

# Nikolai Kondratiev as the Mirror of the Global Crisis

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The following essay by two Russian economists situates the current financial and economic crisis in the context of the "long cycles" of capitalist economic development. These "long waves" are named after Russian economist Nikolai Kondratiev, whose analytical approach was incorporated in Joseph Schumpeter's theory of business cycles in the 1930s and 1940s. Since, Kondratiev has largely been marginalized in mainstream economics. However, the impact of the current crisis has led to Kondratiev's "rediscovery" on an international scale.

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The global economy is facing a long recession

## THE LONG WAVE THEORY IS RECALLED ONLY IN CASES OF COLLAPSE

The financial crisis that has broken out in the United States and lately encompassed the whole world requires adequate measures from the global community. But what action should be in this case considered adequate? To answer this question, we have first to identify the real underlying reasons that generated the crisis, and estimate its depth and length. Dogmatized liberal economists keep convincing us that in several months, or at least in a year or two, everything will "calm down", and the world will return to the development progress with Russia transcending to the innovation model of economy. Is that really so?

More than eighty years ago, prominent Russian economist, Prof. Nikolai D. Kondratiev described and theoretically substantiated the existence of grand (45-60 years) cycles of economic development, in which framework the global "reserve of major material values" are being replenished, i.e. the aggregate productive forces of the world community transcending to a higher level each cycle.

According to Kondratiev, every cycle has a rising and declining phase. The internal dynamic of the cycles (named K-cycles after him) and the principle of fluctuations is based on the mechanism of accumulation, concentration, dispersion, and devaluation of capital as a key factor of the development of the market (capitalist) economy.

Moreover, Kondratiev indicated that this cyclical regularity will exist as long as the capitalist mode of production will. "Every new phase of the cycle is predetermined with accumulation of factors of the preceding phase, and every new cycle is following the preceding one as naturally as one phase of each cycle after another. However, it has to be understood that every new cycle emerges in new particular historical conditions, on a new level of development of productive forces, and therefore is not a simple reiteration of the preceding cycle".

Nikolai Kondratiev managed to study only two big cycles and a half, ceasing his research on the rising phase of the third one. He delivered his report already on the descending phase of the third cycle, in 1926, when the scale and length of this descending phase could not yet be assessed (so he predicted the Great Depression):

1. The rising phase -- from late 1780s-early 1790s to 1810-1817.

The declining phase: from 1810-1817 till 1844-1851.

II. The rising phase: from 1844-1851 till 1870-1875.

The declining phase: from 1870-1875 till 1890-1896.

III. The rising phase: from 1890-1896 till 1914-1920.

Regrettably for international economic science, Nikolai Kondratiev fell into disgrace: in 1928, he lost the position of director of his research institute; in 1930, jailed for "anti-Soviet activities", and eventually executed. Orthodox Marxists, understanding history as a unidirectional linear process and forecasting the collapse of capitalism "next day", perceived his theory of gradual improvement of the capitalist order as a dangerous heresy. Other critics viewed regular declines of economy he described as sabotage of five-year economic plans (though Kondratiev took part in elaboration of the first five-year plan). As a result, Kondratiev's scientific heritage was blacked out for almost 60 years. Only in 1984, economist Stanislav Menshikov, a world-known scientist involved in forecasting under the auspices of the United Nations, a friend and co-author of John Kenneth Galbraith, rehabilitated Kondratiev's name in an article in "Communist" magazine.

In 1989, Mr. Menshikov and his wife published the most profound analysis of Kondratiev's theory under the title "Long Waves in Economy: When the Society Changes its Skin". One more prominent Russian author, Sergey Glazyev, contributed to Kondratiev's theory, providing structural analysis of the underlying change of "technological patterns (modes)".

Kondratiev's name was well known to Western economists. However, Stanislav Menshikov noticed a curious phenomenon: the interest to the theory of grand cycles rejuvenates usually in the declining phases -- in 1920-1930s and in 1970-1980s, while in the rising phases, when global economy develops progressively and fluctuations, in accordance with Kondratiev's theory, are not very deep, the interest fades away.

## A LONG-PREDICTED DEPRESSION

Nikolai Kondratiev's forecasts were fully confirmed in the period of the Great Depression that coincided with the lower point of the third period's phase of decline. The further periodization is a subject of polemic. Researchers mainly divide into two groups, applying different approaches to the determination of cycles.

The first group, basing its analysis primarily on indices of real economy -- amounts of production, dynamic of employment, investment activity and various structural proportions -- believes that the declining phase of the third cycle finished with the beginning of the World War II. The rising phase of the fourth cycle, beginning during the war, continued till mid-1960s. The US dollar crisis and the collapse of the Bretton Woods system in 1968-71 became the critical point for transition to the declining phase, corresponding with the oil crisis and stagflation of the 1970s. "Reaganomics" in the United States and Margaret Thatcher's policy in Britain marked the transition to the next -- fifth K-circle, its rising phase encompassing the second half of the 1980s and the 1990s.

As usual, in the end of the rising phase, in the so-called saturation zone, we are faced with such phenomena as decrease of the rate of return in the real sector and the relevant outflow of capitals into the sphere of financial speculation that generate first overheating of the stock market (late 1990s), and later the mortgage market (early 2000s). The researchers from the first group are convinced that cycles compress with intensification of scientific-technological progress: since 1940s, the length of a cycle has shrunk from 50-55 to 40-45 years.

The continuation of Kondratiev's regularity looks as follows:

The declining phase of the third cycle: from 1914-1920 (in the United States, from late 1920s) to 1936-1940.

IV. The rising phase: from 1936-1940 till 1966-1971.

The declining phase: from 1966-1971 till 1980-1985.

V. The rising phase: from 1980-1985 to 2000-2007.

The declining phase from 2000-2007 till approximately 2015-2025 (forecast);

## VI. The rising phase from 2015-2025 till 2035-2045 (forecast).

The second group of researchers, relying rather on financial indices, i.e. the dynamics of the stock market and the dynamics of bonds return rates, extend the declining phase of the third cycle for the whole period of the World War II and the postwar reconstruction until 1949. Similarly to the first group, they locate the extreme point of the rising phase in early 1970s, but interpret the decline of that time as a "primary recession" followed by a plateau lasting till the beginning of the XXI century. They indicate that similar plateaus corresponded to the "bull trends" at the stock market in the preceding cycles, respectively in 1816-1835, 1864-1874, and 1921-1929. This group of researchers estimates the average duration of a cycle in 50 years, but the last cycle in their description is oddly protracted, exceeding 60 years.

Thus, according to the second group of analysts, Kondratiev's regularity is continued as follows:

The declining phase of the third cycle: from 1914-1920 till 1949.

IV. The rising phase: from 1950-70s, with a "primary recession" until 1982 followed by a plateau until 2000s.

The declining phase since early (mid --?) 2000s.

Thus, despite significant methodological difference in approach, both groups of analysts identify the 2000s as the beginning of a decline, i.e. a phase of depression.

## THE CURRENT CRISIS IS ONLY THE BEGINNING

At the face of decline, we expect a new burst of interest to Kondratiev's theory. Meanwhile, liberal monetarists whose view had been dominating in economic science for 25 years are discredited, and their efforts to interpret the current crisis as a temporary fluctuation in global economy, only reveal their economic ignorance. The experience of earlier K-cycles indicates that traditional anti-crisis measures are efficient only on the rising phase of the cycle, in the period of burgeoning growth when recessions are slight and transient on the background of the progressive development of global economy.

Gerhard Mensch, a scientist who studied similar processes during the declining phase of the 1970s, emphasized that in the conditions of deterioration of economic conjuncture, monetarist methods of resolving the problem are inefficient, as restrictive credit policy inevitably whips up consumer prices, while liberal pro-active policy favors speculative operations.

It is quite natural that the strongly restrictive approach, chosen by the European Central Bank, results in rise of inflation, though five years ago, effects of the same policy was opposite. At the onset of the crisis, inflation in Europe did not exceed 2%, but by today, it has plummeted, despite the high level of the refinance rate, introduced by ECB. Meanwhile, the liberal policy, conducted until the recent period in the United States, beefed up stock market speculation and expansion of fictitious (inflated) capitals, stimulating speculative increase of prices in sectors of most marketable commodities -- real estates, gold, oil, and food. This increase of pricing has no relation to amounts of production and saturation of the consumer demand.

Despite all efforts undertaken by ECB Chair Jean-Claude Trichet and Federal Reserve Chairman Ben Bernanke, positive changes are not achieved. The global economy has to pass through a period of "reloading", getting rid of the over-accumulated capital through its massive devaluation in the process of an inevitable and lengthy recession. Devaluation of the monetary capital is likely to proceed through a chain of financial crashes, triggering the third default of the US dollar (as it happened in 1920-1930s and in 1970s). Thus, the global economy is going to be shaken many times, and the current crisis is only a shot across the bow, warning of major events to arrive in the following years. The global economy is likely to reach the lowest point at the end of the declining phase of the fifth K-cycle, in 2012-2015. The crash of the US financial system may happen one or two years earlier in case the new U.S. President chooses a dogmatic approach to the current problems.

Economic surfing: sliding down the long declining wave

## THE MECHANISM OF K-CYCLES

How does the mechanism of K-cycles work? The basis of every cycle is a cluster of basic advanced technologies that are able to significantly transform and reshape the direction, scale, and structure of consumer and production demand, as well as the range of fuels and construction materials used in economy. To perform the leading role, this cluster is to be able to absorb, and partially to generate, a number of accessory and servicing branches stimulated by the basic technologies.

The new cluster, along with accessorial branches of industry, absorbs the major share of new investments. It is noteworthy that this cluster is (and is to be) formed already on the declining phase of the preceding cycle. In fact, each crisis contains sprouts of the future growth.

The rising phase of each cycle includes four periods. The pioneer period (1) is characterized with initial implementation of new technologies, products and services. In the period of expansion (2), these technologies are implemented in serial production. The process of accumulation of the products predetermines the period of saturation (3), followed with the period of exhaustion of new possibilities of development (4).

The transition from one period to another is marked with a decline of the rate of return of invested capital. Already in the

period of saturation, an observer can easily discern symptoms of overinvestment, overcapacity, and overproduction resulting from miscalculation of the dynamic of demand. This happens because most of the earlier elaborated investment plans are inertial, while decisions of new investments are made by economic agents who don't coordinate their activity with one another, each being interested in grabbing a larger share of the consumer demand. Instead of slowing down investments to meet the decline of demand, these economic agents boost them, introducing methods of aggressive marketing (mostly of accessory goods and services). However, after a short-time positive impact the possibilities of further growth swiftly deteriorate.

Already at the stage of saturation, the rate of return in the real sectors of economy (including the leading cluster of the particular K-cycle) sinks to a level on which investments in real economy are becoming less attractive. Therefore, monetary resources transcend into speculative operations in trade and more significantly in finances, where options for deriving high income appear to be the largest. In their further development, relevant markets take the shape of "financial pyramids" or "bubbles", predetermining the following collapse of these markets and massive evaporation of the fictitious capital. An inevitable crash marks the end of the rising phase and the transition to a decline.

One more typical feature, noticeable in the framework of K-cycles, is the regular shift of management of national economies and related social processes happening at the start of the declining phase. The prolongation of the tendency, originally described as a crash, objectively requires reorganization of the whole system of economic policy, with increase of the role and function of national governments in economic system, and a drastic contraction of the sphere where liberal schemes and methods are appropriate.

On the contrary, the rising phases require a higher extent of freedom of entrepreneurship and investment, suspending many restrictions for trans-industry and trans-border flow of capitals and a higher flexibility of labor market. During the period of the rising conjuncture, liberalization of economy and management processes are becoming a significant factor of assimilating innovative technologies, structural readjustment and economic expansion. However, the effects of these methods inevitably generate speculative bubbles in the period of saturation, thus predetermining the new critical denouement and the inevitable new wave of etatization (statism).

## THE ELECTRONIC WAVE

After the second default of the dollar (in 1971, when President Richard Nixon arbitrarily decoupled the US dollar from the gold equivalent thus destroying the Bretton Woods international currency system) and the oil crisis of 1973-75 the world economy entered the phase of depression which got a name of stagflation. It was the final part of the fourth K-cycle. At this phase lots of enterprises in industrial nations were stalled, unemployment was growing, and millions of small and medium entrepreneurs were going bust on the background of inflation of prices for major consumer goods. The collapse of demand drastically reduced the rate of return, resulting in unprofitability of some major industries, and massive devaluation of both industrial and financial capital. But at the same time, the depression played the role of a trigger for the basic innovative technologies of the next K-cycle. This cluster was built upon microelectronics, computing technologies, Internet and mobile communications.

The devaluation of capital on the declining wave of the fourth cycle resulted in accumulation and concentration of capital in the hands of those multinational corporations that sought escape from the crisis by means of reducing costs for the

labor force and environment, outsourcing industrial facilities to third-world countries and thus requiring improvement of communications.

Investments in new basic technologies opened the possibility to derive a high innovation rent. This created necessary preconditions for revitalization of global economy that became visible in early 1980s. Joseph Schumpeter characterized that period as a "storm of additional and improving innovations". This storm guaranteed a lengthy period of economic growth in 1990s, characterized with the process of diffusion of innovations of the fifth technological pattern in all the spheres of production and services (particularly, chipization of mechanical devices, penetration of information technologies into business processes and the sphere of management, etc.).

In the rising phase of the fifth K-cycle, the expanding multinational corporations felt themselves constrained with the framework of national economies that rested upon the Keynesian doctrine of governmental regulation. Corporations strongly demanded that all the restrictions for international capital flows be suspended. Their influence predetermined the following domination of the neoliberal doctrine of the state's utmost withdrawal from business affairs, and the ascent of politicians like Margaret Thatcher and Ronald Reagan. Since mid-1980s, the neoliberal revolution had been triumphantly marching across the globe, opening doors for corporate-driven globalization on the base of the newly-formed fifth technological pattern.

So, the rising phase, continuing for over 20 years, was marked with the expansion of multinational corporations under the cover of the neoliberal ideology. This period corresponds to the protracted rise of world economy up to the millennium, when the potential of growth depleted. Since that time (the end of 1990s -- early 2000s) overcapacity and overproduction (in computer technologies, communications industries and Internet-based business) compared to real demand became visible. The first crash took place in 1997-1998 in the area of most intensive production of the ingredients of the new economy -- in the South-East Asia (in fact, the "Asian crisis" was international); the second one, with collapse of a chain of "E-trading", "E-banking" companies with the most part of Internet-based business, ensuing in the United States in 2000-2001.

In full accordance with Kondratiev's theory, the capital flowed to the remaining areas where super profits were still available -- namely, into speculative operations at the stock market, in the energy sector, at the mortgage market, etc.

## HOT BUBBLEGUM

The neoliberal revolution, taking place in the framework of the rising phase of the fifth K-cycle, not only expanded international borders but generated a new kind of financial system enabling huge accumulation of capitals absorbed from all the continents, and their concentration in the global centers of multinational corporations, namely in New York and London. Alan Greenspan, the key protege of the corporate community, introduced "a new financial revolution", creating conditions for new, more sophisticated derivative financial instruments. Though being unrelated to real economy, the derivative market prevented break-up of financial bubbles for several years. Greenspan's logic was built on the assumption that one bubble may be replaced by another. In case the state debt bubble is overheated, the mechanism of derivatives allows redirection of financial resources into the sphere of E-economy, and in case this bubble was about to burst as well, financial resources could shift to the mortgage market.

For a time span of only two decades, the market of financial derivatives grew from several billion to almost a quadrillion of US dollars, more than by an order exceeding the gross global product.

Since mid-1990s, derivatives implicitly determined the whole life of a common American. Banks issued so-called subprime loans for low-reliable consumer, seeing thus to boost demand; after that, specialized financial companies like i.e. Fannie Mae and Freddie Mac, "bundle" these loans into larger packages, issuing bonds on the security of the loans. These packages were repeatedly re-divided and repacked, generating derivatives of third, fourth, and fifth level. A number of risky loans were thus multiplied into a whole cloud of myriads of new securities; the risk was supposed to reduce, by distributing among them.

All the market players were aware that a subprime credit is fraud with bankruptcy. However, it was believed that ten thousand "bad" loans, mixed up with a hundred thousand of "good" loans and secured with a mortgage bond, were becoming less risky. In fact, the price of the bond was not related to particular real estates: it was rather related to the stock market-dominating belief that US real estates are going to become only more and more expensive.

Ostensibly, first-level derivatives were "distributing" risks against credits; second-level derivatives were supposed to secure risks of the first level; third-level derivatives were believed to cover the second-level risks etc. In fact, the derivatives market was growing exponentially and free from any control, developing into a huge financial pyramid. The mechanism, invented for minimization of risks, instead greatly increased the systemic risks. Only judging upon the amount of securities, it was clear that no money in the world would be sufficient for covering all the financial obligations in this chain, the only hope being that local risks won't soar to a systemic level.

## THE END OF THE FAIRY TALE

Alan Greenspan's initiatives were theoretically substantiated by a number of renowned US economists like Robert Merton, Myron Scholes, Harry Markowitz and Merton Miller. These theorists were even decorated with Nobel prizes for the "convincing proof" that computer-made mathematical models of derivatives are able to endlessly and securely "disperse" risks.

Re-directing capitals from real economy to E-economy, and later to the mortgage market, Greenspan's "financial engineers" believed that the replacement of one bubble with another could be undertaken a lot of times. In early 2000s, after the crash of Nasdaq, the increase of prices at the US real estate market inspired a speculative practice with related derivatives. The situation was encouraging the optimistic assumptions of market-players: even a low-class person, receiving a mortgage loan, could pay back the debt or resell the house with a high profit, as the prices were steadily increasing. The players were seemingly convinced that this increase of prices, along with well-being of Americans, was going to last forever, contrary to the economic laws. And no risk at all -- with the help of derivatives.

But the fairy tale finally came to an unhappy end. The rising phase was over; the real estate market saturated; prices ceased growing and started sliding down. Defaults on securities, related to subprime loans, triggered the crisis of the whole mortgage market; the ensuing deterioration of inter-bank confidence developed into shortage of liquidity, targeting major banks and opening doors to a full-scale financial crisis. During 2008, major investment banks involved in mortgage derivative speculation -- Bear Stearnes, Lehman Brothers, Merrill Lynch, Morgan Stanley, and Goldman Sachs -- ceased existence, while the specialized state-protected agencies, Fannie Mae and Freddie Mac, were de facto nationalized, along with insurance giant AIG and more commercial and mortgage banks.

However, that is only the beginning. The economy of the United States is faced with a long-time recession, likely to transcend into the crash of the whole US financial system which is the backbone of the global financial system.

Re-formatting of global economy

WHAT DOES THE FUTURE PROMISE TO US?

In fact, the United States has been living on behalf of the rest of the globe for years. Producing not more than 20% of the global GDP, the US consumes about 40% of the global production. The total debt of the United States comprises \$53 billion -- a sum almost four times exceeding the nation's GDP. The financial crisis and the ensuing collapse of possibilities of crediting the US market will inevitably result in the fall of mass demand and contraction of consumption. Therefore, production is also going to decline, along with the required amounts of energy, and in case major oil producers don't agree to cut oil extraction to a minimal acceptable level, oil prices are likely to abruptly collapse. The gold market is facing a different dynamic: this commodity, serving now as the only universal measure of value, is also the only possible means of guaranteeing capitals from crises and defaults.

On the other hand, the decrease of demand in the United States in the process of financial crisis will inevitably result also in a decline of production in Europe, China, Japan, India and other states that used to serve as the major productive plant for supplying consumer goods and IT-products for the US market during the rising phase of the fifth K-cycle. This decline, in its turn, will lead to an abrupt contraction of the global markets, to revival of protectionist policies, and to exacerbation of existing contradictions between the United States, the European Union, China, Japan, India, Russia, Middle East and Ibero-American states, eventually resulting in disintegration of WTO. In the expected series of trade wars, the United States will get into most serious confrontations with the unified Europe -- certainly, if Brussels does not victimize its interests on a direct order from Washington, and with China, which is today trying to establish its own free trade zone in the Asia-Pacific region, possessing the highest amount of gold currency reserves.

The exacerbation of trade wars will foster integration processes within major regional groups of nations, forming capacious regional markets with a tendency to constructing self-sufficient close-circuit economic associations. During the declining phase of the fifth K-cycle, these groups of nations, with economies oriented mostly on regional inter-state trade, are going to elevate their role of independent centers of influence. Some of these regional groups will establish themselves around the largest of the regional economies -- like China, Russia, South Africa, possibly India.

Meanwhile, Middle East and Ibero-American states are likely to unify according to the model of the EU, with several leading nations in one group. All these regional markets are likely to develop on the base of a very harsh regulation, substantiated with some new kind of Keynesianism.

Before this happens, we are going to face the third default of the US dollar that will put a heavy full stop to the almost seven decades-long domination of the dollar as the only global reserve currency. The default of the US currency will completely destroy the bubble-making factory, constructed by Alan Greenspan. Global economy will no more tolerate the situation when the whole financial system of the world fully depends on an egocentric and irresponsible policy of a single state. This means, in particular, that the creditors of the United States -- China, Japan, Russia and others -- will inevitably have to introduce reorganization of the US economy, to develop new rules of global economic development, and to create new global economic institutions.

Therefore, regional integration like that exemplified by the European Union, is likely to take place in various regions of the world, being motivated with efforts to safeguard national economies from the implications of the crash of the US financial system. Therefore, every regional group of states is likely to select its own regional currency. These regional reserve currencies may be pegged to the gold equivalent.

These groups of countries are likely to provide the base for a new system of global institutions and structures that are going to replace the existing WTO, IMF and World Bank which have discredited themselves demonstrating inability to solve the key problems emerging from the objective tendencies of global capitalism. The corresponding multipolar political system is likely to become much more balanced and reliable than the bipolar world of the second half of the XX century and, especially, than the later unipolar system.

## TO BECOME THE LEADER IN THE NEW GRAND CYCLE

Meanwhile, Russia is today facing a most serious choice. In case our country continues to follow the fairwaters of US financial policies, counting on a bit of luck to escape the disaster together with the Americans, the Russian economy will be buried under the debris of the US financial system.

In fact, the Russian Government has not managed to establish a sovereign financial system until today. The Ministry of Finance and the Bank of Russia are actually investing in the deficit of the US budget and not in Russian companies and banks. Drawing out the supposedly excessive liquidity from the budget and hoarding it in the Stabilization Fund, the Ministry of Finance has in fact left the domestic corporate and banking systems on short rations. Consequently, the reserves of the Russian Federation, nominated in Western securities, comprised \$476.4 billion dollars, while Russia's foreign debt rose to \$459.6 billion -- only due to the fact that Russian corporations, given the absence of mechanism of domestic refinancing, were forced to address Western banks for loans.

In this way, both the state and the investing sector have found themselves hostages of stability of the US financial system -- which, as explained above, is inevitably going to collapse.

Only at the sound of thunder, Russian financial authorities hurried to create a national system of refinancing. The Bank of Russia started pouring money not into Western but into Russian banks, and the Vnesheconombank (VEB) received \$50 billion for refinancing major Russian corporations that had borrowed in the West. In case a sovereign financial system existed before, Russian banks and corporations would not have to borrow billions of dollars in the West, while small and medium business would rise from its miserable shape, borrowing from domestic banks.

This error has to be reversed. Russian reserves should not be invested in a failed financial system. The so-called "Paulson plan" and other attempts of saving the global financial system in its present shape may only postpone the crash of the US economy for a couple of years or most probably for months, for expense of hyperinflation. However, this period will be followed with even more devastating crises and losses.

The virtual, fictitious, insecure capital has to burn down in the furnace of the crisis on the declining phase of the fifth K-cycle. The more liquidity Western governments will pour into the stock market, the more deep and devastating will be the new collapse. It is noteworthy that the "salutary" Paulson plan suggests increase of the US budget deficit that already reaches almost 80% of the GDP.

Refraining from underpinning the doomed bubble of US economy, Russia could choose a more decent way to the future. With its resource, educational and industrial potential, Russia has got a sufficient potential for overtaking the civilizational initiative and to become the major architect of the After-Dollar World, starting the essential changes along with Europe, Japan, China, India, Brazil and other countries. Not a single country except Russia is prepared for this role today. China does not have the experience of fulfilling the mission of a global power that the USSR in the post-World War II decades carried out. The unified Europe is not quite united in its approaches towards economic policy that is undermined by the influence of the immediate vassals of Washington.

Thus, only Russia can lead Europe, China and other nations of the world along the way towards a new economic architecture of the future world order, and thus to overcome the devastating implications of the declining phase of the fifth K-cycle. Approximately in 2012-15, when the US economy will collapse, Russia, with its huge potential of reserves, lands for cultivation, and scientific potential, is likely to become the most attractive place for investments, and for implementation of the most advanced technologies of the new cluster of basic technologies of the sixth K-cycle. Russia also necessarily has to enter OPEC and initiate foundation of a "gas OPEC" and "food OPEC" with the mission to organize resistance to the unbridled speculation at the markets of raw materials, energy, and fictitious capitals.

It is essential to remind that in the declining phase of the third K-cycle, the Soviet Union managed to efficiently use the Great Depression, speeding up to close the gap with the West during this cycle, carrying out a full-scale modernization and industrialization of its economy which enabled the country to win in World War II. That was the period of construction of the machine-building complex, as well as the foundation of new institutions and industries that later, in the rising phase of the fourth K-cycle, became the base for nuclear industry, organic synthesis chemistry, production of new construction materials. The state investments of that time enabled the Soviet Union, in two and a half decades, to win the race in exploration of the outer space and to reach parity of armaments with the United States.

A similar modernization effort, focused on new information technologies, was necessary to implement in 1970s, in the declining phase of the fourth K-cycle. Unfortunately, the Soviet Union, relaxing on incomes from oil exports, failed to undertake this effort, and eventually experienced a scathing defeat in the contest with the West, falling apart as a house

of cards.

If Russia does not use a similar opportunity of today, instead continuing to spend its gold currency reserves and stabilization savings for underpinning the collapsing financial system of the United States, its destiny will be deplorable. Any financial pyramid, be it the scandalous "MMM Corporation" of 1992, Russia's state treasury obligations of 1998, or the US financial system of 2008, eventually collapses, burying all those who believed in its eternity under its debris. Therefore, Russia should invest its financial reserves in the basic innovative industries of the new, sixth technological pattern (mode), in the "economy of knowledge of future", in the infrastructure of Russia, and possibly also in the devaluated Western research companies -- but not in the financial instruments of a decomposing system.

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