

Great Recession of 2008-2009: Causes and Consequences

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The last four years of the turbulent economic performance raised more questions than provided answers about causes of the Great Recession of 2008-2009. The real GDP has declined about 3.7% and the full recovery has been achieved only recently. Most economists are blaming the real estate market collapse and the followed it financial crisis as main causes of the Recession. But the real macroeconomic cause was the change of the national macroeconomic policy from the Demand support to Supply support strategy in the middle of 1980s. This article is discussing the cause of the Recession and its consequences.

INTRODUCTION

Most economists are considering the destructive effect of the subprime mortgages and CDOs on the development of the housing market and the followed financial crisis as the major cause of the recession of 2008-2009. This point of view has been summarized in the Report of Financial Crisis Inquiry Commission presented to the U.S. Congress in January of 2011:” We conclude collapsing mortgage-lending standards and the mortgage securitization pipeline lit and spread the flame of contagion and crisis” (The Financial Crisis Inquiry Report, 2011, p. xxiii). The recession that has emerged out of that financial crisis forced the U.S. Government to use both mechanisms of the government regulation: fiscal and monetary policies at the very large scale.

Economic stimulus packages, corporate and banking bailouts, monetary easing at the multitrillion dollars scale has created both supporters and opponents. Some, like James Galbraith (Galbraith, 2008), Thomas Palley (Palley, 2010), Paul Krugman (Krugman, 2009) are criticizing the U.S. Government for the insufficient efforts to use Keynesian economic remedies to ease the recession. Others, like Bruce Yandle (Yandle, 2010), Jeffrey Hummel (Hummel, 2011), Randy Simmons (Simmons, 2011) are strongly against of further governmental regulation attempts and in support of that point of view are discussing some common features between the recent monetary and fiscal policies actions of the U.S. Government and the Soviet command economy practice.

I agree with the opinion that the real estate market collapse and the financial crisis were important causes the recession. But from my point of view they were consequences of the main macroeconomic cause and have played the trigger role. The real macroeconomic cause of the Great Recession was the change of the national macroeconomic policy from the Demand support to Supply support strategy that took place in the middle of 1980s. This change in the economic policy has forced the modification of the structure of the U.S. economy with the substantial diminution of the national manufacturing sector. As the result there were not only big loses in the number of manufacturing jobs but also the strategic change the country’s role in the international division of labor process that make the USA the negative net exporter

of cheap consumer goods from developing countries and expensive energy resources from oil rich countries.

I have expressed this opinion before (Katkov, 2011). The goal of the given article is to provide the broader argumentation in support of the point of view that the cause of the Great Recession was the strategic mistake in changing the core economic policy made by the U.S. Government in 1980-s. The slow recovery from the recession as I will show in this article is the result of the structural changes in the U.S. economy and also the result of some mistakes made by the Obama's administration in attempts to ease the recessionary pressure and to help the U.S. economy to recover.

In other words, from my point of view the recession was the result of the switch from Keynesian demand support economics to neo-liberal supply support economics, and the slow recovery is the result of the inconsistent application of instruments of fiscal policy offered by Keynesian economics.

CHANGE IN ECONOMIC POLICY

The economic strategy before 1980-s has been built on the ideas of the full employment and the wages growth as the result of the growth of productivity. The full employment and the wages growth have stimulated the increase in the demand for goods and services. That growth has influenced the increase in the supply and has stimulated the businesses to invest into new technologies facilitating the further growth of productivity. The "stagflation" of 1970-s seriously damaged this strategy. In 1980-s the Keynesian model of the economic growth which is based on the support of the growth of Aggregate Demand has been replaced by the "neo-liberal" model of economic growth based upon the support of the growth the Aggregate Supply. Increase in demand as it follow from the classical market model supposed to increase the prices of products and services when increase in supply expected to decrease prices. Price decreases are good for consumers because their real incomes as the result of prices decreases will rise. But for producers price decreases means profits decline. To keep profitability at the same level or to increase profitability businesses should decrease costs of production.

One possible way to decrease costs of production would be in the productivity growth. The increase in productivity will drop the cost per unit of the product manufactured. The backbone of the higher productivity is the new technology. The development of new technology requests high capital investments and an increase of fixed costs. But there is the second possibility: costs of production could be decreased if the costs components, both fixed and variable, will decline. Unfortunately, that option has met very serious constraints in the USA in 1980-s because of the steady wages growth and the increase in the costs of domestic natural resources. At the same time the process of globalization of the world economy has offered another opportunity: to decrease costs manufacturing facilities can be moved closer to sources of less expensive resources, both natural and labor resources. As the result, majority of large and medium size U.S. corporations began the transfer of significant part of their manufacturing facilities abroad, mostly into the developing countries.

This process of off-shoring caused the critical changes in the U.S. economy's manufacturing sector and wiped out millions of manufacturing jobs. Traditionally, the manufacturing sector comprises business entities engaged in the process of mechanical, physical, or chemical transformation of materials, substances, or components into new products or component parts of manufactured products.

According to North American Industry Classification System (NAICS) manufacturing jobs categories are not well defined. Jobs are considered manufacturing jobs if they are involved with production of new products from raw materials or from components by transforming them into new products. These jobs are creating products not services. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified as construction (U.S. Census, 2007). It is accepted that the establishments in the manufacturing sector are engaged in the transformation of materials into new products. But some jobs performing for example fish processing, water bottling, milk pasteurization and printing and related activities are considered manufacturing jobs. At the same time according to the same classification manufacturing jobs are not involved in book

publishing, logging, mining or construction, even though products are created by these jobs (U.S. Census, 2007).

As the result of the manufacturing jobs outsourcing abroad number of people employed by the manufacturing sector of the national economy during the period of the December of 1979 through December of 2007 (the last year before the Great Recession) decreased from 19.4 million to 13.9 million people – 5.5 million jobs have been lost. At the same time number of people in sales increased during the same period of time from 10.2 to 15.4 million – 5.2 million increase. The number of people employed by the financial sector during the same period almost doubled: increase from 4.8 to 8.4 million (Economic Report of the President, 2008, Table B-46). The national economy that has fewer manufacturers and more sales people should face problems during the economic contraction phase of the business cycle. When there is less produced there is no need in so many sales people.

The decline in number of manufacturing jobs influenced the negative trickledown effect on the process of the jobs creation in other sectors of the national economy and as the result on the process of the creation of the disposable income and the Aggregate Demand.

Table 1 and Table 2 presented bellow shows the changes in some categories of jobs: manufacturing jobs, capital goods producing jobs, service jobs, finances jobs and government jobs since 1961 through 2010. The classification of “Goods Producing Jobs” in Table 1 and Table 2 includes manufacturing jobs described above plus jobs in logging, mining and construction.

TABLE 1
ABSOLUTE CHANGES IN DIFFERENT CATEGORIES OF JOBS IN THE USA 1961-2010

Year	Labor Force	Manufacturing	Goods Prod.	Services	Finances	Government
1961	70,459	15,011	18,647	35,458	2,590	8,706
1970	82,771	17,848	22,179	48,827	3,532	12,687
1980	106,940	18,773	24,263	66,265	5,025	16,375
1990	125,840	17,695	23,723	85,764	6,614	18,415
2000	142,583	17,263	24,649	107,136	7,687	20,790
2007	153,124	13,879	22,233	115,366	8,301	22,218
2010	153,889	11,524	17,755	112,064	7,630	22,482

Source: U.S. Bureau of Labor Statistics, 2011

TABLE 2
CHANGES IN DIFFERENT CATEGORIES OF JOBS AS PERCENTAGE OF LABOR FORCE

Year	Labor Force	Manufacturing	Goods prod.	Services	Finances	Government
1961	100%	21.3 %	26.5%	50.3%	3.7%	12.4%
1970	100%	21.6%	26.8%	59.0%	4.3%	15.3%
1980	100%	17.5%	22.7%	62.0%	4.7%	15.3%
1990	100%	14.1%	18.9%	68.2%	5.3%	14.6%
2000	100%	12.1%	17.3%	75.1%	5.4%	14.6%
2007	100%	9.1%	14.5%	75.3%	5.4%	14.5%
2010	100%	7.5%	11.5%	72.8%	5.0%	14.6%

Source: U.S. Bureau of Labor Statistics, 2011

Table 1 shows the trend of the sharp decreases in numbers of manufacturing and goods producing jobs and Table 2 shows their percentages of the civilian labor force from 1980 through 2007 (- 4.85 million and -2.03 million respectively), and the increases of numbers service jobs total, finances jobs and government jobs(+49.10 million, +3.28 million and +5.84 million respectively). Interestingly to mention

the fact that from 2007 through 2010 (the recession and post-recession years) number of jobs in all above mentioned groups declined except the government jobs. Number of government jobs during this period increased by 264 thousands and became in 2010 almost twice greater than number of manufacturing jobs: 22.48 million versus 11.52 million.

What effect the decline in number of manufacturing jobs had on the entire jobs market? Prior to the introduction of the Supply Side economic strategy in 1980-s all categories of jobs included into Table 1 showed the growth. So, we can conclude that “reaganomics” has motivated or may be even forced American manufacturers to off-shore their manufacturing facilities abroad and to outsource manufacturing jobs to other countries. Manufacturing jobs were always have been the leading factor in other jobs creation. As Josh Bivens has shown in the Economic Policy Institute’s Working Paper #268 “Updated Employment Multipliers for the U.S. Economy (2003)” that 100 jobs in manufacturing sector supports 291 jobs elsewhere in the economy which is more than three times large than retail trade (88), about 2.5 times as large as health services (117), and about twice more than business services (154). In his research Bivens considered the job creation process as the result of three categories of effects: supplier effects, responding effects, and government employment effects. Manufacturing industries are using supplies of materials and parts. Those suppliers are hiring or laying-off people depending of the manufacturers demand for those materials and parts. Employees of manufacturing sector are spending their disposable incomes buying goods and services offered by other industries creating jobs in the apparel, housing, food and etc. industries. Taxes that manufacturing industries’ employees are paying to federal, state and local governments are supporting and creating the government jobs. I think that the manufacturing employment multiplier is even higher than Bivens has calculated because for many manufacturing industries like motor vehicle, machinery manufacturing, electric equipment manufacturing and others machine building industries, because every machine also need except sales people also maintenance and repair specialists. Unfortunately Bivens did not discuss the influence of that existing” maintenance effect” on job creation. Anyway, the fact that 100 jobs in manufacturing sector are responsible for the creation of 291 jobs in other sectors is very impressive.

Another Bivens’s (Bivens, 2003) conclusion is even more important from the perspectives of the analysis of the Graph 1 presented below. In one of his tables he showed the government employment support by different sectors of the national economy. The rough generalization of these data is showing that 100 jobs in manufacturing industries in average supporting approximately the employment of 8.5 employees in the government sector, and 100 jobs in service providing industries are supporting about 4 employees in the government sector. That means that in 2007 before the recession 115.4 million services jobs total could assist in creation of about 4.6 million jobs in the government sector, and 13.9 million manufacturing jobs could support about 1.2 million government jobs. So, total 85% of all labor force in 2007 could support only about 5.8- 6 million jobs in the government sector. It would be logically correct to ask question who is supporting the other 16 million of government jobs?

As Stephen Ezell and Robert Atkinson analysts of the Washington D.C. based think tank “The Information Technology and Innovation Foundation” showed in their research paper “The Case for National Manufacturing Strategy” published in April 2011 that high-tech manufacturing industries have even greater multipliers. Electronic computer manufacturing has a multiplier effect of 16 jobs, meaning 15 other jobs are dependent on one job created in that industry. So the decline in number of manufacturing jobs also means the decline in jobs that would be created if the manufacturing jobs remains in the USA. All of those have been playing the great impact on the U.S. employment situation during the Great Recession. Ezell and Atkinson (Ezell and Atkinson, 2011) also showed in their paper that processes of off-shoring manufacturing enterprises and outsourcing of manufacturing jobs abroad have created the negative affect on the economic growth. They showed that manufacturing growth has lagged overall economic growth, and that the majority of U.S. manufacturing sectors have seen absolute declines in real output over the past decade. They expressed the opinion that the apparent growth in manufacturing output showed by the official statistics is the result of the overinflated estimates of output from two industries—the computer and electronics industry and the petroleum industry.

Manufacturing in fifteen manufacturing sectors that made up 79 percent of U.S. manufacturing according to Ezell and Atkinson (Ezell and Atkinson, 2011) is lagging behind other industries in terms of its rate of economic growth. From 2000 to 2009 when the overall U.S. real GDP increased 15% the total manufacturing sector realized only a 5% growth in real-value-added. It is happened because most of manufacturing sectors have showed during that 10 years period the absolute declines in the output produced ranging from 2% decline in electric equipment manufacturing, 3% in chemicals manufacturing, 14% in machinery manufacturing, 18% in motor vehicles manufacturing, 27% in fabricated metals manufacturing, 28% nonmetallic minerals and primary metals manufacturing to astonishing declines by more than 40 % in manufacturing of apparel, furniture and textile.

Table 1 shows the decline of number of jobs in manufacturing, goods production, in services total and even in financial services during the Great Recession but it shows the growth of government jobs. As we just conclude this growth of government jobs is contradicting the logic of the normal economic development. But it is the only one problem. Another problem of the uncontrolled growth of government jobs when manufacturing jobs are declining is the inevitable decline in the GDP growth as the consequence.

The loss of about the quarter of the labor force in the manufacturing sector probably as official statistics shows (Bureau of Economic Analysis, 2011) has been compensated by the increase in productivity (computer revolution). But the link between the growth of the productivity and the growth of wages and as the result the growth of the consumption has been broken. Growing supply needs demand to grow also. But where are means to finance the growth in consumption if there are less people who are creating new products and more people who are servicing the process of the distribution and inevitably adding into the products cost and the final price? It is a serious problem.

The solution of this problem has been found in the developing of the housing market. The house is the largest and the most valuable asset for most American households. If home's market value grows the owner can cash out the appreciation of the house value by borrowing this amount from the bank. So, the housing market frenzy became the major source of the finance for the consumption growth in 1990s and the first half of 2000s. That growth in consumption has supported the growth of supply and respectfully the economic growth especially in 2000-2006.

As I showed in the article "An Analysis of the Government Policy to Ease the Recessionary Pressure of 2008-2009" (Katkov, 2011) the development of the housing market as the vehicle of the Aggregate Demand and economic growth faced the problem of the slow growth of net income per capita for most households. This growth of the net income per capita in the USA during the period of 1990-2000 was about 25%. Income has increased (in 2000 dollars) from \$20,336 to \$25,472. (Census 2000. Demographic Profile Highlights, 2011).

But these data shows the average income growth per capita. Starting the middle of 1980-s there was the emerging trend of the faster income growth among the households belonging to the high income earning group. According to the US Census Bureau, in 2001 40 percent of low income households earned only 12.2% of the total income earned by all households or \$21,639 per household. At the same time 20 percent of highest income earning group of households earned 50.2% of the total income. Obviously, this level of income is not sufficient to buy a house in many states. So, the change in the standards of the mortgage issuance according to S. Leibowitz (Leibowitz, 2008) became the Government's leading strategy.

As the result of the easiness in the mortgage requests approvals the percentage of the home owners in the USA has increased from the year of 2000 to the year of 2004 from 66.2% to 69%. At the same time lower standards made possible to get financing also for people who want to buy a larger house, or to purchase the second home for the vacation purposes, or the house for the future retirement. The quick increase in the demand for houses created their fast price appreciation. During the ten year period from 1995 till 2005 homes prices in constant dollars almost doubled.

But borrowed money sooner or later should be paid back. The households' debt starts rapidly expand. If in 1981 the household debt was equal about 48 % of the national GDP: debt - \$1,507.2 billion versus GDP - \$3,128.4 billion, in 2007 these two numbers became practically equal: debt - \$13,765.1 billion

versus GDP - \$13,841.3 billion. It means that taking the inflation into the consideration the household debt has been grown 5.7 times in 26 years. This debt growth forced the saving rate to drop from 10% in 1980 to 0.6% in 2007 (Economic Report of the President 2008, Table B-30).

So, during the last 30 years the household consumption – the largest component of GDP (about 70%) has been grown as the result of the increase of the rate of debt, not the rate of the income growth. To borrow money you need to provide the collateral. In the situation when for most households their house was their collateral the growing house prices in 1998-2006 allowed households to borrow more and more practically till the moment when the bubble has burst.

So, we can conclude that the support of the Aggregate Demand growth to match the growth of Aggregate Supply through the development and the expansion of the households' debt financing scheme became the logical result of the acceptance of the Supply Side economic model as the core idea of the new economic policy 30 years ago. This change in the economic policy became from my point of view became the first macroeconomic cause of the Great Recession of 2008-2009. The second cause was the acceptance of the new U.S. role in the global division of labor.

THE NEW ROLE IN THE GLOBAL DIVISION OF LABOR

Since World War II the USA became the leading producer and the exporter of capital goods and the leading supplier of the technology and investments abroad. The deficit of trade balance on capital goods and automotive vehicles, parts and engines goods that first time occurred in 1984 (- 17.5 billion USD) since that time has been grown substantially to -50.0 billion USD in 1995, to -103.7 in 2000 and has reached astonishing number of -161.2 billion USD in 2005.

During last five years this deficit starts to diminish and declined in 2009 to the level of -55.1 billion USD. (Economic Report of the President (2011), Table B-104). Today the USA is the largest global importer of cheap consumer goods: 534.1 billion USD in 2008 and 502.3 billion USD in 2009 (Economic Report of the President (2011), Table B-106.). These imports are not only helped economies of countries like China and Mexico to gain a new economic power to build their economies by using American investments but also created at least three factors which negatively affected the U.S. national economy's growth during the last 20-25 years: 1) a substantial loss of the internal money flow to other countries for imports; 2) a loss of jobs initially in manufacturing and later also in the services providing sector; and 3) a loss of investments for the domestic economy because of the growing investments abroad.

Some statistical data can illustrate above mentioned statements.

TABLE 3
TRADE BALANCES IN GOODS BETWEEN THE USA AND CHINA IN BILLIONS OF USD

1999	2002	2003	2004	2005	2006	2007	2008	2009	2010
--68.7	-103.1	-124.1	-161.9	-201.5	-234.1	-256.2	-268.0	-226.9	-273.1

Source: U.S. Census Bureau.

The deficit in trade between the USA and China, as Table 3 shows, has been grown from \$68.7 billion in 1999 to \$273.1 billion in 2010. Combined deficit over the period of 12 years on nominal basis equal \$2,084.8 billion (U.S. Census Bureau, 2011).

To show how the USA supported the growth of Chinese economy I am offering Table 4. This table is providing the information about the volume of U.S. imports (M) in billions of USD and also as the percent of China's GDP for the period of 11 years from 2000 through 2010 (U.S. Census Bureau, 2011). American imports of Chinese products became the very important factor of the Chinese economic growth. Consumer expenditures are producers' incomes. The growing National Income means the growing GDP.

TABLE 4
U.S. IMPORTS OF GOODS FROM CHINA (M) IN BILLIONS OF USD AND AS PERCENTS OF CHINA'S NOMINAL GDP IN BILLIONS OF USD AT OFFICIAL EXCHANGE RATES

Year	2000	2003	2004	2005	2006	2007	2008	2009	2010
US M	100.0	152.4	196.7	243.5	287.8	321.4	337.8	296.4	364.9
GDP	1,200	1,640	1,920	2,230	2,670	3,380	4,590	5,030	5,710
Percent	8.8%	9.3%	10.3%	10.9%	10.8%	9.5%	7.4%	5.9%	6.4%

Source: U.S. Census Bureau.

As this Table shows in average during the 11 years period U.S. Imports from China were equal 8.7% of China's GDP exceeding during some years the mark of 10%. From my point of view it is the sign of the short-sighted international policy which logically has followed the strategy of offshoring US manufacturing facilities abroad to pursue the necessity of the cost cutting measures under conditions of the "Supply Side" economics. The combined volume of the U.S. imports from China during 11 years period has reached 2,528.4 billion dollars. Big portion of this money can be used to buy American manufactured products and to pay American workers. But money has been used to finance the economic development of the future economic superpower that can become the largest global economy during the next 15-20 years. This fact can be perceived neutrally as the statistical phenomena but it should not be taken easily from the economic perspective. To support its economic growth at the same pace China will need more and more resources. As history is teaching us all political conflicts have the economic foundation: the scarcity of economic resources. So, the strategy chosen in 1980s in the long run practically has weakened the core of the American economy- its manufacturing sector and has support the growth of the new manufacturing giant - China.

Even more alarming situation illustrating the thesis that the "Supply Side" economics practically financed the economic development of other countries instead of the financing the U.S. economy is the situation with the U.S. - Mexico trade. The volume of this trade is less than the volume of the trade with China but the impact of the growing U.S. imports from Mexico on the Mexican economy is even more vivid.

TABLE 5
TRADE BALANCES IN GOODS BETWEEN THE USA AND MEXICO IN BILLIONS OF USD

1994	1995	1996	2000	2005	2006	2007	2008	2009	2010
+1.3	-15.8	-17.5	-24.6	-49.9	-64.5	-74.8	-67.7	-47.8	-66.4

Source: U.S. Census Bureau

As Table 5 shows the deficit in trade with Mexico reached in 2007 \$74.8 billion when in 1994 (before NAFTA) it was a surplus of \$1.3 billion (U.S. census Bureau, 2011). GDP Mexico in 2010 was \$1,034.7 billion, so U.S. imports in 2010 valued of 229.9 billion was equal about 22% of Mexico GDP.

Table 6 indicates that during the 11 years period from 2000 through 2010 the U.S. imports from Mexico have constitute in the average about 20% of Mexico nominal GDP (Source: U.S. Census Bureau, 2011 and International Monetary Fund , 2011).

TABLE 6
U.S. IMPORTS OF GOODS FROM MEXICO (M) IN BILLIONS OF USD AND AS PERCENTS
OF MEXICO'S NOMINAL GDP IN BILLIONS OF USD AT OFFICIAL EXCHANGE RATES

Year	2000	2003	2004	2005	2006	2007	2008	2009	2010
US M	135.9	138.1	155.9	170.1	198.3	210.7	215.9	176.7	229.9
GDP	671.9	700.2	759.6	848.5	951.7	1,035	1,094	879.2	1,035
Percent	20.2%	19.8%	20.5%	20.0%	20.8%	20.4%	19.7%	20.1%	22.2%

Sources: U.S. Census (U.S. Imports) and International Monetary Fund (Mexico's GDP)

The combined volume of the U.S. Imports from Mexico during 11 years period has reached \$1,897.4 billion. Again we could expect that the sufficient portion of money spent on imports could be spent on American made goods and could be paid American workers.

Next table (Table 7) shows that the trade deficit in twelve years period from 1997 through 2008 has more than quadrupled (Economic Report of the President. 2011, Table B-105). It is the illustration of the core idea of the economic strategy implemented by the U.S. Government since 1980-s: the increase consumption of imported goods paid by money borrowed by household from banks who have borrowed money from the Federal Reserve System who has borrowed the substantial part of its funds from countries who exported their products to the USA: China, Japan, Saudi Arabia, Brazil. But after the housing bubble has burst the economic model based on the premise that the growth of the consumption can be built on the real estate value appreciation and that it will work as the engine of the economic growth over the very long period of time has shown its inefficiency.

TABLE 7
U.S. BALANCES OF TRADE (TRADE IN GOODS) IN BILLIONS OF USD 1997-2009

1997	1999	2001	2003	2004	2005	2006	2007	2008	2009
-198.1	-346.0	-427.2	-541.5	-665.6	-783.8	-839.6	-823.2	-834.7	-506.9

Source: Economic Report of the President 2008, Table B-103 and Economic Report of the President 2011, Table B-105).

It is obvious that consumption based upon the increasing debt which has been supported by growing housing prices cannot be a factor of economic growth for the long time. When housing bubble has burst households lost the ability to borrow money from banks and many of them now owe to the banks more than the market prices of their houses. Consumption has dropped, economy has contracted.

Table 8 which based upon data of Bureau of Economic Analysis (Bureau of Economic Analysis. 2011) shows changes in exports and imports of capital goods from 1985 through 2010. Table 9 shows changes in exports and imports of automotive vehicles, engines and parts. If imports of automotive vehicles, engines and parts during this 16 years period was always more than twice higher than exports, imports of capital goods has reached exports of capital goods around of 2005. That means that around year of 2005 the USA lost their status of the manufacturing leader of the world.

TABLE 8
U.S. REAL EXPORTS AND IMPORTS OF CAPITAL GOODS EXCEPT AUTOMOTIVE IN
BILLIONS OF USD, SEASONALLY ADJUSTED AT ANNUAL RATES (1985-2010)

Year	1985	1990	1995	2000	2005	2010
Exports	79.2	153.0	247.6	367.9	376.1	466.1
Imports	64.5	119.5	233.0	359.3	393.1	479.5
Net Exports	+14.7	+33.5	+14.6	+8.6	-15.0	-13.2

Source: U.S. Bureau of Economic Analysis

TABLE 9
U.S. REAL EXPORTS AND IMPORTS OF AUTOMOTIVE VEHICLES,
ENGINES AND PARTS IN BILLIONS OF USD, SEASONALLY
ADJUSTED AT ANNUAL RATES (1985-2010)

Year	1985	1990	1995	2000	2005	2010
Exports	25.2	34.8	65.3	74.9	110.2	115.8
Imports	70.3	87.3	118.4	193.5	251.4	234.3
Net Exports	-45.1	-52.5	-53.1	-118.6	-141.2	-118.7

Source: U.S. Bureau of Economic Analysis

The next table (Table 10) that also has been built on the basis of the data the Bureau of Economic Analysis of the U.S. Department of Commerce (Bureau of Economic Analysis, 2011) shows how over 30 year period from 1981 through 2010 values added by three selected industries: manufacturing, finance and insurance, and government as the percent of the U.S. GDP have drastically changed. The manufacturing industry input into GDP declined from almost 20% to about 11.7%. The government industry input during this period of time has slightly fluctuated between 12 and 14%. The finance and insurance industry input has increased from 5% to about 8.5%. That means that the input of manufacturing industry into the domestic output in the USA during the last 30 years declined by about 40%, but the input of the finance and insurance industry increased by 70%. As the result the value added by the finance and insurance industry has increased from the about 25% of the value added by the manufacturing industry to almost 73%. Interestingly to see that in terms of the percentage of GDP value added by the Government was the same in 1981 and 2010 – 13.6%. But because the real GDP in chained 2005 dollars has increased from 1981 to 2010 about two times the Government’s input into GDP in terms of the dollar value also doubled.

TABLE 10
VALUE ADDED BY INDUSTRY AS A PERCENTAGE OF U.S. GROSS DOMESTIC PRODUCT

Year	1981	1985	1990	1995	2000	2005	2010
Manufacturing	19.8	17.8	16.7	15.9	14.2	12.4	11.7
Finance	5.0	5.5	6.0	6.6	7.7	8.1	8.5
Government	13.6	13.8	13.9	13.4	12.2	12.6	13.6

Source: U.S. Bureau of Economic Analysis

All tables have illustrated the decline of the role and the input of the U.S. manufacturing sector into the economic development of the USA: as the percentage of GDP, as the net exports factor of the economic growth, as the source of manufacturing jobs, and as the creator of the jobs in other sectors of the national economy.

So, when the U.S. economy has contracted in 2008 the weaknesses of the manufacturing sector just made the recession deeper. During the recession usually durable goods manufacturers are cutting the production and employment, but nondurable goods manufacturers are keeping both at the same level. Because most of the nondurable goods are imported now from developing countries the ability of this sector to play the role of the savior of the economy and employment was very limited.

We can conclude that the change in the economic policy in 1980s and the change in the U.S. role in the global division of labor were two macroeconomic causes of the recent recession. The recession was inevitable and it must be substantial because the housing market collapse has eliminated the ability of this sector to make another miracle and help economy quickly recover as it happened during the recession Of 2001. At the same time some mistakes that have been done during the recession made the recovery process long and painful and elevated the status of the recent recession to the level of the “Great Recession”.

HOW THIS RECESSION HAS AFFECTED THE U.S. ECONOMY AND WHAT METHODS HAVE BEEN USED TO FIGHT THE RECESSION

To fight this recession the U.S. Government used both fiscal and monetary policies mechanisms. First of all the U.S. Congress passed in October of 2008 The Emergency Economic Stabilization Act of 2008 which adopted the Troubled Asset Relief Program (TARP). This program gave rights to the U.S. Treasury to buy mortgages and some other financial instruments for the amount of 700 billion dollars. But TARP has not been able to recover lending activities of banks which have received monies from the Federal Government. The recession has deepened and could grow into the depression. During two quarters after Stabilization Act the growth rate of the national economy dropped a big time: the fourth quarter of 2008 – 5.4%, and the first quarter of 2009 drop was -6.4%. Responding to that the U.S. Congress has passed in February of 2009 The American Recovery and Reinvestment Act of 2009. According to this Act 787 billion dollars should be spent to help economy to get out of the crisis, including spending on health care, unemployment, objects of infrastructure and alternative sources of energy. The stimulus package was intended to create jobs and to promote the investment and consumer spending during the recession.

In addition to 1.5 trillion dollars that Government used to stimulate economic growth the Federal Reserve System increased the money supply by about 2.25 trillion dollars buying securities from banks and providing funds to fight possible defaults in payments of the owners of student loans, automotive loans and credit cards. No doubt, that Government took the leading role in helping economy to overcome the recession.

Two years after the Recovery Act was implemented we can observe some positive consequences of its stimulus package:

1. GDP is not falling anymore. Starting the last two quarters of 2009 and after it shows the growth. (Table 11 and Table 12).
2. The rate of unemployment dropped in November 2011 compare with December 2009 from 10% to 8.6%. This is a positive but not the substantial improvement. New jobs have been created but mostly in the government sector of the national economy.
3. The extension of the terms of unemployment benefits payments up to 99 weeks in many states helps to support families of almost 15 million Americans who lost their jobs as a result of the recession.
4. The Federal Government has provided support to state and municipal governments not only in a form of funds for the infrastructure repairs (roads, bridges) and to support jobs of teachers, police officers and firefighters but also in a form of subsidies of interest payments on municipal bonds. As result of these subsidies the interest on municipal bonds increased from 4.5% to 7%, so municipal governments have been able to obtain about 50 billion dollars of investors' money to finance local projects.

TABLE 11
U.S. REAL GDP QUARTERLY CHANGES IN 2008-2010 (IN CHAINED 2005 DOLLARS)

08/1	08/2	08/3	08/4	09/1	09/2	09/3	09/4	10/1	10/2
-1.8	1.3	-3.7	-8.9	-6.7	-0.7	1.7	3.8	2.5	2.3

Source: Bureau of Economic Analysis.

Table 11 shows (Bureau of Economic Analysis, 2011) the sharp decline of GDP in 2008-2009 and slow and anemic growth in 2009-2010. Why the recovery was slow and weak? Why the economy needed 9 quarters to reach the level of GDP of the fourth quarter of 2007 - the last quarter prior the contraction that happened during the first quarter of 2008 which served the role of the introductory stage of the recession of 2008-2009?

Answer to those questions we can get from the analysis of Table 12. This table based upon the data from the Bureau of Economic Analysis (Bureau of Economic Analysis, 2011) includes information about

quarterly changes in the U.S. GDP and its components: “Personal Consumption Expenditures” – (C), “Gross Private Domestic Investment” - (IG), “Government Expenditures” – (G) and “Net Exports “- (X-M) during 17 quarters starting with the 3d quarter of 2007 and finishing with the 3d quarter of 2011. The base quarter in this analysis is the 4th quarter of 2007, the last quarter when GDP has shown the growth. After that quarter the U.S. GDP has started to contract and the contraction has lasted through the 3d quarter of 2009. The GDP has recovered to the level of the 3d quarter of 2007 only by the 3d quarter of 2011. In other words the U.S. economy did not show an economic expansion during the long period of 4 years.

Table 12 shows that GDP itself and its components of ”Personal Consumption Expenditures – (C), “Government Expenditures” – (G) and “Net Exports “- (X-M) today by the end of 2011 in the Third Quarter of the year 2011 have exceeded its values of the Fourth Quarter of the year 2007 when the Great Recession practically has started (GDP: \$13,352/ \$13,326; C: \$9,449.5/ \$9, 312.6; G: \$2,508.2 / \$2,455.3; X-M: -\$409.4 /-\$564.6). But the main GDP component reflecting the economic growth - “Gross Private Domestic Investment” - (IG) despite of the stimulus program still did not have reached the level that it had before the recession has started (IG: \$1,796.6/ \$2,123.6). The second important component of economic growth that stimulates an economic growth through the increase in the Aggregate Demand – the component of “Personal Consumption Expenditures” – (C) has reached the level of the 4th quarter of 2007 only during the 4th quarter of 2010. (C: \$9,328.4 / \$9,312.6).

TABLE 12
U.S GDP AND ITS COMPONENTS QUARTERLY CHANGES IN 2007-2011 (IN 2005 USD)

Year	GDP	C	IG	G	X-M
2007 Q3	13,269.80	9,285.20	2,176.30	2,447.90	-638.1
2007 Q4	13,326.00	9,312.60	2,123.60	2,455.30	-564.6
2008 Q1	13,266.80	9,289.10	2,055.70	2,473.90	-550.2
2008 Q2	13,310.50	9,285.80	2,024.00	2,484.50	-486.2
2008 Q3	13,186.90	9,196.00	1,934.70	2,510.70	-484.6
2008 Q4	12,883.50	9,076.00	1,744.60	2,520.50	-478.0
2009 Q1	12,663.20	9,040.90	1,490.40	2 509.60	-404.2
2009 Q2	12,641.30	8,998.50	1,397.20	2,546.00	-331.8
2009 Q3	12,694.50	9,053.30	1,407.30	2,554.20	-352.4
2009 Q4	12,813.50	9,060.20	1,522.00	2,548.50	-346.9
2010 Q1	12,937.70	9,121.20	1,630.00	2,540.60	-376.8
2010 Q2	13,058.50	9,186.90	1,766.80	2,564.00	-437.4
2010 Q3	13,139.60	9,247.10	1,766.80	2,570.30	-458.7
2010 Q4	13,216.10	9,328.40	1,734.50	2,552.30	-414.2
2011 Q1	13,227.90	9,376.70	1,750.90	2,513.90	-424.4
2011 Q2	13,271.80	9,392.70	1,778.40	2,508.20	-416.4
2011 Q3	13,352.80	9,449.50	1,796.60	2,508.20	-409.4

Source: Bureau of Economic Analysis.

Because the U.S. GDP itself has reached the pre-recessionary level only during the 3d quarter of 2011 we can conclude that the U.S. economy just probably barely recovered from the recession and that the lower than in 2007 level of Gross Private Domestic Investment cannot provide enough stimuli for the economic growth. From my point of view this is another consequence of the diminishing role of manufacturing in the USA. In this context the fact that the official unemployment rate only recently dropped below 9.0% and was kept at the level between 9 and 10 percent during the years of 2010 and 2011 is corresponding to slow recovery of the business investments. It is becoming especially alarming because very often the trend of GDP changes is following the trend of changes in IG.

So, it not a surprise that to recover from such deep recession economy took more time than three years. The reason why it took so long for the economy to recover was the ill implementation of the Keynesian advise to increase the government spending when economy in the contraction faze to offset the decline in the aggregate demand created by households and businesses. When economy needs the stimulus package from the government the government should be able to provide this package at the scale that economy needs. Traditionally economy will need the stimulus package that will help it return the level of the so called “potential” or “full employment” GDP.

The American economist Arthur Okun who had served as the Chairman of the Council of Economic Advisers in 1968-69 has formulated the empirical law that has been called the Okun’s Law. According to this Law every additional percent of actual official unemployment rate above the natural rate of unemployment will generate two percent of the loss of the “potential” GDP or GDP gap. The GDP gap according to Okun is the difference between the “potential” GDP and actual (nominal) GDP.

The official rate of unemployment in 2008-2009 was around 10%. It means that the actual official unemployment rate has exceeded the so called “natural rate” of unemployment, which today is considered to be around of 5 %, by exactly 5 %. So, according to Okun’s Law the U.S. potential GDP has declined during the of the first year of the recession by 10% ($5\% \times 2$) or about 1.45 trillion dollars. The Nominal GDP in the 2d quarter of 2008 was 14,415.5 billion dollars. Respectfully 10% of that amount was 1,441.6 billion dollars. So, if the investment (fiscal) multiplier of the government spending in the USA is about 1.5 to bridge this gap between potential and real GDP the U.S. Government should invest into the national economy about 960 billion dollars. In other words, it looks that the economy has needed larger stimulus package in 2009 than the package that the government has been able to offer. It also means that economy may be still needs the additional stimulus package of about 180 - 200 billion dollars to achieve the full and speedy recovery. The additional government’s stimulus package may be one of the possible options that can be considered by the President Obama’s administration and the U.S. Congress. But after Democrats lost the majority in the Congress it became very difficult for the Administration to get the support of this idea from the law makers. But this option was valuable and could work, from my opinion, if it had been implemented in 2009-2010.

But any increase in government spending without the increase in taxes means that the national debt will grow even more. In the last ten years the deficit growth became the self-feeding monster because the guaranteed interests’ payments often can be obtained only from the next borrowing efforts. In addition to this problem there are some others that are affecting the debt growth. The changes in the demographic structure of the population are increasing the government obligations to the growing group of elderly citizens in the form of social security payments and Medicare. Plus the military-industrial complex is constantly lobbying its interests forcing the government to increase the military expenditures. As the result, the federal government expenditures for the last 80 years since 1929 through 2009 have been grown from 7.7% of GDP to 36.2% (Bureau of Economic Analysis, 2011). In the dollar amount this total government spending increased from \$8.0 billion in 1929 to \$5,261.8 billion in 2010 in current dollars (Bureau of Economic Analysis, 2011). The deficit of the Federal budget jumps to \$1,554.9 billion dollars in 2009 (Bureau of Economic Analysis, 2011). The last surplus of \$121.0 billion dollars the U.S. Federal budget had in 2000 (Bureau of Economic Analysis, 2011). The national debt has reached the astonishing level of \$15.13 trillion dollars in September of 2011 (U.S. National Debt Clock, 2011). This amount is about equal the U.S GDP in current dollars. The U.S. nominal GDP in 2010 was \$14,755.0 billion dollars (Bureau of Economic Analysis, 2011) and by the end of 2011 probably would be about \$15.2 trillion.

The Keynesian economic model based upon the idea that the aggregate demand should be stimulated through increase in spending to achieve the economic growth. To stimulate consumption of households, which is by far the largest component of the expenditures formula of GDP, taxes should be decreased. But lower taxes means less government receipts. So, to keep government spending high to support their growth during the recessions the government must increase the borrowing or increase taxes.

During the last 40 years the attitude towards the fiscal policy has been changed few times. Probably it was the effect of the ability of the mechanism of the government regulation to adapt towards changing economic environment. In 1960-s most economists and politicians have considered the fiscal policy as the

very efficient tool of the national economy regulation. But high levels of the government spending during the Vietnam War have increased the federal budget deficit and have provoked the growth of the inflation. Taxes' increases as the government's response to the situation have negatively affected the consumption as the largest component of the Aggregate Demand. The decline in consumption caused two recessions of 1970 and 1974-1975 and the long period of stagflation of 1970s when low rate of the economic growth have been complemented by high rates of inflation.

The so called "neo-liberal" economic model that has been introduced in 1980-s has used as the weapon against the stagflation the expansionary fiscal policy. The major argument used then was against the high tax rates. High tax rates would negatively affect the consumption and business investments but would not be capable in slow growing economy to generate enough tax revenues for the government. As the result, the highest marginal personal income tax rate that has reached during Eisenhower and Kennedy terms 91 % has been lowered down during the Reagan term to 28% in 1988 (Tax Foundation, 2011). The tax rate for highest income earners have been decreased more than 3 times but in 2004 the half percent of people with highest income have contributed 26.1 % of the personal income tax receipts collected by the federal government. In 1960 the taxes paid by that half percent of the tax payers with highest incomes have contributed only 14% of the federal government personal income tax receipts. The decrease in tax rates did worked. During 8 years when Reagan was in office the tax rates have been decreased about 2.5 times but the federal government receipts from the personal income tax almost doubled: from 308.7 billion in 1980 to \$549.0 billion in 1989 (Bureau of Economic Analysis, 2011). When military spending is rising, as it was during Reagan presidential term, the deficit would have the tendency to grow and this rise in government spending can stimulated the economic growth. When military spending is declining, as it was during Clinton presidential term, the economic growth would stimulate the budget surplus.

In XXI century Bush and Obama administrations both used the expansionary fiscal policy. During the recession of 2001 this policy has helped to recover the economic growth very quickly. But later on the growing military expenditures caused by wars in Iraq and Afghanistan have intensified negative effects of other crises that emerged from decisions and actions made by the previous administrations: deregulation of financial markets during the Reagan presidential term, and the deregulation of the housing market during Clinton presidential term. As the result the uncontrolled growth of the federal deficit and the national debt and the very deep financial crisis that was caused by the collapse of the real estate market have amalgamated with negative effects of the changes in the macroeconomic policy and strengthen the recessionary prospects. As the result the national economy has been pushed into very deep and painful recession of 2008-2009.

Most economists would agree with the importance of government spending during the recession. But governments spending cannot substitute in the long run the business investments as the government jobs paid from taxes cannot substitute manufacturing job to stimulate the economic growth. We should look for the complementation not substitution. Economy still needs more help from the government. But this help should be provided not only in the form the second financial stimulus package. It looks that the structure of the U.S. economy needed to be changed and more manufacturing should be returned from the overseas to the USA.

How it can be done is the different question and the topic of the independent research. Among possible strategies that can help are tax incentives to companies that would return manufacturing jobs into the USA. Government grants to finance the R&D in manufacturing sector can help companies to develop new technologies. New technologies can ensure the U.S. competitive advantage in the global division of labor. Even the creation of joint ventures between private companies and government entities for example in the energy sector of the national economy can help to increase the role and the impact of the manufacturing sector on economic growth. The spectrum of possible government incentives is very broad. The main problem is not the lack of ideas and forms but the lack of the cooperation between politicians, business leaders and general public in discussion and implementation of these ideas in the form of the new economic policy.

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