

# What drives the French discontent?

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# Motivation

- ▶ **Evidence of rising discontent against democratic governments worldwide. I study the case of France:**
  - ▶ The Yellow Vest mobilization
  - ▶ Abstention
  - ▶ Vote (or support) for populist parties
- ▶ **Underlying causes often discussed in the media:**
  - ▶ Economic insecurity
  - ▶ The taxation burden
  - ▶ The loss of local amenities
  - ▶ Loneliness
- ▶ **What this paper does: Looks at the role of each of these factors in explaining discontent**

# Literature Review

- ▶ **This work echoes the large literature on populism....:**
  - ▶ Traditional objective variables
    - ▶ Unemployment ([Algan et al. 2017](#))
    - ▶ Income and Education ([Fetzer 2018](#))
    - ▶ Immigration ([Otto and Steindhart 2018](#), [Barone et al. 2016](#), [Becker et al. 2017](#), [Halla et al. 2017](#))
    - ▶ International trade exposure ([Colantone and Staning 2016](#), [Malgouyres 2017](#), [Autor et al. 2016](#))
  - ▶ Non-traditional subjective variables
    - ▶ Life Satisfaction and Social Trust ([Algan et al. 2018](#))
    - ▶ Culture ([Inglehart et al. 2016](#))
    - ▶ Perceptions ([Anduiza and Rico 2016](#))

# Literature Review

- ▶ ...and complements the recent and scarce existing literature on the Yellow Vest crisis (Boyer et al. 2020) which study:
  - ▶ The different forms of the Yellow Vest mobilization (online/offline)
  - ▶ The role of mobility in explaining support for the movement (commuting distances)
  - ▶ Consequences on subsequent European elections

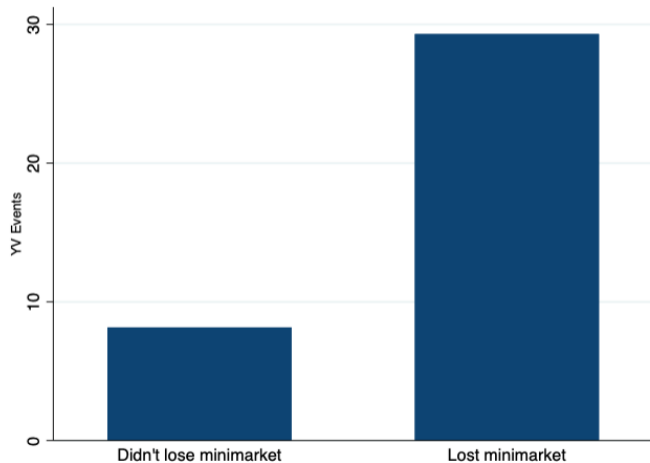
# Data

Data at the municipalities level on:

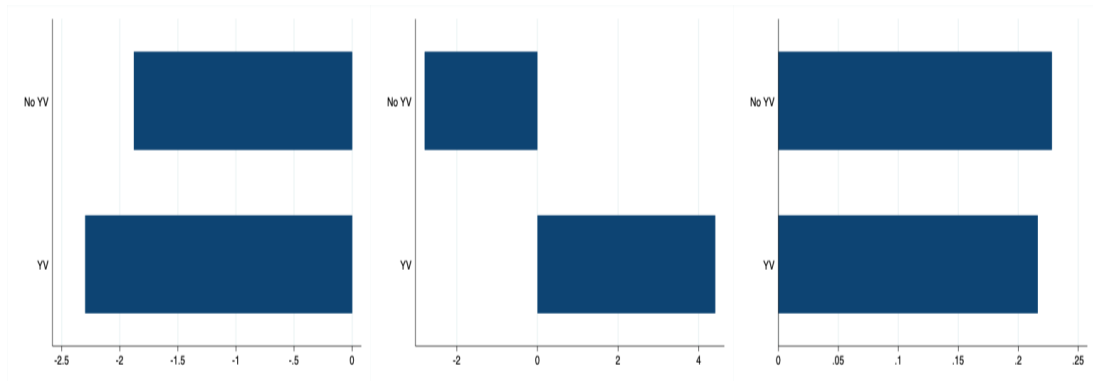
- ▶ **Yellow Vest mobilization:** Police estimation (*Ministère de l'Intérieur*) and web-scraping of self reported participation (*lesgiletsjaunes.fr*)  $\approx$  8% of the municipalities
- ▶ **Abstention rate and support for populism:** Vote outcomes during the 2012 and 2017 presidential elections (*data.gouv.fr*)
- ▶ **Economic Insecurity:** Employment rate (*INSEE*)
- ▶ **The tax burden:** Housing and firm tax rates (*data.gouv.fr*)
- ▶ **The loss of amenities:** (*INSEE*)
- ▶ **Loneliness:** # of associations (*data.gouv.fr*)

# Data

- ▶ 29% of the municipalities that have lost a minimarket between 2012 and 2017 experienced a Yellow Vests event



# Data



(a)  $\Delta$  Employment rate 10-15

(b)  $\Delta$  Local Taxation 12-17

(c)  $\Delta$  # Associations 12-17

# Descriptive Analysis

We estimate how each of the factors correlates with discontent

- ▶ First difference equation:

$$\Delta y_{it} = \beta_1 \Delta x_{1it} + \beta_2 \Delta x_{2it} + \beta_3 \Delta x_{3it} + \beta_4 \Delta x_{4it} + FE_d + \theta w_i + \Delta u_{i,t}$$

- ▶  $\Delta y_{it}$  are the different outcome variables in municipality  $i$ , and during the time interval  $t$
- ▶  $\Delta x_{1it}$ ,  $\Delta x_{2it}$ ,  $\Delta x_{3it}$ ,  $\Delta x_{4it}$ , are the variations in the independent variables (employment rate, local taxation, loss of local amenities, loneliness)
- ▶ The  $\beta$ 's are the coefficients of interest. Department fixed effect are added when the dependent variable studied is the Yellow Vest mobilization
- ▶  $\Delta u_{i,t}$  is the error term, and standards errors are robust



# Descriptive Analysis

|                                      | (1)<br>Yellow Vest event | (2)<br>$\Delta$ Abstention 07-17 | (3)<br>$\Delta$ Ext. Right 12-17 | (4)<br>$\Delta$ Ext. Left 12-17 |
|--------------------------------------|--------------------------|----------------------------------|----------------------------------|---------------------------------|
| <b>1. Economic Insecurity</b>        |                          |                                  |                                  |                                 |
| $\Delta$ Employment rate             | -0.199***<br>(-8.17)     | -1.555**<br>(-2.53)              | 0.108<br>(0.17)                  | -0.465<br>(-0.86)               |
| <b>2. Taxation Burden</b>            |                          |                                  |                                  |                                 |
| $\Delta$ Housing tax rate            | -0.00375***<br>(-3.59)   | 0.0521***<br>(3.01)              | -0.0332*<br>(-1.92)              | 0.0282**<br>(2.00)              |
| $\Delta$ Corporate Property tax rate | -0.00344***<br>(-7.04)   | -0.0110*<br>(-1.85)              | 0.0129**<br>(2.13)               | -0.000301<br>(-0.07)            |
| Department FE                        | ✓                        |                                  |                                  |                                 |
| $\Delta$ Log pop 2010-2015           | ✓                        | ✓                                | ✓                                | ✓                               |
| Log Average Income 2011              | ✓                        | ✓                                | ✓                                | ✓                               |
| R2                                   | 0.04                     | 0.01                             | 0.01                             | 0.01                            |
| Observations                         | 31,656                   | 31,649                           | 31,656                           | 31,656                          |

t statistics in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Descriptive Analysis

|                            | (1)<br>Yellow Vest event | (2)<br>$\Delta$ Abstention 12-17 | (3)<br>$\Delta$ Ext. Right 12-17 | (4)<br>$\Delta$ Ext. Left 12-17 |
|----------------------------|--------------------------|----------------------------------|----------------------------------|---------------------------------|
| <b>3. Amenities</b>        |                          |                                  |                                  |                                 |
| Losing Post Office         | 0.00674<br>(0.65)        | 0.410***<br>(4.00)               | -0.332***<br>(-3.41)             | 0.175*<br>(1.86)                |
| Losing Train Station       | 0.0487*<br>(1.67)        | 0.822***<br>(3.25)               | -0.413<br>(-1.60)                | 0.374*<br>(1.70)                |
| Losing Maternity Ward      | 0.349***<br>(3.70)       | 1.818**<br>(2.50)                | -1.987***<br>(-6.59)             | 1.248***<br>(3.12)              |
| Losing Emergencies         | 0.276***<br>(3.18)       | 1.525**<br>(2.14)                | -1.064***<br>(-3.63)             | 0.869**<br>(2.43)               |
| Losing Grocery Store       | 0.0177*<br>(1.84)        | 0.396***<br>(3.87)               | -0.332***<br>(-3.53)             | 0.0994<br>(1.24)                |
| Losing Mini Market         | 0.186***<br>(9.05)       | 1.270***<br>(9.60)               | -0.253**<br>(-2.27)              | 0.320***<br>(3.41)              |
| Losing Supermarket         | 0.146***<br>(4.14)       | 0.784***<br>(3.24)               | -0.294<br>(-1.24)                | 0.330<br>(1.62)                 |
| Department FE              | ✓                        |                                  |                                  |                                 |
| $\Delta$ Log pop 2010-2015 | ✓                        | ✓                                | ✓                                | ✓                               |
| Log Average Income 2011    | ✓                        | ✓                                | ✓                                | ✓                               |
| R2                         | 0.04                     | 0.01                             | 0.01                             | 0.01                            |
| Observations               | 31,656                   | 31,649                           | 31,656                           | 31,656                          |

t statistics in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Descriptive Analysis

|                            | (1)<br>Yellow Vest event | (2)<br>$\Delta$ Abstention 07-17 | (3)<br>$\Delta$ Ext. Right 12-17 | (4)<br>$\Delta$ Ext. Left 12-17 |
|----------------------------|--------------------------|----------------------------------|----------------------------------|---------------------------------|
| Losing Kinder Garden       | 0.138***<br>(11.57)      | 0.924***<br>(8.35)               | -0.421***<br>(-4.68)             | 0.317***<br>(3.98)              |
| Losing Primary School      | 0.0395***<br>(4.63)      | -0.157<br>(-1.44)                | 0.330***<br>(3.10)               | -0.0396<br>(-0.44)              |
| Losing Middle School       | 0.153***<br>(3.00)       | 0.827**<br>(2.56)                | -0.921***<br>(-4.33)             | 0.604***<br>(3.00)              |
| Losing High School         | 0.396***<br>(13.18)      | 1.727***<br>(8.49)               | -0.776***<br>(-4.91)             | 0.791***<br>(5.75)              |
| <b>4. Loneliness</b>       |                          |                                  |                                  |                                 |
| $\Delta$ # of Associations | -0.00728*<br>(-1.88)     | -0.139*<br>(-1.68)               | -<br>-                           | -<br>-                          |
| Department FE              | ✓                        |                                  |                                  |                                 |
| $\Delta$ Log pop 2010-2015 | ✓                        | ✓                                | ✓                                | ✓                               |
| Log Average Income 2011    | ✓                        | ✓                                | ✓                                | ✓                               |
| R2                         | 0.10                     | 0.02                             | 0.01                             | 0.01                            |
| Observations               | 31,656                   | 31,649                           | 31,656                           | 31,656                          |

t statistics in parentheses

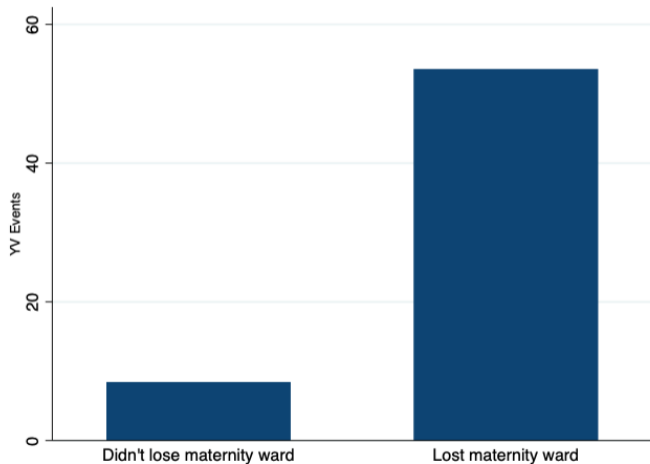
\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Descriptive Analysis

- ▶ Strong correlations between the **employment rate** and the loss of **amenities** and the Yellow Vest mobilization/abstention rate, but:
  - ▶ Coefficients difficult to interpret and compare
  - ▶ No causal relationship
    - ▶ Focus on **maternity ward**.

# Focus on maternity ward

- ▶ 54% of the municipalities that have lost a maternity ward between 2012 and 2017 experienced a Yellow Vests event



# Focus on maternity ward

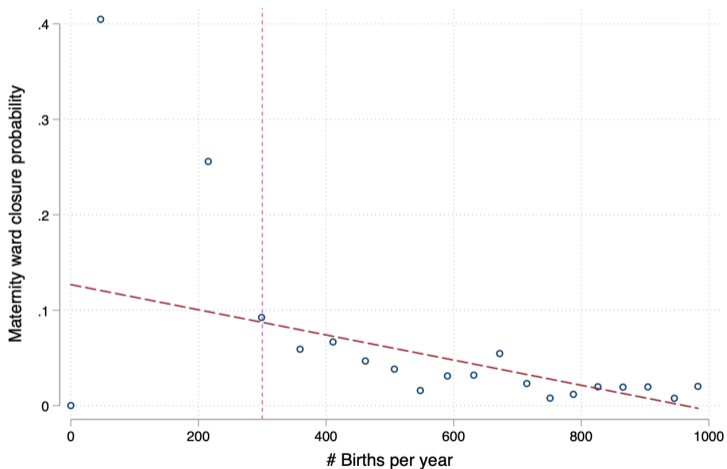
- Identification strategy: A French decree imposed closure of maternity ward under 300 births a year in 1998

| Year | # Births | # Maternity Ward |
|------|----------|------------------|
| 2000 | 796,588  | 701              |
| 2001 | 791,168  | 671              |
| 2002 | 785,906  | 648              |
| 2003 | 786,100  | 624              |
| 2004 | 792,729  | 603              |
| 2005 | 797,906  | 587              |
| 2006 | 820,376  | 576              |
| 2007 | 810,962  | 569              |
| 2008 | 814,735  | 555              |
| 2009 | 812,646  | 550              |
| 2010 | 827,424  | 536              |
| 2011 | 818,610  | 526              |
| 2012 | 813,188  | 517              |
| 2013 | 806,318  | 509              |
| 2014 | 805,975  | 507              |
| 2015 | 785,118  | 501              |
| 2016 | 771,672  | 493              |
| 2017 | 755,847  | 479              |
| 2018 | 746,691  | 471              |

Source: La Statistique annuelle des établissements, DREES

# Focus on maternity ward

- ▶ Use the number of births as an instrumental variable



## Focus on maternity ward

- First stage :  $Closure_{it} = \beta \text{Less than } 300 \text{ births}_{it-1} + \epsilon_{it}$

|                      | (1)                  |
|----------------------|----------------------|
|                      | Closure              |
| Less than 300 Births | 0.269***<br>(34.36)  |
| Constant             | 0.0201***<br>(12.38) |
| R2                   | 0.10                 |
| Observations         | 10,983               |

t statistics in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



# Conclusion

- ▶ **Strong relationships between employment and the loss of amenities with discontent.**
- ▶ Further work required to prove a causal effect
  - ▶ Exploratory work to instrument the loss of maternity ward by the number of births and estimate the impact of closures on the Yellow Vest mobilizations, abstention and support for populism (waiting for updated data)
- ▶ Important policy implications for the French government
  - ▶ Abolishment of the elite finishing school (ENA)
  - ▶ Presidential elections next year

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## What drives the French discontent?

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