ISSN 1644-0757
eISSN 2450-4602
http://acta_oeconomia.sggw.pl

ACTA SCIENTIARUM POLONORUM *Oeconomia 15 (4) 2016, 171–181*

BREXIT RELATED UNCERTAINTY FOR UNITED KINGDOM ECONOMY

Michał Wielechowski, Katarzyna Czech
Warsaw University of Life Sciences – SGGW

Abstract. The aim of research is to present economic and financial uncertainty related to Britain's exit from the European Union (EU). Paper discusses and analyses the pre-referendum characteristics of Brexit, the problem of growing uncertainty and its impact on British financial markets and the economy of the United Kingdom (UK), and possible scenarios of future UK–EU relationship. Post-referendum Economic Policy Uncertainty Index (EPU) levels indicate growing uncertainty in British economy. The most evident pro-Brexit voting effect was a substantial depreciation of British pound (GBP). Economic forecasts indicate negative impact of Britain's withdrawing from the EU on gross domestic product (GDP) growth rate in 2016–2020. The most likely scenario for post-Brexit UK–EU relationship is going to be a "hard Brexit".

Key words: Brexit, Economic Policy Uncertainty, economy of the United Kingdom, British pound

INTRODUCTION

The referendum results about Britain leaving EU membership has shocked an economic and political opinion. British citizens decided to cut long-term relationship with European Community on 23 June 2016. Voting results have caused the growth of uncertainty about future of Britain's economy standing. According to economists it would lead to a massive economic disruption [*What is Brexit*... 2016]. The fear of Brexit has caused a turmoil in financial markets, namely it has resulted in an increased stock market and exchange rate volatility. Brexit is considered as a crucial, hot and central issue in 2016 economic discussion. As many as 146 million Google search results indicates the importance of the analysed problem. The presented issue should be considered as a part of the

Corresponding author: Michał Wielechowski, Warsaw University of Life Sciences – SGGW, Department of Economics and Economic Policy, Nowoursynowska 166, 02-787 Warsaw, Poland, e-mail: michal_wielechowski@sggw.pl

new institutional economics theory. The matter of Brexit might be explained in the terms of such phenomenon as free-riding effect and club theory.

The aim of research is to present economic and financial uncertainty related to Britain's exit from the EU. The paper is organized as follows: section 2 discusses the pre-referendum characteristics of Brexit, section 3 presents economic and financial uncertainty about British economy, section 4 explains uncertainty related to post-Brexit UK-EU relationship, and section 5 presents conclusions.

BREXIT – PRE-REFERENDUM CHARACTERISTICS

Brexit stands for Britain exit from the EU. The term appeared on the model of Grexit, a term which had been coined few months earlier in February 2012 by two economists Willem Buiter and Ebrahim Rahbari [2012]. They presented the analysis about potential risks of Greek exit from the eurozone. Peter Wilding, in his Euroactiv blog, used the term Brexit for the first time [*Stumbling towards the Brexit* 2012]. The term Bremain stands for Britain and remain.

David Cameron, former British prime minister, in his speech of 23 January 2013 became the first prime minister since Harold Wilson, in 1974, to commit to holding an in/out referendum on the Britain's membership in the EU. David Cameron publicly set out the areas in which he wished to renegotiate the terms of EU membership in November 2015. Then came a period of an intensive negotiation between UK and EU representatives. On 20 February 2016 (after European Council meeting) Prime Minister Cameron declared the achievement of his objectives for a new settlement and announced the date of referendum – 23 June 2016 [Whitman 2016]. The UK has voted to leave the EU by 52 to 48%. English and Welsh citizens voted to leave, while the Scots wanted to remain the EU [*EU Referendum Results*… 2016]. In October 2016 the prime minister Theresa May announced to trigger Article 50 of the Lisbon Treaty till the end of March 2017 [*Theresa May kicks off*… 2016]. Article 50 describes the mechanics of withdrawing the EU by any member state [Consolidated Version of The Treaty on European Union 2012].

The United Kingdom being EU member state since 1973 has always been something of an "inside-outsider" that keeps the distance [Vojtíšková 2014]. Britons place greater importance to the Crown than to EU membership. Table 1 presents arguments of Brexiters (people who were in favour of the UK withdrawing from the EU) and Bremainers (people who were in favour of the UK remaining in the EU).

Referendum campaign postulates were divided into five sections related to fiscal, trade, migration, legal and political issues. The arguments in favour and against Brexit which are presented in Table 1 can be considered as rationale. However, from the economic point of view Bremainers' postulates were more understandable and worth considering.

It should be stressed that the Brexit process is connected with the new political economy aspects. According to Besley and Burgess [2002], the determinants of government responsiveness to its citizens are a key issue in political economy. It means that a near future of Britain's exit from the EU stays in the hands of politicians not economists. That is why political figures opinions are extremely important. Table 2 contains a depiction of pre-referendum politicians' arguments supporting Bremain or Brexit.

Table 1. Arguments for and against Brexit, according to the national campaign in the UK

Bremainers arguments	Brexiters arguments
Budget	
Britain pays the EU 340 GBP yearly per household, compared with an estimated 3,000 GBP a year benefit of membership. Staying in or out, payment is needed to access the single market.	Britain will stop sending 350 million GBP to the EU every week. The money can be spent in other way (scientific research, new industries).
Trade	
Britain avoids exporter tariffs and red tape, important as 45% of British exports go to the EU. As the EU member, Britain obtains better trade terms because of the EU size.	Britain will negotiate a new relationship with the EU without being bound by European law. It will secure trade deals with other important partners (China, India, USA, Canada).
Immigration	
Leaving the EU Britain will not solve immigration problem. Countries that trade with the EU from outside observe higher rates of immigration.	Britain can change the system that offers an open door to the EU and blocks non-EU immigrants.
Regulation	
Most EU regulation collapses 28 national standards into one EU standard, reducing red tape and benefiting business. Staying in, Britain can fight for more suitable regulation.	Leaving the EU Britain will return control over areas like employment, law, health and safety.
Influence	
At international summits, Britain is represented both by the foreign secretary and the EU high representatives.	Britain has little influence within the EU. Staying out, it can retake seats on international institutions and be a stronger influence for free trade and cooperation.

Source: Own elaboration based on [*A background guide to 'Brexit'*… 2016].

Table 2. Important political figures supporting Bremain or Brexit before UK referendum

Supporting Bremain	
Barrack Obama, American president – "The US and the world need your outsized influence to continue – including within Europe."	David Cameron, British prime minister – "To be in a reformed European Union… would be the best of both worlds".
Shinzo Abe, Japanese prime minister – "A vote to leave would make the UK a less arttractive destination for Japanese investment."	Christine Lagarde, IMF executive director – "We have looked at all the scenarios. We have done our homework and we haven't found anything positive to say about a Brexit vote."
Hillary Clinton, Democratic Party candidate for US president position – "Hillary Clinton believes that transatlantic cooperation is essential, and that cooperation is strongest when Europe is united."	Malcolm Turnbull, Australian prime minister – "From our point of view, it is an unalloyed plus for Britain to remain in the EU."
Angela Merkel, German chancellor – "I…would hope and wish for the UK to stay part and parcel of the EU."	Roberto Azevedo, WTO director general – "Britain would face tortuous trade talks in event of Brexit."
Supporting Brexit	
Boris Johnson, British ministry of foreign affairs – "Napoleon, Hitler, various people tried this out, and it ends tragically. The EU is an attempt to do this by different methods."	Donald Trump, Republican candidate for the American presidency – "I know Great Britain very well… I would say they're better off without it."

Source: Own elaboration based on desk research [Briefing Brexit 2016, *Hillary Clinton warns*… 2016, *Lagarde says Brexit*… 2016, *WTO*… 2016].

During pre-referendum period key politicians commented on potential UK withdrawing from the EU. Desk research indicates that majority of international political decision makers were strong Bremain supporters. They stressed negative aspects of Brexit not only from the UK but also from their national perspective.

ECONOMIC AND FINANCIAL UNCERTAINTY ABOUT BRITISH ECONOMY

The threat of post-Brexit economic downturn brought about the increase in stock market and exchange rate volatility. In the face of extremely hard predictions concerning the impact of Brexit on the economic outlook, the problem of huge uncertainty arises. In order to depict the uncertainty of Brexit, the Economic Policy Uncertainty Index (EPU) was applied. The EPU was developed by Baker et al. [2015]. It is built on the basis of month-by-month searches of articles from top business and economic British press that contain such terms as: uncertainty, uncertain, economy, economic, business, commerce, industry, tax, policy, regulations, Bank of England, deficit, budget etc.

Figure 1 presents monthly Economic Policy Uncertainty Index for the United Kingdom. Higher level of uncertainty is related to higher value of EPU Index.

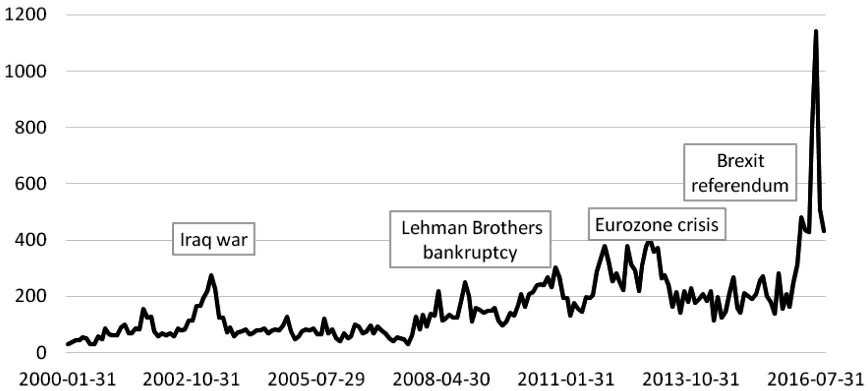

Fig. 1. Economic Policy Uncertainty Index for United Kingdom

Source: Own elaboration based on data from the Economic Policy Uncertainty (https://www.policyuncertainty.com).

Figure 1 shows a few clear spikes that have been observed since January 2000. In the beginning of 2003 EPU Index exceeded the level 200 as an invasion of Iraq result. Moreover, higher uncertainty was observed during the global financial crisis and the eurozone crisis (2008–2012 period). However, none of the above mentioned periods did not generate as high EPU index score as the UK Brexit referendum results. Since 23 June 2016 the EPU Index has trebled its value, reaching the level 1,142 in July 2016. It is worth emphasizing that such high levels of uncertainty in the UK economy may hurt the pace of economic growth, leading to an increase in precautionary savings and postponed investments decisions. Plakandaras et al. [2016] stressed the fact that huge uncertainty caused by Brexit has been the main reason of extremely deep depreciation of British currency. Figure 2 shows USD/GBP exchange rate volatility in the period from January 1990 to October 2016.

Figure 2 shows that, in post-referendum period, the sterling plunged the depths it had reached: after the speculative attack on British currency led by George Soros in 1992 [more details: Krugman et al. 1999, Marsh 2002, Truman 2002], after invasion of Iraq in 2003 and during financial crisis in 2008–2009. A huge intraday drop of GBP against USD was observed on 24 June 2016, in the wake of Britain's voting to leave the EU. GBP lost as much as 11.1%. The currency hit the bottom again after Theresa May's declaration of moving towards a "hard Brexit" (an absolute Britain's living form the EU and the single market). USD/GBP exchange rate plumbed then by 6.1%, reaching a record low level [*May warned*... 2016]. Taking into account the level of depreciation, the Economist (an economic weekly) compares the sterling to some shaky currencies, namely Nigerian naira, Azerbaijani new manat or Malawian kwacha [Sterling 2016]. In author's opinion further British pound weaknesses may force Bank of England to intervene.

Table 3 presents the forecast for USD/GBP exchange rate. Descriptive statistics were estimated on the basis of forecasts built by leading financial institutions, namely: Westpac Banking, Credit Suisse Group, JPMorgan Chase, Rand Merchant Bank, Barclays, Maybank Singapore, Norddeutsche Landesbank, and Standard Chatered.

Table 3 contains pre- and after-Brexit referendum forecasts on USD/GBP exchange rate. In pre-referendum period, British currency was expected to become stronger both in a short- and long-term perspective. In post-referendum period, the analysed forecasts changed dramatically. However, the biggest differences in predictions (12–16%) were observed for short-term forecasts. Imparity was significantly smaller in 3–4 years ahead forecasts. It suggests that in long-term perspective (2019–2020) British currency should recover its losses.

It is believed that exchange rate level is closely connected to financial market standing. The result of Britain's referendum caught financial market by surprise. The immediate aftermath (only two-week-long period) British equity prices declined. In post-

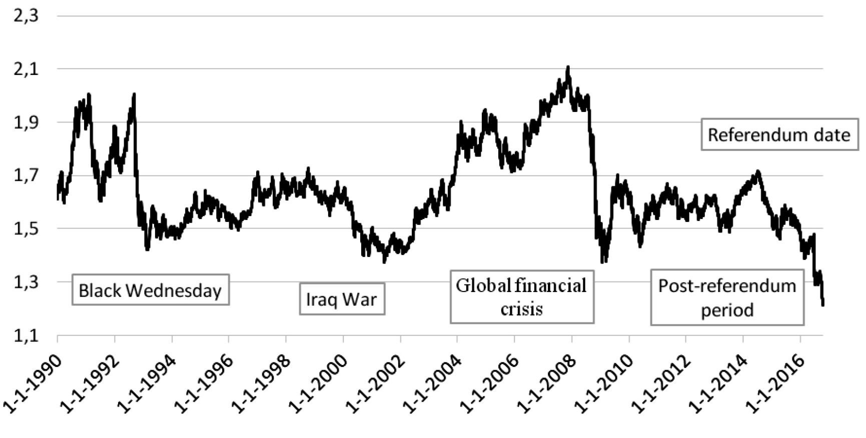

Fig. 2. Exchange rate of USD/GBP volatility in the period 01.01.1990–13.10.2016

Source: Own elaboration based on the data from Bloomberg.

Table 3. Leading financial institutions forecasts on USD/GBP exchange rate (%)

Descriptive statistics	Time of forecast	Q3 2016	Q4 2016	2017	2018	2019	2020
Median	before referendum	1.47	1.48	1.51	1.57	1.57	1.59
	after referendum	1.26	1.30	1.34	1.41	1.50	1.57
	change	–14.29	–11.86	–11.26	–10.19	–4.46	–1.26
Mean	before referendum	1.48	1.48	1.51	1.56	1.57	1.57
	after referendum	1.26	1.26	1.34	1.43	1.50	1.55
	change	–15.27	–14.39	–11.27	–8.18	–4.39	–1.43
High	before referendum	1.59	1.57	1.6	1.63	1.65	1.68
	after referendum	1.32	1.31	1.58	1.54	1.58	1.64
	change	–16.98	–16.56	–1.25	–5.52	–4.24	–2.38
Low	before referendum	1.38	1.37	1.40	1.41	1.41	1.40
	after referendum	1.19	1.18	1.18	1.35	1.41	1.40
	change	–13.77	–13.87	–15.71	–4.26	0.00	0.00

Source: Own calculations based on Bloomberg data (https://www.bloomberg.com/europe).

-referendum period, UK markets observed the negative relationship between the value of British currency and the level of FTSE 100 Index (a leading share index listed on London Stock Exchange – LSE). Figure 3 indicates a declining trend in USD/GBP exchange rate level, and a corresponding increasing trend share value in LSE market. Time series data covered the period from 01.06.2016 till 13.10.2016. The reference base date (1 June 2016) for both indices had an index number of 100.

There is one main reason which explains the presented relationship (Fig. 3). It is worth mentioning that FTSE 100 composition is mostly based on global companies. Since the majority of that firms' earnings come from overseas, current British currency depreciation should be treated as positive factor for their businesses. Nonetheless, the relationship between LSE shares market and British pound value cannot be considered as a clear-cut one.

Jamie Dimon and James Gorman, chief executives of two leading Wall Street banks (namely JP Morgan Chase and Morgan Stanley), are going to be more likely to head for New York than any eurozone place if they move out of London City. They recognize Brexit as a turning point for a wider financial and economic crisis in all European Union countries. According to J. Gorman, in case of Brexit the big winner would be New York [*Wall Street bosses*... 2016].

From the macroeconomic perspective, Britain's Brexit referendum caused a significant increase in economic, political and social uncertainty which is expected to have negative impact on the national economy. July 2016 International Monetary Fund (IMF) forecasts presented in World Economic Outlook Update indicated GDP growth rate decrease in comparison to April 2016 projections (0.2 and 0.9 percentage point in 2016 and 2017 respectively) [IMF 2016]. The most up-to-date IMF forecast (October 2016)

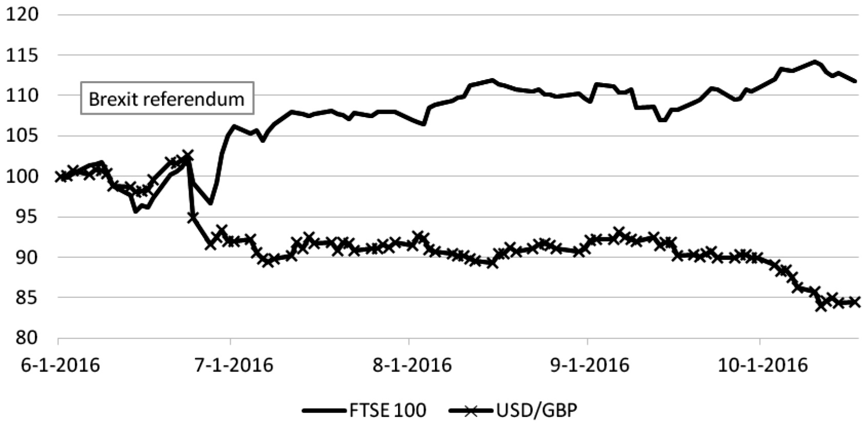

Fig. 3. Exchange rate of USD/GBP and FTSE 100 share index volatility in post-referendum period (1 June 2016 = 100)

Source: Own elaboration based on the data from Bloomberg (https://www.bloomberg.com/europe).

indicated that British economy would grow by 1.8% in 2016, up from the 1.7% it had forecasted in July. However, IMF shaved its expectations for 2017 GDP growth rate to 1.1%, from 1.3% it had projected in July 2016 [*Austerity lite* 2016].

It is worth emphasizing that according to 88% of British top economists working across universities, the City, industry, small businesses and the public sector (members of the Royal Economic Society and the Society of Business Economists), Brexit would damage Britain's economic growth prospects over the period 2016–2020. Exactly 68% of respondents thought that Brexit would increase the risk of a serious negative shock in British economy. Only 5% of responders claimed that there probably would be a positive impact of an exit from the EU and the single market. As many as 82% of the economists predicted a negative impact on household incomes. Exactly 61% of responders forecasted that Brexit would cause the unemployment rate rise. The economists indicated "loss of access to the single market" (67%) and "increased uncertainty leading to reduced investment" (66%) as two main negative Brexit effects [*Economists' Views on Brexit 2016*, *Economists overwhelmingly reject Brexit…* 2016][1].

It needs to be added that British pound's slump may hit UK living standards as a result of higher prices of imported goods and services. However, domestic prices are likely to be affected as well. Inflation rate may increase from the 0.6% level in 2016 up to 3% level in 2017 [Sterling 2016]. According to Wall Street Journal ultra-low inflation is no longer an issue for the UK. British and global financial markets observe that price pressure is mounting [*Brexit Inflation Surge…* 2016]. Moreover, the reduced integration with EU countries is likely to lower British international trade. According to Dhingra et al. [2016], it may cost UK economy far more than gains arising from the lower contribution to EU budget.

[1] The data come from a poll commissioned for the Observer, which drew responses from 639 British economists between 19 and 27 May 2016.

Future public finance standing is expected to be worse. Britain's minister of finance (precisely, Chancellor of the Exchequer), Philip Hammond, officially abandoned target of an elimination the budget deficit by 2019–2020. That ambitious goal had been gleefully presented by Hammond's predecessor, George Osbourne. According to Hammond, balanced government budget policy seems to be too constrained, as taking into account contemporary (October 2016) economic uncertainties after British voting to leave the EU [*Austerity lite* 2016]. According to Financial Times analysis, the size of UK exit bill should be close to 20 billion EUR. The precise "divorce bill" is impossible to calculate from 2016 perspective. It depends on strictly political conditions [*UK faces…* 2016].

UNCERTAIN RELATIONSHIP BETWEEN BRITAIN AND THE EU

The impact of Brexit depends on future type of relationship between Britain and the EU. The following models of above mentioned relationship were considered (Table 4). According to Global Counsel experts, the most likely models were the Swiss and FTA (Free Trading Agreement) based approaches [Global Counsel 2015].

Table 4. Potential Brexit models of UK–EU future relationship

Norwegian style – EEA agreement	The UK joins the European Economic Area and maintains full access to the single market, but must adopt EU standards and regulations with little influence over these. The UK still makes a substantial contribution to EU budget and is unable to impose immigration restrictions.
Turkish style – customs union	Internal tariff barriers are avoided, with the UK adopting many EU product market regulations, but sector coverage of the customs union is incomplete. The UK is required to implement EU external tariffs, without influence or guaranteed access to third markets.
FTA-based approach	The UK is free to agree FTAs independently and the UK's relationship with the EU is itself governed by an FTA. Tariff barriers are unlikely, but as with all FTAs the UK will need to trade off depth – which means agreeing common standards and regulation – with independence.
Swiss style – bilateral accords	The UK and the EU agree a set of bilateral accords which govern UK access to the single market in specific sectors. Concern in Brussels about cherry picking may limit the sectors. The UK becomes a follower of regulation in the sectors covered, but negotiates FTAs separately.
MFN-based approach	No need to agree common standards and regulation, but at the expense of facing the EU's common external tariff, which damages UK trade with the EU in goods as well as services. Non-tariff barriers may emerge over time to damage trade in services in particular.

Source: Based on Global Counsel [2016].

Authors claim that the most likely models of post-Brexit UK-EU relationship are going to be MFN (most-favoured-nation rules) or FTA-based approaches. Donald Tusk's (the president of the European Council) and Roberto Azevedo's (director general of WTO) opinions confirm high likelihood of "hard Brexit". According to Donald Tusk the only real alternative to a clean break from the EU is to remain a full member of the EU. Any other ideas which predict retaining benefits for Britain after its leaving the EU should be considered as a pure illusion [*"Hard Brexit"…* 2016, WTO 2016]. According to Christine Lagarde, head of IMF, has expressed optimism that the EU should emerge from the Brexit crisis as a winner [*Lagarde says Brexit…* 2016].

Leading political figures opinions toe the economic theory of clubs. Sandler and Tschirhart maintain that "club is a voluntary group deriving mutual benefits from sharing one or more of the following: production costs, the members' characteristics, or a good characterized by excludable benefits" [Sandler and Tschirhart 1997, p. 335]. British government would like to keep the access to the European single market without EU membership, in other words benefiting without participating in costs. Such a behaviour might be perceived as a free-riding problem [more details: Pasour 1981].

CONCLUSIONS

The UK referendum results about Britain's leaving EU membership have shocked an economic and political opinion and have caused the growth of uncertainty about economy of the United Kingdom. In the UK referendum aftermath, the Economic Policy Uncertainty Index (EPU) has reached its record high levels. Majority of powerful world political leaders were against Brexit. They emphasized negative aspects of Brexit from both British and their national perspective. The most visible post-referendum effect was British Pound plunge. Exchange rate of USD/GDB decreased by more than 11% on 24 June 2016. In post-referendum period FTSE 100 index has increased. International Monetary Fund and British top economists' forecasts indicate negative impact of Brexit on future GDP growth rate. According to British government, Brexit would be one of 2019–2020 budget imbalances' reasons. The most possible scenario for future UK–EU relationship is "hard Brexit".

REFERENCES

A background guide to 'Brexit' from the European Union (2016). The Economist. Retrieved from http://www.economist.com/blogs/graphicdetail/2016/02/graphics-britain-s-referendum-eu-membership (accessed: 10.10.2016).

Austerity lite (2016). The Economist, 8–14.10.2016, 12.

Baker, S., Bloom, N., Davis, S. (2015). Measuring Economic Policy Uncertainty. NBER Working Paper Series, 21633.

Besley, T., Burgess, R. (2002). The Political Economy of Government Responsiveness Theory and Evidence from India. The Quarterly Journal of Economics, 117, 4, 1415–1451.

Brexit Inflation Surge to Test Post-Crisis Markets (2016). Wall Street Journal. Retrieved from http://www.wsj.com/articles/brexit-inflation-surge-to-test-post-crisis-markets-1476791135 (accessed: 18.10.2016).

Briefing Brexit. What if? (2016). The Economist, 18–24.06.2016, 19–21.

Buiter, W., Rahbari, E. (2012). Global Economics View. Risks of Greek Euro Area Exit. Retrieved from willembuiter.com/Citi44.pdf (accessed: 12.10.2016).

Consolidated Version of The Treaty on European Union (2012). Official Journal of the European Union. C 326/13. 26.10.2012. Article 50.

Dhingra, S., Ottaviano, G., Sampson, T., Van Reenen, J. (2016). The consequences of Brexit for UK trade and living standards. Centre for Economic Performance. London School of

Economics and Political Science. Retrieved from http://cep.lse.ac.uk/pubs/download/brexit02.pdf (accessed: 10.10.2016).

Economists overwhelmingly reject Brexit in boost for Cameron (2016). The Guardian. Retrieved from https://www.theguardian.com/politics/2016/may/28/economists-reject-brexit-boost-cameron (accessed: 13.10.2016).

Economists' Views on Brexit (2016). Ipsos MORI. Retrieved from https://www.ipsos-mori.com/researchpublications/researcharchive/3739/Economists-Views-on-Brexit.aspx (accessed: 13.10.2016).

EU Referendum Results (2016). BBC News. Retrieved from http://www.bbc.com/news/politics/eu_referendum/results (accessed: 10.10.2016).

Global Counsel. (2015). Brexit: the impact on the UK and the EU. Retrieved from https://www.global-counsel.co.uk/sites/default/files/special-reports/downloads/Global%20Counsel_Impact_of_Brexit.pdf (accessed: 10.10.2016).

'Hard Brexit' or no Brexit, Donald Tusk warns UK (2016). Financial Times. Retrieved from https://www.ft.com/content/df4885fa-9160-11e6-8df8-d3778b55a923 (accessed: 13.10.2016).

Hillary Clinton warns against Brexit vote (2016). The Telegraph. Retrieved from http://www.telegraph.co.uk/news/2016/04/23/hillary-clinton-warns-against-brexit-vote/ (accessed: 13.10.2016).

IMF (2016). World Economic Outlook Update. An update of the key WEO projections. Retrieved from https://www.imf.org/external/pubs/ft/weo/2016/update/02/pdf/0716.pdf (accessed: 10.10.2016).

Krugman, P., Rogoff, K., Fischer, S., McDonough, W. (1999). Currency Crises. In: M. Feldstein (Ed), International Capital Flows. University of Chicago Press, 421–466.

Lagarde says Brexit will give EU more freedom for reform (2016). Financial Times. Retrieved from https://www.ft.com/content/e7dee7b4-4132-11e6-b22f-79eb4891c97d (accessed: 13.10.2016).

Marsh, D., Peretz, D., Wilson-Smith, P. (2002). Britain, Germany and EMU. What have we learned in the 10 years since Black Wednesday? London School of Economics, Selected Papers 3.

May warned over 'hard Brexit' as Pound flash crash highlights fears (2016). Financial Times Weekend. Europe Edition, 8–9.10.2016, p. 1.

Pasour, E.C. (1981). The Free Rider as a Basis for Government Intervention. The Journal of Libertarian Studies, 5, 4, 453–464.

Plakandaras, V., Gupta, R., Wohar, M. (2016). The Depreciation of the Pound Post-Brexit: Could it have been Predicted? University of Pretoria. Department of Economics Working Paper Series, 1–15.

Sandler, T., Tschirhart, J. (1997). Club Theory: Thirty Years Later. Public Choice, 93, 3, 335–355.

Sterling. Taking a pounding (2016). The Economist. June 15^{th}-21^{th} 2016, p. 14.

Stumbling towards the Brexit (2012). Blogactive.eu. Retrieved from http://blogactiv.eu/blog/2012/05/15/stumbling-towards-the-brexit/ (accessed: 12.10.2016).

Theresa May kicks off Brexit (2016). The Economist. Retrieved from http://www.economist.com/news/britain/21708078-prime-minister-promises-invoke-article-50-end-march-just-how-hard-brexit (accessed: 10.10.2016).

Truman, E.M. (2002). Economic policy and exchange rate regimes :what have we learned in the ten years since Black Wednesday? London School of Economics.

UK faces €20bn Brexit divorce bill in Brussels budget wrangle (2016). Financial Times. European Edition, 13.10.2016, 1.

Vojtíšková V. (2014). The prospect of a British exit from the EU. European View, 13, 309–317.

Wall Street bosses warn on Brexit risks (2016). Financial Times. Retrieved from https://www.ft.com/content/40851fd2-8da5-11e6-a72e-b428cb934b78 (accessed: 09.10.2016).

What is Brexit-related uncertainty doing to UK growth? (2016). London School of Economics. Retrieved from http://blogs.lse.ac.uk/politicsandpolicy/brexit-uncertainty-impact-on-growth/ (accessed: 10.10.2016).

Whitman, R.G. (2016). Brexit or Bremain: what future for the UK's European diplomatic strategy. International Affairs, 92, 3, 509–529.

WTO: Britain Would Face Tortuous Trade Talks In Event Of Brexit. (2016). Qatar News Agency. Retrieved from http://www.qna.org.qa/en-us/News/16052613360034/WTO-Britain-Would-Face-Tortuous-Trade-Talks-In-Event-Of-Brexit (accessed: 10.10.2016).

BREXIT A WYSTĘPOWANIE NIEPEWNOŚCI W GOSPODARCE WIELKIEJ BRYTANII

Streszczenie. Celem badań jest przedstawienie niepewności gospodarczej i finansowej związanej z wyjściem Wielkiej Brytanii z Unii Europejskiej. W artykule scharakteryzowano zjawisko Brexitu, dokonano analizy niepewności na brytyjskim rynku finansowym oraz w gospodarce Wielkiej Brytanii oraz przedstawiono możliwe scenariusze relacji między Wielką Brytanią a Unią Europejską. Poziom indeksu niepewności polityki gospodarczej (EPU) wskazuje na występowanie wzrostu niepewności w brytyjskiej gospodarce. Silna deprecjacja brytyjskiego funta stanowi najbardziej widoczny skutek referendum z 23 czerwca 2016 roku. Prognozy ekonomiczne wskazują, że decyzja o opuszczeniu Unii Europejskiej przez Wielką Brytanię spowoduje obniżenie tempa wzrostu gospodarczego w latach 2016–2020. Analiza potencjalnych modeli relacji Wielkiej Brytanii z Unią Europejską wykazała, że najbardziej prawdopodobna jest realizacja scenariusza „twardego Brexitu" (ang. *hard Brexit*).

Słowa kluczowe: Brexit, niepewność polityki gospodarczej (EPU), gospodarka Wielkiej Brytanii, funt brytyjski

Accepted for print: 03.11.2016

For citation: Wielechowski M., Czech K. (2016). Brexit related uncertainty for United Kingdom economy. Acta Sci. Pol., Oeconomia, 15 (4), 171–181.