

## COULD VIRTUAL CURRENCIES CAUSE THE NEXT FINANCIAL CRISIS AND WHAT WOULD BE THE IMPACT ON EUROPEAN DEFENCE?

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**Abstract:** *This study set out to examine if a potential crash of the virtual currencies market could cause the next global financial crisis, given its continuous growth and popularity and the risks associated with their use, and at the same time what would be the impact on European Defence and the future of the Common Security and Defence Policy (CSDP), by making a parallel with the effect that the 2008 financial crisis had. A series of methods, techniques and tools have been adapted to the research objectives, specifically: gathering sources, data collection, analysis method, descriptive method, deductive, inductive, and comparative methods. As the financial institutions started to invest in the new currencies seeking high returns, the market finds itself in an uncanny similar position as it was before the Great Recession. A new recession may represent an opportunity for the EU defence sector considering that lower budgets allocated for defence would put an increased pressure on the states to have better cooperation and solve the exiting issues related to the capability development and at the same time would force them to restructure the defence industry and markets. Nevertheless, a financial crisis could represent a risk for the member states to be forced to cut their budgets allocated to the military in an uncoordinated manner which could lead to even bigger gaps related to capability development which could be translated into diminished opportunities to implement the Common Security and Defence Policy*

**Keywords:** *Financial crisis; Risks; Virtual currencies; market crash; European Defence, CSDP*

### **Introduction**

- **Aim of the research:** This research aims to analyse if the virtual currencies market crash could affect the global economy, leading to a new financial crisis and how could this affect the European Defence.
- **Research question:** What are the impacts of a potential financial crisis, produced by a virtual currencies market crash, on the European Defence?

Virtual currencies gained huge popularity worldwide and they continue to rapidly grow as individuals are becoming wary of the monetary politics of the centralized banks. As their rapid spread is not essentially an issue, some of the effects that this phenomenon is producing are concerning.<sup>1</sup>

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<sup>1</sup> HALIM, A. (2021). *Taming the Crypto-Bear: Why Cryptocurrencies Will Cause the Next Recession and How to Soften the Blow*, Fordham Journal of Corporate & Financial Law.

For instance, the potential high returns yield by the investments in virtual currencies are attractive also for the financial institutions, which then use these coins as collateral in exchange for funds.<sup>2</sup> In this sense, virtual currencies can be seen as a gold mine for some firms that participate in the exchanges. Yet, the risks stemming from trading virtual currencies are not fully assessed and mitigated or are simply ignored. As a consequence, some financial experts believe that this kind of exposure is putting the market in a similar position as it was before the Great Recession.<sup>3</sup>

In this article, our objective is to analyse (i) the possible outcomes of a virtual currencies market crash and (ii) which would be the likelihood of leading to a global financial crisis; (iii) short and long term effects of a financial crisis on public budgets, especially on the military budgets (iv) problems and measures imposed on the defence sector during the recession.

The objectives proposed in this study will be achieved by using a complex scientific research methodology, based on:

- documentary analysis, consisting of a theoretical and scientific study of how the topic researched is reflected in the literature in various online sources, in order to conceptualise, analyse and capitalise on the information obtained.
- a comparative analysis aimed at a study and analysis of the effect that the 2008 financial crisis had on the European defence and the future of the Common Security and Defence Policy (CSDP).

There is no applicable existing theoretical framework addressing the possibility of a market crash caused by the virtual currencies and the impact on EU defence. However, there are specific theories describing the probability of a financial crisis to be provoked by the use of virtual currencies as well as studies examining the impacts of the 2008 financial crisis on EU defence. Hence, the current conceptual framework was constructed from certain theories relevant to this research. There are studies confirming the causal relationship between the huge increase in Bitcoin price and the impact on global financial stability (Renick 2021). Additionally, the theory also aligns with the study of Sharma (2019), which addresses the implications of a Bitcoin price crash.

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available at <https://news.law.fordham.edu/jcfl/2021/03/26/taming-the-crypto-bear-why-cryptocurrencies-will-cause-the-next-recession-and-how-to-soften-the-blow/> accessed on 16.05.2024.

<sup>2</sup> INFANTE, S. (2018), *The Ins and Outs of Collateral Re-use*, Bd. of Governors of the Fed. Rsrv. Sys, available at <https://www.federalreserve.gov/econres/notes/feds-notes/ins-and-outs-of-collateral-re-use-20181221.htm>, accessed on 16.05.2024.

<sup>3</sup> MUSSINGTON, D. (2018) *Financial Institutions Must Not Ignore Risks of Cryptocurrencies*, The Globe and Mail, available at: <https://www.theglobeandmail.com/report-on-business/rob-commentary/financial-institutions-must-not-ignore-risks-of-cryptocurrencies/article38122059/>, accessed on 18.05.2024.

Taking these findings into consideration and employing the significant role of research such as that conducted by Ferreira and Pereira (2019), which shows the contagion effect in the cryptocurrency market, might provide useful insight, as such an approach highlights implications of this new technology on the global financial system, respectively the effects on the public budgets and EU defence.

As existing studies have not yet exhaustively addressed the real implications of a possible financial crisis provoked by the new payment technologies, such as virtual currencies, or considered all the aspects of their potential impact on the EU's Defence, there still is a clear need to explore and study this domain.

Notable among the existing studies is the risk analysis carried out by the International Monetary Fund (IMF), in their Global Financial Stability Report October 2021- 'Covid-19, Crypto, And Climate. Navigating Challenging Transitions.' stating that the virtual currencies represent a challenge to the financial stability and that their market cap is comparable to the US high-yield bonds; the trading volumes of the virtual currencies are comparable to domestic stock exchanges in some countries, and the exposure of the financial institutions is constantly growing.

Additionally, a number of studies have identified that a financial crisis has short- and long-term effects on public budget, putting them under extreme pressure, as concluded by the research done by Mölling & Brune (2011).

In their seminal paper, Maulny and Liberti (2008) showed also the impact of the financial crisis on the implementation of ESDP. Whilst, Brune, Cameron, Maulny and Terlikowski (2010) researched how Europe's Armed forces are restructuring in times of Austerity.

However, the global efforts to limit the risks associated with the use of virtual currencies have remained largely unnoticed and understudied. This paper seeks to address this gap, with a view to better understanding the impact of a possible new financial crisis provoked by a virtual currencies crash and tries to include recommendations to better address the impact of a potential economic crisis whilst ensuring that the EU retains and even improves its defence capabilities.

As a starting point for our scientific research, we consider it important to analyse first what is the likelihood that the virtual currencies bubble would burst and produce a financial crisis and then examine what would this mean for the EU Defence.

### **Virtual currencies shortcoming**

The virtual currencies market lacks transparency and this leads to diminished confidence in the valuation of the technology, especially as the financial institutions invest in extremely volatile and unsafe coins and use them as collaterals in exchange for funds, even though they admit that the

valuation is speculative.<sup>4</sup> This leads to high volatility of the coins that could plummet unexpectedly and start a domino effect that would lead to a financial crisis. In the meantime, the existing regulations fail to be effective and are not enforced consistently, thus, the transparency and stability issue of the virtual currencies is not being addressed properly<sup>5</sup>.

The general opinion about Bitcoin is that it is still a high-risk investment, its value can drop as much as 30% at any movement. This is also the reason that the gains are also so big, high risk – big reward but also great losses. Due to this reason, Bitcoin is attractive for investors as it is not similar to fiat hedges, being mostly an instrument based on emotions. When the times are bad, its price crashes, and when times are good it surges. It can be compared to a casino game in the investing world, with everyone winning at the moment.<sup>6</sup>

There are many reasons that specialists believe the virtual market will crash: the chart on bitcoin price looking very risky; the US dollar getting stronger, which puts bitcoin at risk as there was a huge interest in virtual currency due to the wrong estimations about the dollar devaluation; the decreasing power of central banks to sustain the markets; the declining number of marginal bitcoin buyers.

Some people see bitcoin as a virus. The price growth is determined mostly by the adoption of those who do not trust the existing monetary systems and the authorities, and this phenomenon was noted during the latest impressive growth phase of the coin.<sup>7</sup>

### **Could bitcoin price crash affect the global economy?**

The opinion of the majority of experts regarding the huge increase of Bitcoin price is that it is a bubble, wondering when the price will crash, rather than if it will crash or not. Consequently, it is interesting to analyse also what will be the effect of a Bitcoin price crash.<sup>8</sup>

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<sup>4</sup> IRRERA, A. (2019). *Exclusive: Banks to Invest Around \$50 Million in Digital Cash Settlement Project – Sources*, Reuters. available at <https://in.reuters.com/article/us-banks-blockchain-exclusive/exclusive-banks-to-invest-around-50-million-in-digital-cash-settlement-project-sources-idINKCN1SM2U0>, accessed on 18.05.2024.

<sup>5</sup> GIRASA, R.. *Regulation of cryptocurrencies and blockchain technologies: national and international perspectives*. Springer, 2018.

<sup>6</sup> *Ibidem* HALIM, A. (2021).

<sup>7</sup> RENICK, O. (2021). *If Bitcoin Crashes Here, The Whole Market's Going With It*. Forbes, available at <https://www.forbes.com/sites/oliverrenick/2021/03/25/if-bitcoin-crashes-here-the-whole-markets-going-with-it/?sh=4aec81a47513>, accessed on 19.05.2024.

<sup>8</sup> SHARMA, R. (2019). *What Happens If the Price of Bitcoin Crashes?*. Investopedia, available at <https://www.investopedia.com/news/what-happens-if-bitcoin-price-crashes/>, accessed on 20.05.2024.

In the 2018 annual report of the Financial Stability Oversight Council<sup>9</sup>, the virtual currencies were first listed among the challenges to financial stability. FSOC concluded that the virtual currencies did not pose a material risk and that they have a ‘very limited’ impact on global financial stability, but identified some factors that could change the assessment: such as the size of market cap., exposure of financial institutions, utilization of the virtual currencies for payments and settlements. In the meantime, the market cap has grown 10 times, being comparable to the US high-yield bonds; the trading volumes of the virtual currencies are comparable to domestic stock exchanges in some countries, and the exposure of the financial institutions is constantly growing.<sup>10</sup>

The global financial crisis, 2007-2008, was triggered by the subprime mortgages, which were the last financial instruments that undermined the global economy. The crisis was produced by a mix of factors and actors that were actively involved in the process. It was a chain of events and actions that triggered the market crash. For instance, faulty loans were taken out by subprime creditors in the US, then the international financial institutions repackaged them into derivative instruments and further sold them to investors, so these faulty loans were propagated across all the parts of the US economy, and then further spread globally.<sup>11</sup>

On the other hand, the virtual currencies market price increased mainly due to the unregulated exchanges that are circumventing the regulatory authorities. Some recent reports are concluding that the main actors of these virtual currencies’ exchanges are mainly individual investors and bots.<sup>12</sup>

While the virtual currency-related stocks have increased their valuation considerably, the global banks and investment companies have relatively limited exposure to the virtual currencies’ markets.

A better comparison to the crises that can be caused by the virtual currencies potential crash, can be represented by the ‘tulip mania’, dated back in the 17<sup>th</sup> century, rather than the subprime mortgage crisis. The prices of tulips surged as there was an unnecessary demand for them, creating a bubble. The main difference is that the market crash affected only the Dutch economy because the exposure of the serious financiers was limited, the ones bidding

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<sup>9</sup>Financial Stability Oversight Council. (2020). *Annual Report*, available at <https://home.treasury.gov/system/files/261/FSOC2020AnnualReport.pdf>, accessed on 20.05.2024.

<sup>10</sup> International Monetary Fund, (2021). *Covid-19, Crypto, And Climate. Navigating Challenging Transitions*. Global Financial Stability Report, available at <https://www.imf.org/en/Publications/GFSR/Issues/2021/10/12/global-financial-stability-report-october-2021>, accessed on 21.05.2024.

<sup>11</sup> *Ibidem*, SHARMA, R.

<sup>12</sup> REIFF, N. (2017). *Why Do Cryptocurrencies Have Buy And Sell Walls?*. Investopedia, available at <https://www.investopedia.com/news/buy-and-sell-walls-cryptocurrencies-bitcoin-ethereum-ether-ripple/>, accessed on 21.05.2024.

up the prices were the casual traders who did it for greed and profits, according to Nicolaas Posthumus, Dutch Historian.<sup>13</sup> The ones who were affected the most by the market crash were exactly these people. As a parallel, a crash of the virtual currencies' prices would affect the casual traders.<sup>14</sup>

There are studies that confirm the high risk of the speculative bubbles related to the trading of virtual currencies, determined by the exuberance of the casual traders who are surging the market prices creating situations where crashes are highly probable. For example, the study done by Bianchetti, Ricci and Scaringi in 2018, identified strong bubble signals on the analysed sample periods during 2016-2018, confirming the potential of the bubbles to lead to a virtual currencies' market crash.<sup>15</sup>

### **How will the cryptocurrency ecosystem be affected?**

The current surge of the prices of most of the virtual currencies comes as a domino effect from the price increase of Bitcoin and a price crash would affect the entire market. Moreover, the majority of the virtual coins with no defined business plan and having no clear utility for the society, would not survive the crash.<sup>16</sup> This type of 'contagion effect' between Bitcoin and the other virtual coins was also identified in a study performed by Ferreira and Pereira, the analysis revealing the increased integration of the coins.<sup>17</sup>

### **The impact of the financial crisis on european defence**

The study examines the potential impact of a financial crisis that could be triggered by the crash of the virtual currencies market, on the European defence and on the future of the Common Security and Defence Policy (CSDP), by making a parallel with the effect that the 2008 financial crisis had.

This paper seeks to address this gap, with a view to better understand the impact of a new financial crisis provoked by a virtual currencies crash and tries to include recommendations to better address the impact of a potential

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<sup>13</sup> POSTHUMUS (jr.), N. W., (1929). The Tulip Mania in Holland in the Years 1636 and 1637. *Journal of economic and Business History* 1, no.3, pp. 41-42.

<sup>14</sup> der VEEN, V. and Maurits, A., (2009). *The Dutch Tulip Mania: The Social Politics of a Financial Bubble*. University of Georgia, March, pp. 7-8, available at <http://www.maurits.net/Research/TulipMania.pdf>, accessed on 22.05.2024.

<sup>15</sup> BIANCHETTI, M., RICCI, C. and SCARINGI, M. (2018). *Are Cryptocurrencies Real Financial Bubbles? Evidence from Quantitative Analyses*, available at <https://ssrn.com/abstract=3092427>, accessed on 21.05.2024.

<sup>16</sup> SHARMA, R. (2017). *What Happens If the Price of Bitcoin Crashes?*. Investopedia, available at <https://www.investopedia.com/news/what-happens-if-bitcoin-price-crashes/>, accessed on 22.05.2024.

<sup>17</sup> FERREIRA, P., PEREIRA, É. (2019). *Contagion Effect in Cryptocurrency Market*. *Journal of Risk and Financial Management* 12, no. 3: 115, available at <https://doi.org/10.3390/jrfm12030115>, accessed on 23.05.2024.

economic crisis whilst ensuring that the EU retains and even improves its' defence capabilities.

A new financial crisis could lead to a decrease in the budgets allocated for the defence sector, but it could also force the EU member states to have better cooperation in the defence sector and determine them to find solutions for the existing problems concerning the capability development and the restructuring of the defence industries.

The budget cuts risk to be done in an uncoordinated way by the member states since the national prerogatives still prevail, despite the efforts to have more synergies in EU defence. This could lead to higher capability gaps between the member states, and fewer chances to implement the Common Security and Defence Policy (CSDP).<sup>18</sup>

### **Short - and long-term effects of a financial crisis on public budgets**

There are estimations that the budgetary constraints of the EU member states will persist over the next decades, with different effects, considering that the consolidation of the national budget is done differently from country to country (Mölling, Brune 2011).<sup>19</sup> However, the majority of the EU members that were affected by the 2008 financial crisis (except for Denmark, Sweden, France, Finland), undertook major consolidation measures, with drastic cuts also affecting defence spending.<sup>20</sup>

The way that the budget cuts impact the budgets allocated to the defence sector differs significantly from country to country, depending particularly on the degree of importance that is attributed to this sector. It can happen that member states with strong economies, such as Germany, plan significant cuts of the defence budget, while midsized countries like Poland and Sweden are increasing their defence budgets. On the other hand, the most drastic cuts are made by the small countries, reducing as much as 1/3 of their defence budgets,<sup>21</sup> while a number of EU-member states like Denmark and Finland are leaving their budgets steady. Hence, the different approaches are

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<sup>18</sup> MÖLLING, C., & BRUNE, S.-C. (2011). The impact of the financial crisis on European defence. Brüssel: European Parliament, Directorate-General for External Policies of the Union, Policy Department, pp. 34-36, available at: <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-256754>, accessed on 23.05.2024.

<sup>19</sup> Ibidem., p. 35.

<sup>20</sup> VALASEK, T. (2011). *Surviving austerity. The case for a new approach to EU military collaboration*. CER-report, London, available at: [https://www.cer.org.uk/sites/default/files/publications/attachments/pdf/2011/rp\\_981-141.pdf](https://www.cer.org.uk/sites/default/files/publications/attachments/pdf/2011/rp_981-141.pdf), accessed on 23.05.2024.

<sup>21</sup> EU Commission: annual growth survey. Macro Economic report Annex 2 Brussels, 12.1.2011 COM(2011) 11 final, available at [https://ec.europa.eu/economy\\_finance/-articles/eu\\_economic\\_situation/2011-01-annual-growth-survey\\_en.htm](https://ec.europa.eu/economy_finance/-articles/eu_economic_situation/2011-01-annual-growth-survey_en.htm), accessed on 24.05.2024.

resulting from the importance that the member state is according to defence in general, as an expression of their national identity.<sup>22</sup>

In order to understand what kind of problems a financial crisis caused by the crash of virtual currencies can create for the EU's defence sector, we need to look back at the effects of the 2008 crisis. Basically, it created two related problems: forcing the countries to increase their public debt in order to ensure economic recovery, and overtime seeking a fiscal consolidation to reduce the debt, this issue representing a risk for the financial security of the EU in itself; and the fact that states were forced to take measures and cut the defence-related budgets, delaying the modernization or cancelling the modernization of equipment processes and the research and technology in the defence sector. This can impact also the Level of Ambition (LoA) set by the member states, especially in the key interest of enhancing the sustainable deployability of the troops in theatres outside Europe. Also, the target of the bigger member states is to keep full-spectrum forces, whilst the smaller countries intend to cover niche capabilities and to cover specialized roles, as the full-spectrum forces are the most expensive capabilities. For example, Belgium is focusing on conventional conflict niche capabilities, such as combat aircraft and special forces; Romania is focusing on special operation sectors, cooperating with the US, Czech Republic and Hungary focus on electronic warfare and NBC protection (it covers defence and prevention measures against nuclear, biological and chemical threats and hazards) and also they are favouring the cooperation with other small countries on the topic. Besides this, other niche capabilities refer to reconnaissance and medical response, military police and engineering support.<sup>23</sup>

When it comes to the personnel costs in the defence sector, most of the member states struggle with the excessively bureaucratic structures and high-income staffs and militaries. Cutting the defence budget could also translate into wages cuts or personnel reductions, going as far as reducing the military end-strength. Those reductions would directly affect the capabilities of the member states and their ability to contribute to EU and NATO operations. Paradoxically, this could sometimes lead to a need for additional resources to compensate for the long-term contracts.

As for the impact on the acquisition of armaments, after 2008 the cuts were lower than initially planned on average across the EU member states. Though, as mentioned earlier, the importance given to the defence sector by each member state differs and this created a bigger gap between the countries that are pro modernization and the countries that cut the armament

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<sup>22</sup> *Ibidem.*, MÖLLING, C., & BRUNE, S.-C. (2011), p. 36.

<sup>23</sup> MAULNY, J.-P., LIBERTI, F. (2008). *Pooling of EU Member State assets in the implementation of ESDP*. Study for the European Parliament's Subcommittee on Security and Defence, available at [https://www.europarl.europa.eu/thinktank/en/document.-html?reference=EXPO-SEDE\\_ET%282008%29381407](https://www.europarl.europa.eu/thinktank/en/document.-html?reference=EXPO-SEDE_ET%282008%29381407), accessed on 24.05.2024.



procurement. By killing the acquisition projects, the member states are putting at risk the modernisation of their defence capabilities and is also not a feasible choice since they are bound by long-term contracts. By cancelling those contracts, the penalties imposed by the existing clauses are almost as big as the cost of the equipment.

Also, by lowering the investments with the acquisition of armaments, the defence contractors are also impacted. After 2008, the big countries decided to respect their procurement contracts, mainly due to the size of their defence industries. There were some important acquisition programmes ongoing, like Eurofighter and A400M which represented a very sensitive political topic. The decision taken by Germany and Italy was to actually resell some of the received tranches of the Eurofighter on the extra-European markets. However, the rest of the countries aimed to reduce their purchases or to delay the programmes of acquisitions. Also, the modernization of the key capabilities was affected, as some small states decided to postpone the modernization programmes.<sup>24</sup>

In terms of maintaining and operating the existing older capabilities, most states accelerated the decommission, increasing the interest in training simulators and outsourcing the training to companies from the private sector, as a response to the financial pressures. Most of the countries tried to resell them on the international market.

On the other hand, despite the big cuts on the defence budgets, with a few exceptions, no country withdrew from any ongoing military engagements. Yet, the number of troops was reduced by almost all the member states in certain missions or shifted to fulfil their several engagements.

The defence industries across the EU were not affected immediately by the crisis, but in the long-term, the programme cancellations or delays and the market contractions could affect the EU defence sector. A drop in the demand could affect the production costs and affect the prices.<sup>25</sup>

### **Conclusions**

The last financial crisis really challenged the budgets of the EU member states, putting them under extreme pressure. The fiscal consolidation of the governments can still be felt after the massive increases of the public debts that occurred with the recovery programmes after the crisis. It was noticed that the austerity after a global crisis could last for as long as 20 years, depending on how the member states are consolidating their public spending

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<sup>24</sup> *Ibidem*, MÖLLING, C., & BRUNE, S.-C. (2011), p. 55.

<sup>25</sup> BRUNE, S. -C., CAMERON, A., MAULNY, J.-P., TERLIKOWSKI, M. (2010). *Restructuring Europe's Armed Forces in Times of Austerity*, SWP-Working Paper No.8, available at <https://www.swp-berlin.org/en/publication/restructuring-europes-armed-forces/>, accessed on 26.05.2024.

and their fiscal policies. It can be concluded that the impact of a crisis on the defence budget is a matter of how the member states are prioritizing the defence sector. The budget pressures determined by the crisis became a complicated situation for the small to medium countries. The budget cuts are performed at the local level in an uncoordinated way and in case of a new crisis, there is a risk of creating a bigger capability gap between the member states, impacting also the European technological and defence industry and delaying the progress.<sup>26</sup>

As the financial institutions started to invest in virtual currencies seeking high returns the market finds itself in an uncanny similar position as it was before the Great Recession. A new recession may represent an opportunity for the EU defence sector considering that lower budgets allocated for defence would put an increased pressure on the states to have better cooperation and solve the exiting issues related to the capability development and at the same time would force them to restructure the defence industry and markets. Nevertheless, a financial crisis could represent a risk for the member states to be forced to cut their budgets allocated to the military in an uncoordinated manner which could lead to even bigger gaps related to capability development which could be translated into diminished opportunities to implement the Common Security and Defence Policy.



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<sup>26</sup> *Ibidem* MÖLLING, C., & BRUNE, S.-C. (2011), p. 55.

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