



# Promoting Equal Opportunities Throughout the Country

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**H**ow can the two objectives of ensuring a level playing field across regions and macroeconomic growth best be combined? The conventional approach has been to spread economic activities throughout the country. Yet the teachings of new economic geography recommend focusing the means of production on a few locations, and to then spread the benefits of growth across all regions. We subscribe to this logic, while also emphasising the role of public authorities in ensuring (or restoring) equal opportunities in education, access to employment, and health across regions.

Spatially clustering the production and research activities of a given sector will set various agglomeration mechanisms into play, yielding maximum returns; however, too great a specialisation will leave areas exposed to sectorial shocks. Large cities, home to clusters of different sectors, enjoy the benefits of agglomeration gains while avoiding the associated risks. Therefore, a regional policy that looks to maximise a country's growth dynamic should facilitate the concentration of economic activities in larger cities by investing in combating congestion effects. We therefore recommend that housing policy be focused on densely populated areas, that metropolitan public transport be preferred to intercity links with regards investment and that competitiveness clusters be evaluated in the most rigorous manner.

Disadvantaged areas benefit indirectly from the spatial concentration of activities, and this helps ensure the via-

bility of the social transfers system. At stake here for the government is to create conditions conducive to the establishment of businesses for which spatial concentration matters little, rather than forcefully and artificially implement economic activities; in addition, public authorities need to ensure equal opportunities for the local population in terms of access to education, employment, and health. It is desirable to remove the bottlenecks that constrain mobility, yet refrain from making it compulsory; to do so, social housing opportunities should be streamlined and the ownership transfer tax should be made progressive on one's main residence.

It is also necessary to implement a standard, nation-wide public grant for each apprentice and to encourage the mobility of unskilled youth through the ongoing liberalisation of intercity bus lines and the development of a competitive industry for driving-schools.

The reduction in cross-regional inequalities that can be seen when it comes to education, access to employment and disposable income should have coincided with converging life expectancies. This has not been the case however, in particular because of strong inequalities in terms of access to quality health services. We recommend that the current logic of resource allocation be reversed and transformed into a needs-based logic by relying on the decentralisation of Regional Health Authorities.

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How best to support those regions excluded from the processes of globalisation, technological change, and urbanisation? How best to simultaneously promote the development of the more dynamic regions, those very regions upon which French economic growth, export growth and the financing of social protection depend most? In the field of regional policies, two levels of analysis coexist: on the one hand, per-capita income inequalities have followed an upwards trend between French municipalities and, within these municipalities, between “districts”, while on the other they have receded across regions, departments or urban areas. The relationship between macroeconomic growth and regional inequalities is best understood when focusing on relatively large territories; luckily, macroeconomic data is available at this level. This will thus be the scale adopted in this *Note*, with the issues of urban segregation and overseas territories to be considered in subsequent work.

Inequalities in wealth generated per-capita have remained stable over the past two decades across regions and employment-areas; conversely, inequalities in per-capita disposable income have declined. Unemployment rates have converged, as have school dropout rates (they have declined in those regions previously most affected); yet regional differences in life expectancy are widening. The picture can thus appear very different depending on the angle one chooses. Therefore, it is essential that one distinguishes the support given to regions from that given to the regions’ inhabitants, even if it encourages their mobility. Given this distinction, we can reconcile two apparently contradictory policy objectives:

- To promote the emergence of economic growth areas that can compete with the world’s major cities;
- To ensure equal welfare and opportunity throughout the country.

## Production and income: different dynamics at local level

### Over the last thirty years: the uncoupling of regional inequalities in production and in income

French economic geography can be subdivided into three major phases:<sup>1</sup>

- 1860-1930: manufacturing output grew more and more concentrated in favour of the Paris region, Rhône-Alpes and the areas bordering the Benelux countries. During this period, geographic concentration took place both within and between regions;

- 1930-1980: scattering of industrial activity towards the less densely-populated departments. Value-added is concentrated in a small number of departments within regions while inequalities in production decrease between regions;
- The last three decades have been marked by an increase in the spatial concentration of value-added in services, which represents an increasing share of total value-added. Since the beginning of the 1990s, this process has resulted in the relative stability of cross-regional variations in value-added per-capita, following a historic decline (Chart 1 and map attached). At the same time, spatial inequalities in disposable income has fallen between regions and between urban areas (see Box 1). This third phase can therefore be seen to have witnessed the decoupling of geography of production and geography of income, as highlighted by the work of Laurent Davezies.<sup>2</sup> The Paris region, to name only one, represents 30% of the country’s total GDP, while its share of household disposable income reached 22.5% in 2012.

The decoupling of GDP per-capita and income per-capita is not specific to France. Another example would be the UK, a country in which the London region also weighs heavily in the country’s total. This phenomenon is also apparent in Germany, albeit following a different evolution: a downward trend for production disparities and a slight increase for cross-regional income disparities.

If one is to go deeper in this analysis, it is essential to not only understand why cross-regional disparities in production ceased to decrease from the early 1990s onwards, but also to elicit where this decoupling between production and income disparities stems from.

### The lesser diffusion of growth towards the least developed regions

With the decline of former production methods, based on labour-intensive manufacturing and cheap energy, GDP per-capita ceased to converge across regions. Until the 1980s, the peripheries were in charge of producing new products that had been designed and developed in the centres. In the initial phase, new products’ value-added mostly came from the design and the manufacturing of the first few series in the central areas. Mass production was then relocated to low-cost production areas, resulting in a transfer of value-added to these peripheral areas. However, this cross-regional rebalancing mechanism by transfer of activity no longer ope-

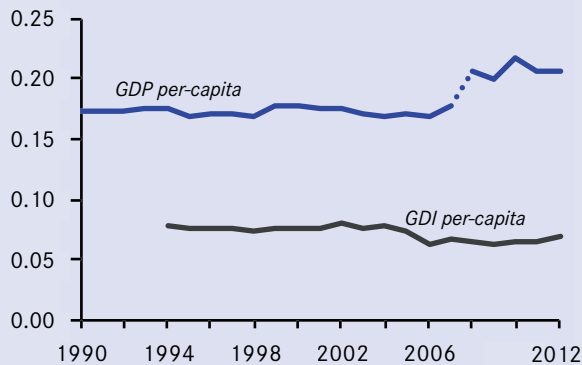
The authors thank Laurent Davezies for rich discussions on a draft of this text, especially with regards to the first part, Clement Carbonnier for his support and INSEE for communicating recent regional data. The authors are solely responsible for the statements made in this *Note*.

<sup>1</sup> 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”, *Explorations in Economic History*, no 48, pp. 243-271.

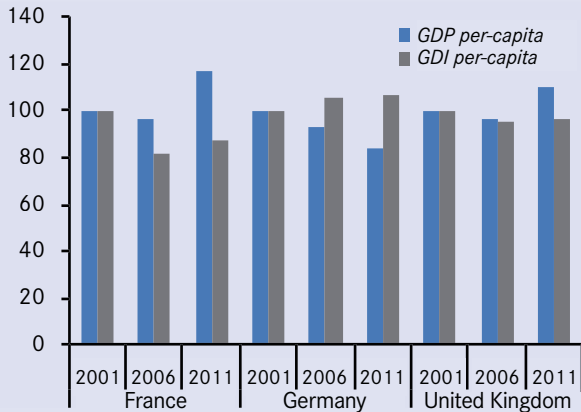
<sup>2</sup> Especially in Davezies L and T. Pech (2014): “La nouvelle question territoriale”, *Note de Terra Nova*, no 1/30, September.

## 1. Regional variations in production and income

### a. Weighted coefficients of variation in France, 1990-2012



### b. Weighted coefficients of variation in France, Germany and the UK, 100 in 2001



*Interpretation:* Variations are calculated as the coefficient of variation weighted by the number of inhabitants, that is to say the ratio between the weighted standard-deviation and the weighted average. The 2008 break in the GDP per-capita series is due to a change in the sourcing of company data in France, which led to an increase in GDP for the Paris region and a decrease elsewhere. Before this series-break, there had been no evidence of increased variation in value-added and no other data source can confirm a structural change in GDP for the Paris region in 2008. More generally, it is important not to underestimate the methodological problems that stem from calculating figures for value-added at the regional level; results should therefore be interpreted with caution. GDP and GDI (gross disposable income) data for France are backward data from INSEE (French national statistics office) from the 2010 database, except for GDI data pre-dating 1999 which uses the 1995 database.

Sources: Eurostat, INSEE and authors' calculations.

rates. The cost of labour (for equivalent jobs) between French regions has converged,<sup>3</sup> in contrast with the consistently-diverging cost of land. Physical production has seen its share drop in the industry's total<sup>4</sup> and was partially relocated not to other regions, but to other countries.

Furthermore, in spite of the spatial diffusion of new information technologies, the key hubs of this economy continue to form around clusters, with physical face-to-face and therefore geographic proximity remaining crucial.<sup>5</sup>

## 1. Income streams in urban areas and peripheries

Average income per-capita is substantially higher in urban areas (especially around Paris, major regional capitals and close to the Swiss border) than elsewhere. In 2011, the reported median incomes were EUR19,800 in large urban areas, EUR17,800 in medium-sized urban areas, EUR17,400 in small-sized areas and EUR16,800 in rural areas.<sup>a</sup>

Yet, there is evidence of catching-up: between 2002 and 2011, median income grew nearly twice as fast in rural areas as it did in large and medium urban areas.<sup>b</sup>

On the smaller scale of within-urban-areas, and excluding the cities of Paris and Lyon, it would appear that median incomes are lower on average in the centre than in the inner suburbs of cities (notwithstanding large variations between suburbs), and lower in the inner than in the outer suburbs. Here, evidence points to growing differences: in 2007-2011, revenues increased more in the outer suburbs than in the inner suburbs, and more in the inner suburbs than in the city centre. The inhabitants of the outer commuter belts earn higher overall revenues; these revenues generally decrease as distance from the centre of the main town increases, although this situation varies according to local topography and communication means.<sup>c</sup>

<sup>a</sup> Floch J-M. (2014): "Des revenus élevés et en plus forte hausse dans les couronnes des grandes aires urbaines", *France Portrait Social*, INSEE. Around 40% of French municipalities form part of one of 230 greater urban areas. These total 80% of the population and 82% of jobs. Just over 20% of municipalities are outside the realm of influence of a town or city (in rural areas); they represent less than 5% of the population.

<sup>b</sup> Aerts A-T. and S. Chirazi (2010): "Les revenus des ménages entre 2002 et 2007. Un rééquilibrage entre territoires mais des disparités dans les pôles urbains", *INSEE Première*, no 1309. Floch (2014), *op. cit.*

<sup>c</sup> Floch (2014), *op. cit.* Here, we are talking about averages. Comparing inner and outer suburbs is favourable to inner suburbs in certain areas (such as Nice, Rennes or Toulouse) while it is favourable to outer suburbs in others (such as Lille, Marseille or Strasbourg).

## Mechanisms behind the dissemination of income and the lack of dissemination of production

The clustering of value-added in mainland France has been offset by the rise of "residential economy", the weight of non-market income in the revenues of "peripheral" regions, and

<sup>3</sup> Rasolofoarison J. (2000): "Les écarts de salaires entre régions s'expliquent surtout par la structure des emplois", *INSEE Première*, no 738. See also Combes P-P., G. Duranton and L. Gobillon (2003): "Origine et ampleur des inégalités spatiales de salaire en France" in *Compétitivité*, Rapport du CAE, no 40, La Documentation française, pp. 163-183.

<sup>4</sup> See Fontagné L., G. Wolff and P. Mohnen (2014): "Pas d'industrie, pas d'avenir", *Note du CAE*, no 13.

<sup>5</sup> Leamer E.E. and M. Storper (2001): "The Economic Geography of the Internet Age", *Journal of International Business Studies*, vol. 32, no 4, pp. 641-665.

wage equalisation. For example, the Languedoc-Roussillon region enjoys both income flows from migration (60,000 newcomers a year) and redistribution flows from public and social spending and from tourism.

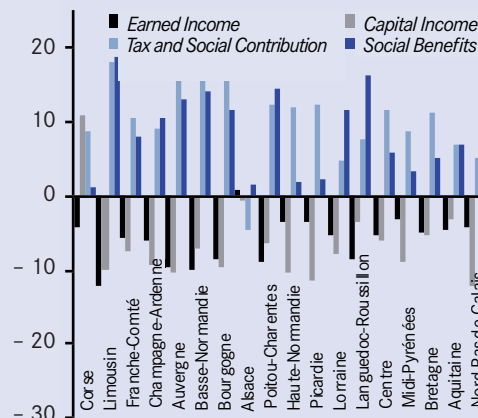
Detailed knowledge of the social characteristics of both arrival and departure flows is not yet available within the French statistical system, preventing further analysis. The US, unlike France, has long developed cohort studies using social data:<sup>6</sup> here however, the Social Security files required to closely follow, year after year, the professional and geographical journeys of contributors are very difficult to access.

At the aggregate level, regional accounts illustrate the great diversity of gross income sources: the higher social benefits received in low-GDP regions (funded by taxpayers' money from the better endowed regions) are not the sole explanation in income inequalities. The ownership of business capital or working outside of one's region of residence are two elements that are also involved in the reduction of inequalities of GDI (gross disposable income). For example, the PACA region (home to many pensioners) benefits from significant capital income streams in addition to social transfers (Graph 2).

Social and public spending often plays a major role, such as in the inland-regions of Limousin, Auvergne and Burgundy. At present, the objective is to lower the cost burden of public spending and of transfers. Whatever the pace and intensity this strategy acquires in the coming years, it will particularly impact the less-developed regions as well as those more dependent on both of the aforementioned revenue streams, and much less those regions whose revenues stem primarily from market income. Furthermore, these less developed regions, or those in crisis, are also the ones that have the largest proportion of modest or even vulnerable pensioners; these individuals are non-mobile and their often incomplete careers are likely to weigh in regions' revenue streams over the coming years. Hence, the regional development dynamics that were at work in the decade before the crisis may experience a severe turnaround.<sup>7</sup>

While the tourism sector, and in particular upscale hotels in the Paris region or the French Riviera, was badly hit by the sudden crisis of 2008-2009, regions continue to see this source of revenue grow. The drop in French tourists departing abroad, combined with rising inflows of foreign tourists, has improved the tourism balance by several billion euros. However, because tourist flows favour the regions in the South-East and to a lesser extent the West, the central and north-eastern regions of France are much worse off. A num-

## 2. Regional variations in household's GDI composition, in percent of the GDI share, year 2012



*Interpretation:* The Paris region totals over 22% of French GDI. The region's share of earned and capital income is 15% greater than its share of GDI; its share in the national total for tax and social contributions is 25% greater than its share of GDI and its share of received social benefits is 22% lower than its share of GDI.

*Sources:* INSEE and authors' calculations.

ber of less developed regions, such as Languedoc-Roussillon, do benefit from the flow of tourism expenditures, yet there seems to be a parallel at regional level between dynamic cities and tourist hits.<sup>8</sup>

### Converging unemployment rates and diverging job dynamics

In terms of employment, and despite the diversity of local situations, it would appear that large cities were better able to mitigate the effects of the 2008 crisis than were small urban areas (see Table). Small and medium-sized areas had retained a manufacturing industry that was hard hit by the recession, while highly skilled employment in the services sector, prevalent in large urban areas, weathered the crisis much better.<sup>9</sup>

However, the impact of the industrial restructuring process that characterized the 1980s and 1990s has tended to fade as a result of regeneration policies. These policies encourage the diversification of activities; more recently, they have promoted activities related to the arrival of new actors such as internet giants, attracted by cheap land in a context of very strong average increase in land prices since the beginning of the century. After rising sharply in 1980s and 1990s, the dispersion of regional unemployment rates declined from 2000

<sup>6</sup> For example, Bluestone B. and B. Harrison (1982): *The Deindustrialization of America: Plantclosings, Community Abandonment, and the Dismantling of Basic Industry*, Basic Books, New York ; Birch D. (1979) : *The Job Generation Process*, Final Report to EDA, US Department of Commerce.

<sup>7</sup> See Davezies L. (2012): *La crise qui vient*, Le Seuil, Coll. 'La République des idées'.

<sup>8</sup> Davezies L. and M. Talandier (2014): *L'émergence de systèmes productivo-résidentiels*, Commissariat général à l'égalité des territoires (CGET), La Documentation française.

<sup>9</sup> Borzic M. and T. Le Jeannic (2014): "En matière d'emploi, les métropoles ont davantage résisté à la crise", *INSEE Première*, no 1503.



### Changes in employment by type of area between 2006 and 2011, in %

	2006- 2011	Share in the market services sector <sup>a</sup>
Paris urban area	2.6	59.0
13 largest urban areas outside Paris	4.7	49.2
Other large urban areas	0.8	42.1
Medium-sized areas	- 1.1	38.9
Small-sized areas	- 0.5	36.6
Multi-polarized municipalities	1.4	31.5
Isolated municipalities, outside any sphere of influence	0.3	31.8
<i>Mainland France</i>	<i>1.9</i>	<i>46.0</i>

Note: <sup>a</sup> Share of jobs in the sales, transports and various services sectors (2011).

Source: INSEE, census data 2006 and 2011.

onwards, a trend which has continued in spite of the 2008 crisis. For example, French unemployment stood at 9.8% during both the third quarter of 1998 and the fourth quarter of 2013; yet, the gap between extreme unemployment rate values across regions decreased from 8.5 percentage points in 1998 to 5.3 points in 2013.<sup>10</sup>

### Economic gains to the spatial concentration of activities

Over the past 20 years, the economic literature has highlighted the role of economic geography as a determinant of productivity (Box 2): having a more clustered geography of production and innovation is more efficient, more productive and drives innovation and growth via the following three aspects:<sup>11</sup>

- More effective sharing of intermediate goods and equipment, such as local infrastructure: having a large number of sector-specific contractors and producers clustered together means that each company can benefit from cheaper inputs offered by producers of intermediate goods resulting from local competition and from economies of scale. Examples are the aviation sector,

grouped in the region of Toulouse, and the automobile sector in the Paris region;

- Better labour market matching at the local level: once an area becomes specialised in a particular economic sector, workers with sector-specific skills will find it easier to secure a job there, while companies in this sector will be able to recruit locally. Better matching means higher productivity. The example of Sophia Antipolis with its pool of highly qualified and highly skilled engineers in the field of information technology and communications springs to mind. In addition, companies will have a stronger incentive to improve specialised training for their workers. Training activities can also be facilitated by local public action or cluster-type public policy;
- Localised technological externalities: the combination of high-tech firms fosters the emergence of new knowledge and the development of radical innovations. This mechanism is often put forward to explain the success of clusters such as the Silicon Valley or Sophia Antipolis.<sup>12</sup> Despite the Internet and other information technologies, physical distance remains a barrier to intellectual interactions, which are crucial in the field of innovation. Hence why research activities, and more generally those related to innovation, are more clustered than production activities.<sup>13</sup> Many empirical studies (not limited to the area of high-tech activities) have shown that interactions between researchers (e.g. citations and patents) strongly decrease as the physical distance between them increases.

Firms also benefit from the proximity of exporting companies working in the same sector: the probability of exporting to a given country increases when a company located close-by has recently exported to that same country.<sup>14</sup> There are localised exchanges of information, for example regarding demand in foreign markets.

Finally, gains are apparent with regard to the geographic-clustering of both specific sectors (economies of agglomeration) and of various activities (economies of urbanisation), which are characteristic of large urban centres. Indeed, as shown by the American urbanist Jane Jacobs, the city is the place where one can most easily exchange ideas, where networks and cooperation are formed and where chance encounters lead to economic projects, innovations and wealth creation.<sup>15</sup>

<sup>10</sup> According to localised data from INSEE.

<sup>11</sup> See Duranton G. and X. Puga (2014): "The Growth of Cities" in *Handbook of Economic Growth*, vol. 2, chap. 5, edition 1, pp. 781-853.

<sup>12</sup> According to the definition by Michael Porter, "A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities", see Porter M. (2000): "Location, Competition and Economic Development: Local Clusters in a Global Economy", *Economic Development Quarterly*, vol. 14, no 1, pp. 15-34. The French government's definition of a competitiveness cluster is not far off: "it is, on a given territory, the interconnection of firms, research centres and training agencies, engaged in a partnership approach (common development strategy) which aims to jointly produce synergies around innovative projects directed at one (or several) given market(s)", see [www.observatoire-des-territoires.gouv.fr/observatoire-des-territoires/fr/poles-de-competitivite-0](http://www.observatoire-des-territoires.gouv.fr/observatoire-des-territoires/fr/poles-de-competitivite-0)

<sup>13</sup> For example, Carrincazeaux C., Y. Lunga and A. Rallet (2001): "Proximity and Localisation of Corporate R&D Activities", *Research Policy*, no 30, show that six French regions comprise 75% of R&D employment for the private sector and only 45% in production-activities employment.

<sup>14</sup> See Koenig P., F. Mayneris and S.Poncet (2010): "Local Export Spillovers in France", *European Economic Review*, vol. 54, no 4, pp. 622-641.

<sup>15</sup> See Bettencourt L.M.A., J. Lobo, D. Helbing, C. Kühnert and G.B. West (2007): "Growth, Innovation, Scaling, and the Pace of Life in Cities", *PNAS*, vol. 104, no 17, pp. 7301-7306. Charlot S. and G. Duranton (2004): "Communication Externalities in Cities", *Journal of Urban Economics*, vol. 56, no 3, pp. 581-613, find that, in large urban centres with great numbers of graduates, employees communicate more, which has a positive impact on their salary. This factor explains 13-22% of the 'premium' associated with large cities that have greater numbers of graduates.

## 2. Spatial concentration and productivity

Using econometric methods and analysing a wide range of countries, many studies have confirmed that the spatial concentration of economic activity has a positive impact on productivity. There are gains from regional specialisation and from increased density. A recent study<sup>a</sup> reported the following figures: when local employment density increases two-fold, the productivity of local firms and the wages of local workers increase by 2-10% depending on estimates. In European regions, Ciccone (2002) showed that a doubling of density increases productivity by about 5%.<sup>b</sup>

Using content-rich data on firms (all companies and production sites of more than 20 employees in France over the period 1996-2004), another study shows that for a stable medium-sized company, doubling the number of workers in the sector where it produces and in the department where it is located increases productivity by 5-10%.<sup>c</sup> Other studies have found a lower impact (2%) for the density of economic activities on the productivity of workers.<sup>d</sup> Both firms and workers benefit from being located in a region where other firms or workers, belonging to the same sector, are producing. The gains from colocation decrease rapidly as distance between same-sector companies increases. Combes and Lafourcade (2012) show that up to 30% of the productivity gap between European regions can be explained by density. In France, Combes et al. (2008) estimate separately the impact of specialisation for 99 different industries and find that it is highest in the corporate services sector and in areas such as medical devices and artificial fibers.<sup>e</sup> This supports the findings of Henderson (2003)<sup>f</sup> for the United States: externalities of agglomeration are greater in high-tech sectors.

Companies have a clear understanding of the gains to be reaped from being located close to other same-sector

companies. It may even be that a more productive company is characterised by its ability to benefit from these agglomeration effects: Combes, Duranton and Gobillon (2012) state that the more successful companies reap greater benefits from economies of agglomeration than do their rivals.<sup>g</sup>

However, Martin et al. (2011) suggest that there is a critical level beyond which localised sector-clustering can turn against firms' measured productivity, at least in the short term. This is due to congestion effects on the price of land, and on transport, training and communication infrastructure.

<sup>a</sup> Combes P-P. and M. Lafourcade (2012): *Revue de la littérature académique quantifiant les effets d'agglomération sur la productivité et l'emploi*, Rapport final réalisé pour la Société du Grand Paris.

<sup>b</sup> Ciccone A. (2002): "Agglomeration Effects in Europe", *European Economic Review*, vol. 46, no 2.

<sup>c</sup> Martin P., T. Mayer and F. Mayneris (2011): "Spatial Concentration and Plant-Level Productivity in France", *Journal of Urban Economics*, vol. 69, no 2, pp. 182-195.

<sup>d</sup> Combes P-P., G. Duranton, L. Gobillon and S. Roux (2010): "Estimating Agglomeration Effects with History, Geology, and Worker Fixed-Effects" in *Agglomeration Economics*, Glaeser (ed.), Chicago University Press, pp. 15-65.

<sup>e</sup> Combes P-P., G. Duranton and L. Gobillon (2008): "Spatial Wage Disparities: Sorting Matters!", *Journal of Urban Economics*, vol. 63, no 2, pp. 723-742.

<sup>f</sup> Henderson J.V. (2003): "Marshall's Scale Economies", *Journal of Urban Economics*, vol. 53, no 1, pp. 1-28.

<sup>g</sup> Combes P-P., G. Duranton and L. Gobillon (2012): "The Costs of Agglomeration: Land Prices in French Cities", *IZA Discussion Papers*, no 7027.

<sup>h</sup> Combes, Duranton and Gobillon (2012) *op. cit.* show that a 10% increase in the population of a French city will lead to a 7% increase in land prices.

It is important not to overlook the costs of over-specialisation, which undermines regions' ability to weather sectorial shocks, especially now that these shocks are themselves made more likely by globalisation and technological progress. Industrial clusters have been in existence since the industrial revolution, but the decline of certain sectors -steel, textile, and automotive- resulted in the decline of certain regions that had tied their fate to a single sector. Because major cities can be home to different sectors, they enjoy the benefits of economies of agglomeration while avoiding the associated risks. Major cities have survived and prospered precisely because of a diversified economic structure. This diversity is important because it is almost impossible today to determine which economic sectors will be the dynamic sectors of tomorrow, including within the high-tech sectors.

It is therefore necessary to support a training system that facilitates career switches and avoids excessive specialisation. A good illustration can be provided by those major cities that have proved successful not because they managed to maintain their supremacy in the same activity all along, but because they were able to periodically reinvent themselves after losing an important part of their economy. Conversely, many historical examples show that economic geography is not frozen and that clusters can migrate. Globalisation increases the mobility of such activities, especially those

related to innovation. France's spatial concentration partly explains its success in attracting foreign investments.

Finally, it would be counter-productive to encourage cluster policies without first identifying the possible vulnerabilities associated with excessive specialisation and the risks of congestion on land and transport (Box 2). In order to secure productivity gains from economic geography, it is important to focus public investment (housing, transportation, universities) in employment areas and highly agglomerated regions, ensuring a high return on investment in terms of productivity without creating a mono-activity. While the Greater Paris project (Box 3) answers this logic, this raises the question of the future of sparsely populated areas.

### Public policy and economic geography

Should public policy encourage or hinder the spatial concentration of economic activities? In most countries, including France, they do both at the same time. Regional planning policy has long been keen to avoid the excessive clustering of economic activities and it is obvious that some political decisions continue to pursue this goal. Yet, in view of the above, it would seem preferable to reduce congestion costs in those regions which concentrate agglomeration gains, rather than encourage companies to locate in a particular area, espe-

### 3. Greater Paris

Launched in June 2007, the Greater Paris project aims to develop the Paris area into a European and global metropolis, to improve the living conditions of its inhabitants, to correct regional inequalities and to build a sustainable city. This project focuses on four priorities: governance, housing, economic development, and transportation. The transport component, the Grand Paris Express, amounts to 200km of automatic metro lines and 69 new stations, plus funding to modernise the existing network. The objective is to complete the transport component by 2030, at an estimated cost of EUR32.5 billion.

The assessment published by the Société du Grand Paris (public institution responsible for the design and implementation of the new rail network) focuses exclusively on the gains to be reaped from the Grand Paris Express project.<sup>a</sup> The gains are of different natures: “well-being of users” (improved regularity, journey times and comfort), “environmental and urban gains” (air and noise pollution, road accidents), additional jobs and relocation of populations (which assumes the steady building of housing adjacent to the new stations). The broader impacts include additional tax revenue derived from the income top-up of jobs relocated to more productive areas, lower unemployment and underemployment and weaker local oligopolies. The land use changes are not considered in this assessment, even though planning is in itself an important source of externalities (increased pressure on existing infrastructure, environmental impact or potential distortion of the land market).

Taking into account operating costs, the evaluation estimates an expected return on investment of between 4.9% (no additional jobs, weak growth, taking into account the opportunity cost of public funds) and 12% (trend growth scenario, 315,000 additional jobs and not taking into account the opportunity cost). The median scenario considers a return on investment of 7.6-9.8%, assuming an annual real GDP growth of 1.9% until 2030 and 1.5% thereafter.

The counter-assessment carried out by the General Commission for Investment (CGI) is generally consistent with these findings. The CGI notes however the lack of “alternative scenarii to a subway in order to open up those areas covered by the rail network”<sup>b</sup> and that of a “really low scenario, [resulting] from demographic and/or economic considerations”.<sup>c</sup>

The ex-post studies of existing mass transportation systems abroad suggest that building a subway does not transform the city, because the city centre and its suburbs are already attractive territories. However, with the decrease in transport costs, the city’s population does spread outwards. The spatial distribution of the population mainly depends on a clear housing policy. The impact of the rezoning of the Navigo card (electronic ticketing system used in Greater Paris) will mostly depend on its aftereffect on land prices in the outer suburbs.

<sup>a</sup> Société du Grand Paris (2014): *Dossier d’enquête préalable à la déclaration d’utilité publique*, Pièce H, p. 13.

<sup>b</sup> *Ibid.*, Pièce J, p. 6.

<sup>c</sup> *Ibid.*, Pièce J, p. 45.

cially since this could lead to potential competition between regions. Disadvantaged areas benefit indirectly from the spatial concentration of activities to the extent that it allows for productivity gains, which ensure the viability of the social transfers system. Disadvantaged areas should be given special attention by the authorities, not as a means to artificially secure the location of economic activities, but to give each individual, wherever he may reside, equal opportunities in terms of access to training, employment, and health.<sup>16</sup>

#### Encouraging productivity gains through the spatial concentration of activities

##### Fighting congestion

In its first phase, a regional policy must enable productivity gains associated with the spatial concentration of activities by preventing congestion effects in large cities. This relates primarily to housing and transport policies. In terms of housing, it is necessary to focus on mobilising public funds and land availability in favour of priority areas.<sup>17</sup>

#### Recommendation 1. Reorient housing policy towards priority areas (densely populated areas).

Opening up territories by investing in transport infrastructure has long been seen as a strategy to reduce regional inequalities, on the basis that lower transport costs should encourage economic activities to spread out. This however makes no case of transport costs hindering competition between cities. Opening up territories may then actually encourage the clustering of firms in large cities and away from smaller ones, contributing to making the latter less attractive.

A recent report on high-speed trains by the Court of Auditors concluded to ambiguous effects on regional development (beyond short-term Keynesian effects) and especially to greatly decreasing economic and social returns. The new railway lines are becoming less and less profitable, and the very large number of train stations conflicts with the very notion of speed. Today, the key issue seems to be the congestion of large cities, primarily that of the Paris region. According to figures from *Réseau Ferré de France* (French national railway company), the burden for taxpayers of operating railway connections (in passenger-km) within the Paris region is half that of operating them throughout the rest of the country. While the Paris region represents 22% of rail traffic, it receives only 9% of the railway network’s development funding. At stake here is not just economics, but also quality of life for the locals.

<sup>16</sup> Here, we do not address the issue of the French *territorial reform*, nor that of the optimal number of administrative levels. This reform is well suited to our approach given that it reinforces equal access to quality public service throughout the country.

<sup>17</sup> See Trannoy A. and E. Wasmer (2013a): “Comment modérer les prix de l’immobilier ?”, *Note du CAE*, no 2 and Trannoy A. and E. Wasmer (2013b): “La politique du logement locative”, *Note du CAE*, no 10.

**Recommendation 2.** Reorient public transport investment towards fighting congestion in large urban centres, rather than building new lines for high-speed trains.

### Competitiveness clusters

The policy of competitiveness clusters launched in 2004 is consistent with the spatial analysis of productivity gains referred to above. It aims to promote cooperation between firms and their regions, and to financially support firms partnering with public-sector researchers on R&D projects thanks to local and national government funds (Single Inter-ministerial Fund). Companies' productivity is also negatively affected by the low level of trust among economic actors that is said to be prevalent in France.<sup>18</sup> While its starting point was not without merits, this cluster policy could not withstand the conflicting pressures of adding regional planning objectives to the existing objectives of productivity and competitiveness. It has been rendered partly meaningless by the large number of clusters (71 to Germany's 15) and their being scattered throughout the country.<sup>19</sup> The large number of same-sector clusters (10 in the food industry, 5 in transport) also contradicts the very logic of clusters and the framework put in place is perceived as very complex.<sup>20</sup>

Few impact evaluations for this policy are available. When they exist, they often have methodological problems. It is not enough to compare the competitiveness of firms that were targeted by these schemes to that of those which stayed outside. Indeed, in addition to participation being on a voluntary-basis, firms were de facto selected because of their higher productivity, greater competitiveness and overall more promising outlook than their sector-counterparts.<sup>21</sup> It is in no way a guarantee of the policy's success that two-thirds of firms surveyed indicated having created jobs; a rigorous evaluation of competitiveness clusters remains fully necessary.

Taking selection bias into account, a recent study evaluated the impact of cluster-membership on R&D expenditure.<sup>22</sup> It finds that, while belonging to a cluster does increase R&D expenditure, there is no knock-on effect. The increase in R&D expenditure from joining a cluster seems almost entirely due to an increase in direct public funding and research tax credit (CIR), as though companies saw clusters as mere one-stop-shop for grants. The study also finds that being part

of a cluster has no impact on the number of patents or the turnover of the firm. Other studies show a positive impact for the cluster's exporting companies, as being part of a cluster increases the likelihood that they will continue to export;<sup>23</sup> however, said companies are more dependent on the "leading" firm within the cluster. In addition, cluster-membership seems to have been of little benefit during the 2008-09 financial crisis.

**Recommendation 3.** Quantify the impact and the diversity of competitiveness clusters with an independent evaluation. Clarify the objectives of competitiveness clusters by focusing on productivity, innovation and competitiveness. Do not hesitate to reduce numbers.

### Promoting equality of opportunities across the country

In those regions where a clustering of economic activities is least likely, public intervention should focus on creating the conditions conducive to the establishment of businesses for which spatial concentration matters little and on ensuring equal opportunities for the local population in terms of access to education, employment, health.

### Production costs

Nowadays, the inexpensive land available in the most disadvantaged areas is attracting commercial sector activities. A lower cost of labour could also appeal to certain economic activities. It should be expected that reducing social contributions on low wages be more beneficial to disadvantaged areas where the proportion of managers and engineers is relatively low.

**Recommendation 4.** Evaluate the geographical implications of social security exemptions and wage bill tax credits so as to determine to what extent targeting them on lower wages would benefit disadvantaged areas.

<sup>18</sup> See the study by Bloom N., R. Sadun and J. Van Reenen (2012): "The Organization of Firms Across Countries", *Quarterly Journal of Economics*, vol. 127, no 4, pp. 1663-1705.

<sup>19</sup> See the map of competitiveness clusters, [www.competitivite.gouv.fr/documents/commun/Documentation\\_poles/cartes-poles/carte.pdf](http://www.competitivite.gouv.fr/documents/commun/Documentation_poles/cartes-poles/carte.pdf)

<sup>20</sup> Bearing point France SAS - Erdyn - Technopolis Group-ITD (2012): *Évaluation des pôles de compétitivité*, Rapport pour la DATAR et la DGCIS.

<sup>21</sup> Compared with the cluster policies that were in place before the introduction of competitiveness clusters (the policy of local production systems), and which would "select" firms and sectors in difficulty, competitiveness clusters have focused on "selecting" more successful companies. See Fontagné L., P. Koenig and F. Mayneris (2013): "Cluster Policies and Firm Selection: Evidence from France", *Journal of Regional Science*, vol. 53, no 5, pp. 897-922.

<sup>22</sup> Bellégo C. and V. Dortet-Bernadet (2013): "La participation aux pôles de compétitivité : quelle incidence sur les dépenses de R&D et l'activité des PME et ETI ?", *Document de Travail de l'INSEE*, no G2013/06.

<sup>23</sup> Martin P., T. Mayer and F. Mayneris (2013): "Are Clusters More Resilient in Crises? Evidence from French Exporters in 2008-2009", *CEPR Discussion Paper*, no 9667.



For example, a first step would be to evaluate the regional impact of the competitive employment tax credit (*Crédit d'impôt compétitivité emploi*, CICE), through the as-of-yet ineffective establishment of regional monitoring committees, as provided for by law. Additionally, social partners should consider the possibility of having regional-level branch agreements (like in the steel or construction branches) in order to enhance the attractiveness of regions where land is inexpensive.

### Encouraging the mobility of workers

In a context of converging unemployment rates, the cross-regional residential mobility required of workers (to hopefully improve the functioning of the labour market as much as one's own job opportunities) fades compared to earlier diagnoses.<sup>24</sup> The theoretical impact of stimulating residential mobility is rather complex. For a single worker, residential rigidity is a barrier to effective matching in the labour market, especially so when the rate of creation-destruction of activities is high. For people with a partner, the mobility of one spouse can result in reduced employment opportunities for the other. However this mechanism is biased, as evidenced by the average employment probability of both partners after moving: it declines for women, and tends to increase for men.<sup>25</sup>

However, since there are dynamic cities, there is a need for cross-regional mobility; this need may well be strengthened by constraints on public spending. Since the 1970s however, residential mobility within France has remained stable when it comes to moving across regions or departments, and has increased slightly between municipalities of the same département.<sup>26</sup> On average, mobility is comparable to that observed in Germany, but well below the levels seen in the US for example. The International Social Surveys show that the French, the Germans and the British are more attached to their local identity than are the Americans<sup>27</sup> and that (in)mobility is strongly determined by societal factors (having children...); yet it is important not to forget that there are institutional factors at work, which affect in particular lower-skilled people, who already are sociologically less mobile and have fewer job opportunities.

It is desirable to remove the bottlenecks that constrain mobility, yet refrain from making it compulsory. A financial assistance scheme to encourage mobility is already in place; it is

relatively simple to use from an administrative point of view and adds up to a substantial amount for an unemployed person who no longer qualifies for benefits (or who receives particularly low unemployment benefits). The CAE's *Note* no 10 also recommends a number of measures to streamline the housing market, in particular social housing.<sup>28</sup> Theoretically, transaction costs are also an impediment to mobility for business owners; while assessment studies conducted abroad have struggled to find significant effects on mobility outside a local area,<sup>29</sup> ownership transfer tax in France differs from that of neighbouring country in that it not only is much higher but, crucially, follows a regressive pattern.<sup>30</sup> For example, fees are about 10% for a property of EUR50,000 in the *Oise* (suburbs north of Paris) and below 6.5% for a property of more than EUR1 million inside Paris. Making the ownership transfer tax follow a neutral or progressive pattern for one's main residence would encourage the mobility of lower-income groups, for whom such fees are most likely to hinder mobility.

**Recommendation 5.** Streamline social housing by using transparent indicators that guide the equalisation process of the authorities in charge and that help allocate subsidies across regions, and by activating rent surcharges depending on income and number of years already spent in social housing. Consolidate the ownership transfer tax (*droits de mutation à titre onéreux*, DMTO) to make it progressive on one's main residence.

Beyond housing, access to transportation can also prove a barrier to mobility. In this regard, a step in the right direction would be the opening of intercity bus lines as envisaged in Growth and Activity bill: it would facilitate the movement of individuals with the lowest incomes, especially younger ones. A driving-license can only be passed at an exorbitant cost (over EUR 1,500 on average) and after an abnormally-long waiting period (the national average is a 98-day delay before taking the exam, while the wait can reach 5 months in a number of regions, in particular the Paris region – these delays average only 1.5 month in other European countries). This is a severe shortcoming;<sup>31</sup> provisions to reduce waiting time are currently being discussed as part of the Growth and Activity bill.

<sup>24</sup> See, for example, Lemoine M. and E. Wasmer (2010): *La mobilité des salariés*, Rapport du CAE, no 90, La Documentation française.

<sup>25</sup> Courgeau D. and M. Meron (1995): "Mobilité résidentielle, activité et vie familiale des couples", *Économie et Statistique*, n° 290, pp. 17-31. Dinaucourt M. (2002): "Chômage et précarité de l'emploi par région", *Données Sociales*, INSEE, pp. 523-530.

<sup>26</sup> Sigaud T. (2014): *Mobilités résidentielles et professionnelles des salariés en France : entreprises, marchés et territoires, une articulation en tension*, Thèse soutenue à l'Université Paris-Dauphine, 3 avril.

<sup>27</sup> ISSP Research Group (2012): *International Social Survey Programme: National Identity II-ISSP 2003. GESIS Data Archive, Cologne. ZA3910 Data file Version 2.1.0, doi : 10.4232/1.11449.*

<sup>28</sup> Trannoy and Wasmer (2013b), *op. cit.*

<sup>29</sup> Hilber C.A.L. and T. Lytikäinen (2012): "The Effect of the UK Stamp Duty Land Tax on Household Mobility", *SERC-LSE Discussion Paper*, no 115.

<sup>30</sup> Proportional taxes, fixed costs and regressive notary fees explain this regressive pattern.

<sup>31</sup> See the report by Florence Gilbert handed to the Interior Minister in April 2014.

**Recommendation 6.** Break the current oligopoly of driving-schools by lifting barriers to entry in the sector.

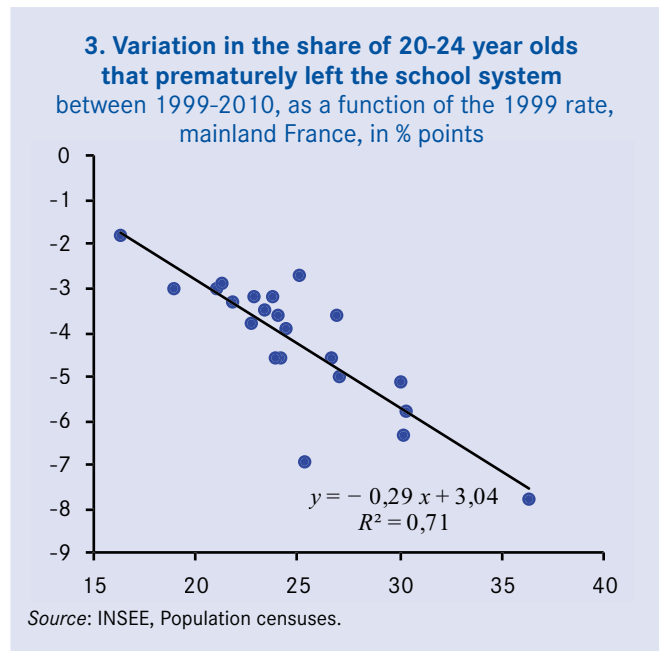
### Reducing inequalities in education and vocational training

The evolution of regional disparities provides a good illustration of the dramatic changes undergone by the supply side and the demand side of the French labour market over the last two decades.

In terms of labour supply, wider access to the school system has made way for a higher-skilled workforce across the country. Although cross-regional comparisons are difficult at the third-level given student mobility, statistics for the secondary-level are telling. For example, the fight against school exclusion has successfully and significantly reduced inequalities between regions (or departments) in terms of the proportion of young people dropping out of the school system (Graph 3). It is true that the census shows a 21% drop-out rate for 20 to 24 year olds in 2010; as such, there are reasons for continued and proactive public policies against school failure, in particular at the primary and secondary levels. However, the same figure was 25% in 1999: the regions of Picardy, PACA, Languedoc-Roussillon, which had more than 30% of drop-outs in 1999, are now below 25%.<sup>32</sup>

Continued regional divergence is nevertheless upheld by mechanisms such as the financing of work-based vocational training,<sup>33</sup> which tends to reproduce inequalities in per-capita GDP. For example, an apprentice training centre (*centre de formation des apprentis* CFA) in the Paris region receives an average of four times more in subsidies per apprentice than a CFA in the regions of Poitiers or Nice, even though the Paris region has one of the lowest shares of apprentices in vocational secondary education (less than 25%) while this share is in excess of two-thirds in the regions of Poitiers, Nice, or Orléans-Tours.<sup>34</sup> A previous *Note du CAE* argues in this regard for an overhaul of the funding and governance of the work-based vocational training system.<sup>35</sup>

**Recommendation 7.** Set a nation-wide grant to be awarded to training centres for each apprentice they take on, in order to avoid regional inequalities in GDP being mirrored in the funding pattern of work-based vocational training.



For higher education we recommend funds be focused on the larger universities of major cities while also increasing subsidies for student mobility.

### Universal access to health

Life expectancy is multifactorial, being shaped by social, educational, cultural, environmental, and human factors. Reducing inequalities in terms of education, access to employment or disposable income should help reduce life expectancy differentials between regions or departments. However, no such trend is to be seen and cross-regional disparities in life expectancy at birth have even increased in recent decades for men (Graph 4). A man born in the Paris region will enjoy an extra 1.5 year of life compared with the 2012 national average (the record being for Paris City and Hauts-de-Seine (Paris suburbs) with 2.5 additional years); conversely, the Nord-Pas-de-Calais region has a deficit of more than 3 years.<sup>36</sup> In fact, it is the whole North-West and North-East of France (exception being made of Alsace) that are falling behind.

Inequalities are much less marked for women, yet there is no evidence of convergence. We find a similar geography to that observed for men: on the one hand the region of Nord-Pas-de-Calais (deficit of 2.1 years) and on the other that of Paris (+ 0.6 years, including over a year in Paris City and in the Hauts-de-Seine).

<sup>32</sup> Except for French Guyana, this trend is even more visible in French overseas territories (- 14 points in Martinique, - 16 in La Réunion and - 17 in Guadeloupe).

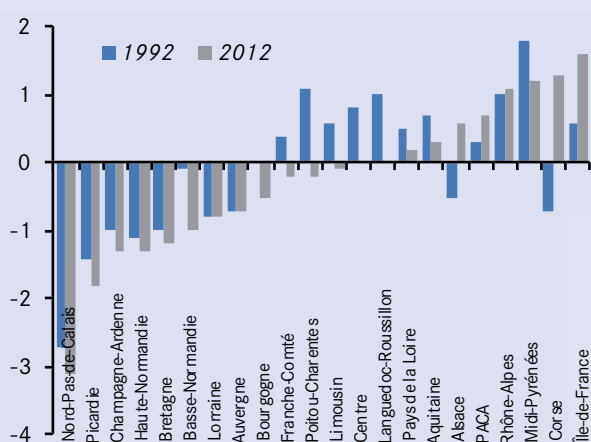
<sup>33</sup> Ferracci M. and P. Cahuc (with the contribution of J. Tirole and E. Wasmer) (2014): "L'apprentissage au service de l'emploi", *Note du CAE*, no 19.

<sup>34</sup> Survey no 8 maps subsidies received under exempting payments of the Apprenticeship Tax by institutes (MESR-MEN-DEPP) 2012, cf. [www.education.gouv.fr/statistiques/rers](http://www.education.gouv.fr/statistiques/rers)

<sup>35</sup> Cahuc and Ferracci (2014), *op. cit.*

<sup>36</sup> Mortality rates for over-60s contribute most to diverging life expectancies; infant mortality rates are converging.

#### 4. Life expectancy at birth compared to national average 1992 and 2012, men, in number of years



Source: Eco-Santé IRDES database.

Paradoxically, the best way to ensure equal opportunities across France is to support growth in already advantaged areas, where productivity prospects are promising so long as we invest to limit congestion effects. However, this must be supported by a proactive policy of equal opportunities in schools, in work-based vocational training programmes, in hospitals and on the job market. Many levers exist in these areas. ●

Although socio-economic inequalities explain a great deal of these spatial inequalities, a regional-level approach supports the assessment made by Askenazy *et al.* (2013)<sup>37</sup> of severe health inequalities in France. These inequalities are coupled with significant differentials in health expenditure per-capita, particularly so in specialised outpatient care: indeed, expenditure tends to follow supply rather than needs. A recent study<sup>38</sup> confirms that even French hospitals display signs of spatial inequalities, albeit not in terms of volume of activity but in terms of hospital performance. Thus, at the turn of the century, the probability of dying within 15 days of being admitted for a heart attack is spread over 80% between the maximum (Languedoc-Roussillon) and the minimum (Alsace). Regional differences in the use of innovative therapies play a major role in this heterogeneity as does the supply of hospital care, given that the local clustering of patients on large hospitals reduces mortality.

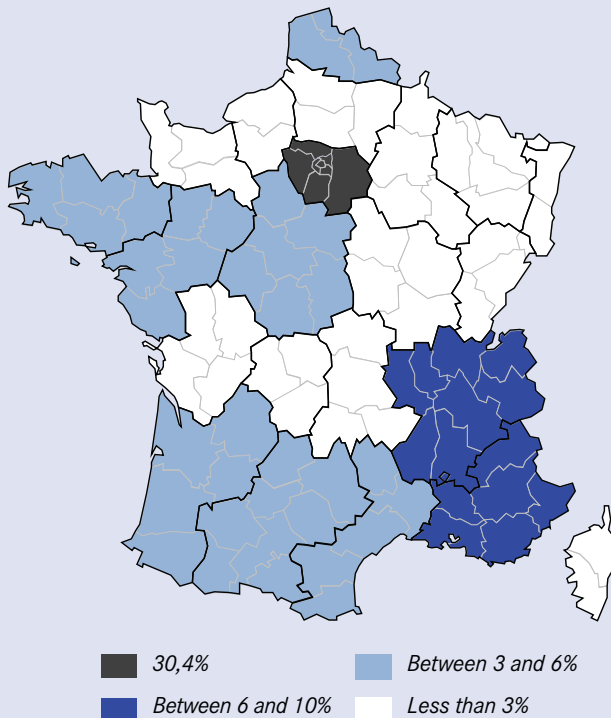
**Recommendation 8.** By relying on the decentralisation of Regional Health Authorities, reverse the current logic of resource allocation: from a consumption-based logic (that translates into the range of medical services on offer) to a needs-based logic.

<sup>37</sup> Askenazy P., B. Dormont, P-Y. Geoffard and V. Paris (2013): "Pour un système de santé plus efficace", *Note du CAE*, no 8.

<sup>38</sup> Gobillon L. and C. Milcent (2013): "Spatial Disparities in Hospital Performances", *Journal of Economic Geography*, vol. 13, no 6, pp. 1013-1040.

## Appendix – Maps

### 1. Distribution of GDP by region in 2012 % of total (mainland France)

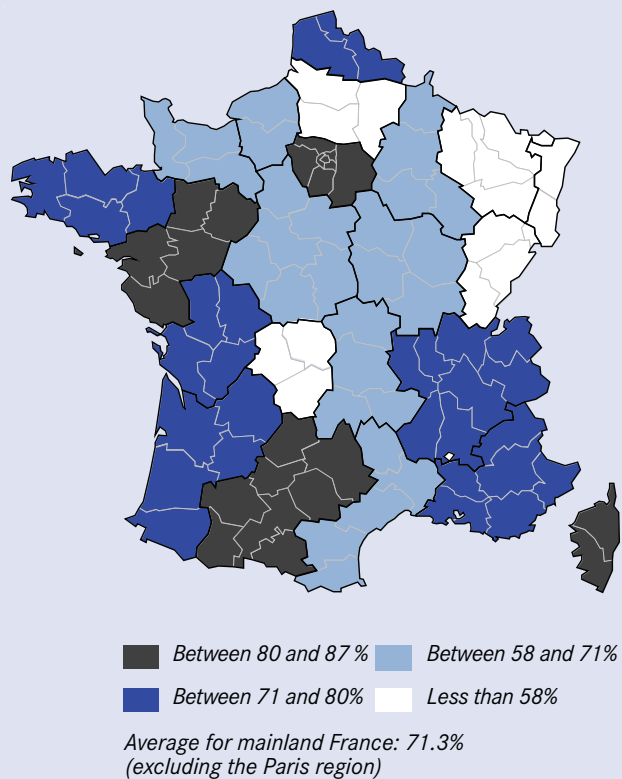


Source: A. Keogh using INSEE data, regional accounts, 2010 as base year.

In mainland France (excludes overseas territories), the Paris region overshadows all others and accounted for 30.4% of GDP in 2012. The three largest regions (Paris region, Rhône-Alpes and PACA) account for almost half (48%) of French GDP. They are the most densely populated regions, but also enjoy the highest GDP-per-capita.

Growth in value terms of GDP-per-capita over the period 1990-2012 is highly varied across regions. The regions of Corsica, Paris, Midi-Pyrenees or the Loire Valley are very dynamic in terms of GDP-per-capita. The five region é, Picardy, Lorraine, Alsace and Limousin, most likely penalized by their sectoral specialisation.

### 2. Cumulative GDP-per-capita growth between 1990 and 2012, %



Source: A. Keogh using INSEE data, regional accounts, 2010 as base year.



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