

UNCERTAINTY, ANXIETY AND THE POST-PANDEMIC ECONOMIC ENVIRONMENT

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Abstract

There is ample evidence from medical and social sciences that economic crises impact on individual mental health. This makes neuro-psychiatric dynamics and individual mental health, particularly that of entrepreneurs, relevant for economic policy designers. At the same time, economic policies can have an impact on mental health, reducing or increasing economic uncertainty and, consequently, changing the level of anxiety in individuals.

The COVID-19 pandemic resulted in a severe economic crisis and a drastic transformation of the European economic environment.

However, the severity and impact of this crisis differ from many other economic and financial setbacks of the past, including the one resulting from the 2008 crisis. Moreover, the consequences of the pandemic on mental health will add to the long-term consequences of the 2010s crisis and the effects of the war at Europe's Eastern borders. Together, the three crises may increase economic uncertainty in the post-pandemic World and its impact on mental health.

This essay examines the connections between economic uncertainty, anxiety, and mental health. It suggests considering some relevant elements to estimate the impact of economic uncertainty on individual mental health. Also, hypotheses about the consequences of the "three crises shock" on mental health in the post-pandemic World are advanced. Finally, the essay helps anticipate how the EU anti-crisis economic policies may generate needs and opportunities for mental health care in national health systems.

Key words: pandemic, anxiety, economic uncertainty, depression, suicide, mental healthcare policies

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Since 2008 three international crises have changed the general economic perspectives and raised economic and social uncertainty. The consequences of the 2008 financial crisis were still changing the economic and social environment in many countries when the COVID-19 pandemic struck and caused an unprecedented shock to the economy and society. When the impact of the pandemic seemed to fade, the war in Ukraine re-challenged the World's stability and created further concern about economic perspectives, social cohesion, and the safety of all those people potentially at risk of conventional and nuclear warfare. So, the post-pandemic economic environment is the result of the sum and interaction of the consequences of these three crises.

Anticipating the nature of the post-pandemic economy and defining the cumulative effects of the three crises in their sequence during the last fifteen years, particularly in creating uncertainty, is crucial to understanding the impact of such a long period of

concomitant crises on individual mental health. Neuro-psychiatric literature suggests a strong connection between economic uncertainty and anxiety levels and a similarly apparent connection between anxiety and mental disorders. This means that the mental health conditions that healthcare systems have to face will be an outcome of increased economic uncertainty. On the other hand, traditional economic and sociological studies, and new approaches such as neuroeconomics, demonstrate that mental health status has an effect on entrepreneurs' investment decisions and workers' productivity. So, mental health in the post-pandemic World will also be an economic policy problem.

In the initial section of this essay, we will recall the connection between uncertainty, anxiety, and mental health problems as depicted by the literature. Also, we will propose reflections on the consequences of the three-crises shock on mental health following the main idea in literature. Later, we will depict the cumulative effect of the financial crisis, the pandemic, and the

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war, in increasing uncertainty and defining the post-pandemic economic environment. Some hypotheses will be proposed about the mental health problems in the post-pandemic World caused by the level of economic uncertainty. Finally, some policy-making strategies to face mental health problems derived from post-pandemic economic uncertainty will be suggested.

Economic uncertainty, anxiety, and mental health: a literature review

The hypothesis that economic crises and uncertainty about the future can trigger stress, anxiety, and depression, and influence the decision-making capacity of individuals, is widely supported in the neuro-psychiatric literature (Marazziti et al., 2021; Mucci et al., 2016; Silva et al., 2020).

Suicidal behaviour is often considered the most evident outcome of mental health disorders during or immediately after an economic crisis. Images of brokers and bank managers falling off buildings during the Wall Street crash described by contemporaries and economic historians still recall the strict relations between economic crises and suicides, particularly in case of sudden and unexpected crises. Consequently, the suicide rate could be an affordable proxy to estimate the impact of economic uncertainty on mental health.

Many authors and article reviews suggest a close connection between suicides and economic crises and their consequences such as unemployment, welfare state reduction, future economic insecurity, loss of social status, and bankruptcy. Goldman-Mellor et al. (2010, 24) reviewed articles that strongly link economic contraction, suicide, and depression. Similar results emerge from the literature review (Avdic et al., 2021; Chang et al., 2013; Marazziti et al., 2021; Mathieu et al., 2022), notwithstanding divergent conclusions that emerge in some case studies (Marazziti et al., 2021; Vadoros et al., 2019). Various articles on the impact of economic crises in specific countries show evidence of a correlation between economic uncertainty and mental health problems, including suicidal behaviour and depression (Vadoros, 2019, 404). These pieces of evidence emerge clearly for those countries hit roughly by the Eurozone crisis (Avdic et al., 2021; Antonakakis et al., 2014, 2015; Branäs et al., 2015; Barr et al., 2012; De Vogli et al., 2013; Lopez Bernal et al., 2013).

Some other authors contest such a strict link (Blasco-Fontecilla et al., 2012; Harper et al., 2015; Harper et al., 2017; Neumayer, 2004; Saurina et al., 2013). Attempts to explain these divergent results suggest that these authors do not adequately consider the different impacts of social welfare policies on economic uncertainty in some countries under scrutiny (Norström et al., 2015; Stuckler et al., 2009; Vadoros et al., 2019). Also, some authors note that many studies do not take suicide attempts into account in their analysis (Chang et al., 2013; Marazziti et al., 2021).

Most findings about economic uncertainty and mental health during the Eurozone crisis could be extended to economic uncertainty triggered by the COVID-19 pandemic. However, the impact of economic uncertainty sums up other factors that trigger anxiety and depression. Codagnone et al. (2020) estimate that 42.8 % of the population in Italy, Spain, and the United Kingdom was at risk of stress, anxiety, and depression because of their vulnerability to the economic shock derived from the pandemic and the lockdown. However, Toffolutti et al. (2022) show that the impact of Covid19 on mental health affects many groups that are usually

less affected by economic crises. This is the case of women, at least in some cases (Antonakakis et al., 2015), and young people, which other authors consider only marginally touched by economic uncertainty during economic downturns. Toffolutti et al. (2022) suggest that the non-pharmaceutical interventions (NPI) and the isolation caused by the lockdown hit hardest women and young people and caused post-traumatic stress disorders (PTSD), anxiety, insomnia, depression, and high levels of stress. Less educated women and mothers of adolescent children seem to be more heavily impacted by the pandemic.

Some authors suggest a connection between economic downturns, self-destructing behaviours such as alcoholism (Dee, 2001; Goldman-Mellor et al., 2010; Dávalos et al., 2012), and teenagers' drug abuse (Arkes, 2007). However, the connection between alcoholism and drug addiction that emerges from the literature is less evident than in the case of economic uncertainty.

The duration and reversibility of the damage created by economic shocks and uncertainty are other crucial issues to consider for understanding both the link between economic uncertainty and suicide rates and the mid-term impact of economic uncertainty on mental health. Regarding job insecurity, Abdou et al. (2022) suggest that what matters is the possibility of anticipating it. When job insecurity cannot be anticipated, the impact on mental well-being is relevant. Thus, the rapid increase in job insecurity is significantly correlated with the suicide rate (Abdou et al., 2022). This could explain the decrease in suicidal attitude when the 2008 crisis worsened in the 2010s noted by Economou et al. (2016). Vadoros et al. (2019) state that a simple spike in daily economic uncertainty could increase suicides. Also, Abdou et al. (2022) identify a negativity bias in the prevalence of negative news on perceived job insecurity (Soroka et al., 2019) which is not fully reversible when positive news arrives, or when the economy recovers (Avdic et al., 2021). This implies that the negative impact on mental health is not fully reversible and that a decrease in economic uncertainty is not powerful enough to counterbalance the effects of previous uncertainty (Abdou et al., 2022). The conclusions also suggest the importance of considering the long-term consequences of economic uncertainty and the cumulative effects of subsequent crises.

The impact of economic uncertainty on the mental health of different social groups depends on factors such as gender, age, class, and job. Males aged 65-89 and 24-44 seem to be more prone to suicide due to economic uncertainty (Antonakakis & Collins, 2015). The age distribution probably depends on their activities, the older cohort being pensioners, while the 24-44-year-old cohort includes many entrepreneurs and start-up owners who may be frustrated by declining business opportunities (Antonakakis & Collins, 2015, 74). Arguably, this sensitivity could be extended to other mental health disorders that are more difficult to detect because they are less striking than suicide.

The issue of Entrepreneurs' mental health is crucial for understanding the economic consequences of uncertainty and the convenience of mental disease prevention. The hypothesis that anxiety and depression could influence the decision-making ability of individuals is supported in the neuro-psychiatric literature and in the behavioural finance literature (Bensi & Giusberti, 2007; Cubbon et al., 2021; Gambetti & Giusberti, 2019; Leykin et al., 2011). It emerges that anxious individuals are prone to economic uncertainty avoidance and risk avoidance. Besides, neuroeconomics literature suggests that economic and

investment decisions depend on neural mechanisms that, if altered, could distort economic rationality and investor behaviour. So, economic crises and uncertainty are expected to curb entrepreneurs' investment decisions due to both rational economic expectations and personal anxiety. Thus, mental health becomes a relevant issue in economic policy when it causes entrepreneurs to exit their businesses (Hessels et al., 2018; Zhu et al., 2023). However, the literature suggests that entrepreneurs are not prone to anxiety and depression because of their jobs. Instead, they may be affected by anxiety and depression when economic crises create uncertainty and negative expectations for their business and social status. This suggests that attention should be paid to economic uncertainty variations that can over-stress entrepreneurs and activate latent predispositions to anxiety and depression. As in the case of workers' sensitivity to job uncertainty analyzed by Abdou et al. (2022), it is not the level of economic uncertainty that affects mental health but its fluctuations. Meanwhile, entrepreneurs misjudge their own mental health and suffer the social stigmatization of failures and mental illnesses that could compromise their professional image. So, they are less willing to ask for healthcare support (Cubbon et al., 2021; Kameyama et al., 2011).

Finally, the literature demonstrates that war generates uncertainty and anxiety in individuals not involved in the warfare or at risk of involvement. In this case, anxiety is widespread by the media that devote attention to war news and the consequences of war (Surzykiewicz et al., 2022; Rozanov et al., 2019; Bisson et al., 2015; Calderoni et al., 2006; Iversen et al., 2009; Johnson et al., 2021; Lopez-Ibor et al., 2005; Vermetten et al., 2014; Wahlström et al., 2008). The same phenomenon is probably triggered by economic and financial news during a financial crisis. Avdic et al. (2021) suggest that "perceived economic uncertainty" matters, instead of real economic uncertainty. So, the same mechanism and the role of the media in shaping the perception of the war could be at work for economic uncertainty. Meantime, war anxiety could include anxiety about future economic prospects, worsened by the impact of the war on the international economy.

The effects of economic uncertainty on children's mental health are almost ignored in the literature. Studies exist on the impact that family economic problems and tensions and violence between parents due to economic problems have on children's mental health (Chung et al., 2020; Solantaus et al., 2004). However, very few references exist to the specific impact of economic uncertainty on children. In recent years, there has been a proliferation of studies on the impact of the anxiety generated by the pandemic on children. (Guessoum et al., 2020; Liang et al., 2020; Schmidt et al., 2021). However, few of the conclusions of these studies could be applied to study the impact of economic uncertainty on children's mental health.

Economic uncertainty in the post-pandemic World and its impact on mental health.

Several factors generated by uncertainty are expected to play in the post-pandemic economic environment. Each of them can impact differently on social anxiety and mental health. Also, the origin and persistence of pre-pandemic shocks (mainly the 2010s financial crisis) could still have a relevant impact on post-pandemic mental health.

Regarding the impact of unemployment and job loss on mental health, we must distinguish between

unemployment and job loss because job loss is more traumatic than a stable state of unemployment. In the post-pandemic World, particularly in more advanced countries, unemployment generated by financial crises and the interruption of production due to the pandemic should be a minor problem. The international crisis generated unemployment due to financial difficulties, credit crunch, and fiscal austerity. However, measures to consolidate financial structures and sustain credit were introduced in the 2010s. In addition, the pandemic emergency prompted many governments to set up financial support programs for economic recovery. Moreover, the emergence of new industrial sectors and the return of companies previously relocated abroad, mainly in the EU and the USA (the so-called reshoring phenomenon) could create new jobs. Finally, demographic decline and greater labour mobility in the Western world will counteract unemployment. This will not prevent job losses in some areas and for some groups of workers such as the less qualified and older workers. They will have to face the impact of technological change, which is expected to accelerate due to the post-pandemic recovery. However, younger and skilled workers may have positive outcomes for job prospects and unemployment in the post-pandemic economic World.

There is concern about the social policies of governments. Many individuals see pensions as a representation of their economic future, and the insecurity about the pension system and the ability of the State budget to pay for it generates insecurity and anxiety in people in the age cohorts close to retirement. The Literature suggests that these cohorts are more prone to suicidal behaviours and anxiety in case of unemployment; it means they are more sensitive than others to economic insecurity. So, special attention must be devoted to persons from this cohort and their mental health.

Inflation is a significant factor of economic uncertainty because it erodes the financial resources accumulated by individuals. While the 2010s financial crisis curbed inflation, the interruption of supply chains during the pandemic, and the demand boost of the post-lockdown period generated high inflation levels. Then, the war in Ukraine and the expectation of a gas shortage generated a flare-up of inflation. The factors that increased inflation are expected to decrease in the coming years, and inflation may rise to higher but more stable levels than before the pandemic and the war. Nevertheless, the experience of the inflation flare-up will remain in people's minds for years. Again, old people who depend on a pension and are unable to supplement their income will face increasing uncertainty that may impact their mental health. In addition, insecurity about price stability may increase the anxiety of entrepreneurs and curb their attitude towards investments, particularly for small and medium entrepreneurs who have seen businesses close because of the inflation flare-up.

State budget and fiscal policies have been dramatically touched by the pandemic and the need to support citizens and firms blocked by lockdowns and healthcare measures. However, the emergency induced many governments to pay subsidies and adopt expansive policies to support economic activities, particularly in the case of more advanced economies. This suggests a positive economic and employment trend in the early post-pandemic years. In addition, re-establishing a more active role for the State in facing economic downturns could mitigate the negative feelings arising from economic uncertainty. On the other hand, State subsidies have generated public debt

and interest payments, which will affect the budget and fiscal policies, possibly leading to cuts in social policies and health care. Again, the elderly cohorts are at risk.

Economic uncertainty also stems from the International political situation. An escalation of the war in Ukraine may further destabilize the international economic system. However, there is little chance of the conflict spreading to countries other than Russia and Ukraine. Meanwhile, strategies to reshape international economic relations are implemented and reported in the news as a success story for propaganda purposes. This suggests that the war's impact on economic uncertainty will remain limited at the current level.

The consequences of economic uncertainty on children's mental health remain obscure and little explored. It will be crucial to investigate the long-term effects of the pandemic on children in the coming years. Probably, anxiety could be transmitted to children by parents affected by economic uncertainty. Perceiving adults' anxiety could impact their future life. Instead, adolescents are subject to the same generational anxiety mechanisms experienced by adults suffering from economic uncertainty (probably amplified by parental transmission mechanisms) because they can perceive and process uncertainty from the news (Schmidt et al., 2021). Children born in the 2010 decade have been exposed to anxiety generated by uncertainty throughout their lives, and it is not possible to distinguish the different causes of their anxiety (economic uncertainty, fear for their lives and those of their parents, and isolation). So, focusing only on the impact of the COVID-19 crisis on children's mental health could be insufficient. If the hypothesis of anxiety by parental transmission works at least in part, the cumulative effects of the three crises will have to be considered. Furthermore, it is plausible to assume that the mirroring of parents' anxiety about their children may have life-long effects on the latter. On the other hand, the fact that they grew up in times of great economic uncertainty might make them more resistant than adults to further economic uncertainty.

Mental health care policies for the post-pandemic World

Some neuropsychiatrists have studied the consequences of anxiety caused by economic uncertainty and have made proposals to governments to adopt economic and social policies to reduce economic uncertainty. (Wahlbeck and McDaid, 2012; Antonakakis & Collins, 2015). Many scholars suggest that more money should be invested in mental health services (Mathieu et al., 2022) also because of a "parallel pandemic" of mental health disorders expected in the post-pandemic years (Mucci et al., 2020; Marazziti et al., 2021, Marazziti & Stahl, 2020).

However, their approach is inspired by healthcare and humanitarian considerations that are ill-suited to public policy design mechanisms. For example, they emphasize the importance of social and economic policies in suicide prevention and suggest that governments adopt policies to reduce economic uncertainty. However, from a policymaker's perspective, many of the policies proposed by practitioners and psychiatrists are unattractive. This is because some of these policies are very costly and inefficient due to the limited size of the problem to be solved. In the case of suicides, data from official statistics and scientific literature suggest that only a few thousand people commit suicide in a year in each of the most advanced European countries.

Similar numbers could be estimated for individual US countries.

Notwithstanding the drama of these events, such figures are too small to induce governments to change their economic and fiscal policies or to fund expensive public health programs to fight suicides. Aggregate numbers could be more convincing for federal or supranational authorities like the US government or the European Commission. However, structural changes in economic and fiscal policies to reduce suicides generated by economic uncertainty cannot realistically be expected. In other cases, anti-uncertainty policies are very complicated because of the multiplicity of variables at play and the inability of governments to manage some of them, especially the exogenous ones. Therefore, attempts by clinicians and psychiatry scholars to draw attention to mental health problems generated by economic uncertainty and to gain support for proposed solutions have little chance of success.

A different approach based on the economic costs of anxiety and depression might have a better chance of success. In fact, the economic costs of mental health problems for entrepreneurs and workers may appear significant enough to induce governments to invest more funds in mental health programs. The costs of reduced or avoided investment and lower productivity due to mental disorders could be estimated in many billions if the estimate of Chisholm et al. (2016) and McTernan et al. (2013) were extended to the World or, at least, to most industrialized countries. Their reduction can be an attractive target for governments and supranational institutions interested in economic growth. Therefore, emphasizing the economic returns of mental health care could be a more effective key to targeting health policies towards mental health problems caused by economic uncertainty. As far as entrepreneurs are concerned, self-awareness of mental illness could be supported with information campaigns specifically aimed at entrepreneurs. If aware of their mental problems, entrepreneurs can be more concerned about their health and identify similar problems in their employees.

Furthermore, social policies oriented towards the poor (e.g., the granting of a basic income to every citizen) could help reduce economic uncertainty and anxiety and achieve significant results without additional costs because the mere existence of these policies could generate sufficient psychological effects to contain anxiety. So, focusing on efficient spending synergies in existing policies might attract policymakers to strengthen them.

In addition, the professional training of schoolteachers can help to anticipate the onset of mental disorders in school-age children. These low-cost programs could help to address the as-yet unexplored consequences of the three-crises shock on the mental health of children and young people if combined with economic and financial literacy programs in schools that can improve the perception of economic dynamics and reduce the uncertainty resulting from ignorance.

Conclusions

There is ample evidence of the role of economic uncertainty in triggering anxiety and mental health issues. The combined effects of the international financial crisis, the COVID-19 crisis, and the Ukrainian war have dramatically increased the real and perceived economic uncertainty of the previous fifteen years. The effects of anxiety generated by past economic

uncertainty will affect mental health for decades, depending on the economic environment that will emerge in the post-pandemic world. Entrepreneurs, the elderly, and probably children born in the 2010s will be the most affected by the consequences of economic uncertainty in the years to come, and specific policies are required to counteract the mental health disorders and their consequences (e.g., suicides, depression, apathy). Due to the expected financial constraints that over-indebted governments will face in the post-pandemic years, especially in economically advanced countries, health and social policies against mental disorders generated by economic uncertainty must be accurately targeted and should not be costly. Economic loss aversion could be the key criterion for governments to invest in health and social policies against economic uncertainty anxiety in the post-pandemic World.

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