905-7 and 1917-20 would then look like idylls in comparison"*, wrote Amalrik.

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<sup>26</sup> <https://openrussia.org/post/view/11899/>

Options for the United States response to the anticipated collapse of the Russian Federation and China's advance in the Far East and Siberia must be analyzed and thought through in advance to avoid improvisations, mistakes and lost opportunities similar – or worse – to those of 1989-91.

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