УДК 336.76

Shkodina I.
Doctor of Science in Economics,
professor of Management and Business Department
Kharkiv institute SHEI "University of Banking,
Ukraine; e–mail: sh.ira2@ukr.net
Yehorova Y.
Ph.D. in Economics,
associate Professor of Economic Theory Department
Kharkiv National University of Civil Engineering and Architecture,
Ukraine; e–mail: yuli–egorova@mail.ru
Yatsyna V.
Ph.D. in Economics,
associate Professor of General Economic Theory Department,
National Technical University "Kharkiv Polytechnic Institute",
Ukraine; e–mail: vitayatsina@gmail.com

MONETARY POLICY AS A FACTOR OF GLOBAL FINANCIAL MARKET VOLATILITY INCREASING

Abstract. After studying the dynamics of different segments of the world financial market, the authors concluded that it does not depend on the economic situation and the actions of central banks, especially the Federal Reserve System (FRS), which is actively pursuing a policy of quantitative easing. Currently, the change of technological modes of civilization starts and thus becomes effective more different from previous periods of connections and interdependence. Given this, concluded that using of modern instruments of monetary policy (increase / decrease rates) will not promote the growth of labor productivity, increase investment in real economy and overcome unemployment and income differentiation as long until effortlessly confirmed production technologies, correspond to new technological mode and will not happen structural reconstruction of economy.

Therefore, in our opinion, the most important task should be stimulation of scientific research large–scale implementation of new technologies; the consequence will be growth of labor productivity, which will increase on average level of interest rates that will create opportunities for effective monetary policy. In this way, the global financial market entered crisis period of cyclical system with a high degree crisis synchronization of national markets. Consequently, the impact of unconventional monetary policy instruments will be less predictable than usually and the global financial system is waiting for irreversible radical changes.

Keywords: Financial Market, Quantitative Easing, Volatility, stock index, helicopter money.

JEL classification: E44, E49, E50, E58

Formulas: 0; fig.: 2, tabl.: 0, bibl.: 11

Шкодіна І. В.
Д.е.н., професор кафедри менеджменту та бізнесу,
Харківський навчально–науковий інститут ДВНЗ «Університет банківської справи»,
Україна; e–mail: sh.ira2@ukr.net
Єгорова Ю. В.
К.е.н., доцент кафедри економічної теорії,
Харківський національний університет будівництва та архітектури,
Україна; e–mail: yuli–egorova@mail.ru
Яцина В. В.
К.е.н., доцент кафедри загальної економічної теорії,
Національний технічний університет «ХПІ»,
Україна; e–mail: vitayatsina@gmail.com

МОНЕТАРНА ПОЛІТИКА ЯК ФАКТОР ПІДВИЩЕННЯ ВОЛАТИЛЬНОСТІ СВІТОВОГО ФІНАНСОВОГО РИНКУ

Анотація. Вивчивши динаміку різних сегментів світового фінансового ринку, автори прийшли до висновку, що враховуючи, що наразі починається зміна технологічних укладів розвитку цивілізації, а отже починають діяти інші, відмінні від попереднього періоди зв’язки та взаємозалежності, використання сучасних інструментів монетарної політики не буде сприяти зростанню продуктивності праці, збільшенню інвестицій в реальний сектор економіки, подоланню безробіття та диференціації доходів населення. Глобальний фінансовий ринок вступив у смугу системної циклічної кризи з високим ступенем синхронізації криз національних ринків, отже вплив інструментів нетрадиційної монетарної політики буде менш передбачуваним, ніж зазвичай, отже глобальну фінансову систему чекають необоротні кардинальні зміни.

Ключові слова: фінансовий ринок, кількісне пом'якшення, волатильність, фондовий індекс, гелекоптерні гроші.

Формул: 0; рис.: 2, табл.: 0, бібл.: 11

Шкодина И. В.
Д.э.н., профессор кафедры менеджмента и бизнеса,
Харьковский учебно–научный институт
ГВУЗ «Университет банковского дела»,
Украина; e–mail: sh.ira2@ukr.net
Егорова Ю. В.
К.э.н., доцент кафедры экономической теории,
Харьковский национальный университет строительства и архитектуры,
Украина; e–mail: yuli–egorova@mail.ru
Яцына В. В.
К.э.н., доцент кафедры общей экономической теории,
Национальный технический университет «ХПИ»,
Украина; e–mail: vitayatsina@gmail.com

МОНЕТАРНАЯ ПОЛИТИКА КАК ФАКТОР ПОВЫШЕНИЯ ВОЛАТИЛЬНОСТИ МИРОВОГО ФИНАНСОВОГО РЫНКА

Аннотация. Изучив динамику разных сегментов мирового финансового рынка, авторы пришли к выводу, что, учитывая начавшуюся смену технологических укладов развития цивилизации, а, следовательно, начало действия других, отличные от предыдущего периода связей и взаимозависимостей, использование современных инструментов монетарной политики не будет способствовать росту производительности труда, увеличению инвестиций в реальный сектор экономики, преодолению безработицы и дифференциации доходов населения. Глобальный финансовый рынок вступил в полосу системного циклического кризиса с высокой степенью синхронизации кризисов национальных рынков, следовательно, влияние инструментов нетрадиционной монетарной политики будет менее предсказуемо, следовательно, глобальную финансовую систему ждут необратимые кардинальные изменения.

Ключевые слова: финансовый рынок, количественное смягчение, волатильность, фондовый индекс, вертолетные деньги.

Формул: 0; рис.: 2, табл.: 0, библ.: 11

Introduction. Already almost decade (after the 2008 crisis) world economy is trying to get out of the crisis. One of the main instruments is the use of methods of monetary policy, but until now observe slowdown of restore rates of economic growth in most countries, the problem of the labor market, pumping economy with additional liquidity contribute to the speculation and deepens main global disproportions, and which have caused crisis. And if in the previous decades, developing countries have been characterized by debt problems, today the main debt risks originating from developed countries that provoke restructuring of the financial market. Financial globalization and acceleration of technological changes (especially in developed countries) lead to enhance property differentiation of the population worldwide. Local crises increase the number of migrants who make new requirements for institutions of the countries in which they arrive, undermining tolerance and keeping alive the political populism. In previous decades, using of effective monetary policy instruments caused a sharp increase disproportions and fluctuations in the market, confirming that their application leads to the aggravation of the crisis processes and enhance unpredictability of socio–economic development.

Literature review. Lately quite a large number of authors have been studying the impact of quantitative easing policy in financial markets and revealing its positive effects and drawbacks. Economists estimated that the unconventional policy actions provided no material additional monetary policy stimulus following the financial crisis, probably reflecting the relative modest changes to policy expectations that occurred during this period [1]. Some authors believe that foreign quantitative easing (QE) affects more risk–taking in emerging markets through an expansion of credit supply to riskier firms rather than improving real outcomes of firms in emerging markets. Co–Chair of "MorganStanley" [2] considers that raising rates can undermine economic growth and put the country into a recession. Paul Krugman also does not see any reasons to increase Federal Reserve System rates since there is no overheating of the single components of aggregate demand [3].

The purpose of the article is to determine the impact of monetary policy on the global financial market development and to identify factors that increase financial market volatility.

The main results. Federal Reserve System increases rates for the second time (late 2015 and 2016). Since in December 2015 US Federal Reserve decided to raise rates turbulence time get started in the global financial market. As a proof of this the greatest drop in prices during the first week of January 2016 happened. MSCI World index fell by 8%, which happened to be the worst for 96% of all months in the history of the index. Most stock markets in Asia and Europe fell by more than 20%. Only in January 2016 the total stock market capitalization has fallen by more than 2 trln USD, and the index MSCI emerging markets fell by 13%, which is the worst performance since 1998 [4]. Markets' growth deceleration is also accompanied by debt build–up. Especially it concerns developing countries: their debt rose from 150% of GDP in 2009 to 195% in 2015, while corporate debt rose from less than 50% of GDP in 2008 to almost 75% [5].

The lack of economic growth worsens the capabilities of the country to repay the debt. Decline of most currencies exchange rates makes situation even worse. Credit booms are one of the most reliable signals about the crisis, since an increase in the ratio of loans to GDP inevitably leads to problems in the financial sector. For example, the growth of debt by 9% shows that the probability of sovereign default increases by 11.5%, the currency crisis is grows by 9.4% and the banking crisis probability rises by 6.4% in the next three years [6]. Thus, developing countries may become a "third wave" in the series of crises that began in 2007–2008 with American mortgages market and continued in 2010–2012 in the Eurozone. However taking into account macroeconomic and political situation, the Fed, as well as other central banks continue the policy of quantitative easing. The Fed continues to monetize US debt by redemption of bonds. The amount of repayments in 2014 totaled 474 mln USD in 2015 – 3,5 bln USD. In 2016 it will amount to 216 bln USD, in 2017 it will be 194 bln USD and in 2018 repayment will reach 373 bln USD, in 2019 it is expected to be 329 bln USD. Thus, the Fed balance sheet has much greater impact to the financial market (through bond yields) than the process of rates rising [7].

China stands against increasing rates. The country devalues Yuan in response to the increase in rates provided by the Fed. For the first time the Central Bank of China made devaluation in August 2015 resulting not only Asian indices falling by 5–6% but also the fall of stock markets, including the United States. Before the June meeting the Central Bank of China has devalued its currency to 6.60 to the dollar for the third time in recent months, which became minimum value from at least 2011.

Given that most world central banks have not raised rates by FRS, so we can say that the policy of quantitative easing continues even further which in turn leads to a drop in yields on debt of a number of countries. For instance, interest rates on the treasury in Japan fell below 0% for the first time in 150 years and the yield of 10–year treasury in Germany became negative for the first time in history. Against the background of global uncertainty and low interest rates, more countries issue bonds with a negative yield. According to Fitch, on 31.05.2016 there were bonds worth about 10,4 trln USD with negative returns traded [8]. Unlike European and Japanese securities United States treasury securities, so far in positive returns but the yield of the treasuries is plummeting and staying at its minimum (Figure 1). We can see enough simple trend models, but with the quite good volume for the approximation credibility, because the studied time line is quite long. However, in any case, we can say about possibility for forecasting for those similar data sets.

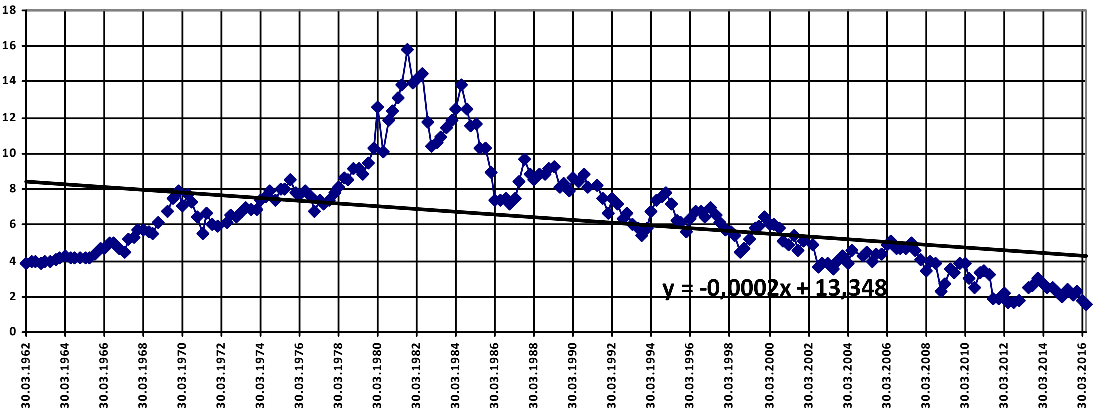

Figure 1. 10 Year Treasury Rate
Source: Board of Governors of the Federal Reserve System (US) [7]

Unexpected victory in the presidential elections in the United States of D.Tramp and his fiscal reforms have led to the sale of US bonds– the number had declined by $14 billion in one week, and pushing the total amount of custodial paper to $2.788 trillion, the lowest since 2012. There was none an aggressive selling of US treasuries, during the 12–month period. According to “Tradeweb” the same processes are taking place also in the corporate bond markets. In May 2016 there were about 16% of corporate bonds (worth 440 bln EUR) with a negative yield [9]. A few years ago, when the yield of treasuries fell to a certain level it was enough for the Fed to launch a program of quantitative easing so that the yield began to grow. But today there are no more opportunities to cut rates much. Thus, given that neither the reduction of interest rates (for the past 10 years the central banks of developed countries reduce interest rates for 637 times), nor negative interest rates did not lead to a marked economic growth or inflation, reducing economists consider new tools to stimulate the economy.

The central banks are looking for new monetary instruments to stimulate the economy which is in deep crisis. Taking into account that the impact of these instruments will be less predictable than usually and the fact that historical comparisons do not help to predict the whole magnitude of changes the global financial system expects irreversible changes. Judging by the statements of economists and politicians “helicopter money” can become a necessary instrument to solve the problem of economic growth. The term was suggested by Nobel Prize winner in Economics Milton Friedman in 1969. The scientist believed that to increase inflation rate and to stimulate economy money should be transferred directly to households that will spend them actively. Citigroup, HSBC and Commerzbank reports about using the instrument of “quantitative easing for the people” prepared for the investors testifies the idea realism. There are many politicians and economists who encouraged considering possibilities of this tool. Ray Dalio (investment fund manager Bridgewater), Adair Turner (former head of the British Department for financial management and supervision (Financial Services Authority, FSA), Mario Draghi (President of the European Central Bank) and others are among such specialists [10]. At the same time, direct financing budget deficit or buying public debt by central banks will lead to monetization of fiscal policy that will weaken the balance sheets of central banks by adding assets that do not have any real value (government liabilities which will never be repaid). Moreover, there is no certainty that the monetization of budget expenditures will be a source of economic recovery. But, in our opinion, the main negative factor is that the use of "helicopter money" can transform the risks from the government balance sheets to the central bank and ultimately destroy the brink of independence between policies and institutions (primarily the central bank). The latter fact in turn eventually will undermine confidence in the banking system and cause damage to its reputation leading to the real financial and socio–economic consequences.

Central bank independence and trust to it are essential for effectiveness of its policy. So taking into account the necessity to stabilize economic agents’ expectations effective communication of the central bank and the transparency of its actions play an important role. To stabilize expectations and gain economic agents trust central bank should be transparent and consistent. It should regularly inform market agent about its goals and tools for achieving the goals and also provide a clear explanation in the case of deviation from the target. Unfortunately in recent years it is transparency of central bank that concern. For example, in 2008–2010 the Fed issued interest–free loans to the largest banks of the US, the UK, Germany, France and Switzerland and launched 16 trln USD for this purpose under secrecy conditions. These data were detected within the audit conducted by the US Chamber (it was the first test for 100 years of the Fed functioning). The report also highlights that the Fed does not track overall impact and potential losses that may occur in unfavorable economic conditions.

The problem of transparency of decisions made by the Fed chairs and the lack of its effective communication with the market agents leads to increasing volatility in financial markets**.** The Fed representatives’ speeches that either claim that rates will rise or begin to doubt this forecast do not reduce market volatility. Volatility in the treasury bills market, which is estimated 1,5 trln USD, began to increase in autumn of 2015, when the Fed raised rates and promised to do this for several times. In December in 2016 FRS decided to raise rates by 25 basis points, to 0.5% –0.75%. However, despite the fact that the raising the rates argued achievement of economic steady state, an analysis of US macroeconomic data indicates otherwise – the decline of industrial production for 15 consecutive months, falling housing market, retail sales are rising more slowly than planned (0.1% vs. a prediction 0.3%) decrease in inventories adversely affect the rate of GDP and more. However, against the background of macroeconomic problems – stock markets rising.

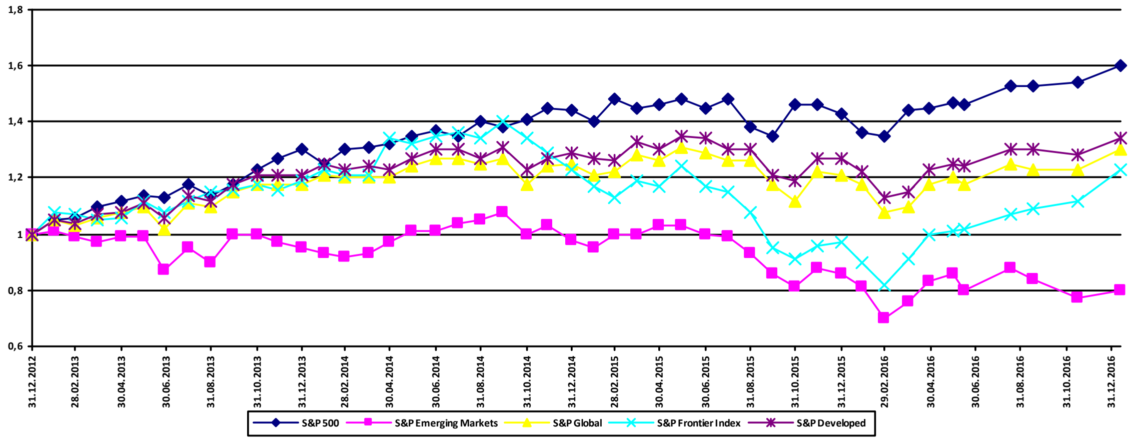

Figure 2. Dynamics of S&P indices
Source: S&P Dow Jones Indices [11].

Thus, current situation shows that the increase in stock indexes is nothing but speculations. Since companies' profitability is declining and spread has been compressed to the level of 2007. It is a sign of low medium–term inflation expectations and fears that economic cycle is coming to the recession again. Thus, the analysis of monetary policy, in the last decade, shows its inefficiency as the national and global levels. In our view, the main reason for this is that currently the change technological modes of civilization is beginning, and therefore become effective more different from previous periods of connections and interdependence. Technological mode characterized by single technical level components of its productions associated qualitatively of homogeneous flows of resources, based on common resources of qualified labor force, the overall scientific and technical potential, and so on. In its development, technological way passes through three phases of the cycle: the first phase account for its inception and formation in the economy of the previous technological way, the second phase is associated with the restructuring of the economy based on new technology and production corresponds to the period of domination of the new technological way for about 50 years, third phase accounts for the withering away of old technological order. At the same time, period of domination technological way is characterized by the biggest splash of development. The life cycle of technological way covers the period of about a hundred years, while the period of domination is about 60 years.

Early in 1970s, structural changes in the production have received a new impulse (in that time created the first microprocessor, which revealed the vision for personal computers). In this way, the fall of the financial markets can be considered as a result of impairment of assets of the fourth long wave. Since the middle of–1980s and the end of the century, the economy of the most developed countries has been in the growth phase of the fifth technological mode, potential of innovation proved to exhaustive in many respects already for 2000 (dotcom crisis in 2000). However, the integration of developing countries into the global capital market has slowed the process, as a result of down–phase of the cycle, investors who did not receive income in developed countries, redirected financial flows to emerging markets, which resulted in their active growth. Nevertheless, institutional inability and backwardness of these countries rapidly have resulted to a series of economic crises of the 90's – the Asian financial crisis in 1997, the Russian financial crisis in 1998 and returned investors to developed markets. As a result, the growth of stock indexes and the formation of a new financial bubble occurred, due to dissemination of liberal and speculative mood in the financial markets. So, significant growth of financial markets in 2008 cannot be explained by the effect of modernization of existing branches influenced by the technology of new long wave because it is being formed. The growth in asset prices was a result of economic and political measures within liberal policy directed at stimulating the development of the financial sector (a significant reduction in the Federal Reserve interest rates, which led to an active extension of credit mass of financial sector, till increasing the proportion of borrowed funds in the capital of corporations and individual borrowers).

The use of unconventional monetary policy after 2008 resulted to formation of bubbles in financial markets against the backdrop of the problems of the real sector – inflation significantly below of target performance in major developed economies (US, Japan, Eurozone), unemployment decreases very moderately, industrial production in the US and other countries falls, debt problems accumulate in most countries. In this background, structural reforms of financial and real sectors are not implemented, which would be able to stimulate growth not only in the short and long term. We consider, that the key factor should be the binding interest rates to the neutral interest rate (r *), because exactly it reflects the efficiency of capital, prospects of technology development and savings of households. But today, the Central bank pays no attention it. In recent years, the neutral rate is decreasing constantly and it is close to zero, or by 2 percentage points below the value in 2004. Today's refinancing rate (between 0.25% and 0.5%) is not so low to stimulate economic growth. Especially, when you take into account, the stimulating effect of the refinancing rate should be even lower. Thus, the increasing of rates will facilitate the growth of labor productivity and investment in the real economy. At the same time, maintaining low rates encourages excessive risk and undermines the financial stability. Therefore, in our opinion, the most important thing should be stimulating of productivity growth, which will affect to increase the average level of interest rates, which will create opportunities for effective monetary policy. While the contemporary monetary policy deepens the inequality of incomes only, growth of labor productivity will increase incomes of people.

Conclusion. In recent years economic events have shown, that the traditional instruments of monetary policy cannot be effective in overcoming the crisis. Neither the policy of quantitative easing, or negative interest rates failed to overcome the crisis because their continued use will only deepen the crisis. We concluded, that using of modern instruments of monetary policy (increase / decrease rates) will not promote the growth of labor productivity, increase investment in real economy and overcome unemployment and income differentiation as long until effortlessly confirmed production technologies, correspond to new technological mode and will not happen structural reconstruction of economy.

Therefore, in our opinion, the most important task should be stimulation of scientific research large–scale implementation of new technologies; the consequence will be growth of labor productivity, which will increase on average level of interest rates that will create opportunities for effective monetary policy. In our opinion, in the short term there are no opportunities to reduce the interest rates, so it is necessary to look for new innovative tools of monetary policy for ensuring stable economic growth. Today it is clear that since the modern world is so volatile regulators (and first of all central banks) should increasingly use economic science. Because there is a need to form a more effective system, to identify effective tools of regulation, including those that were previously limited by theoretical frames and now can become reality. So, in our opinion, important direction for further researches is to develop a coordinated global monetary policy not only fiscal (which today is carried out in many developed countries), but also with the structural and social policy. Traditional instruments of monetary policy, which had worked in the twentieth century, cannot be effective for overcoming the current permanent crisis. However, not only central banks but also other regulatory authorities have to implement new innovative tools for stimulating economic growth. Only coordinated monetary, fiscal, structural, social and other policies will actually work in the new environment of globalization.

Literature

1. Engen, E. The Macroeconomic Effects of the Federal Reserve's Unconventional Monetary Policies [Electronic resource] / E. Engen, T. Laubach, D. Reifschneider ; Finance and Economics Discussion Series 2015–005. – Washington : Board of Governors of the Federal Reserve System, 2015. – 55 p. – Available at: http://dx.doi.org/10.17016/FEDS.2015.005.

2. Chang, S. Morgan Stanley fears policy makers repeating mistakes of 1930s [Electronic resource] / Sue Chang. – Available at: http://www.marketwatch.com/story/morgan–stanley–fears–policy–makers–repeating–mistakes–of–1930s–2016–06–16?link=sfmw_tw.

3. Krugman, P. Question For the Fed [Electronic resource] / P. Krugman. – Available at: http://mobile.nytimes.com/blogs/krugman/2016/06/18/a–question–for–the–fed/?smid=tw–nytimeskrugman&smtyp=cur&_r=0&referer=

4. Dynamic of MSCI index [Electronic resource]. – Available at: https://www.msci.com/end–of–day–data–search.

5. The never–ending story. First America, then Europe. Now the debt crisis has reached emerging markets [Electronic resource]. – Available at: http://www.economist.com/news/leaders/21678220–first–america–then–europe–now–debt–crisis–has–reached–emerging–markets–never–ending?fsrc=scn/tw/te/pe/ed/theneverendingstory

6. Gourinchas, P–O. Stories of the Twentieth Century for the Twenty–First [Electronic resource] / Pierre–Olivier Gourinchas, Maurice Obstfeld // American Economic Journal: Macroeconomics. – 2012. – Vol. 4, № 1. – P. 226–265. – Available at: http://dx.doi.org/10.1257/mac.4.1.226.

7. Board of Governors of the Federal Reserve System (US) [Electronic resource]. – Available at: http://www.gao.gov

8. Negative Yielding Sovereign Debt [Electronic resource] // Fitch Ratings. – 2016. – 4 May. – Available at: https://www.fitchratings.com/site/home.

9. Durden, T. 16% Of Europe's IG Corporate Bonds Now Yield Below 0% [Electronic resource] / Tyler Durden // Zero Hedge. – 2016. – 15 jun. – Available at: http://www.zerohedge.com/news/2016–06–15/16–europes–ig–corporate–bonds–now–yield–below–0.

10. Dalio says governments must encourage spending to boost growth [Electronic resource] // Bloomberg. – 2016. – 18 february. – Available at: http://www.bloomberg.com/news/articles/2016–02–18/dalio–says–governments–must–encourage–spending–to–boost–growth.

11. S&P Dow Jones Indices [Electronic resource]. – Available at: http://us.spindices.com/index–finder.

Стаття надійшла до редакції 10.04.2017

References

1. Engen, E., Laubach, T., Reifschneider, D. (2015). *The Macroeconomic Effects of the Federal Reserve's Unconventional Monetary Policies. Finance and Economics Discussion Series 2015–005*. Washington: Board of Governors of the Federal Reserve System. Available at: http://dx.doi.org/10.17016/FEDS.2015.005
2. Chang, S. Morgan Stanley fears policy makers repeating mistakes of 1930s (2016). Available at: http://www.marketwatch.com/story/morgan–stanley–fears–policy–makers–repeating–mistakes–of–1930s–2016–06–16?link=sfmw_tw
3. Krugman, P. (2016). *Question For the Fed.* Available at: http://mobile.nytimes.com/blogs/krugman/2016/06/18/a–question–for–the–fed/?smid=tw–nytimeskrugman&smtyp=cur&_r=0&referer=
4. *Dynamic of MSCI index*. Available at https://www.msci.com/end–of–day–data–search
5. *The never–ending story. First America, then Europe. Now the debt crisis has reached emerging markets.* (2015). Available at: http://www.economist.com/news/leaders/21678220–first–america–then–europe–now–debt–crisis–has–reached–emerging–markets–never–ending?fsrc=scn/tw/te/pe/ed/theneverendingstory
6. Gourinchas, P.–O., & Obstfeld, M. (2012). Stories of the Twentieth Century for the Twenty–First. *American Economic Journal: Macroeconomics 2012,* 4(1), 226–265. Available at http://dx.doi.org/10.1257/mac.4.1.226
7. *Board of Governors of the Federal Reserve System (US)*. Available at: http://www.gao.gov
8. Negative Yielding Sovereign. (2016, May 4). *Fitch Ratings*. Available at: https://www.fitchratings.com/site/home
9. Durden, T. (2016, June 15). 16% Of Europe's IG Corporate Bonds Now Yield Below 0%. *Zero Hedge*. Available at: http://www.zerohedge.com/news/2016–06–15/16–europes–ig–corporate–bonds–now–yield–below–0
10. Dalio says governments must encourage spending to boost growth. (2016, February 18). *Bloomberg*. Available at: http://www.bloomberg.com/news/articles/2016–02–18/dalio–says–governments–must–encourage–spending–to–boost–growth
11. *S&P Dow Jones Indices*. Available at http://us.spindices.com/index–finder

Received 10.04.2017