



Territories, Well-being and Public Policy

Les notes du conseil d'analyse économique, no 55, January 2020

The Yellow Vests movement has given rise to a number of issues with regard to territorial inequalities in the public debate. The purpose of this Note is to analyse the local determinants of discontent among a fraction of the population. We study five characteristics of local living conditions: employment, local taxation, private and public facilities, real estate and social links. We measure the evolution of these dimensions within each municipality over recent years and assess their impact on three symptoms of discontent: the localisation of Yellow Vests protests, the variation in the abstention rate during presidential elections, and the self-reported well-being of citizens.

Our estimates confirm the importance of the local environment on residents' dissatisfaction, beyond their own personal situation. For example, regardless of individual employment status, both well-being and political behaviour are affected by the evolution of the local unemployment rate. Relationships at the municipality level therefore reflect not only the spatial concentration of individuals with similar characteristics, but also the influence of the economic and social context.

Beyond economic development, the loss of facilities plays an important role, particularly food stores (groceries, mini-

markets). The same applies to educational and cultural facilities: a municipality that has lost its high school, bookshop or cinema is more likely to experience a Yellow Vests event. The closure of health facilities, including maternity wards and emergency services, leads to a similar result. More generally, the loss of places of socialisation contributes to the territorial malaise in areas where the Yellow Vests movement hold. Conversely, expressions of discontent were less frequent in places where there is a stronger associative life.

In light of our results, we propose to rethink the objective of territorial policies to focus more on living standards and well-being, and not solely on economic objectives. Central government action should support local level policies, making its expertise available for local experimentation. Access to services, public or private, national or local, should be redesigned to become hybrid places, favouring social links. We argue in favour of an evolution of policy from centralised public policy mechanisms towards new territorial policies able to encourage initiatives stemming from the territories. The effectiveness of these policies will require evaluations taking into account the multiple criteria corresponding to the diverse sources of local well-being.

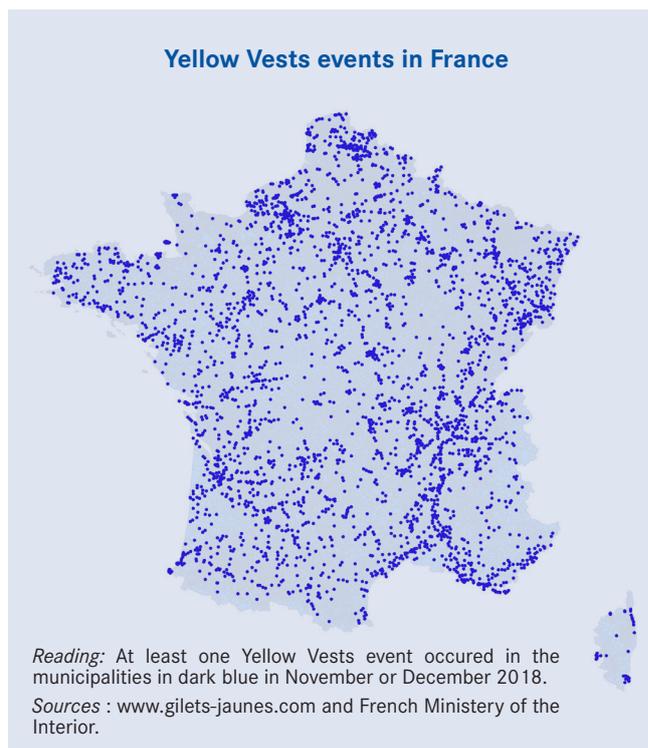
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The Yellow Vests (*Gilets jaunes* in French) crisis highlighted the discontent of numerous French territories. However, what do we know about the origins of this malaise and the participants' motivation? Questioned by the local media, Gourvenec, 20 years old, graduated from vocational training in Saint-Brieuc and is "struggling to find a job".¹ Morgane is not able to find a "full time job" despite her training in sales.² Claude is a retired taxi driver in Besançon and denounces the cost of living and the housing tax.³ The Yellow Vests' messages also often revealed their feelings of great loneliness,⁴ or their turmoil induced by the scarcity of local services and facilities. In Reims, Thierry denounces "the desertification of rural areas by public services, but also taxes and hospital closings".⁵ These testimonies illustrate the diversity of discontent sources. The purpose of this Note is to prioritize the most determining factors at the origin of the Yellow Vests movement and, more generally, of the rising discontent in the territories.

The malaise expressed in this movement seems to be rooted partly in difficult and degraded personal living conditions. Several surveys have pointed out the economic concerns of Yellow Vests; especially regarding purchasing power issues.⁶ A survey carried out by CEVIPOF⁷ reveals that 70% of the movement's supporters belong to households which income lies below the national median income. Other studies reveal that economic insecurity has fuelled the strong distrust in democratic institutions and ruling elites expressed by the Yellow Vests.⁸ These monographs and surveys reveal other sources of dissatisfaction related to the quality of life and the local environment. They also show the inadequate access to public services in certain areas, yet a key element in the local social networks.⁹ These observations are not related to geographic factor per se, in the sense of geographical location or region, north or south etc. Indeed, the map of



the Yellow Vests mobilisation (see Map) shows a spread out movement throughout the territory.

Some studies have highlighted the territorial dimension of the Yellow Vests movement by focusing on the size of the city. Mobilisation would have been particularly strong in localities and urban units of medium size that have experienced population decline. The online survey carried out by the *Observatoire société et consommation* (Observatory Society and Consumption, OBSOCO)¹⁰ illustrates the mobilisation of Yellow

The authors would like to thank the French Ministry of the Interior, INSEE and CEVIPOF for access to the data used in this Note. They also thank the *Observatoire du Bien-être-CEPREMAP* (OBE, French Well-being Observatory) and the *Commissariat Général à l'Égalité des territoires* (CGET, General Commission for Equal Territories) for the quality of the exchanges with them. Finally, the authors would like to express their warm thanks to Eva Davoine, Étienne Fize and Madeleine Péron for their contribution within the permanent team of the CAE to the empirical work, and to Jean Beuve and Claudine Desrieux, Scientific Advisors to the CAE, for the follow-up of this Note.

¹ France 3 Bretagne (2019): *Pontivy : paroles de Gilets jaunes lors de la manifestation*, 17 February, see <https://france3-regions.francetvinfo.fr/bretagne/morbihan/pontivy/pontivy-paroles-Gilets-jaunes-lors-manifestation-1625463.html>

² Kheniche O., D. Evenou, F. Moghaddam, M. Dehimi and S. Iglésis (2018): « *On est ensemble car on est tous dans la merde* » : paroles de gilets jaunes, France Inter, 21 November, see www.franceinter.fr/societe/paroles-de-Gilets-jaunes

³ Est Républicain (L) (2018): *Témoignages de gilets jaunes à Besançon : « On nous matraque de partout »*, 18 November, see www.estrepublicain.fr/edition-de-besancon/2018/11/18/temoignages-de-gilets-jaunes-a-besancon-on-nous-matraque-de-partout

⁴ « *Ça fait dix ans que je vis sans sortir, à parler à ma chienne. Aujourd'hui, les digues lâchent* », une infirmière, sur les ronds-points ("I've been living without going out, talking to my dog. Today, the dams broke", a nurse, on the roundabouts). Aubenat F. (2018) : « *Gilets jaunes* » : la révolte des ronds-points, Le Monde, 15 December, see www.lemonde.fr/societe/article/2018/12/15/sur-les-ronds-points-les-Gilets-jaunes-a-la-croisee-des-chemins_5397928_3224.html.

⁵ Houdayer G. (2018): *Paroles de gilets jaunes : « On ne peut plus vivre avec toutes ces taxes, le peuple est en train de se noyer »*, France Bleu, 16 November, see www.francebleu.fr/infos/societe/paroles-de-Gilets-jaunes-1542364493

⁶ Observatoire société et consommation (OBSOCO) (2019): *Qui sont les Gilets jaunes, leurs soutiens et leurs opposants ?*, Analysis Report, February. Available at <http://obsoco.com/etude-exclusive-qui-sont-les-Gilets-jaunes-leurs-soutiens-leurs-opposants/#dl-obsoco>; Collectif d'enquête sur les Gilets jaunes (2019): "Enquête *in situ* par questionnaire sur une mobilisation en cours: une étude sur les Gilets jaunes", *Revue Française de Science Politique*, vol. 69, no 5-6, October-December.

⁷ CEVIPOF (2018): *Baromètre de la confiance politique*, December.

⁸ Algan Y., E. Beasley, D. Cohen, M. Foucault and M. Péron (2019): "Qui sont les Gilets jaunes et leurs soutiens ?", *Observatoire du Bien-être du CEPREMAP and CEVIPOF*, no 2019-03, 14 February. A textual analysis of the Yellow Vests Facebook pages also reveals that this population of employed workers, which is neither right nor left, expresses above all the importance of the notion of "people" and the need to re-found a sense of belonging and collective identity, see Guerra T., C. Alexandre and F. Gonthier (2019): "Populist Attitudes Among the French Yellow Vests", *Populism*, no 2, pp. 1-12.

⁹ OBSOCO (2019) *ibid.*

¹⁰ OBSOCO (2019) *ibid.*

Vests in small and medium-sized towns. Guerra *et al.* (2019)¹¹ confirm that among the respondents who support or participate in the movement, 70% live in small towns. The fact that the crisis started by a contestation against rising fuel prices is symptomatic of the territorial dimension of social discontent. Job losses and the increasing desertification of services would have turned the reliance on cars even more essential. Boyer *et al.* (2019)¹² show that the map of online and offline participation in the early stages of the movement matches well with the map of routes and travel time between home and work.¹³ From this point of view, the geographical factors of social unrest would be rooted in the concentration of activities within metropolitan areas and the corollary decline of surrounding municipalities. As jobs and purchasing power disappear, so does everything that supports the cohesion of local social life: shops, post offices, schools, courts, hospitals, etc. A report by the *Comité d'évaluation et de contrôle des politiques publiques* (CECPP, Public Policy Evaluation Committee) notes in October 2019 the significant decline in access to public services –primary schools, post offices, maternity wards and railway stations– in small municipalities and rural areas over the period 1983–2013.¹⁴ Digital access to public services partially compensated for their physical disappearance, especially for tax procedures. Nonetheless, there are still deep digital access inequalities between territories, as highlighted in two reports by the *Cour des comptes* (Court of Auditors) and the *Défenseur des droits* (Human Rights Defender).¹⁵ The Yellow Vests movement would have arisen from a lower middle class rather than poor or peripheral neighbourhoods. This lower middle class had chosen to live away from the major metropolitan areas and faced an increasing desertification of its environment (Guilluy, 2018).¹⁶

We adopt a different approach from the assumptions of the aforementioned literature. Instead of relying on a purely geographical location –or size-based typology, our territorial dimension is based on the characteristics of people's immediate local environment. We are therefore interested in the consequences of the evolutions of municipalities on the well-being of its inhabitants.

Yellow Vests, abstention and dissatisfaction in life: three symptoms of discontent

We measure social discontent in the territories using three indicators: the local mobilisation of Yellow Vests, the abstention in presidential elections and the subjective well-being, measured by life satisfaction and anxiety. The first two indicators are at the municipal level while the last one is at the individual level.

Regarding the Yellow Vests, the measure we use comes from two sources. First, the *ministère de l'Intérieur* (French Ministry of the Interior) provides information on various Yellow Vests events reported by prefectures for November and December 2018. Second, the website www.gilets-jaunes.com lists the Yellow Vests events declared by the participants themselves, such as the gatherings around roundabouts. Data was collected in early December 2018 and early January 2019. The analyses focuses on events hold at the beginning of the movement in November and December 2018. Indeed, in the first few months, the mobilisations were still very scattered over French territory –around roundabouts, tolls, etc.– and reflected local discontent, while the following events mainly occurred in large cities.¹⁸

Data of the abstention rate at the presidential elections of 2012 and 2017 comes from the French Ministry of the Interior. Our estimation sample encompasses all municipalities in 2017.¹⁹ We mainly analyse the evolutions experienced by the municipalities between 2012 and 2017 (or 2010–2015, depending on the available data). A complementary level analysis is presented in Davoine, Fize and Malgouyres (2020).²⁰

Finally, subjective well-being, measured by individual questions on life satisfaction and anxiety, comes from the French Electoral Survey carried out by CEVIPOF in 2017 and 2018.

¹¹ Guerra T., F. Gonthier, C. Alexandre, F. Gougou and S. Persico (2019): *Qui sont vraiment les « gilets jaunes » ? Les résultats d'une étude sociologique*, Le Monde, 26 January.

¹² Boyer P., T. Delemotte, G. Gauthier, V. Rollet and B. Schmutz (2019): "Les déterminants de la mobilisation des 'gilets jaunes'", *CREST Working Paper*, no 2019-06.

¹³ These interpretations echo academic analyses of the metropolisation process, see Combes P.P., M. Lafourcade, J-F. Thisse and J-C. Toutain (2011): "The Rise and Fall of Spatial Inequalities in France: A Long-Run Perspective", *Exploration in Economic History*, vol. 48, no. 2, Elsevier and Grésillon É., F. Alexandre and B. Sajaloli (2016): *La France des marges*, Armand Colin. Driven by globalisation and the tertiarisation of our economies, deindustrialisation is leading to a concentration of service jobs in large cities. In the same movement, the gentrification of large cities pushes disadvantaged categories out of the center and leads to ever-increasing spatial segregation, see Milanovic B. (2019): *Inégalités mondiales : le destin des classes moyennes, les ultra-riches et l'égalité des chances*, La Découverte.

¹⁴ Comité d'évaluation et de contrôle des politiques publiques (Dufrière J-P. and J-P. Mattei, rep.) (2019): "Évaluation de l'accès aux services publics dans les territoires", *Rapport d'information de l'Assemblée nationale*, no 2297, 10 October.

¹⁵ Cour des Comptes (2016): *Relations aux usagers et modernisation de l'État: vers une généralisation des services publics numériques*, Investigation requested by the French National Assembly to CECPP, January; Défenseur des Droits (2019): *Dématérialisation et inégalités d'accès aux services publics*.

¹⁶ Guilluy C. (2018): *No society. La fin de la classe moyenne occidentale*, Flammarion.

¹⁷ See Gleizes F. and S. Grobon (2019): "Le niveau de satisfaction dans la vie dépend peu du type de territoire de résidence", *INSEE Focus*, no 139, January.

¹⁸ These two database also provide information on the number of participants in these events, but we did not take this measure into account because it did not always seem to be properly informed.

¹⁹ Except in the case of missing data for a municipality.

²⁰ Davoine E., É. Fize and C. Malgouyres (2020): "Les déterminants locaux du mécontentement: analyse statistique au niveau communal", *Focus du CAE*, no 039-2020, January.

While the movement of Yellow Vests, the level of abstention and the level of individual satisfaction are likely to be correlated, these complementary measures make it possible to capture several expressions of discomfort. Studies on the determinants of abstention point to similar factors as those on the mobilisation of Yellow Vests. One of them is the influence of decline in rural retail and public service facilities on the demoralisation of the inhabitants and their political behaviour, especially during the 2017 presidential election.²¹ The study also identifies the influence of the economic crisis on the local residents' political behaviour. Moreover, unease and pessimism have a powerful effect on French electoral behaviour.²² In *Les origines du populisme*, the authors highlight the crucial role of subjective well-being in the exercise of voting. In particular, citizens declaring abstention are on average less satisfied with their lives.²³ Belonging most often to the fragile part of the working classes, they are also more resigned (Im, Mayer, Palier and Rovny, 2019).²⁴ Algan *et al.* (2019) show in addition the role interpersonal mistrust plays on vote for populist parties. Finally, the OBSOCO's survey uncovers a strong link between participation in the Yellow Vests movement and life dissatisfaction and pessimism. As an illustration, 83% of participants who declare themselves to be Yellow Vests also believe that future generations will live a worst life than their own, compared to 76% for the population as a whole, and this share rises to 87% among those most involved in the movement.²⁵

Yellow Vests and abstention: are there specific municipalities?

We analyse the relationship between our three measures of well-being and five aspects characterising the evolution of local living conditions: employment, local taxation, closure of local shops and public services, real estate dynamism and the density of the local associative networks. We propose to quantify and classify these different factors in order to identify priorities for public policies.

We measure the time variation of the link between local conditions and discontent, mainly between 2012 and 2017, rather than in terms of level. This controls partly for the influence of permanent demographic or cultural factors in the analysis. The novelty of our approach is to focus on variations at the municipality level.²⁶ The hypothesis considered is the

following: people mobilised in the Yellow Vests movement, or who abstained in the 2017 French presidential election, are not necessarily the most deprived groups but those who have lost the more. In fact, municipalities impacted by the mobilisation of the Yellow Vests do not differ much in the social or economic composition of their population. Our hypothesis turns to the unequal deterioration of local living conditions in the recent years to understand why some areas concentrate today more discontent than others. Indeed, economic research in well-being shows that individuals are particularly sensitive to evolutions, especially regarding the degradation of local environment. It is not so much a poorly endowed environment at one time that is associated with a low level of well-being, but rather the degradation of that environment over time. Finally, comparison with others also can explain a low level of well-being: a poorly endowed environment might further reduce well-being if it is located near dynamic and well-endowed places.²⁷

The robust effect of declining employment

A few descriptive statistics show the specific characteristics of municipalities that have experienced a Yellow Vests event at the end of 2018. The employment rate fell more sharply during the period 2010-2015 in those areas. The abstention rate also increased more in municipalities where the employment rate has deteriorated (see Figures 1a and b).

The relation between employment rate and discontent is the most robust relation uncovered, systematically confirmed by econometric analyses²⁸ whatever the specification chosen. The former affects subjective well-being, the probability of the occurrence of a Yellow Vests event and the variation in the abstention rate. With regard to life satisfaction and anxiety, variation in local employment has effects on all individuals, with a greater magnitude if they are unemployed or inactive.

Changes in the municipality's median income (measured by disposable income per consumption unit)²⁹ also plays an important role: the higher the median standard of living in the municipality, the lower the probability to observe Yellow Vests event. While individual dissatisfaction and anxiety both strongly depend on the income of the individuals, they also decrease with the median income of the municipality: living in a place that has become "richer" is associated with lower individual anxiety.

²¹ See in particular, Le Bras H. and J. Fourquet (2017): *Le puzzle français. Un nouveau partage politique*, Fondation Jean Jaurès.

²² Algan Y., E. Beasley and C. Senik (2018): *Les Français, le bonheur et l'argent*, Presses de l'ENS.

²³ Algan Y., E. Beasley, D. Cohen and M. Foucault (2019): *Les origines du populisme*, Le Seuil, Coll. La République des Idées. See also Gethin A. and T.M. Jenmana (2017): "Du mal-être au vote extrême", *Note de l'Observatoire du Bien-Être (OBE) du CEPREMAP*, no 2017-08 and Algan Y., E. Beasley, M. Foucault, C. Senik and P. Vertier (2017): "Bien-être et vote", *Note from the Observatoire du Bien-être du CEPREMAP*, no 2017-02.

²⁴ Im Z.J., N. Mayer, B. Palier and J. Rovny (2019): "The 'Losers of Automation': A Reservoir of Votes for the Radical Right?", *Research and Politics*, vol. 6, no 1.

²⁵ OBSOCO (2019) *ibid.*

²⁶ Our analysis also covered other levels (e.g. catchment area): see Davoine, Fize and Malgouyres (2020) *ibid.*

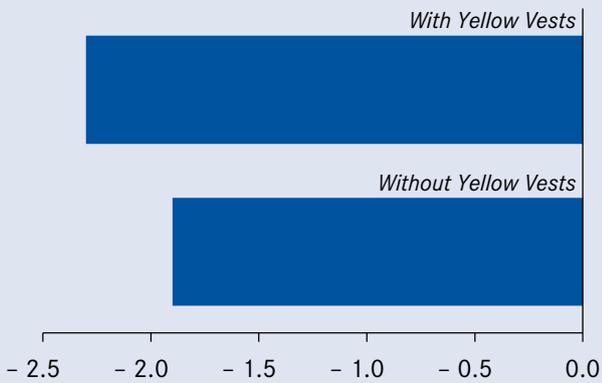
²⁷ Clark A., P. Frijters et M. Shields (2008): "Relative Income, Happiness, and Utility: An Explanation for the Easterlin Paradox and Other Puzzles", *Journal of Economic Literature*, vol. 46, no 1, pp. 95-144.

²⁸ See the description of the econometric methodology in Box 2.

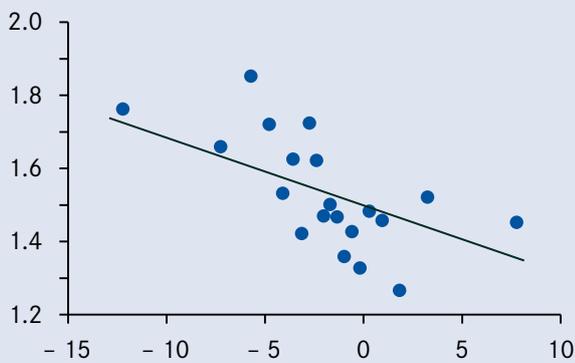
²⁹ For the INSEE definition, see, www.insee.fr/fr/metadonnees/definition/c1890

1. The consequences of the decline in local employment

a. Employment rate, in % points



b. Employment and abstention, in % points



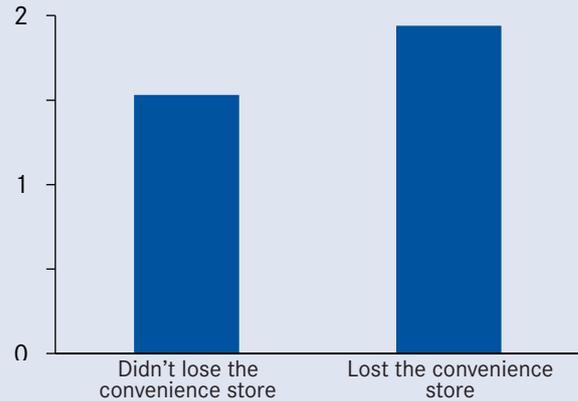
Reading: Variations in the municipal employment rate are on the x-axis. The employment rate fell by 2.3 percentage points in the municipalities with a Yellow Vests event and by - 1,9 percentage points in the others; the changes in the abstention rate between 2012 and 2017 are on the ordinates, each point representing the averages for the category of municipalities (20 categories classified according to the change in the employment rate).

Sources: INSEE, French Ministry of the Interior and www.gilets-jaunes.com

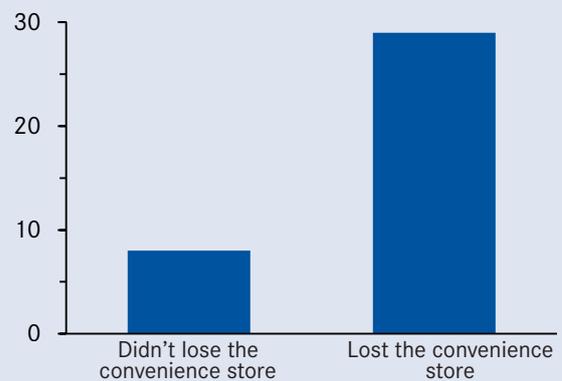
a rise in abstention. This correlation is robust to different econometric specifications. However, one must consider this result cautiously: it is less a question of supermarkets or grocery stores as such, than of the last remaining shop to close in the municipal area. To be more specific, cities that have lost a mini-market or a grocery store systematically possess fewer other facilities than those that have not.

2. Convenience store closures and discontent

a. Abstention rate, in % points



b. Event Yellow Vests, in %



Reading: The abstention rate increased by 1.94 points in the municipalities that have lost access to a convenience store and by 1.53 points in the others. 29% of the municipalities that have lost a convenience store experienced a Yellow Vests event.

Sources: Base permanente des équipements of INSEE, French Ministry of the Interior and www.gilets-jaunes.com

When public facilities and retail businesses close

To illustrate the impact of facility closures, we begin with the remarkable case of retail stores, mini-markets.³⁰ We analyse the impact of the closure of the last grocery store in a town with no supermarket as an alternative. Municipalities that lost their last local store are more likely to have experienced a Yellow Vests event. Similarly, these municipalities also experienced a greater increase in the abstention rate in the presidential elections over the same period (Figures 2a and b).

The loss of a food business more broadly (grocery store, mini-market or supermarket) in a given town increases the probability of a Yellow Vests event and the likelihood of observing

Is the loss of small retail businesses linked to the proximity of large ones? As far as we know, the opening of a superstore in the area only interacts significantly with the closures of grocery stores, supermarkets and furniture stores. However, it is true that municipalities with a supermarket in their catchment area in 2017 have experienced more closures of local retail stores³¹ over the 2012-2017 period than others.

³⁰ Mini-markets are defined by INSEE as non-specialised retail establishments with a predominantly food-related sales area of between 120 and 400 m².

³¹ Supermarkets, sports, opticians, domestic equipment, furniture, clothing, butcher's and fishmonger's shops.

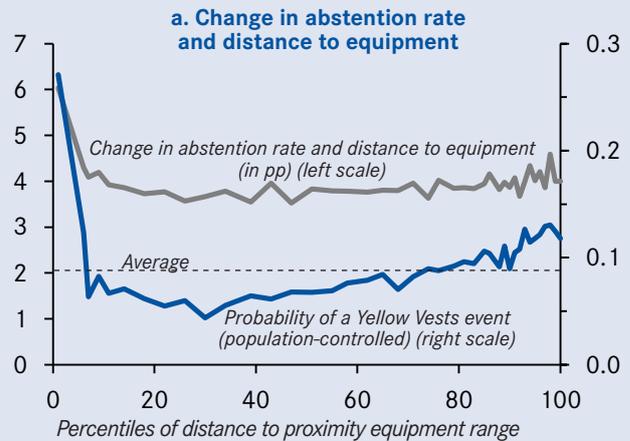
1. Distance to facilities and dissatisfaction

We are exploring the impact of the distance to public and private local facilities, which is one of the issues raised during the movement of the Yellow Vests. We define, at the city level, the travel time required, in off-peak hours using the current road network, to reach the nearest city with all the facilities defined by the INSEE^a as “proximity facilities”. These 27 facilities include many retail services (plumbing companies, car repair shops, post offices), businesses (convenience stores, bakeries, etc.), sports’ installation (playgrounds...) and educational (elementary schools) and health (general practitioners, nurses, etc.) facilities.

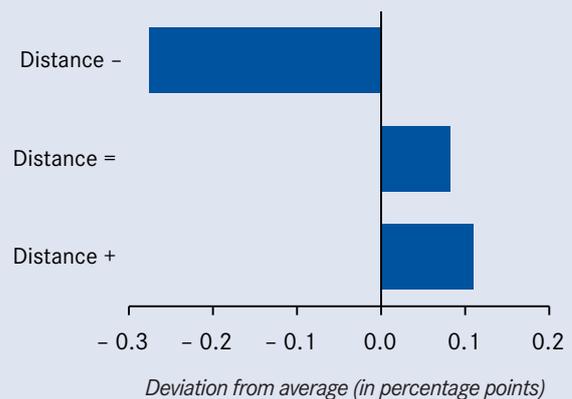
The analysis reveals that remoteness, defined as the travel time by car to reach the nearest town equipped with all facilities, is associated with a high abstention rate even if it does not reach the particularly high rate of large municipalities. The abstention rate rises significantly above 35 minutes of car travel. Remoteness is also associated with a higher probability of experiencing a Yellow Vests event. The latter are concentrated in large, well-equipped cities, partly for strategic reasons of visibility, but also in areas that are very far from these facilities. The probability of Yellow Vests being mobilised is higher than the national average from 70th percentile, i.e. for the 30% of municipalities furthest away from the equipment (this corresponds to a journey time greater than 25 minutes). More than 5 million people live in these municipalities.

In addition, municipalities where residents’ travel time decreased between 2013 and 2018 are less likely to have experienced a Yellow Vests event compared to the average (0.3 percentage point) while those where travel time increased are the most likely to have experienced a Yellow Vests event. In more detail, the cities that have lost some of their facilities and that are more than an hour away from the next equipped city have a much higher probability of experiencing Yellow Vests events: 50 % more than other cities.

^a Cf. www.insee.fr/fr/statistiques/3568650?sommaire=3568656



b. Probability of a Yellow Vests event and variation in distance to equipment



The second type of local facilities seeming to have a significant impact belongs to the domains of education and culture. In particular, the closure of a high school, cinema or bookshop is often associated with a higher probability of a Yellow Vests event in the municipality. At the individual level, high school closures are associated with more anxiety.

As far as health care services are concerned, the most robust impact is the loss of the gynaecologist. The remoteness of this specialty is not specific to the rural areas. The loss of maternity, a rarer event but frequently a matter of public debate, also appears in some specifications; the same applies

to emergency services. With regard to subjective well-being, one of the most robust results is the correlation between the loss of nursing service (individual practice, consultation centres) in the municipality and more pronounced anxiety.

Taxation

Econometric analyses also confirm that taxation mattered as a source of discontent. The municipalities that have experienced a Yellow Vests movement are those where the total local taxes have increased more on average compared to other municipalities.

2. Econometric analyses on local determinants of discontent

Empirical work has been carried out to identify the local determinants of discontent. Davoine, Fize and Malgouyres (2020)^a and Péron (2020)^b describe it in detail. The methodology consists in uncovering statistical associations between the variables of interest and the explanatory variables using ordinary least squares method. The identification strategy is not causal but allows for the simultaneous comparison of the different factors. The empirical analysis estimates the following equation:

$$\begin{aligned} \text{Discontent}_i = \alpha & + \beta 1 * \Delta \text{Employment}_i + \beta 2 * \Delta \text{Taxation}_i \\ & + \beta 3 * \Delta \text{Real estate}_i + \beta 4 * \Delta \text{Social link}_i \\ & + \beta 5 * \text{Equipment losses}_i \\ & + \beta 6 * \text{Controls}_i + \varepsilon_i \end{aligned}$$

We use three measures of dissatisfaction (or expression of discontent): the probability of a Yellow Vests event in the municipality, the change in municipality abstention rate between 2012 and 2017 at the municipality level, subjective well-being measured by self-reported life satisfaction and anxiety.

All explanatory variables are measured at the municipality level, denoted by the index i in the equation. The category “Employment” represents the change in the employment rate as well as the change in the share of self-employed workers between 2010 and 2015. The taxation category includes the evolutions of the amount of expenses dedicated to the municipality’s staff and the municipality’s external expenses, as well as the change in local taxes between 2012 and 2017 (in logarithms). The “Real estate” category includes the evolutions of real estate transactions between 2014 and 2018. The category “Social link” is estimated by the variation in the number of associations divided by the population of the municipality between 2012

and 2017. The category “Equipment losses” includes the loss, between 2012 and 2017, of access to the facilities in the municipality of residence included in the following list: bank, butcher’s shop, bakery, post office, post office relay, station without high-speed train, nurse, maternity hospital, pharmacy, emergency department, gynaecologist, grocery store, mini-market, supermarket, kindergarten, primary school, middle school, high school, theatre, cinema, and bookshop. Finally, the variation of the median income in the municipality between 2010 and 2015 as well as the share of the population aged over 64 years are included as control variables. According to the econometric specifications, fixed effects for each department, fixed effects for the different slices of urban units and a linear control of the logarithm of the population are also included.

Davoine, Fize and Malgouyres (2020, *ibid.*) provide a more detailed description of the methodology and data used, as well as a large number of statistical exercises, ranking of effects, variation of the econometric model (including analysis at the catchment area level) and robustness tests.

Péron (2020, *ibid.*) examines declarative individual measures of well-being and proposes an analysis encompassing both local explanatory variables and individual variables. Indeed, to understand well-being, individual and local dimensions are complementary. Although personal circumstances explain a larger share of the variation in individual dissatisfaction, it also depends on aggregate variables describing their environment at the municipality level. The relationships identified at the municipality level therefore reflect not only the spatial concentration of individuals with similar characteristics, but also the influence of the local economic and social environment

^a Davoine E., É. Fize and C. Malgouyres (2020): “Les déterminants locaux du mécontentement : analyse statistique au niveau communal”, *Focus du CAE*, no 039-2020, January.

^b Péron M. (2020): “Bien-être subjectif et conditions de vie locales”, *Focus du CAE*, no 040-2020, January.

Real Estate

As far as real estate is concerned, Yellow Vests’ events occurred more in municipalities where the number of real estate transactions felt. It can be interpreted as a loss of attractiveness of the area. This result is less robust to changes in the econometric specifications but the same observation holds using the share of vacant dwellings. An increase between 2011 and 2016 (private and social housing stock combined) is also linked to a higher likelihood of a Yellow Vests’ demonstration.

Social connections

We measure the strength of social links through several indicators mirroring local associative life. We observe that an increase in the number of associations per municipality inhabitants reduces the probability of a Yellow Vests event. Abstention negatively interacts with the number of sport association’s members relative to the population. The statistical relationship remains rather fragile, so that one can only speak of a possible relationship between the weakening of the social bond of a commune and political discontent.

Do some factors influence more discontent than others?

While all the dimensions studied seem to affect discontent, the purpose of this Note is also to establish a hierarchy between these different factors. Several ranking criteria exists, we use two of them here: the robustness of the statistical relationships and their magnitude.

The robustness criterion, i.e. the persistence of the statistical significance of the coefficient regardless of the specification chosen, the employment rate ranks at the top of the list.

To apply the magnitude criterion, we convert to the same scale the partial correlation coefficients between the factors considered and the expressions of dissatisfaction. One should note that quantities do not have the same probability of varying and that the interpretation of the variations is not unique.

Using this method, the loss of health facilities and local shops appears to be the most strongly correlated with French dissatisfaction, even though this type of event is fairly rare. The tax factor³² comes in second place, followed by the real estate and associative dimensions. The effect of the change in employment rate appears to be weaker than the previous dimensions, although very precisely measured. Yet, shifting from the municipality level to the catchment area, employment dynamics play a major role in explaining local discontent. This geographical level might be more relevant in the study of employment, as it is common that people reside in a municipality and work in another one. Furthermore, the literature relative to the link between subjective well-being and economic variables shows that employment is a key determinant.³³

This ranking method translates the magnitude of coefficients into monetary equivalents, thereby enabling a comparison with the evolution of the median living standard of the municipality. Thus, in order to maintain the same level of well-being following the loss of a convenience store, one would have to compensate this loss by increasing the median standard of living of the municipality by 2 155 euros per year. This figure may seem very high. Nevertheless, it reflects the fact that the mini-market is often the last service to close in a town. The interpretation in monetary terms should not be taken literally, but as a tool to compare the relative impact of different types of local evolutions on well-being.³⁴ Davoine, Fize and Malgouyres, 2020, *ibid.*³⁵ details the ranking methodology.

³² Significant for Yellow Vests protests only.

³³ di Tella R., R. MacCulloch and A. Oswald (2003) : "The Macroeconomics of Happiness", *Review of Economics and Statistics*, vol. 85, no 4, pp. 809-827.

³⁴ Note that the effect of median income is itself relatively small.

³⁵ An alternative standard deviation method is proposed. It confirms the importance of local facilities and puts employment higher up in the hierarchy.

³⁶ See Reynard R. and V. Vallès (2019) : "Les emplois se concentrent très progressivement sur le territoire, les déplacements domicile-travail augmentent", *INSEE Première*, no 1771, septembre, Davezies L. and T. Pech (2014): "La nouvelle question territoriale", *Note Terra Nova*, no 1/30 and Davezies L. (2012): *La crise qui vient: la nouvelle fracture territoriale*, Le Seuil, Coll. La République des Idées.

³⁷ See Askenazy Ph. and Ph. Martin (2015): "Promoting Equal Opportunities Throughout the Country", *CAE Note*, no 20, February.

³⁸ Voir Dijkstra L., H. Poelman and A. Rodríguez-Pose (2019): "The Geography of EU Discontent", *Regional Studies*, no 1-17; Rodríguez-Pose A. (2018): "The Revenge of the Places that Don't Matter (and What to Do About It)", *Cambridge Journal of Regions, Economy and Society*, vol. 11, no 1, pp. 189-209; McCann P. (2015): *The Regional and Urban Policy of the European Union: Cohesion, Results-Oriented and Smart Cohesion*, Cambridge Press.

³⁹ See Bouba-Olga O. and M. Grossetti (2015): "La métropolisation: horizon indépassable de la croissance économique", *Revue de l'OFCE*, no 143, July and Combes *et al.* (2011) *ibid.*

Which policies for which territories?

We show that the deterioration of conditions and quality of life at the local level is key to explain the rise of abstention at the presidential elections, Yellow Vests demonstrations or the low level of well-being expressed by people during surveys, considered as symptoms of the population's dissatisfaction. We therefore propose to change the traditional approach of territorial policies in terms of objectives, methods and implementation tools.

Changing objectives: territorial policies in favour of well-being and quality of life

Activities have been concentrated in big cities in recent years: public policies have therefore sought to offset this trend by supporting declining territories through monetary and fiscal transfers or, alternatively, to encourage mobility towards metropolises.

Since the 2009 crisis, the concentration of employment in a dozen dynamic metropolises accelerated. This movement is driven by the search for productivity and innovation gains (clusters and economies of scale). However, concentration in big cities contributes to exacerbate spatial inequalities and to generate negative externalities on well-being in certain territories. In 2015, a previous *CAE Note* recalled the benefits of spatial concentration of activities, while stressing the need for a vigorous policy in education, professional training, health and employment to promote equal opportunities across the territory.³⁷ Measures to promote equal access to health for all were recommended in this regard. Taking these arguments even further, new work in geographical economics emphasizes negative effects of concentration, leading to the "geography of discontent" or "revenge of the places that don't matter",³⁸ and may offset efficiency gains. At the same time, large urban areas with a dynamic labour market are often under great pressure in terms of housing. The effects of congestion and pollution are also an important limit to the metropolisation of our societies. A part of the economic literature about activity concentration based on French data do not conclude on the necessity for geographical concentration of economic activities.³⁹

One can consider geographical mobility as a response to the concentration process. This mobility can imply a move or a commute. As regards the latter, there has been an increase

in commuting: INSEE notes that in 2016, 9 million people, i.e. one third of the working population, did not work in their area of residence, a figure that has increased by around 12% in ten years. The cost of this spatial organisation model are described in particular by Pech (2019).⁴⁰ On the contrary, residential mobility has declined by 20% in ten years at all territorial levels.⁴¹ Facilitating mobility through transport and access to housing in both the social and private sectors appears necessary but not sufficient. One of the public policy challenges is to identify the most effective way to support employment where people reside even when the economic environment is less buoyant.

Moreover, the analysis we conduct in this Note shows that multiple sources of local malaise coexist: while employment plays an important role, access to public services, community services and meeting places also have significant effects. Thus, we propose to change the focus of territorial policies by concentrating it on programmes that increase well-being and quality of life at the local level. This implies identifying the territories where welfare losses are greatest. For this purpose, and based on the elements examined, we propose an example of a diagnostic tool that can be used to identify cities experiencing a decline and to measure local evolutions, whether favourable or unfavourable. Box 3 describes this tool for steering territorial policies according to a welfare objective.

Recommendation 1. Redefine the objectives of territories support policies by taking into account all dimensions of well-being and not only economic criteria. Develop a targeted instrument that measures changes in local well-being factors.

Once the objectives of these programmes are set, they must be monitored and evaluated by an independent commission under the aegis of the new Agence nationale de la cohésion des territoires, which will share expertise between the different territories. We encourage these assessments to be comprehensive, i.e. both quantitative and qualitative, integrating the social, not just economic, dimensions affecting the quality of life of the inhabitants.

Changing the role of the State: from prescription to support

Along with a change in objectives, territorial policy methods also need to be reassessed, giving priority to actions defined

on the specific assets and actors in each territory and implemented at the appropriate level of governance.

The analysis calls for a rethinking of the way all relevant information is mobilised for the success of any territorial policies. Our results show how important the local environment is for well-being. However, they only partially describes the local environment. It is not possible to give an exhaustive account of all the difficulties and specific needs of a territory without the assistance of key players at each levels. For example, regarding employment policies, companies are unlikely to locate in a given area solely in response to tax incentives without prior consideration of other factors: the specific local assets to be developed, the proximity of a city to benefit from the effects of agglomeration, the level of qualification of the workforce, access to high-speed Internet service, transportation... According to the OECD,⁴² the most efficient territorial policies in Europe follow a bottom-up approach meeting three conditions:

- Starting from local actors, finding and capitalising on the specific assets of each territories (geography, culture, heritage...);
- Promoting a strategy of specialisation based on these assets and designing policies in coherence (transport, education and Internet access) and not in isolation;
- Investing in the optimal system of governance, identifying the appropriate levels of decision-making and the relationships between the different public, private and civil society actors.

The new programmes such as “*Action Cœur de ville*” (city centre revitalisation initiative launched in December 2017), “*Territoires d’industries*” or “*Pactes territoriaux*” (Territorial Pacts) follow this approach. They create specific contracts signed as part of a differentiated support approach for the territories. Their method should be encouraged, in particular by ensuring in the decision making and implementation processes the integration of the different levels and actors involved. It must also be reinforced by a reflection on the diversification of the profile of actors and elected officials, so as to include the private sector and civil society, through measures aimed at reconciling electoral mandates, professional and personal life (in accordance with the Bill on involvement in local life and proximity to public action of November 2019). Other Government announcements, such as the *Rural Agenda*, are consistent with our findings: they steer public action towards supporting city centres, local shops and maintaining or opening convivial places. Indeed, their ambitions lie in economic and cultural development as well as social cohesion, based on projects led by local actors

⁴⁰ Pech T. (2019): *La fin de la paix territoriale*, Synthesis Terra Nova and Institut des hautes études d’aménagement des territoires, 31 January.

⁴¹ The CGET highlights the strong constraints linked to residential mobility: “Perceived as an opportunity by individuals belonging to higher socio-professional categories, it can be considered as a constraint, even an injunction, for the working class”, cf. Commissariat général à l’égalité des territoires (CGET) (2018): *Rapport sur la cohésion des territoires*, July.

⁴² See Oliveira Martins J. and K. Maguire (2019): *Regions in Industrial Transitions: Policies for People and Places*, OECD and Oliveira Martins J. and K. Maguire (2015): “Vers un nouveau paradigme des stratégies de développement régional dans l’OCDE”, *Revue de l’OFCE*, no 143, July.

3. A barometer of the local environment evolutions

On the basis of empirical work carried out on the local determinants of discontent,^a we develop an indicator measuring the degradation of local living conditions. A score is assigned to each city according to the changes observed in each of the categories studied (employment and income, taxation, real estate social links, facilities) over the last decade. A low score is therefore an indication of a declining trajectory, regardless of the starting level of the city.^b

We compare this indicator with the list of municipalities selected to be beneficiaries of the governmental “*Action Cœur de ville*” programme. According to this indicator, it did target objectively declining cities where the quality of life decreased in average. Those cities also experienced more manifestations of discontent: 90% experienced a Yellow Vests event compared to 8% on average, and abstention increased by an average of 7 percentage points over the period.

Such an indicator could serve as a tool for monitoring, steering and evaluating the programme, on a multi-criteria basis integrating the notions of well-being and not only the purely economic aspects of employment and economic activity. Finally, it could play a forward-looking role in identifying cities where a recent declining trajectory calls for urgent public action. Therefore, the matter is to detect the cities whose evolution is the most unfavourable to well-being using one or more indicators. Such an indicator cannot be exhaustive and should be supplemented by a level approach and qualitative observations.

^a Davoine E., É. Fize and C. Malgouyres (2020): “Les déterminants locaux du mécontentement: analyse statistique au niveau communal”, *Focus du CAE*, no 039-2020, January and Péron M. (2020a): “Bien-être subjectif et conditions de vie locales”, *Focus du CAE*, no 040-2020, January.

^b Péron M. (2020b): “Un baromètre de l'évolution des conditions de vie locales liées au bien-être”, *Focus du CAE*, no 041-2020, January.

bringing together all decision-making bodies and funding institutions concerned. Particular attention must be paid to the optimal level of intervention: the municipality or a wider area (districts, agglomeration...). Moreover, while initial investment support is necessary, the allocation of resources for the initiation and development of public interest activities should not be neglected.

Recommendation 2. Renew the central government’s approach to territorial support policies. Give priority to technical and financial support for projects initiated locally, based on local information and supported by all the relevant stakeholders. Promote the right to experimentation and differentiation in the implementation of projects.

This change in method is also based on the limits of centralised spatial planning policies, in particular tax redistribution policies⁴³ or local employment support policies based on tax exemption schemes. According to most available evaluations, local-based tax cuts (urban empowerment zone or rural enterprises zone programmes) have weak and uncertain effects.⁴⁴ National policies assisting the most disadvantaged urban territories (urban empowerment zone, ZFU) may have only resulted in locally displaced businesses, with no net or lasting impact on the creation of new businesses or jobs, except perhaps in the densest urban contexts.⁴⁵ As far as rural territories are concerned, there is a consensus within academic research on the ineffectiveness of the programmes. In order to assess the effects of this policy, Behaghel *et al.* (2015)⁴⁶ compare similar and geographically close territories: some benefit from the exemption scheme and others do not and find no effect.⁴⁷ Other articles⁴⁸ using different methodologies draw to the same conclusions: rural tax exemptions do not appear to have any significant impact on employment or on the creation of establishments in disadvantaged areas. This programme costs around

⁴³ According to the *Haut-Conseil du financement de la protection sociale* (HCFPS, French Council for the Financing of Social Protection), social protection levies and expenditure alone are the main contributor to the reduction of inequalities between territories, with transfers from rich to poor territories, *cf.* Haut-Conseil du financement de la protection sociale (HCFPS) (2015): *Rapport sur l'impact de la protection sociale et de son financement sur la distribution territoriale des revenus*, November. While these redistributive effects are essential, they are not sufficient to prevent the discontent that feeds on the degradation of local quality of life.

⁴⁴ The rural enterprises zone (*zones de revitalisation rurale*, ZRR) scheme aims to support employment in rural areas through a set of tax and social exemptions granted to companies. The main measures are the temporary exemption from corporate or income tax for companies created or established in the ZRR and exemptions from employers’ social security contributions for 12 months for new hirings.

⁴⁵ See Malgouyres C. and L. Py (2016): “Les dispositifs d'exonérations géographiquement ciblées bénéficient-ils aux résidents de ces zones ? État des lieux de la littérature américaine et française”, *Revue Économique*, vol. 67, no 2016/3, pp. 581-614 and Havet N. (2015): “L'impact des politiques d'exonérations territoriales : méthodes d'évaluation et résultats”, *Économie et Prévision*, no 206-207, pp. 117-141.

⁴⁶ Behaghel L., A. Lorenceau and S. Quantin (2015): “Replacing Churches and Mason Lodges? Tax Exemptions and Rural Development”, *Journal of Public Economics*, no 125, pp. 1-15.

⁴⁷ One explanation put forward is that the scheme is poorly targeted (around 18,000 municipalities were thus eligible for the scheme in 2018).

⁴⁸ In 2007, Lofredi assesses the very relative economic efficiency of the social exemption using two different methods to correct for the endogeneity of the ZRR classification. For Lorenceau (2009), rural revitalisation areas had “no significant effect on either employment or the creation of settlements in disadvantaged rural areas”, *cf.* Lofredi P. (2007): *Évaluation économétrique des effets de traitement et programmes de développement à ciblage géographique. Le cas des interventions économiques en faveur du développement rural*, PhD thesis in economics from the University of Burgundy and Lorenceau A. (2009): “L'impact d'exonérations fiscales sur la création d'établissements et l'emploi en France rurale : une approche par discontinuité de la régression”, *Économie et Statistique*, no 427-428, pp. 27-62.

315 million euros in 2018 and the evaluations of by administrative bodies is far from positive.⁴⁹ The disappointing results call for the exploration of other courses of action, especially as the increase in general social contribution relief schemes is increasingly limiting the comparative advantage offered by these targeted schemes in terms of labour costs.

Recommendation 3. Abolish specific rural tax exemption policies and use this budget to fund local projects for rural areas, which allocation should closely involve local elected representatives.

Access to public services and local shops

Beyond the economic dimension, we suggest that the deterioration of the social bond has played an important role in the recent waves of discontent. In this perspective, the weakening density of the web of public services and local shops, as well as associations explain a part of this dynamic. The economic revitalisation of the territories seems to be a priority today and implies the support of businesses and services, indirectly benefiting employment and the strengthening of the social links.

Regarding the case of commercial town planning, for example, most of the work concludes that the establishment of large supermarkets or hypermarkets near city centres has a favourable effect on employment, despite the possible closure of local shops.⁵⁰ However, evaluations that consider not only the effects on income and employment, but more generally on local well-being could lead to different results. In fact, the number of people working in local shops (restaurants and pubs, bank branches, personal services) declined in eight out of ten medium-sized city centres during the period 2009-2015.⁵¹ Conversely, employment in local services has increased in the surrounding agglomerations. The traditional economic analyses still not take into account the negative

externalities of this spatial reconfiguration on social well-being. One should note that the precise and causal analysis of these effects (on the dynamics of small businesses, on well-being, on gains in terms of jobs, their quality, etc.) constitutes a proper research agenda. Such studies would complement existing work, mainly focused on the Anglo-Saxon context.⁵²

While the label of the “France services” network aims at developing access to public services, it should also aim at promoting access to certain “basic” services such as retail trade or providing accommodation for local associations that create social links or other services that meet the specific needs of the population (for example, employing a health professional). These structures should be polymorphic, hybrid and adapted to each territory. We also insist on the fact that the objective of the digitalisation of public services is not sufficient to answer the issues highlighted here, and that it is important that these places facilitate exchange and cohesion. The findings of our analysis underline the importance of spaces for sociability. While the associative fabric is of particular importance in this area, a renewed form of access to public services can also be a vector of social ties.

Recommendation 4. When setting up the “France services” network, target crossing places and allow a broadening of the missions with the inclusion of local services, public and private, according to the local needs of users. Avoid the “all-digital” strategy, in order to preserve the social bond.

If maintaining local facilities is not possible, it is necessary to ensure that their loss is compensated by giving residents access to services in the nearest town. The objective would be to ensure that all municipalities are connected to a city with essential shops and services, minimising the travel time required for this access. Finally, in general, we draw attention to the need to evaluate the programmes and decisions implemented in the territories. ●

⁴⁹ In a recent report, Blanc and Louwagie (2018) reveal a low level of awareness of this scheme by companies, and that the aid is not considered to be a decisive incentive for beneficiary companies to set up in business, cf. Blanc A. and V. Louwagie (2018): *Mission « flash » sur l'efficacité du dispositif des zones de revitalisation rurale (ZRR) à l'aune de la politique européenne*, Délégation aux collectivités territoriales et à la décentralisation, Assemblée nationale. Conseil des prélèvements obligatoires (CPO) (2010): *Rapport du CPO relatif aux entreprises et aux niches fiscales et sociales*. Commission du développement durable et de l'aménagement du territoire (Calmette A. and J-P. Vigier, rep.) (2014): “Les zones de revitalisation rurale (ZRR)”, *Rapport d'information de l'Assemblée nationale*, no 2251, 14 October.

⁵⁰ See, for example, Bertrand M. and F. Kramarz (2002): “Does Entry Regulation Hinder Job Creation? Evidence from the French Retail Industry”, *Quarterly Journal of Economics*, vol. 117, no. 4, pp. 1369-1413. The authors show that restrictions on the entry of supermarkets slow local employment growth in the distribution sector.

⁵¹ Cazaubiel A. and G. Guymarc (2019): “La déprise du commerce de proximité dans les centres-villes des villes de taille intermédiaire”, *INSEE Première*, no 1782, November.

⁵² See, for example, Neumark D., Zhang Junfu and S. Ciccarella (2008): “The Effects of Wal-Mart on Local Labor Markets”, *Journal of Urban Economics*, vol. 63, no 2, pp. 405-430, for the effects on retail employment, or Jia P. (2008): “What Happens When Wal-Mart Comes to Town: An Empirical Analysis of the Discount Retailing Industry”, *Econometrica*, vol. 76, no 6, pp. 1263-1316. On French data, see, in particular, Bertrand and Kramarz (2002) *ibid*.

