

### Exploring the use of business tendency surveys to analyse the short-term outlook for employment in building construction in Île-de-France and the rest of Metropolitan France

This Focus presents an original method using business tendency surveys – originally created to provide results at national level – to obtain balances of opinion and short-term economic indicators at regional level. We look particularly at the short-term monitoring at local level of employment in building construction, comparing results in Île-de-France with those in the rest of the country: the verdict from the business tendency surveys appears to match the economic reality measured using other channels. For example, in both Île-de-France and the rest of the country, balances of opinion on past workforce size are a fairly good reflection overall of changes measured in employment in building construction, and also of short-term differences between these areas.

INSEE's business tendency surveys are quick and easy to use for forecasts as they provide aggregated indicators at national level, covering Metropolitan France. However, the economic outlook can differ considerably from region to region, especially concerning payroll employment. In building construction in particular, changes in the number of jobs can differ between Île-de-France and elsewhere in Metropolitan France over certain periods (*Graph 1*).

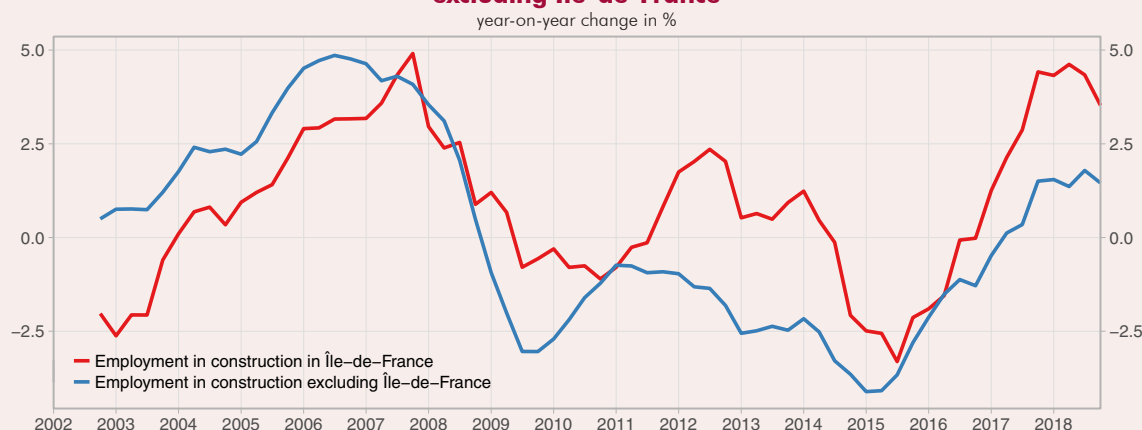
There are not many indicators adapted to local monitoring of the short-term employment outlook. Quarterly payroll employment estimates are certainly available at local level, but with a delay of one quarter after the end of the quarter under consideration. It may therefore be interesting to examine whether it is possible to produce early regional short-term indicators (business climates, balances of opinion) using responses from the monthly business tendency surveys in the building industry. However, the survey is produced at a national level and sampling does not take geographic location into account. This Focus presents results obtained from individual company responses, by applying different processing techniques to distribute their responses across the country, according to their workforce numbers. The main processing technique consisted in defining the establishment rather than the enterprise as the statistical unit, then using data on establishments from the Annual Declarations of Social Data (DADS, see

*Method below*). The strong assumption was that since all the establishments that make up an enterprise have the same principal activity within the scope of the survey, they would respond in the same way as the enterprise itself, whatever their location and would therefore declare the same changing trends. In this way, if the establishment did not provide a response, it would be possible to take a company's various locations into account. Balances of opinion were calculated by geographic area, and summarised in a local business climate, a composite indicator constructed from the same balances of opinion as those used to calculate the national business climate published monthly for the building industry.

#### The business climate in the building industry in Île-de-France stands out, especially in periods of crisis

Business climates calculated for the different administrative regions of Metropolitan France generally follow the same trend. This is partly due to the assumption that change in the activity of the establishments of a company is the same as at company headquarters. Thus the same survey response can be used to calculate an indicator for several regions. Nevertheless, the business climate in Île-de-France differs from other business climates, especially during the economic crisis in 2008 and between 2013 and 2015. For the sake of clarity,

**1 - Change in payroll employment in the construction sector in Île-de-France and in France excluding Île-de-France**



Scope: Metropolitan France  
 Source: INSEE

the analysis is simplified by differentiating two major areas, Île-de-France and Metropolitan France excluding Île-de-France (Graph 2).

The business climate in the building sector in Île-de-France sometimes follows a slightly different pattern of change from that in the rest of France, suggesting a different short-term outlook in the building construction sector in the two areas. Over the period 1993-2000 in particular, the economic outlook in building in France excluding Île-de-France appears to have been more favourable than in Île-de-France. In 2001, climates in both areas began to trend downwards, which was probably associated with the stock market crash in 2001. However, Île-de-France seems to have been affected for longer than the rest of France.

From 2006, the economic climate in Metropolitan France excluding Île-de-France stabilised, whereas in Île-de-France it continued to increase until 2008. Both climates then fell dramatically with the effect of the 2008 economic crisis, with both losing virtually the same number of points. However, as the climate in Île-de-France was at a higher level at the start of the crisis, it also ended its fall at a higher level. It

was also more resilient than the climate for the rest of France between 2011 and 2015, a period when both economic climates were declining. It was only from 2016 onwards that the business climate outside Île-de-France caught up with that of Île-de-France.

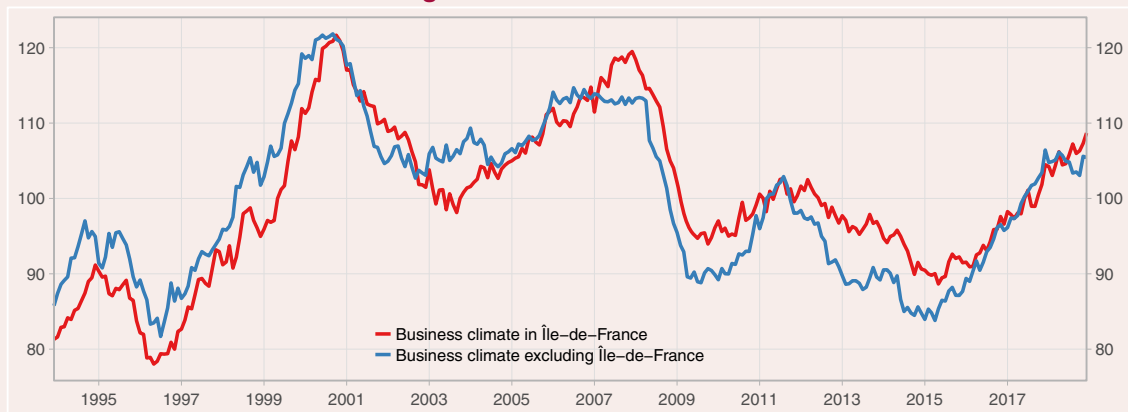
### Balances of opinion on past workforce size are a good reflection of the changes in employment in building construction for both areas

After studying a composite indicator of economic activity, we consider the short-term outlook for employment outlined by our corresponding indicators.

In addition to clarity, one of the quality criteria for a balance of opinion is its suitability for the change in economic factors of interest, measured from quantitative indicators. At national level the balance of opinion in the third month of the quarter (or "month 3"<sup>1</sup>) on past change in workforce size taken from the business tendency survey, is therefore very closely correlated to the year-on-year change in employment in building construction. There is also a strong correlation between the two geographic areas under consideration (Graphs 3 and 4).

1. The balance "at month 3" is obtained by selecting only the values from the third month of each quarter. For example, the value of the "month 3" balance in Q1 2017 is the value of the monthly balance of opinion in March 2017.

### 2 - Business climate indicator for the building industry in Île-de-France and in France excluding Île-de-France Business climate



Source: INSEE

### 3 - Year-on-year change in employment in building construction and balance of opinion "at month 3" on past workforce size in the building industry in Île-de-France

balance as %, year-on-year change as %



Source: INSEE

## French developments

For Île-de-France, the balance of opinion “at month 3” on past workforce size in Île-de-France, is a fairly good reflection of year-on-year change in the number of jobs in building construction between Q3 2003 and Q2 2010. In particular, the balance illustrates the acceleration phase in employment in this sector in Île-de-France in 2007, just before the crisis. The relationship is a little less reliable thereafter: from mid-2010, the balance of opinion starts to recover while the year-on-year change in the number of jobs does not begin to pick up until the following year.

From 2016, the balance of opinion increased less quickly than the year-on-year change in employment. One possible explanation for this discrepancy is the scope of the survey, which only covers building construction activities, whereas the employment data also include civil engineering. However, work associated with Greater Paris, which has mainly been public civil engineering work, probably bolstered employment in this sector considerably in Île-de-France. In addition, DADS 2015 (see [Method](#)) were used for the years 2016, 2017 and 2018, as no more recent data were available when the series of economic short-term indicators by geographic area were being calculated: this could also partly explain the discrepancies.

For the rest of France, the balance of opinion on past workforce size seems to be relatively well correlated with year-on-year change in employment in building construction ([Graph 4](#)) in this area.

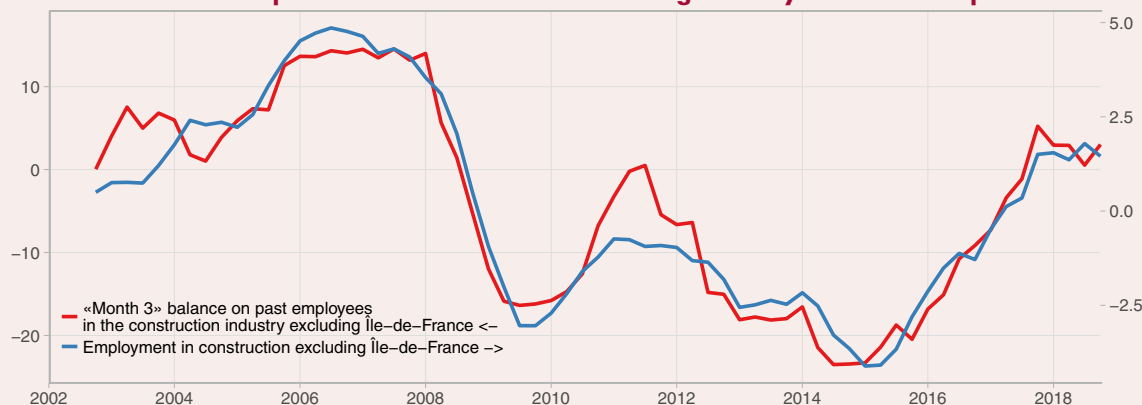
### Balances of opinion on past workforce size illustrate the differences in short-term outlook in the building construction sector between Île-de-France and the rest of the country

When the balances of opinion produced for the two areas, Île-de-France and the rest of Metropolitan France, appear to be a fairly good reflection of the time series for payroll employment in building construction for each of these areas, they can be compared in more detail.

The balances of opinion on past change in workforce numbers were centred and reduced so that a comparison could be made ([Graph 5](#)). They were a good reflection of the respective trajectories of employment in building construction in the two geographic areas.

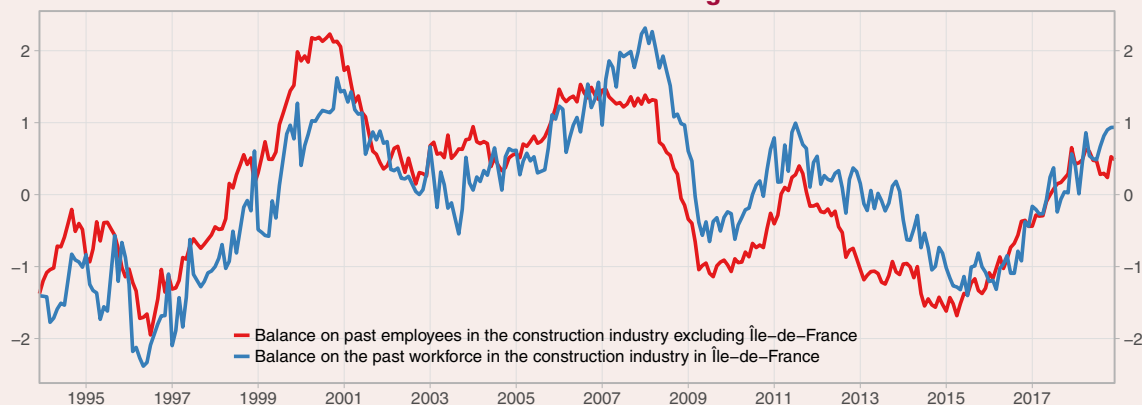
Between 2002 and 2006, the balance of opinion for Île-de-France stood below that for the rest of France. Over the same period, the number of jobs in building construction in Île-de-France increased less quickly than in the rest of France. The balance of opinion for Île-de-France overtook that for France excluding Île-de-France from the end of 2006 and this can be

#### 4 - Year-on-year change in employment in building construction and balance of opinion “at month 3” on past workforce size in the building industry in the French provinces



Source: INSEE

#### 5 - Balance of opinion (centred and reduced) on past workforce size in the building industry in Île-de-France and France excluding Île-de-France



Source: INSEE

seen in the quantitative employment data, although it took place one year later.

During the 2008 crisis, employment in this sector suffered less in Île-de-France than elsewhere. This difference can be explained by a more favourable economic outlook (especially with more dynamic amounts of surface areas being authorised for the construction of housing) and less recourse to temporary employment in Île-de-France. With temporary employment it is often possible to adjust employment to variations in activity, but employment excluding Île-de-France suffered more in the crisis (Roy & Satger, 2010).

In 2010, the change in employment was at its lowest following the economic crisis. Nevertheless, the drop in the number of jobs was less marked in Île-de-France than in the rest of France, and this is fairly well reflected in the balances of opinion. After this, the outlook for employment in Île-de-France became more favourable than in the rest of France between 2010 and 2015. Since 2015, however, the two centred and reduced balances have converged, with

employment data showing that Île-de-France is more buoyant.

Between May 2018 and October 2018, the balance for past workforce numbers outside Île-de-France fell steadily, while the balance for Île-de-France remained encouraging. There are two possible explanations to account for this difference: on the one hand, the restriction of areas eligible for the Pinel scheme and, on the other hand, the changes to the eligibility rules for zero rate loans (PTZ) in certain areas. In fact, since January 2018, the scope for eligibility for the Pinel scheme has been reduced to areas said to be “tense”, i.e. mainly areas located in Île-de-France, and the zero rate loan for new housing has been refocused on areas with the greatest tensions in terms of real estate. However, this is not exactly the divergence we observe in the available employment data. In 2018, employment did indeed increase significantly more quickly in Île-de-France than elsewhere, but the year-on-year change in employment in Île-de-France fell back in H2 2018, whereas it remained stable overall in the rest of France in 2018 (*Graph 1*). ■

### Method

#### Using establishments (rather than legal units) as the statistical unit

In the monthly business outlook survey of the building industry, establishments are not questioned individually on their activity: only enterprises are questioned in this way as a legal unit. In general, the survey questions the legal unit that corresponds to the company headquarters, and this response therefore covers the activity of all of the company's establishments. These establishments may be located in several different regions. If the legal unit is used as the statistical unit, this will result in a concentration of all of its activity in the region where its headquarters are located. In order to take into account the full range of a company's locations, we assume that all establishments whose principal activity falls within the scope of the survey follow the same pattern of change as headquarters, i.e. they would all give the same response to the business tendency survey. This is a considerable approximation to make, but as a result it is possible to better locate company activity by distributing it further.

To simulate establishment responses in this way, we must first determine the share of employment and activity that corresponds to the different establishments of a single enterprise. The distribution key is based on payroll workforce per establishment, as provided in the data from Annual Declarations of Social Data (DADS).

#### Taking group-type responses into account

To promote granularity in the responses, the business tendency surveys prefer to use the legal unit as the statistical unit; however, some units respond as part of

the profiled unit or group to which they belong. In this specific case, the perimeter of the unit's response is widened to all establishments of the company or the group being profiled which are not already attached to a legal unit interviewed in the survey.

#### Use of secondary weighting specific to each geographic area

When publishing survey results at national level, we use a weighting system (called secondary weighting) to allocate to each stratum a weight that is representative of all the enterprises that make up the stratum in the survey frame. To calculate indicators by geographic area, we must first calculate secondary weightings for each area for which we want to calculate indicators and for several periods. Here, the weightings have already been recalculated based on establishment workforce numbers, taken from DADS. ■

### Bibliography

**INSEE** (2006), “The French business survey of the situation and outlook in the building industry: methodology”, *methodologie, Insee Méthodes* n°115

**Roy J. et Satger O.** (2010), “In Île-de-France, employment is showing better resistance to the crisis”, *Île-de-France à la page, INSEE*, n°335. ■