9 THE IMPACT OF THE JUNCKER PLAN ON INVESTORS' BELIEFS

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Abstract

The third quarter of 2014 brought the first mentioning of what became known as the Juncker Plan. This extensive investment plan targeted the rejuvenation of the dynamics of investments across the European Union and quickly became a topic of interest for both political authorities and academics. In this paper we aim to fill a gap in the existing literature and investigate the reaction of financial markets to the information regarding the Investment Plan. For this purpose we employ an event study methodology constructed on 32 modeling specifications. The results point out to clear influences on all of the three classes of financial assets included in the study, which could be seen as a shift in investors' expectations, given that the effects of the proposed policies are likely to be noticed in the long run.

Keywords: Juncker plan, financial markets, volatility, investment sentiment, event study

JEL Classification: C54, C58, G14

1. Introduction

In mid-July 2014, the newly elected President of the European Commission, Jean-Claude Juncker, presented before the European Parliament his vision regarding the guidelines meant to depict the "new start for Europe" (Juncker, 2014, p.1). It was the first mention of a massive-effect Investment Plan, with the main aim of restoring the fragile situation of the private investments. The Plan is supposed to mobilise investments from public and mainly private sources amounting to at least EUR 315 billion in three years, due to a 15 percent drop in the investment volume in 2014 as compared to 2007 (European Commission, 2014). The solution envisaged by the Plan was so expected by the EU economy that the procedures needed for its adoption were completed a year later, at the end of July 2015.

The structure of the Investment Plan is built on three pillars. The first pillar aims to mobilise at least EUR 315 billion during 2015-2017 in order to foster investment in strategic areas and to increase the access to finance for SMEs and companies with fewer than 3,000

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employees. The main instrument that responds to this goal of the Plan is the European Fund for Strategic Investments (EFSI). The Fund, managed by the European Investment Bank, is created to support high risk investment objectives in sectors that are usually low financed. There are six strategic areas (according to the Official Journal of the European Union, 2015) envisaged: research, development and innovation; the energy sector; the transport infrastructure; the information and communication technology; the environment; the human capital, culture and health. EFSI is based on the guarantee of EUR 21 billion, provided from both the European Commission (EUR 16 billion) and EIB (EUR 5 billion). The global multiplier effect of the Fund is 1:15 according to the European Commission, meaning that one euro of protection offered by the Fund is able to generate 15 EUR in the real economy. This is the mechanism through which the guarantee of EUR 21 billion is meant to mobilize the already mentioned EUR 315 billion. In this way, public guarantees are used for reducing the potential losses of the investment project. Based on this framework, the Plan is meant to foster projects previously seen as more risky and for which investors were more reluctant. The impact of EFSI will be strengthened by the involvement of Member States and National Promotional Banks in providing additional funds. The long-term strategic objectives will receive EUR 240 billion, while EUR 75 billion will be assigned to SMEs and mid-caps.

The second pillar states that these investments are to be guided in the real economy using two instruments: the European Investment Advisory Hub (EIAH) and the European Investment Project Portal (EIPP). EIAH will provide technical assistance for the implementation of investment projects and will facilitate the cooperation among the European Investment Bank, the European Commission and the National Promotional Bank. The EIPP is meant to reduce the bureaucracy in the submission of the projects and to guarantee for the transparency of the selection process.

Finally, the last pillar is meant to improve the investment environment. The financing scheme is supported, therefore, by specific measures that both the Member States and the EU as a whole must take in order to become more efficient hosts for the development of businesses. In this respect, EU must intensify its efforts in order to complete the Digital Single Market, the Energy Union and the Capital Markets Union, while Member States are bound to provide a more stable, predictable and transparent legislation and high quality institutions.

Compared to the other sources of financing at the EU level (for more explanations, see Albu *et al*., 2016), accessing financing through EFSI provides several advantages for the private investors. The procedures require less bureaucracy as the EIPP is the interaction platform between the promoter and the committee responsible for the selection of the projects, and is also more transparent. In addition, counselling can be provided on-line. EFSI targets investment projects with a higher profile of risk-return than those normally financed through EIB from a wide range of sectors. Also, the impact of the Plan is significant: more than 1.3 million jobs will be created, while supporting around 190,000 SMEs and mid-cap companies.

It is clear that Europe needed a recovery plan based on investments. The debate in the academic area is whether the Juncker Plan is the suitable solution. But the final interest of the scholars should be in the behaviour of the investors: are they interested to invest within the framework provided by the EFSI? In this context, we aim to observe if the Investment Plan draws the interest of the private investors once it was launched and during its implementation.

Therefore, in this paper we try to investigate if the information related to the launch of the Juncker Plan affects the dynamics of European financial markets. For this purpose we use

an econometric event study setup which uses a battery of mathematical models in order to capture volatility. More specifically, we aim to observe whether the announcements about the introduction of the Juncker Plan influence the volatility of a large basket of financial assets.

The remainder of this paper is organized in the following manner. Section two offers a brief review of the nascent academic literature regarding the Investment Plan. Section three covers the data and methodology used in our study. Section four discusses the results obtained and section five concludes.

2. Literature Review

One of the reasons for the need of cumulative efforts in restoring the EU's economy is given by the decline in the amount of investment without signs of recovery in the subsequent period. While the figures are grim for the whole Europe, there are some scholars noticing that the investment deficit could be reported especially in the Euro Area countries. Kiesow and Van Roosebeke (2014) show that, in these countries, gross private investment is declining since 2009, while both net public and private investment are continuing to fall. Crespo (2015) shows that the investment's share in GDP in the whole EU is declining since 2008 and is by 10 percent lower than the 2006-2008 levels. Wolff (2015) estimates the investment gap at EUR 260 billion as compared to the trend and at EUR 160 billion, without the construction sector. Instead, the investment in the non-Euro Area is stable (Kiesow and Van Roosebeke, 2014), but the behaviour of these economies is quite understandable, given their position of catching-up economies (Crespo, 2015; Wolff, 2015); still, they are confronting with lower flows of foreign direct investment from the Western EU countries.

This situation is alarming as the academic area, the public decision-makers and the private sector support the existence of important amounts of money held by the private environment. Instead of being invested, Roels (2015) assumes that the money is used for increasing dividends, restoring the company's portfolio or involving in mergers and takeovers. Most often, such activities are not causing new jobs or increasing the fees the state receives, on the contrary.

Academics explain that this liquidity crisis based on the deterioration of the markets is due to the slow economic recovery, political and regulatory uncertainty, more attractive locations for investments in other regions, the lack of confidence in the banking and financial system (Crespo, 2015), low growth of productivity and slow progress of the European competitiveness (Molterer, 2015). The private environment faces all these causes considering that the EU is passing through a confidence crisis (General Electric, 2015).

The Juncker Plan is not the only initiative for restoring the investment situation. Valla *et al*. (2014) draw attention on the bad implications of the actual situation in Europe, characterized by the lack of funding. The authors stress that we need complementarity between public and private investment and, in this respect, they propose the creation of an Eurosystem of Investment Banks (ESIB). The main instrument for providing financing would be the Fede Fund, meant to coordinate both the national investment efforts and the aims of the development banks for promoting long-term growth. The shareholding of Fede Fund would be both public and private and would imply the restructuring of the European Investment Bank. In September 2014, Marty (2014) pointed out the need for catalysing the private investment through a mechanism of risk sharing based on the amount of the available public funds. Also, Claeys (2015) notices that, even if the Juncker Plan had not been proposed, other major investment plan would had been released in the EU. The author suggests that

the Juncker Plan is a second-best option, a compromise, given the lack of interest of several member states to imply in large public investment projects.

Academics are divided regarding the potential success of the Juncker Investment Plan. Some of them consider that this measure is especially welcomed in an EU drained of investments. On one side, frequently, the Plan is seen as narrowing the investment gap in the EU economies (Schneider, 2015), overcoming the crisis, ensuring the long-term growth and welfare, restoring confidence (Molterer, 2015). Molterer (2015) sees the EFSI as an instrument for overcoming the overall situation of lack of risk-taking at the EU level and as an enhancer for the EU competitiveness. In this respect, the author approves the focus of financing on sectors like infrastructure and innovation.

On the other side, most criticism from scholars is centred on the multiplier effect expected for EFSI, of one euro able to attract other EUR 15 as private investments. There are opinions that question this capacity of the Fund. Wolff (2015) shows that the European Investment Bank (EIB) managed to obtain an overall multiplier of 18 in the past, but by the Juncker Plan the author considers that the required leverage would be achieved only if the projects selected for funding "would not have happened without the subsidy" provided by the EFSI (Wolff, 2015, p. 40). Myant (2015) states that this leverage rate of the EIB is calculated for its most secure long-term investments, which is not the case of the projects financed through EFSI. Moreover, Schneider (2015, p.5) is sceptical as regards the way the multiplier is computed, considering it "overly ambitious and unrealistic to achieve in practice".

Another criticism lies in the capacity of the selection committee to allocate funding exactly to the projects which would have had no chance of being carried out in the absence of the Juncker Plan, as Wolff (2015) and Schneider (2015) point out. As regards financing, another harsh cause of debate among policy analysts lies in the sources used for financing the Juncker Plan. A part of the budget allotted to the Horizon 2020 and the Connecting Europe facility will be used to finance the EFSI. This type of measure gives a negative signal regarding the consistency of the EU in conducting its own programmes (Claeys, 2015). The objectives of the two mentioned programmes – research, innovation and transport infrastructure – overlap anyway in the main investment domains mentioned in the Juncker Plan. Moreover, Majocchi (2015) considers that the Plan should have initially included only the 11 countries in the Euro Area that committed themselves to introduce the Financial Transaction Tax as a tool for collecting public money that finance the EFSI.

The complexity of the Juncker Plan seems quite hard to understand by investors, according to several opinions collected by Amaro (2015) from specialists in Portugal, Italy and Denmark. A possible investor into the European market, General Electric, is welcoming the Juncker Plan but stresses some issues that may hamper the achievement of the proposed goals. Among them, there is a need to focus on the sectors able to produce the higher return in terms of growth and jobs (General Electric, 2015), for avoiding fragmentation of both funding and results. The main request of the investor is for an integrated and cohesive approach to selecting projects, supported by national governments and the Community policies and regulations. Myant (2015) also considers that, in order to be more effective, the Juncker Plan should focus on the most pressing needs of the EU that help reducing the divergence in the Community.

3. Data and Methodology

As stated above, we are employing an event study methodology that relies, on one hand, on a set of calendar days that correspond to official communications issued on the topic of the

Juncker Plan. More specifically, we isolated five announcements made in the July 2014 – June 2015 interval. The list of these events is shown in Table 1.

Table 1

The Juncker Plan Announcements

Event No.	Date	Event description
E1	15/07/2014	The presentation of the political views of the new president of the European Commission. Announcement of a potential Investment Plan.
E2	26/11/2014	The launch of the Investment Plan
E3	18/12/2014	The European Council agrees to the Investment Plan
E4	13/01/2015	The European Commission approves the legislative initiative regarding the EFSI
E5	24/06/2015	The European Parliament votes the Regulations of the EFSI

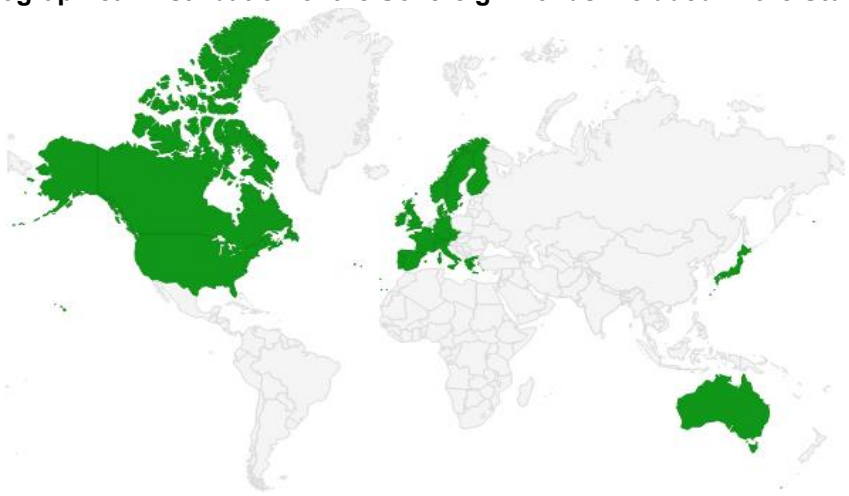
Source: Authors' computations.

In addition to the above mentioned events, our modeling setup incorporates closing prices for a vast set of financial assets, namely sovereign bonds (*21*), stock market indices (*118*) and currency pairs (*39*). We are interested primarily in the assets belonging to European states, but we also included assets that belong to countries outside the European Union in order to have a basis for comparing results. For all types of financial assets, the investigation period ranges from 1 January 2008 to 29 July 2015. The data have been collected from the Bloomberg platform, on a daily basis.

Figures 1, 2 and 3 present the geographical distribution of the sovereign bonds, stock market indices and currency pairs included in our investigation.

Figure 1

Geographical Distribution of the Sovereign Bonds Included in the Study

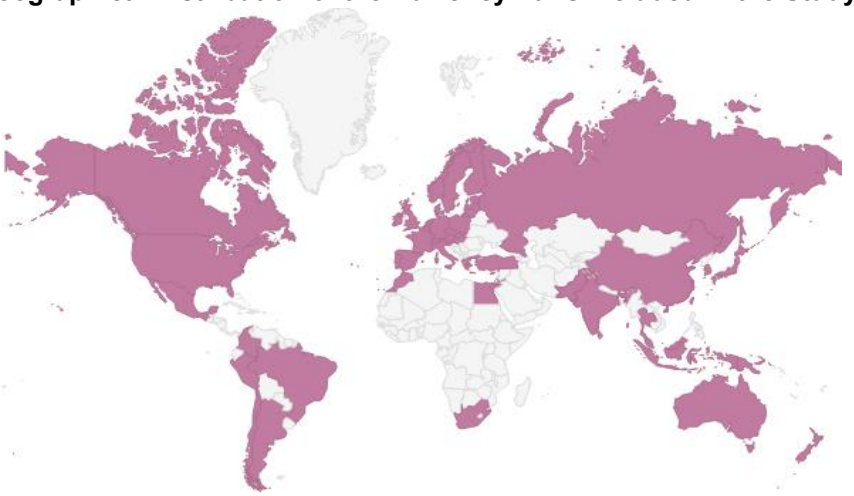


Source: Authors' computation.

Figure 2
Geographical Distribution of the Stock Market Indices Included in the Study

Source: Authors' computation.

Figure 3
Geographical Distribution of the Currency Pairs Included in the Study



Source: Authors' computation.

This modeling construction is based on eight models that belong to the GARCH family (GARCH, EGARCH, GJR-GARCH, APARCH, ZARCH, NAGARCH, IGARCH and FIGARCH), models that have been extensively used in financial applications.

Each of these models is considered for four types of errors (normal, t-student, GED and skewed). Therefore, our methodology relies on the calibration of 32 modeling specifications. The use of a lager battery of models ensures a high robustness of the results and has showed its relevance in previous works aiming to capture the impact of news such as: Albu

et al. (2014), Albu *et al.* (2016) or Lupu and Călin (2014). Their mathematical formulations are synthetically shown in the following section[35]:

GARCH

$$\sigma_t^2 = \alpha_0 + \sum_{i=1}^{m} \alpha_i a_{t-i}^2 + \sum_{j=1}^{s} \beta_j \sigma_{t-j}^2 \quad (1)$$

EGARCH (Exponential GARCH)

$$\log \sigma_t^2 = \omega + \sum_{i=1}^{m} \beta_i \log \sigma_{t-i}^2 + \sum_{j=1}^{s} \alpha_j \left[\frac{|a_{t-j}|}{\sigma_{t-j}} - E\left(\frac{|a_{t-j}|}{\sigma_{t-j}} \right) \right] + \sum_{j=1}^{s} \gamma_j \left(\frac{a_{t-j}}{\sigma_{t-j}} \right) \quad (2)$$

GARCH – GJR

$$\sigma_t^2 = \omega + \sum_{i=1}^{m} \beta_i \sigma_{t-i}^2 + \sum_{j=1}^{s} \alpha_j a_{t-j}^2 + \sum_{j=1}^{s} \gamma_j I_{t-j} a_{t-j}^2 \quad (3)$$

ZARCH

$$\sigma_t = \omega + \sum_{i=1}^{m} \beta_i \sigma_{t-i} + \sum_{j=1}^{s} (\alpha_j a_{t-j}^{+} + \gamma_j |a_{t-j}^{-}|) \quad (4)$$

A-PARCH

$$\sigma_t^{\delta} = \omega + \sum_{i=1}^{m} \beta_i \sigma_{t-i}^{\delta} + \sum_{j=1}^{s} \alpha_j \left(|a_{t-j}| - \gamma_j a_{t-j} \right)^{\delta} \quad (5)$$

FIGARCH

$$\sigma_t^2 = \frac{\omega}{1-\beta(L)} + \left\{ 1 - \frac{\alpha(L)(1-L)^d}{1-\beta(L)} \right\} a_t^2 = \frac{\omega}{1-\beta(L)} + \lambda(L) a_t^2 \quad (6)$$

NAGARCH

$$\sigma_{t+1}^2 = \omega + \alpha R_t^2 + \beta' \sigma_t^2 - 2\alpha\delta z_t \sigma_t^2 \quad (7)$$

IGARCH

$$\sigma_t = \omega + \sum_{i-1}^{q} \alpha_i \, \varepsilon_{t-i}^2 + \sum_{i=1}^{p} \beta_i \sigma_{t-i}^2 \quad (8)$$

Modifying the logic of the event study put forward in Albu *et al.* (2014) we isolate an event window of 21 days (10 before and 10 after). For this interval we make predictions of the variances with the GARCH specifications and we compute differences in order to observe abnormal variances. We assume that abnormal variances larger than two times the standard deviation point out to solid changes in the volatility of the returns of a certain asset, for a certain event and under a certain modeling specification. Following this procedure, we aim to quantify the excess of volatility that can be linked to the launch of the announcements related to the Investment Plan. All the computations described above have been conducted in Matlab.

4. Results

4.1. Effects on Sovereign Bonds

The first announcement included in this analysis describes the communication regarding the existence of a potential Investment Plan. This announcement was made by the new president of the European Commission and generates a mild impact on the volatility of the studied sovereign bonds. Following the results of all the GJR-GARCH and EGARCH specifications, we observe traces of influence for the sovereign bonds belonging to Portugal,

[35] *For a more in detail description of the models see Călin, Popovici and Diaconescu (2014).*

Greece and the Czech Republic. In addition to this, the values obtained under the APARCH specifications highlight the fact the most frequent impact occurred for the Czech bond. The financial asset reacts in 20% of the days of the event window, especially towards its end.

We notice the same dynamics in the non-EU countries. The results obtained under the GARCH specifications indicate that the potential existence of an Investment Plan did not trigger any volatility movements for the financial assets belonging to non-EU states.

As explained above, the Investment Plan was launched on the 26 of November 2014. Its announcement represents the second moment included in our study. The results obtained with all the modeling specifications demonstrate a significant and robust effect on the volatility of the bonds. For example, using the FIGARCH and GJR-GARCH models, both with normal errors, we find that a series of bonds react in terms of volatility on the day that follows the announcement made on the 26 of November. Relevant examples of impacted bonds are:

- EURO BENCHMARK BOND
- FRANCE BENCHMARK BOND (10 years)
- ITALY BENCHMARK BOND (10 years)
- IRELAND BENCHMARK BOND (10 years)
- BELGIUM BENCHMARK BOND (10 years)

In addition to the above mentioned financial assets, we observe a response on the first day that follows the launch for the Spanish 10-year sovereign bond.

None of the non-euro bonds exhibit abnormal variances in the first day that follows the announcement as in the case of the European bonds. However, in a GJR-GARCH with skewed errors setup, we notice a strong zone of abnormal variances for both Japanese bonds included in the study for the (-10; -5) interval. The Swiss and US bonds do not present significant values throughout the event window.

The graphic representation of the dynamics of abnormal variances observed for this event and this specification is shown in Figure 4. Similar results have also been found for the EGARCH specification with student t errors.

As shown in Table 1, the launch of the Investment Plan was followed by its approval by the European Council on the 18 of December 2014. Similarly to the previous event, E3 determines a relevant number of abnormal variances. From the perspective of the EGARCH models we find abnormal variances on the announcement day for three financial assets:

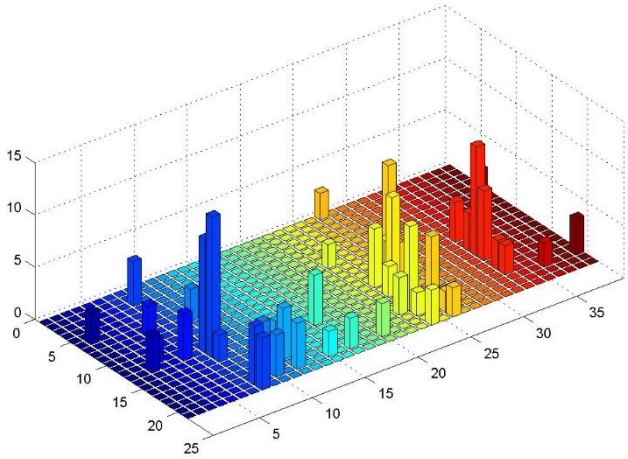
- UK BENCHMARK BOND (10 years)
- SWEDEN BENCHMARK BOND 10 (10 years)
- UK BENCHMARK BOND (15 years)

The strongest effects were observed for 10 and 15-year British sovereign bonds.

In addition to this, we notice statistical significant values in terms of abnormal variances on the day that follows the announcement in the case of the Czech bond. Volatility surges are observed also for the bonds belonging to the Netherlands, France, Austria and Germany.

E3 is successful in influencing the volatilities of non-euro bonds. The results of the GARCH specification with student t errors shows abnormal variances on day 3 for all the bonds belonging to the US and Canada.

Figure 4
Abnormal Variances for Event 2 under the EGARCH Specification with Student T Errors



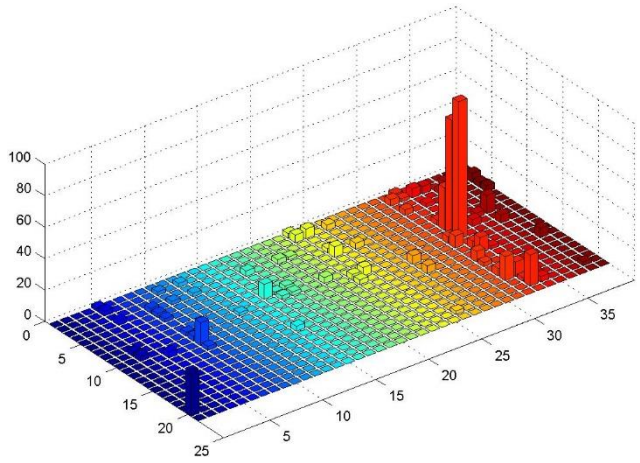
Source: Authors' computation.

Figure 5 shows the graphic representation of the dynamics of abnormal variances for E3 in the above mentioned modeling context.

The fourth announcement included in our study marks the initiative of the European Commission to approve the European Strategic Investments Fund. This event generates the largest effects observed in this study in terms of abnormal volatilities. Considering the results of the four types of GJR-GARCH models we notice abnormal variances on the announcement day and on the following one for the following set of financial assets:

- CZECH REPUBLIC BOND
- AUSTRIA BENCHMARK BOND (10 years)
- EURO BENCHMARK BOND
- FRANCE BENCHMARK BOND (10 years)
- BELGIUM BENCHMARK BOND (10 years)
- UK BENCHMARK BOND (15 years)
- GERMANY BENCHMARK BOND (10 years)
- SWITZERLAND BNCHMRK. BOND (10 years)
- NETHERLAND BENCHMARK BOND (10 years)

Figure 5
Abnormal Variances for Event 3 under the GARCH Specification with Student T Errors

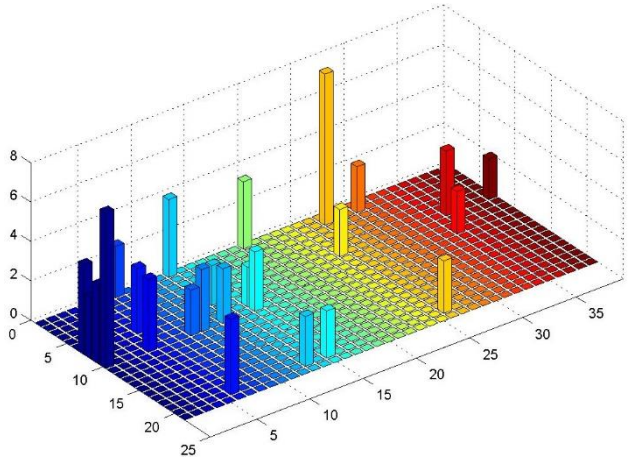


Source: Authors' computation.

This announcement determines a higher concentration of abnormal variances than the precedent cases both for European and non-European bonds. The results of the APARCH model with normal errors indicate that both the Australian and the Canadian sovereign bonds react on the day of the launch or the following day. In addition to this, we notice strong traces of abnormal volatilities for the Japanese and US set of bonds. Furthermore, under the FIGARCH specification with skewed errors we observe that the Swiss bond shows surges of volatility in 62% of the total days of the event window. All non-euro bonds tend to exhibit abnormal volatilities towards the end of the investigation period. The graphic representation of the results for this event is shown in Figure 6.

The last announcement included in this study was made on the 26 of June 2015 and refers to the voting of regulation of the European Strategic Investments Fund by the European Parliament. This official communication generates a far lower impact than the previous announcement. In terms of magnitude, we notice that the highest impact is visible for the Greek bond which responds in 14.2% of the total cases. Despite this evidence, the other European bonds are only marginally influenced this time. The situation is similar to the non-European bonds where we notice only a small response immediately after the announcement for the three US bonds included in our study.

Figure 6
Abnormal Variances for Event 4 under the APARCH Specification with Normal Errors



Source: Authors' computation.

4.2. Effects on Stock Market Indices

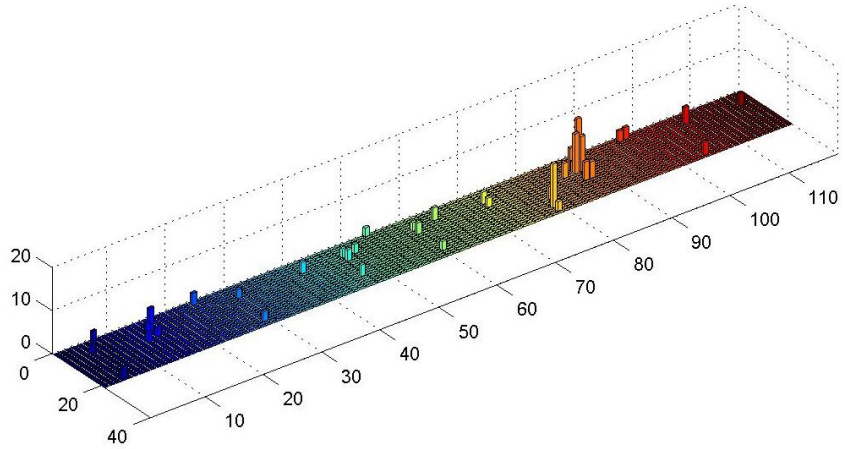
As mentioned in the methodology section, we expanded our analysis in order to incorporate also a large set of stock market indices. Using the EGARCH specification with skewed errors we find that E1 generates abnormal variances on the first day after the launch for the following indices:

- PORTUGAL PSI ALL-SHARE - PRICE INDEX
- PORTUGAL PSI-20 - PRICE INDEX
- FTSE MIB INDEX - PRICE INDEX

The Portuguese indices are the most sensitive to this announcement and exhibit the largest number of cases of abnormal variances, reacting in 20% of the days of the event window. Despite this reaction, in general the impact of this event is low. Similar results that confirm this weak reaction have been found for the IGARCH model with normal errors. The graphic representation of the results generated in this case by the latter modeling specification is presented in Figure 7.

In addition to this, we notice accumulations of abnormal volatiles for the SHANGHAI SE A SHARE - PRICE INDEX, SHENZHEN SE B SHARE - PRICE INDEX and the FTSE CHINA B 35 - PRICE INDEX. These are observed in general for the last days of the event window.

Figure 7
Abnormal Variances for Event 1 under the IGARCH Specification with Normal Errors



Source: Authors' computation.

Event 2 has a similar influence on the investigated financial assets. The entire sets of NAGARCH and ZARCH specifications show only feeble reactions.

Despite this general low impact, we notice abnormal variance on the announcement day for the Lithuanian stock market index. The FIGARCH modeling setup detects significant traces of abnormal variances for South American indices. The most significant reaction is found for COLOMBIA IGBC INDEX - PRICE INDEX, which exhibits abnormal variances in 80% of the days of the event window that follow the public release of the announcement (day 0 – day 10).

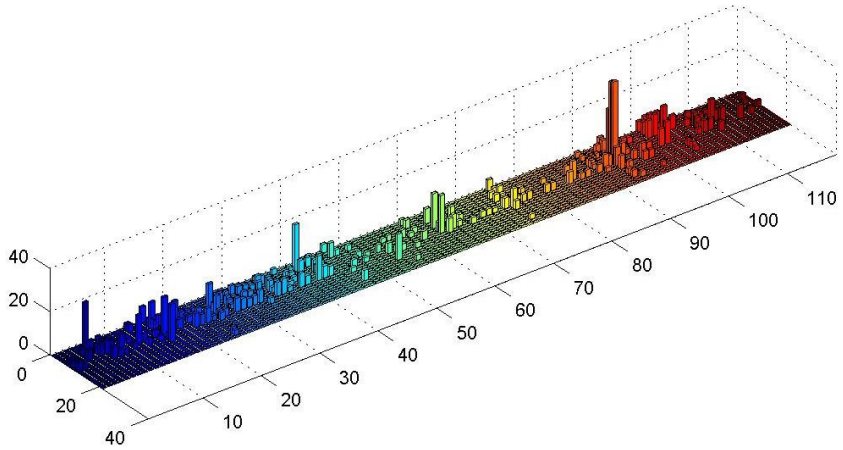
The third Juncker Plan event succeeds in generating abnormal variances for a record number of stock market indices. Using both the EGARCH specification with normal errors and the ZARCH model with skewed errors we observe reactions for more than 60% of the financial assets on day zero. For the above mentioned ZARCH model we recorded high abnormal variances for the following set of financial assets:

- BEL 20 - PRICE INDEX
- BULGARIA SE SOFIX - PRICE INDEX
- DAX 30 PERFORMANCE - PRICE INDEX
- EURO STOXX - PRICE INDEX
- EURO STOXX 50 - PRICE INDEX
- FRANCE CAC 40 - PRICE INDEX
- FTSE 100 - PRICE INDEX
- FTSE ALL SHARE - PRICE INDEX
- FTSE ALL WORLD $ - PRICE INDEX
- FTSE EUROTOP 100 E - PRICE INDEX
- FTSE GLOBAL 100 ($) - PRICE INDEX
- FTSE MULTINATIONALS ($) - PRICE INDEX

- FTSE TECHMARK FOCUS (£) - PRICE INDEX
- FTSE/JSE ALL SHARE - PRICE INDEX
- FTSEUROFIRST 100 E - PRICE INDEX
- FTSEUROFIRST 80 E - PRICE INDEX
- IRELAND SE OVERALL (ISEQ) - PRICE INDEX
- MADRID SE GENERAL (IGBM) - PRICE INDEX
- OMX COPENHAGEN (OMXC) - PRICE INDEX
- OMX COPENHAGEN (OMXC20) - PRICE INDEX
- OMX STOCKHOLM (OMXS) - PRICE INDEX
- OMX STOCKHOLM 30 (OMXS30) - PRICE INDEX
- PORTUGAL PSI-20 - PRICE INDEX
- ROMANIA BET (L) - PRICE INDEX
- SLOVENIAN BLUE CHIP (SBI TOP) - PRICE INDEX
- STOXX EUROPE 50 - PRICE INDEX
- STOXX EUROPE 600 E - PRICE INDEX
- SWISS MARKET (SMI) - PRICE INDEX

In addition to this, for a series of indices we noticed volatility accumulations before the launch of the announcement. For example, the Bulgarian stock market index (SOFIX) reacts in over 50% of the cases. Figure 8 presents the dynamics of variances for the ZARCH specification.

Figure 8
Abnormal Variances for Event 3 under the ZARCH Model with Skewed Errors



Source: Authors' conception.

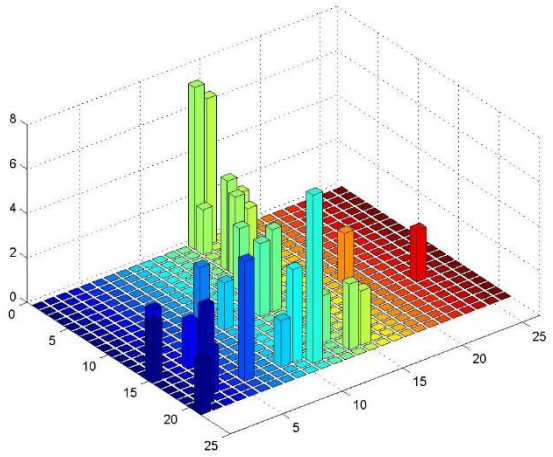
The next two events have a less significant impact in comparison with event number three. For event four we notice traces of abnormal variances for those indices belonging to UK, Malta and Denmark in the day zero – day ten interval. The last event has only a limited impact on the studied financial assets.

4.3. Effects on Currency Pairs

The influence induced by event 1 on the currency pairs included in this study is lower than the impact recorded for the previous classes of financial assets. From the perspective of all the GARCH, NAGARCH and IGARCH specifications, we only notice cases of abnormal variances on day zero for the KRW – USD currency pair. For event 2, the results are more significant. The GJR-GARCH with normal errors modeling setup captures abnormal variances on day zero and day one for RUB – USD and NOK – USD currency pairs. In addition to this, we notice important movements in abnormal volatility for European currencies against the dollar for the first ten days after the occurrence of event 2. Significant examples are: CHF – USD, DKK – USD, EURO – USD, HUF – USD and PLN – USD. The graphic representation of the impact of E2 is shown in Figure 9.

Figure 9

Abnormal Variances for Event 2 under the GJR-GARCH Model with Normal Errors



Source: Authors' computation.

Event 3 has a more significant outcome. We observe in an APARCH context with student t errors abnormal volatilities on the day of the announcement for the following set of currency pairs: CHF – USD, COP – USD, DKK – USD, EURO – USD, SGD – USD and PEN – USD.

Event 4 does not generate the effects observed for the other classes of assets. On the contrary, the results of the entire series of EGARCH models point out to important waves of abnormal volatility in the day zero – day 10 interval for the EUR – USD and CHF – USD. Both currency pairs react in over 50% of the days of the event window.

The last event does not induce significant abnormal variances in the considered currency pairs.

5. Conclusions

In this article, we tried to determine whether the public statements related to the launch of the Juncker Plan influence the dynamics of financial markets. For this purpose we employed

a large set of financial assets divided into three classes: sovereign bonds, stock market indices and currency pairs and a battery of 32 GARCH-type modeling specifications.

In general, the announcement moments specific to the Investment Plan had a clear impact on the analysed financial assets and therefore on their corresponding markets. The results obtained in terms of abnormal volatility show the fact that the investors who operate on these markets had difficulties in assessing the effects of the announced measures, fact that led to an important wave of financial uncertainty.

Our results also indicate that the bonds included in the study react stronger in comparison to the stock market indices and currency pairs, in terms of magnitude.

We determine the presence of abnormal variances for both European and non-European financial assets. The highest impact found in this study was produced by the initiative of the European Commission to approve the European Strategic Investments Fund for both sovereign bonds and stock market indices.

In the case of the currencies we noticed responses in the vast majority of cases for those pairs that included the USD. The highest impact is observed for the EUR – USD currency pair. Despite this fact and despite the initial assumptions, the impact on the currency market was far lower in comparison to the other two asset classes.

Given the long-term implications of the Juncker plan, the market discounts the effects with the uncertainty that is characteristic to such large time horizons. However, the evidence provided in this paper favours a short-term reaction, which reveals the fact that the plan generated some unexpected beliefs about the future development of European policy implications.

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