

COST Action CA20112

Evaluation of public policy responses to black swans

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ABOUT PROFEEDBACK

The COST Action PROFEEDBACK - Platform OF policy Evaluation community for improved EU policies and Better ACKnowledgement (CA20112, MoU 052/21) 2021-2025 aims to foster the networking of the policy evaluation community at EU-level, raise awareness on the importance of evaluation policy research and improve its impact on policy-making. The Platform, following a bottom-up and open approach, will gather researchers and professionals from various scientific fields and sectors to present and evaluate theories, topics, tools and methods of policy evaluation. Results of the Europe-wide assessment of good practices will provide direct and high-quality inputs for national and EU bodies responsible for policy evaluation.

Policy evaluation is a key tool in understanding, developing and modernising EU policies, thus there is a growing demand for EU-wide and high quality evaluation services. The main challenge is that currently there is no bottom-up platform for European researchers and professionals working in policy evaluation. They have limited possibilities to discuss common problems, assess country specific practices and share their knowledge in a mutually beneficial and effective way.

The PROFEEDBACK Action has three key objectives to achieve during the Action period 18/10/2021 - 17/10/2025 and beyond.



Foster networking and knowledge-exchange of the policy evaluation community at European level



Raise awareness on the importance of policy evaluation research and improve its impact on policy-making



Reinforce state-of-the-art research in the policy evaluation field and contribute to evaluation standards

ABOUT PROFEEDbook1

In the framework of the PROFEEDBACK Action, one conference every half-year will be implemented. After each conference thematic deliverables will be issued, the so called PROFEEDbooks (D4.1-D4.8). They will summarise the main presentations and results of the conferences.

PROFEEDbooks support multidisciplinary, the systematisation of different methodologies and the exact transfer of know-how for the policy evaluation community. These will also serve the interests of European and national policy-makers in developing the frameworks of the next programming periods and of a common European evaluation culture.

In addition, the PROFEEDbooks enrich the literature of public policy, aiming to develop theory, knowledge, method and tool base of European evaluation policy as well as a common understanding of the current problems and challenges. PROFEEDbooks will support the Action in reaching audience beyond the Action members.

The 1st PROFEEDBACK Conference focused on **Evaluation of public policy responses to black swans**. The conference identified the most significant challenges posed by black swan events from the evaluation community's perspective and provided theoretical concepts and quantitative/qualitative methodological solutions to forward the participants' repertoire of evaluating policies borne from black swan events.

The conference took place in **Budapest, Hungary** between **28-29 April 2022**.

The event was organised by HETFA Research Institute.



**HIGHLIGHTED
PUBLICATIONS**

Transversal impacts of cumulative crises on democratic governance: analysing political opportunism

12 August 2022

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Abstract

This paper addresses the issue of 'black swan' events from a broader lens of crises, developing a definition and operationalisation drawing on the etymology of the Greek word *krinein*, meaning the moment a decision must be taken or a judgement made. Specifically, it locates crises within larger social and political systems that come under intense scrutiny and the extent to which proponents of change (actors) and their proposals for change (policies) gain traction and acceptability in political discourse over decisions and judgements. Crises are analysed through the social movement literature concept of political opportunity structures (POS), and a further elaboration of lower-order and higher-order crises presented, as well as the cumulative impact. Thus, black swan events are located within a wider study of opportunistic political entrepreneurship questioning the utility and viability of status quo institutions. The paper finally provides an example for a possible operationalisation of this analysis through looking at transgovernmental governance platforms and their role in mobilising democratic inclusion in crises response plans.

Keywords

Democracy, democratic governance, black swans, crises, European Union, political entrepreneurship, policy institutions

Introduction

Black swan events, as defined by Taleb (2008), are large-scale events that are unforeseen due to their very low statistical probability and given significant importance in narrating a history of change after events have passed. It is debateable whether the COVID-19 pandemic that hit Europe in the spring of 2020 was unforeseen, given that in 2015 Bill Gates gave a TED talk asking if the world had learnt the lessons from Ebola. More than five million people have died from the virus, the global economy has lost \$8.5trillion over 2020 and 2021 (1), over 34 million people have fallen into extreme poverty, and formative education for 91% of children globally – around 1.6 billion – has been interrupted (Miks & McIlwaine 2020). COVID-19 has fundamentally altered many political, social and economic institutions taken for granted at national, European and international levels. While it may eventually be regarded as the critical juncture catalysing change leading to improved global health cooperation and coordination, reduced carbon emissions, as well as changing patterns of mobility, employment and education in societies across the world, such changes are, at the same time, the result of rupturing path dependencies of social institutions which date back centuries and which relied on face-to-face interactions ever since.

As we progress through late modernity and more critically reflect on the capacity of science and technological progress to remove ‘risk’ from our daily lives (Beck 1992), the question arises of what level of preparation should we expect from government authorities in response to crises in general, and ‘black swan’ events in particular. Increasing emphasis on fostering individual and societal resilience leans in the direction of learning to live with crises and their fallout in the future, as well as taking personal responsibility for determining appropriate coping strategies, rather than expecting state institutions to step in. Yet the need for resilience is not only demand-driven, but there is also a supply-side story. Preventing, reacting to, and recovering from systemic crises require an understanding and management of complexity. In the face of complexity and polycentricity, decision-making is strained by ‘bounded rationality’ and organisational biases, especially in a context of crisis and turbulence. Failure to learn new coping mechanisms risks exposing fragility of many long-standing democratic institutions and weaken trust in public good provision.

(1) <https://www.un.org/en/desa/covid-19-slash-global-economic-output-85-trillion-over-next-two-years> (accessed 09/07/2022)

Not only at the level of the state, but also above it, we see the same pressures. International cooperation in regional and/or supra-national organisations such as the EU, or universal-membership organisations like the UN or the WHO, have oftentimes been dulled in their effectiveness by member states seeking unilateral, bilateral or minilateral solutions over multilateral ones. Strong states, including authoritarian ones, have used their fundamental differences to liberal democracies to great effect during the pandemic to legitimate their own regimes.

This paper analyses crises as opportunities for political actors – be they individuals, political parties or states – to change the institutions and structures that are pervasive in their societies. This approach is inspired by the entomology of ‘crisis’ from the Greek word *krinein*, meaning moment of decision or judgement. Crises are the opposite of ‘emergencies’, when predetermined procedures are automatically followed. While crises test the resilience and robustness of existing institutions, they also offer political opportunities to those seeking to change the status quo by proposing new ideas that push the options under consideration in the direction of their preferences, including propositions that might have been previously considered unthinkable in pre-crisis times. The paper also takes a historical perspective to consider the cumulative effect of crises, and differentiates between lower-order and higher-order crises through the consideration of three criteria pertaining to a state of crisis, namely scale, temporality and scope. The paper asks how can institutions and actors in democratic governance (for instance the European Union) advance from a reactive to an affirmative mode of crisis response? In this vein it takes a different view than others that are focused on public policy evaluation, taking its departure point as the room for manoeuvre in the development of (radical) public policies in the aftermath of crises. To this end, it also serves as a framework of analysis to understand the extent to which crises that are labelled as black swans are over-determinant of subsequent policy development. By that it may help in paving the way for further research dedicated to studying policy making for crises preparedness.

Literature Review

The purpose of this collection of papers is to study policy responses to 'black swan' events, and the COVID-19 virus originating from Wuhan province in China is often given as an example of such an event. From an international politics and a comparative politics perspective, the analysis of the pandemic reveals two key areas of interest: The first is how varied the health impact of the virus was, and this is in part due to variation in the public health policies implemented by different governments, but also underlying health conditions of the general population. The second is how homogeneous many of the policy responses were, speaking to issues such as dissemination of 'best practices' (diffusion), path dependency responses (historical institutionalism) and institutional isomorphism (world society of the Stanford School). Taken together, while some aspects of the pandemic might easily be assumed to have black swan characteristics, it is erroneous to generalise too widely about the similarity of the pandemic experience and impact globally. Further in instances when there are similar policy choices but different social and health circumstances, it is necessary to study the causes of policy homogeneity in heterogeneous societal contexts. To do this and as introduced already, we propose an analytical framework that differentiates between crises (lower-order and higher-order) as well as their cumulative effect.

COVID-19 and its health impact: National variations in COVID crisis response

The breadth of literature generated by the COVID-19 pandemic spans many fields of medical and social sciences and is growing continually, meaning only a fraction of what has been generated can be discussed in this paper. The first issue we wish to note is the realisation that mortality rates are greatly affected by population age and underlying health conditions. While rich countries have diverted an enormous quantity of resources towards combating COVID-19, spanning research and development of vaccines, furloughing payments, stimulus and recovery programmes, an important intervention in one of the most influential medical journals provided an alternative perspective. In an editorial of *The Lancet*, Richard Horton argued that COVID mortality data shows two very important things. The first is that a patient's underlying health matters greatly, and those suffering from respiratory diseases or non-communicable diseases such as diabetes are at much higher risk.

The second is that susceptibility to these vulnerabilities is correlated to societal factors, such as income level, employment, and quality of housing. 'The aggregation of these diseases on a background of social and economic disparity exacerbates the adverse effects of each specific disease. COVID-19 is not a pandemic. It is a syndemic.' (Horton 2020: 874). Horton's argument highlights the importance of tackling inequality as a fundamental underlying factor for the state of health of a society, both inside states and globally, and which has been growing steadily since the end of the Cold War and characterises the current era of accelerated globalisation (Milanovic 2016). Evidence to support this is well-documented in news media, zeroing in on fundamental inequality between 'key-workers', those on zero-hour contracts in sectors such as home delivery who were permitted to work during lockdown, and those without social security protection left without a choice on the one hand, high-skilled professionals were able to adapt to home-based employment on the other hand. The global inequality in vaccine distribution and administration that is heavily skewed in favour of wealthy nations reaffirms another important point when one looks at vaccine administration and mortality rates in the African continent. Despite having the lowest levels of fully vaccinated populations, (for example, in Nigeria only 10% of population have been given a dose), mortality rates for deaths attributed to COVID are roughly the same as global averages, despite also having greatly inferior access to medicines and hospital treatment. This is in a large part due to a much higher proportion of young people living there, as well as lower levels of the non-communicable diseases more prevalent in wealthy countries.

Comparative studies of national policies that explain variations between pandemic responses consider factors such as (i) state constitutional structure, (ii) regime type, (iii) scientific and medical capabilities, (iv) temporal and spatial factors related to proximity (in the case of COVID to Wuhan, China), (v) the timing of when cases were detected and (vi) the comprehensiveness of international norms and practices. At the level of political discourse, a spectrum exists between the partisan acceptance and non-politicisation of scientific knowledge on the one hand, and states where populist parties framed global cosmopolitan elitism as fuelling COVID-19 fears and instead adopted denialist positions about the severity of the illness or the purpose of vaccinations on the other hand (in this regard the literature rather speaks about general effectiveness of responding to the spread of the virus correlating to the politicians in power, and highlights the US under Trump, Brazil under Bolsonaro, Russia under Putin, India under Modi and the UK under Johnson as negative examples (McKee et. al 2021)).

For example, Taiwan is an interesting case study in the importance of swift and decisive application of scientific recommendations, because despite being one of the first known locations of infection outside of the PRC, it recorded only 839 deaths (according to Johns Hopkins University) as of mid-September 2021, among a population of 23.6 million. While ‘extensive public health infrastructure established in Taiwan pre-COVID-19 enabled a fast coordinated response, particularly in the domains of early screening, effective methods for isolation/quarantine, digital technologies for identifying potential cases and mass mask use’ (Summers et. al 2020:1), it was also due to very comprehensive medical advice from epidemiologists and government avoidance of politisation of the COVID policy. By contrast, the responses from President Trump in the United States or President Bolsonaro of Brazil that fuelled distrust in science and downplayed the importance of vaccines and masks in reducing mortality rates are still evident to this day, with the first and second highest death rates globally (1.01m and 672,000 respectively as of July 2022). Looking in more detail at the importance of trust, public perception of government responses to COVID have been examined in detail in Italy. Guglielmi and her co-authors looked at citizen opinion during the first wave of infections in the spring of 2020 and asked how does support for institutions and policies impact on policy effectiveness and compliance (Guglielmi et. al. 2020). They note one intuitive finding and one counter-intuitive one. Initial support for government actions triggers a virtuous circle termed a ‘cascade of confidence’ that makes compliance with rules more likely. However, in the longer-term, demonstrated success in dealing with COVID-19 lessened citizen perception of risks, as well as lessening their willingness to continue following rules as they considered previous actions adequate. This inhibitor of compliance was termed a ‘paradox of confidence’. Above all, this research points to the importance of citizen support, trust in scientific authorities, political institutions and the harmful consequences of disinformation.

Crises, risk and resilience

Black swan events are defined in part by the exceedingly low probability of their occurrence, raising the question of whether it is better to adapt to them through accepting the risk and becoming resilience, rather than expecting contingency planning in advance for a very wide range of improbable occurrences. The importance of how risk is perceived within a society is intrinsically linked to the level of ontological security experienced by that society.

Beck's outstanding contribution was to question the perpetual cycle of ever greater reliance on scientific research to solve problems generated by the complexity of modernity oblivious to the tendency that greater and more complicated problems inevitably emerge as unforeseen and undesirable consequences. Modern societies have grown expectant of certainty in life, the removal of exposure to risk and with it an unsustainable ontological position in the long term. The reliance upon science, rationality, technology, and governance structures providing the public goods necessary for ontological security predicated on eradicating risk exposure can be placed in the *longue duree* of enlightenment thinking leading into European-shaped modernity, but it accelerated considerably in the post 1945 period. Crises do not take place within a sociological vacuum, but rather in a period of modernity that Beck, among others, would argue is under stress. The answer is a fundamental 're-boot' of the episteme of the modern state, undercutting the tried and tested institutional response to draw upon science and technology to problem-solve, instead arguing that society must become more accustomed to uncertainty, the acceptance of nature in determining fate and exposure to risk. For Beck, societies must become more amenable to the acceptance of risk, through ending a reliance on science. In the context of the COVID-19 pandemic, moving towards societies ontologically secure with risk might resemble in some aspects the agenda of anti-vaccine campaigners, for example, speaking to the larger issue that positions do not lie neatly on a spectrum but may converge. We argue that a crisis needs to be understood within the structural limits of late modernity's contradictions.

Resilience is another term frequently spoken about in the context of crisis. While there are many uses of the concept in the literature – Bourbeau (2015) has identified five meanings of resilience across the social sciences – he nevertheless aggregates a core conceptualisation that the state cannot and should not be taken for granted to provide solutions. Indeed, the state should move away from contingency preparations for predicted 'crises', and instead better equip individuals, communities or specific response services to be more autonomous, creative and flexible in their ability to self-sufficiently respond to shocks. In the context of this paper, the most relevant is the associate with neoliberalism and the delegation of responsibility from the institutions of the state to the sub-national, local and the individual level.

The central claim is that in many aspects of crisis-response and development assistance, established governance practices of looking to the state and its institutions in times of crisis and in response to disaster need to be refocused on 'bottom-up' means of coping and responding. Both risk and resilience are two examples of how the nexus of science, knowledge, government institutions and the centrality of the state in the organisation of society that characterises the modern state has been opened up for questioning in the recent past, and the process is accelerated further with the progression of globalisation. The situation seems symptomatic of late modernity, insofar as the building of resilience or of accepting risk both challenge the prevailing narrative of state leadership in response to crisis, and that one decision crisis inherently demands an answer too is whether existing governance structures are fit-for-purpose.

Liberal international order (LIO) decline and domestic backsliding

A third literature relevant to this paper is the discussion of democratic backsliding on a national level and the demise of the liberal international order. In the last two decades the European Union has seen its position in the international system upended. Where once it was the leading advocate of rules-based liberal order, promoting its normative preferences for universal human rights, an open trade regime and regulatory governance through multilateral agreements, today it appears cornered by resurgent and emerging powers openly challenging the fundamental norms of the post WWII order. Within the EU, member states are increasingly unable to reach common positions on foreign policy issues that resonate with core EU values, such as condemning gross violations of human rights, flagrant violations in international law, or sanctioning authoritarian states. Also if voices to overthrow the unanimity principle in favour of a qualified majority voting in the European Council and particularly in the sensitive field of Common Foreign and Security Policy are continuing to gain more and stronger echo, a joint consensus among European national leaders who form the Council couldn't be reached yet. Impulses in this direction also come from the scholarly community (e.g. Nováky 2021) The promotion of policies defending gender rights and the expression of sexual identity are today a matter of profound internal disagreement, leading some experts to discuss the 're-nationalisation' of European foreign policy (Thomas 2021).

The global redistribution of economic wealth resulting from shifting patterns of production, investment and consumption, and the accompanying political aspirations thus generated, serve as the structural underpinning for questioning the liberal international order, both the values it promotes and the privileges it protects. While for many years seen as the foundation of a long period of peace and prosperity from the perspective of the Global North, domestic support now ebbs away in the face of rapidly advancing technological developments, military and trade confrontation, comprehensive economic slowdown, and the effects of climate change. This process centres on the emergence of Brazil, China, India and South Africa, followed by Turkey, Mexico, and Indonesia (Kupchan 2012, Crocker 2015), while Russia has re-established its great power status through its economic growth, geopolitical influence and military expansionism recently. In Asia-Pacific, South Korea and Australia have consolidated their status as important allies of the US and Japan within the regional security complex opposing China. Acharya and Buzan refer as the development of a 'global international society' (2019: 261), echoing Acharya's earlier description of a 'multiplex order' (Archaya 2017) in which Western and non-Western values and interests are presented in parallel, sparking normative contestation of the liberal international order (Ikenberry 2018).

These pressing challenges, now exacerbated and accelerated by the pandemic and Russia's war against Ukraine, place the European model of democratic governance and its dependency on the liberal international order under stress. The impact of globalisation sees a reduction in economic inequality between Global North and Global South at the aggregated level of states, but differentiated winners and losers in terms of relative inequality between people, as the owners of capital associated with the globalisation of production greatly increase their wealth (Piketty 2014), the rise of a middle class in lower and middle income countries lifting millions out of poverty, and a stagnation of wage growth for lower and middle income sectors of advanced economies (Milanovic 2016). The rise of populist parties and their leaders stand on a platform of speaking for voters left behind by globalisation and who established elites do not speak for. Crises, such as the 2008 collapse of Lehman Brothers, the 2010 Eurozone crisis, and the arrival in 2015 of over one million migrants to Europe fuel opposition to incumbent governments.

Domestically, parties on the left and the right offer alternatives to centralists who are seen as too close to global elites instead of representing ‘the people’, with populism and nationalism driving anti-Europeanism within the EU and anti-globalisation more widely across the world. The recurrent themes of (i) global elites versus common people, (ii) national self-interest above over international cooperation and (iii) concern for the negative externalities of globalisation and interdependence, are re-shaping world politics in a direction harking back to an era of geopolitical competition and questioning the extent to which democracy is better suited than authoritarian systems to deliver solutions. Black swan events offer opportunities for political parties to criticise incumbent administrations, and those on the ends of spectrum may see their support surge when they articulate solutions beyond the range of what mainstream alternatives offer.

Theoretical Framework

In the following section we present a theoretical framework for the analysis of crises, differentiating between them in terms of ‘lower-order’ and ‘higher-order’ categories, as well as proposing a way to see the linkages between crises through the consideration of cumulative effects. By doing so, crises that appear as black swan events can be analysed in a comprehensive manner taking into account previous events that aggregated or accelerated the impact. In addition, the framework focuses on how crises are operationalised by political actors to achieve desired outcomes.

Conceptualisation of crisis

‘Crisis’ is a widely used term. Its origin comes from the Greek word *krinein*, meaning the moment a decision must be taken or a judgement made. In contemporary social science usage, it often refers to an event that shocks an economic, social, or political system with severe consequences. How protracted a crisis is depends on the length of time needed to reach a decision on what to do, or how many decisions are taken until there is confidence – or consensus- that the correct one has been found.

A quintessential example of a crisis in global politics was the collapse of the Soviet Union that ushered in a period of great change both domestically within the former communist countries and globally with the transition from a bipolar to an unipolar international system (Brooks and Wohlforth 2000/1). Realism, a central theory of International Relations for much of the Cold War, lost much relevance as liberalism and constructivism seemed to offer better answers (Legro and Moravcsik 1998; Wendt 1992). Ultimately, the division of Europe ended, and the EU enlarged, demonstrating that crises can be catalysts for positive change. Recent examples include the collapse of Lehman Brothers Bank in 2008 and the consequent global recession, the Eurozone sovereign debt crisis of 2010, and the migration crisis in 2015, which all, apart from their fallout, also induced some positive changes. Alternatively, one hears talk of 'looming crises', foreseen events that are expected to have widespread impact and severe consequences requiring decision and judgement, such as climate change or demography (both absolute growth and aging population). Many of these crises are not black swan events per se, and the most existential threat looming in terms of climate change is fully understood, predicted and imminent, yet mobilising political action and behavioural change does not appear to be taking place rapidly enough. Do black swan events offer opportunities for political action that predictable crises do not? This is a plausible expectation, given Taleb's observation that the hindsight of the historical record attributes great importance to black swan events in processes of social and political change.

Defining crisis: decision and judgement

This paper draws on the etymology of 'crisis' in its definition and operationalisation. Crisis is defined as an (exogenous) event that challenges the normal operation of existing institutions in terms of the legitimacy of their decision-making, the authority of their demand for compliant behaviour (be it from citizens or member states), and the validity and appropriateness of established norms, values, beliefs guiding governance. Policies that previously were fit-for-purpose and the ideational undergirding supporting them become doubted. A crisis may be considered as the opposite of 'an emergency', where behavioural responses follow established and accepted procedures. At its core, a crisis signifies that a consolidated episteme is opened up to critical appraisal (or outright criticism), with the resultant insecurities associated with profound change.

A crisis requires a judgement to be made on the current institutional order – ‘the status quo’ – about whether it is suitable or not, and if not, what sort of change is required. Crises demand a critical reflection on what has hitherto been taken for granted through institutional inertia and path-dependencies. More profoundly, crises can question fundamental beliefs and values that serve as the ideological ‘glue’ holding a society together, be it within a nation state, the European Union, or the multilateral system. Crises are opportunities to make change; we differentiate between types to define crisis in terms of their timing, duration, content or magnitude, but do not make these variables conditional on the definition. The focus on the necessity to decide maps three components of crisis to consider; opportunities, order, and cumulative effect.

Crises in the present: moment of opportunity

The impact of a crisis depends on the level of support for (or rejection of) the current institutional order – ‘the status quo’ – be it as an individual, local, national or international level – that is placed into doubt. Specifically, this idea is operationalised through identifying crises as opportunities for political actors inside and outside of governing institutions to instigate change, building on the political opportunity structure (POS) analysis of social movements developed in political sociology (McAdam et. al. 1996; for an international application see Della Porta et. al. 1999; Reimann 2006). A crisis is at once seen as a problem for those committed to the maintenance of existing political, economic, and social arrangements, while being an opportunity for those mobilising for change (although there may be very differing views on what should be done). From a critical theory perspective, this is similar to juxtaposing ‘problem-solving’ against ‘problem-situating’, insofar as the former seeks to maintain an existing order, while the latter explores alternative realities and is cognitive of underlying power relations and epistemes that support them. This conceptualisation has important methodological implications, because it allows all political actors responding to crisis to be theorised as motivated in a consistent and homogeneous manner, regardless of the normativity of their political project. This avoids the criticism of liberal bias within the research design, similar to the one identified by Bob (2012) in research on norm diffusion and the selection of only ‘good’ norms favoured by a liberal political agenda. (2)

(2) Bob demonstrated that global advocacy groups on the right (concerned with issues such as gun-control and abortion) operate in the same way as those on the centre/left, a crucial finding given that such cases had been systematically excluded from empirical work for promoting ‘bad norms’.

The approach is essential to understand why, in the period of crisis when a decision is needed and there is room to place many issues on the table, authoritarian regimes might try to undermine the liberal institutional order, or populist parties want to discredit national, European or international institutions as stooges of global elites, just as much as progressive cosmopolitans put forward a diametrically opposed set of ideas. As democratic institutions are weakened, and authoritarian and anti-democratic states become more influential in the changing structure of the international system, understanding the motivations of all actors is essential in order to prevent the structural exclusion of significant political actors that have the potential to shape the direction of global politics toward nationalism and xenophobia.

The 2015 migration 'crisis' illustrates these points. As Niemann and Zaun (2017) argue, the real 'crisis' of 2015 was not simply the arrival of over a million people to Europe from warzones across the Middle East and Asia into Europe, but the Common European Asylum System (CEAS) that was supposed to handle them. The principles of solidarity and burden sharing between European Union member states anticipated in the CEAS were quickly pushed aside in favour of national interests. EU member states began acting unilaterally, taking steps such as closing borders and in the case of Hungary, constructing a border wall to divert the movement of migrants, while Germany chose to accept many and negotiated transnational transit routes. These exemplify the challenge posed to existing institutional arrangements, as well as the ideas and values underpinning their operation. More broadly, the further rise in populist and far-right parties across Europe in the years after 2015 demonstrated the political opportunity offered by the influx of migrants as European institutions became log-jammed in their decision-making, the 'business as usual' solutions were critically weakened and new parties offered an alternative message to voters that advocated the closing of borders and a stringent policy of return. Importantly, presenting mainstream/centralist parties as the architects of the crisis and deaf to voters' concerns provided an opportunity to push a broader message of globalist elite versus nationalist peoples' champions.

In democratic societies the quality of public debate and level of citizen engagement with policy issues is crucial not only for informing the decisions taken by government, but also for the legitimacy of the central authority. Drawing on political opportunity structures and their applicability to social movement theories ensures that the micro-foundations of crises can also be fully examined in a systematic and coherent manner. Why do individuals become focused on polarised narratives, distorted worldviews and susceptible to fabricated disinformation and 'fake-news', critically weakening public discourse and the tolerance of difference necessary in democracies? To understand how these social processes work, it is important to begin from the assumption that the attraction of populist, conspiratorial or other echo-chamber news sources is not irrational (and therefore theoretically handled as an anomaly of social behaviour), but rather that they offer individuals a direction out of a crisis situation that is attractive and desirable to them. The normativity of the desired end is analysed in parallel to the normativity of the means, which are assumed to be consistent (as POS) with other actors.

Lower-order and higher-order crises

We differentiate between lower and higher order crises across two dimensions. The first concerns the order of magnitude measured by timing, duration, content and scope, and delimit the field in which decisions are to be taken. The second relates the expansiveness of possible decisions and the degree to which opportunities for alternatives deemed ordinarily as outside of consideration are included. Lower-order crises appear as limited, demarcated and parameterised, both in time and in policy scope. Higher-order crises manifest as structural in nature, requiring the more profound and open-ended solutions. Additionally, lower-order crises lend themselves more readily to problem-solving solutions that do not fundamentally alter the status-quo of institutional orders. By contrast, higher-order crises in which a structural defect, limitation or constraint is identified open for critical judgement the existing institutional order. From the perspective of critical theory, structural factors point toward questioning institutions and problem situating, therefore opening up a larger and wider scope for opportunities of policy change. The structural component of higher-order crises results in increased transversal linkages to other policy areas which yield unforeseen consequences and negative externalities that link lower and higher order crises together in a cumulative formation.

Multiple crises over recent years: a cumulative effect?

The third dimension considers the effect of aggregated crises over time, that while in different areas of social and political life, may nevertheless trigger larger structural problems, associated in this case to the European integration project, democratic values and institutions, and the liberal international order. This article investigates whether the crises experienced by the EU in the last decade and a half, when considered cumulatively, constitute an existential crisis. We take a macroscopic view of the crises over the last 20 years to understand the aggregate impact of i) the 2008 financial crisis (discrediting global marketisation, financialisation and increasing inequality in many OECD states), ii) the 2010 Eurozone crisis (damaging European solidarity and stretched to the limits the monetary union without fiscal union), iii) the 2015 migration crisis (betraying xenophobia and a disregard for universal human rights within the European Union) and iv) the 2020 COVID-19 pandemic within Europe. With the Arab Spring (2010), the civil wars in Libya, Syria and the Horn of Africa, the Russian annexation of Crimea (2014) and the ongoing Russian invasion of Ukraine since 2022 one does not lack a series of more crises to count in here. The proposition to be explored in this paper is that these cumulative crises have led a growing proportion of citizens, both inside and outside the EU, to question the fundamental episteme of liberal norms, values and the institutions that both are predicated on; that is to say the 'ideology' of liberalism. Following Jahn (2018), liberalism is seen as an ideology that is vulnerable to being undermined, not least in its universalist assumptions. These include: the necessity of open markets and the reduction of barriers to free trade to promote economic growth and development; the universal validity of individual rights; and the centrality of international law and multilateralism to global governance. All are ideas that have been contested in recent years. Crises centre on the combination of stress placed on existing institutions when seemingly unable to deliver answers, and the alternatives for which change advocates seek to gain traction.

Crises have multiple meanings, and those meanings are contested in the literature (Roitman, 2014). In the extant literature, "crisis" is portrayed alternately as a narrative framing device, as a concept, and as an event (Roitman, 2022).

Masco argues that ‘...“crisis” has become a counterrevolutionary idiom in the twenty-first century, a means of stabilizing an existing condition rather than minimizing forms of violence across militarism, economy, and the environment’ (Masco, 2007, S65). This implies that Western institutions have been fashioned by elites predicated on liberal internationalist principles around free markets, human rights, individualism and western forms of democracy. As mentioned, these foundations of the Western order have come under stress in recent years. Crises have compounded and cumulated over time through processes of appropriation, accumulation, and addition of successive parts or elements. Given the cumulation of successive crises, governance procedures have been developed and adapted on a case-by-case basis to manage the shifting politics of order going forwards to balance forward planning with flexibility of response. When the liberal principles of Western societies are under strain, policy procedures/institutions start to fray at the edges which offers opportunities for anti-liberal internationalist forces to push their visions for society, politics and international relations. Alternative forms of multilateral and plurilateral governance are also possible. These are interesting questions in search of a solution in a global international order that is increasingly fragmented, contested and febrile.

A series of cumulative crises including the financial/banking crisis of 2008 and its lingering aftermath, the successive/multiple Russian invasions in Eurasia since 2008, and the COVID-19 crisis with its manifold impacts have collectively undermined the legitimacy of the post-Cold War order. The accompanying unleashing of illiberal forces has encouraged nationalism, competition over cooperation, racism, extremism and intolerance within and between societies. Drops in real terms pay and global recession have also undermined liberal democracy and liberal economics and, by extension, the precepts of liberal order. The Western multilateral order has been further undermined by: (i) the impact of the above successive/cumulative crises, (ii) illiberal forces external to the West (China/Russia) and internal to the West (Trump, Orban, the Polish PIS party and Brexit et al), and (iii) successive global recessions since 2008 that have impacted on living standards, emphasised inequality within states, the inability of states to meet societal expectations, and encouraged an ‘atmosphere’ that stimulates difference and conflict.

This imagined yet impelled 'return to nationalism' to the pre-1945 world has impacted developments in international politics in the past ten years. The so-called 'peace dividend' of the post-Cold War world was always a fiction at best and at worst a distraction from solving real world problems. The notion of cumulative crisis, especially economic crisis, has taken hold in the lexicon of modern-day politics and has called into question any gains from the post-war order. Indeed, some take this notion further and argue that it is the neo-liberal underpinnings of Western-led global and nation-state orders alike that have encouraged difference, encouraged illiberal forces internationally/within Western societies, and perpetuated a 'feeling' of crisis at the national, regional and global levels of organisation (Masco, 2007, S75).

The transformation of the European and global order is fuelled by responses to crises and creates opportunities for changing governance structures, power centres and challenges the Western liberal order. Multilateralism matters but is being changed by the response to illiberal forces in the wider world and presents political opportunities for actors going forwards, particularly in regulating the world economy, managing the global commons, regulating nuclear weapons and in redefining international-level governance structures to (re-)define new forms of political opportunity structures. Crises represent the possibility for opportunistic political entrepreneurship questioning the utility and viability of status quo institutions. We examine this phenomenon further below in the following section on transnational governance platforms (TGP) to inform the study with observations on new organisational governance structures aiming to formulate policy response in an era of cumulative crises.

Application: case study in transnational governance platforms

In this final section we present an illustrative example of how the study of crises through the political opportunities they offer, the order of magnitude and the degree of cumulation can inform the research on new organisational (or administrative) governance structures. Political science offers a useful analysis of changing governance arrangements at the meso level, focusing on networks, collegial bodies and other in-between structures – formal and informal – to study the fragmentation of the traditionally conceived Westphalian state (Slaughter 2004, Vabulas & Snidal 2013, Roger 2019,).

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Drawing on theories of organisation and management to conceptualise transgovernmental legal and issue-area cooperation, we see “disaggregated sovereignty” in which transnational networks have become the primary vectors of international cooperation as well as the primary actors in international policy making’ (Harman and Ruiz Fabri, 2008, 481). Yet the ‘new world order’ that has become more prevalent is not necessarily more resilient or adaptable to exogenous shocks, unforeseen negative externalities evidence in late modern society (Beck 1992), or indeed crises. Ansell, Trondal and Ogaard propose a new model of governing in the ‘turbulence’ of the present day, when the well-trodden paths of existing governance arrangements are confronted with problems of uncertainty, urgency, complexity and scale (Ansell et al. 2017). Given that turbulence is likely to serve as a condition for governance for the foreseeable future, the question is how to live with it. One possibility, we suggest here, is to establish dynamic resilience in systems that are sufficiently flexible to adapt to ‘changing practices in foreign policy’ and move beyond the concept of transnational networks (Henökl 2020). He proposes transnational platforms for collaborative governance that are temporary, interstitial, or secondary structures supplying additional problem-solving capacity to address global challenges, and distinguish them from existing transgovernmental networks by their strong emphasis on including stakeholders from the public and private sectors. Although institutionally weak, they are easily adaptable and catalyse action through knowledge-sharing, joint strategising, pooling of resources and policy-design in view of a specific governance problem. What remains under-studied is the long-term durability of transnational platforms and their potential to be further institutionalised and to be given greater organisational capacity. However, by recognising their resilience to turbulence, it is important to ascertain to what extent they may serve as a flexible foundation for forming the building blocks of transnational public administration by connecting different policy sectors, types of actors, functional areas and fields of expertise.

By working together in the common performance of tasks, these semi-formal and loosely institutionalised instrumental networks between different actors (state as well as non-state actors, IOs, research and business) allow for knowledge-sharing, joint strategising, pooling of resources and policy-design in view of a specific governance problem. Although conceived of as interim and relatively informal structures, these platforms may, over time, acquire a degree of institutionalisation and organisational capacity, in particular where they are based on relatively stable patterns of administrative collaboration.

Connecting different policy sectors, types of actors, functional areas and fields of expertise, they form the building blocks of transnational public administration and contribute to rejuvenating multilateralism. They also provide important loci for interacting with challengers to the existing – albeit changing – geopolitical order, such as Russia and China. In short, understanding the role of these institutional architectures is essential in order to understand politics and governance in a post-pandemic world. They are also flexible tools available for intervention in the governing of a post-pandemic world, in particular to solve unruly or wicked collective action problems. Until now, transnational governance platforms as a concept are less studied and popularised in the literature than science diplomacy, another means to support and advance policymaking by including specific sectoral expertise from stakeholders (in this case predominantly scientists) outside the policymaking circle. Transnational governance platforms and science diplomacy promote and pursue the same objectives. Whereas the former roots in the study of (global) public administration and asks how temporary and informal expert networks can be best embedded in existing governance structures without compromising any of their positive features, science diplomacy is more narrowed and connects the two realms of diplomacy and science in order to get representatives from either side for vice-versa support in achieving jointly shared goals that relate to any given policy field.

The application of our framework would proceed as follows. In response to crises, we would ask how one could incorporate citizens' mobilisation as a form of political opportunity structure in the direction of transnational governance platforms, as discussed in the state of the art, by studying tangible concepts related to authority and legitimacy. The practice of legitimacy can, in this perspective, be defined as good governance, in the sense of the ability to take multiple conflicting demands into account and to integrate citizens' views and preferences in the midst of complexity and turbulence. This is important to create supplementary capacities and to mobilise popular support for action that might be unpalatable for leaders as well as citizens in a short-term time-horizon, but that is crucial for the sustainability of policies and polities. The involvement of a variety of actors at different levels of governance in such decision-making processes is a central instrument to achieve the purposes of efficiency and legitimacy and, last but not least, sustainability. This approach not only highlights the importance of existing forms of transnational collaboration, but also to scout the trends of new and emerging forms of collaborative governance and to study concrete examples of transnational platforms for joint problem-solving, policy-making and implementation.

Case studies of TGPs as an approach for joint problem-solving for the supply of increased governance capacities could include;

The comprehensive cooperation framework between the EU and the Arab League to address urgent governance needs and to provide services and goods that governments in the region cannot.

The as a response to the COVID-19 pandemic newly created European Health Emergency preparedness and Response Authority (HERA) which operates as a supra-national and inter-institutional authority to support the EU MS and EU institutions with management, information and knowledge provision in states of health emergencies

The Intergovernmental Panel on Climate Change (IPCC) as an expert-led forum to provide policymakers with regular scientific assessments on the state of climate change, its causes, potential impacts and response strategies helping them to delineate appropriate policy responses

The Asia Europe Meeting (ASEM) as a platform for dialogue and joint policy design, e.g. to foster connectivity for business and P2P exchanges

Collaboration among cities and regions to provide better services and increase efficiency

Migration and the Visegrad+ countries

And even the West's and Europe's response in arming Ukraine, in cooperating in the supply of arms (e.g. the tank exchange program aka "Ringtausch") involving several EU and NATO countries.

Conclusion

This paper considers the extent to which black swan events fit within a wider conceptualisation of crisis. The paper proposes a framework of analysis that looks at crisis from the perspective of what sorts of political opportunities are realisable in the fulcrum of decision-making as a crisis unfolds. Our assertion is that many actors across the political spectrum, both parties, individuals and citizens' groups, may propose actions in response to making judgement on the acceptability of the status quo. How crises in the present day are responded cannot be understood in isolation from stresses and strains on liberal democratic institutions and conditioned by late modernity. The extent to which governments and other public institutions can be expected to provide contingency planning is being recalibrated through greater attention to fostering societal resilience, while reliance of science and technology to solve problems and remove risk from our daily lives has had its long-term viability questioned by Beck, among others. Who is responsible for planning for black swan events (and the extent to which it is feasible or viable) and whether learning to live with them is a more sustainable strategy, are open to debate. The variety of national responses to the COVID-19 pandemic was illustrative of these tensions.

The paper developed a theoretically informed framework for the analysis of crises, focusing not on the event (black swan or not) that is the 'cause', but on the mechanisms through which consequences emerge through political agency. Drawing on the etymology of the Greek word *krinein*, meaning the moment a decision must be taken or a judgement made, this was operationalised in relation to the status quo, and the extent to which proponents of change (actors) and their proposals for change (policies) gain traction and acceptability in political discourse over decisions and judgements. Beginning from the observation that critics of the current order, including those dissatisfied with democratic institutions and liberal politics make use of crises to canvas support, the political opportunity structures literature from the study of social movements was used as a universally applicable analytical lens, normatively separate from the assessment of goals sought. Lower-order and higher-order crises were defined, and their cumulative impact described.

To demonstrate the applicability of this framework, the concept of transnational governance platforms was presented and compared to science diplomacy, another instrument very similar to the platforms. Moreover, the specificities of transnational governance platforms in opposition to established structures of local, national and international structures of governance, including their path-dependent procedures of policymaking, were discussed and their potential to contribute in solving a specific governance problem through its three inherent features (multi actor-driven, easily adaptable and knowledge-intensive) illustrated. Whereas it can be assumed that a few of the listed case studies for transnational governance platforms have definitely overcome the financing dilemma and gained middle- or long-term sustainability for action (e.g. HERA, IPCC, ASEM, Visegrad+ format), the questions of durable financial funding and smooth administrative embedding of transnational governance platforms remain the key challengers to their operational existence and as such to their perceived role as an important vector in governing crises in the turbulent times of today.

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Evaluating for Extremistan and Mediocristan. The case of the unknown unknowns (1)

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Key words

black swan, public policy, evaluation, resilience, polycentricity

Abstract

Black swans are very difficult to tackle by the employment of public policy. The human mind has serious epistemological limitations regarding this type of events. Several scholars have argued that, while trying to protect ourselves from major negative events, we did more harm than good. This calls for a reconsideration of the role of policy-making. Evaluation theory should be one step ahead if it wants to maintain its utility. This paper capitalises on the advancements of the literature regarding high-risk situations and resilience to identify what are the future developments that we should undertake in evaluation theory for it to produce relevant information for such particular problems.

Introduction

Putting together black swans, public policy and evaluation is at least a twofold challenge. First, a black swan is an absolute unpredictable event and, according to Taleb (2010), the odds that it will occur again are very small. This complicates the relation black swan – public policy because this is not a classical situation where you have a public problem and try to fix it with the help of a public policy. For one, a policy response that tries to prevent a black swan from happening again might be a waste of resource, since the chances that it will happen again are small. Further, black swans are usually possible because of minor elements in complex systems that very often escape observation (the butterfly effect). So, even if there are chances that a similar event will happen again, it is highly probable that a public policy will not prevent it because it will be provoked by something so (apparently) insignificant that was overlooked in designing the public policy. This leads to the second challenge that I mentioned above, the role of evaluation in the context of policy responses to black swans.

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If we stick to Taleb's (2010) understanding of a black swan, it is impossible to establish, via an evaluation process, whether an event has been prevented by the public policy, or the conditions for that event to happen haven't been met. We are blind to black swans; thus, we cannot intentionally influence them, we cannot approach them as usual public policy problems. Does this mean that policy responses to black swans are inappropriate, and, by implication, policy evaluation can bring no added value? In my opinion, public policies and evaluation can increase our preparedness to black swans, but we need to explore what can be done, in terms of public policy, in response to a black swan, and how evaluation could contribute to that.

Taleb (2010, 2012), Carlson and Doyle (1999), Perrow (1999) demonstrate in different ways that our intent to prevent negative events from happening by engaging in specific action only makes us weak in the long run. We manage to influence specific risks only to expose us even more to black swans. Extremely brief, this is because our actions increase interconnectivity and complexity, prevent the manifestation of innovation in policy making by imposing unique and coordinated solutions, and generate big structures or networks of intertwined actors that collapse dramatically, instead of having small entities that suffer the consequences of contained events that do not impact the whole system.

The vulnerability we provoke through our actions, and the epistemological problem I mentioned above, leads to the argument, often stated in the literature regarding such major events, that our interest should be in the governance structures and functioning rules that we create to deal with black swans, and not in the prediction, or scenario building and the policies that might follow from them.

It is in this framework that I want to build a theoretical stance on the role of evaluation. Thus, in the first part of the paper, I will provide arguments for the kind of knowledge that evaluation can produce regarding public interventions that deal with black swans. And, related to that, I will attempt to suggest what evaluation theories could make a better contribution in this context. The second part of the paper looks for a possible use of evaluation in the design of specific solutions, starting from pieces of information that might be revealed during black swan events.

In the end, I conclude that evaluation theory, by capitalising on institutionalist theory, can be developed so as to generate knowledge that is valuable to building our resilience in the face of black swans, but the connection is not direct, it is a "second order" problem.

I. Evaluating for Extremistan

I.1. Focusing the evaluation

We cannot intentionally impact black swans because we don't know if a certain black swan event will happen again or when and what will be the next black swan (Taleb, 2010). But we can prepare for their occurrence. We can influence how affected we are going to be. Our strength comes from structure (Taleb, 2012). The lesson that we can learn from this argument is that the only viable policy responses are those meant to increase resilience at the systems' level. This idea is not new, the literature on polycentricity and resilience provides arguments consistent with the statement that it is how we design our institutional structures and functioning rules that makes us resilient (McGinnis, 2000). These governance structures, if they have the characteristics of resilient systems, are an error-friendly environment. I will detail on this idea that resilient systems are error-friendly environments.

First, public policy error is inevitable for several reasons. Majone (1980) suggests that our policy knowledge is imperfect due to a series of pitfalls that are related either to problem setting; data and information; tools and methods; evidence and argument; conclusions, communication, and implementation. Hogwood and Peters (1985) point to uncertainty; complex causal relations; the political factor, which translates into opportunism, limits of control, etc.; and confusion between symptoms and causes. Bovens and Hart (1998) bring into discussion the issue of heterogeneity of preferences and argue that error in public policy is at the same time a social construction. Thus, inevitably, we have divergent interpretations on the success or failure of a public policy.

Second, according to Carlson and Doyle (1999, p. 1424), there is a trade-off between dealing with known risks and dealing with the one that are unknown to us: "From a technological and environmental viewpoint, perhaps the most important feature of HOT (2) states is the fact that the high performance and robustness of optimized designs with respect to the uncertainty for which they were designed, is accompanied by extreme sensitivity to additional uncertainty that is not included in the design." Public policies that deal directly with specific risks makes us vulnerable to black swans.

Resilient governance structures are error-friendly environments because they present at least two advantages in the face of the two difficulties, mentioned above, that public policy must deal with. The first advantage is that they foster bottom-up, participative policy processes which leads to information richness, more policy innovation, and the identification of solutions that are better suited for specific communities (Ostrom, 2005; Folke et al., 2005; Olsson et al., 2006; Lebel et al., 2006). The second advantage is that, given the smaller scale of action arenas and the diversity of solutions to (apparently) similar problems, the consequences of error do not spread as much as is the case with non-resilient systems (Taleb, 2010, 2012). We cannot escape error and uncertainty, but resilient governance structures diminish the consequences of errors.

All in all, the literature on resilience argues that our focus should switch, from addressing problems directly, to the superstructures that we use in order to solve them. Some of the risk-management literature is also going into this direction.

(2) HOT - highly optimised tolerance

Looking into organizations, Perrow (1999) explains the occurrence of black swans as the interaction in unexpected ways of insignificant (and inevitable) failures. In his terminology, black swans are called normal accidents, or system failure. The conditions that set the stage for normal accidents are complexity and interconnectivity. Those characteristics of systems that are prone to normal accidents are designed by human intervention, although that was not the intention. As Perrow develops on what complexity and interconnectivity mean and how they might provoke normal accidents, we become aware of the nature of risky enterprises, of the properties of systems that make them prone to accidents.

Complexity is not about the number of units in a system. What makes a system complex is the multiple functions of its components that leads them to interact in unpredictable ways with one or more other components. This lack of knowledge on how the system components might interact comes from the fact that many pieces of information about the system are indirect and inferential. This epistemological problem prevents us from anticipating potential accidents. Linear systems are the opposite of complex systems and are more predictable, but sometimes building a complex system is the only way we know to produce something.

The other characteristic that Perrow points to is connectivity, or coupling, which is either tight or loose. Loose coupling prevents the spreading of negative effects because component failure can be isolated from the rest of the system. This can be done through redundancies in the system, slack in resources, alternative methods of production, changing the order of sequences, or delays.

Obviously, complex systems with tight coupling are most exposed to catastrophic events. Apart from those two variables, Perrow warns us about factors that amplify risks: specialization of labour and supplies; the size of the systems; the number of functions they serve; increasing ties to other systems; organizational contradictions; and transformative production processes that we don't fully understand. These findings are confirmed by other studies that demonstrate the fact that even major events that were not man-made, such as the natural catastrophes, impact us differently depending on our pre-existing social networks (Lovett; Chamlee-Wright and Storr apud Aligić and Tarko, 2014, p. 56).

This is rich and valuable knowledge about the characteristics of systems where black swans might happen. What is interesting is that it is a confirmation of Taleb's (2010, 2012) argument that we don't need to know exactly the nature of the black swan to be ready for it. Perrow's work can be used to avoid major events without knowing what they would be. It is true that, although Perrow advises us to simplify and un-couple our systems, he also admits that some of the systems are complex and tightly coupled and we can do nothing about it. Nevertheless, we can do a great deal by understanding those sources of risk and, starting from the variables that he theorised, one can extrapolate to even bigger and more complex social-economical systems. My intuition, although not the focus of this paper, is that there we find more slack and buffer, but at the same time the interaction between system components and between components from different systems can be much more surprising, thus intensifying uncertainty.

But, as I mentioned at the beginning of the paragraph, Perrow's account is not the only one that can guide us in our search for answers regarding what can we do to be less impacted by black swans. The complex changes in natural as well as social systems have exceeded the capacity of most contemporary theoretical models and analytical techniques. Much of the literature that acknowledges this issue explores the link between the governance structures of complex socio-ecological, or political-administrative, systems and their resilience. According to Duit (2010, p. 366), "We currently have very little systematic knowledge about how different types of real-world governance systems differ in their ability to cope with different types of complex change." But one may easily notice the common line of argument regarding flexible, participative policy making that is facilitated through diverse consensus-facilitating institutional arrangements. McGinnis et al. (2020, pp. 2-3) lists some of these modes of governance: adaptive governance, collaborative governance, cross-sector or network governance, multi-level governance, functional overlapping competing jurisdictions, marble-cake federalism, international regime clusters, nexus governance, complex governance. More so, McGinnis et al. (2020, p. 3) notice that the idea of polycentricity is "the core mode of governance displayed in these many forms." For that reason, out of the many theoretical concepts that target governance structures for problem-solving, and not the problems directly, I will concentrate on the concept of polycentricity.

Elinor Ostrom's (1990) research has demonstrated the fact that self-organising citizens have the capacity to identify innovative solutions to common problems. This strand of institutionalism looks at heterogeneity of views and preferences as something that can be capitalised into problem solving. According to Aligică (2014, pp. 30-70), inside this approach, heterogeneity is not an obstacle that should be resolved, but a resource. This is a "Neither Market nor States" (Ostrom, 1994) approach, beyond the centralization-decentralization dispute. The idea of polycentricity, attributed to Polanyi, is explored by Ostrom and those who embraced her approach, as a type of governance that fosters resilience exactly because it is not a mere solution to a specific problem, but a framework for a bottom-up process of public policies. At the same time, this approach differentiates between problems and state that they need to be addressed at different governance levels. Thus, polycentric arrangements are also compatible with top-down policy making and centralization (Aligică, 2014, p. 66). Ostrom V. (1999, p. 73) defines polycentricity "as a pattern of organization where many independent elements are capable of mutual adjustment for ordering their relationships with one another within a general system of rules."

This perspective on polycentricity has the following features: "many centers of decision-making; ordered relationships that persist in time; many legitimate enforcers of rules; a single system of rules; overlapping centers of power at different organizational levels; spontaneous order resulting from free entry and exit; an alignment between rules and incentives (rules are considered useful); and public involvement in rule design (rules about changing rules, connection between rules and consequences relatively transparent)" (Aligică, 2014, p. 57).

Polycentric institutional arrangements assure a stable environment for constant feedback between (competing or collaborating) stakeholders at all levels, facilitates dialogue and the use of community knowledge to reach consensus regarding public problems. That results in learning and adaptation to changing conditions. Also, it provides leverage for policy change whenever the stakeholders feel it's in their best interest (Ostrom, 2005; McGinnis et al., 2020; Aligică, 2014).

Furthermore, polycentricity is a theoretical concept that can be used to design empirical studies of different institutional arrangements at various scales or make comparative studies between different action arenas starting from their resemblance to the theoretical concept.

To conclude, promising approaches, as those mentioned above, that place their analysis at the (complex) systems level, are able to reflect the true nature of problems we face today. To my understanding, evaluation theory has failed so far to integrate the developments of these approaches into how we look at evaluands. Policy evaluation concentrates on policies that generate HOT states, but we have no theories and instruments on how to produce knowledge concerning the specific institutional arrangements that make societies better prepared for the unknown unknowns.

I.2. Evaluation scope and theoretical approach

So far, I explored some innovative developments regarding the preparation for black swan events. Taleb, Carlson and Doyle, and Perrow were specifically interested in such events. The concept of polycentricity was not necessarily developed with such problems in mind, but it takes into account the challenges of public decision-making that we face today and raises the discussion on how to address public problems above the level of the problems per se and onto governance structures. Together, these approaches build solid arguments for the suggestion that evaluation theory should not look at day-to-day, ordinary policy-making in order to assess our response to black swans, but at the superstructure that we use in order to act.

Thus, theoretical concepts such as resilience, coupling, and complexity would be examples of criteria against which evaluation should assess policy responses to black swans. The literature regarding resilience signals the need for a solid evaluation approach to resilience. There are frameworks that successfully approach the assessment of short-term local risks like fires, industrial accidents, etc., but since we do not know where, when and what will be the next black swan, the most challenging, but most fruitful approach would be to try to connect evaluation theory with innovative research regarding preparation for black swans. This did not happen so far.

In what follows, I will try to place evaluation theory in the context of the approaches presented in paragraph I.1. and define potential contributions that evaluation might have in this new wave of responses to black swans. Obviously, this is an exploratory endeavour which only hopes to suggest a new agenda for evaluation theory research.

Well-known to environment protection literature, the concept of resilience increasingly gained the analysts' attention as Western democracies faced more and more challenges. Due to the heterogeneity of contributions to this theoretical construction, ambiguities in definitions and terminology are still characteristic. (3) As a result, empirical studies are often put to question. But, to my understanding, it is not the lack of a clear-cut, unifying theoretical concept that leads to disagreement over resilient institutional arrangements and their outcomes, but the difficulties of applying this concept to questions of politics and governance. Folke and Rockstrom (apud Duit et al., 2010, p. 365) argue that issues in political-administrative systems are different from those in the natural world because individuals in such systems have normative convictions and act according to them. This results in a diversity of values or images of how and what a resilient arrangement should be. Korosteleva and Flockhart (2020) write about a notion of good life that is behind any (institutional) arrangement and the fact that any change that takes as away from that image of good life is perceived "to have a detrimental impact on the resilience (...) of the entity." Our interpretations, based on our values and preferences, complicate the answer to all questions, even those that come from the natural world. For instance, even the most concrete, fact-related, clear-cut questions, such as are forest fires good or bad?, have complex answers. Resilience is to be assessed only in a context. Lebel et al. (2006) point to the relevance of answering questions such as resilience of what, to what, for whom? Taleb (2010) expresses the same idea of contextualization in the statement that one only misses the train if s/he runs after it. The heterogeneity of values and preferences make systems hard to delimitate for analytic purposes, they become fluid. I think evaluation theory is better equipped at answering questions such as resilience of what, to what, for whom? than the approaches that identify characteristics of systems that foster resilience. Evaluations could help delimitate the action arena in a specific situation. Usually, the evaluand is not hard to identify, but in this situation, it is a social construct.

(3) Resilience is defined by Holling (apud Aligică, 2014, p. 102) as the ability "to absorb change and variation without flipping into a different state where the variables and processes controlling structure and behavior suddenly change."

The system whose governance structures should be under consideration is not given, it is the result of the different understandings of those involved. We establish the limits of the systems or the number of systems that gravitate around a problem according to our understanding of the problem. Sometimes we see clearly that an event has affected several systems, but we choose only one perspective because we prioritise, other in practice or in analysis. Apart from that, according to Constanza et al. (apud Aligică and Tarko, 2014, p. 61), the institutionalist research design might fail to set the proper scale of analysis or to recognize whether multiple scales are involved. What I want to suggest is that the delineation of the situation under study should not be left to the analyst, it should be discovered in the process of evaluation starting from problem definitions, objectives, preferences, values, etc. that exist in the empirical setting.

If we put together the developments of the approaches I presented in paragraph I.1., which suggest us what we can do to be less impacted by a black swan, and the difficulties they have, which were mentioned above in this paragraph, I think we can draw a conclusion regarding the specific approaches in evaluation theory that are adequate in this context of policy responses to black swans. Evaluation theories like that of Guba and Lincoln (1989), Stake (2003), or goal free evaluation (4) can approach the object of study without a pre-established set of criteria or some agreed-upon general understanding. Sets of criteria or common understandings are a product of such evaluative research, thus bypassing the difficulty of an unsettled object of investigation or the absence of an agreed set of criteria. There are several other arguments that indicate the fact that interpretative approaches to evaluation that value the information coming from policy stakeholders are recommended for Extremistan. In his books, Taleb argues that we learn more from life than from theories providing us with a lot of examples in which empirical observations constituted a more solid base for resilient strategies. Ostrom and collaborators identified the characteristics of resilient governance structures starting from empirical data. On top of that, according to Aligică (2014, p. 198), criteria for assessing outcomes and institutions should come from an “endogenous social-political-institutional process of communication, bargaining, and discovery, in which the members of the society or community get engaged in their attempts to find solutions.”

(4) See Moro et al., 2007, for a practical example of defining criteria in the process of evaluation, using the preferences of the stakeholders.

How to evaluate the performance of a polycentric system is an issue open to debate (McGinnis et al., 2020; Aligică, 2014, pp. 33-39) and I suggest that, in the context of responses to black swans, evaluation theory may capitalise on the developments of institutionalism and build consensus around such criteria in specific situations. Understanding the evaluand along the institutionalist lines might guide evaluation to generate valuable knowledge regarding resilience of what, to what, for whom and derive criteria for assessment.

I hereby suggest two possible strategies that the evaluative studies could undertake. A possible strategy would be to draw comparisons between real life governance systems in the face of similar unexpected events. In a globalised world, we could see different governance systems reacting to the same black swan. Another evaluative strategy would be to assess real life governance systems against resilience theory. For instance, one could try to see the extent to which a real-life governance system is resemblant to a polycentric one, which is largely recognised in the literature as a highly resilient institutional arrangement (Ostrom, 2005; Aligică and Tarko, 2014). By evaluating the resilience of the governance systems, we can increase our adaptation to “Extremistan”.

To my knowledge, we lack a consistent literature on evaluating resilience. Most of the studies focus on the evaluation of organizations, although they use the term “institutions”. Other studies that seem to link evaluation and resilience are not in fact a contribution of evaluation theory to resilience, but generally an operationalization of the way someone understands resilience as a theoretical concept followed by a measurement of some sort. As such, I think it’s important to explore the developments in evaluation theory and see if and how they can be put to work in order to answer some of the dilemma in resilience literature, like different theoretical understandings of the concept, different interpretations of real-life situations, or the evaluation of institutional arrangements that are likely to foster resilience. The main result of this endeavour would be a tool that, once used in practice, might bring some light to the issue it was designed to overcome - different understandings of the concept of resilience.

II. Evaluating for Mediocristan

So far, I have explored the potential use of evaluation in the context of policy responses to black swans and argued that evaluation could help delimitate the specific action situation, which is something left to the analyst so far, and define criteria for assessing outcomes and institutions. In other words, evaluation may contribute to increasing the quality of knowledge regarding the governance structures and functioning rules that we create in order to increase our preparedness to black swans by enforcing the bottom-up perspective. Another role that evaluation might have in this context of black swan events is to facilitate learning and use this knowledge to refine theories of intervention. This will finally increase adaptation.

No matter if we take Taleb's (2010) understanding of a black swan or that of Popper (1981), once they are visible to us, black swans reveal information. But we need to discuss the nature of that information. Sampson (2007) has already explored the advantages of using evidence to falsify rather than verify the theories that public policies are built upon, thus leading to more robust policy responses. Formative evaluations may help review theories of intervention that are embodied in public policies. But Taleb warns us that, when we look back on a black swan, we only have the impression that the event can be explained. Popper also argues that, once we see a black swan, we know that our previous understanding was misleading, but it does not necessarily reveal us the truth. What is still there to learn from black swans?

Following the institutionalist framework, Aligić and Tarko (2014, p. 63) suggest that, in order to understand what makes us resilient, we should move from the 'operational level'⁽⁵⁾ to the 'collective choice level': "...although the sustainable solutions to various concrete problems are highly specific and context-dependent, social systems that are good at discovering the sustainable solutions are all organized in a similar fashion."

(5) This is where evaluation theory usually tackles the issues.

Furthermore, the two authors (p. 65) mention that the information in such analytical stances might be too complex to deal with and suggest instead the strategy used in Ostrom's studies to understand the process of the emergence of rules. If we look at black swans from this perspective, they reveal to us the characteristics of the sub-systems that made their occurrence possible. It is true, we are not at the operational level, it is not the kind of information that helps one identify and prevent a very specific risk, but it is nevertheless information that might increase our preparedness to specific risks. This is not information about how to prepare for the unknown unknowns, this is information that helps the preparation of our sub-systems: health (e.g. epidemic outbreaks, medicine production and provision), economy risks (e.g. banking, industry), environment (e.g.), society (e.g. migration, conflicts), etc. We do not have the capacity to predict exactly the next pandemic, migration flows, etc. but we can learn from the previous black swans what are the necessary characteristics for these sub-systems to be resilient. By implying the institutionalist methodology, an evaluation might investigate those characteristics of the sub-systems and formulate recommendations for improvement. This will increase our wellbeing in "Mediocristan" because it is one step closer to being able to address specific risks.

My suggestion is that Pawson and Tilley's (1997) 'realistic evaluation' is a potential starting point for such an endeavor. There are several reasons for this suggestion. One of them is that this theory of evaluation approaches the evaluand through the same bottom-up perspective that is needed in resilience studies: "Realist evaluations ask not 'What works?' or 'Does this program work?' but ask instead 'What works for whom in what circumstances and in what respects, and how?'" (2004, p. 2). Another reason is that this evaluation theory sees the evaluand as embedded in social systems and actively tries to identify potential influences from other systems. Altogether, these statements mean that, in realistic evaluation, an isolated look at the evaluand is never enough. The combination of attributes that need to be in place for an evaluand to be effective is extremely relevant to this evaluation theory and that is why it has the potential to contribute to the issue under attention in this paper.

Conclusions

Black swan events are extremely difficult to address through public policies and programmes due to serious epistemological challenges that surround them. The traditional theories and methods of the social sciences, which are embedded in evaluation theory and practice, have proved their limits in the reality today. Gnad and Burrows (apud Korosteleva and Flockhart, 2020, p. 154) call it the VUCA (volatility, uncertainty, complexity, and ambiguity) world. According to Korosteleva and Flockhart (2020, p. 160), "people must cope with and adapt to the effects of globalization, shifting power patterns, multiple and paradigmatic changes in technology and science, widespread social and demographic change and ... the ... prospect of catastrophic climate change. Each of the many ongoing change processes interact in complex and unexpected ways and all have significant impact on our lives as human beings and on our political systems, policy planning and governance structures."

Inside social sciences there is a more and more consistent evolution towards addressing this new type of public problems indirectly. Instead of approaching the problems directly, the focus is on the institutional arrangements, governance structures, and rules that we use in order to tackle the problems. The reason for that is presented at the beginning of the paper, to overcome the obstacle of imperfect knowledge. My argument is that evaluation theory should take note of this new strategy in social sciences and try to explore how it can develop so as to adapt to the new reality and align to the latest developments in social science.

After I explain the reasons why evaluation should move its focus from specific problems to the mechanisms and institutional arrangements that people use in order to deal with problems, I try to identify concrete theoretical concepts that evaluation theory could work with in order to generate up to date theoretical approaches that are able to provide knowledge in this increasingly incomprehensible environment. Such concepts are resilience, polycentricity or the loosely coupled linear systems. They all provide criteria that evaluation could use in order to determine, for example, preparedness to black swans, but other applications can be developed.

As with all approaches in social sciences, they have certain flaws. One of these flaws, that I can relate to evaluation theory, is the fact that their object of analysis, being a social construct, is delineated by the analyst. Resilience studies start once we establish a context. In polycentric arrangements we look for multiple decision centres, but in order to identify them we need to know what is the kind of decision that they are supposed to take. It is true, we can generally state that federalism systems bare more resemblances with a polycentric system, but for most of the problems the look at the constitutional level is too far. Briefly, answering questions such as resilience of what, to what, for whom is about identifying common understandings and compromise. This is the reason why I suggest that constructivist evaluation theory could be employed in such situations. They start from the subjective interpretations of the stakeholders, from versions of reality and produce common understandings in the process of evaluation. Once we establish the common understanding regarding resilience of what, to what, for whom, then we can check it against other real-life governance systems or theory.

Although not directly linked to the purpose of this paper, evaluation theory could draw some lessons from black swan events that can be used to tackle specific risks. Again, it would not be knowledge that concerns the problems directly, but about how specific sub-systems function under extreme pressure and what can be improved. I suggest that Pawson and Tilley's realist evaluation, with its focus on mechanisms of change and its bottom-up, systems-oriented perspective, might be a starting point.

The research perspectives I opened in this paper need further consideration, others need to be identified, but beyond that, the conclusion that evaluation theory should move on to a new direction so as to be able to produce knowledge in the context of 'VUCA' world remains.

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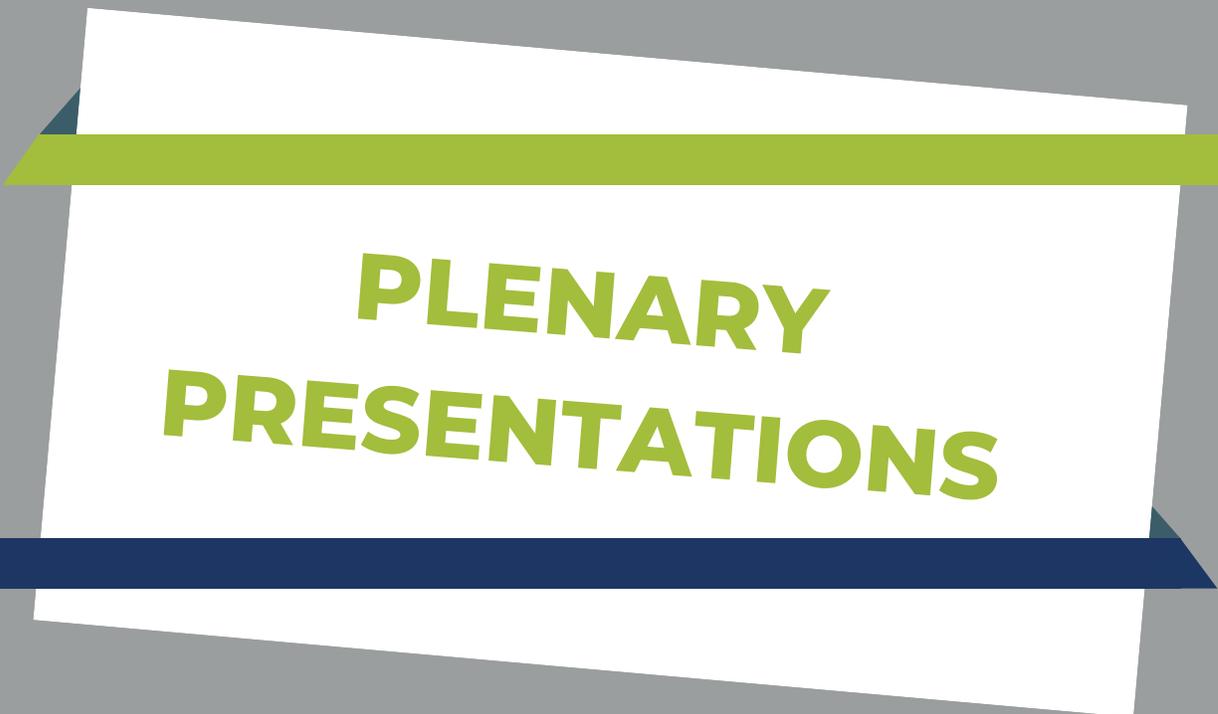
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**PLENARY
PRESENTATIONS**



Yiannis Bassiakos, Lena Tsipouri, Sofia Liarti

The good, the bad and the ugly: Assessing policies of/in the EU Member States policies after the 2008 economic crisis

Comparing evaluation methods and mapping examples of evaluations supporting policy responses to black swans

In this paper we try to understand whether early warning indicators can be identified as predictors for the EU Member States which were so severely hit by the 2008 crisis that needed the ESM to avoid bankruptcy, namely Greece, Portugal, Ireland, Cyprus and under specific terms Spain. The hasty creation of the ESM was triggered by the lack of confidence of the capital and money markets and our research question is: was this lack of trust corroborated by real economy indicators or not? Our hypothesis is that capital market reacted rationally and exposed the countries with real long-term growth problems, which would eventually lead them to insolvency.

The seventeen EU countries which comprised EUROZONE in 2009 were divided into two groups: (a) the first group (ESM-countries) contained the five countries (Cyprus, Greece, Ireland, Portugal and Spain) which either had to ask for financial assistance from the ESM or were close to asking, and (b) the second group (non-ESM-countries) contained the seven countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Luxembourg, Malta, the Netherlands, Sweden and the UK), which did not need assistance.

To address factors which led to the need for external support Simple Logistic Regression was used to model the probability of being classified into the first group with 17 independent variables (expressed as averages of the 2005 to 2009 years values). Of all 17 independent variables, export-import balance, control of corruption, rule of law, government effectiveness, voice and accountability, political stability and absence of violence had (statistically significant) negative relation with the probability of asking for financial assistance from the ESM (p-values 0.0774, 0.0799, 0.0792, 0.0860, 0.0460 and 0.1085, respectively) and people at risk of poverty and early leavers from education had (statistically significant) positive relation with the probability of asking for financial assistance from the ESM (p-values 0.0977 and 0.1029, respectively).

Additionally Multiple Stepwise Logistic Regression was used to ascertain the joint impact of all independent variables on the probability of asking for financial assistance from the ESM. Of all the variable used only people at risk of poverty had (statistically significant) positive relation with the probability of asking for financial assistance from the ESM (p-value=0.0431) and voice and accountability had (statistically significant) negative relation with the probability of asking for financial assistance from the ESM (p-value=0.0293).

To address factors which affect GDP growth Simple Regression was used to model the compound GDP growth between 2010 and 2019 with independent variables the interaction of the participation in the ESM-countries group with the ranks of the averages of the 2010 to 2019 values - 17 models. Using the interaction as independent variables allowed the assessment of the different impact of these variables between the two groups of countries. In all 17 cases the interaction term was not statistically significant, indicating that there was no difference of impact between the two groups.

Multiple Stepwise Regression was used to ascertain the joint impact of all independent variables and their interaction with ESM grouping on the compound GDP growth. When interaction with ESM grouping was included, of all the variable used only government deficit had (statistically significant) negative relation with the probability of asking for financial assistance from the ESM (p-value <0.0001)

When interaction with ESM grouping was not included, of all the variables used only government debt had (statistically significant) negative relation with the compound GDP growth (p-value=0.0048).

The background and key questions

- Both the Great Depression and the Great Recession started suddenly (although ex post one might argue not unexpectedly) triggered by the financial sector.
- In both cases they were rapidly expanded to the real economy with significant repercussions (foreclosures, unemployment, reduced investments etc.).
- Although in both cases practically all countries suffered the degrees of how they were affected differed.
- There are significant controversies on public policy intervention to face such crises, or at least mitigate their effects raising questions about the best way to deal with interest rates, deficits and structural variables.

The background and key questions

- Our research question related to the Great Recession in the Eurozone:
- Were the policy interventions triggered by lack of trust in financial and capital markets justified by real economy problems? Or were they simply reflecting financial excesses?
- Were countries that lost the trust of the markets similar in terms of their structural problems?
- Were the measures adopted for saving them (ESM access and requirements) the most appropriate?

Literature review

- Factors of the Great Recession: Economists choose between models through an associated narrative that adds additional information about causation (R. Hetzel, 2016).
- The impacts of the crisis are closely related with intrinsic features of each country or group of countries, and not only with the expected effects of a common shock to the European Union or the Eurozone member states (C. Carasso, J.Ferreiro, 2017).
-periphery countries could have stabilized their employment if they had followed more conservative fiscal policies during the boom. Central bank actions would have stabilized employment during the bust but not public debt. Finally, if these countries had been able to regain in the bust the competitiveness they lost in the boom, they would have experienced a shorter and milder recession (P. Martin and T Philippon, 2022)

Data collection and its Drawbacks

- We looked for variables fitting our narrative but at this stage we worked only with variables available in time series 2005-2009 and 2010-2019, 2005-2009 as a start allowing to check for structural issues before the Great Recession, 2010-2019 allowing for looking at resilient comeback before the COVID crisis
- Economic indicators: Balance of goods and services (Eurostat); Government debt (%GDP) (Eurostat); Government deficit/surplus (%GDP) (Eurostat); Unemployment rate (15 to 74 years) (Eurostat); multifactor productivity which would be crucial was not available for many EU countries
- Social indicators: People at risk of poverty (Eurostat); Early leavers from education and training (age class 18-24) (Eurostat); Self-perceived health (indicative years) (Eurostat)

Data collection and its Drawbacks

- Political indicators: Population with confidence in EU institutions (European Parliament, European Commission, European Central Bank) (Eurostat); Control of Corruption (Worldbank); Trust in the political system (Eurostat); Political Stability and Absence of violence/terrorism (Worldbank); Voice and Accountability (Worldbank); Rule of Law (Worldbank); Regulatory Quality (Worldbank); Government effectiveness (Worldbank)
- Other variables to use in the future: Imports of goods and services in total; Exports of goods and services in total; Exports to the EU/third countries; Imports to the EU/third countries; Labour productivity; Harmonised Index of Consumer Prices, Employment rate; Attitudes toward people with disabilities; Gender employment gap; Tolerance for immigrants; Tolerance for minorities; Tolerance for homosexuals; Gender gap; Tertiary education attainment; Tertiary enrolment

Two basic ideas

- a) probability to belong to ESM (2 logistic regressions),**
- b) explanatory variables of resilience (1 linear regression))**

- Simple Logistic Regression: model the probability of being classified into the ESM-assistance applicants based on 18 2005-2009 variables (Compound GDP growth rate; Government deficit/surplus (%GDP); Government debt (% GDP); the difference between export minus imports of goods and services (as a % of GDP); Unemployment (15 to 74 years); People at risk of poverty; Self-perceived health (Proportion of persons who assess their health to be very good or good to the question on self-perceived health - Age class 16 or over); Early leaver from education and training (age class 18-24); Gender employment gap; Population with confidence in EU Parliament (%); Population with confidence in EC (%); Population with confidence in ECB (%); Voice and Accountability; Political Stability and Absence of Violence; Government Effectiveness; Regulatory Quality; Rule of Law; Control of Corruption)

Two basic ideas

- a) probability to belong to ESM (2 logistic regressions),**
- b) explanatory variables of resilience (1 linear regression))**

- Simple Logistic Regression to check the probability of having been classified into the ESM-assistance applicants based on 18 2010-2019 variables (i.e., based on the post-crisis values of these variables) out of curiosity
- Simple Linear Regression: model compound GDP growth 2010-2019 as dependent variable using again 18 variables (18 from above minus Compound GDP growth, which is now the dependent variable plus the ESM-assistance status as a dummy variable) to check for the resilience of an economy and explain its rebound

Model

- 17 EU members of EUROZONE in 2009 were divided into two groups:
- Countries which applied for ESM assistance to face the Great Recession (at a moment it had not started yet): Cyprus, Greece, Ireland, Portugal and Spain, and
- Countries which did not apply for ESFS/ESM assistance, namely Austria, Belgium, Denmark, Finland, France, Germany, Italy, Luxembourg, Malta, the Netherlands, Sweden and the UK

Logistic Regressions

- The general form of a logistic regression model is:
- $\log(P/(1-P)) = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n$ where the X_i 's represent the explanatory variables. Solving the abovementioned equation for P, after estimating the β_i 's, we get an estimate of the probability of the event, in the present analysis the probability of a state seeking support from the ESM.
- Additionally, the mean values of each explanatory variable were compared between the two groups of countries using both the t-test and Wilcoxon's signed-rank test.

Logistic Regression 2005-2009

Variable	MEAN (\pm SD)		p-value		
	ESM	NON-ESM	t-test	Wilcoxon's Rank-sum test	Logistic regression
GDP growth rate	1.08 (\pm 0.06)	1.06 (\pm 0.05)	0.4745	0.5702	
Government deficit/surplus (%GDP)	-4.1 (\pm 3.1)	-0.7 (\pm 2.6)	0.0378	0.1336	0.1353
Government debt (%GDP)	63.9 (\pm 30.2)	58.8 (\pm 27.8)	0.7474	0.7387	0.7569
Exports - Imports	-3.7 (\pm 8)	4.7 (\pm 8.7)	0.0833	0.0837	0.0774 (-)
Unemployment rate (15 to 74 years)	7.9 (\pm 2.4)	6.5 (\pm 1.5)	0.1756	0.2847	0.2511
People at risk of poverty	25.3 (\pm 1.9)	19.1 (\pm 3.1)	0.0008	0.0162	0.0421 (+)
Self-perceived health (Proportion of persons who assess their health to be very good or good to the question on self-perceived health - Age class 16 or over)	71 (\pm 13.6)	71.8 (\pm 4.9)	0.8493	0.5702	0.8034
Early leavers from education and training (Age class 18-24)	21.5 (\pm 11.1)	13.7 (\pm 5.8)	0.0748	0.1218	0.1531
Gender employment gap (Age class from 20 to 64 years)	15.2 (\pm 6.4)	13.3 (\pm 9.9)	0.7073	0.3791	0.6987
Population with confidence in EU Parliament	60 (\pm 4.1)	54.7 (\pm 10.6)	0.3091	0.3313	0.5007
Population with confidence in EC	56.7 (\pm 4.3)	50.6 (\pm 10.4)	0.2266	0.2062	0.3455
Population with confidence in ECB	50.4 (\pm 4.4)	55 (\pm 13)	0.5482	0.1459	0.5028
Voice and Accountability	1.2 (\pm 0.2)	1.4 (\pm 0.2)	0.0185	0.0565	0.0689 (-)
Political Stability and Absence of Violence	0.6 (\pm 0.5)	1 (\pm 0.4)	0.0806	0.1459	0.1590
Government Effectiveness	1.1 (\pm 0.4)	1.6 (\pm 0.5)	0.0574	0.0306	0.1296
Regulatory Quality	1.3 (\pm 0.3)	1.5 (\pm 0.3)	0.1148	0.2062	0.1757
Rule of Law	1.2 (\pm 0.3)	1.6 (\pm 0.4)	0.0491	0.0377	0.1195
Control of Corruption	1 (\pm 0.5)	1.7 (\pm 0.6)	0.0519	0.0565	0.1191

Results Logistic Regression 2005-2009

Cautious for the significant caveat of limited number of observations:

- Of all 18 independent two variables had a statistically significant negative relation with the probability of asking for financial assistance from the ESM, namely export-import balance, voice and accountability, and one statistically significant positive: people at risk of poverty
- The mean comparisons revealed the following picture:
- Countries which asked for financial assistance from ESM had statistically significant higher mean in People at risk of poverty
- Countries which asked for financial assistance from ESM had statistically significant lower mean in Government Deficit, Export-Import balance, educational attainment, Voice & Accountability, Political Stability, Government Effectiveness, Rule of Law, and Control of corruption

Logistic Regression 2010-2019

Variable	MEAN (\pm SD)		p-value		
	ESM	NON-ESM	t-test	Wilcoxon's Rank-sum test	Logistic regression
GDP growth rate	1.20 (\pm 0.37)	1.23 (\pm 0.18)	0.7952	0.3315	0.7800
Government deficit/surplus (%GDP)	-5.1 (\pm 1.4)	-1.3 (\pm 1.6)	0.0003	0.0100	0.0673 (+)
Government debt (%GDP)	113.5 (\pm 37.2)	68.8 (\pm 31.7)	0.0263	0.0733	0.0772 (+)
Exports - imports	3.4 (\pm 8.9)	5.9 (\pm 9.1)	0.6123	0.3835	0.5941
Unemployment rate (15 to 74 years)	15.1 (\pm 5.4)	6.9 (\pm 1.9)	0.0002	0.0084	0.4430
People at risk of poverty	27.5 (\pm 3.4)	19.8 (\pm 3.3)	0.0006	0.0162	0.0500 (+)
Self-perceived health (Proportion of persons who assess their health to be very good or good to the question on self-perceived health - Age class 16 or over)	71.4 (\pm 13.5)	71.4 (\pm 3.6)	0.9914	0.2847	0.9907
Early leavers from education and training (Age class 18-24)	12.8 (\pm 6.3)	10.2 (\pm 3.1)	0.2736	0.5702	0.2680
Gender employment gap (Age class from 20 to 64 years)	12.1 (\pm 5.1)	10.9 (\pm 7.1)	0.7448	0.3241	0.7251
Population with confidence in EU Parliament	40.9 (\pm 8)	51.4 (\pm 10.9)	0.0739	0.1216	0.0949 (-)
Population with confidence in EC	36.2 (\pm 9)	47.5 (\pm 11)	0.0624	0.1218	0.0850 (-)
Population with confidence in ECB	32.1 (\pm 8.6)	47.9 (\pm 12.7)	0.0233	0.0565	0.0551 (-)
Voice and Accountability	1 (\pm 0.2)	1.4 (\pm 0.2)	0.0073	0.0248	0.0468 (-)
Political Stability and Absence of Violence	0.5 (\pm 0.5)	0.9 (\pm 0.3)	0.0896	0.1218	0.1075
Government Effectiveness	1 (\pm 0.4)	1.5 (\pm 0.4)	0.0365	0.0462	0.0755 (-)
Regulatory Quality	1 (\pm 0.4)	1.5 (\pm 0.3)	0.0172	0.0377	0.0484 (-)
Rule of Law	1 (\pm 0.5)	1.6 (\pm 0.5)	0.0275	0.0306	0.0611 (-)
Control of Corruption	0.8 (\pm 0.6)	1.6 (\pm 0.6)	0.0307	0.0689	0.0614 (-)

Results Logistic Regression 2010-2019

Cautious for the significant caveat of limited number of observations after the ESM accession:

- More variables had a statistically significant negative relation with the probability of asking for financial assistance from the ESM, namely trust to European institutions, governance, rule of law, control of corruption, regulatory quality, voice and accountability, and one statistically significant positive: government deficit, government debt and people at risk of poverty
- The mean comparisons revealed the following picture (observations):
- Countries which asked for financial assistance from ESM had statistically significant higher mean in Government Debt, unemployment rate, and People at risk of poverty
- Countries which asked for financial assistance from ESM had statistically significant lower mean in Government Deficit, confidence in EU Parliament, EC & ECB, Voice & Accountability, Political Stability, Government Effectiveness, Regulatory quality, Rule of Law, and Control of corruption

Simple Linear Regression 2010-2019

The linear regression model has the general form $Y = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n$ where Y represents the dependent variable and the X_i 's the explanatory variables. In the present case - because we want to see the impact of ESM assistance - we have included an interaction term of the binary (1=assistance, 0=no assistance) ESM variable and the model took the following form:

$$\text{compound GDP growth} = \beta_0 + \beta_1 X_1 + \beta_2 \cdot \text{ESM} \cdot X_n$$

thus the coefficient β_1 measures the impact of variable X_1 on the compound GDP growth, while β_2 measures the additional impact of the ESM assistance on compound GDP growth.

Simple Linear Regression 2010-2019

Variable	p-value		R ²
	variable	interaction	
Government deficit/surplus (%GDP)	0.4534	0.4927	0.0447
Government debt (%GDP)	0.0972(-)	0.6357	0.2460
Exports - Imports	0.1268	0.0211(+)	0.5322
Unemployment rate (15 to 74 years)	0.0368(-)	0.1106	0.3181
People at risk of poverty	0.5245	0.8269	0.0440
Self-perceived health (Proportion of persons who assess their health to be very good or good to the question on self-perceived health - Age class 16 or over)	0.1991	0.7928	0.1149
Early leavers from education and training (Age class 18-24)	0.7668	0.5100	0.0326
Gender employment gap (Age class from 20 to 64 years)	0.3127	0.3202	0.1181
Population with confidence in EU Parliament	0.1340	0.4610	0.1551
Population with confidence in EC	0.1300	0.4240	0.1602
Population with confidence in ECB	0.1962	0.4187	0.1202
Voice and Accountability	0.1259	0.2824	0.1641
Political Stability and Absence of Violence	0.0347(+)	0.1844	0.3665
Government Effectiveness	0.2087	0.2811	0.1429
Regulatory Quality	0.0317(+)	0.0857(+)	0.3368
Rule of Law	0.0848(+)	0.1393	0.2482
Control of Corruption	0.1835	0.0919(+)	0.2446

Results Simple Regression 2010-2019

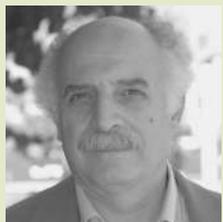
- Government Debt and Unemployment have a statistically significant negative impact on compound GDP growth
- Political stability & absence of violence, Government effectiveness, and Rule of Law have a statistically significant positive impact on compound GDP growth
- The interaction of Balance of Exports-Imports, Regulatory Quality and Control of corruption with ESM assistance, have a statistically significant positive impact on compound GDP growth, (i.e., these three variables have an increased impact on compound GDP growth in the countries which requested ESM assistance).

Conclusions

- The debt (Maastricht) and important contributors to welfare (GDP compound annual growth, employment ratio and educational attainment) were not significant variables (can we imply that financial markets' trust may have adverse effects to welfare???)
- The debt and government deficit (Maastricht) become a self-fulfilling prophecy, export-import difference was not significant anymore (ESM-assisted countries improved their performance), important contributors to welfare (GDP compound annual growth, employment ratio and educational attainment) were not significant variables (can we imply that the ESM intervention did not contribute to long-term competitiveness enhancement). All political indicators seem to be negatively affected (is ESM-access having a negative effect on trust and effective political institutions?? If yes would this be due to launching such a debate??)
- The purpose of policy intervention: restore confidence (i.e. reduce debt, deficit) or ensure long term competitiveness and growth/development (employment, exports, political variables)

Future studies

- Identify important missing variables that would fit to the narrative (mainly multifactor productivity)
- Re-run the models with COVID and post-COVID data
- Run the model with counterfactuals (e.g. USA States affected differently by the crisis)

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**Aureliano da Ponte, Gonzalo León****European technological sovereignty in global innovation governance. Resilience in a VUCA context.**

Background: Global affairs are currently undergoing a period of transition with intensifying volatility, uncertainty, complexity, and ambiguity (collectively known as VUCA) (Buckley 2020), so separating the geopolitical dimension from economic dynamics and trade flows is no longer a reasonable assumption (Hobbs 2020; Leonard et al. 2019). In-depth analysis of technology-based vulnerabilities combined with indicators to measure the level of technological sovereignty of a given actor in relation to a specific technological field or system (complex product) offers an approach that aims at improving the ability to react to "black swans" or, more likely, "gray rhinos" (Wucker, 2016). We define Technological sovereignty (TS) as the relative capacity, internal and external, of a political unit to decide and execute its decisions on the generation, absorption, and exploitation of a technology according to its objectives, under favorable or hostile conditions. It is a relative concept that represents a continuum revealed through the net assets and competences of an actor, derived from the relationship between its Research and Innovation capabilities and its critical technological dependencies. The paper analyzes the specific case of semiconductors, on which the EU is highly dependent and where a quick reaction is needed.

Method: Data-driven decision making for designing specific technology policies and the demand for an effective management and monitoring tool have driven the development of the Technology Sovereignty Index (TSI) proposed by the authors, built on three pillars: Assets and Competencies, Constraints and Drivers of Technology Sovereignty. The pillars are made up of seven composite indicators comprising individual statistics compiled from various international datasets and/or constructed from official surveys. The TSI was conceived with the objective of identifying assets and competencies, potential drivers, the need for external resources, and offshored core production processes (outsourcing of R&D, critical components, and subsystems). The possibility of disruptions in the supply of raw materials, parts, or systems due to the worsening scenario suggests that production capabilities (volume, location, accessibility) require specific analysis due to their potential impact on resilience and critical dependencies. It is also necessary to establish alternative routes, suppliers, and manufacturing capacities (transitional or permanent) in very short periods, even when the derived costs and political risks may be higher. TSI is a multipurpose tool for diagnosing and visualizing scenarios and anticipating possible responses. It can support more precise and targeted interventions to overcome short-term drawbacks, but also contribute to the development of medium-term strategies focused on key aspects that improve innovative performance.

Results and conclusions: Semiconductor market data indicate a clear weakness of the EU in a VUCA context, as the TSI applied to this technology clearly shows, which exposes it to a greater impact of problems in global supply chains constrained by geopolitical concerns. One of the first attempts initiated in 2018 by the EU was to promote the creation of an important strategic project on microelectronics. However, this was insufficient to address the problems with the strict state aid regime created in the EU to support a true single market. To improve the position of the EU in terms of semiconductor technological sovereignty was the basis for the recent Chips Act Communication launched by the European Commission and other programs at national level funded by Next Generation funds. Europe's agency power is the key factor to promote multilateralism but also to reinforce assertiveness if necessary.

Background

- Global affairs are currently undergoing a period of transition with intensifying volatility, uncertainty, complexity, and ambiguity (collectively known as VUCA)
- Contextual conditions facilitate the emergence of black swans, but also gray rhinos.
- Examples: US-China “trade war”/ COVID-19 / Ukraine invasion...
- Global innovation system faces challenges that are multifaceted in nature, but all of them require a new approach to policy design
- Holistic approach, rethinking long-term partnerships, targeted technology policies...
- Is the EU prepared to deal with the consequences of these processes from the technological innovation policy standpoint?

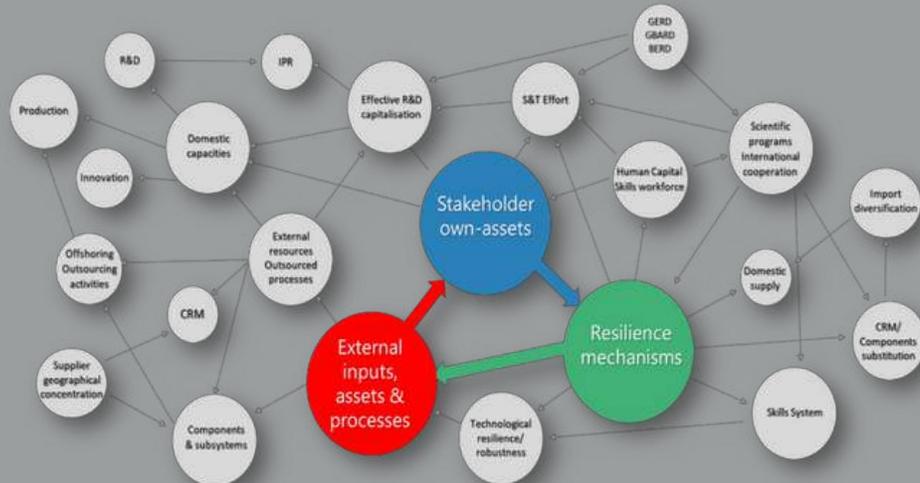
Why does a country's technological sovereignty (TS) acquire a new centrality in a VUCA environment?

Analytical perspectives

- Actor (country or group of countries) own-assets and competences
- External resources and outsourced processes
- Resilience mechanisms

How can in-depth analysis be articulated with indicators that make it possible to measure the level of technological sovereignty of a given actor in relation to a specific field or technological system (complex product)?

Why does a country's technological sovereignty (TS) acquire a new centrality in a VUCA environment?



How can the concept and scope of technological sovereignty be defined?

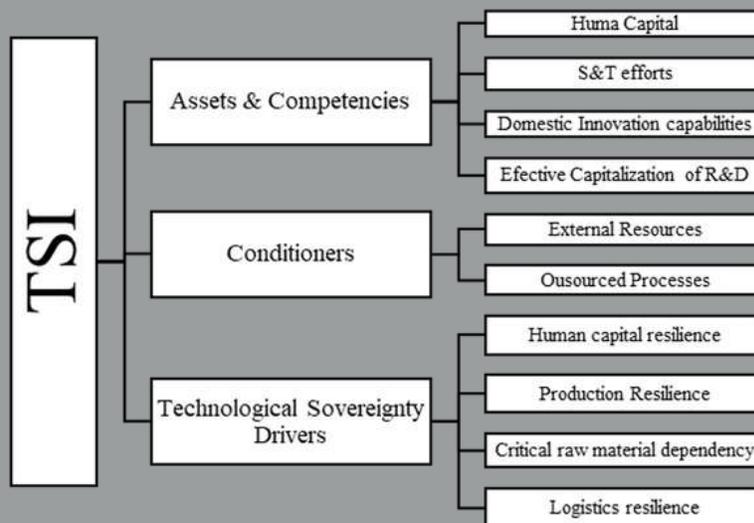
Technological sovereignty is the relative internal and external capacity of an actor to decide and implement its decisions regarding the generation, absorption and exploitation of a technology according to its objectives, in favorable or hostile conditions.



Why propose an index to measure technological sovereignty?

Global measure to capture a country's vulnerabilities regarding specific technologies	Creates synergies by design rather than by opportunity (link innovation to Industrial, Education, Scientific and Technologic Policies)
Lower levels of sovereignty impacts on agency power to decide and implement decisions	Assessing strengths, exposure to geopolitical risk and critical dependencies on a case-by-case basis
Targeted measurement that reveal the strengths and weaknesses, in terms of a country's capabilities, at a point in time, with respect to a technology and its evolution	The level of TS of a country (or group of countries) is revealed by its net assets and competences

The structure of the TSI



Method

$TSIX_{i, 2021} = F(A\&C, Cond, TSDrv)$

TSI for the technology x of the country i in 2021 is a function of the EU's assets and competencies, its conditionals (constraints), mediated by the existence (or lack) of drivers of technological sovereignty (resilience mechanisms and/or technological robustness and by those mechanisms' potential leverage capacity).

$A\&C_{X, i, 2021} = F(HC, S\&T, DIC, EffR+D) (1)$

Assets and Competencies pillar is calculated for the technology x of the country i in 2021 as the simple average of four composite indicators

$Cond_{X, i, 2021} = F(ExtRes, OsPr) (2)$

Conditioners is calculated for the technology x of the country i in 2021 as the simple average of two composite indicators

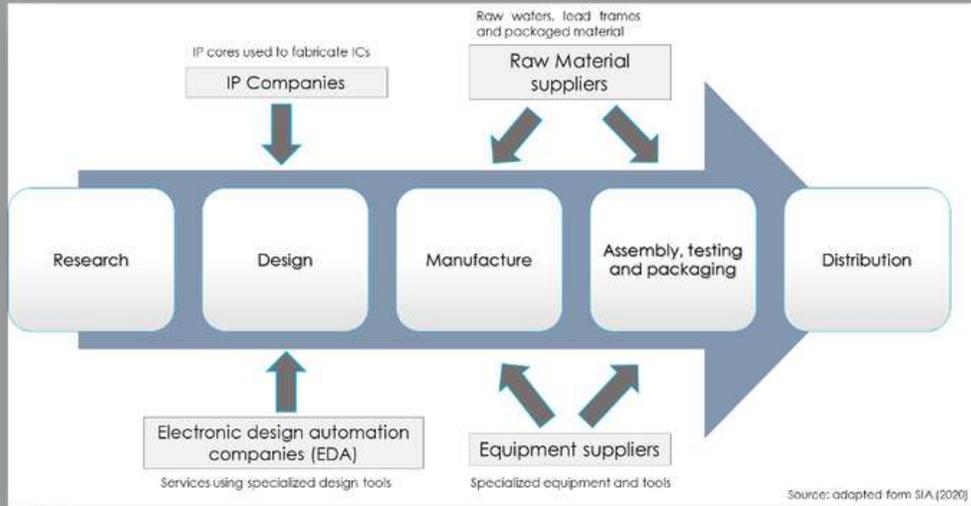
$TSDvrs_{X, i, 2021} = F(Tech_res-rob) (3)$

Technological Sovereignty Drivers is calculated for the technology x of the country i in 2021 as the simple average of four rates

Why Semiconductor technology?

- GPT: pervasiveness, 'innovational complementarities', capacity to rejuvenate the growth process.
- Critical element in modern electronics.
- Sophistication of products and processes requires skilled engineers, technicians and scientists
- Concentration of expertise has created a web of interdependencies along the value chain.
- Key to the following emerging technologies:
 - Artificial Intelligence, Quantum computing, wireless networks, Internet of Things Robotics, VR/AR, 3D additive manufacturing...
 - but also for innovation in other sectors such as automotive, energy and communications.

Why Semiconductor technology?



What do we know about the EU's position on semiconductor technology? #1

- US and China pushing for self-sufficiency. While Chinese government investments between 2014-2024 are estimated at \$170 billion, Biden's infrastructure plan includes a \$50 billion public investment package for the semiconductor industry
- The EU, US and China import most of their advanced ICs from Taiwan and South Korea. Companies from these two countries have a world market share of approximately two-thirds
- Latent regional conflicts (China Sea) may worsen in the coming years

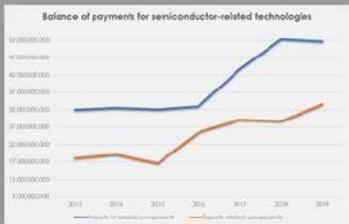
	2013	2014	2015	2016	2017	2018	2019
Global sales US\$ M	305.600	335.843	335.168	338.931	412.221	468.778	412.000
European sales US\$	34.883	37.459	34.258	32.707	38.311	42.957	39.800
Technology Balance of payments*	-13.970	-13.404	-15.505	-7.505	-14.469	-23.628	-18.131
Patents	ASML 13.700, STMicroelectronics 18.500 + 590 applications (2019), Infineon 10.300, NPX 9.000 patent families						
Market share	27% automotive electronics		20.1% of industrial electronics		21.5% global aerospace/defense/security electronics		19.3% Health and personal care electronics

* Values correspond to the difference between Imports and Exports of, (776.4), (776.42), (776.44), (776.46), (776.3) (SITC Rev. 4 commodity codes). Figures expressed in millions of dollars. The countries with which the main exchanges took place were China, South Korea, Japan, Taiwan, Malaysia and the USA

What do we know about the EU's position on semiconductor technology? #2

- Acquisition of innovative European SMEs by non-European large technology companies
- Heavy reliance on imported semiconductors for electronics and optics
- European company ASML developed Extreme Ultraviolet Lithography (EUV) technology, which enables leading-edge chips.

Company	Description	Revenue (€)	Employees	EU Share (%)
IBM	IBM is a leading provider of cloud computing, artificial intelligence, and quantum computing solutions. It is a major player in the semiconductor industry, particularly in the design and manufacturing of microprocessors.	4,440	400	70.00
SK Hynix	SK Hynix is a leading manufacturer of memory chips, including DRAM and NAND flash. It is a major player in the semiconductor industry, particularly in the design and manufacturing of memory chips.	3,300	2,800	84.00
Phosphor	Phosphor is a leading manufacturer of phosphor materials, which are used in a wide range of applications, including lighting, automotive, and industrial. It is a major player in the semiconductor industry, particularly in the design and manufacturing of phosphor materials.	4,000	5,000	40.00
Infineon	Infineon is a leading manufacturer of power semiconductors, including MOSFETs, IGBTs, and SiC devices. It is a major player in the semiconductor industry, particularly in the design and manufacturing of power semiconductors.	9,000	10,000	90.00
STMicroelectronics	STMicroelectronics is a leading manufacturer of microprocessors, microcontrollers, and power semiconductors. It is a major player in the semiconductor industry, particularly in the design and manufacturing of microprocessors and microcontrollers.	17,000	20,000	40.00



What do we know about the EU's position on semiconductor technology? #2

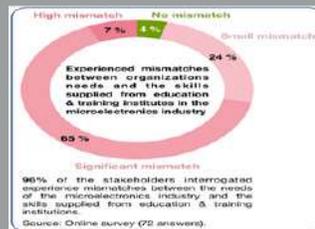
- Impact on EU strategic autonomy derived from dependence on US technologies (e.g., EDA solutions, software and IP, extraterritorial rules applied to European semiconductor players)
- Strong imbalance between factory location and parent company location. Value chain outside Europe
- ASML's market share is about 80% and it is the sole supplier of Samsung (South Korea) and TSMC (Taiwan).

Company	Description	Revenue (€)	Employees	EU Share (%)
ASML	ASML is a leading manufacturer of extreme ultraviolet (EUV) lithography systems, which are used in the production of leading-edge semiconductors. It is a major player in the semiconductor industry, particularly in the design and manufacturing of EUV lithography systems.	9,000	10,000	80.00
TSMC	TSMC is a leading manufacturer of semiconductors, including microprocessors, microcontrollers, and power semiconductors. It is a major player in the semiconductor industry, particularly in the design and manufacturing of semiconductors.	8,000	10,000	10.00
SK Hynix	SK Hynix is a leading manufacturer of memory chips, including DRAM and NAND flash. It is a major player in the semiconductor industry, particularly in the design and manufacturing of memory chips.	4,000	5,000	10.00
Infineon	Infineon is a leading manufacturer of power semiconductors, including MOSFETs, IGBTs, and SiC devices. It is a major player in the semiconductor industry, particularly in the design and manufacturing of power semiconductors.	9,000	10,000	10.00
STMicroelectronics	STMicroelectronics is a leading manufacturer of microprocessors, microcontrollers, and power semiconductors. It is a major player in the semiconductor industry, particularly in the design and manufacturing of microprocessors and microcontrollers.	17,000	20,000	10.00
Intel	Intel is a leading manufacturer of microprocessors, microcontrollers, and power semiconductors. It is a major player in the semiconductor industry, particularly in the design and manufacturing of microprocessors and microcontrollers.	19,000	20,000	10.00
IBM	IBM is a leading provider of cloud computing, artificial intelligence, and quantum computing solutions. It is a major player in the semiconductor industry, particularly in the design and manufacturing of microprocessors.	4,440	400	10.00
Phosphor	Phosphor is a leading manufacturer of phosphor materials, which are used in a wide range of applications, including lighting, automotive, and industrial. It is a major player in the semiconductor industry, particularly in the design and manufacturing of phosphor materials.	4,000	5,000	10.00

What do we know about the EU's position on semiconductor technology? #2

- 14.7% of graduate (B-M-D level) in ICT, Electronics and automation, Engineering and engineering trades, Software and application development and analysis, Database and network design and administration, Mathematics and statistics (2,332,355 out of 15,878,728 total between 2015-2018)
- Less papers from Europe at flagship conferences ISSCC (International Solid-State Circuits Conference) and IEDM (International Electron Devices Meeting)

EU initiatives	Description
European Processor Initiative (EPI)	Design and implement a roadmap for a new family of European low-power processors for extreme-scale computing, high-performance Big-Data and a range of emerging applications.
ECSUL JU	Joint Public-Private Partnership on Electronic Components and Systems for European Leadership. 1.2 billion from EU + €1.2 billion from national authorities + >€2.4 billion from industry = €5,000 2014 to 2020
Graphene Flagship	R&D: 1 billion euros over 10 years in research to replace silicon with graphene. 150 academic and industrial research groups
IPCEI	Important Projects of Common European Interest - Microelectronics. 5 Technology Areas: IC Energy Efficiency, Power Semiconductors, Smart Sensors, Advanced Optical Equipment, Composite Materials.



Technology nodes of interest	2013	2014	2015	2016	2017	2018	2019	Total
Number of articles published in journals	0.0048079	0.0112070	0.0229119	0.0394577	0.0514370	0.0628933	0.0803479	0.313074513
Team sizes (personnel in R&D)	0.0040719	19.2022840	4.4191730	0.0008432	29.0014140	10.0010430	0.0070228	17.0007619

Note: Data for 2018: Based on the 771.4 Electronic Integrated Circuits (EIC) Process and continues, whether or not combined with memory, sensors, high-voltage, embedded vision and/or other units (771.4). However, 771.4 includes 771.3. Device families are only published in the 2018 report. For 2019, data is not available. Figures represent the number of articles, the number of articles in the most advanced technology nodes (5nm and below) and the number of articles in the most advanced technology nodes (5nm and below).

Application of TSI to semiconductors: preliminary results

- Strong research ecosystem in R&D centers and universities
- Robust industry position on IoT, sensors and automotive electronics
- Equipment and materials: ASML and ASM International are among main world suppliers.
- European initiatives have improved the Union's position in some issues

- Dependence on US suppliers of design tools (Cadence, Synopsys)
- Increasing costs unattainable for SMEs - backbone of the European economy-
- European manufacturers do not have capabilities in the most advanced chips in the EU territory.
- Divergences between business models and the search for techno-industrial capacities within the bloc.
- Technological ecosystems related to microelectronics are drying up

Advanced connectivity solution does not necessarily need leading-edge chips processed (≤ 5 nm node), but they will do so in the future for 5G/6G, AI, IOT, High Performance Computing...

Consequences for public policy

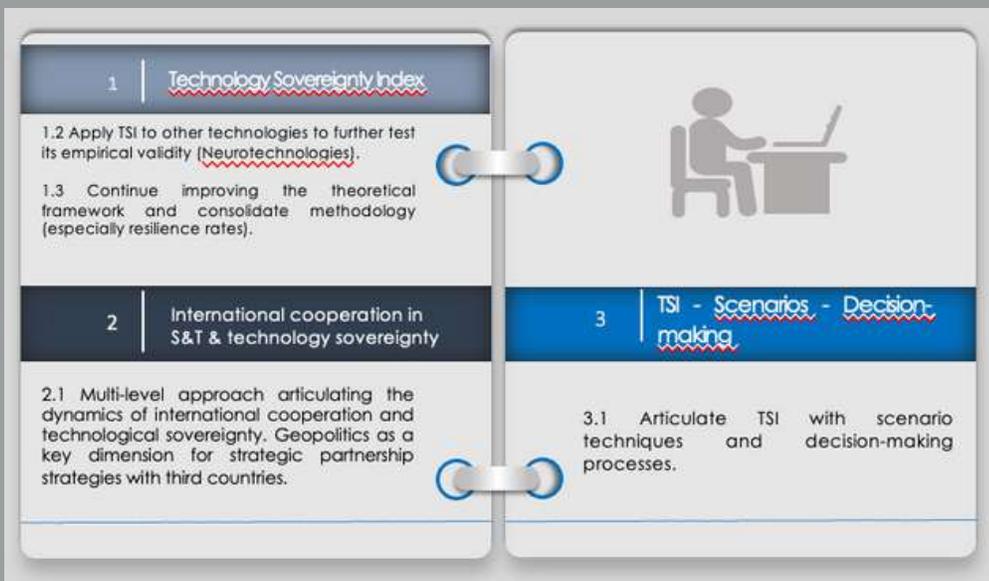
Policy	Strength – Weakness detected
Innovation	EU response to the challenge of technological sovereignty in semiconductors posed in February 2022 in the form of a "regulation" (Act) on microelectronic circuits ("Chip Act") signals a turning point in which technology acquires an essential strategic value
Industrial	<ul style="list-style-type: none"> ✓ Failure to attract and educate engineers within EU ✓ Strong dependencies in supply chains and the lack of ability to make own strategic decisions due to strong dependencies
Education	<ul style="list-style-type: none"> ✓ Workforce has more "traditional" skills but lacks preparation for today's requirements. ✓ Needs for: more fundamental knowledge and basics skills of manufacturing, engineering profiles of generalists, multidisciplinary course, cursus dedicated to microelectronics
Scientific	<ul style="list-style-type: none"> ✓ "Chips for Europe": EUR 5 billion (EUR 1.65 billion from Horizon Europe, EUR 1.65 billion from the Digital Europe program and EUR 1.7 billion as budgeted in the 2021-2027 financial perspective)
Technologic	<ul style="list-style-type: none"> ✓ Reliance on non-European leading-edge process technologies ✓ Leadership gained by the European RTOs in semiconductor science and engineering to seed the innovations in design architectures and manufacturing technologies
Defense & Security	<ul style="list-style-type: none"> ✓ Cybersecurity: lack of security in chips due to strong dependencies from other regions ✓ Semiconductor technology as a dual technology is another central aspect. ✓ Engaging in a strategic alliance from a position of weakness has implications that may include limited bargaining power

Conclusions

- Technology sovereignty and associated geopolitical drivers has been historically addressed from a qualitative perspective.
- Multipurpose tool for assessment of public policies based on TSI evolution and monitoring
- Diagnosing and visualizing scenarios and anticipating possible responses
- Challenge: capturing a complex phenomenon through robust indicators, relatively easy-to-access and reliable data sources

Europe's agency power is the key factor to promote multilateralism but also to reinforce assertiveness if necessary

Research agenda



Pillar	Composite Indicator	Description
Assets & Competencies	Human Capital	Composition and competencies of scientist, technologist and specialist workforce as an indicator of variable technical knowledge and skills in the selected field of technology (and related fields)
	S&T Effort	Capacity of the science base in terms of public and private investment, research excellence, and the degree of priority given to a specific technology through the existence of targeted projects
	Domestic Innovation Capabilities	Institutionalized knowledge and competencies that a country possesses within its territory in the form of technological research organizations, universities and companies (large firms, SMEs and Start-ups)
	Effective capitalisation R&D activities	Specialization and know-how through technology-specific patent indicators and standardization, as well as market positioning of leading companies
Conditioners	External resources	Imported technology-related critical raw materials
	Outsourced processes	Stages of the value chain that have been subcontracted, both higher value-added functions (such as design and R&D) and manufacturing and/or directly purchased supplies. Geographical locations of the functions of leading companies and, as far as possible, mapping the site of their Tier 1 suppliers

Pillar	Composite Indicator	Individual Indicator	Description
Technological Sovereignty Drivers	Human Capital	resilience rate	<ul style="list-style-type: none"> • Foot of skilled persons not incorporated or underutilized by labor market and/or R&D activities, as well as those with a background requiring specialised training for integration into a specific industry • Ratio of all mismatch plus 15% graduates over effective human capital related to technology
		CEM Dependency Rate	<ul style="list-style-type: none"> • Ratio Import Reliance (IR) and End-of-life recycling input rate (EoLIR), which is the percentage of total demand that can be fulfilled with secondary raw materials • EoLIR reliance on imports varies greatly, not only by raw material, but also by its stage of processing
	Productive	resilience rate	<ul style="list-style-type: none"> • The substitutability or non-substitutability of critical materials is a basic issue for assessing resilience mechanism • Alternative supplier of components/subsystems of similar performance to those being imported • Firms not linked to or undersupplied by leading companies • Potentially isolated capacities, R&D centers and firms in related industries which potentially could join to either the indigenous or near-shoring value chain • Considers the length and composition of supply chains • Shorter (geographically close) levels of exposure to various disruptions blockade due to accidents, piracy, geopolitical conflicts or cost/efficiency of means of transport will be markedly compared to longer chains with components in the other side of the world
		Logistics resilience rate	<ul style="list-style-type: none"> • The greater risk in securing access and availability in input are also associated with membership in geopolitical alliances

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Philipp Brugner, Neil Winn, Robert Kissack, Thomas Henökl

Transversal impacts of cumulative crises on democratic governance, and where are the opportunities?

This paper focuses on democracy, specifically the threats to democracy experienced, such as the widespread use of curfews and restrictions of movement and the obligation to vaccinate in the Covid-19 era. (Financial) economists characterise the pandemic as a black swan event with a high-level of shock on the global financial market (Yarovaya, Matkovskyy, Jalan, 2022, p.2) and as a potential trigger for overcoming the globalisation axiom (which is being challenged fiercely as possible “learning” from the pandemic). With regard to the medical dimension of global governance approaches to Covid-19, the paper focuses on the impact of globalisation on its spreading and the importance of private and public actors in the provision, for example, of vaccinations.

By emphasising its disruptive impact, this paper joins in the appraisal of Covid-19 as a black swan and explores the implications of the pandemic on processes and structures of policy-making for democratic governance. “Cumulative crises” exist when lower- and higher-order crises coincide, leading to multiple and transversal effects. In this vein, it is not clear that Covid-19 is a higher-order crisis or a cumulative crisis. It seems that it is the former, but it is interesting to see how it is transformed into the latter over time. This process of transformation occurs through the idea of unforeseen consequences or negative externalities, such as home working being posited as a solution to Covid-19, but then questioning the rationale of collective offices and social gatherings for work. The paper subsequently methodologically and theoretically specifies hypotheses and frames expectations in terms of what (and how) comprises lower- and higher-order crises.

It analyses the current literature, theories and concepts around democratic governance in times of crises and asks the following questions: 1. How can institutions and actors of democratic governance transform themselves from a reactive to an affirmative model of crises responses? Consequentially, how to change their “actorness” (relating to Klose, 2018, p.1148) towards seizing the opportunities offered in times of crises for renewing their own legitimacy and pushing back their challengers? 2. What are examples of transversal effects on institutions and structures of policy-making for democratic governance induced by cumulative crises, specifically when looking at a world that is in a pandemic, climate change and great power unilateralism (Russia, China) ‘state of emergency’ at the same time? 3. Lastly, what type of evaluation frameworks are needed to fully grasp the multiple impacts of cumulative crises (as a result of lower- and higher-order crises falling together simultaneously, possibly aggravated by black swan events) on institutions and structures of democracy?

The paper provides a critical reflection at the junction of global governance, crisis management, public administration and policy evaluation drawing on a literature review to comprehensively summarise previous related research. In conclusion, it aims to define the concrete practical mechanisms necessary in view of pursuing an objective evaluation of policy responses to cumulative crises and black swan events with disruptive impact. At the meso level the ever more challenged episteme of liberalism and the centrality of reason, science and fact-driven policy-making as fundamental pillars for democratic governance are considered.

An unsuccessful Horizon Europe proposal as a background – but the idea lives on

- EU-REMODE „EU’s role in reinvigorating and modernising democratic governance“
- Five main objectives relating to capitalisation opportunities for the EU in times of crises in the global system (Covid-19 pandemic as a case in point)
 - Comprehensive and multi-disciplinary analysis of the COVID-19 pandemic
 - Understanding cumulative crises by theorizing and analyzing interactions between lower- and higher-order crises
 - Identification of best practices in institutional capacities to preserve and strengthen consistency, legitimacy and robustness of EU policy-making
 - Examine the consequences on the COVID-19 pandemic on Europe’s political landscape
 - Transnational collaborative governance platforms (HERA?) as challenges and opportunities for consistent, legitimate and joined-up crisis management policy
 - Comprehensive mapping of the changing international order
 - Summarise the main findings of EU-REMODE
 - Development of a white paper as an input for the new EU Global Strategy
 - Engage with practitioners and civil society stakeholders
 - Assess the EU’s handling of cumulative crises and developing ideas how to respond in a more proactive fashion (political opportunity structures)

Crises and democracy

- Basic assumption: Crises as threats to democracy
 - Proposing a reversion: Crises as opportunities for democracy
- Curfews, restrictions of movement, obligation to vaccinate in the Covid-19 era: Tangible threats to democracy
- Lower- and higher-order crises: Small-scale and temporary vs. systemic crises
 - Proposing a new conceptualisation: “Cumulative crises” when LOC and HOC coincide
- Covid-19: It first made the impression of a HOC, but transformed into a cumulative crisis over time
 - Proposing to put the unforeseen consequences and negative externalities in focus: lack of social gatherings (home office), lack of choice (vaccination obligation), scepticism towards public sector, episteme of science and the future (predominance of centralised information) etc.

Black Swans, cumulative crises and opportunities

Covid-19 as a black swan event?

- Yes, from a non-epidemiologist point of view: disruptive impact, as a cumulative crisis, on processes and structures of policy-making for democratic governance
- Drawing on the following figure, the paper methodologically and theoretically specifies hypotheses and frames expectations in terms of how cumulative crises (or black swans) lead to specific outcomes benefitting or challenging democratic policy-making



Research Questions

1. How can institutions and actors of democratic governance advance from a reactive to an affirmative mode of crisis response (change of “actorness”)?
2. What are examples of transversal effects on institutions and structures of policy-making for democratic governance induced by cumulative crises?
3. What type of evaluation frameworks are needed to fully grasp the multiple impacts of cumulative crises on institutions and structures of democracy?

Cumulative crises and the liberal order



Crisis, EU and its change of „actorness“

Κρίνειν

- 'Crisis' origin comes from the Greek word krinein, meaning the moment a decision must be taken or a judgement made.
-
- The impact of a crisis depends on the level of support for (or rejection of) the current institutional order that is placed into doubt.
- Specifically, this idea is operationalised through
- identifying crises as opportunities for political actors inside and outside of governing institutions
- to instigate change, building on the political opportunity structure (POS) analysis of social movements developed in political sociology.

Crises, EU and its change of „actorness“

EU actorness across time periods: Examples of Political Opportunity Structures

Past: A quintessential example of a crisis in global politics was the collapse of the Soviet Union that ushered in a period of great change both domestically within the former communist countries and the transition from bipolar to unipolar international system.

- Former Soviet countries were provided the opportunity to change to an affirmative mode of crisis response for full regime-change
- The division of Europe ended, and the EU enlarged, demonstrating that crises can be catalysts for positive change
- **Today:** How did and should the EU react to Covid-19 against the backdrop of an affirmative crisis response? How to seize opportunities caused by the pandemic-induced social, political and economic upheaval?
 - New and more flexible forms of labour, new trans-European solidarity (supply of doctors, equipment etc. that crossed borders)
 - New (additional to the EU's institutions) collaboration modes for supra-national governance and decision making: HERA, COVAX
 - Good momentum to overcome the globalization axiom in trade?

Future: How to react to 'looming crises', foreseen events that are expected to have widespread impact and severe consequences requiring decision and judgement, such as climate change or demography.

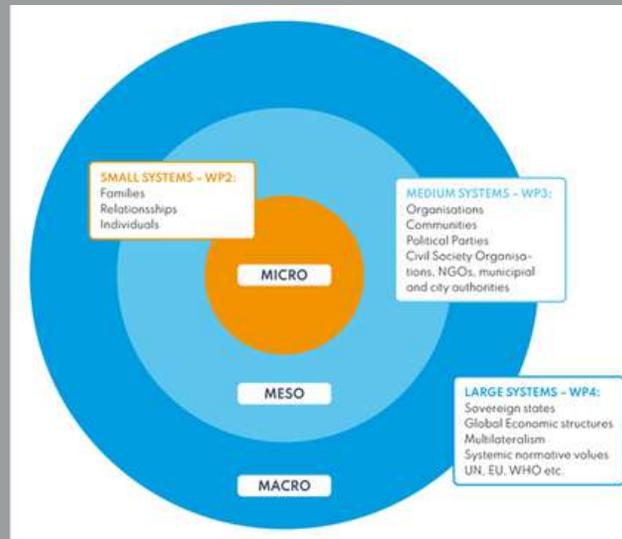
Covid-19: Transversal effects on institutions and underlying structures of democracy

In an editorial of The Lancet Richard Horton argued that the vulnerability of societal groups is correlated to societal factors (income level, quality of housing etc.) (Horton, 2020). "The aggregation of these diseases on a background of social and economic disparity exacerbates the adverse effects of each specific disease. COVID-19 is not a pandemic. It is a syndemic" (ibid.).

Covid-19 as a syndemic also to democratic governance: Examples

1. Transversal effects from and between all levels of democratic governance: micro, meso, macro
2. Vaccine diplomacy, health diplomacy: Collision of different actors with different agendas (EU, Russia, China)
3. COVAX and ACT Accelerator - a drop in the ocean?
4. Question of "sovereignty in pandemic response" between the EU and EU MS at the start of the pandemic
5. Global contests over vaccine procurement
6. National border closure, militarised control of urban space, bordering of individual bodies ("safe" or "unsafe" bodies - biopolitical framing)

Covid-19: Transversal effects on institutions and underlying structures of democracy



Evaluation frameworks needed

Science, Rationality, Technology and Governance (SRTG) as the fundamental cornerstones for any policy evaluation

- The context: Modern societies have grown expectant of certainty in life by removing exposure to risk, which for Beck (2000) is an unsustainable ontological position in the long term. The reliance upon science, rationality, technology, and governance structures providing the public goods necessary for ontological security predicated on eradicating risk exposure can be placed in the *longue durée* of enlightenment thinking leading into European-shaped modernity and as accelerated considerably in the post 1945 period.
- The present: Due to a series of lower- and higher-order crises (collapse of Lehman Brothers 2008 with global recession, Eurozone sovereign debt crisis of 2010, migration crisis of 2015, invasions of Ukraine in 2014, 2022 etc.) the resilience discourse has been very much in vogue over the past years and Covid-19 is just one more example why this is so – in fact, Beck has been right, and risks (crises) appear as an indivisible part of our life.
- The recommendation: What policy evaluation can do is to firstly put new emphasis on risk assessment when it comes to evaluation design and secondly to retain SRTG-connected parameters as the overarching evaluation criteria, from where more fine grained criteria are deduced, for implementing policy evaluations

Conclusion

- Yes, without doubt, crises are moments of political opportunities for those in and outside of power – actorness-concept key for institutional self-reflection on EU-level
- Yes, we live in times of cumulative crises causing transversal effects (Beck was right): but with great potential for (positive) transformation
- Yes, democratic policy-making was threatened by Covid-19 (black swan): tangible threats to democracy, but we also observe political opportunity structures available to the EU for instigating change on social, political, and economic level
- For policy evaluation: Science, Rationality, Technology and Governance as fundamental criteria for policy evaluation in conjunction with crises assessment capacities for evaluation design
- What we are aware about: The paper provides a critical reflection at the junction of global governance, crisis management, public administration and policy evaluation, as such it may risk
 - being too general on several levels rather than being specific on one (e.g. black swans and their impact on democratic policy-making institutions) with clear relevance for policy evaluation
 - being too theoretical lacking empirical evidence and testing of assumptions (through case study examples across EU countries, regions, policy actors)
 - losing sight of the practical conclusions for EU institutions (or democratic actors more generally) given the strong theoretical focus

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**Comparing evaluation methods and
exploring examples of evaluations
supporting policy responses to black
swans in health and economic policies**

 **Ileana-Sabina Chiaburu****Developing an Internal Evaluation System in the Romanian Public Procurement System**

Background: The study shows why and how the evaluation systems must be adapted to public administrations' needs so they can respond to current challenges, to be able to perpetuate the solutions that work in the current context, and can be adapted to future contexts, recognition, management, and decreasing the negative effects of possible Black Swans. Its main purpose is to build an adequate evaluation internal structure for the Romanian Public Procurement System (PPS) and analyzes the context, inputs, processes, and possible results to help the decision-makers to increase the performance of this system, according to the second pillar of OECD methodology. Projected at the theoretical level in all PPS organizations, it was inspired by the structural form of the Kalman filter in statistics, as a needed step further to connect the public administration- the scientists - the management of the public organizations. It assesses the system processes and the institutional environment where the goals are developed, and the possible environment of the Black Swan event, the relationships between processes, in a design that investigates how the actual results could change future endeavors, including the green procurement targets in the planning phase, often ignored in evaluation studies. The main evaluation questions are: Do we need ongoing evaluation in public systems to prevent the Black Swans events' negative effects? How do we develop an evaluation system in which these effects can be assessed and managed, that could help the learning process?

Methods: Mixed research methods were used as research of specialized literature and open databases like those of public organizations in Romania, and of the European and international organizations (European Commission, World Bank, O.E.C.D, and World Economic Forum), observation, semi-structured interviews, questionnaires with closed and/or open answer questions, as well as the Chatham House method. The data was analyzed against criteria and collected as settled in the transformational evaluation design, between November 2020 and May 2021 in the first stage and it was extended in actual doctoral studies.

Results: The framework, the context, and the tree of the problem (three chapters in the „why” section), a sensitive area where vulnerable points were explored and found, the proposed structure to help analysis and learning, the target outcomes, and the data to sustain this proposal (the „how” section), further steps, limitation, and conclusions.

Conclusions: A relevant example was the analysis of the encouraged mobility of civil servants within the system, according to the Administrative Code, and the observation of the negative effects materialized by the lack of specialists in public procurement, in the central and county contracting authorities, both for planning and the ex-post evaluation of the contracts financed from national funds. That is why the proposed solution is a strong ongoing evaluation structure that can help prevent or lessen the drastic consequences of such events or at least help prepare for the impact of the Black Swan event.

WHAT A BLACK SWAN TYPE OF EVENT IN THE SYSTEM IS?

- A Black Swan is a describing rare, unexpected event that has significant impacts on society and global economies as a whole.
- Taleb describes it as „a highly improbable event with three principal characteristics: it is unpredictable, it carries a massive impact, and, after the fact, we concoct an explanation that makes it appear less random, and more predictable than it was.” (The black swan: the impact of the highly improbable / Nassim Nicholas Taleb, New York: Random House, 2007)
- OECD defines public procurement as 'the foundation of strategic governance', and stresses that well-governed public procurement, considering the "large amount of spending that it represents (14 % of GDP at European level), can and must play a major role in promoting the efficiency of the public sector and in establishing citizens' trust.' The performance-oriented design of public procurement systems 'also contributes to the achievement of pressing policy objectives such as environmental protection, innovation, job creation, and the development of small and medium-sized enterprises'.
- This paper argues that Romanian Public Procurement represents even more if analyzed as a sub-system of the European one, and without institutionalized evaluation, the damages provoked by a black swan event extent in other sub-systems and systems at large and science have to play the role of double bridge between political decision-makers, public administration, beneficiaries.

Evaluand: THE ROMANIAN PUBLIC PROCUREMENT SYSTEM STRUCTURE

(The Public Procurement Strategy 2015-2020)



Evaluation questions

- 1. Do we need ongoing evaluation in public systems to prevent the Black Swans events' negative effects?
- 2. How do we develop an evaluation system in which these effects can be assessed and managed, that could help the learning process?

Actualized Context - FRAMEWORK -OECD Study 2022

„Romania will receive large amounts of EU funds

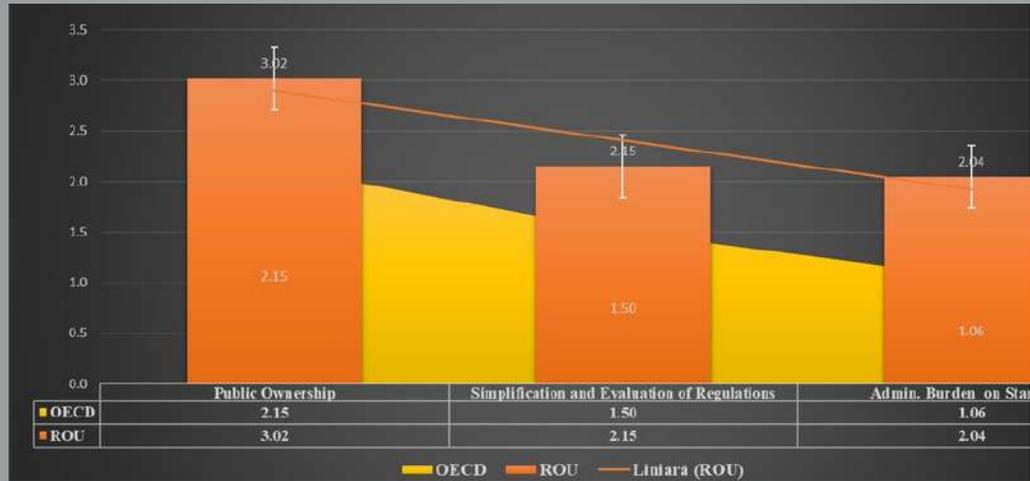
„1. “Cohesion Policy” stands for the European Social Fund, European Regional Development Fund, Cohesion Fund, and support for the European Territorial Co-operation”. Total allocation over the period 2021-27 in current prices is expressed as a % of 2020 GDP. “RRF Grants” refer to the maximum grant allocations from the Recovery and Resilience Facilities over the period 2021-26, which is expressed as a % of 2020 GDP.

2. The cumulative execution of the EU funds is expressed as a % of total allocations.”

	Cohesion policy (current prices)	RRF Grants (current prices)
OEC D EU	6.265070849	3.406380371
SVN	7.082502809	3.887924689
CZE	10.18168618	3.321996777
EST	12.24009051	3.681230229
LTU	13.36408126	4.496250002
POL	14.35164144	4.571317407
ROU	13.88743132	6.507227349
SVK	14.03741261	6.881084613
HUN	16.56968199	5.296178209
LVA	15.7223678	6.818025933

REGULATORY FRAMEWORK

[HTTPS://STAT.LINK/45N28P](https://stat.link/45n28p) - OECD



Little swans helped to grow when the ongoing evaluation capacity is missing

Framework & Methodology

Project Procurement Strategy for Development (PPSD) Long Form Detailed Guidance (July 2016) - Framework

Terms definition

According to ISO 20400:2017 'on integrating sustainability within procurement, as described in ISO 26000, intended for stakeholders involved in, or impacted by, procurement decisions and processes': 'Sustainable procurement is the process of making purchasing decisions that meet an organization's needs for goods and services in a way that benefits not only the organization but society as a whole while minimizing its impact on the environment.'



THE ROMANIAN PP SYSTEM PROBLEMS

Research tools: Literature & artifacts review, structured interview, questionnaire: 'the Romanian PPS is theoretically guided by principles such as transparency, competitiveness, and economic efficiency for the benefit of the entire society, the current organization of the monitoring and supervision of the system requires substantial improvements and developments' (SGG). The annual Reports according to 544/2004 are published by each organization, but not at the systemic level.

Research tools: Literature & artifacts review, structured interview, questionnaire: Only 1 Report on Romanian PPS was found in the research: 2011-2012 Deloitte, commissioned by European Commission, Directorate-General for Regional Policy in a larger project including all European members, before 24/2014 Directive. The monitorization reports of the implementation of the measures could not be accessed by the date. A site visit was not accepted in the pandemic context, but it will be rescheduled.

The response received from DG Growth underlines that each member state had the obligation to monitor the implementation of the stipulated measures.

In the pandemic context, the European Commission has taken more steps to facilitate unitary actions. Still, old problems at the national level have surfaced as follows: (following the 'Guidance of the World Bank for Sustainable Procurement')



The problems Stage 1 - first little swan helped by missing evaluation capacity

The risk of the lock-in effect

A risk assessment undertaken during the needs identification phase must be documented in a risk management plan"- „informed by the analysis at each of the steps of the PPSD, and ought to also include sustainable procurement risks related to the operating environment, market conditions, implementing agency's capability, supply chains, and vendors' capabilities.'

Sustainability ought to be embedded in the PPSD, such as:

1. key findings of sustainable procurement needs, opportunities and risks, and the supply market's ability to deliver;
2. actions required to manage key sustainable procurement risks and opportunities;
3. recommended demand-related approach (i.e.: elimination, reduction, re-use, etc.);
4. how the sourcing strategy will deliver sustainable procurement objectives;
5. how sustainable procurement priorities will be incorporated into the requirements'



The problems Stage 1 - first little swan helped by missing evaluation capacity

The risk of the lock-in effect

Method: 40 documents reviewed

Relevant key findings: the 2018 Report of the National Council to Solve the Complaints analyzed the lock-in effect in PP (an example: procurement of IT equipment like printers, by a Central Gov. Agency which will be replaced because the toner is more expensive than the entire equipment, there are no contracts to recycle). It brings a negative impact on the environment as the equipment is either placed in storage or it becomes garbage.

The problems Stage 5 - second little swan is helped by missing evaluation capacity

'Ongoing performance monitoring is necessary for the duration of the contract to ensure that the supplier continues to deliver in accordance with the specifications, contract terms, KPIs, and/or separate action plans.'

At the beginning of the 2020 COVID crisis, the hospitals needed the ventilation equipment and it was available only on paper. Mass media revealed that a large percentage of the ventilation units were deposited and can not be used because some were broken and reparation was not stipulated in the initial contracts or the seller was not accessible.

The problems Stage 1 - first little swan helped by missing evaluation capacity

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The problems Stage 5 - second little swan is helped by missing evaluation capacity

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The problems Stage 6 - third little swan helped by missing evaluation capacity

Stage 6 in the procurement process occurs after the contract has ended. It covers activities to check and review delivery and assess if the sustainability outcomes and priorities were delivered, and, if so what impact they had. What lessons are there for future sustainability procurements?

Part of this process may involve debriefing the supplier and key stakeholders on what went well and what could have improved. What lessons were learned and how can these be shared by all parties involved?

It may be useful to develop a debriefing document to feed into the next PPSD”

Vision, Mission, and Goals

Vision

The decision-makers need information about issues related to facts, errors and good decisions taken before they took the office, about uncertainties, and the knowledge available

Mission

Develop structures, subsystems, and systems that have the capacity to respond to the need of facing uncertainties and to offer support for decision-makers

Goals

Create internal units of evaluation with capabilities to collect, process, and disseminate the needed information, adapted to the structure of PPS, in correlation with themselves and similar structures in other national systems or other systems at the national level

DISCUSSION THE PROPOSED EVALUATION UNIT

...was inspired by the structural form of the Kalman filter in statistics, a general tool to combine the information in the presence of uncertainty, analyzing the legislative, political, economic, and social context. The structure was considered a needed step further to connect the public administration-the scientists-the management of the public organizations.

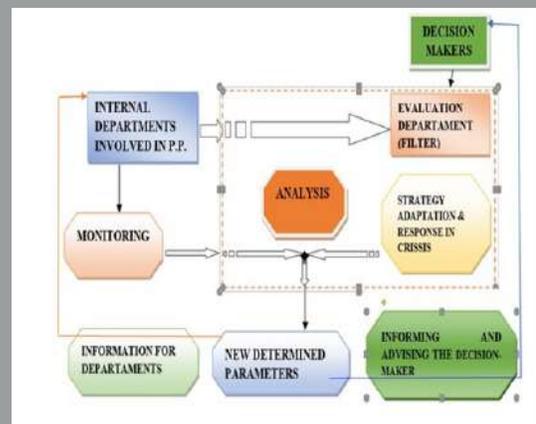
An independent internal evaluation unit equals having the capacity to assess the organization's PP activity in the framework of system processes in a design that investigates how the actual results could change future endeavors, including the green procurement targets.

THE PROPOSED EVALUATION UNIT

This was designed to function as a double filter with high analysis ability in ongoing processes following the Gutman (Marshall M. & Borthwick M., 1974) scale adapted by Alkin and King (Marvin C. Alkin, Jean A. King, 2017) (p. 438) and reviewed by M. Q. Patton (Patton M. Q., 2020).

It follows the Evaluation Capacity Building Model (Preskill & Boyle, 2008)

1. the first phase: building the architecture of the internal evaluation pilot unit in The General Secretariat of the Romanian Government
2. the second phase: ways and reasons to strengthen the evaluation capacity and better integration in EU systems



DISCUSSION

In 2021, data on the mobility of civil servants within the contracting authorities were collected using questionnaires with closed/open questions at ministries (7) and county administration (11) levels, in the procurement specialized departments. (<https://forms.gle/jMeV2CVTnzEtvZet6>, <https://forms.gle/fkRFsbGdy5tDQxev6>).

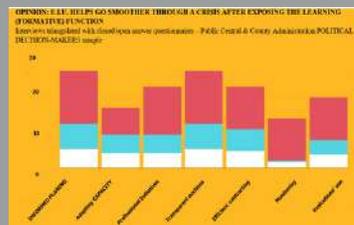
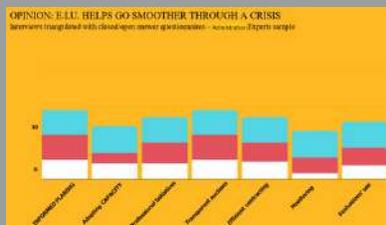
In Chatham House, structured interviews revealed that less than 10% of the department managers were holding the position for more than 2 years and they were occupying the function after an exam. The entry point of the rest of the sample coincided with the change at the political decision-making level (dignitaries).

No reports on planning and the ex-post evaluation of the contracts financed from national funds were depicted.

In a second step, a comparison using the experience (in years) of the interrogated population sample who considered that the proposed structure contributes to the improvement of systemic learning was made between sample 1 - administration and 2-political decision-makers.

Findings

It was interesting to see the results for the 'more than 10 years of experience' population considering that the proposed solution is a useful structure that would help prevent or lessen the drastic consequences and prepare for the impact of any type of the Black Swan event and its negative impacts on the Public Procurement System: the inverse proportionality between administration experts and political decision-makers. It will contribute to further changes in the sample, in order to verify if a larger sample there will be obtained the same results, using semi-structured interviews for triangulation.



Conclusions

In the complex environment of public procurement, the constant technological changes, and the crisis caused by the Covid 19 pandemic, Public Administration needs interconnected structures and sub-systems that can respond to challenges and other future crises (OECD, 2021), as well as increase the capacity and the speed of response. Discussion: The questions that remain to be responded to in future research are:

Were these effects not foreseen or were they just ignored by not using the learned lessons?

Limitations

The results of this study can not be yet extrapolated, but the research continues. Not all the data could be triangulated for the elimination of potential biases.

The proposal is tested at the theoretical level as a work in progress, integrated into the doctoral study, and the evaluation expert's opinion is collected using a questionnaire available on <https://forms.gle/jSN7XvrBhkbrpf7f8> till 2023.

AUTHORS - Ileana-Sabina Chiaburu

Ileana-Sabina Chiaburu is a Ph.D. candidate at The National School of Political Studies and Administration - Romania. Her actual research theme is a continuation of the earlier studies for her master's dissertation when she was certified in policies, programs, and projects evaluation, in the domain she has interacted with, in the past 5 years: initiation of public procurements. She is a management and a political party consultant, with a large experience as an entrepreneur and two years of experience in the Romanian Central Public Administration System. Sabina is a member of the European Evaluation Society, the American Evaluation Association, and the COST (European Cooperation in Science and Technology) Association.

 **prof. Jaroslav Dvorak****Implementation of the COVID-19 Anti-Crisis Policy in Lithuania:
Goals, Resources, Key Actors**

Background: Health policy is usually effective when there are sufficient financial, human resources, and personal protective equipment. This has been especially evident in the context of the COVID-19 crisis, when national health systems are faced with a growing number of patients and a lack of personal protective measures. Centralized access to pandemic management as a political option has also shown its limitations, as it is not just a matter of allocating money. COVID-19 is spreading silently and solutions to contain, test and mobilize healthcare workers are needed quickly – here and now. Even though there are more than 30,000 people working in the healthcare system, we see that when hot spots are identified, it is difficult to mobilize and quickly use this number. The purpose of this research is to evaluate the implementation of the COVID-19 crisis management policy by examining key tasks, resources, and actors.

Method: The research methodology is based on the analysis of statistical data and legal acts. The method of qualitative interviews with doctors, social workers, municipal officials is also used.

Results: The study identified examples of inconsistencies in the legal framework that affected the work of doctors and social workers and their willingness to implement policy. Nonconformities relate to interactions with clients/patients, for example: a) work with personal protective equipment; b) work with clients; c) remote work, etc. The importance of clear, defined, non-recommendatory rules became apparent during the first COVID-19 pandemic. On the other hand, some recommendations from doctors and social workers were helpful as they allowed them to choose what was appropriate for the institution according to the specifics.

Conclusions: After analyzing the effects of management and control on the discretion of street-level employees (doctors, social workers), it can be concluded that new factors, rituals and habits have appeared in the daily routine of street-level employees. It was necessary to start working in a team, to reorganize the premises of the institution to provide services in a different way. Teamwork reduced the individual autonomy and discretion of street-level employees but created a sense of togetherness and security. The reorganization of the premises of the institutions has changed the established procedures and caused difficulties in classifying patients, which is done automatically under normal conditions. During the epidemiological control of the COVID-19 virus, the division of patients into flows reduced the professional freedom of certain categories of street-level staff (nurses). It should be noted that the positive impact on management was found in those institutions that had more specialists, especially at the management level, with experience in the field of virus control. The impact on customer service of requiring social distance (such as restrictions on patient attendance) was positively assessed by street-level employees as it introduced order and equality, a transformation from the number of patients served to quality after the first wave of COVID-19.

Relevance of research

- Studies show that the COVID-19 pandemic as a crisis is unique and distinctive in most respects (Hsiang et al. 2020; Van Bavel, et al. 2020).
- The complex public policy challenges posed by the COVID-19 crisis have been met with response from governments and sub-national actors.
- These policies began with an initial response and later to mitigation (Hale et al. 2020).
- These heterogeneous content response and crisis response policies differ in their design, objectives, formulation and implementation processes.

Relevance of research

- One of the unknowns concerns uncertainty about the end of public policy decisions.
- Policy implementation is also critical, especially with the involvement of epidemiologists / public health professionals, doctors, social workers and other staff working on the front lines of the COVID-19 virus.

CONCEPTUAL BASIS AND METHODOLOGY

Aim of the research

Based on the theoretical approach of the street level bureaucracy, the aim is to determine the change in the discretion of street level bureaucrats (How did the changing public policy decisions (emergency decisions) change the discretion of the local bureaucracy)?

Key questions

The key question is what mechanisms and strategies for coping the problems (caused by COVID-19) have been developed by physicians and social workers working directly with patients and clients.

It should be noted that the conceptualization of the phenomenon street-level bureaucracy discretion is a central element in the theory of street-level bureaucracy.

Lipsky, like most of his followers, understood the discretion of a close bureaucrat as a freedom of decision in the policy-making process that is encouraged by certain incentives and limited by sanctions (Lipsky 2010).

CONCEPTUAL BASIS AND METHODOLOGY

- Decisions of a doctor or a social worker can be determined by normative and public policy contextual factors, lack of resources, complexity of assigned tasks (or policy goals).
- During the Covid-19 crisis, the uncertainty of decisions increased several times for street-level bureaucrats. This was due not only to the effects of the crisis, changing discretion, but also to atypical interactions with customers.
- Street-level bureaucrats face high workloads, conflicting requirements (as set out in public policy documents), lack of resources, and other difficulties when working with clients (Lipsky, 2010; Tummers, 2015).
- Applying the theory of street-level bureaucracy, the effects of lack of resources and emotional effects (anxiety of street-level bureaucrats about personal and family security) were also examined.
-

METHOD

- Qualitative research of street-level employees. The qualitative research method was used to analyze the performance of street-level employees by choosing the forms of individual and group interviews (in total 39).
- It is important to note that the study was conducted in five municipalities. The municipalities with the largest population in Vilnius, Kaunas and Klaipėda and the municipalities with higher than average COVID-19 morbidity (Marijampolė and Ukmergė) (April – May 2020) were selected.
- Two forms of data collection were used during the interviews: 1) the story-eliciting data collection form was used. It was developed by adapting the data collection strategy of Steven Maynard-Moody and Michael Mushen. The aim was to share experiences during and after the quarantine, while asking to share stories of interactions with clients. This method of data collection has proved its worth in part; 2) a semi-structured form of interviewing was also used.

LITHUANIA: BASIC DATA FOR THE HEALTHCARE 2015-2020

Categories	Year	2015	2016	2017	2018	2019	2020*
Current expenses to the healthcare		2423,9	2581,4	2737,5	2972,3	3419,5	3732,1
Gross domestic product		37321,8	38893,4	42276,3	45514,8	48859,9	49507,2
Share of current health spending in GDP (%)		6,49	6,64	6,47	6,53	7	7,54
Current health spending per capita		834,4	900	967,8	1061	1223,8	1335,3
Permanent country residents		2921,3	2886,6	2847,9	2808,9	2794,2	2794,1

Information on medical practitioners and inpatient beds in 2014–2019

Year Categories	2014	2015	2016	2017	2018	2019
Number of doctors	12631	12605	12812	12887	12881	12768
Number of doctors per 10,000 population	43,21	43,64	44,69	45,88	46,1	45,7
Number of nurses	22286	22260	22099	21802	21793	21629
Number of nurses per 10,000 population	76,29	77,06	77,6	77,62	77,99	77,41
Stationary beds	26296	25385	24755	24552	24078	23842
Number of inpatient beds per 10,000 population	90,02	87,88	86,92	87,41	86,17	85,33

A summary evaluation of the decisions

made by the head of operation according to the criteria identified in the scientific literature

Criteria	Delay	Ambiguous and contradictory	New functions	The implementation of the recommendations requires resources and additional operational measures	The regulation is intended for inpatient treatment facilities
Orders					
V-281	-	+	+	+	+
V-387	-	+	+	+	+
V-446	-	-	+	-	-
V-477	-	-	+	+	+
V-530	+	-	-	+	+
V-535	-	-	+	+	+
V-754	+	-	-	+	-
V-858	+	-	+	+	+
V-1019	-	+	+	+	-

Policy impacts: new rules and recommendations

*Dynamics
of policy
change*

*Contradictory
regulation of
policy*

DYNAMICS OF POLICY CHANGE

Due to a large number of decisions, the street-level bureaucracy sought to understand the essence of the acquired discretion and the content of the decision each time.

Respondents highlight the problematic nature of the ever-changing, uncertain discretion during an emergency. They had three choices: to choose how to deal with a particular rule, a specific situation, but also to choose between rules

In an emergency situation, a street-level bureaucracy creates systems, processes and rules to help them work. These rules facilitate the situation in pressure and speed up decision making.

The decisions of the head of the operation imposed external control. Such controls have made no contribution to stability. On the other hand, as employees did not have standards or procedures in the context of emergencies, they also had to behave irrationally.

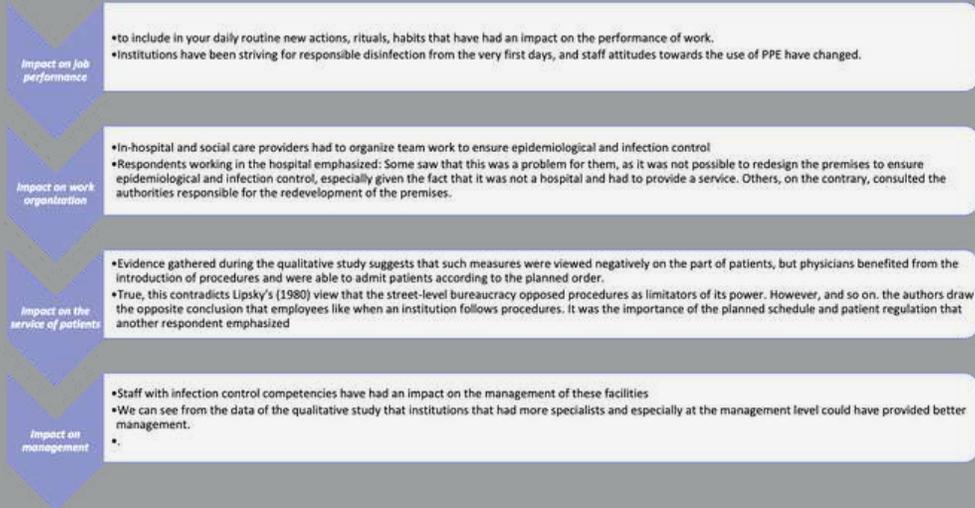
Category	Examples of policy inconsistencies in regulation
Work for 14 days without leaving the organization	I polled how many of them would agree in 14 days without leaving here. That's half of those who don't have small children or caregivers at home would agree. But the question came to me myself: it is very fun that such suggestions or recommendations are dropped by the head of operation, but there is no recommendation and no advice on how to pay an employee who has lived here for 14 days for it. He works actually working 14 days after 24 hours
Working with PPE	According to the recommendations, the employee must come to the isolated person wearing overalls, a suit, gloves, goggles and a shield. When leaving, put everything in a bag and in a hazardous waste container. The real situation: a man wakes up. He has a morning toilet. Diapers are changed, face and hands are washed. Next step: breakfast is brought in and it is fed. After feeding, the teeth are washed again, the teeth are cleaned, and they are prepared for the day. In this case, the woman is stuffed, lying in her place. During that time, a person has to leave the room several times to do all that I have told you. Let's say he changes a pair of suits. Comes out, as if everything is quiet calm. And, for example, she lies uncomfortably, is pressed by a blanket, or slips a pillow, she calls for help to come to the employee. This means that the employee reaches the door, puts on a new suit, walks through the door, repairs the pillow, puts the suit in the bag, throws it away. Here is such a moose. And invites so many times a day. I have a client who knits non-stop. The ball falls and goes to her, she calls "Girls, come on, what?"
Remote work	The recommendation is to send part of the staff to work from home. It is not feasible. If we had twice as many employees as the population, it is still, and now... We have calculated: there are 14 employees who work directly with people. those two shifts are so that they move one after the other
Working in the team	For example, a recommendation for working in a team: we don't have enough staff to work in teams. There is a law that is impossible to enforce. When quarantine began, countless workers took incapacity for work and dropped out of work. Suppose a new fireplace emerges and they take incapacity for work
Downtime during the quarantine	Well, for example, the Labor Code, after the suspension of activities, does not regulate downtime, and the Ministry's recommendations were that I must ensure telework. This is how to ensure a stop
Work with client	In the beginning, there was a recommendation from the department, so issued, not to accept any goods and so on. We've posted this and on our website that we're really asking you not to carry, that it's really enough that we provide and so on. Then, maybe a month later, I attended a remote conference of the Seimas ombudsmen myself. They are, you know, the basics of human rights, all other things, and here they treat us as a place of deprivation of liberty, it is those requirements that have been tightened for us. They said so, we have to make sure the man gets that goods from home after all

Management and control effects

Epidemiological and infection control and its application. (external and internal control)

Preparation of reports, questionnaires.

Epidemiological and infection control and its application (external and internal control)



Preparation of reports, questionnaires

Reporting is a case of standardization of practice. Standardization weakens discretion, and at the same time employees question the practical benefits of such activities.

Output measurement? It was requested for the performance information that was not required for a higher authority

Telework control. Some workers were more busy, while others had less work.

Conclusions

Responsibilities for implementing COVID-19 crisis management measures are unclear. The necessary resources are not allocated in time. This was related not only to the application of preventive, regulatory measures, but also to operational actions to reduce outbreaks in social care and other institutions.

Significant workload of some street-level staff during or after quarantine.

Declining discretion of street-level employees and its negative effects on their activities with customers

The behavior of street-level employees is affected by unfavorable contextual factors - uneven distribution of service needs, restrictions on the provision of services, negative customer attitudes and increased customer expectations. Fear of contracting the virus and developing COVID-19 was also a constant concern.

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Jaroslav Dvorak, born in 1974, Ph.D. in Political Sciences in 2011. He is working at Klaipeda University, Lithuania as professor and head of dept. of public administration and political sciences. He was visiting researcher at Uppsala University (2017), Institute of Russian and Eurasian Studies, Sweden, and visiting professor at Bialystok Technical University (2017), Poland. From the end 2021 J. Dvorak is visiting assoc. professor at University of Johannesburg, South Africa. Jaroslav Dvorak is involved in the editorial board of international scientific journals. From the December 2021 he is chair of Council of Klaipeda Non-Governmental Organization

 **Bálint Herczeg****Financial instruments and COVID extended results
from the evaluation for the 2014-2020 cycle**

Background: 2014-2020 was the second budget cycle when the use of EU funded financial instruments were available for Hungarian companies. A total of HUF 800 billion was made available within the framework of 29 financial instruments between 2014-2020. The official evaluation[1] of these instruments focused mainly on performance of the different instrument defined as the demand and rate of progress in added investments. But as the investigated period also contains the months when the first lock down due to COVID pandemic happened, the data collected for the evaluation also creates an opportunity (using the evaluation as a stepping stone) to look on some examples how the Hungarian government reacted to the sudden stop of the economy.

Method: The evaluation is based upon the Hungarian Development Bank's administrative database. I used this data to estimate structural breakpoints, as to see how the number of new contracts and available funds reacted to the onset of the quarantine. The evaluation team also conducted a small, representative survey among enterprises who received funds (N=257). The companies' answers were merged with their public financial statements and a paired sample was established to search for differences in the performance of the enterprises according which kind of financial instrument they received previously.

Results: As the economy shut down, the demand for some supported financial instruments disappeared. The government reacted by rearranging funds and the unused budget of those instruments that were not high in demand was cut substantially. Based on these newly available funds a new line of product was created. This new product offered cheap credits for working capital. This new product was extremely successful, and its budget was depleted after three months (even after further increasing the available funds). As of yet there is no evidence though, that the enterprises that received working capital survived the first wave of quarantine in a better condition than the ones, that didn't receive such funds.

Conclusions: The fast reaction of the government to rearrange the funds from financing long term investment to provide assets for short term cash flow purposes, may have helped for companies to survive the quarantine, but its long-term effect must still be investigated further in the future.

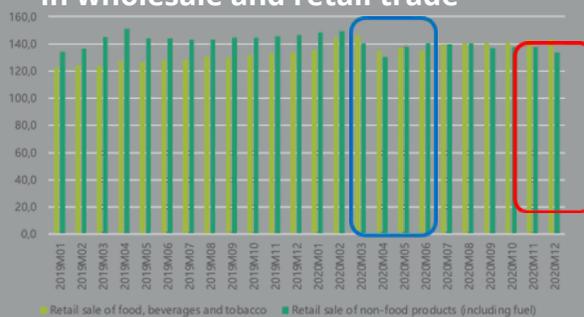
PRESENTATION

Background

- 29 EU funded financial instruments: 800 billion HUF funding between 2014-2020.
- evaluation (Balás et al. [2021]) carried out in spring 2021
- evaluation focused mainly on performance of these instrument (demand, additional investment, regional differences)
- data period contains the months when the first lock down happened
- this creates opportunity to evaluate an example how the Hungarian government reacted to the sudden stop of the economy

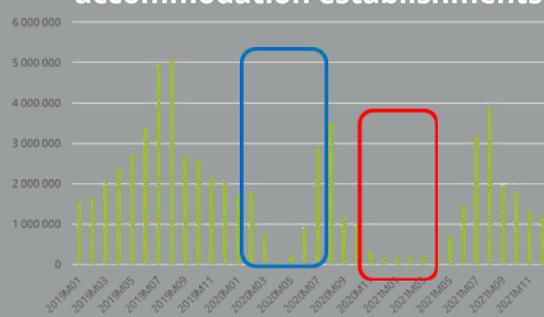
Problem - COVID lockdown

Turnover and volume of sales in wholesale and retail trade



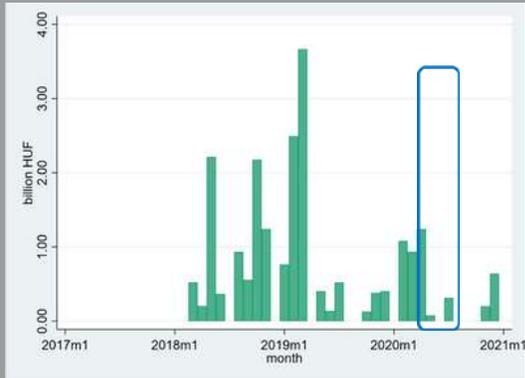
First lockdown: March - May 2020

Nights spent at tourist accommodation establishments



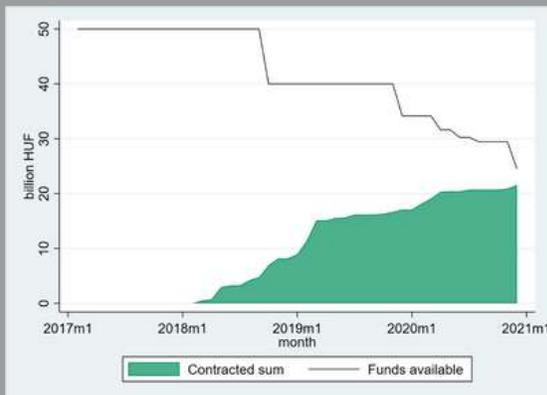
Second lockdown: Nov 2020 - April 2021

Problem - financial assets - An example - GINOP-1.2.6-8.3.4-16



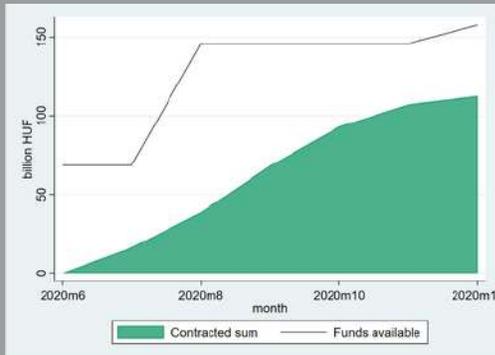
- data from Hungarian Development Bank's administrative database
- break point test: how amount of new contracts react to lockdown
- from the 15 construction 8 have breakpoints, but mostly earlier (end of 2019)
- in this example it is in 2020m5
- the demand for some supported financial instruments disappeared

Solution - rearrange funds - An example - GINOP-1.2.6-8.3.4-16



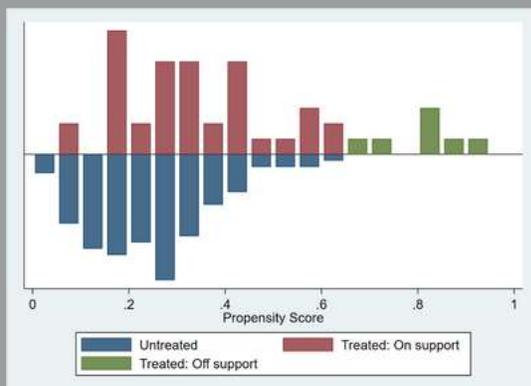
- government rearranged unused funds
- between 2020m4 and 2020m12 91 billion HUF was rearranged to crises management
- in case of the example the funds available decreased by 7,13 billion HUF
- the funds only increased for 2 constructions

Solution - new product - GINOP-8.3.5-18/B



- based on rearranged funds
- this new product offered cheap credits, not for long-term investment BUT for working capital
- popular, sold out by Sept 2020, even after increasing the funds available

Impact



- data from small, representative survey among enterprises who received funds (N=257)
- merged with their public financial statements
- treated received new financial asset
- untreated received other supported financial asset
- paired sample (geography, industry, size)
- comparable: all are eligible for some form of supported financial asset

Impact

2020 change in	Untreated	Treated	t-test
sales	0,07%	10,74%	-0,79
investment	23,17 %	28,72%	-0,92
employment	8,20%	10,39%	-0,31

- no evidence though, that the enterprises that received working capital assistants survived the first wave of quarantine in a better shape than the ones, that received other funds

Conclusions

The fast reaction of the government to rearrange the funds from financing long term investment to provide funds for short term cash flow purposes, may have helped for companies to survive the quarantine, but its long-term effect must still be investigated further in the future on bigger samples.

Literature

Gábor, Balás – Zsófia, Fazakas – Bálint, Herczeg – Péter, Horn – Balász, Kelemen – Bettina, Soha – Noémi, Szabó – Tamás, Szabó [2021]:
Evaluation of financial instrument, 2014-2020.
<https://www.palyazat.gov.hu/pnzgyi-eszkz-rtkelse>

AUTHORS - Bálint Herczeg

Mr. Bálint Herczeg (PhD) is an economist, who wrote his dissertation in 2012 about monetary macroeconomics. Since 2011 he works for the Hétfa Research Institute. During this time he participated in several program evaluations and impact assessments on various topics: e.g. together with Katalin Bördös estimated the impact of non-refundable EU funds to SMEs' turnover and added value. He is also the author of several papers about Hungarian education system, based on both Hungarian and PISA assessment data. His main research question in this field is what factors affect disadvantageous students' school choice, progress and early school leaving in the Hungarian school system.

Oto Potluka, Lenka Švecová, Viktor Kubát, Veronika Liskova-Nedbalova, Tomáš Nečas, Lenka Lhotská

Evaluation of eHealth assistance in-hospital care for improved quality of life in patients

Background: An estimated share of 8% of the world's population was 65 years old or older in 2010, while in 2050, it is expected to be 16% (WHO, 2011, p. 4). It raises the emerging importance of healthcare response to chronic and degenerative diseases prevalent in older people. It will also increase demand for adequate healthcare infrastructure and skilled staff. Health conditions contribute significantly to patients' quality of life. Healthcare infrastructure and healthcare services, including their accessibility, belong to objective factors influencing their perception of their health. The growing disparity between supply and demand for specialized inpatient facilities due to the aging population calls for new solutions, including eHealth technologies. Automatized activities could be taken over by eHealth technologies that do not require a constant presence of staff.

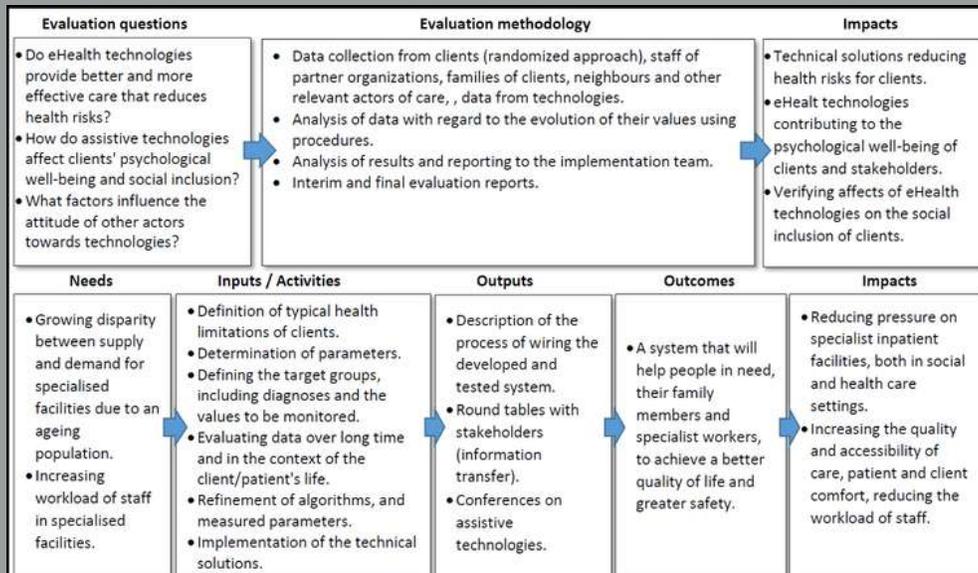
Methods: We tested whether eHealth technical solutions reduce patients' health risks on a sample of 61 patients on the covid-19 unit in Tomas Bata hospital in Zlin. We have applied the randomized control trial to select patients for the treatment and the control groups. Moreover, we tested eHealth technologies and their help to staff in the hospital. There are many eHealth technologies available on the market. Not all of them are suitable for use in hospitals. Thus, first, we had to apply exclusion evaluation criteria to shortlist potential candidate technologies for use. After this step, the shortlisted technologies were tested in the hospital by the healthcare staff. At the end of the selection process, we have selected thermometers and oximeters for use in the hospital.

Results: Due to the severity of the covid-19 disease and its rapid course and the size of the sample in our research, we did not demonstrate a statistically significant impact of eHealth technologies on patient health. The evaluation results confirm that even the limited number of technologies deployed proves to be an effective help for staff in critical situations like the pandemic. The main issue is psychological support to staff in hospitals and relieving stressful work.

Conclusions: Our evaluation provides two lessons helpful for other evaluators. The first one relates implementation of RCT. Our concerns about violations of participant selection rules through RCTs were addressed by collecting data before including participants in the treatment or control group. The randomization decision was included as the last reference in the questionnaire. Therefore, interviewers and interviewees were no longer inclined to complete the questionnaire again to try to change the randomization outcome. The second lesson we learned concerns the indirect collection of data. The outbreak of the covid-19 pandemic at the time of the evaluation also meant that we were unable to visit the hospital as evaluators. For this reason, we found a solution where medical staff helped with the data collection. On the other hand, it causes that the evaluators do not have a direct relationship to the interviewees and thus the amount of data collected is lower than in a classical data collection processes.

Evaluation Design

- The evaluation is still on-going
- Theory of Change - a project of introducing eHealth technologies in a hospital, home care, and social services
- eHealth technologies selection
 - 1st step of selection - laboratory
 - 2nd step of selection - hospital
- Data collection - RCT (an a plan B)
- Current results



Step 1: Selection of technologies

- March – November 2020: Included 26 technologies
- Criteria:
 - Reliability (accuracy and quality of outputs from the technologies)
 - Repeatability of measurement
 - User-friendly control and installation
 - Low energy consumption
 - Open data format, availability of data to save
 - Possibility to transfer data (Wi-Fi, cable, necessity of connection to a server, non-standard connection)

Step 2: Selection of technologies

- Testing in partners' premises (staff)
- Final selection of HW solution
- Implementation of SW system
- Criteria:
 - Does the technology saves time and effort of the staff?
 - Is the technology comfortable for patients?
 - Quality and accuracy of measurement in comparison to standard processes.

Selected technologies

- The step shows that majority of technologies are not reliable or appropriate to institutional care.
- Our evaluation study tested five oximeters (heart pulse + saturation).
- five thermometers in the covid-19 unit
- together with a centralized application showing heart rate, temperature, and saturation online.

- Who was in a Czech hospital, knows that the staff measures temperature when the night and day services change – it means very early in the morning.

Data collection

- RCT through a survey
- A Random selection at the end of the questionnaire. Questions intended to
 - (a) get know better the characteristics of the sample and
 - (b) use it for the propensity score matching if the RCT approach fails
- Availability of documentation about health risks to patients and burden to the staff
- Number of patients: 51
- All the data is anonymised, only staff knows the identity.

The sample

	Support of technologies		p-value
	Yes	No	
N	29	28	
Average length of stay in hospital (days)	15.1	17.0	0.441 ¹
Reason for ending health care:			
Patient died	2	5	0.489 ²
Institutional care	6	6	
Released home	21	17	
Change of work burden (between the 1st and the 2nd week of stay in hospital) in minutes of required daily care.	-8.3 (n=18)	+5.8 (n=15)	0.129 ¹
Change of the Barthel's index (between the 1st and the 2nd week of stay in hospital)	-2.3 (n=20)	-3.4 (n=16)	0.868 ¹

Notes: 1 t-test, 2 Fisher's exact test; Barthel index expresses the patient's ability to take care of himself; Barthel index=100, this is a fully independent patient.

Results

	Change of Barthels index		Change of burden to staff	
	Coef.	p-value	Coef.	p-value
Constant	-114.772	0.884	144.556	0.888
eHealth technologies	8.991	0.394	-8.991	0.520
Covid-19	-17.544	0.248	12.936	0.527
Year of birth	0.056	0.890	-0.072	0.892
Gender	14.966	0.388	-7.569	0.705
University degree	14.073	0.480	-8.272	0.677
Days in hospital	0.635	0.201	-0.170	0.769
Ability of full contact	-10.019	0.695	-0.747	0.982
Breath difficulties	-2.295	0.858	6.718	0.707
Smoker	-73.254	0.032	49.024	0.249
Hydratation problems	-3.525	0.890	10.476	0.750
Diabetics	2.174	0.832	6.300	0.631
Life satisfaction (1/0)	3.182	0.855	-22.093	0.358
Social contacts (1/0)	10.055	0.425	2.320	0.892
Adj. R-sqr	0.033		0.378	

Results

	Patient died		Length of stay in hospital	
	Coef.	p-value	Coef.	p-value
Constant	1.298	0.849	354.856	0.128
eHealth technologies	-0.068	0.419	-0.701	0.812
Covid-19	-0.099	0.577	1.648	0.790
Year of birth	-0.001	0.849	-0.170	0.155
Gender	-0.019	0.845	-1.502	0.656
University degree	0.069	0.557	-3.311	0.416
Days in hospital	-0.003	0.581		
Ability of full contact	0.201	0.265	-10.624	0.081
Breath difficulties	0.141	0.163	0.411	0.906
Smoker	0.140	0.525	1.235	0.872
Hydratation problems	-0.170	0.423	12.699	0.077
Diabetics	-0.165	0.087	3.995	0.220
Life satisfaction (1/0)	0.123	0.463	1.394	0.811
Social contacts (1/0)	-0.165	0.092	1.197	0.719
Adj. R-sqr	0.086		0.051	

Results

- We have not proved that using eHealth technologies neither improves survival chances of covid-patients nor decreases burden of the staff.
- The staff confirmed satisfaction with the software solution in interviews.
- eHealth technologies have contributed to saving the time of the healthcare staff.
- The evaluation design is based on RCT approach which is not a common approach in Czech circumstances.

Lessons learned

- On-line collection of data (the survey and measuring heart pulse, temperature, saturation).
- Adding randomization question at the end of the questionnaire helps to keep RCT clear (no cheating).
- Only a small sample
- Thermometers are small (staff took them with dead bodies without noticing it).
- Thermometers used to check changes in the temperature not to measure exact temperature.

Lessons learned

- Valuable feedback from all partners
- Patient-centered and user-centered approach
- Unobtrusive solutions
- User acceptance
- Connected issues – data privacy, ethics, legal regulations
- The Covid-19 situation highlighted the urgency of applications providing the described functionalities, including telemedicine and telehealth services.

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Lenka Lhotska focuses on knowledge-based systems, data and knowledge representation, application of AI methods to medicine, digital signal processing, mobile technologies in healthcare, electronic health records. She is a council member of several international societies (European Federation for Medical Informatics, International Federation for Medical and Biological Engineering). She leads working groups (Women in Biomedical Engineering of IFMBE, Women in Medical Physics and Biomedical Engineering Task Group of IUPESM, Personal Portable Devices of EFMI).

**Evaluating the long-term
impacts (institutional responses)
of black swans on policy-making**



Noémia Bessa Vilela, José Caramelo Gomes

**The limits imposed by the TFEU when facing a health Crisis:
The COVID-19 Challenge**

The COVID-19 pandemic has come to demonstrate that the EU clearly benefits from coordination and cooperation at the level of the Union in tackling a global health crisis. However, some limits to full coordination and cooperation are identified. The most substantial is the found in the Treaties that form the basis of EU Law. The Treaty of Functioning of the European Union, in Article 168 states that it is the responsibility of the Member States to define and organise their health policy and the organisation of the delivery of health services and medical care, while Article 5 TEU limits the competences of the Union in accordance with the principle of conferral by stating that: » the Union shall act only within the limits of the competences conferred upon it by the Member States in the Treaties to attain the objectives set out therein«.

Health is one of the fields where the union only has, according to the Treaty of Lisbon, in the above-mentioned Article 168, only a supporting (supplementary and coordinating) competence; which means it can only intervene to support, coordinate or complement the actions taken by the States.

It is the first time, since the creation of the EU, that the world faces such a situation. The existing Treaties, having evolved significantly, since the Treaty of Rome, where Health was not even considered, need to be adapted to this new post-pandemic reality.

In the present article, the Authors will look into the development of the EU framework in health matters, from the Treaty of Rome to the Treaty of Lisbon, and suggest possible means to address the issue of lack of competence to address future pandemic situations.

Methodology: The adopted methodology consists of cabinet research, literature review and analysis of EU legislation on the topic (adopted acts, treaties, legislation). The theoretical framework will be developed under a historical and teleologic approach. The latter will allow the authors to understand the purpose of the existing limitation to the full intervention of the EU in health matters, the first will look into the evolution of the existing legislation, with special emphasis being given to the EU treaties but also secondary legislation, in order to reach insights on how legislation has changed in past events. The joinder of both approaches will allow the authors to suggest possible means to address the issue of lack of competence to address future pandemic situations.

The Sources of EU Law

The ACQUIS COMMUNAUTAIRE

- Primary:
 - Treaties that established the European Communities (the European Constitution).
- Secondary:
 - Treaties amending the original Treaties (as their existence is foreseen and limited revisions having been laid down in the Acts of Accession);
 - Case law of the ECJ;
 - Acts adopted for the implementation or compliance of the Treaties.

The Treaties

- With regard to the nature and effects of the Treaties, it is essential to take the case law of the ECJ as a reference, bearing in mind that this constitutes the main source of EU Law:
 - Opinion 1/91
 - "... the EEC Treaty, although concluded in the form of an international agreement, nevertheless constitutes the constitutional charter of a Community based on law. According to the established case-law of the Court of Justice, the Community treaties have established a new legal order in which the States have limited their sovereign rights to an ever greater extent and whose subjects are not only the Member States but also their nationals. The essential characteristics of the Community legal order thus established are in particular its primacy over the rights of the Member States and the direct effect of a whole series of provisions applicable to their nationals and to themselves."

General Principles of Law

The Principle of the rule of law;

The Principle of the separation of powers;

The Principle of legality;

- As far as the principle of legality is concerned, it is clear that the first manifestations are found in the Treaty provisions themselves: the delimitation of Community competence according to the principle of speciality enshrined in Article 5 EC;

The Principle of effective judicial protection;

- Makes EU rules directly applicable in the Member States Legal System (and courts, under the principle of cooperation initially established in Article 10 EC);
- In case the Member State fails to comply with EU Law.

The Principle of equality.

The “sovereignty” of EU Law

- Upon entering the Union, Member States pass part of their sovereignty to the Union (following Grocio, sovereignty can be divided);
- The effects of sovereignty are independence and freedom of action, the latter being limited according to identical rights of other states in the international legal order;
- For full sovereignty of the EU, it would have to have the form of federation, rather than Union;
- We are before the association of sovereign states which itself holds sovereign powers that were transmitted to it by its members.

Treaties and public health

Maastricht 1992

Amsterdam 1997

Lisbon 2007

The specific case of (Public) Health

- Article 168 of the Treaty stipulates that “a high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities”.
- There is an absence of a clear legal basis for public health policy before the TFEU but:
- Legislation on medicines had already been introduced in 1965;
- Medical and public health research programmes date back to 1978;
- The Member States have agreed to offer mutual assistance in the event of a disaster or extremely serious illness.
- Maastricht Treaty of 1992 (establishing the EU) - introduced public health into the founding treaty in Article 127.
- In 1993, the Commission published a communication on the framework for action in the field of public health, which identified eight areas for action, including health promotion, cancer, drugs and rare diseases. This was the forerunner of the later multiannual public health programmes.
- The Amsterdam Treaty of 1997 further strengthened the provisions, and while the primary competence for health matters remained with the Member States, the role of the EU became more prominent. The EU could now adopt measures aimed at ensuring (rather than simply ‘contributing to’, as before) a high level of human health protection, and the Member States could cooperate in relation to any causes of danger to human health

Changes in the lettering of the Treaties

MAASTRICHT TREATY (1992)

Article 129

1. The Community shall contribute towards ensuring a high level of human health protection by encouraging cooperation between the Member States and, if necessary, lending support to their action.

Community action shall be directed towards the prevention of diseases, in particular the major health scourges, including drug dependence, by promoting research into their causes and their transmission, as well as health information and education.

Health protection requirements shall form a constituent part of the Community's other policies.

2. Member States shall, in liaison with the Commission, coordinate among themselves their policies and programmes in the areas referred to in paragraph 1. The Commission may, in close contact with the Member States, take any useful initiative to promote such coordination.

Changes in the lettering of the Treaties

- AMSTERDAM TREATY
- Article 129
- 1. A high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities.
- Community action, which shall complement national policies, shall be directed towards improving public health, preventing human illness and diseases, and obviating sources of danger to human health. Such action shall cover the fight against the major health scourges, by promoting research into their causes, their transmission and their prevention, as well as health information and education.
- (...)
- 2. The Community shall encourage cooperation between the Member States in the areas referred to in this Article and, if necessary, lend support to their action.

Changes in the lettering of the Treaties

LISBON TREATY

Article 168

1. A high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities.

Union action, which shall complement national policies, shall be directed towards improving public health, preventing physical and mental illness and diseases, and obviating sources of danger to physical and mental health. Such action shall cover the fight against the major health scourges, by promoting research into their causes, their transmission and their prevention, as well as health information and education, and monitoring, early warning of and combating serious cross-border threats to health.

(...)

2. The Union shall encourage cooperation between the Member States in the areas referred to in this Article and, if necessary, lend support to their action. It shall in particular encourage cooperation between the Member States to improve the complementarity of their health services in cross-border areas.

What EU Regulates in the matter

- Pharmaceuticals;
- Medical devices;
- Clinical Trials, etc.

Member States' responsibility - complementary EU competences

- EU's role is limited to complementing the Member States' policies, promoting their cooperation and supporting their activities, where necessary.
- European health policy is premised on the Member States having the sole national responsibility for:
 - health policy-making,
 - the administration of their national health care system and
 - health care provision, including the financing and scope of services.

Existing Acts

- European legislative action on health protection is taken only if the aims pursued cannot be achieved by national provisions alone (subsidiarity). The principle of proportionality must be observed. Cases in point are:
 - the prevention and control of cross-border health threats,
 - patient mobility throughout Europe,
 - the free movement of health care providers,
 - measures to establish high standards of quality and safety for:
 - organs and substances of human origin,
 - medicinal products and medical devices, as well as
 - human health protection in respect of veterinary and plant protection measures.

Member States' responsibility - complementary EU competences

- EU's role is limited to complementing the Member States' policies, promoting their cooperation and supporting their activities, where necessary.
- European health policy is premised on the Member States having the sole national responsibility for:
 - health policy-making,
 - the administration of their national health care system and
 - health care provision, including the financing and scope of services.

What did EU do?

- Decision No 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to health and repealing Decision No 2119/98/EC.
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL AND THE EUROPEAN INVESTMENT BANK EU Strategy for COVID-19 vaccines
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Preparedness for COVID-19 vaccination strategies and vaccine deployment
- Recommendation on a coordinated approach to the restriction of free movement in response to the COVID-19 pandemic
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL AND THE COUNCIL on additional COVID-19 response measures
- Commission Recommendation (EU) 2020/1595 of 28 October 2020 on COVID-19 testing strategies, including the use of rapid antigen tests
- COMMISSION RECOMMENDATION of 18.11.2020 on the use of rapid antigen tests for the diagnosis of SARS-CoV-2 infection

A de minimis rule?

Could the Commission propose a Directive on minimum standards in healthcare?

An amendment to the Treaty?

- Could a new version of the Treaty solve the problem?

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Milica Kolaković-Bojović, Marina Matić Bošković

(Re)defining the rule of law standards: COVID-19 implications on the EU accession processes

Although the rule of law is founding value of the European Union, the decades of joint work and a lot of efforts have been invested in the development of the EU standards define the content of the rule of law. Even a more demanding was the process of establishing the mechanisms aimed at the monitoring and evaluation of the rule of law, as in the context of the accession negotiations, as for the EU member states to prevent and/or react upon the rule of law backsliding in several EU member states.

To address raised concerns of the EU accession process in the Western Balkans as a box-ticking exercise, the European Commission in February 2018, adopted the Credible Enlargement Perspective for an Enhanced EU Engagement with the Western Balkans' strategy, which introduced some renewed policy objective on the future enlargement of the EU, including to provide more objective insight into the rule of law reform processes, but also to contribute comparability of the rule of law state of play in Western Balkans, predominantly based on the interim and closing benchmarks for each negotiation chapter.

However, unpredictably, this corresponded in time with the ongoing Europe and worldwide struggle to overcome challenges imposed by Covid-19 outbreak. Outbreak of Covid-19 revealed new trends in rule of law across the Europe. The scope and modalities of such rule of law exemptions differ largely and prolongedly through the EU in last two years to the significant extent. Namely, these comprehensive and prolonged diversions from the earlier established standards shed a completely new light on the issue of what are the relevant standards to be met, but also on how they are addressed and implemented in the candidate countries, which raises the two main questions:

Whether COVID 19 has had a black swan effect in relation to the EU rule of law standards? And whether is time to revisit EU accession mechanisms in terms of assessing the state of rule of law in the candidate countries?

Aiming to address the above-mentioned issues, the authors focused their analysis on the several examples of diversion from the relevant EU Chapter 23 standards, like limited access to the lawyer in criminal cases, use of IT tools for trials, cancelation/limitation of public hearings, expanded use of the alternatives to the deprivation of liberty, the right to a health care and communication for persons deprived of liberty. All issues were addressed through the triple perspective.

- Relevant EU standards applicable on the subject in the moment of the Covid 19 outbreak;
- Innovative practices in the EU Member States and the candidate countries, especially in Serbia (with the focus on the diversion from the previous standards) during the Covid 19;
- Results of the quantitative and the qualitative analysis of the Serbian “diversion from standards policies” during the pandemic caused by Covid 19.

Based on above-mentioned approaches the authors explored the EU trajectories against Serbian experiences, all in the light of the Chapter 23 EU accession benchmarks defined by the European Commission. The authors concluded that despite the undoubtable changes of the existing and the introduction of new practices, where some of them should be kept for the future, this remained almost completely out of European Commission focus, despite the undisputable influence on the temporary (or even permanently) changed understanding of rule of law requirements.

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Milica Kolaković-Bojović, PhD is a Senior Research Fellow in the Institute of Criminological and Sociological Research in Belgrade, Serbia. Her research interest and fields of expertise are focused on justice system reform, rule of law, criminal justice and human rights, EU policies and harmonization with EU and other international standards. Since 2017 she is a member and a Vice-Chair of the UN Committee on Enforced Disappearances. Since 2021 she is a member of the ICC Advisory Committee on nomination of judges of the International Criminal Court. Since 2018 she is Editor in Chief of the Journal of Criminology and Criminal Law. In 2013-2018 she was the coordinator of the expert team in charge of development and monitoring policy documents for Chapter 23 within the Serbian negotiation structure for the accession to EU. So far, she has published two books and more than 80 research papers, articles and book chapters in English and Serbian.

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 **Mirela Cerkez****Evaluating for Extremistan and Mediocristan.
The case of the unknown unknowns***

Background: Black swan events are extremely difficult to address through policies and programmes due to serious epistemological challenges that surround them. The traditional theories and methods of the social sciences, which are embedded in evaluation theory and practice, have proved their limits in the reality today. More and more analysts and decision makers notice the fact that different types of changes interact in ways that we cannot anticipate and impact significantly our political systems and governance structures. Thus, inside social sciences there is an increasingly consistent evolution towards addressing this new type of public problems indirectly. Instead of approaching the problems per se, the focus is on the institutional arrangements, governance structures, and rules that we use to tackle the problems. The main reason for that is to overcome the obstacles of imperfect knowledge, and the heterogeneity of peoples' preferences and values. My argument is that evaluation theory should take note of this new strategy in social sciences and try to explore how it can develop to adapt to the new reality and align to the latest developments in social science.

Method: By taking spot on these new theoretical approaches in the study of human action that deals with risk situations, I present the reasons why evaluation should move its focus, from specific actions that deal with problems directly, to the mechanisms and institutional arrangements that people use to deal with problems. I continue with the identification of concrete theoretical concepts that evaluation theory could use to generate up to date theoretical approaches that are able to provide knowledge in this increasingly incomprehensible environment. Such concepts are resilience, polycentricity or the loosely coupled linear systems. These concepts, and others alike, should be incorporated into evaluation theory and shape the way we look at policy responses to black swans in the evaluation process. Apart from shaping the evaluation's research strategy in such situations, these concepts may be a source of criteria that evaluation could use to determine preparedness to black swans, but other applications can be developed.

Results: One of the results of this analysis is to establish what should be the focus of the evaluation in the context of policy responses to black swans. Another result regards the added value that evaluation could bring to the study of policy responses to black swans, since other fields of study have already made their move into that direction. A third result would be an exploration of the evaluation theories that, to my understanding, are consonant with the previous two results. I also suggest some concrete evaluation strategies that may be employed in the study of policy responses to black swans.

Conclusion: Focusing evaluations on policies that deal directly with black swan events is not a very useful strategy and we should direct our attention to the institutional arrangements and functioning rules that people use to identify solutions. From this focus point, the evaluation should try to resolve a sensitive issue that comes up in studies that concentrate on second order problems – the object of study is a social construct. Thus, I suggest that constructivist evaluations are proper approaches for such dilemma. I also point to the fact that such new approaches in evaluation can generate knowledge about the conditions that determine sub-systems to fail under extreme pressure, thus taking us one step closer to addressing specific issues. I also conclude that Pawson and Tilley's realist evaluation would be the most appropriate theoretical stance in this case

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SETTING THE ISSUE

- The difficulty to tackle black swan events through public policies:
- the epistemological issue;
- our actions increase complexity and interconnectivity, prevent the manifestation of innovation in policy-making.
- The difficulty to assess such public interventions.
- In the context of black swans, our interest should be in the governance structures and functioning rules that we create to solve problems, and not in the problems per se.
- Evaluation theory should be developed so as to redefine the evaluation's angle upon these issues.

Evaluating for extremistan. Focusing the evaluation

- Black swans cannot be influenced by us, but our preparedness can:
- policy errors are inevitable;
- trade-off between dealing with known risks and dealing with the unknowns;
- resilient governance structures are error-friendly environments.

Evaluating for extremistan. Focusing the evaluation

What do we know regarding preparedness:

- complexity and interconnectivity;
- polycentricity;
- resilience.

Evaluating for extremistan. Focusing the evaluation

- Evaluation theory did not integrate the developments of these approaches into how we look at evaluands.
- Policy evaluation is very sophisticated on policies that generate HOT states, but needs further development to produce knowledge concerning the specific institutional arrangements that make societies better prepared for the unknown unknowns.

Evaluating for extremistan. Evaluation scope and theoretical approach

- The theoretical concepts previously mentioned may provide evaluation criteria, but
- we should also explore potential contributions of evaluation theory to this type of thinking about black swans:
- solving the difficulty of answering resilience of what, to what, for whom
- (suggestion: constructivist and goal-free evaluations);
- assessing real life governance systems against resilience theory;
- drawing comparisons between real life governance systems in the face of similar unexpected events.

Evaluating for mediocristan

- Black swans reveal information, but we need to understand the nature of such information:
- it is not the kind of information that helps one identify and prevent a very specific risk, but it helps for the preparation of our sub-systems;
- black swans reveal to us what are the characteristics of the sub-systems that made their occurrence possible or that allowed for a great impact on human life.
- By capitalising on the institutionalist methodology, the evaluation might investigate those characteristics of the sub-systems and formulate recommendations of improvement.
- (suggestion: realistic evaluation, Pawson and Tilley)

Conclusions

- The traditional theories and methods of the social sciences, which are embedded in evaluation theory and practice, have proved their limits in the reality today.
- There is an increasingly consistent evolution towards addressing this new type of public problems by looking at the institutional arrangements, governing structures, and rules to overcome imperfect knowledge.
- Evaluation theory should take note of these new research strategies in social science and develop new theoretical approaches.

AUTHORS - Mirela Cerkez

Mirela CERKEZ, PhD in political science, conducted her research on the issue of paradigms in evaluation theory and how we decide between them in specific evaluation situations, thus arguing for a contingent approach in the selection of the theoretical angle of an evaluation process. Then, she pursued an academic career and her teaching, publishing, and research activities, as part of the National University of Political Studies and Public Administration and, later, The University of Bucharest, consolidated her secondary fields of interest: governance, European policy, public management, and institutional analysis. Recently, she became a researcher at the Research Institute of the University of Bucharest, Social Sciences Division, under the Resilience and Stability in Polycentric Governance Systems. Theoretical, Empirical and Applied-Level Perspectives research project.

**Kosovka Ognjenović, Mihajlo Đukić****A Review into Evaluation Methods Applied in Assessing Economic and Social Policies' Responses to COVID-19 in Serbia: 2020-2021**

Background: COVID-19 pandemic posed new challenges ahead of policy makers with regard to developing adequate policy responses aimed at reducing its socio-economic, political, health and other adverse effects. Limited financial resources as well as highly complex and rapidly changing environment, including necessity to react promptly, represent critical issue for the successful implementation of anti-COVID-19 measures. This paper aims to analyse methodological approaches used to assess effectiveness of the policy measures applied in Serbia in order to minimize negative socio-economic impact of the pandemic. The main research questions therefore include the evaluation approaches used to address specific evaluation issues, whether applied evaluation methods were successful with regards to responding to raised evaluation questions, where the financial support come from, who were evaluators engaged, what have been the limitations of conducted evaluations, etc. In this paper we analysed critical reviews, analyses and impact evaluations. Elaborating the known theories and evaluation methods, we provide a model estimating gaps in conducted evaluations of measures aimed at reducing adverse effects of COVID-19 on the Serbian economy and society.

Method: Using the problem and solution three method, in the first phase, we estimated the gap between what the types of evaluation should be applied depending of the implemented public policy measure. Researching into the most recently available documents of conducted evaluations in Serbia, in the second step, we systemize them regarding the main area of expertise as follows: those covering the participants in the labour market (one-fifth), socially disadvantaged groups (one-fifth), assessing the overall impact on the economy (two-fifth), and assessing the impact on enterprises and other business entities (14 percent). Only one-half of them employ some evaluation methods to determine the impact of the current health crises. Mostly, those are the combinations of ad hoc surveys and experts' views on the impact of a particular measure applied to certain categories of citizens or enterprises, while sometimes the survey questionnaires collect general opinions regarding the government's response to the COVID-19 pandemic. Sophisticated methods and techniques of evaluation are rarely considered evaluation methods in Serbia. In addition, most policy evaluation reports are written based on the analysis of secondary statistical data comparing the situation before and during the COVID-19 pandemic leaving no place for drawing conclusions based on causal links.

Results: We have preliminary examined a sample of fourteen reports, studies, and scientific papers divided into several research fields. Our general conclusion is that the example of selected documents for Serbia represents a combination of situation analyses and evaluations. Still, there is a substantial gap between the need and application of evaluation techniques and methods to support evidence-based decision-making in the vital areas of economic and social policies in Serbia. State aid to citizens and companies implemented during the 2020-2021 period was an immediate and direct financial response to the current health crisis. However, a significant portion of the government's actions remains without a proper follow-up, indicating the absence of planning interim or ex-post evaluations after the policies are implemented.

Conclusion: To sum up, some implications for advancing policy evaluation approaches need to be further derived. The existing gap in systematic evaluation methods applied to assess the impact of public policies on the state of economy and society, including agents (such as enterprises, small businesses, or occupations), regions (including underdeveloped or rural ones), and groups of people (such as economically and socially disadvantaged groups or households) should be filled by conducting timely and comprehensive evaluations with unambiguous conclusions derived from the extent of estimated impacts or quantitative effects of implemented policies. In addition, this paper should demonstrate limitations in applying evaluation to support policy responses to black swans in one country and propose crucial recommendations for improvement.

Policy background

- Economic downturn resulting from COVID-19 pandemic was the highest since the WW2, also higher if compared to global financial crisis (In 2020, EU experienced GDP decline 5.9% and employment reduction of 1.4%)
- Serbia recorded GDP and employment decline of 0.9% and 0.3% respectively
- COVID-19 required immediate and carefully designed policy response. State intervention is justified by several reasons:
 - Exogenous shock (not structural)
 - Temporary crisis
 - Fiscal space (European economies ended 2019 in solid shape)

Policy background

- Policy makers in Serbia spent around EUR 5.4 bln (around 10.4% GDP) to minimise negative effects of the pandemic
- Government support has been more generous if compared to the CEE economies that spent around 6.7% of the GDP in average
- Anticrisis package included financial injection to the public health system, support to economic entities and citizens
- Non-selective character of the provided fiscal stimulus
- Lack of official estimates with regards to socio-economic effects of the anti-COVID measures and financial support to citizens in particular
- Insufficiently developed „evaluation culture“ in Serbia

Measures to tackle socio-economic impact of COVID-19 pandemic in Serbia

- Tax measures – Direct and Indirect
- Employment-related measures
- Business support measures
- Monetary policy - National Bank measures
- Direct support to all adult citizens

Research objectives

The main research objective is to obtain evidence on conducted evaluations aiming to assess socio-economic impact of the applied measures

Research aimed to obtain evidence on:

- Evaluation approaches and specific evaluation questions
- Applied evaluation methods
- Financial support and evaluators engaged
- Limitations and policy recommendations

Research motivation includes the following issues:

- What the Government could have done better in terms of effectiveness of the applied measures?
- What are the lessons learnt that could be extracted for the purpose of developing similar interventions in the future?

Broader approach has been applied taking into account different types of assessment - impact evaluations, data analysis, CBA, critical reviews, etc.

Literature review

Systematic reviews/cross-country analysis of anti-COVID policy response

- Systematic review of economic evaluations of interventions aimed at analysing non-health impact (Podolsky et al. 2022)
- The effects of fiscal policy measures during the COVID19 pandemic in 52 countries (Deb et al. 2021)
- Effects of social distancing measures on financial market outcomes (Ashraf, 2020)
- Assessment of determinants and differences related to governments' policy response (Siddik, 2020)

Literature review

Evaluation studies/papers (individual countries)

- Impact of COVID-19 intervention policies on US hospitality labour market (Huang, et al. 2020)
- Impact of Covid-19 Stimulus Packages on Small and Medium Enterprises in Chile (Gertler et al. 2021)
- The effects of the German COVID-19 fiscal stimulus package (Hinterlang et al. 2021)
- Effectiveness of the Covid-19 Economic Stimulus Packages: Viewpoints from Malaysian Young Entrepreneurs (Lim et al. 2021)

Literature review

Systematic reviews/cross-country analysis of anti-COVID policy response

- Systematic review of economic evaluations of interventions aimed at analysing non-health impact (Podolsky et al. 2022)
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Methodological approach – A. Context and related evaluation theories

Elaborating the known theories and evaluation methods we try to establish a relationship between conducted impact evaluation and chosen evaluation approach:

- (a) Theory-based impact evaluations (TBIEs). TBIE focuses on intervention theories, elaborated by White (2009), and mostly originates from the theory of change (Weiss, 1998) based on a logical model that should explain how “things” should work to “produce a change” (elaborated further by Leeuw, 2012, etc.)
- (b) Counterfactual impact evaluation (CIEs) focuses on how much of the change was made by the intervention / which part of the change, measured by the number, is due to the intervention, where the difference is a state before and after the intervention (a synthesis of evaluation methods is provided by Angrist and Pischke, 2008)

Methods

We have used a two-step approach invented to systemize studies and make generalizations in order to conclude are they founded in evaluation theories

(1) in the first step, we used the problem and solution three method, in order to select a sample of policy documents that met our inclusion criteria

(2) in the second step we establish a model | schematic diagram to estimate a gap between the know founded approaches and those conducted so we may suggest what types of evaluation should be applied depending of the implemented public policy measure

Sample

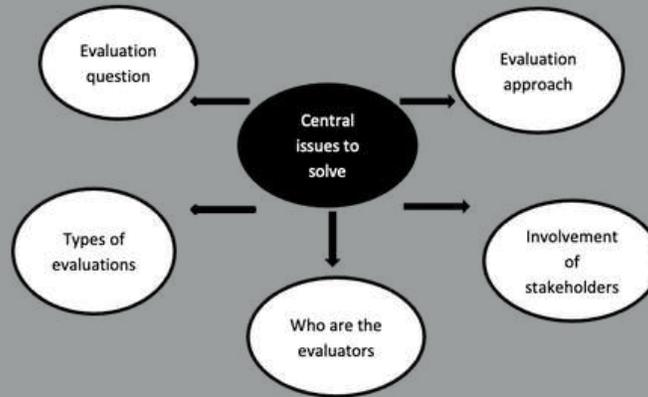
We have created an inventory of conducted evaluations of public policy responses to current crisis, and made three types of generalizations:

- (a) critical views
- (b) analyses | research papers
- (c) impact evaluations

Results

1. Model

Figure 1. Systematization of impact evaluations



2. Findings

Table 1. Main components of the model with the results

Component of the model	No. of studies impact evaluations
Evaluation approach	
-TBIE	6
-CIE	1
-unknown	7
Evaluation question	
-yes	7
-no	7
Type connection with the public policy	
- participants in the labour market	2
- socially disadvantaged groups	3
- assessment of the overall impact on the economy	6
- assessment of the impact on enterprises and other business entities	3
Involvement of stakeholders	
-yes	7
-no	7
Evaluators	
-research organizations academia	3
-international (multilateral) organizations	5
-civil sector	4
-other	2

Concluding remarks & future research directions

Our general conclusion is that the example of selected documents for Serbia represents a combination of situation analyses and evaluations

There is a substantial gap between the need and application of evaluation techniques and methods to support evidence-based decision-making in the vital areas of economic and social policies in Serbia

A significant portion of the government's actions remains without a proper follow-up, indicating the absence of planning interim or ex-post evaluations after the policies are implemented.

Continues

The existing gap in systematic evaluation methods applied to assess the impact of public policies on the state of economy and society should be filled by conducting timely and comprehensive evaluations with unambiguous conclusions

This paper demonstrates limitations in applying the impact evaluation to support policy responses to black swans in one country and proposes some inputs for the specification of a model that will provide a quantification of main relations supporting a method-based approach to impact evaluations

In the next step, we will expand the initial sample of evaluation documents and establish a deeper link with the concrete measures taken by the government to reduce the harmful effects of the pandemic, given the long-term effects

Literature (selected)

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**Comparative assessment of the
economic impact of Black Swans
across EU regions**

 **Xao Cu****Impact of COVID-19 on consumer behavior:
A comparative study in Hungary and China**

Background: The covid-19 pandemic has reshaped consumer life in many aspects. Currently, the pandemic still does not come the end. Many countries continue to implement a certain number of restrictions and protective measures to prevent the coronavirus spreading. Hungary and China impose different pandemic prevention policies and consumers' responses to these domestic policies are significantly different. Our study conducted in February and March of 2022.

Method: The aim of this study was to investigate the attitudes and consumption patterns of Hungarian and Chinese consumers toward food purchases during the Covid-19 pandemic. We employ quantitative and qualitative methods to analyze the results. The questionnaire and interviews are conducted through emails, Tencent questionnaire, and offline/online meetings. We receive 320 respondents while 11 invalid questionnaires were excluded. Hungary and China each had 154 valid questionnaires. The analysis was carried out along with the KMO test to check the certainty of the hypothesis.

Results: All in all, Hungarian and Chinese consumers have different perceptions of the covid-19 pandemic. Around 3.2% of respondents in China express their lives were not affected by the pandemic, compared with 18.2% in Hungary. Furthermore, the majority of Hungarian (46.8%) and Chinese (51.3%) consumers responded that the pandemic had an impact on their lives, but that the order of things had not changed. However, a considerable number of respondents said that their future plans were changed due to pandemic prevention and protective measures, the proportion is 20.1% in China and 13.6% in Hungary. In addition, there are obvious differences between the two countries on whether to wear masks when shopping at supermarket. This means that the majority of habits formulating during the pandemic are unlikely to be maintained.

Conclusion: We find that the impact of COVID-19 on Hungarian and Chinese consumers is significantly different. This is particularly evident in the attitude towards wearing a mask, using food delivery services, hygiene habits, etc. Nevertheless, we find some new consumption habits formed during the pandemic remain in the post-pandemic era both in Hungary and China, such as ordering a meal online, eating at home, and being cashless. However, the majority of habits formulating during the pandemic are unlikely to be maintained in the post-pandemic era.

What are the differences?

The attitudes and consumption patterns of Hungarian and Chinese consumers during the Covid-19 pandemic.



Changes in food purchasing behavior



Changes in access to food



Changes in food consumption habits



What factors affect changes

COVID-19 in China

“Dynamic clearing” policy: Reduce movement

For domestic movements

- 48h PCR test

For international departures:

- Don't recommend go abroad
- Business and Student Visa

For international arrivals:

- 10 days mandatory hotel quarantine+7 days self isolation.
- Limited number of flights (CAAC)
- PCR+Antigen rapid test (Embassy)
- Health code

Almost Return to Normal in Hungary

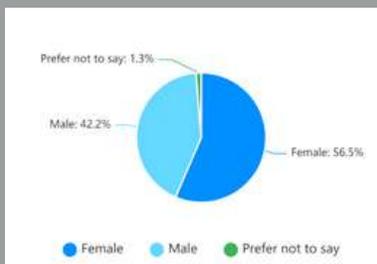
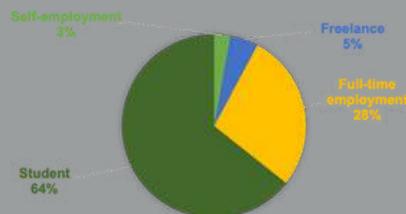
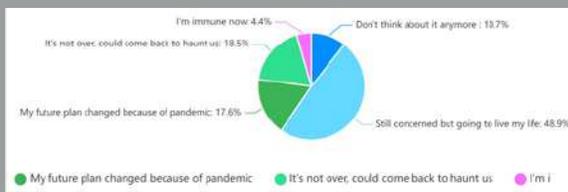


Source: JHU CSSE COVID-19 Data

Almost Return to Normal in Hungary



About the respondents



More concerns on unpacking bread and imported fruits*

Hungarian consumer is more open on imported fruits, only 7.1% of respondents reduce or reject to buy imported fruits. 73.4% of respondents are same as before. China: 46.7% of respondents reduce or reject to consume imported fruits. 40.9% of respondents are same as before.

子问题	China	Hungary Magyarország
Reduce purchases of unpacking food	28 (18.2%)	17 (11.0%)
Don't buy unpacking food	27 (17.5%)	9 (5.8%)
Still buy it, and carefully consider hygiene ...	42 (27.3%)	54 (35.1%)
No change, Same as before	57 (37.0%)	74 (48.1%)

The impact of “shopping time”

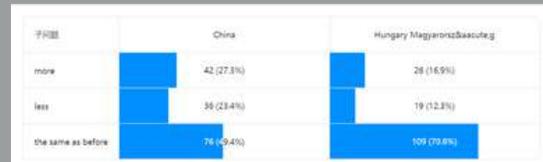
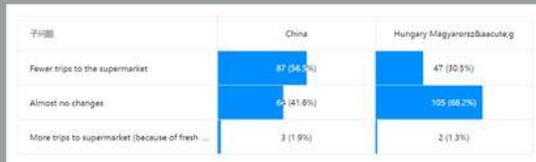
Has pandemic affected shopping time?

More concerns of Chinese consumers

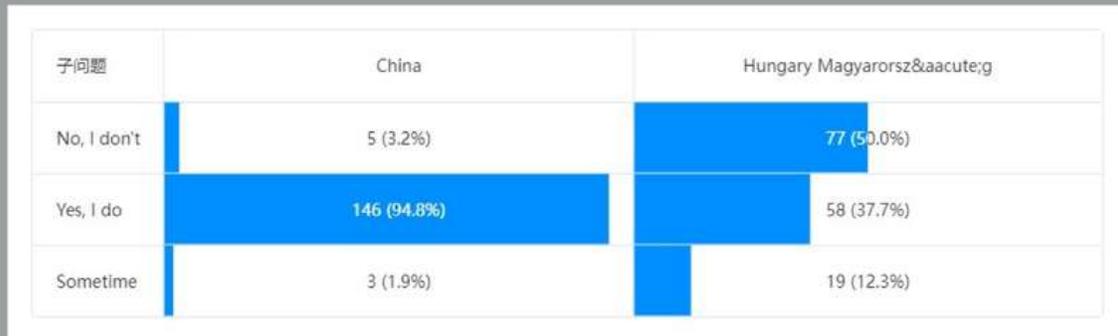
Compared with Hungary, more than 50% of Chinese respondents will go to the supermarket less often and are more likely to stock up on food.

Go back to normal in Hungary.

Domestic epidemic propaganda is more likely to lead to stockpiling



Most of Chinese respondents wear mask, Hungarian respondent do not

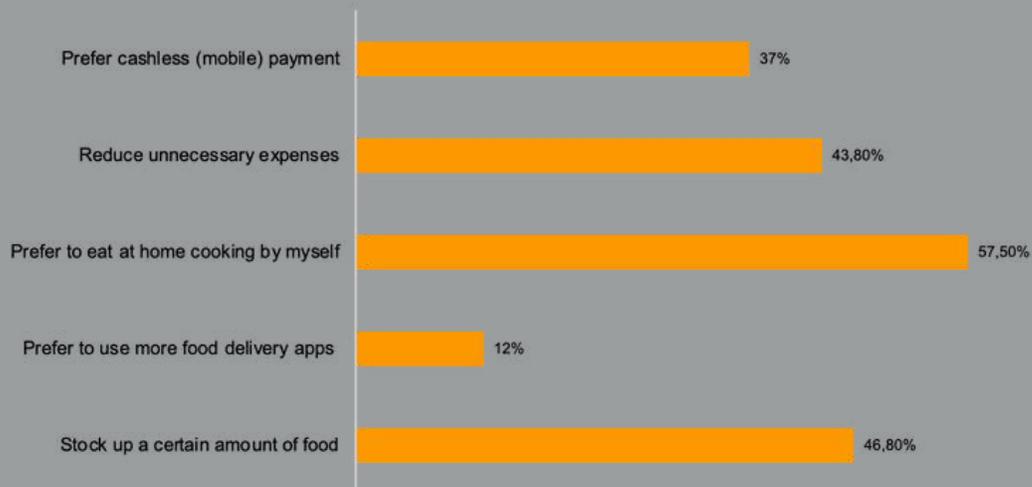


Post-pandemic era: People prefer more takeaways

子问题	China	Hungary Magyarország
Yes I order more takeaways (including food d ...	46 (29.9%)	57 (37.0%)
No I don't order more takeaways	47 (30.5%)	40 (26.0%)
The same as before	61 (39.6%)	57 (37.0%)

Both Hungarian and Chinese consumer prefer eat at home

in the post-pandemic era



Most of respondents feel their food purchasing habits change slightly



Results

China				Hungary				Hungary and China			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .547				Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .649				Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .683			
Initial Eigenvalues				Initial Eigenvalues				Initial Eigenvalues			
Component	Total	% of Variance	Cumulative %	Component	Total	% of Variance	Cumulative %	Component	Total	% of Variance	Cumulative %
1	1.917	23.959	23.959	1	2.641	24.007	24.007	1	2.641	24.007	24.007
2	1.363	17.035	40.993	2	1.388	12.619	36.626	2	1.388	12.619	36.626
3	1.150	14.376	55.369	3	1.200	10.908	47.533	3	1.200	10.908	47.533
4	.964	12.048	67.417	4	1.099	9.987	57.520	4	1.099	9.987	57.520
				5	1.037	9.430	66.950	5	1.037	9.430	66.950



What it means ... and what's next

The impact of COVID-19 on Hungarian and Chinese consumers is significantly different. Domestic pandemic prevention policies make difference.

There are four factors that influence the consumers' food purchasing behaviors during the Covid-19 pandemic: Consumers' concerns about the supermarket's hygiene condition, Concerns about unpacking bakery food and imported fruits, Consumers' perception of the pandemic and new consumption habits such as Contactless shopping.

Some new consumption habits formed during the pandemic probably remain in the post-pandemic era both in Hungary and China, such as ordering a meal online, eating at home, prepare a mask. However, the majority of habits formulating during the pandemic are unlikely to be maintained in the post-pandemic era.

AUTHORS - Xao Cu



CAO Xu, Ph.D. student in Economics at the University of Szeged. His research interests are consumer behavior, sensory analysis.

**Ivan Nikolić****WHY EWSs OF FINANCIAL CRISES FAILED DURING THE COVID PANDEMIC - THE EXAMPLE OF SERBIA**

OBJECTIVES: This paper contributes to the large literature on the early warning indicators of currency crisis. Early warning systems (EWSs) are designed to anticipate future crises, giving policymakers optimism that they would be able to make proactive management decisions. The magnitude of the destruction caused by the COVID-19 pandemic cannot be measured or forecasted accurately, as nobody knows how long it will exist in the world. The aim of the paper is to underline the experiences of EWSs in Serbia during the first two years of the pandemic and to suggest alternatives.

METHODOLOGY: Using a non-parametric signal extraction approach similar to Eichengreen et al., 1996, Kaminsky et al., 1998, and Sachs et al., 1996 methodology paper explain this phenomenon analyzing determinants of currency crises episodes of the Republic of Serbia from January 2001 to December 2021. Critical threshold values above which the crisis is more likely to occur are chosen conservatively at 1,5 standard deviations above the mean.

RESULTS: As leading indicators of currency crisis financial variables usually offer strong predictive power. Analytical efforts have generated a wide-ranging debate and uncovered numerous insights into their effectiveness. However, the results in this paper suggest that the pandemic can inflict different economic damages from past global crisis - the Asian financial crisis at the end of the 1990s, the financial crisis of 2007 to 2008, the Great Recession, and the European sovereign debt crisis of 2008 to 2012. The COVID-19 pandemic has resulted in dramatic damage to global economic growth through disrupting worldwide trade and collapsing consumption. But after the initial fears in the financial markets this part of the economy remained spared until the end of 2021. Accordingly, EWS does not offer the clearest signals. Or rather, it failed. The complexity of the current crisis required a change of approach. One of the solutions as reflected by the Statistical Office of the Republic of Serbia is to develop a Decision-Making Support System (DMSS) that accommodates an EWS. The DMSS is designed as a set of tools essential for better understanding the economic position of a country, and therefore to facilitate a high-quality decision-making process in real time. The tool supports the integration of statistics into public policies and connects the knowledge and expertise of official statisticians on one side with political decision makers on the other.

CONCLUSION: EWSs presented here can serve as one of the many inputs in the assessment and identification of financial crises but it would be good to put it under the auspices of the more complex DMSS.

OBJECTIVES

- This paper contributes to the large literature on the early warning indicators of currency crisis. Early warning systems (EWSs) are designed to anticipate future crises, giving policymakers optimism that they would be able to make proactive management decisions.
- The magnitude of the destruction caused by the COVID-19 pandemic cannot be measured or forecasted accurately, as nobody knows how long it will exist in the world.
- The aim of the paper is to underline the experiences of EWSs in Serbia during the first two years of the pandemic and to suggest alternatives.

Background

The vast literature on the EWS models can be divided into three categories

(1) Signals models:

This non-parametric models was proposed in the context of currency crises, and involved establishing a threshold above which a crisis is more likely to occur...

- Kaminsky et al. (1998); Eichengreen et al. (1996); Sachs et al. (1996) etc
- Variations of this EWS approach are widely used in the IMF work on crisis vulnerabilities

(2) Probit/Logit approach:

These are limited dependent variable regression models, where the probability of a crisis is estimated as a function of a number of variables...

- Eichengreen et al. (1995)
- Frankel and Rose (1996)

(3) Decision trees and machine learning

More recent non-parametric approaches...

- Ghosh and Ghosh (2003); Frankel and Wei (2005); Alessi and Detken (2018)...
- Nag and Mitra (1999); Holopainen and Sarlin (2017); Beutel et al. (2019)...
- Cerra and Saxena (2002); Martinez Peria (2002)

OBJECTIVES

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- The magnitude of the destruction caused by the COVID-19 pandemic cannot be measured or forecasted accurately, as nobody knows how long it will exist in the world.
- The aim of the paper is to underline the experiences of EWSs in Serbia during the first two years of the pandemic and to suggest alternatives.

Methodology

In this section, several approaches to testing these signals models are pursued:

(1) Eichengreen B.,
Rose, A. K., Wyplosz, C.
(1996)

$$ERW_{RS,t} = \frac{1}{\sigma_e} \frac{\Delta e_{RS,t}}{e_{RS,t}} - \frac{1}{\sigma_r} \left(\frac{\Delta rm_{RS,t}}{rm_{RS,t}} - \frac{\Delta rm_{EU,t}}{rm_{EU,t}} \right) + \frac{1}{\sigma_i} \Delta (i_{RS,t} - i_{EU,t})$$

where: $e_{RS,t}$ is RSD/EUR exchange rate; $rm_{RS,t}$ coverage of money supply by FX reserves; $i_{RS,t}$ weighted average interest rate on securities used in open market operations by the NBS; $i_{EU,t}$ interest rate in the EU; while: σ_e , σ_r , σ_i are the standard deviation of the relative change in the exchange rate, the standard deviation of the difference between the relative change in the ratio of FX reserves and the money supply M1 in Serbia and the EU, and the standard deviation of the

(2) Kaminsky, Graciela,
Lizondo, Saul and
Reinhart, Carmen (1998)

$$KLR_t = \frac{\Delta e_t}{e_{t-1}} - w \frac{\Delta R_t}{R_{t-1}}$$

$e_{RS,t}$ is RSD/EUR exchange rate; R_t is FX reserves expressed in euros, and $w = \sigma_e / \sigma_R$, ie. the ratio of the standard deviation of the exchange rate growth and the standard deviation of the growth of FX reserves.

(3) Sachs, Jeffrey D.,
Tornell, Aaron and
Velasco, Andrés (1996)

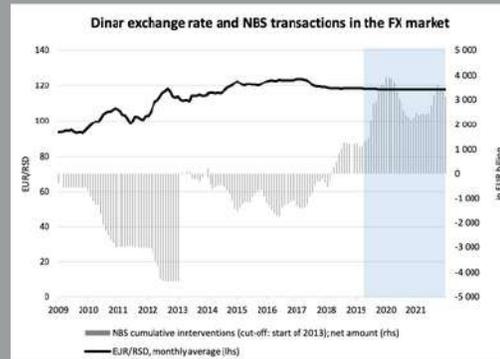
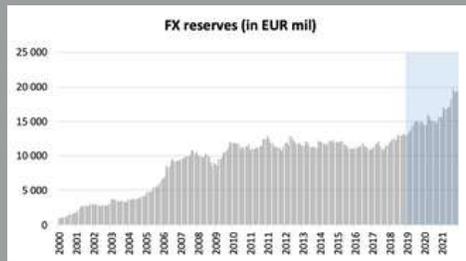
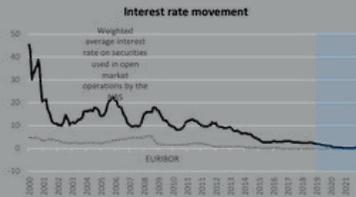
$$STV_{RS,t} = \left(\frac{1/\sigma_e}{\left(\frac{1}{\sigma_e} + \frac{1}{\sigma_r} + \frac{1}{\sigma_i} \right)} \right) \frac{\Delta e_{RS,t}}{e_{RS,t}} - \left(\frac{1/\sigma_r}{\left(\frac{1}{\sigma_e} + \frac{1}{\sigma_r} + \frac{1}{\sigma_i} \right)} \right) \frac{\Delta rm_{RS,t}}{rm_{RS,t}} + \left(\frac{1/\sigma_i}{\left(\frac{1}{\sigma_e} + \frac{1}{\sigma_r} + \frac{1}{\sigma_i} \right)} \right) \Delta i_{RS,t}$$

$rm_{RS,t}$ is FX reserves of Republic of Serbia, while the description of the other symbols is the same as before.

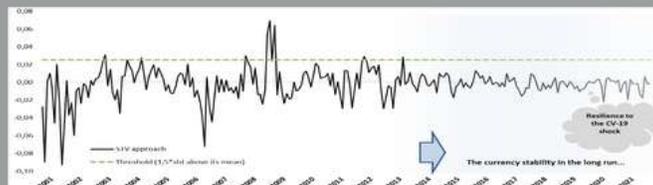
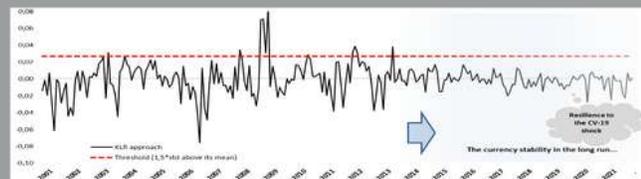
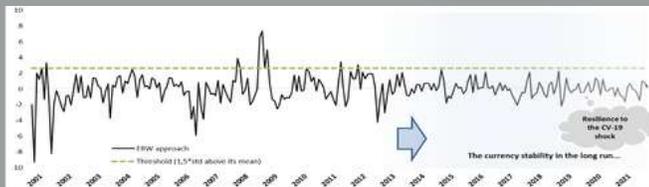
When the value of index exceeds certain threshold value, it means that the country has a currency crisis. The threshold value, in this study, is determined as the mean of the index plus 1.5 standard deviations.

A brief overview of Serbia's macroeconomic position

before the previous global economic crisis and the crisis caused by COVID-19



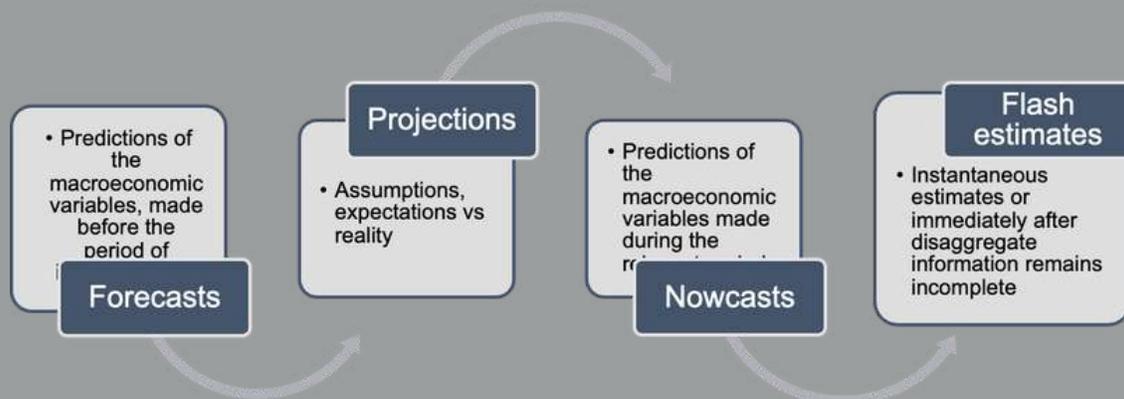
A graphic illustration of the obtained results:



DMSS

- Official statistics are responsible for producing and disseminating official statistical information.
- However, this 'raw' material of data is not directly usable in politics – the statistical system needs to distill, refine and process valuable statistical knowledge from the flood of raw data into digestible information for politics. Hence, the purpose of the statistical system is also to find relevant, but often hidden or unnoticeable relations between different indicators, to extract key information from a large number of data and to define key indicators with the aim of augmenting the efficiency and reliability of the decision-making process.
- In order to provide the users with sufficient, useful and reliable information to identify the situation in the economy including potential imbalances, risks to stability and their possible prevention, Statistical Office of the Republic of Serbia -SORS has created a department dedicated to catalyzing pieces of information and transforming them into simple, reliable and widely usable indicators...
- The DMSS is designed as a set of tools, some already a regular part of the official statistical system and some subsequently introduced and designed to better illustrate and explain a particular phenomenon. These tools aim to statistically clarify the interaction between key economic indicators, to explain the economic position of the country and facilitate high-quality decision-making processes. Examples of these tools are a monthly projection updating system, a system of leading indicators, a system for quarterly GDP nowcasting, forecasts and a system of Economic Sentiment Indicators (ESI).

Key outputs of DMSS



In the process of establishing the DMSS SORS received strong support from Eurostat

Results

- The results in this paper suggest that the pandemic can inflict different economic damages from past global crisis - the Asian financial crisis at the end of the 1990s, the financial crisis of 2007 to 2008, the Great Recession, and the European sovereign debt crisis of 2008 to 2012.
- The COVID-19 pandemic has resulted in dramatic damage to global economic growth through disrupting worldwide trade and collapsing consumption. But after the initial fears in the financial markets this part of the economy remained spared until the end of 2021. Accordingly, EWS does not offer the clearest signals. Or rather, it failed.
- The complexity of the current crisis required a change of approach. One of the solutions as reflected by the Statistical Office of the Republic of Serbia is to develop a Decision-Making Support System (DMSS) that accommodates an EWS.
- The DMSS is designed as a set of tools essential for better understanding the economic position of a country, and therefore to facilitate a high-quality decision-making process in real time. The tool supports the integration of statistics into public policies and connects the knowledge and expertise of official statisticians on one side with political decision makers on the other.

AUTHORS - Ivan Nikolić

Ivan Nikolić is Senior Research Associate/Director of Scientific Research Development at the Economics Institute in Belgrade. He is also a member of the Council of the Governor of the National Bank of Serbia and editor and co-author of the monthly publication Macroeconomic Analyses and Trends (MAT). His research focuses on Serbia's economic policy, development and economic system, macroeconomic environment and international economy. He has been involved in various national and international scientific projects and during his time at the Economics Institute, he acted as team leader in numerous commercial projects as well.

 **Tamás Szabó**

Impacts of COVID 19 recession and border policy on firms based on their geographical location

Background: In the past decade both the European Union and the Hungarian government set the goal to bolster economic cooperation across borders, especially amongst enterprises operating along the borders. On top of these programs, the government also subsidized firms owned by Hungarians outside of the country borders. These aspirations led to a significantly developing socio-economic relationship between the companies on both sides of the borders. Then in the year of 2020, the COVID-19 pandemic hit the world. The economy of the border regions of the Carpathian Basin and the Szeklerland have been hit particularly hard by the coronavirus crisis. The aim of the paper is to enumerate the effect of the crisis on the near-border firms.

Method: For the analysis we plan to use two sets of data. The National Tax and Customs Administration publishes information on the monthly employment situation of enterprises located in Hungary. Our main focus is in the time range of April 2020 – December 2020. We also aim to use a database, containing not only the main information's about the companies (like sector, location etc.), but its balance sheets for the past years as well. To calculate the effects of the crisis, we form two groups from the companies. One group, the treated, contains the companies that are located in a district near the border, while the other group, the control, are the companies located in the inner districts of the country. Our aim is to compare these two groups not only with descriptive statistics, but with more sophisticated econometrical methods as well. Such method would be a proper matching method, for example one based on propensity score. This matching would be based on the past balance sheet values and the sector of the companies. After forming these comparable pairs, we would use difference-in-difference or fixed effect regressions to calculate and compare the extent to which employment was affected between the two group of companies. We would also try to explore these differences by sectors and border sections.

Results: We found statistically significant loss of employees in the monthly micro level only in the case of firms operating near-border in the tourism sector. In the case of balance sheets, we found interesting result in the tourism sector as well. In the first year of Covid, these firms suffered from significant loss of sales and employees. However, the negative effect on sales were offset by the differences-in-differences parameter completely. We found no significant results in border wise regressions.

Conclusion: We did show, that the recession in the first year of Covid-19 had heterogenous effects by sectors, but could not identify differences based on the borders. It means, policy makers supposed to focus more on given sectors, than geographical areas.

Motivation

- Covid-19 brought serious changes in social and economical behavior
- Policymakers seem to face a trade-off
- Some kind of a lockdown to slow down the spreading
- But lockdown leads to lower economic activity
- Lockdown can have various forms
- I.e.: city, county, border, curfew etc.
- The closing of borders was important in Hungary in the spring
- The personal crossing was affected, not the transport of goods
- The goal is to enumerate the effect of the crisis
- With a strong emphasis on the firm location

Literature review

Lack of scientific literature

- A proper dataset became available not long ago
- The resemblance to the Great Recession is debatable

The importance of cross-border cooperation

- The Schengen Agreement is for the free movement
- The EU tries to bolster it through the INTERREG programs
- The Hungarian government subsidized companies owned by Hungarians outside of the country's borders

Literature review

- The borders of Poland are in the spotlight
- The main reasons: a huge number of commuters
 - relatively large economy
- Böhm (2021) conducted interviews with the Czech-Polish border stakeholders
 - He predicts a huge setback in the debordering
 - Commuters and their employers in the Czech Republic were impacted
 - Commuters stayed home and tried to find new jobs
- Janczak (2020) finds the same in the case of commuters to German companies - but does not predict the worsening of the cross-border community
- The intra country effects are heterogeneous
- Sanguinet et. al. (2020) shows, that the richer regions were affected more in Brazil
- Kovács et. al. (2020) argues, that the policy answers were homogenous, yet the infection spread was heterogeneous across regions

Literature review

Border policy affects commuters and their employers the most

Effects are heterogeneous in and between countries

Crisis hit every country

- GDP decrease was 11,2% on average in 2020q2
- About 200 thousand persons lost their jobs in Hungary

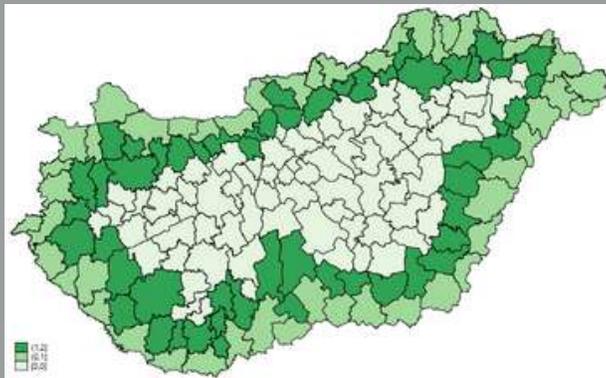
It's a hanging question whether we can go back to normal in cross-border cooperation

Data used

- Two sets of firm-level data
- Monthly employment data from the National Tax and Customs Administration
- Available for 2020m1-2020m12
- Balance sheets and income statements
- Used the year 2019-2020

Methodology I.

1. First step is to categorize the firms based on location



Methodology I.

Defined 10 sectors

- Agriculture
- Manufacturing
- Utilities
- Construction
- Traditional services
- Turism
- ICT
- R&D
- Public services
- Private service

Methodology II.

Try to compare apples to apples

Propensity score matching on 2019 balance sheet values

- The logarithm of sales, assets, personal costs, material expenses
- Age and age squared

Due to a large number of treated and control firms, the algorithm finds pairs nearly all, even with common support (276 thousand firms)

Methodology III.

$$1. Y_{igt} = \alpha_g + \beta_1 G + \beta_2 t + \beta_3 G * t + \varepsilon_{igt}$$

2. Where Y:

Monthly employee data

Yearly employee data

The logarithm of sales or assets

3. G is a dummy

G = 1, if the firm is located in the outer districts

G = 0, if the firm is located in the inner districts

4. t is a period dummy

t = 0 prior covid (2020m1 or 2019)

t = 1 post covid (2020m2-m12 or 2020)

5. Interaction term is the DiD, we are interested in

Results I.

Significant decrease in employees in the tourism sector

But only for the months 4-5

The constant is 10, and the period coefficient is -2

Other coefficients and sectors are not significant

Border section heterogeneity present

Further questions

We should look more into the data of the commuters

- If possible identify the most important district and firms

We should keep an eye on new literature

- To see whether we can see similar heterogeneity both between sectors and regions

Look into the survivorship bias

Conclusions

Using two sets of micro-level data we enumerated the effects of the first waves of COVID-19

In the monthly employment data we saw heterogeneity both in terms of regions and sectors

- But being closer to borders yield no additional negative effect

In the yearly balance sheets we see heterogeneity across sectors

- DiD was significant and positive in one case, the sales in tourism sector

AUTHORS - Tamás Szabó

Tamás Szabó is a junior analyst at the HÉTFA Research Institute and Center for Economic and Social Analysis since the summer of 2017. He holds a master's degree in Economics from Eötvös Lóránd University. His main interest is macroeconomic modelling but he is also motivated to use other analytic tools in many areas of the economy.

His work at the HÉTFA started with large-scale development of the in-house built HÉTFA Computable General Equilibrium. Since that he used the model for calculating the macroeconomic impacts for example EU subsidies, large-scale home energy efficiency upgrade programs.

**Comparing evaluation methods
and exploring examples of
evaluations supporting policy
responses to black swans in
human policies**

 **Luca Koltai****COVID-19 and female entrepreneurs throughout Europe**

Women were challenged in multiple ways in recent years: reconciling entrepreneurial activity, private and family responsibilities is a complex management task even in normal periods (Hyytinen & Russkaren, 2017). This situation have worsened due to pandemic restriction measures, with the introduction of distance learning and the increase in caring responsibilities.

HETFA and its partners launched a survey in connection with the coronavirus pandemic. We collected data from seven European countries and regions (Hungary, Czech Republic, Bulgaria, Serbia, Austria, Andalusia and Transylvania). Our survey examined how female entrepreneurs in these countries fought against the virus and its economic effect between May and August 2020. Our aim was to examine the effects of the pandemic on the operation of companies led by women and the difficulties female entrepreneurs faced in reconciling their entrepreneurial and family roles during the pandemic. We should highlight that due to the specific characteristics of our chosen methodology, we primarily reached the highly educated female entrepreneurs, who are also frequent Internet-users.

Our results have shown that 79% of the women-led businesses were negatively affected by the first wave of the pandemic. 11% of them reported that the pandemic and this situation made it impossible for them to continue operating their business; two-thirds of the respondents said that their prospects had deteriorated to a lesser or greater extent, while nearly 8% of them believed that the pandemic had improved their businesses' opportunities. 68% believed that the impact of the pandemic will be felt throughout 2020 and that the full-year revenues would decrease compared to 2019. Overall, in the countries examined, female entrepreneurs estimated they could lose about 28% of their annual income this year. The number of employees of responding entrepreneurs decreased by an average of 10% during the pandemic.

Prior to the pandemic, online businesses were more resilient to the effects of a crisis. Those entrepreneurs who were not or positively affected by the crisis were more likely to use online tools before the pandemic as well. Experience from previous crises has shown that small businesses are trying to take advantage of their flexibility to cope with crisis situations. This was the case in the coronavirus crisis, too, when they dealt with the situation through a number of different measures and subsidies: female entrepreneurs used a variety of crisis management strategies and combinations.

Besides these measures, more than half of the respondents received some form of support. More than 50% of the respondents of our questionnaire received some support in relation to the pandemic. The proportion of beneficiaries is the highest among Austrian (86%), Serbian (74%) and Andalusian respondents (69%), and the lowest among Hungarian and Transylvanian Hungarian respondents (37% and 39%).

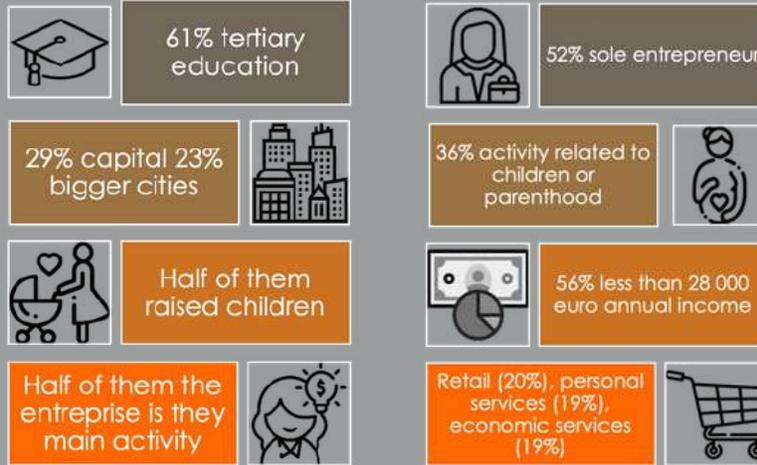
The epidemiological crisis posed serious challenges on women worldwide – in the case of female entrepreneurs these challenges included raising children, since the closure of childcare facilities heavily influenced and increased caring responsibilities. On an average weekday, respondents raising young children under the age of 7 spent more than 3 hours a day with child-related tasks, and 1.5 hour more with household tasks than before. Those raising children aged 7-18 spent 2.5 hours more on caring tasks.

About the research

- International online survey
- 6 countries
- 1st wave!! Between June - August 2020
- Research questions:
 - How the pandemic affected female entrepreneurs?
 - How did they manage the situation?
 - Work life balance?
- Our partners:
 - University of Economics, Prague (CZ)
 - Faculty of Sociology and Social Work in Babes-Bolyai University in Kolozsvár/Cluj Napoca (RO)
 - Regional Agency for Entrepreneurship and Innovations, Varna (BG)
 - Institute „Mihajlo Pupin“ - Science & Technology Policy Research Center in Belgrade (SRB)
 - Andalucía Emprende in Andalusia, Sevilla (ES)
 - ZSI - Centre for Social Innovation in Vienna (AT)

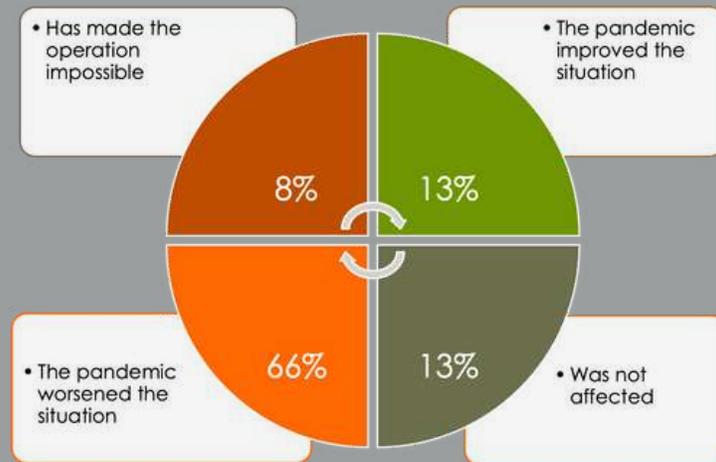
	Number of answers
Andalusia	582
Hungary	368
Transylvania	300
Czechia	85
Bulgaria	97
Szerbia	92
Austria	155

Survey respondents



Effect of the pandemic

74% had been affected negatively by the first wave pandemic situation



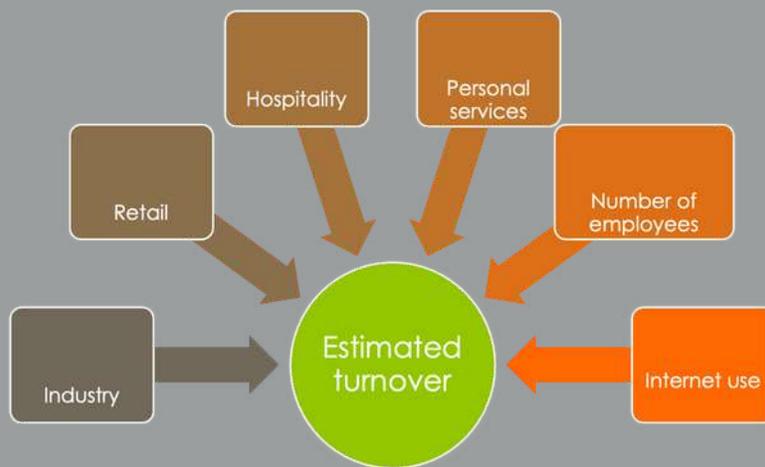
Effect of the pandemic

- 68% expected that that effects of the pandemic situation will be tangible throughout the year of 2020
- Overall 28% decrease of income were expected



Resilience factors

Estimated turnover change in 2020



Crisis management

Long-term development



Subsidies



Crisis management

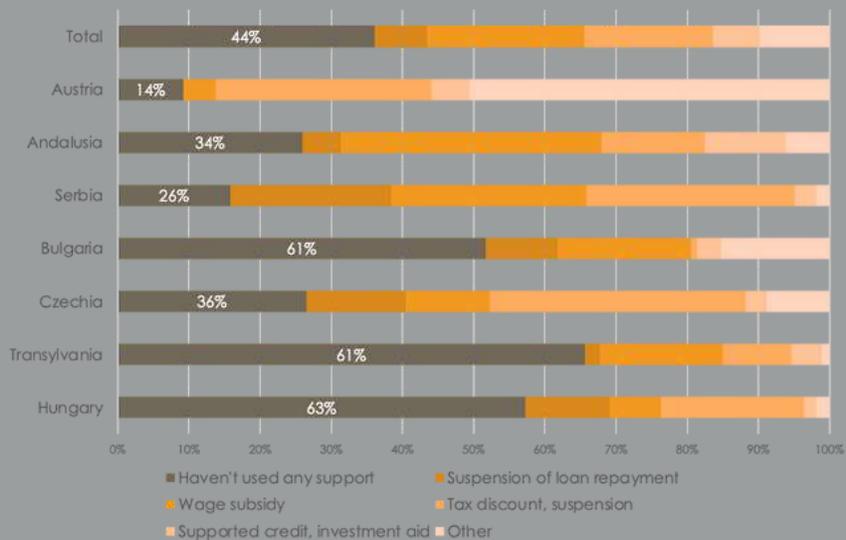
Reduction of operation



Adaptation



The use of support measures



Varying time schedule

- Time was reallocated from business to family
- 21% of female entrepreneurs raising small children spent less time with business due to caring duties - 16% of those having school age children

No child	Child under 7	7-18 years old child
-2,2 hours for business	-2,3 hours for business	-2,1 hours for business
+1,4 hours for household	+1,3 hours for household	+1,3 hours for household
+1,4 hours for family	+3,1 hours for family	+2,5 hours for family

AUTHORS - Luca Koltai



Luca Koltai holds a master degree on Social Policy and one on European affairs. As a researcher she's been focusing on the third sector, employment and social issues during her job at National Institute for Social Policy and Labour and at HETFA Research Institute. She has more than 20 years of experience on research related to public policy, social and employment issues.

She is member of the National Social Policy Council by the invitation of the Minister of Humanities since 2016. She is member of the COST actions EMPOWER SE - Empowering the next generation of social enterprise scholars, and PROFEEDBACK - Fostering the networking of the policy evaluation community at EU-level.

**Irina Lonean****Youth centres impact on young people transitions during COVID-19 pandemic. Testing Process Tracing in the context of black swan events**

Focal area: Comparing evaluation methods and exploring examples of evaluations supporting policy responses to black swans

The article proposes a process tracing methodology for the impact evaluation of the results of activities and support for young people provided by NGO lead youth centres in Romania. The evaluation aims at answering the questions about the results of digital youth work using process tracing.

Process tracing is investigating causal inference by assessing congruence to an expected theory of change within a particular case. The method questions why and how change happens by tracking evidence of each link in the causal chain. This method is a qualitative approach through ex-post design where there is no control group available.

The evaluated cases are four youth centres in Romania, from different regions and settings (rural, small and large urban communities) working with local youth and international volunteers in Baia Mare (a medium size city), Izvoarele and Teişani (rural communities), several neighbourhoods in Timișoara (a large city). Based on the presentation of youth workers about their activities and achievements from May 2020 until December 2021, I built a theory of change underlying the impact of youth work and youth centres on young people transitions during COVID-19 pandemic. This theory was then tested using process tracing.

Before the pandemic, there was an agreement on the impact of youth work before the pandemic. Youth work was found to effectively provide young people with a broad spectrum of experience, through 'experiential learning', allowing them to 'relate to others', building meaningful relationships with their peers and adults and to developing a 'sense of self', in particular to gain confidence. (Ord and al 2018: 227-228). The impact of non-formal education provided during youth work activities used to be inseparable from the informal learning due to unplanned interactions during these activities (Morciano 2015). Therefore, the most important result of youth work was linked to opportunities for young people and not necessarily with a concrete set of competences developed (Ord 2012).

This process tracing applied to the Romanian youth centres concluded that the continuous presence and actions of youth workers had a significant role in mitigating some of the effects of the pandemic such as isolation and its potential mental health impact on young people. On the other hand, there is no evidence that the medium- and long-term results of digital youth work will appear for young people that participated in activities in youth centres. This is explained by the lack or rare presence of informal virtual spaces effective in encouraging casual conversations, catalysing informal learning. In youth work, non-verbal communication, group work and ad-hoc conversations proved to be among the most important contributors to long term results. The youth work activities organised during the pandemic rarely provided opportunities for these interactions and are perceived as much less impactful compared to youth work before the pandemic.

From the perspective of the Process Tracing methodology, the exercise allows some lessons learned related to how effectiveness and impact evaluation can be conducted with few to no written evidence on outputs and outcomes and in the case of incertitude over the long-term impact of the evaluated interventions, where the immediate impact is represented by 'opportunities', with no directly measurable changes. In this case, process tracing is a methodology that allows flexibility, the construction of working definitions for output, outcome, and impact level results and it is able to work with all type of evidence.

Context

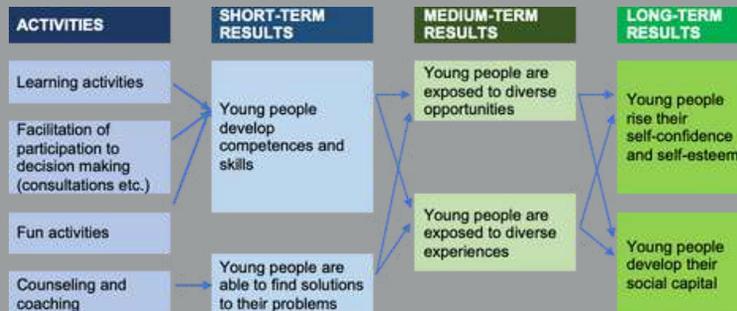
- Before COVID-19: youth work was found to effectively provide young people with a broad spectrum of experience, through 'experiential learning', allowing them to 'relate to others', building meaningful relationships with their peers and adults and to developing a 'sense of self', in particular to gain confidence (Ord and al 2018)
- COVID-19 impacted young people and youth activities (EU-Council of Europe youth partnership, 2020; RAY Network, 2020)
- Youth centres and youth workers continued activities to ensure correct information of young people in the age of fake news and volunteers' mobilisation and management for intergenerational solidarity activities (OECD, 2020, ERYCA, 2021)
- Online youth work was used extensively in 2020 and 2021

Methodology

- Application of theory-based impact evaluation - particullary process tracing => investigating causal inference by assessing congruence to an expected theory of change within a particular case
 - qualitative approach through ex-post design where there is no control group available.
 - focuses on increasing our level of confidence in a causal story rather than trying to measure impact and attribute it to a particular event / set of activities
- Evaluated cases are four youth centres in Romania, from different regions and settings (rural, small and large cities)
- The theory of change links:
 - (1) activities and outputs of digital youth work and outdoor youth work, as well as in centre and outreach activities (when they have been possible) during the COVID-19 pandemic and
 - (2) their results at the level of young people in Romania, both Romanian and international volunteers in youth centres.
- Data collection based on few interviews
- Case study for the Youth Knowledge Book on COVID-19 impact on youth transitions

Result chain for youth centres

- Tested before COVID-19
- To be tested during COVID-19
- The most important result of youth work was linked to opportunities for young people transitions and not necessarily with a concrete set of competences developed (Morciano 2015, Ord 2012)



Results of Process tracing

- Youth centres activities during COVID-19 supported young people coping with the crisis and their transition to a different lifestyle:
 - the continuous presence and actions of youth workers had a significant role in mitigating some of the effects of the pandemic such as isolation and its potential mental health impact on young people
 - volunteers developed their professional competences
- There is no evidence that the medium- and long-term results related to opportunities for the development of young people after participating to digital youth work activities will appear
 - the lack or rare presence of informal virtual spaces affect the impact of youth centres. They used to encourage casual conversations catalysing informal learning. Before the pandemic, non-verbal communication, group work and ad-hoc conversations proved to be among the most important contributors to long term results. The youth work activities organised during the pandemic rarely provided opportunities for these interactions and are perceived as much less impactful compared to youth work before the pandemic.

Conclusions on the methods used

- In the case of unstructured, or weakly structured activities, as the ones in youth centres, there is few to no written evidence on output and outcome level effects of the activities. This was true even before the COVID-19 pandemic, but the production and access to evidence was even more limited by the transfer of most of the activities online.
- In the case of interventions with long term impact, as in the case of most of the youth policies, programmes and projects, where the immediate impact is represented by 'opportunities', with no directly measurable changes, the definition and accepted evidence for the impact needs to be adapted.
- Process tracing is a methodology that allows flexibility, the construction of working definitions for output, outcome, and impact level results in the theory of change and it is able to work with all type of evidence. On the other hand, the evaluator need to formulate cautions expectations about the desirable and available evidence.

AUTHORS - Irina Lonean



Irina Lonean. Since 2015 Irina conducted the evaluation of international, national and local initiatives promoting wellbeing and support services for children and young people. She participated to the Youth policy evaluation review, and drafted the Insights into social inclusion and digitalisation, both published by the EU-Council of Europe youth partnership in 2020. In 2021 she was part of the team working at the development of the online Knowledge HUB: COVID-19 impact on the youth sector developed and hosted by the EU-Council of Europe youth partnership. She was also part of teams providing evaluation of model projects and programmes of UNICEF in Europe and Central Asia.

**Robert Petraru, Mihaela Iorgulescu-Aioanei****Identifying the most adequate evaluation methods to be employed in providing a policy response to black swans**

Thematic Area: Comparing evaluation methods and exploring examples of evaluations supporting policy responses to black swans.

The research provides a reflection on the most adequate evaluation methods in responding to a black swan event, by comparing various methodologies used across multiple countries in analysing the impact of the COVID-19 pandemic as to inform policy responses. The research idea began from a research project conducted for UNICEF in Romania, which identified the socio-economic impact of the COVID-19 pandemic on vulnerable families. Although the co-authors of the abstract acknowledge that COVID-19 pandemic is not considered a Black Swan event, (opinion shared as well by Nassim Nicholas Taleb, the founder of the Black Swan theory), they believe that due to the rarity and impact of the COVID-19 pandemic, the lessons learned on the possible research methodologies to be used to evaluate the impact of such crisis could prove to be valuable in the aftermath of a Black Swan event. According to Nassim Nicholas Taleb, a black swan is an unexpected (1) and impactful (2) event, which often is inappropriately rationalized after the fact due to the subjective imaginings of contemporaneous observers (3). In this respect, the analysis is concerned with property 3, where the evaluation methods have the potential to prove the most value, as various researchers, observers and experts are attempting to explain the impact and factors that caused Black Swans.

Thus, the research aimed to answer the following questions: a) Which were the most frequent research methods used in assessing the impact of the COVID-19 pandemic in evaluations? and b) Which research methods has the potential to be used in devising explanations in potential aftermaths of Black Swan events?. In this respect, the research is based on the findings of the desk-based research developed on several evaluations conducted by UN in Romania, Kosovo, Montenegro, Turkey, Serbia, Kyrgyzstan, North Macedonia, Turkey and other countries, followed by a set of expert interviews that aimed to collect perspectives of practitioners being involved in this type of evaluations on a list of evaluation methods that that prove the most efficient and effective in providing findings and could be considered a “go-to” kit of instruments in situations in which Black Swan events occur.

The analysis highlighted that the participatory approach is a key to the results of such evaluations. Thus, the involvement of key stakeholders (the ones with the most power or influence and interest) through consultations, continuous up-dates on the preliminary results of the evaluation process, validation of findings, can be considered mandatory. Further, among most effective methods used, we could identify: 1) Wide surveys, based on their coverage in terms of number of respondents and criteria used to build samples, as to be able to capture different type of effects, on different categories of population and thus, to contribute to the formulation of a well-informed response according to the different needs of the affected groups; 2) Macro-economic analysis, as to be able to capture macro level effects and to design specific public measure as to protect the population from inflation, price increases, raise of unemployment rates, resources shortage and other.

As an overarching element of the reviewed studies on the effects of Covid 19 at national level and the action plans developed in accordance, we have identified the focus put on most disadvantage categories. Black Swan events are prone to deepen the gaps between different groups of population, and without paying attention to the effects on the most in need, the formulated responses can contribute to the perpetuation of the new created situation.

AIM OF THE RESEARCH

- The research aimed to provide a reflection on the most adequate evaluation methods in responding to a black swan events, by comparing various methodologies used across multiple countries in analysing the impact of the COVID-19 pandemic as to inform policy responses.
- The idea of the paper started from the research project conducted for UNICEF in Romania, which identified the socio-economic impact of the COVID-19 pandemic on vulnerable families, by QURES Quality Research and Support and looked into several similar evaluations that aimed to measure the impact of the COVID-19 pandemic and to formulate policy recommendations.
- Thus, the research aimed to capitalize on the lessons learned in designing methodologies in response to rare crises, such as Black Swans.

BACKGROUND

- According to Nassim Nicholas Taleb, the founder of the Black Swan theory, a black swan is an:
 - (1) unexpected and
 - (3) impactful event,
 - (3) which often is inappropriately rationalized after the fact due to the subjective imaginings of contemporaneous observers.
- In this respect, the analysis is concerned with property 3, where the evaluation methods have the potential to prove the most value, as various researchers, observers and experts are attempting to explain the impact and factors that caused Black Swans.
- Although the COVID-19 pandemic is not considered a Black Swan event, we consider that the rarity and impact of the COVID-19 pandemic, the lessons learned on the possible research methodologies to be used to evaluate the impact of such crisis could prove to be valuable in the aftermath of a Black Swan event.

METHODOLOGY

- Exploratory research
- Research questions
 - Which were the most frequent research methods used in assessing the impact of the COVID-19 pandemic in evaluations?
 - Which research methods has the potential to be used in devising explanations in potential aftermaths of Black Swan events?
- Methodological approach
 - Desk-based research developed on several evaluations conducted by UN in Romania, Kosovo, Montenegro, Turkey, Serbia, Kyrgyzstan, North Macedonia and others (10 studies)
 - Expert interviews (on going phase) that aimed to collect perspectives of practitioners being involved in this type of evaluations on a list of evaluation methods that prove to be most effective in providing relevant findings for policy-makers

RESULTS OF THE RESEARCH

Some key issues

- Most frequent assessed areas in the context of measuring the impact of Covid 19 pandemic: impact on poverty rates (incidence, intensity), socio-economic impact, impact on education, marginalization and exclusion
- Less frequent assessed areas: gender gap, impact on violence against women and children

While most of the reviewed impact evaluations used mixed methods designs,

- some used only quantitative data collection and analysis methods, but they were narrower in terms of purpose as they did not aim to formulate policy recommendations,
- or other, did not include primary data collection and analysis, but they did not aim to provide an explanatory perspective on the effects of the Covid 19 and their future dynamic.

RESULTS OF THE RESEARCH

- The analysis highlighted that the participatory approach is a key element for the results of such evaluations. Thus, the involvement of key stakeholders (the ones with the most power or influence and interest) through consultations, continuous up-dates on the preliminary results of the evaluation process, validation of findings, is mandatory for:
 - ensuring the external validity of the findings,
 - the formulation of relevant policy recommendations, from the perspective of main intended evaluation users, which thus, should contribute to their implementation.
- As an overarching element of the reviewed studies on the effects of Covid 19 at national level and the action plans developed in accordance, we have identified the focus put on most disadvantage categories. Black Swan events are prone to deepen the gaps between different groups of population, and without paying attention to the effects on the most in need, the formulated responses can contribute to the perpetuation of the new created situation.

RESULTS OF THE RESEARCH

The importance of a mixed methods design has been highlighted throughout the research.

Methods:

- Wide surveys, based on their coverage in terms of number of respondents and criteria used to build samples, as to be able to capture different type of effects, on different categories of population and thus, to contribute to the formulation of a well-informed response according to the different needs of the affected groups;
- Macro-economic analysis, as to be able to capture macro level effects and to design specific public measure as to protect the population from inflation, price increases, raise of unemployment rates, resources shortage and other;
- Interviews and focus groups (directly linked with the participatory approach), used to collect perspectives of key stakeholders and validate the research findings.

CASE TO ILLUSTRATE THE APPLICATION OF A MIXED METHOD DESIGN

ON EVALUATING THE IMPACT OF COVID 19

- Assessment of the Socio-Economic Impact of the COVID-19 Pandemic on Children and their Families, with a focus on the vulnerable ones, UNICEF Romania

OBJECTIVES OF THE EVALUATION



To gain a better understanding of how the COVID-19 pandemic, its immediate consequences, and the actions taken have impacted communities, children, and their families, especially the vulnerable.



To make sure that the voices of children and their families are heard, that they have the opportunity to talk about their most pressing issues, their needs, and to propose solutions that are appropriate to their abilities and coping mechanisms.



To formulate public policy recommendations and evidence-based programs to improve the situation of vulnerable children

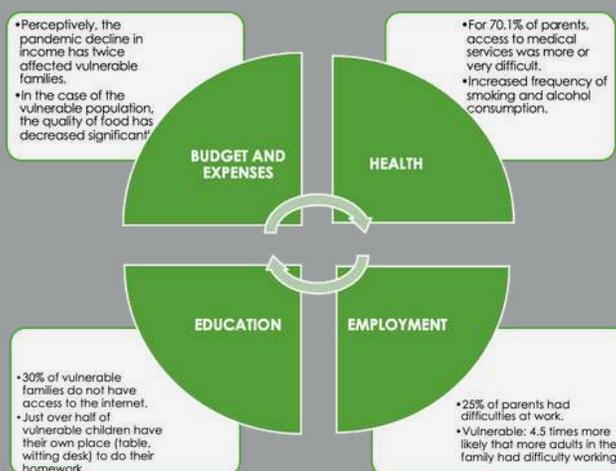


METHODOLOGICAL APPROACH

- Desk-based research
- Survey on a representative sample 2125 respondents parents with minor children (from representative families at the level of the general population and vulnerable population) and 1036 minor children over 10 years old, from representative families for the general population and for vulnerable families of which 323 children from vulnerable families
- Interviews with parents
- Interviews with central authorities
- 8 regional focus groups - social impact (authorities + civil society)
- 8 regional focus groups - impact on social education (authorities + civil society)
- 8 regional focus groups - involvement of local authorities

EVALUATION RESULTS

What do children and their families say?



EVALUATION RESULTS

• What do authorities say?

The closure of kindergartens and schools had a major negative effect on children, with possible future repercussions (cognitive, social skills, access to the labor market, behavioral slippage, anxiety, etc.)

The most vulnerable categories to the effects of the pandemic were children, those already at risk, those with disabilities, from communities with a predominantly Roma population (access to education, to medical services, social services)

The downturn in social services during the pandemic severely affected the communities they assisted

Civil society support (companies, NGOs, etc.) has been a real help to communities and local authorities.

EVALUATION RESULTS

The impact of COVID-19 based on statistical modeling

Regression analysis

- Regarding access to education
- Regarding the state of health
- Regarding the rate of material deprivation
- Regarding the standard of living expressed in monetary form

Calculation of monetary and multidimensional poverty indices

- Monetary poverty indices
- Multidimensional Poverty Index (MPI)

Microsimulations (6)

- For the state child allowance
- For the family support allowance

EVALUATION RESULTS

Regression analysis

- **EDUCATION** - When the GDP per capita increases by 1%, the dropout rate decreases on average by 1.8%. According to data from the World Bank, Romania's GDP fell by 3.59% in 2020.
- **HEALTH** - An important factor that helps reduce overall morbidity is the share of health expenditure in GDP. A 1 pp increase in the share of health expenditure in GDP can lead to a 0.44 pp reduction in overall morbidity.
- **DEPRIVATION RATE** - When the share of household income increases by 1%, the poverty rate increases by an average of 10.53%.
- **STANDARD OF LIVING EXPRESSED IN MONETARY FORM** - When the average income increases by 1%, the GDP per capita increases by an average of 0.71%. When remittances increase by 1%, GDP per capita increases by an average of 0.07%.

EVALUATION RESULTS

Multidimensional Poverty Index (MPI)

The research team developed a MPI to provide an overview of citizens' access to various services.

Dimension	Indicator
Dimension 1: Household income	Income
	Occupation
	The level of education of adults in the household
Dimension 2: Children' education	Internet access
	Access to an electronic device (laptop / tablet)
	Dedicated room for homework
Dimension 3: Health	Access to health services
	Access to medicines
	Nutrition
Drinking water	Hot water
	Heat
	Drinking water
	Toilet inside the house
	Sewerage
	Gas

EVALUATION RESULTS

Microsimulation

Following the application of microsimulations, the results obtained regarding the reduction of the headcount poverty were:

Poverty measurement	Headcount poverty	
	Value	Impact
Initial rate of the poverty measurement	16.99%	-
Poverty after transfers of both benefits	14.16%	2.83 pp
Poverty after transfer of the universal child allowance	15.34%	1.66 pp
Poverty after the transfer of the family support allowance	15.67%	1.32 pp

Regarding the reduction of the poverty gap, the following results were obtained:

Poverty measurement	Poverty gap	
	Value	Impact
Initial rate of the poverty measurement	7.18%	-
Poverty after transfers of both benefits	4.80%	2.38 pp
Poverty after transfer of the universal child allowance	6.02%	1.16 pp
Poverty after the transfer of the family support allowance	5.82%	1.35 pp

EVALUATION RESULTS

Microsimulation

Regarding the reduction of the poverty severity gap, the following results were obtained:

Poverty measurement	Poverty severity gap	
	Value	Impact
Initial rate of the poverty measurement	3.99%	-
Poverty after transfers of both benefits	2.17%	1.82 pp
Poverty after transfer of the universal child allowance	3.10%	0.88 pp
Poverty after the transfer of the family support allowance	2.85%	1.13 pp

Regarding the incidence of benefits, the lower quintile (I) benefits the most from the transfer of benefits:

Quintile	Before transfers	After transfers	% Increase
Quintile I (0%-20%)	1.770,88	2.167.26	22,38%
Quintile II (20%-40%)	3.404,52	3.656.22	7,39%
Quintile III (40%-60%)	4.546,64	4.752.55	4,53%
Quintile IV (60%-80%)	5.729,01	5.939.55	3,68%
Quintile V (80%-100%)	8.429,94	8.639.53	2,49%

EVALUATION RESULTS

Positive effects

- Increased digital skills at the level of general population
- Increasing utilization of digital instruments at the level of public administration
- Increased level of collaboration between local authorities and civil society

AUTHORS - Robert Petraru, Mihaela Iorgulescu-Aioanei

Robert Alexandru Petraru is an expert in programme and policy evaluation, having skills in applying qualitative and quantitative methods, impact analysis and project management. Robert has a master's degree in Public Policy and Development from the University of Maastricht and the United Nations University and has been involved in developing evaluations and studies concerning interventions in Romania. Robert is currently involved as an expert and coordinator in a number of projects, e.g. "Implementation of the Evaluation Plan of the Partnership Agreement - Evaluation of the progress in fulfilling the performance framework indicators - Theme E", which aims to evaluate the progress in reaching the targets of the indicators from the Performance Framework of 8 Operational Programs. As well, Robert was involved in conducting a study on the socio-economic effects of the COVID-19 pandemic on vulnerable families from Romania and on possible policy responses to it.

Mihaela Iorgulescu - Aioanei has a PhD in political science, being the author of the doctoral thesis "Evaluation as a mechanism of change. Institutionalizing the evaluation as a tool for improving the operational programs within the Structural Instruments System in Romania". She also graduated 2 master programmes in evaluation of public policies and programmes, at National University of Political Science and Public administration, Romania and Universidad Complutense de Madrid, Spain. Mihaela Iorgulescu-Aioanei has more than 8 years of experience as a monitoring and evaluation expert, being specialized in regional development, social inclusion and interventions for children. She was involved in evaluations of programmes co-funded by the European Union (EU) in Romania and in other countries, pre-and post-accession to the EU (IPA) and also other international donors as World Bank, the EEA and Norwegian grants and UNICEF.

**Claudia Petrescu & Adriana Negut****Comparing evaluation methods and mapping examples of evaluations supporting policy responses to black swans**

Background: Although humanity has faced various pandemics over time, the COVID-19 pandemic has had a significant impact on contemporary society because of its scale and the need to respond quickly to the challenges it generated. While the pandemic is considered a black swan event (unexpected event with major consequences) (Taleb, 2007), in fact COVID-19 is thought to be more of a white or at least grey swan (Grandori, 2020; Runde, 2009). Even if its consequences are major on society, the event was not unexpected or something that had not happened before (Ezzat and Rubulotta, 2020; Mishra, 2020). COVID-19 pandemic's impact over the society in general is high and the policy responses to the effects in different areas like social protection, education, health, social participation are extremely important. This pandemic situation has raised a host of challenges and stretched the boundaries in many areas of society, leading to a series of public policy measures being adopted to respond in an appropriate measure. The article aims to analyse the COVID-19 pandemic impact on children and their families in Romania and the effectiveness of the public policy measures adopted in the first 4 months of the pandemic in Romania in the field of child protection and education.

Methodology: The paper is drawn on: 1) a policy analysis of the Government measures adopted in the child protection area and education in the first 4 months of the COVID-19 pandemic; and 2) secondary data analysis of a rapid assessment of the situation of children developed between April and June 2020 by UNICEF Romania. The rapid assessment collected in four waves the opinions of professionals (social workers, teachers, community nurses, local authorities) working in child protection and education in Romania.

Main results: Public policy measures adopted in Romania in the first months of the pandemic have tried to increase the capacity of the child protection and education systems to respond to the new challenges. Given the scale of these challenges and the lack of risk management measures in such situations, vulnerable children have been the worst affected by the pandemic. The comparative analysis of the main measures adopted in the first months of the pandemic in Romania shows a strong emphasis on limiting the spread of the disease by introducing measures to enable the provision of distance education or social services. A rapid digitisation of these services has been attempted, but it has been greatly delayed by the lack of the necessary infrastructure, poor access to the internet in some rural areas, low digital skills of both children and parents, as well as of teachers or professionals in the social field. Digitisation has been particularly prevalent in urban schools and among children of at least average socio-economic status.

The recommendations of the central public authorities for reducing the risk of COVID-19 spreading were mainly aimed at limiting the mobility and avoiding direct contact of persons. So a policy measure with a high impact over the vulnerable children were to close or reduce the activity of day care centres and to suspend classes and offer various learning alternatives, including the online education. Considering the situation of many of the vulnerable children, these measures were not sufficient, in the context of poor digitalisation of educational or social services. (UNICEF, 2020)

Conclusion: The impact of the pandemic in the early months was extremely high in Romania, not only because of the associated risks, but especially because it required the adoption of policies to facilitate the provision of services to children, especially the vulnerable. Flexibility and digitisation of services were among the main issues that were promoted. Public policy measures have tried to respond to existing needs, but the lack of evidence and the necessary infrastructure have meant that they have not always been the most effective options adopted.

Theoretical framework

Black swan event (unexpected event with major consequences) (Taleb, 2007)

COVID-19 as a white or at least grey swan (Grandori, 2020; Runde, 2009)

COVID-19's consequences are major on society, but the event was not unexpected or something that had not happened before (Ezzat and Rubulotta, 2020; Mishra, 2020)

Risk analysis framework - risk assessment, risk management, risk communication (Hammit & Robinson, 2021; Greenberg & Lowrie, 2021; Robinson, Sullivan & Shogren, 2021)

Scope & Objectives

Scope: to analyse the COVID-19 pandemic's impact on children and their families in Romania and the effectiveness of the public policy measures adopted in the first 4 months of the pandemic in Romania in the field of child protection and education

Objectives:

- to identify the main public policies adopted in COVID-19 pandemic that address the child's education and social protection
- to assess the situation of children and their families, with a focus on the vulnerable ones, in the context of the COVID-19 pandemic
- to analyse the public policy measures impact on child's education and social protection

Methodology

- Policy analysis of the Government measures adopted in the child protection area and education in the first 4 months of the COVID-19 pandemic;
- Secondary data analysis of a rapid assessment of the situation of children developed between April and June 2020 by UNICEF Romania.

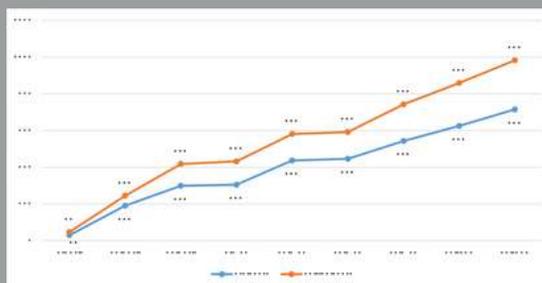
- survey with professionals (CATI - Computer-Assisted Telephone Interviewing)
- four waves



- collect the opinions of professionals (social workers, teachers, community nurses, local authorities) working in child protection, health and education in Romania
- 8 counties – 8 rural communities, 9 urban communities

COVID-19 children case

- The number of COVID-19 children cases rose steadily between April 1, 2020 and June 26, 2020, from 47 to 983 cases among children aged 0-9 years and from 30 to 715 cases for those aged 10-19 years
- In the special protection system 128 children were infected with COVID-19 from the beginning of the pandemic until 3 July 2020



Source: www.datelazi.ro

Public policy measures

- Main measures for reducing the risk of COVID-19 spreading were mainly aimed at limiting the mobility and avoiding direct contact of persons:
 - temporary closure of all public and private educational institutions
 - temporary closure of day care centres/ community centres
 - use of e-mail and teleconference facilities to reduce physical contact and travelling unless imperiously necessary;
 - suspension of audiences and introducing alternative means of submitting requests, such as phone and e-mail;
 - reducing to a minimum the waiting time during the working hours with the public, by submitting requests by e-mail where possible
- Most of the measures tried to enable the provision of distance education or social services.

Public policy measures

EDUCATION

- temporary closure of early childhood, lower and upper secondary, non-university tertiary and vocational schools as of March 11, 2020
- measures to develop and implement the online learning process, to reduce inequalities in the access to IT devices and to the Internet for students from disadvantaged families, to ensure the life-long training of teachers

CHILD PROTECTION

- temporary closure of day care centres/ community centres in first 2 months
- electronic applications for social benefits
- prohibition of closure or suspension of public and private social services, such as residential care and assistance centres for the elderly, residential care centres for children and adults with and without disabilities, as well as for other vulnerable categories.
- preventive isolation of the employees of public or private residential care centres for 14 days at the workplace
- prohibited access in residential centres of visitors/relatives/caregivers/legal representatives of beneficiaries of social services

Findings – education

- **The most affected children:**
 - children from families living in poverty
 - Roma children
 - children living in overcrowded dwellings
 - children with special educational needs
 - children with disabilities
- **Challenges:**
 - poor access to technology and to the Internet for children from families living in poverty and for some of the teachers
 - poor digital skills at children from families living in poverty
 - limited digital skill for teaching in online
 - lack of parental support for completing remote schoolwork
 - poor educational services for refugee/asylum-seeking children, foreign children or those belonging to ethnic or linguistic minorities
 - lack of counselling services
 - poor e-learning material for children with SEN

Findings – education public policy

CHALLENGES ADDRESSED

- need for IT equipment
- e-learning resources
- increase the teachers' digital skills and e-learning competences

CHALLENGES NOT ADDRESSED

- poor internet access
- limited digital skills of children
- limited digital skills of parents
- limited access to e-learning materials for children with SEN

Findings – child protection

- **The most affected children:** children from families living in poverty, Roma children, children living in overcrowded dwellings, children with special educational needs, children with disabilities
- **Challenges:**
 - poor access to social services
 - poor access to day care centres or other preventive services
 - lack of counselling services
 - lack of access to habilitation /rehabilitation services for children with disabilities
 - limited number of services provided in emergency reception centres and day and night shelters
 - insufficient outreach workers/social workers to cover the needs of the community/the number of beneficiaries

Findings – child protection public policy

CHALLENGES ADDRESSED

- online services
- increase the number of social workers

CHALLENGES NOT ADDRESSED

- limited access to preventive services
- limited access to emergency services
- limited access to habilitation/rehabilitation services for children with disabilities

Findings

- Public policy measures adopted in Romania have tried to increase the capacity of the child protection and education systems to respond to the new challenges.
- Given the scale of these challenges and the lack of risk management measures in such situations, vulnerable children have been the worst affected by the pandemic
- Rapid digitisation process has been greatly delayed by the lack of the necessary infrastructure, poor access to the internet in some rural areas, low digital skills of both children and parents, as well as of teachers or professionals in the social field
- Lack of evidence and the necessary infrastructure have greatly delayed the implementation of pandemic mitigation measures

Conclusions

- For Romania, COVID-19 pandemic could be considered as a grey swan – has raised a host of challenges and stretched the boundaries in many areas of society, its consequences were major on society, require a quick response to the challenges it generated
- The consequences were major due to the limited risk assessment, risk management, risk communication capacity of public authorities
- Due to the low level of public services (education, social services, health) digitalisation, COVID-19 impact was very high in the society

AUTHORS - Claudia Petrescu & Adriana Negut

Claudia Petrescu is senior researcher at the Research Institute for Quality of Life (Romanian Academy) and has more than 16 years of experience in implementing research projects in different areas such as child protection, social services, education, community development, social economy and quality of life. She has experience in research design, quantitative and qualitative data collection and analysis, elaborating research reports as well as in coordinating research projects. She has extensive experience in monitoring and evaluation of social initiatives, programmes and public policies. her latest publications have involved evaluation of public policies on NEETs and of people with disabilities.

Adriana Negut is currently a 3rd degree research fellow within the Research Institute for Quality of Life. Adriana received her Ph.D. in sociology (2012) from the University of Bucharest, Faculty of Sociology and Social Work. Adriana has more than 10 years of experience in research projects covering fields such as community development, social economy, employment, education, work-life balance.



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