

# THE IMPACT OF COVID PANDEMIC ON EU CITIZENS' EMOTIONAL WELL- BEING

Eduardo Bericat  
*Universidad de Sevilla*

Massimiliano Mascherini  
*Eurofound, Dublin*



## 15th Conference “Social Monitoring and Reporting in Europe”

Increasing Divergence and Changing  
Social Trends in Europe?  
– Longer-term Developments and  
Consequences of the Pandemic

MAIN PURPOSE:

TO ANALYSE THE IMPACT OF  
COVID-19 ON THE  
EUROPEANS' EMOTIONAL  
WELL-BEING.

METHODOLOGICAL STRATEGY:

TO ANALYSE THE TOTAL AND  
RELATIVE IMPACT OF COVID-  
19, USING FOUR INDICATORS  
OF SUBJECTIVE WELL-BEING,  
AND TWO SURVEYS (2016  
AND 2020).

**TWO SURVEYS**

- EQLS 2016 (European Quality of Life Survey)
- Living, working and COVID-19, June 2020 (2<sup>nd</sup> wave).

**FOUR SUBJECTIVE MEASURES**

- Happiness scale (Hs)
- Life satisfaction scale (LSs)
- Mental well-being index (WHO-5)
- Emotional well-being index (EWBI)

**FOUR RESEARCH QUESTIONS**

- A)** Have happiness changed between 2016 and 2020?
- B)** Has COVID-19 affected different social groups differently?
- C)** Has happiness inequality increased or decreased?
- D)** To what extent do social policies reduce people's suffering?

## FOUR SUBJECTIVE WELL-BEING MEASURES

### HAPPINESS SCALE (1 item)

- *Taking all things together on a scale of 1 to 10, how happy would you say you are?*  
*Here 1 means you are very unhappy and 10 means you are very happy.*

### LIFE SATISFACTION SCALE (1 Item)

- *All things considered, how satisfied are you with your life these days? Please answer on a scale of 1 to 10, where 1 means very dissatisfied and 10 means very satisfied.*

### WHO-5 MENTAL WELL-BEING INDEX (5 items)

*Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks.*

**(1** At no time; **2** Some of the time; **3** Less than half of the time; **4** More than half of the time; **5** Most of the time; **6** All of the time)

- I have felt cheerful and in good spirits
- I have felt calm and relaxed
- I have felt active and vigorous
- I woke up feeling fresh and rested
- My daily life has been filled with things that interest me

### EMOTIONAL WELL-BEING INDEX (9 items)

- Happiness scale
- Life satisfaction scale

*Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks.*

- I have felt lonely
- I have felt downhearted and depressed
- I have felt calm and relaxed
- I have felt active and vigorous
- I woke up feeling fresh and rested

*To what extent do you agree or disagree with the following statements?*

- In general, I feel very positive about myself
- I am optimistic about my future

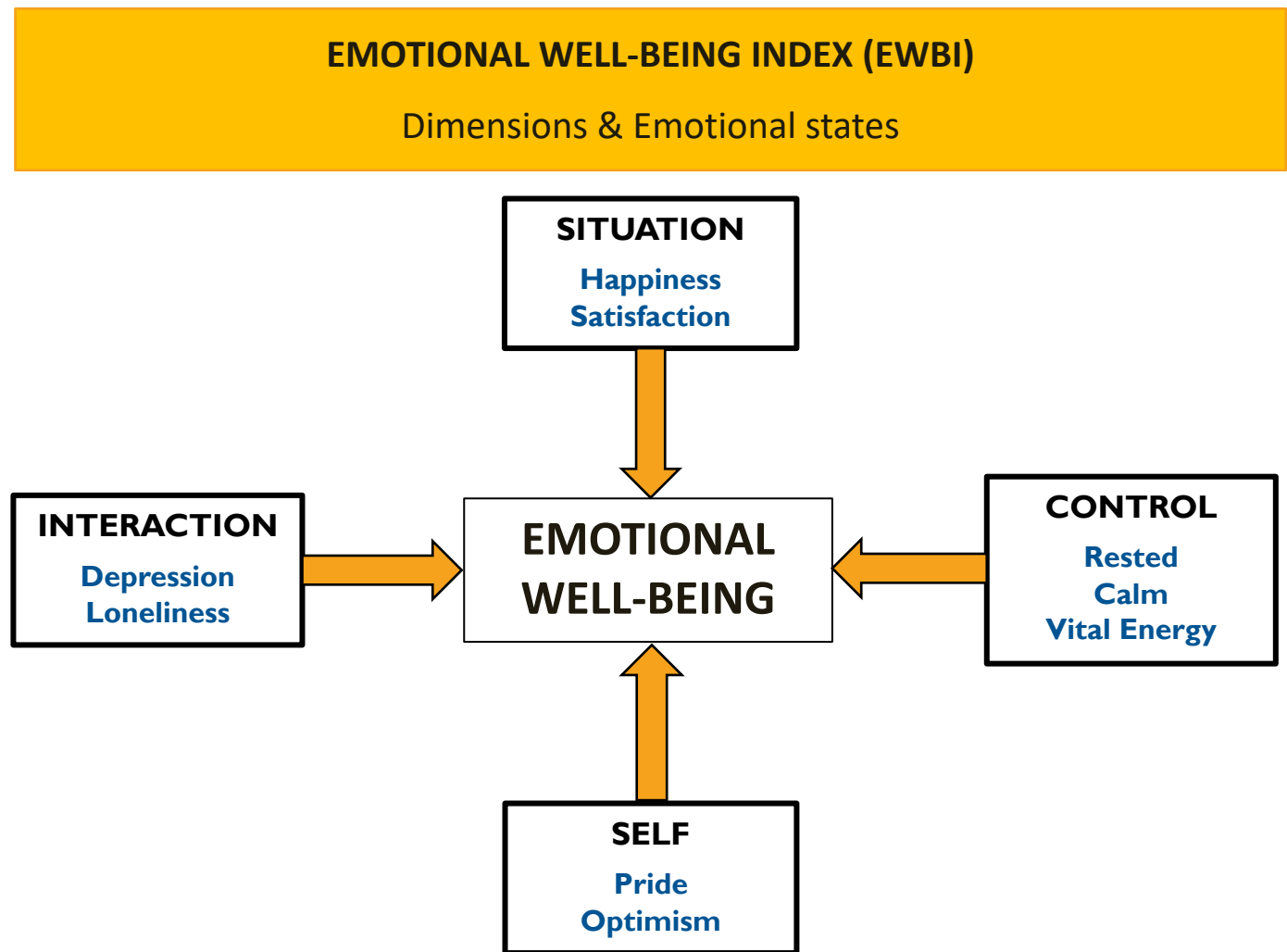
According to the theoretical framework of the *Emotional Well-Being Index* (EWBI), a person's level of happiness depends on four factors/dimensions:

On the one hand, on the objective living conditions ("*Situation*"), and the person's strength ("*Self*").

On the other hand, on the quantity and quality of the social bonds ("*Interaction*") and the power vis a vis against the context ("*Control*").

In blue, the emotion states functioning as indicators of the well-being levels in each of the four dimensions.

Bericat, E. (2014). The Socio-Emotional Well-Being Index. *Social Indicators Research*, 119: 599-626.



A

To what extent has **COVID-19** altered the emotional well-being of Europeans?

For the first time in human history, we have collected, through many surveys conducted all over the world, a vast amount of quantitative information about people's feelings in the midst of a terrible health crisis, a global pandemic caused by a virus that has spread rapidly across the planet.

Thus, it is the first time that we can estimate how much this health crisis, which has ended up being also an economic, social, and emotional crisis, has altered the structure of our feelings, and particularly, our emotional well-being.

# Changes in Subjective Well-Being in the EU, 2020-2016.

## **COVID-19 HAS SIGNIFICANTLY AFFECTED THE SUBJECTIVE WELL-BEING OF EU CITIZENS.**

Although the happiness scale scores are very stable over time, EU happiness dropped from 7.29 in 2016 to 6.79 in 2020, decreasing by 6.9%. Mental well-being has fallen even more (18.5%), at the risk of depression indicator derived from this index has doubled, rising from 22% to 42%.

Indicator	2016	2020	Variation
Life satisfaction scale	7.00	6.69	- 4.4%
Happiness scale	7.29	6.79	- 6.9%
Mental Well-being (WHO-5)	64.33	52.65	- 18.5%
At risk of depression (WHO-5)	21.7%	42.4%	+ 95.4%

**But, what do these numbers mean in terms of emotional well-being?**

How much have our emotion states changed between 2016 and 2020?

## Europeans' Emotional States, 2016 and 2020.

**THE NEGATIVE POLE OF ALL EMOTIONAL STATES HAS SIGNIFICANTLY INCREASED IN 2020**

- 60% of Europeans are not calm and relaxed (only less than half of the time).
- 48% of Europeans do not wake up feeling fresh and rested
- 54% of Europeans are not active and vigorous.
- The percentage of people feeling depressed and lonely in 2020 is twice as high as in 2016.
- Optimism and self-esteem has significantly drop also.

<b>EMOTIONAL STATES</b>	<b>Categories (negative pole)</b>	<b>2016</b>	<b>2020</b>
<b>Happiness</b>	1 to 6	27.9 %	37.0 %
<b>Satisfaction with life</b>	1 to 6	33.1 %	37.9 %
<b>Positive about myself</b>	Disagree/Neither nor	23.0 %	36.9 %
<b>Optimist (own future)</b>	Disagree/Neither nor	37.6 %	50.0 %
<b>Felt depressed</b>	More than half of the time	12.6 %	20.0 %
<b>Felt lonely</b>	More than half of the time	12.0 %	21.2 %
<b>Felt calm and relaxed</b>	Less than half of the time	24.5 %	60.0 %
<b>Felt rested (when wake up)</b>	Less than half of the time	31.6 %	48.3 %
<b>Felt active and vigorous</b>	Less than half of the time	25.8 %	53.8 %

## IMPACT ON EMOTIONAL WELL-BEING: TOTAL AND RELATIVE

### A) TOTAL IMPACT

The impact is measured as the difference between the level of happiness of a social group in two different situations, say 2020 and 2016 years. The total **Impact on emotional well-being** would be:

$$I_{Hp_i} = Hp_{2020_i} - Hp_{2016_i} = 6.79 - 7.29 = -0.5$$

On average, the EU' happiness scale score decreased from 7.29 in 2016 to 6.79 in 2020.

### B) RELATIVE IMPACT

It estimates the emotional impact of a social group, considering that suffered by the general population. Firstly, we need to calculate a particular social group's *happiness deviation* ( $HpD$ ) from the 2016 and 2020 general average.

$$HpD_{2016_i} = Hp_{2016_i} - \overline{Hp}_{2016} \quad \text{and} \quad HpD_{2020_i} = Hp_{2020_i} - \overline{Hp}_{2020}$$

Secondly, the difference between these two deviations gives us a measure of the **Relative Impact on emotional well-being**.

$$RI_i = HpD_{2020_i} - HpD_{2016_i}$$



# B

## Has COVID-19 affected different social groups differently?

Social crises always hit different social groups with different intensity. Some social groups are hit much harder than others.

One way to study the impact of social crises on people is to estimate, through objective indicators, to what extent their living conditions have changed. However, another way to know that impact is to study, with sufficient precision and rigour, the human suffering that every crisis brings about. We can analyse people's living conditions from their own personal and subjective perspective. Precisely, variations in emotional well-being tell us how people experience those objective situations.

In this regard, it is crucial to know to what extent the pandemic has changed the *social distribution of happiness* and unhappiness.

As a relevant example, we offer data about how the COVID-19 has altered the social distribution of happiness by gender and age.

## Relative Impact of COVID-19 Pandemic on EU's Emotional Well-Being, 2020-2016, by Gender and Age

	RELATIVE IMPACT, 2020-2016								Total Impact Happiness Scale score	
	EMOTIONAL WELL-BEING INDEX					MENTAL W-B	HAPPIN. scale	SATISF. scale	2020	2016
	EWBI	Situation	Self	Interaction	Control					
<u>Gender</u>										
<b>Male</b>	<b>0.69</b>	2.48	5.00	-3.12	-1.59	-0.19	0.04	0.06	6.83	7.29
<b>Female</b>	<b>-0.15</b>	-1.54	-4.33	3.15	2.13	0.38	-0.05	-0.05	6.75	7.30
<u>Age</u>										
<b>16-24</b>	<b>-21.60</b>	-11.93	-12.78	-39.60	-22.11	-8.28	-0.62	-0.58	6.61	7.73
<b>25-39</b>	<b>-11.83</b>	-8.40	-10.34	-10.35	-18.27	-4.57	-0.42	-0.28	6.69	7.61
<b>40-54</b>	<b>-3.92</b>	-14.73	3.66	-1.47	-3.18	-1.20	-0.24	-0.27	6.56	7.30
<b>55-69</b>	<b>8.99</b>	11.88	5.39	5.74	12.93	3.37	0.30	0.32	6.88	7.08
<b>70 +</b>	<b>24.73</b>	33.12	7.97	33.32	24.46	8.78	1.05	0.83	7.40	6.85

Sources: EQLS, 2020; LW&COVID-19, 2020 (2<sup>nd</sup> wave).

Women, and especially young people, have been hit hardest emotionally.

## LIVING CONDITIONS OF YOUTH: OBJECTIVE AND SUBJECTIVE

Variable	Content*	AGE		
		16-24	25-29	TOTAL
<b>Unemployed</b>	Unemployment rate	29.0	16.6	16.2
<b>Amount of work (hours)</b>	During Pandemic: decrease a lot/ a little	41.3	29.5	28.0
<b>Employment contract</b>	No unlimited duration	46.5	24.8	19.5
<b>Job insecure</b>	Very likely, likely, Neither nor	33.7	23.0	24.0
<b>Online education</b>	Not a good experience (not agree)	59.7	74.2	61.3
<b>Doing useful work</b>	No always/most of the time	39.9	38.6	28.9
<b>Left out of society</b>	Feeling: strongly agree/agree	21.4	22.5	18.2
<b>Social Support</b>	From relatives/friends: Requested/received	30.2	23.2	18.2
<b>Optimist about country</b>	Not strongly agree/agree	67.1	69.6	69.2

\* All contents have been reoriented toward “bad conditions”

The impoverishment of social relations, the precarious employment situation, dissatisfaction with online education, the feeling of being left out of society, the meaninglessness of many of their activities, and pessimism about their country's future could be behind the comparatively great deterioration of young people's emotional well-being during the pandemic.

C

## Has COVID-19 increase or decrease happiness inequality between and within EU countries?

This research question addresses the crucial issue of convergence or divergence in the EU emotional well-being. Has the COVID-19 pandemic brought us a higher inequality in happiness equality?

To answer this question, we have estimated both the between-nation happiness inequality and within-nation happiness inequality.

Regarding between-countries convergence, we present the Emotional Well-Being index score of each EU country in 2016 and 2020, the relative impact caused by COVID-19 in their EWB, and the total impact in term of the happiness scale.

Regarding within-countries convergence, we present the differences between the standard deviations of each EU country in 2020 and 2016. We have estimated these differences for the four measures of subjective well-being. A positive value represents an increase in happiness inequality, whereas a negative one means higher equality in happiness or emotional well-being.

## THE EU BETWEEN-COUNTRIES CONVERGENCE ON EMOTIONAL WELL-BEING

**COVID-19** has reduced the happiness inequality between EU countries.

The standard deviation of the EWBI has fallen from 13.7 in 2016 to 8.35 in 2020. (The Std. dev. of Life Satisfaction and Happiness scales has also declined: from 0.74 to 0.51, and from 0.53 to 0.39, respectively).

In relative terms, Greece, Italy, Slovenia, Czech Republic and Croatia are among the countries that have most improved their emotional well-being. Conversely, Sweden, Luxembourg, Finland, Portugal, and Ireland have comparatively most decreased their emotional well-being.

In absolute terms, according to happiness scale scores, most of the EU countries has undergone a reduction in their levels of happiness.

Countries	EMOTIONAL WELLBEING INDEX (EWBI)			HAPPINESS SCALE
	2020 score	2016 score	Relative Impact EWBI <sub>2020</sub> - EWBI <sub>2016</sub>	Total Impact H <sub>2020</sub> - H <sub>2016</sub>
Austria	14.3	15.8	-1.5	-0.7
Belgium	-2.6	0.5	-3.1	-0.6
Bulgaria	-7.5	-14.0	6.5	-0.5
Croatia	-5.4	-15.2	9.8	-0.4
Cyprus	-7.7	-8.5	0.8	-0.6
Czech Republic	2.8	-8.1	10.9	0.0
Denmark	22.3	25.8	-3.5	-0.6
Estonia	2.8	0.0	2.7	-0.5
Finland	7.2	20.6	-13.4	-1.1
France	-3.2	-0.1	-3.1	-0.6
Germany	6.1	3.9	2.2	-0.6
Greece	-13.1	-38.9	25.8	0.1
Hungary	-9.4	-7.8	-1.6	-0.8
Ireland	4.4	17.4	-13.0	-0.8
Italy	-1.9	-15.2	13.4	0.1
Latvia	-11.3	-4.2	-7.1	-0.8
Lithuania	-0.9	-9.2	8.3	0.1
Luxembourg	-1.8	11.7	-13.5	-1.3
Malta	-1.3	3.5	-4.8	-0.9
Netherlands	9.8	14.7	-5.0	-0.6
Poland	-7.5	1.7	-9.2	-1.0
Portugal	-10.6	2.7	-13.3	-1.3
Romania	-3.4	-9.7	6.3	-0.4
Slovakia	-6.9	-0.5	-6.4	-0.7
Slovenia	10.2	-0.1	10.3	-0.2
Spain	3.0	1.4	1.6	-0.2
Sweden	-0.2	16.5	-16.8	-1.4
<b>Max-Min</b>	<b>35.4</b>	<b>64.74</b>		
<b>Stand. Deviation</b>	<b>8.35</b>	<b>13.7</b>		

## THE EU WITHIN-COUNTRIES CONVERGENCE ON EMOTIONAL WELL-BEING

**COVID-19** has increased the happiness inequality within EU countries.

On average, the difference between 2020 and 2016 in countries' standard deviation is positive in the four indicators (1.63, 0.21, 0.24, and 1.34, respectively).

But not all countries have increased or decreased their happiness inequality to the same extent. In some countries, like Finland (12.49), Luxembourg (9.47), Netherlands (9.42), or Malta (8.49), inequality in emotional well-being has significantly increased from 2016 to 2020. However, in other countries, like Romania (-7.34), Lithuania (-7.29), Greece (-5.81), or Bulgaria (-4.01), happiness inequality has fallen.

In general, the differences estimated with the other three indicators are consistent with those of the EWBI.

Countries	DIFFERENCES IN STANDARD DEVIATION, 2020-2016			
	EMOTIONAL WELL-BEING INDEX	LIFE SATISFACTION SCALE	HAPPINESS SCALE	MENTAL WELL-BEING INDEX
Austria	4.55	0.22	0.27	3.69
Belgium	4.44	0.15	0.34	3.93
Bulgaria	-4.01	0.14	0.20	1.67
Croatia	-0.97	0.25	0.18	1.86
Cyprus	-2.46	0.06	0.10	-1.07
Czech Republic	5.65	0.21	0.31	2.47
Denmark	3.02	0.05	0.24	1.58
Estonia	3.74	0.09	0.16	0.86
Finland	12.49	0.68	0.72	4.30
France	2.93	0.46	0.38	0.52
Germany	-0.95	0.01	0.18	0.64
Greece	-5.81	0.12	0.04	0.85
Hungary	-2.49	0.14	0.19	1.29
Ireland	5.68	0.18	0.33	1.06
Italy	-1.67	0.19	0.26	-1.52
Latvia	-0.93	0.17	0.05	-0.11
Lithuania	-7.29	-0.21	-0.28	0.70
Luxembourg	9.47	0.42	0.50	2.20
Malta	8.49	0.34	0.39	2.69
Netherlands	9.42	0.68	0.60	2.17
Poland	0.99	0.00	0.09	0.84
Portugal	3.94	0.21	0.22	0.75
Romania	-7.34	-0.07	-0.10	-0.41
Slovakia	0.69	0.14	0.20	3.32
Slovenia	-0.05	0.26	0.10	-0.28
Spain	-2.50	0.12	0.21	-0.51
Sweden	4.97	0.61	0.47	2.75
<b>AVERAGE</b>	<b>1.63</b>	<b>0.21</b>	<b>0.24</b>	<b>1.34</b>

# D

## To what extent do social policies reduce people's suffering?

Social policies aim to enhance people's well-being and to protect them from adversities. However, very rarely we have empirically checked out whether those claims are genuine and measured to what extent.

Individuals are the only ones who can inform us about how much their levels of happiness and emotional well-being have improved after implementing a social policy.

Therefore, an accurate, robust, valid and reliable measure of individuals' emotional well-being is crucial for the subjective evaluation social policies.

We will see how much the unemployment benefits, the wage support policies, and the state aids to business reduce the unhappiness of the unemployed, workers and self-employed hit by the crisis. We will also see the positive impact on the emotional well-being of social support given by relatives and friends, and NGO's.

	EU Popula tion %	SUBJECTIVE WELL-BEING MEASURES							
		EMOTIONAL WELL-BEING INDEX					MENTAL W-B (WHO-5)	HAPPINESS SCALE	SATISFACTION SCALE
		EWBI	Sit.	Self	Inter	Contr.			
<b>Employment status</b>	100%								
Employee	42.3	4.7	10.0	6.3	2.8	-3	53.9	7.0	6.9
Self-employed with emp.	2.2	6.2	7.0	11.3	4.9	1.7	53.5	7.2	6.9
Self-employed without e.	5.3	1.8	-7.3	5.8	5.2	3.5	53.3	6.9	6.6
Unemployed	9.6	-30.7	-76.8	-8.5	-21.0	-16.5	43.2	5.4	4.9
Long-term illness/disabilit	3.3	-29.0	-49.4	-10.2	-12.1	-44.0	40.1	5.5	5.3
Retired	26.8	8.5	15.4	-6.6	13.1	12.2	55.8	7.1	7.1
Homemaker	3.4	-5.2	14.2	-10.4	-12.3	-12.1	50.9	6.7	6.8
Student	7.2	-4.1	8.9	1.4	-31.9	5.4	52.2	6.7	6.7
<b>UNEMPLOYED:</b>	<b>9.6%</b>								
<b>UNEMPLOYMENT BENEFITS</b>									
Have received	(30.1%)	-19.3	-53.2	-3.1	-4.7	-16.1	45.7	6.0	5.5
Request. not yet received	(6.9%)	-46.8	-119.7	-0.6	-33.4	-33.3	37.4	4.4	3.9
Request. but rejected	(6.9%)	-45.4	-113.4	-15.9	-43.4	-8.9	40.9	4.7	4.1
No requested/applicable	(56.0%)	-31.7	-77.8	-12.6	-21.4	-14.9	42.9	5.4	4.9

Unemployment benefits don't resolve the problems of unemployed people completely but significantly reduces their levels of unhappiness.



	EU Popula tion %	SUBJECTIVE WELL-BEING MEASURES							
		EMOTIONAL WELL-BEING					MENTAL W-B (WHO-5)	HAPPIN ESS SCALE	SATISFA CTION SCALE
		EWBI	Sit.	Self	Inter	Contr.			
<b><u>WAGE SUPPORT</u></b>	100%								
Have received	5.6	-3.7	-7.7	.8	-4.2	-3.6	51.3	6.7	6.5
Request. not yet received	1.2	-37.3	-99.6	-8.8	-34.5	-6.2	42.2	5.1	4.5
Request. but rejected	1.0	-22.5	-68.8	6.3	-27.2	-.4	47.1	5.7	5.2
No requested/applicable	92.2	1.6	3.4	.3	1.8	.8	53.1	6.8	6.8
<b><u>STATE AID TO BUSINESS</u></b>	7.1%								
Have received	(34.9)	3.0	-1.0	9.9	1.1	1.9	52.6	7.1	6.7
Request. not yet received	(3.6)	1.6	-89.1	27.6	26.5	41.6	58.5	6.3	5.3
Request. but rejected	(5.1)	-28.3	-38.2	-16.3	-39.9	-19.0	42.7	6.7	5.6
No requested/applicable	(56.4)	7.8	3.9	7.9	13.7	5.6	55.0	7.0	6.9

SUPPORT FROM...	EU Population %	SUBJECTIVE WELL-BEING MEASURES							
		EMOTIONAL WELL-BEING					MENTAL W-B (WHO-5)	HAPPINESS SCALE	SATISFACTION SCALE
		EWBI	Sit.	Self	Inter	Contr.			
<b><u>RELATIVES / FRIENDS</u></b>	100%								
Have received	17.1	-13.7	-21.7	-3.9	-15.0	-14.2	48.2	6.4	6.1
Request. not yet received	0.8	-54.2	-57.4	-26.4	-83.5	-49.3	35.2	4.8	4.8
Request. but rejected	1.3	-59.0	-94.6	-18.7	-84.4	-38.2	34.0	4.6	4.1
No requested/applicable	80.9	5.0	7.7	1.7	5.5	5.2	54.3	6.9	6.9
<b><u>NGO's</u></b>	100%								
Have received	1.8	-16.8	-11.8	-3.7	-51.6	0.0	49.9	6.3	6.2
Request. not yet received	0.7	-42.0	-91.3	-1.9	-65.5	-9.2	43.4	4.9	4.5
Request. but rejected	0.8	-53.8	-118.9	-7.4	-75.4	-13.3	40.5	4.0	3.9
No requested/applicable	96.6	1.8	3.1	.3	2.9	.9	53.1	6.9	6.8

## CONCLUSIONS

**A**

COVID-19 pandemic has significantly reduced the EU citizens' happiness levels, altering their whole emotional structure. The dimension of control, including sentiments like calm, peacefulness, rest and vital energy, has been the most affected.

**B**

COVID-19 pandemic has affected the emotional well-being of different social groups very differently. It is worth noting that the impact on young people has been comparatively much more significant than on other age groups. Policy-makers must seriously consider this relevant and somewhat unexpected result.

**C**

COVID-19 pandemic has made EU countries more equal in term of happiness levels. But the pandemic has increased the happiness inequality within countries, so aggravating the already worrying levels of social inequality. Today, the social distribution of happiness is more unequal than before the crisis.

**D**

COVID-19 has deteriorated people's emotional well-being, but social policies have proved to exert a net cushioning effect. This significant result forces us to think about and design social policies considering their potential effects on the emotional well-being of those affected. Thus, this perspective opens a new approach to the analysis of social policies.

**THANK YOU VERY MUCH  
FOR YOUR ATTENTION**

**Eduardo Bericat**

*ebericat@us.es*

**Massimiliano Mascherini**

*massimiliano.mascherini@eurofound.europa.eu*