

Supplemental information  
for

***Physical Pain, Gender, and the Business  
Cycle in 146 Nations***

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**Figure S.1:** Change in physical pain as a function of change in the unemployment rate in high-GDP countries between 2013 and 2018.

**Text S.1:** Description of measures

**Physical pain:** Did you experience the following feelings during A LOT OF THE DAY yesterday? ... How about Physical Pain? Yes/no.

**Age:**

Respondent's age.

**Gender:**

Respondent's gender.

**Employment status:**

Respondent's employment status.

- Employed full time for an employer
- Employed full time for self
- Employed part time want full time
- Employed part time do not want full time
- Unemployed
- Out of workforce

**Personal income quintiles:**

Respondent's income quintile

- Bottom 20%
- Second 20%
- Third 20%
- Fourth 20%
- Top 20%

**Level of education:**

Respondent's level of education

- Elementary education or less
- Completed high school/college degree
- Completed secondary - tertiary School

**Marital status:**

What is your current marital status?

- Single/never married
- Married
- Separated
- Divorced
- Widowed

**Number of children under 15 in household:**

How many children under 15 years of age are now living in your household.

### **World Bank data - Macroeconomic indicators:**

**Unemployment rate (% of total labour force):** percentage of unemployed people in a total labour force. People are considered unemployed if they do not work and do not report to be engaged in other activities, such as study or in charge of house work.

**Inflation rate (Consumer Price Index, annual %):** change of price of goods and services in an economy. The inflation rate of a country represents the loss in the purchasing power of a nation's currency.

**Gross Domestic Product (GDP) per capita (in constant 2010 US\$):** monetary value of all goods and services produced in a country. It is also called national income.

**Table S.1:** Descriptive statistics of variables involved in the analyses. 146 countries, 2009-2018.

Variable name	N	Mean	St. Dev.	Min	Max
Physical pain	1,302,851	0.29	0.45	0	1
Unemployment rate (%)	1,302,851	7.23	5.39	0.28	32.02
GDP per capita	1,302,851	1.93	1.82	0.06	12.4
Δ GDP per capita	1,302,851	0.03	0.09	-1.05	1.16
GDP per capita (-1)	1,302,851	1.90	1.80	0.06	12.40
GDP per capita (-2)	1,302,851	1.87	1.79	0.06	11.99
Log of GDP per capita	1,302,851	9.35	1.11	6.45	11.72
Δ Log of GDP per capita	1,302,851	0.02	0.03	-0.17	0.21
Log of GDP per capita (-1)	1,302,851	9.33	1.12	6.46	11.72
Log of GDP per capita (-2)	1,302,851	9.31	1.13	6.43	11.69
Inflation rate (%)	1,302,851	4.86	9.55	-6.81	254.94
Male	1,302,851	0.46	0.49	0	1
Age	1,302,851	41.91	17.92	13	101
<i>Employment status</i>					
Employed full time employer	1,302,851	0.27	0.45	0	1
Employed full time self	1,302,851	0.14	0.34	0	1
Employed part time don't want full	1,302,851	0.07	0.26	0	1
Unemployed	1,302,851	0.08	0.26	0	1
Employed part time want full	1,302,851	0.06	0.24	0	1
Out of workforce	1,302,851	0.38	0.49	0	1
<i>Personal income quintiles</i>					
Bottom 20%	1,302,851	0.16	0.37	0	1
Second 20%	1,302,851	0.18	0.38	0	1
Third 20%	1,302,851	0.19	0.39	0	1
Fourth 20%	1,302,851	0.21	0.41	0	1
Top 20%	1,302,851	0.26	0.44	0	1
<i>Level of education</i>					
Elementary	1,302,851	0.33	0.47	0	1
College	1,302,851	0.16	0.37	0	1
Tertiary	1,302,851	0.51	0.49	0	1
<i>Marital status</i>					
Single	1,302,851	0.28	0.45	0	1
Domestic partner	1,302,851	0.05	0.22	0	1
Married	1,302,851	0.53	0.49	0	1
Separated	1,302,851	0.02	0.15	0	1
Divorced	1,302,851	0.04	0.20	0	1
Widowed	1,302,851	0.07	0.26	0	1
Number of children under 15 in the household	1,302,851	1.23	1.78	0	90

Note: GDP is scaled by a factor of 10,000.

**Table S.2:** Descriptive statistics of variables involved in the analyses. 73 low-GDP countries, 2009-2018.

Variable name	N	Mean	St. Dev.	Min	Max
Physical pain	632,105	0.32	0.47	0	1
Unemployment rate (%)	632,105	6.04	4.95	0.29	28.01
GDP per capita	632,105	0.58	0.38	0.06	1.61
$\Delta$ GDP per capita	632,105	0.02	0.03	-0.12	0.11
GDP per capita (-1)	632,105	0.56	0.37	0.06	1.52
GDP per capita (-2)	632,105	0.54	0.36	0.06	1.43
Log of GDP per capita	632,105	8.41	0.77	6.45	9.69
$\Delta$ Log of GDP per capita	632,105	0.03	0.03	-0.16	0.17
Log of GDP per capita (-1)	632,105	8.38	0.76	6.46	9.63
Log of GDP per capita (-2)	632,105	8.35	0.76	6.43	9.57
Inflation rate (%)	632,105	5.79	5.63	-6.8	52.81
Male	632,105	0.47	0.49	0	1
Age	632,105	37.72	16.52	13	101
<i>Employment status</i>					
Employed full time employer	632,105	0.19	0.39	0	1
Employed full time self	632,105	0.2	0.40	0	1
Employed part time don't want full	632,105	0.09	0.29	0	1
Unemployed	632,105	0.08	0.27	0	1
Employed part time want full	632,105	0.07	0.25	0	1
Out of workforce	632,105	0.37	0.48	0	1
<i>Personal income quintiles</i>					
Bottom 20%	632,105	0.17	0.37	0	1
Second 20%	632,105	0.18	0.38	0	1
Third 20%	632,105	0.19	0.39	0	1
Fourth 20%	632,105	0.21	0.41	0	1
Top 20%	632,105	0.25	0.44	0	1
<i>Level of education</i>					
Elementary	632,105	0.49	0.49	0	1
College	632,105	0.08	0.28	0	1
Tertiary	632,105	0.43	0.49	0	1
<i>Marital status</i>					
Single	632,105	0.29	0.46	0	1
Domestic partner	632,105	0.05	0.22	0	1
Married	632,105	0.56	0.49	0	1
Separated	632,105	0.02	0.15	0	1
Divorced	632,105	0.02	0.13	0	1
Widowed	632,105	0.06	0.24	0	1
Number of children under 15 in the household	632,105	1.78	2.08	0	90

Note: GDP is scaled by a factor of 10,000.

**Table S.3:** Descriptive statistics of variables involved in the analyses. 73 high-GDP countries, 2009-2018.

Variable name	N	Mean	St. Dev.	Min	Max
Physical pain	670,746	0.27	0.44	0	1
Unemployment rate (%)	670,746	8.36	5.54	0.48	32.02
GDP per capita	670,746	3.20	1.72	1.14	12.40
$\Delta$ GDP per capita	670,746	0.04	0.12	-1.05	1.17
GDP per capita (-1)	670,746	3.16	1.72	1.09	12.40
GDP per capita (-2)	670,746	3.13	1.71	1.09	11.99
Log of GDP per capita	670,746	10.25	0.50	9.33	11.72
$\Delta$ Log of GDP per capita	670,746	0.014	0.03	-0.18	0.21
Log of GDP per capita (-1)	670,746	10.23	0.50	9.31	11.73
Log of GDP per capita (-2)	670,746	10.22	0.51	9.31	11.69
Inflation rate (%)	670,746	3.99	12.07	-4.48	254.94
Male	670,746	0.46	0.49	0	1
Age	670,746	45.86	18.29	15	100
<i>Employment status</i>					
Employed full time employer	670,746	0.35	0.48	0	1
Employed full time self	670,746	0.08	0.27	0	1
Employed part time don't want full	670,746	0.05	0.21	0	1
Unemployed	670,746	0.07	0.26	0	1
Employed part time want full	670,746	0.06	0.23	0	1
Out of workforce	670,746	0.39	0.49	0	1
<i>Personal income quintiles</i>					
Bottom 20%	670,746	0.16	0.36	0	1
Second 20%	670,746	0.18	0.38	0	1
Third 20%	670,746	0.19	0.39	0	1
Fourth 20%	670,746	0.22	0.41	0	1
Top 20%	670,746	0.25	0.43	0	1
<i>Level of education</i>					
Elementary	670,746	0.18	0.38	0	1
College	670,746	0.24	0.43	0	1
Tertiary	670,746	0.58	0.49	0	1
<i>Marital status</i>					
Single	670,746	0.27	0.44	0	1
Domestic partner	670,746	0.05	0.23	0	1
Married	670,746	0.51	0.49	0	1
Separated	670,746	0.02	0.15	0	1
Divorced	670,746	0.06	0.23	0	1
Widowed	670,746	0.09	0.28	0	1
Number of children under 15 in the household	670,746	0.71	1.24	0	90

Note: GDP is scaled by a factor of 10,000.

**Table S.4:** Physical pain and the business cycle in 146 countries, 2009-2018. Full models, with GDP per capita as control variable, Ordinary Least Squares.

	<i>Dependent variable: Physical pain (1=Yes)</i>				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	0.002*	0.002*	0.003***	0.002*	0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
GDP per capita	-0.029***	-0.049**	-	-0.025**	-
	(0.009)	(0.017)		(0.009)	
GDP per capita (-1)	-	0.021	-	-	-
		(0.023)			
GDP per capita (-2)	-	0.003	-	-	-
		(0.014)			
Δ GDP per capita	-	-	-0.038**	-0.025	-
			(0.015)	(0.015)	
Inflation rate	0.000	0.000	0.000	0.000	-
	(0.000)	(0.000)	(0.000)	(0.000)	
Male	-0.035***	-0.035***	-0.035***	-0.035***	-0.036***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Age	0.007***	0.007***	0.007***	0.007***	0.007***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Age squared	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Employment Status (Ref.: Employed full-time for an employer)					
Employed full-time for self	0.009***	0.009***	0.009***	0.009***	0.009***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Employed part-time want full-time	0.025***	0.025***	0.025***	0.025***	0.026***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Employed part-time do not want full-time	0.016***	0.016***	0.016***	0.016***	0.016***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Unemployed	0.012***	0.012***	0.012***	0.012***	0.013***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Out of workforce	0.022***	0.022***	0.022***	0.022***	0.021***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.002)
Personal income quintiles (Ref.: Bottom 20%)					
Second 20%	-0.025***	-0.025***	-0.025***	-0.025***	-0.024***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Third 20%	-0.045***	-0.045***	-0.045***	-0.045***	-0.045***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Fourth 20%	-0.063***	-0.063***	-0.063***	-0.063***	-0.063***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Top 20%	-0.088***	-0.088***	-0.088***	-0.088***	-0.088***

	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Level of education (Ref.: Elementary)					
Secondary	-0.095*** (0.002)	-0.095*** (0.002)	-0.095*** (0.002)	-0.095*** (0.002)	-0.096*** (0.003)
Tertiary	-0.056*** (0.002)	-0.056*** (0.002)	-0.056*** (0.002)	-0.056*** (0.002)	-0.056*** (0.002)
Marital status (Ref.: Single/never married)					
Domestic partner	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.002)
Married	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.006** (0.002)
Separated	0.025*** (0.003)	0.025*** (0.003)	0.025*** (0.003)	0.025*** (0.003)	0.026*** (0.003)
Divorced	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)	0.022*** (0.003)
Widowed	0.066*** (0.003)	0.066*** (0.003)	0.067*** (0.003)	0.066*** (0.003)	0.068*** (0.003)
Children under 15 in the household	-0.002*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	0.120*** (0.013)	0.118*** (0.014)	0.114*** (0.013)	0.153*** (0.013)	0.117*** (0.013)
N	1,302,851	1,302,851	1,302,851	1,302,851	1,350,985

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show unstandardized OLS coefficients with standard errors clustered by macroeconomic measures in parentheses.

GDP is scaled by a factor of 10,000.

Mean physical pain = 0.29.

**Table S.5:** Physical pain and the business cycle in 73 low-GDP countries, 2009-2018. Full models, with GDP per capita as control variable, Ordinary Least Squares.

	<i>Dependent variable: Physical pain (1=Yes)</i>				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	-0.003 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.001 (0.002)
GDP per capita	-0.067 (0.034)	0.157 (0.127)	- (0.035)	-0.075* (0.035)	- (0.035)
GDP per capita (-1)	- (0.186)	-0.152 (0.186)	- (0.186)	- (0.186)	- (0.186)
GDP per capita (-2)	- (0.121)	-0.083 (0.121)	- (0.121)	- (0.121)	- (0.121)
$\Delta$ GDP per capita	- (0.124)	- (0.124)	0.191 (0.124)	0.236 (0.126)	- (0.126)
Inflation rate	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	- (0.000)
Male	-0.034*** (0.002)	-0.034*** (0.002)	-0.034*** (0.002)	-0.034*** (0.002)	-0.035*** (0.002)
Age	0.006*** (0.000)	0.006*** (0.000)	0.006*** (0.000)	0.006*** (0.000)	0.006*** (0.000)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status <i>(Ref.: Employed full-time for an employer)</i>					
Employed full-time for self	-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)
Employed part-time want full-time	0.006 (0.003)	0.006 (0.003)	0.006 (0.004)	0.006 (0.003)	0.008* (0.003)
Employed part-time do not want full-time	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)
Unemployed	0.000 (0.004)	0.000 (0.004)	0.000 (0.004)	0.000 (0.004)	0.001 (0.004)
Out of workforce	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)
Personal income quintiles <i>(Ref.: Bottom 20%)</i>					
Second 20%	-0.030*** (0.003)	-0.030*** (0.003)	-0.030*** (0.003)	-0.030*** (0.003)	-0.029*** (0.004)
Third 20%	-0.050*** (0.004)	-0.050*** (0.004)	-0.050*** (0.004)	-0.050*** (0.004)	-0.049*** (0.004)
Fourth 20%	-0.064*** (0.004)	-0.064*** (0.004)	-0.064*** (0.004)	-0.064*** (0.004)	-0.063*** (0.004)
Top 20%	-0.090*** (0.004)	-0.090*** (0.004)	-0.090*** (0.004)	-0.090*** (0.004)	-0.089*** (0.004)

Level of education					
<i>(Ref.: Elementary)</i>					
Secondary	-0.083 *** (0.004)	-0.083 *** (0.004)	-0.082 *** (0.004)	-0.083 *** (0.004)	-0.084 *** (0.005)
Tertiary	-0.050 *** (0.002)	-0.050 *** (0.002)	-0.050 *** (0.002)	-0.050 *** (0.002)	-0.051 *** (0.002)
Marital status ( <i>Ref.:</i> <i>Single/never married</i> )					
Domestic partner	0.013 ** (0.004)	0.013 ** (0.004)	0.012 ** (0.004)	0.013 ** (0.004)	0.013 ** (0.004)
Married	0.005 * (0.002)	0.005 * (0.002)	0.005 * (0.002)	0.005 * (0.002)	0.007 * (0.003)
Separated	0.027 *** (0.005)	0.027 *** (0.005)	0.028 *** (0.005)	0.027 *** (0.005)	0.029 *** (0.005)
Divorced	0.030 *** (0.005)	0.030 *** (0.005)	0.030 *** (0.005)	0.030 *** (0.005)	0.033 *** (0.005)
Widowed	0.076 *** (0.004)	0.076 *** (0.004)	0.076 *** (0.004)	0.076 *** (0.004)	0.077 *** (0.004)
Children under 15 in the household	-0.001 * (0.001)	-0.001 * (0.001)	-0.001 * (0.001)	-0.001 * (0.001)	-0.001 (0.000)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	0.253 *** (0.019)	0.252 *** (0.019)	0.230 *** (0.016)	0.252 *** (0.019)	0.144 *** (0.014)
<i>N</i>	632,105	632,105	632,105	632,105	670,289

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show unstandardized OLS coefficients with standard errors clustered by macroeconomic measures in parentheses.

GDP is scaled by a factor of 10,000.

Mean physical pain = 0.32.

**Table S.6:** Physical pain and the business cycle in 73 high-GDP countries, 2009-2018. Full models, with GDP per capita as control variable, Ordinary Least Squares.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	0.003*** (0.001)	0.003*** (0.001)	0.002** (0.001)	0.003*** (0.001)	0.002*** (0.001)
GDP per capita	0.008 (0.008)	-0.004 (0.016)	- (0.011)	0.011 (0.008)	- (0.008)
GDP per capita (-1)	- (0.024)	0.011 (0.024)	- (0.011)	- (0.011)	- (0.011)
GDP per capita (-2)	- (0.015)	0.005 (0.015)	- (0.005)	- (0.005)	- (0.005)
$\Delta$ GDP per capita	- (0.015)	- (0.015)	-0.013 (0.015)	-0.018 (0.016)	- (0.016)
Inflation rate	0.000*** (0.000)	0.000** (0.000)	0.000** (0.000)	0.000** (0.000)	- (0.000)
Male	-0.037*** (0.002)	-0.037*** (0.002)	-0.037*** (0.002)	-0.037*** (0.002)	-0.037*** (0.002)
Age	0.008*** (0.000)	0.008*** (0.000)	0.008*** (0.000)	0.008*** (0.000)	0.008*** (0.000)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status <i>(Ref.: Employed full-time for an employer)</i>					
Employed full-time for self	0.013*** (0.003)	0.013*** (0.003)	0.013*** (0.003)	0.013*** (0.003)	0.013*** (0.003)
Employed part-time want full-time	0.041*** (0.003)	0.041*** (0.003)	0.041*** (0.003)	0.041*** (0.003)	0.041*** (0.003)
Employed part-time do not want full-time	0.019*** (0.003)	0.019*** (0.003)	0.019*** (0.003)	0.019*** (0.003)	0.019*** (0.003)
Unemployed	0.017*** (0.003)	0.017*** (0.003)	0.017*** (0.003)	0.017*** (0.003)	0.017*** (0.003)
Out of workforce	0.044*** (0.003)	0.044*** (0.003)	0.044*** (0.003)	0.044*** (0.003)	0.043*** (0.003)
Personal income quintiles ( <i>Ref.: Bottom 20%</i> )					
Second 20%	-0.018*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)
Third 20%	-0.038*** (0.002)	-0.038*** (0.002)	-0.038*** (0.002)	-0.038*** (0.002)	-0.038*** (0.002)
Fourth 20%	-0.059*** (0.003)	-0.059*** (0.003)	-0.059*** (0.003)	-0.059*** (0.003)	-0.059*** (0.003)
Top 20%	-0.085*** (0.003)	-0.085*** (0.003)	-0.085*** (0.003)	-0.085*** (0.003)	-0.085*** (0.003)
Level of education					

(Ref.: Elementary)					
Secondary	-0.101 *** (0.003)				
Tertiary	-0.061 *** (0.003)				
Marital status (Ref.: Single/never married)					
Domestic partner	0.014 *** (0.003)				
Married	-0.013 *** (0.002)				
Separated	0.027 *** (0.004)	0.027 *** (0.004)	0.027 *** (0.004)	0.027 *** (0.004)	0.026 *** (0.004)
Divorced	0.018 *** (0.003)				
Widowed	0.061 *** (0.004)				
Children under 15 in the household	-0.004 *** (0.001)				
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	0.176 *** (0.031)	0.170 *** (0.031)	0.194 *** (0.025)	0.172 *** (0.031)	0.176 *** (0.026)
<i>N</i>	670,746	670,746	670,746	670,746	676,718

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show unstandardized OLS coefficients with standard errors clustered by macroeconomic measures in parentheses.

GDP is scaled by a factor of 10,000.

Mean physical pain = 0.27.

**Table S.7:** Physical pain and the business cycle in 146 countries, 2009-2018. Full models, with GDP per capita as control variable, Binomial logit regressions.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	0.011*	0.011*	0.015***	0.011*	0.018***
	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)
GDP per capita	-0.125*	-0.254**	-	-0.098	-
	(0.049)	(0.090)		(0.053)	
GDP per capita (-1)	-	0.139	-	-	-
		(0.129)			
GDP per capita (-2)	-	0.020	-	-	-
		(0.077)			
Δ GDP per capita	-	-	-0.215**	-0.164	-
			(0.079)	(0.085)	
Inflation rate	0.000	0.000	0.000	0.000	-
	(0.001)	(0.001)	(0.001)	(0.001)	
Male	-0.183***	-0.183***	-0.183***	-0.183***	-0.186***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Age	0.041***	0.041***	0.041***	0.041***	0.040***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age squared	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Employment Status (Ref.: Employed full-time for an employer)					
Employed full-time for self	0.067***	0.067***	0.067***	0.067***	0.066***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Employed part-time want full-time	0.145***	0.145***	0.145***	0.145***	0.146***
	(0.013)	(0.013)	(0.013)	(0.013)	(0.012)
Employed part-time do not want full-time	0.093***	0.093***	0.093***	0.093***	0.092***
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Unemployed	0.079***	0.079***	0.079***	0.079***	0.082***
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Out of workforce	0.123***	0.123***	0.123***	0.123***	0.119***
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Personal income quintiles (Ref.: Bottom 20%)					
Second 20%	-0.118***	-0.118***	-0.118***	-0.118***	-0.115***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)
Third 20%	-0.218***	-0.218***	-0.218***	-0.218***	-0.218***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.013)
Fourth 20%	-0.311***	-0.311***	-0.311***	-0.311***	-0.310***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.014)
Top 20%	-0.455***	-0.455***	-0.455***	-0.455***	-0.451***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.014)

Level of education (*Ref.:*

*Elementary*)

Secondary	-0.472*** (0.011)	-0.471*** (0.011)	-0.472*** (0.011)	-0.472*** (0.011)	-0.475*** (0.012)
Tertiary	-0.245*** (0.008)	-0.245*** (0.008)	-0.245*** (0.008)	-0.245*** (0.008)	-0.245*** (0.008)

Marital status (*Ref.:*

*Single/never married*)

Domestic partner	0.069*** (0.013)	0.069*** (0.013)	0.069*** (0.013)	0.069*** (0.013)	0.071*** (0.013)
Married	-0.017 (0.010)	-0.017 (0.010)	-0.016 (0.010)	-0.017 (0.010)	-0.009 (0.010)
Separated	0.135*** (0.016)	0.135*** (0.016)	0.135*** (0.016)	0.135*** (0.016)	0.138*** (0.016)
Divorced	0.131*** (0.013)	0.132*** (0.013)	0.132*** (0.013)	0.132*** (0.013)	0.136*** (0.013)
Widowed	0.284*** (0.015)	0.284*** (0.015)	0.284*** (0.015)	0.284*** (0.015)	0.289*** (0.015)
Children under 15 in the household	-0.010*** (0.002)	-0.010*** (0.002)	-0.010*** (0.002)	-0.010*** (0.002)	-0.010*** (0.002)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-1.894*** (0.070)	-1.907*** (0.071)	-1.922*** (0.070)	-1.907*** (0.071)	-1.899*** (0.067)
<i>N</i>	1,302,851	1,302,851	1,302,851	1,302,851	1,350,985

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show logit estimates with standard errors clustered by macroeconomic measures in parentheses.

GDP is scaled by a factor of 10,000.

Mean physical pain = 0.29.

**Table S.8:** Physical pain and the business cycle in 73 low-GDP countries, 2009-2018.  
Full models, with GDP per capita as control variable, Binomial logit regressions.

	<i>Dependent variable: Physical pain (1=Yes)</i>				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	-0.011 (0.010)	-0.007 (0.011)	-0.007 (0.010)	-0.008 (0.010)	-0.005 (0.010)
GDP per capita	-0.142 (0.214)	0.767 (0.660)	- (0.660)	-0.181 (0.218)	- (0.218)
GDP per capita (-1)	- (0.960)	-0.651 (0.960)	- (0.960)	- (0.960)	- (0.960)
GDP per capita (-2)	- (0.609)	-0.311 (0.609)	- (0.609)	- (0.609)	- (0.609)
$\Delta$ GDP per capita	- (0.643)	- (0.643)	0.854 (0.643)	0.967 (0.648)	- (0.648)
Inflation rate	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	- (0.002)
Male	-0.173*** (0.010)	-0.173*** (0.010)	-0.173*** (0.010)	-0.173*** (0.010)	-0.175*** (0.010)
Age	0.033*** (0.001)	0.033*** (0.001)	0.033*** (0.001)	0.033*** (0.001)	0.033*** (0.002)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status (Ref.: Employed full-time for an employer)					
Employed full-time for self	-0.000 (0.017)	-0.000 (0.017)	0.000 (0.017)	-0.000 (0.017)	0.000 (0.018)
Employed part-time want full-time	0.038* (0.018)	0.038* (0.018)	0.039* (0.018)	0.038* (0.018)	0.045* (0.019)
Employed part-time do not want full-time	0.028 (0.021)	0.029 (0.021)	0.029 (0.021)	0.029 (0.021)	0.030 (0.023)
Unemployed	0.007 (0.022)	0.007 (0.022)	0.008 (0.022)	0.007 (0.022)	0.010 (0.023)
Out of workforce	-0.018 (0.021)	-0.017 (0.021)	-0.017 (0.021)	-0.017 (0.021)	-0.018 (0.023)
Personal income quintiles (Ref.: Bottom 20%)					
Second 20%	-0.139*** (0.015)	-0.139*** (0.015)	-0.138*** (0.015)	-0.139*** (0.015)	-0.134*** (0.018)
Third 20%	-0.237*** (0.017)	-0.237*** (0.017)	-0.236*** (0.017)	-0.237*** (0.017)	-0.235*** (0.020)
Fourth 20%	-0.309*** (0.018)	-0.309*** (0.018)	-0.309*** (0.018)	-0.309*** (0.018)	-0.305*** (0.023)
Top 20%	-0.448*** (0.020)	-0.448*** (0.020)	-0.448*** (0.020)	-0.448*** (0.020)	-0.441*** (0.023)

Level of education (Ref.: Elementary)					
Secondary	-0.420*** (0.019)	-0.420*** (0.019)	-0.420*** (0.019)	-0.420*** (0.019)	-0.428*** (0.020)
Tertiary	-0.241*** (0.010)	-0.241*** (0.010)	-0.241*** (0.010)	-0.241*** (0.010)	-0.243*** (0.010)
Marital status (Ref.: <i>Single/never married</i> )					
Domestic partner	0.076*** (0.019)	0.075*** (0.019)	0.075*** (0.019)	0.075*** (0.019)	0.076*** (0.019)
Married	0.043*** (0.011)	0.043*** (0.011)	0.043*** (0.011)	0.043*** (0.011)	0.053*** (0.013)
Separated	0.140*** (0.023)	0.139*** (0.023)	0.140*** (0.023)	0.139*** (0.023)	0.147*** (0.023)
Divorced	0.160*** (0.024)	0.160*** (0.024)	0.160*** (0.024)	0.160*** (0.024)	0.170*** (0.022)
Widowed	0.330*** (0.019)	0.329*** (0.019)	0.329*** (0.019)	0.329*** (0.019)	0.335*** (0.021)
Children under 15 in the household	-0.006* (0.002)	-0.006* (0.002)	-0.006* (0.002)	-0.006* (0.002)	-0.006* (0.002)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-1.761*** (0.086)	-1.761*** (0.086)	-1.778*** (0.081)	-1.758*** (0.086)	-1.798*** (0.077)
<i>N</i>	632,105	632,105	632,105	632,105	670,289

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show logit estimates with standard errors clustered by macroeconomic measures in parentheses.

GDP is scaled by a factor of 10,000.

Mean physical pain = 0.32.

**Table S.9:** Physical pain and the business cycle in 73 high-GDP countries, 2009-2018.  
Full models, with GDP per capita as control variable, Binomial logit regressions.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	0.014 *** (0.004)	0.014 *** (0.004)	0.011 ** (0.004)	0.014 *** (0.004)	0.012 *** (0.004)
GDP per capita	0.054 (0.046)	-0.026 (0.092)	-	0.072 (0.049)	-
GDP per capita (-1)	- (0.134)	0.077	-	-	-
GDP per capita (-2)	- (0.082)	0.027	-	-	-
Δ GDP per capita	- (0.082)	- (0.082)	-0.080 (0.082)	-0.113 (0.089)	-
Inflation rate	0.001 *** (0.000)	0.001 ** (0.000)	0.001 ** (0.000)	0.001 ** (0.000)	-
Male	-0.201 *** (0.011)	-0.201 *** (0.011)	-0.201 *** (0.011)	-0.201 *** (0.011)	-0.203 *** (0.011)
Age	0.045 *** (0.002)	0.045 *** (0.002)	0.045 *** (0.002)	0.045 *** (0.002)	0.045 *** (0.002)
Age squared	-0.000 *** (0.000)	-0.000 *** (0.000)	-0.000 *** (0.000)	-0.000 *** (0.000)	-0.000 *** (0.000)
Employment Status (Ref.: Employed full-time for an employer)					
Employed full-time for self	0.091 *** (0.017)	0.091 *** (0.017)	0.091 *** (0.017)	0.091 *** (0.017)	0.091 *** (0.016)
Employed part-time want full-time	0.238 *** (0.017)	0.238 *** (0.017)	0.238 *** (0.017)	0.238 *** (0.017)	0.234 *** (0.017)
Employed part-time do not want full-time	0.123 *** (0.016)	0.123 *** (0.016)	0.123 *** (0.016)	0.123 *** (0.016)	0.120 *** (0.016)
Unemployed	0.115 *** (0.018)	0.114 *** (0.018)	0.115 *** (0.018)	0.115 *** (0.018)	0.115 *** (0.018)
Out of workforce	0.240 *** (0.016)	0.240 *** (0.016)	0.240 *** (0.016)	0.240 *** (0.016)	0.238 *** (0.016)
Personal income quintiles (Ref.: Bottom 20%)					
Second 20%	-0.095 *** (0.011)	-0.095 *** (0.011)	-0.095 *** (0.011)	-0.095 *** (0.011)	-0.094 *** (0.011)
Third 20%	-0.197 *** (0.013)	-0.197 *** (0.013)	-0.197 *** (0.013)	-0.197 *** (0.013)	-0.197 *** (0.013)
Fourth 20%	-0.309 *** (0.014)	-0.310 *** (0.014)	-0.310 *** (0.014)	-0.309 *** (0.014)	-0.311 *** (0.014)
Top 20%	-0.461 *** (0.013)	-0.461 *** (0.013)	-0.461 *** (0.013)	-0.461 *** (0.013)	-0.461 *** (0.013)

Level of education (Ref.: Elementary)					
Secondary	-0.487*** (0.015)	-0.486*** (0.015)	-0.486*** (0.015)	-0.487*** (0.015)	-0.487*** (0.015)
Tertiary	-0.252*** (0.012)	-0.252*** (0.012)	-0.252*** (0.012)	-0.252*** (0.012)	-0.251*** (0.012)
Marital status (Ref.: Single/never married)					
Domestic partner	0.079*** (0.018)	0.079*** (0.018)	0.079*** (0.018)	0.079*** (0.018)	0.080*** (0.017)
Married	-0.061*** (0.013)	-0.061*** (0.013)	-0.061*** (0.013)	-0.061*** (0.013)	-0.062*** (0.013)
Separated	0.144*** (0.022)	0.144*** (0.022)	0.144*** (0.022)	0.144*** (0.022)	0.141*** (0.022)
Divorced	0.109*** (0.017)	0.109*** (0.017)	0.109*** (0.017)	0.109*** (0.017)	0.106*** (0.017)
Widowed	0.249*** (0.020)	0.249*** (0.020)	0.249*** (0.020)	0.249*** (0.020)	0.250*** (0.019)
Children under 15 in the household	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-1.802*** (0.146)	-1.848*** (0.154)	-1.724*** (0.126)	-1.842*** (0.153)	-1.714*** (0.124)
N	670,746	670,746	670,746	670,746	676,718

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show logit estimates with standard errors clustered by macroeconomic measures in parentheses.  
GDP is scaled by a factor of 10,000.

Mean physical pain = 0.27.

**Table S.10:** Physical pain and the business cycle in 146 countries, 2009-2018. Full models, with log of GDP as control variable, Ordinary Least Squares.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	0.005*** (0.001)	0.005*** (0.001)	0.003*** (0.001)	0.005*** (0.001)	0.004*** (0.001)
Log of GDP per capita	0.136*** (0.028)	0.069 (0.057)	-	0.137*** (0.028)	-
Log of GDP per capita (-1)	- (0.068)	0.047	-	-	-
Log of GDP per capita (-2)	- (0.042)	0.023	-	-	-
Δ Log of GDP per capita	- (0.049)		-0.061 (0.046)	-0.073	-
Inflation rate	0.000** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-
Male	-0.035*** (0.002)	-0.035*** (0.002)	-0.035*** (0.002)	-0.035*** (0.002)	-0.036*** (0.002)
Age	0.007*** (0.000)	0.007*** (0.000)	0.007*** (0.000)	0.007*** (0.000)	0.007*** (0.000)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status ( <i>Ref.: Employed full-time for an employer</i> )					
Employed full-time for self	0.010*** (0.002)	0.010*** (0.002)	0.009*** (0.002)	0.010*** (0.002)	0.009*** (0.002)
Employed part-time want full-time	0.026*** (0.002)	0.026*** (0.002)	0.025*** (0.002)	0.026*** (0.002)	0.026*** (0.002)
Employed part-time do not want full-time	0.016*** (0.002)	0.016*** (0.002)	0.016*** (0.002)	0.016*** (0.002)	0.016*** (0.002)
Unemployed	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.003)	0.013*** (0.003)
Out of workforce	0.022*** (0.003)	0.022*** (0.003)	0.022*** (0.003)	0.022*** (0.003)	0.021*** (0.002)
Personal income quintiles ( <i>Ref.: Bottom 20%</i> )					
Second 20%	-0.025*** (0.002)	-0.025*** (0.002)	-0.025*** (0.002)	-0.025*** (0.002)	-0.024*** (0.002)
Third 20%	-0.045*** (0.002)	-0.045*** (0.002)	-0.045*** (0.002)	-0.045*** (0.002)	-0.045*** (0.003)
Fourth 20%	-0.062*** (0.002)	-0.062*** (0.002)	-0.063*** (0.002)	-0.062*** (0.002)	-0.063*** (0.003)
Top 20%	-0.088*** (0.002)	-0.088*** (0.002)	-0.088*** (0.002)	-0.088*** (0.002)	-0.088*** (0.002)
Level of education ( <i>Ref.:</i>					

<i>Elementary</i>					
Secondary	-0.095*** (0.002)	-0.095*** (0.002)	-0.095*** (0.002)	-0.095*** (0.002)	-0.096*** (0.003)
Tertiary	-0.056*** (0.002)	-0.056*** (0.002)	-0.056*** (0.002)	-0.056*** (0.002)	-0.056*** (0.002)
Marital status ( <i>Ref.: Single/never married</i> )					
Domestic partner	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.002)
Married	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.006** (0.002)
Separated	0.025*** (0.003)	0.025*** (0.003)	0.025*** (0.003)	0.025*** (0.003)	0.026*** (0.003)
Divorced	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)	0.022*** (0.003)
Widowed	0.067*** (0.003)	0.067*** (0.003)	0.067*** (0.003)	0.067*** (0.003)	0.068*** (0.003)
Children under 15 in the household	-0.002*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-0.886*** (0.206)	-0.903*** (0.207)	0.117*** (0.013)	-0.896*** (0.206)	0.117*** (0.013)
<i>N</i>	1,302,851	1,302,851	1,302,851	1,302,851	1,350,985

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show unstandardized OLS coefficients with standard errors clustered by macroeconomic measures in parentheses.

Mean physical pain = 0.29.

**Table S.11:** Physical pain and the business cycle in 73 low-GDP countries, 2009-2018.  
Full models, with log of GDP as control variable, Ordinary Least Squares.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.001 (0.002)
Log of GDP per capita	0.010 (0.037)	0.092 (0.086)	- (0.037)	0.006 (0.037)	- (0.037)
Log of GDP per capita (-1)	- (0.099)	-0.040 (0.099)	- (0.099)	- (0.099)	- (0.099)
Log of GDP per capita (-2)	- (0.064)	-0.049 (0.064)	- (0.064)	- (0.064)	- (0.064)
Δ Log of GDP per capita	- (0.076)	- (0.076)	0.090 (0.076)	0.089 (0.075)	- (0.075)
Inflation rate	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	- (0.000)
Male	-0.035*** (0.002)	-0.035*** (0.002)	-0.035*** (0.002)	-0.035*** (0.002)	-0.035*** (0.002)
Age	0.006*** (0.000)	0.006*** (0.000)	0.006*** (0.000)	0.006*** (0.000)	0.006*** (0.000)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status ( <i>Ref.: Employed full-time for an employer</i> )					
Employed full-time for self	-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)
Employed part-time want full-time	0.006 (0.003)	0.006 (0.003)	0.006 (0.004)	0.006 (0.003)	0.008* (0.003)
Employed part-time do not want full-time	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)
Unemployed	0.000 (0.004)	0.000 (0.004)	0.000 (0.004)	0.000 (0.004)	0.001 (0.004)
Out of workforce	-0.004 (0.004)	-0.003 (0.004)	-0.003 (0.004)	-0.003 (0.004)	-0.004 (0.004)
Personal income quintiles ( <i>Ref.: Bottom 20%</i> )					
Second 20%	-0.030*** (0.003)	-0.030*** (0.003)	-0.030*** (0.003)	-0.030*** (0.003)	-0.029*** (0.004)
Third 20%	-0.050*** (0.004)	-0.050*** (0.004)	-0.050*** (0.004)	-0.050*** (0.004)	-0.049*** (0.004)
Fourth 20%	-0.064*** (0.004)	-0.064*** (0.004)	-0.064*** (0.004)	-0.064*** (0.004)	-0.063*** (0.004)
Top 20%	-0.090*** (0.004)	-0.090*** (0.004)	-0.090*** (0.004)	-0.090*** (0.004)	-0.089*** (0.004)
Level of education ( <i>Ref.: Elementary</i> )					

Secondary	-0.082*** (0.004)	-0.082*** (0.004)	-0.082*** (0.004)	-0.082*** (0.004)	-0.084*** (0.005)
Tertiary	-0.050*** (0.002)	-0.050*** (0.002)	-0.050*** (0.002)	-0.050*** (0.002)	-0.051*** (0.002)
<b>Marital status (Ref.: Single/never married)</b>					
Domestic partner					
	0.013** (0.004)	0.012** (0.004)	0.012** (0.004)	0.012** (0.004)	0.013** (0.004)
Married					
	0.005* (0.002)	0.005* (0.002)	0.005* (0.002)	0.005* (0.002)	0.007* (0.003)
Separated					
	0.028*** (0.005)	0.028*** (0.005)	0.028*** (0.005)	0.028*** (0.005)	0.029*** (0.005)
Divorced					
	0.031*** (0.005)	0.031*** (0.005)	0.030*** (0.005)	0.031*** (0.005)	0.033*** (0.005)
Widowed					
	0.076*** (0.004)	0.076*** (0.004)	0.076*** (0.004)	0.076*** (0.004)	0.077*** (0.004)
Children under 15 in the household					
	-0.001* (0.001)	-0.001* (0.001)	-0.001* (0.001)	-0.001* (0.001)	-0.001 (0.000)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	0.159 (0.283)	0.201 (0.281)	0.229*** (0.016)	0.180 (0.280)	0.144*** (0.014)
<i>N</i>	632,105	632,105	632,105	632,105	670,289

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show unstandardized OLS coefficients with standard errors clustered by macroeconomic measures in parentheses.

Mean physical pain = 0.32.

**Table S.12:** Physical pain and the business cycle in 73 high-GDP countries, 2009-2018.  
Full models, with log of GDP as control variable, Ordinary Least Squares.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	0.005*** (0.001)	0.005*** (0.001)	0.002** (0.001)	0.004*** (0.001)	0.002*** (0.001)
Log of GDP per capita	0.144*** (0.034)	0.029 (0.079)	-	0.154*** (0.035)	-
Log of GDP per capita (-1)	- (0.112)	0.145	-	-	-
Log of GDP per capita (-2)	- (0.063)	-0.023	-	-	-
$\Delta$ Log of GDP per capita	- (0.070)	- (0.065)	-0.080	-0.116	-
Inflation rate	0.000*** (0.000)	0.000** (0.000)	0.000 (0.000)	0.000** (0.000)	-
Male	-0.037*** (0.002)	-0.037*** (0.002)	-0.037*** (0.002)	-0.037*** (0.002)	-0.037*** (0.002)
Age	0.008*** (0.000)	0.008*** (0.000)	0.008*** (0.000)	0.008*** (0.000)	0.008*** (0.000)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status (Ref.: Employed full-time for an employer)					
Employed full-time for self	0.013*** (0.003)	0.013*** (0.003)	0.013*** (0.003)	0.013*** (0.003)	0.013*** (0.003)
Employed part-time want full-time	0.041*** (0.003)	0.041*** (0.003)	0.041*** (0.003)	0.041*** (0.003)	0.041*** (0.003)
Employed part-time do not want full-time	0.019*** (0.003)	0.019*** (0.003)	0.019*** (0.003)	0.019*** (0.003)	0.019*** (0.003)
Unemployed	0.017*** (0.003)	0.017*** (0.003)	0.017*** (0.003)	0.017*** (0.003)	0.017*** (0.003)
Out of workforce	0.044*** (0.003)	0.044*** (0.003)	0.044*** (0.003)	0.044*** (0.003)	0.043*** (0.003)
Personal income quintiles (Ref.: Bottom 20%)					
Second 20%	-0.018*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)
Third 20%	-0.038*** (0.002)	-0.038*** (0.002)	-0.038*** (0.002)	-0.038*** (0.002)	-0.038*** (0.002)
Fourth 20%	-0.059*** (0.003)	-0.059*** (0.003)	-0.059*** (0.003)	-0.059*** (0.003)	-0.059*** (0.003)
Top 20%	-0.085*** (0.003)	-0.085*** (0.003)	-0.085*** (0.003)	-0.085*** (0.003)	-0.085*** (0.003)
Level of education (Ref.: Elementary)					
Secondary	-0.101*** (0.003)	-0.101*** (0.003)	-0.101*** (0.003)	-0.101*** (0.003)	-0.101*** (0.003)

Tertiary	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
	-0.061***	-0.061***	-0.061***	-0.061***	-0.061***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Marital status ( <i>Ref.:</i> <i>Single/never married</i> )					
Domestic partner	0.014***	0.014***	0.014***	0.014***	0.014***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Married	-0.013***	-0.013***	-0.013***	-0.013***	-0.013***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Separated	0.027***	0.027***	0.027***	0.027***	0.026***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Divorced	0.018***	0.019***	0.018***	0.019***	0.018***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Widowed	0.061***	0.061***	0.061***	0.061***	0.061***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Children under 15 in the household	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-1.211***	-1.274***	0.195***	-1.303***	0.176***
	(0.335)	(0.342)	(0.025)	(0.338)	(0.026)
<i>N</i>	670,746	670,746	670,746	670,746	676,718

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show unstandardized OLS coefficients with standard errors clustered by macroeconomic measures in parentheses.

Mean physical pain = 0.27.

**Table S.13:** Physical pain and the business cycle in 146 countries, 2009-2018. Full models, with log of GDP as control variable, Binomial logit regressions.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	0.025*** (0.004)	0.024*** (0.004)	0.015*** (0.004)	0.024*** (0.004)	0.018*** (0.004)
Log of GDP per capita	0.787*** (0.150)	0.358 (0.291)	-	0.803*** (0.149)	-
Log of GDP per capita (-1)	- 1)	0.296 (0.345)	-	-	-
Log of GDP per capita (-2)	- 2)	0.158 (0.214)	-	-	-
Δ Log of GDP per capita	- -	- (0.256)	-0.371 (0.239)	-0.476* (0.239)	-
Inflation rate	0.002** (0.001)	0.001* (0.001)	0.000 (0.001)	0.001* (0.001)	-
Male	-0.183*** (0.008)	-0.183*** (0.008)	-0.184*** (0.008)	-0.183*** (0.008)	-0.186*** (0.008)
Age	0.041*** (0.001)	0.041*** (0.001)	0.041*** (0.001)	0.041*** (0.001)	0.040*** (0.001)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status <i>(Ref.: Employed full-time for an employer)</i>					
Employed full-time for self	0.070*** (0.012)	0.070*** (0.012)	0.067*** (0.012)	0.070*** (0.012)	0.066*** (0.012)
Employed part-time want full-time	0.145*** (0.013)	0.145*** (0.013)	0.145*** (0.013)	0.145*** (0.013)	0.146*** (0.012)
Employed part-time do not want full-time	0.093*** (0.013)	0.093*** (0.013)	0.094*** (0.013)	0.093*** (0.013)	0.092*** (0.013)
Unemployed	0.081*** (0.014)	0.081*** (0.014)	0.079*** (0.014)	0.081*** (0.014)	0.082*** (0.014)
Out of workforce	0.124*** (0.014)	0.124*** (0.014)	0.123*** (0.014)	0.124*** (0.014)	0.119*** (0.014)
Personal income quintiles <i>(Ref.: Bottom 20%)</i>					
Second 20%	-0.118*** (0.010)	-0.118*** (0.010)	-0.118*** (0.010)	-0.118*** (0.010)	-0.115*** (0.011)
Third 20%	-0.218*** (0.011)	-0.218*** (0.011)	-0.218*** (0.011)	-0.218*** (0.011)	-0.218*** (0.013)
Fourth 20%	-0.311*** (0.012)	-0.311*** (0.012)	-0.311*** (0.012)	-0.310*** (0.012)	-0.310*** (0.014)

Top 20%	-0.454 *** (0.012)	-0.454 *** (0.012)	-0.455 *** (0.012)	-0.454 *** (0.012)	-0.451 *** (0.014)
<b>Level of education (Ref.: Elementary)</b>					
Secondary	-0.472 *** (0.011)	-0.471 *** (0.011)	-0.473 *** (0.011)	-0.471 *** (0.011)	-0.475 *** (0.012)
Tertiary	-0.244 *** (0.008)	-0.244 *** (0.008)	-0.245 *** (0.008)	-0.244 *** (0.008)	-0.245 *** (0.008)
<b>Marital status (Ref.: Single/never married)</b>					
Domestic partner	0.069 *** (0.013)	0.069 *** (0.013)	0.069 *** (0.013)	0.069 *** (0.013)	0.071 *** (0.013)
Married	-0.017 (0.010)	-0.017 (0.010)	-0.016 (0.010)	-0.017 (0.010)	-0.009 (0.010)
Separated	0.136 *** (0.016)	0.136 *** (0.016)	0.135 *** (0.016)	0.136 *** (0.016)	0.138 *** (0.016)
Divorced	0.132 *** (0.013)	0.132 *** (0.013)	0.132 *** (0.013)	0.132 *** (0.013)	0.136 *** (0.013)
Widowed	0.284 *** (0.015)	0.284 *** (0.015)	0.284 *** (0.015)	0.284 *** (0.015)	0.289 *** (0.015)
Children under 15 in the household	-0.010 *** (0.002)				
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-7.718 *** (1.100)	-7.884 *** (1.104)	-1.904 *** (0.068)	-7.824 *** (1.096)	-1.899 *** (0.067)
<i>N</i>	1,302,851	1,302,851	1,302,851	1,302,851	1,350,985

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show logit estimates with standard errors clustered by macroeconomic measures in parentheses.

Mean physical pain = 0.29.

**Table S.14:** Physical pain and the business cycle in 73 low-GDP countries, 2009-2018.  
Full models, with log of GDP as control variable, Binomial logit regressions.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	-0.008 (0.010)	-0.006 (0.011)	-0.009 (0.010)	-0.007 (0.011)	-0.005 (0.010)
Log of GDP per capita	0.261 (0.203)	0.473 (0.437)	- (0.203)	0.248 (0.203)	- (0.203)
Log of GDP per capita (-1)	- (0.503)	-0.132 (0.503)	- (0.503)	- (0.503)	- (0.503)
Log of GDP per capita (-2)	- (0.320)	-0.099 (0.320)	- (0.320)	- (0.320)	- (0.320)
Δ Log of GDP per capita	- (0.394)	- (0.394)	0.291 (0.394)	0.231 (0.386)	- (0.386)
Inflation rate	-0.001 (0.002)	-0.000 (0.002)	-0.001 (0.002)	-0.000 (0.002)	- (0.002)
Male	-0.173*** (0.010)	-0.173*** (0.010)	-0.173*** (0.010)	-0.173*** (0.010)	-0.175*** (0.010)
Age	0.033*** (0.001)	0.033*** (0.001)	0.033*** (0.001)	0.033*** (0.001)	0.033*** (0.002)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status ( <i>Ref.: Employed full-time for an employer</i> )					
Employed full-time for self	0.001 (0.017)	0.001 (0.017)	0.000 (0.017)	0.001 (0.017)	0.000 (0.018)
Employed part-time want full-time	0.039* (0.018)	0.039* (0.018)	0.039* (0.018)	0.039* (0.018)	0.045* (0.019)
Employed part-time do not want full-time	0.029 (0.021)	0.029 (0.021)	0.029 (0.021)	0.029 (0.021)	0.030 (0.023)
Unemployed	0.008 (0.021)	0.008 (0.021)	0.007 (0.022)	0.008 (0.021)	0.010 (0.023)
Out of workforce	-0.017 (0.021)	-0.017 (0.021)	-0.017 (0.021)	-0.017 (0.021)	-0.018 (0.023)
Personal income quintiles ( <i>Ref.: Bottom 20%</i> )					
Second 20%	-0.138*** (0.015)	-0.138*** (0.015)	-0.138*** (0.015)	-0.138*** (0.015)	-0.134*** (0.018)
Third 20%	-0.236*** (0.017)	-0.236*** (0.017)	-0.236*** (0.017)	-0.236*** (0.017)	-0.235*** (0.020)
Fourth 20%	-0.309*** (0.018)	-0.309*** (0.018)	-0.309*** (0.018)	-0.309*** (0.018)	-0.305*** (0.023)
Top 20%	-0.447*** (0.020)	-0.447*** (0.020)	-0.448*** (0.020)	-0.447*** (0.020)	-0.441*** (0.023)
Level of education ( <i>Ref.: Elementary</i> )					

Secondary	-0.420*** (0.019)	-0.420*** (0.019)	-0.420*** (0.019)	-0.420*** (0.019)	-0.428*** (0.020)
Tertiary	-0.241*** (0.010)	-0.241*** (0.010)	-0.241*** (0.010)	-0.241*** (0.010)	-0.243*** (0.010)
<b>Marital status (Ref.: Single/never married)</b>					
Domestic partner					
	0.075*** (0.019)	0.075*** (0.019)	0.075*** (0.019)	0.075*** (0.019)	0.076*** (0.019)
Married					
	0.043*** (0.011)	0.043*** (0.011)	0.043*** (0.011)	0.043*** (0.011)	0.053*** (0.013)
Separated					
	0.140*** (0.023)	0.140*** (0.023)	0.140*** (0.023)	0.140*** (0.023)	0.147*** (0.023)
Divorced					
	0.161*** (0.024)	0.161*** (0.024)	0.160*** (0.024)	0.161*** (0.024)	0.170*** (0.022)
Widowed					
	0.329*** (0.019)	0.329*** (0.019)	0.330*** (0.019)	0.329*** (0.019)	0.335*** (0.021)
Children under 15 in the household	-0.006* (0.002)	-0.006* (0.002)	-0.006* (0.002)	-0.006* (0.002)	-0.006* (0.002)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-3.693* (1.496)	-3.566* (1.512)	-1.787*** (0.082)	-3.612* (1.493)	-1.798*** (0.077)
<i>N</i>	632,105	632,105	632,105	632,105	670,289

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show logit estimates with standard errors clustered by macroeconomic measures in parentheses.

Mean physical pain = 0.32.

**Table S.15:** Physical pain and the business cycle in 73 high-GDP countries, 2009-2018.  
Full models, with log of GDP as control variable, Binomial logit regressions.

	Dependent variable: Physical pain (1=Yes)				
	(1)	(2)	(3)	(4)	(5)
Unemployment rate	0.024*** (0.005)	0.024*** (0.005)	0.011** (0.004)	0.024*** (0.005)	0.012*** (0.004)
Log of GDP per capita	0.765*** (0.186)	0.130 (0.414)	-	0.820*** (0.187)	-
Log of GDP per capita (-1)	- (0.582)	0.798	-	-	-
Log of GDP per capita (-2)	- (0.329)	-0.124	-	-	-
Δ Log of GDP per capita	- (0.000)	- (0.367)	-0.458 (0.341)	-0.643	-
Inflation rate	0.002*** (0.000)	0.002*** (0.001)	0.001 (0.000)	0.002*** (0.001)	-
Male	-0.201*** (0.011)	-0.201*** (0.011)	-0.201*** (0.011)	-0.201*** (0.011)	-0.203*** (0.011)
Age	0.045*** (0.002)	0.045*** (0.002)	0.045*** (0.002)	0.045*** (0.002)	0.045*** (0.002)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status (Ref.: Employed full-time for an employer)					
Employed full-time for self	0.091*** (0.017)	0.091*** (0.017)	0.091*** (0.017)	0.091*** (0.017)	0.091*** (0.016)
Employed part-time want full-time	0.238*** (0.017)	0.237*** (0.017)	0.238*** (0.017)	0.237*** (0.017)	0.234*** (0.017)
Employed part-time do not want full-time	0.122*** (0.016)	0.122*** (0.016)	0.123*** (0.016)	0.122*** (0.016)	0.120*** (0.016)
Unemployed	0.115*** (0.018)	0.115*** (0.018)	0.115*** (0.018)	0.115*** (0.018)	0.115*** (0.018)
Out of workforce	0.241*** (0.016)	0.241*** (0.016)	0.240*** (0.016)	0.241*** (0.016)	0.238*** (0.016)
Personal income quintiles (Ref.: Bottom 20%)					
Second 20%	-0.095*** (0.011)	-0.095*** (0.011)	-0.095*** (0.011)	-0.095*** (0.011)	-0.094*** (0.011)
Third 20%	-0.197*** (0.013)	-0.197*** (0.013)	-0.197*** (0.013)	-0.197*** (0.013)	-0.197*** (0.013)
Fourth 20%	-0.309*** (0.014)	-0.309*** (0.014)	-0.310*** (0.014)	-0.309*** (0.014)	-0.311*** (0.014)
Top 20%	-0.461*** (0.013)	-0.460*** (0.013)	-0.461*** (0.013)	-0.461*** (0.013)	-0.461*** (0.013)
Level of education (Ref.: Elementary)					

Secondary	-0.487*** (0.015)	-0.487*** (0.015)	-0.486*** (0.015)	-0.487*** (0.015)	-0.487*** (0.015)
Tertiary	-0.253*** (0.012)	-0.253*** (0.012)	-0.252*** (0.012)	-0.253*** (0.012)	-0.251*** (0.012)
Marital status ( <i>Ref.: Single/never married</i> )					
Domestic partner	0.080*** (0.018)	0.080*** (0.018)	0.079*** (0.018)	0.080*** (0.018)	0.080*** (0.017)
Married	-0.061*** (0.013)	-0.061*** (0.013)	-0.061*** (0.013)	-0.061*** (0.013)	-0.062*** (0.013)
Separated	0.145*** (0.022)	0.145*** (0.022)	0.144*** (0.022)	0.145*** (0.022)	0.141*** (0.022)
Divorced	0.109*** (0.017)	0.109*** (0.017)	0.109*** (0.017)	0.109*** (0.017)	0.106*** (0.017)
Widowed	0.250*** (0.020)	0.250*** (0.020)	0.249*** (0.020)	0.250*** (0.020)	0.250*** (0.019)
Children under 15 in the household	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-9.058*** (1.788)	-9.444*** (1.821)	-1.724*** (0.125)	-9.596*** (1.803)	-1.714*** (0.124)
<i>N</i>	670,746	670,746	670,746	670,746	676,718

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show logit estimates with standard errors clustered by macroeconomic measures in parentheses.

Mean physical pain = 0.27.

**Table S.16:** Physical pain and the business cycle in 73 high-GDP countries, 2009-2018.  
Full models, with GDP per capita as control variable, Ordinary Least Squares. Subsamples.

	Dependent variable: Physical pain (1=Yes)			
	Men	Women	> 60 years old	Low education
Unemployment rate	0.001 (0.001)	0.004*** (0.001)	0.003* (0.001)	0.003** (0.001)
GDP per capita	-0.001 (0.008)	0.023* (0.011)	0.039* (0.016)	0.035* (0.017)
Δ GDP per capita	0.007 (0.013)	-0.035 (0.023)	-0.074** (0.027)	-0.080* (0.034)
Inflation rate	0.000** (0.000)	0.000* (0.000)	0.001*** (0.000)	0.000* (0.000)
Male	-	-	-0.064*** (0.003)	-0.054*** (0.004)
Age	0.006*** (0.000)	0.009*** (0.000)	0.026*** (0.003)	0.010*** (0.001)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status ( <i>Ref.:</i> <i>Employed full-time for an employer</i> )				
Employed full-time for self	0.010** (0.003)	0.023*** (0.004)	0.024** (0.008)	0.001 (0.008)
Employed part-time want full-time	0.038*** (0.005)	0.047*** (0.004)	0.041*** (0.010)	0.038*** (0.008)
Employed part-time do not want full-time	0.025*** (0.004)	0.021*** (0.004)	0.035*** (0.006)	0.013 (0.007)
Unemployed	0.001 (0.004)	0.032*** (0.005)	0.052*** (0.013)	0.011 (0.008)
Out of workforce	0.045*** (0.004)	0.045*** (0.003)	0.071*** (0.005)	0.035*** (0.006)
Personal income quintiles ( <i>Ref.:</i> Bottom 20%)				
Second 20%	-0.021*** (0.003)	-0.018*** (0.003)	-0.018*** (0.005)	-0.027*** (0.004)
Third 20%	-0.040*** (0.003)	-0.039*** (0.003)	-0.044*** (0.005)	-0.044*** (0.005)
Fourth 20%	-0.061*** (0.003)	-0.060*** (0.003)	-0.070*** (0.005)	-0.067*** (0.005)
Top 20%	-0.084*** (0.003)	-0.088*** (0.003)	-0.109*** (0.006)	-0.097*** (0.006)
Level of education ( <i>Ref.:</i> <i>Elementary</i> )				
Secondary	-0.098*** (0.004)	-0.098*** (0.004)	-0.115*** (0.005)	-
Tertiary	-0.052*** (0.003)	-0.065*** (0.003)	-0.076*** (0.006)	-

	(0.003)	(0.003)	(0.004)	
Marital status ( <i>Ref.:</i> <i>Single/never married</i> )				
Domestic partner	0.018*** (0.004)	0.014*** (0.004)	0.014 (0.010)	0.031*** (0.008)
Married	-0.004 (0.003)	-0.016*** (0.003)	-0.014** (0.005)	0.004 (0.005)
Separated	0.036*** (0.007)	0.023*** (0.005)	0.023* (0.010)	0.039*** (0.010)
Divorced	0.028*** (0.005)	0.013** (0.004)	0.016** (0.006)	0.028*** (0.009)
Widowed	0.061*** (0.006)	0.048*** (0.005)	0.028*** (0.005)	0.065*** (0.007)
Children under 15 in the household	-0.002** (0.001)	-0.006*** (0.001)	-0.003 (0.002)	-0.003* (0.001)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Constant	0.207*** 0.032	0.073* 0.035	-0.433*** 0.116	0.055 0.046
<i>N</i>	305,247	365,499	159,861	118,766

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show unstandardized OLS coefficients with standard errors clustered by macroeconomic measures in parentheses.

GDP is scaled by a factor of 10,000.

Mean physical pain = 0.27.

**Table S.17:** Physical pain and the business cycle in 73 high-GDP countries, 2009-2018. Full models, with GDP per capita as control variable, Binomial logit regressions. Subsamples.

	Dependent variable: Physical pain (1=Yes)			
	Men	Women	> 60 years old	Low education
Unemployment rate	0.006 (0.005)	0.022 *** (0.005)	0.012 * (0.005)	0.016 ** (0.006)
GDP per capita	0.006 (0.050)	0.130 * (0.059)	0.186 * (0.074)	0.181 * (0.081)
Δ GDP per capita	0.029 (0.076)	-0.206 (0.124)	-0.355 ** (0.128)	-0.392 * (0.165)
Inflation rate	0.001 ** (0.000)	0.001 ** (0.000)	0.003 *** (0.001)	0.001 * (0.001)
Male	-	-	-0.298 *** (0.015)	-0.254 *** (0.020)
Age	0.037 *** (0.002)	0.051 *** (0.002)	0.122 *** (0.012)	0.055 *** (0.003)
Age squared	-0.000 *** (0.000)	-0.000 *** (0.000)	-0.001 *** (0.000)	-0.000 *** (0.000)
Employment Status ( <i>Ref.: Employed full-time for an employer</i> )				
Employed full-time for self	0.074 *** (0.019)	0.140 *** (0.023)	0.156 *** (0.040)	0.007 (0.037)
Employed part-time want full-time	0.223 *** (0.025)	0.263 *** (0.022)	0.241 *** (0.048)	0.172 *** (0.039)
Employed part-time do not want full-time	0.151 *** (0.023)	0.123 *** (0.020)	0.210 *** (0.033)	0.050 (0.034)
Unemployed	0.021 (0.024)	0.193 *** (0.024)	0.299 *** (0.061)	0.050 (0.039)
Out of workforce	0.256 *** (0.021)	0.241 *** (0.017)	0.382 *** (0.029)	0.144 *** (0.028)
Personal income quintiles ( <i>Ref.: Bottom 20%</i> )				
Second 20%	-0.110 *** (0.015)	-0.090 *** (0.014)	-0.082 *** (0.022)	-0.128 *** (0.019)
Third 20%	-0.211 *** (0.017)	-0.196 *** (0.015)	-0.199 *** (0.023)	-0.205 *** (0.021)
Fourth 20%	-0.330 *** (0.017)	-0.306 *** (0.016)	-0.315 *** (0.024)	-0.314 *** (0.024)
Top 20%	-0.475 *** (0.017)	-0.460 *** (0.017)	-0.508 *** (0.025)	-0.462 *** (0.028)
Level of education ( <i>Ref.: Elementary</i> )				
Secondary	-0.515 *** (0.019)	-0.446 *** (0.017)	-0.520 *** (0.022)	-
Tertiary	-0.229 *** (0.015)	-0.259 *** (0.014)	-0.313 *** (0.017)	-

Marital status (*Ref.:*  
*Single/never married*)

Domestic partner	0.107*** (0.024)	0.077*** (0.022)	0.066 (0.045)	0.175*** (0.039)
Married	-0.015 (0.016)	-0.076*** (0.018)	-0.065** (0.023)	0.038 (0.024)
Separated	0.203*** (0.034)	0.121*** (0.027)	0.106* (0.044)	0.194*** (0.046)
Divorced	0.167*** (0.025)	0.078*** (0.020)	0.081** (0.029)	0.151*** (0.038)
Widowed	0.285*** (0.028)	0.198*** (0.023)	0.114*** (0.025)	0.285*** (0.030)
Children under 15 in the household	-0.013** (0.005)	-0.026*** (0.005)	-0.017 (0.009)	-0.011 (0.006)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Constant	0.212*** 0.035	0.103*** 0.018	0.009*** 0.005	0.090*** 0.018
<i>N</i>	305,247	365,499	159,861	118,766

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show logit estimates with standard errors clustered by macroeconomic measures in parentheses.

GDP is scaled by a factor of 10,000.

Mean physical pain = 0.27.

**Table S.18:** Physical pain and the business cycle in 73 high-GDP countries, 2009-2018. Full models, with log of GDP as control variable, Ordinary Least Squares. Subsamples.

	Dependent variable: Physical pain (1=Yes)			
	Men	Women	> 60 years old	Low education
Unemployment rate	0.002*	0.007*** (0.001)	0.002 (0.001)	0.005*** (0.002)
Log of GDP per capita	0.081** (0.031)	0.217*** (0.045)	0.064 (0.058)	0.226*** (0.063)
Δ Log of GDP per capita	-0.015 (0.056)	-0.188* (0.085)	-0.251* (0.103)	-0.326** (0.123)
Inflation rate	0.000*** (0.000)	0.000** (0.000)	0.001*** (0.000)	0.000 (0.000)
Male	-	-	-0.064*** (0.003)	-0.054*** (0.004)
Age	0.006*** (0.000)	0.009*** (0.000)	0.026*** (0.003)	0.010*** (0.001)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Employment Status ( <i>Ref.:</i> <i>Employed full-time for an employer</i> )				
Employed full-time for self	0.010** (0.003)	0.023*** (0.004)	0.025** (0.008)	0.001 (0.008)
Employed part-time want full-time	0.038*** (0.005)	0.047*** (0.004)	0.041*** (0.010)	0.038*** (0.008)
Employed part-time do not want full-time	0.025*** (0.004)	0.021*** (0.004)	0.035*** (0.006)	0.013 (0.007)
Unemployed	0.001 (0.004)	0.032*** (0.005)	0.052*** (0.013)	0.011 (0.008)
Out of workforce	0.045*** (0.004)	0.045*** (0.003)	0.071*** (0.005)	0.035*** (0.006)
Personal income quintiles ( <i>Ref.:</i> <i>Bottom 20%</i> )				
Second 20%	-0.021*** (0.003)	-0.018*** (0.003)	-0.018*** (0.005)	-0.027*** (0.004)
Third 20%	-0.040*** (0.003)	-0.039*** (0.003)	-0.045*** (0.005)	-0.044*** (0.005)
Fourth 20%	-0.061*** (0.003)	-0.060*** (0.003)	-0.070*** (0.005)	-0.067*** (0.005)
Top 20%	-0.084*** (0.003)	-0.087*** (0.003)	-0.109*** (0.006)	-0.097*** (0.006)
Level of education ( <i>Ref.:</i> <i>Elementary</i> )				
Secondary	-0.098*** (0.004)	-0.098*** (0.004)	-0.115*** (0.005)	-
Tertiary	-0.052*** (0.003)	-0.065*** (0.003)	-0.076*** (0.004)	-
Marital status ( <i>Ref.:</i>				

<i>Single/never married</i>				
Domestic partner	0.019*** (0.004)	0.014*** (0.004)	0.014 (0.010)	0.031*** (0.008)
Married	-0.004 (0.003)	-0.016*** (0.003)	-0.014** (0.005)	0.004 (0.005)
Separated	0.036*** (0.007)	0.024*** (0.005)	0.023* (0.010)	0.039*** (0.010)
Divorced	0.028*** (0.005)	0.013** (0.004)	0.016** (0.006)	0.028** (0.009)
Widowed	0.061*** (0.006)	0.048*** (0.005)	0.027*** (0.005)	0.065*** (0.007)
Children under 15 in the household	-0.002** (0.001)	-0.006*** (0.001)	-0.003 (0.002)	-0.003* (0.001)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Constant	-0.574	-1.968***	-0.988	-2.072***
	0.298	0.435	0.573	0.611
<i>N</i>	305,247	365,499	159,861	118,766

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show unstandardized OLS coefficients with standard errors clustered by macroeconomic measures in parentheses.

Mean physical pain = 0.27.

**Table S.19:** Physical pain and the business cycle in 73 high-GDP countries, 2009-2018.  
Full models, with log of GDP as control variable, Binomial logit regressions. Subsamples.

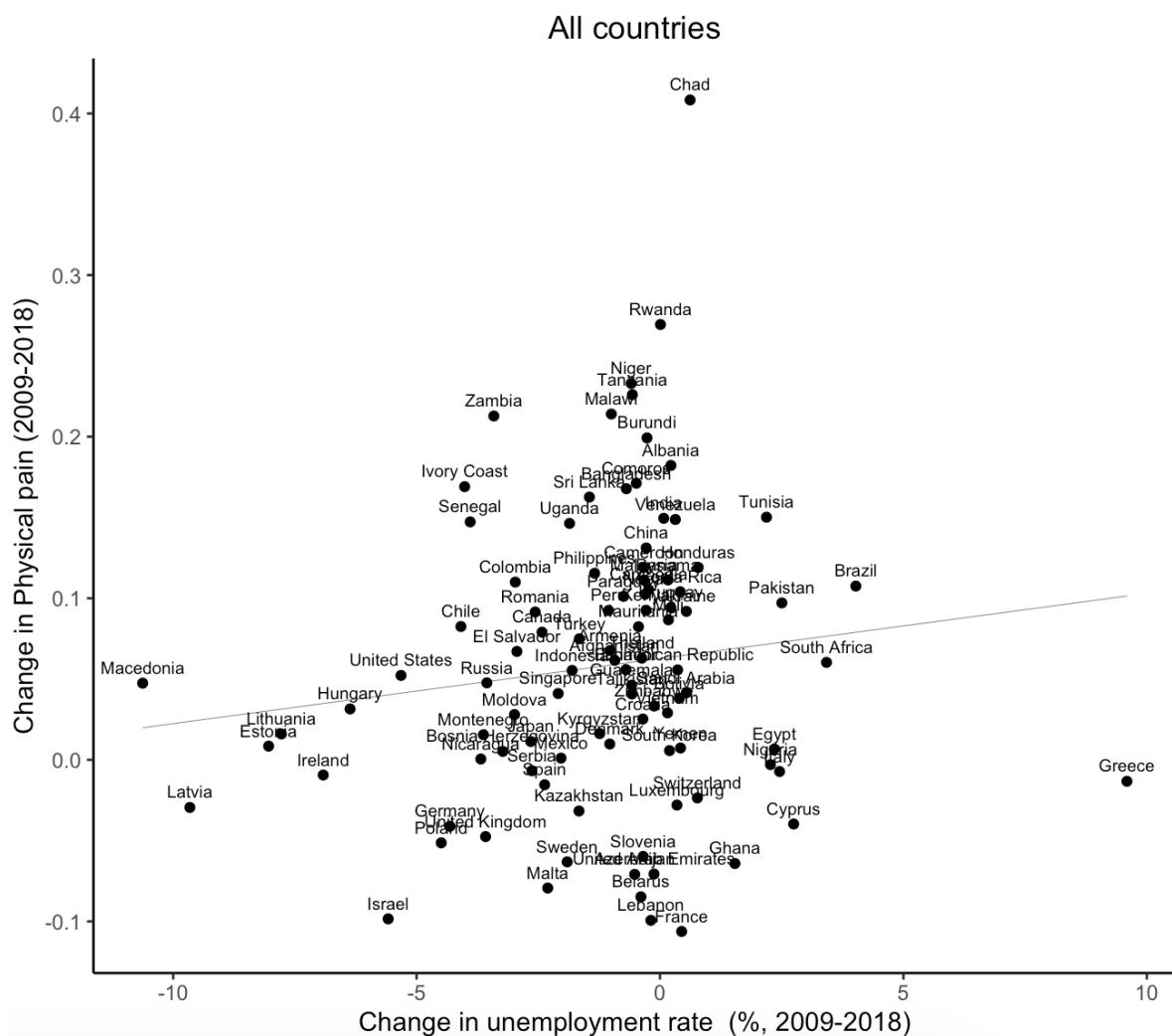
	Dependent variable: Physical pain (1=Yes)			
	Men	Women	> 60 years old	Low education
Unemployment rate	0.012* (0.005)	0.033*** (0.005)	0.008 (0.006)	0.024*** (0.007)
Log of GDP per capita	0.459* (0.181)	1.099*** (0.234)	0.245 (0.257)	1.053*** (0.287)
Δ Log of GDP per capita	-0.100 (0.315)	-0.994* (0.429)	-1.126* (0.463)	-1.513** (0.563)
Inflation rate	0.002*** (0.001)	0.002** (0.001)	0.003** (0.001)	0.001 (0.001)
Male	- 	- 	-0.298*** (0.015)	-0.253*** (0.019)
Age	0.037*** (0.002)	0.051 *** (0.002)	0.122*** (0.012)	0.055 *** (0.003)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.001*** (0.000)	-0.000*** (0.000)
Employment Status ( <i>Ref.:</i> <i>Employed full-time for an employer</i> )				
Employed full-time for self	0.074*** (0.019)	0.140*** (0.023)	0.156*** (0.040)	0.007 (0.037)
Employed part-time want full-time	0.223*** (0.025)	0.262 *** (0.022)	0.241*** (0.048)	0.170*** (0.039)
Employed part-time do not want full-time	0.151*** (0.023)	0.122 *** (0.020)	0.210*** (0.033)	0.050 (0.034)
Unemployed	0.021 (0.024)	0.192 *** (0.024)	0.298*** (0.061)	0.051 (0.039)
Out of workforce	0.256*** (0.021)	0.241 *** (0.017)	0.381*** (0.029)	0.144*** (0.028)
Personal income quintiles ( <i>Ref.:</i> <i>Bottom 20%</i> )				
Second 20%	-0.110*** (0.015)	-0.090*** (0.014)	-0.083 *** (0.022)	-0.129 ** (0.019)
Third 20%	-0.211*** (0.017)	-0.196 *** (0.015)	-0.200 *** (0.023)	-0.206 *** (0.021)
Fourth 20%	-0.330*** (0.017)	-0.305 *** (0.016)	-0.316 *** (0.024)	-0.314 *** (0.024)
Top 20%	-0.476*** (0.017)	-0.459 *** (0.017)	-0.509 *** (0.025)	-0.461 *** (0.028)
Level of education ( <i>Ref.:</i> <i>Elementary</i> )				
Secondary	-0.516*** (0.019)	-0.447 *** (0.017)	-0.520 *** (0.022)	- 
Tertiary	-0.229*** (0.017)	-0.260 *** (0.017)	-0.313 *** (0.025)	- 

	(0.015)	(0.014)	(0.017)	
Marital status ( <i>Ref.: Single/never married</i> )				
Domestic partner	0.108*** (0.024)	0.079*** (0.022)	0.066 (0.045)	0.177*** (0.039)
Married	-0.015 (0.016)	-0.076*** (0.018)	-0.065** (0.023)	0.037 (0.024)
Separated	0.204*** (0.034)	0.123*** (0.027)	0.106* (0.044)	0.195*** (0.046)
Divorced	0.167*** (0.025)	0.078*** (0.020)	0.080** (0.029)	0.151*** (0.038)
Widowed	0.285*** (0.028)	0.199*** (0.023)	0.113*** (0.025)	0.286*** (0.030)
Children under 15 in the household	-0.013** (0.005)	-0.026*** (0.005)	-0.017 (0.009)	-0.011 (0.006)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Constant	0.003** 0.005	3.33e-06*** 7.49e-06	0.001** 0.003	4.99e-06*** 0.00001
<i>N</i>	305,247	365,499	159,861	118,766

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Models show logit estimates with standard errors clustered by macroeconomic measures in parentheses.

Mean physical pain = 0.27.



**Figure S.1:** Change in physical pain as a function of change in the unemployment rate in high-GDP countries between 2009 and 2018.  $b = 0.004$ ,  $s.e = 0.003$ ,  $t = 1.244$ ,  $p = 0.216$ . Intercept = 0.062,  $s.e = 0.009$ ,  $t = 6.341$ ,  $p < .001$