

# How far can statisticians go in commenting on trends of indicators?

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***DGINS***

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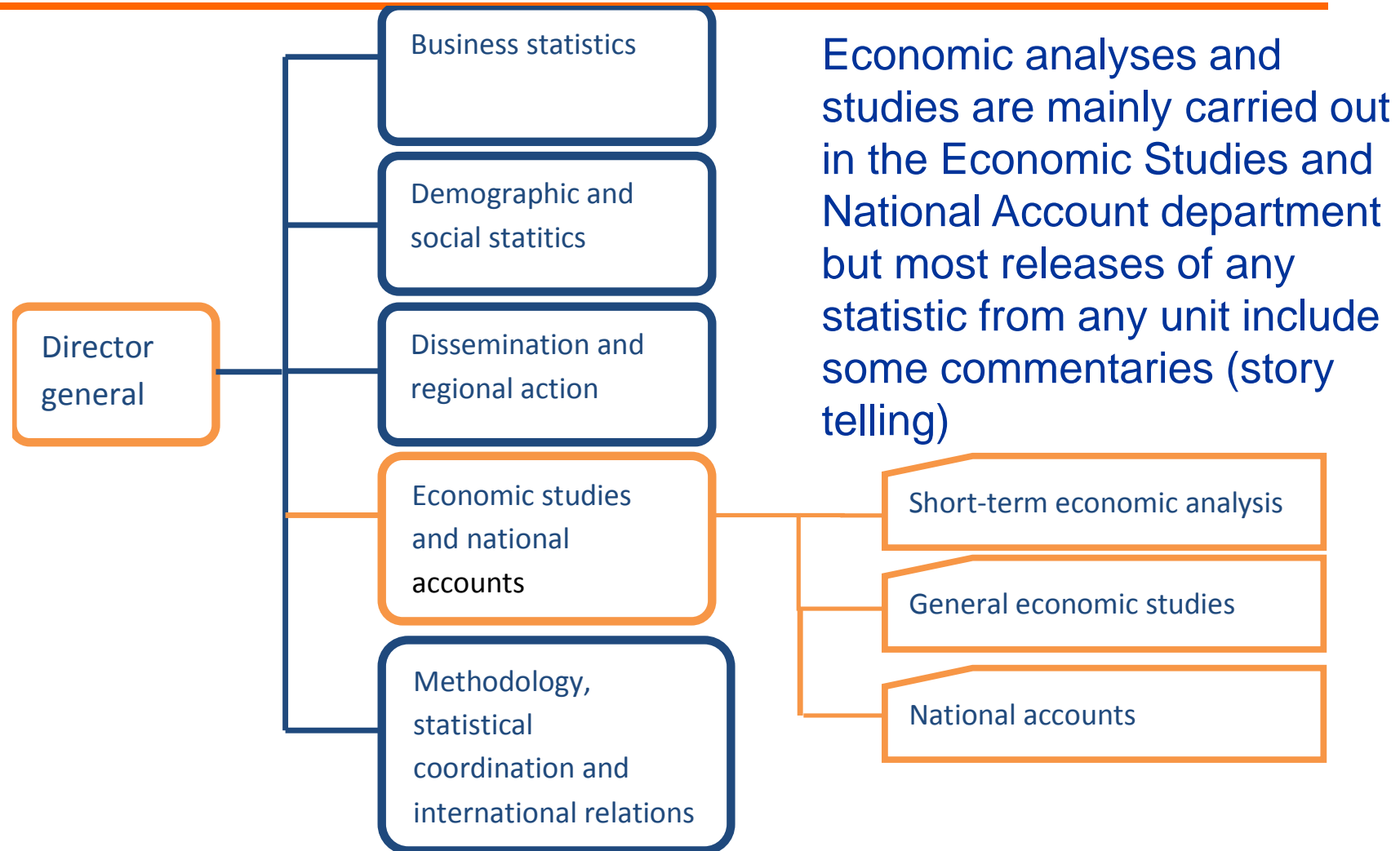
# Insee's main missions

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- ❑ Collects, compiles and disseminates European and French statistics
- ❑ Develops new statistical methodologies
- ❑ Manages the French administrative business register, the official population register and the voter rolls
- ❑ Produces economic and demographic studies
  - short-term economic forecast
  - descriptive and structural analyses of the production system: output gap, potential growth, business reports and behaviours of companies
  - description of French society and impact of institutional mechanisms: households' behaviours, unemployment, poverty
  - Micro-simulation model and macroeconomic model : long-term outlooks, pension reform and social security financial balance
  - policy evaluation



# Insee organisation chart



# Illustrations of Insee's practices

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- Helping economic and policy decision makers to understand the most probable short-term economic changes : **Short-term forecast exercise**
- Educating the man in the street to understand economic or social concepts and mechanisms at work: **Descriptive economic, demographics and social studies**
- Inclusion of more or less elaborated story telling elements in each publication depending on their audience : **Commentaries on economic mechanisms at work referring to previous studies or commentaries, raising interest in the figures**
- Illustrating the difficulties to compare economic and social statistics from different countries : **Comparison taking into account institutional impacts and measurement issues**

# Why ?

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- ❑ Story-telling is part of the quality assurance framework :
  - checking the internal consistency of a set of statistics with regards to their uses;
  - comparing the informational content of the statistic to be released with relevant external economic indicators or official forecasts.
- ❑ Help the reader to make the most appropriate use of the released statistics because their informational content have been analysed and their uses anticipated.
- ❑ Increase the media coverage : raising interest in a particular aspect related to a particular statistic

# What INSEE does not do

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- ❑ What we do not do : if we explain the advantages and drawbacks of any statistic
  - We do not compile composite indicators (lack of scientific basis and difficulties in interpreting their changes)
  - We do not choose the set of statistics to be monitored, this is a political choice in the hands of public representatives or elected ones (SDG, next French budget act)

# Short-term economic forecast exercise

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- ❑ Regular and eagerly-anticipated exercise
  - in December, forecast horizon: end of the first semester, implicit comparison of the forecast growth overhang with the forecast annual growth rate used by the government for its budget (update in March)
  - in June, forecast horizon : end of the year, (update in October)
- ❑ Based on the national accounting framework of the quarterly national accounts and calibration of balances of opinions from business surveys
- ❑ Press conference and press interviews: a large media coverage, need for media training

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# Consumer prices

Since April 2015, consumer prices have been rising again (+0.1% over one year to April, +0.3% in May), after three consecutive months of decline. Headline inflation is expected to rise again through to the end of the year, to +0.6% in December 2015, essentially due to the rise in energy prices resulting from the rebound in oil prices.

Core inflation is expected to be virtually stable through to the end of 2015: +0.4% in December 2015, after +0.6% in May.

### Inflation has returned to positive since April

Since early 2012, inflation has France as it has in the Eurozone

unemployment continue to limit inflationary pressures, the rise in the prices of imports - linked to the earlier depreciation of the Euro and the rebound of Brent crude - is pushing up the prices of manufactured goods. The likelihood of core inflation being negative in December 2015 is estimated at less than 10% (Graph 2); in December 2014, the equivalent likelihood for June 2015 was estimated at 30%.<sup>2</sup>

### Energy inflation picking up

After a low point in January 2015 (-7.1%) due to the fall in oil prices, energy inflation picked up in May (-2.4%). On the assumption that the price of a barrel of Brent crude remains stable at around \$60

Example of one of the regular description sheets

1 - Inflation in France



Source: INSEE

### The fall in the prices of manufactured goods is set to continue at the same pace

In May 2015, the prices of manufactured goods fell back by 0.7% over one year, as the fall has eased since the end of 2014 (-1.2%): import prices bounced back, driven by the leap in Brent crude and the earlier depreciation of the Euro. This drop

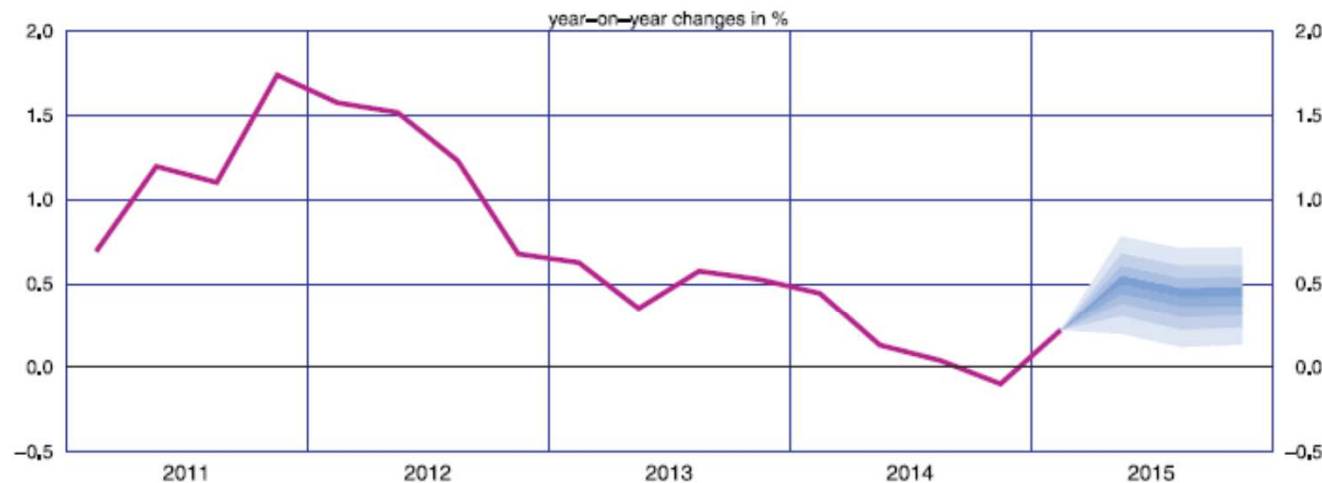
(3) Extension of the number of days of fixed-date sales from 5 to 6 weeks and abolition of the floating-date sales.

### Inflation in services should fall back

Service prices are expected to slow through to the end of 2015 (by +1.3% over one year to May 2015 to +1.0% in December), for virtually all products in this sector. Rents in particular are likely to slip back due to indexation to changes in the rent reference index, and transportation prices are likely to be driven down by the introduction of the "All zones Navigo Pass" in the Île-de-France region next September.■

Descriptive comments are completed with the impact of anticipated changes in prices and their uncertainty (fan chart)

2 - The core inflation forecast for France and risks around the forecast



Source: INSEE

How to read it: the fan chart plots 80% of the likely scenarios around the baseline forecast. The first and darkest band covers the likeliest scenarios around the baseline, which have a combined probability of 20%. The second band, which is a shade lighter, comprises two sub-bands just above and just below the central band. It contains the next most likely scenarios, raising the total probability of the first two bands to 40%. We can repeat the process, moving from the centre outwards and from the darkest band to the lightest, up to a 80% probability.

# In the Short-term economic forecast exercise, you can find

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- ❑ Illustration of economic mechanisms at work; in-depth studies connected with current economic debates
  - ❑ Tax credit\social contribution subsidies
  - ❑ Changes in oil prices
- ❑ Methodological studies
  - ❑ Example: Contribution of Google Trends to forecast the short-term economic outlook in France: limited and unstable impact
- ❑ Pedagogical and informative studies
  - ❑ Clarification of concepts or questions phrased in a confusing way in the public debate
  - ❑ Example : Disinflation vs. Deflation, “The risk of negative inflation is real but does not necessarily signal deflation”

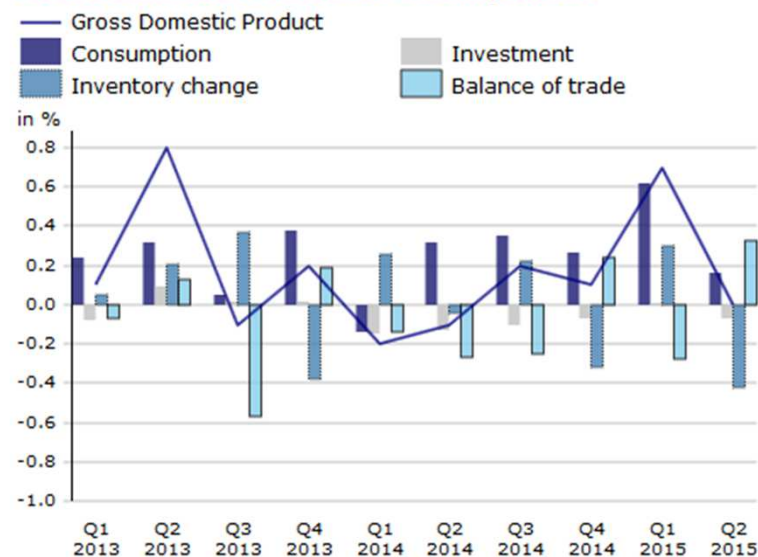
# Commentaries on current economic situation

❑ Insee « info rapide »[quick information]: quarterly national accounts : commentaries are only based on standard descriptive analyses and impact of concomitant institutional changes (fiscal rates, social contribution rates,...)

- Breakdown of GDP growth : consumption, gfcf, balance of trade, changes in inventories
- Necessary and elementary input of the validation process of the GDP estimate: quality of a Q+30 estimate of GDP growth without this breakdown would be lowered

:: In Q2 2015, French GDP was stable

Gross Domestic Product and its components



Source: Insee

# Commentaries on current economic situation

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Labour cost decomposition: changes in unit labour cost can be broken down into a contribution of purchasing power of hourly wage, tax wedge, terms of trade, (apparent) productivity gains

Margin rate decomposition: changes in margin rate can be broken down into a contribution of (apparent) productivity gains and real labour cost

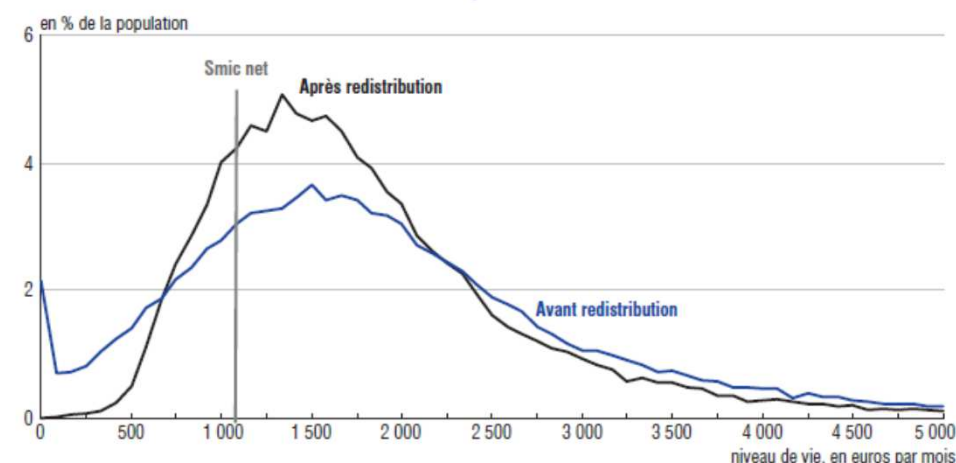
## Example : (QNA release 2014Q4)

- « Nonfinancial corporation value-added growth rate has increased at the fourth quarter 2014 (+0,9 % after +0,5 %) due notably to the positive impact of oil price decrease on intermediate consumption. Total compensation they paid (social contribution included) remains less dynamic (+0,3 % after +0,2 %). *In fine*, Nonfinancial corporation margin rate has increased of 0,4 point, from 29,5 % to 29,9 %. Over the year 2014, it is nearly stable (29,7 % after 29,8 %) : the positive impact of CICE (new tax credit policy) has been offset by a real wage increase larger than the apparent productivity gains. »



# Descriptive studies: Social statistics

- ❑ Shed light on institutional and economic mechanisms that can be blurred when reading aggregate statistics
  - ❑ Impact of change in tax system and social compensations on inequality measures by use of a Micro-simulation static model without any behavioural assumption, database got by matching administrative files and survey databases



Champ : France métropolitaine, personnes vivant dans un ménage dont le revenu déclaré au fisc est positif ou nul et dont la personne de référence n'est pas étudiante.

Lecture : avant redistribution, 3 % des personnes ont un niveau de vie annuel équivalent à un Smic net (1 117 euros par mois par unité de consommation). Après redistribution, elles sont 4,5 %.

Note : les personnes ayant un niveau de vie au-delà de 5 000 euros par mois ne sont pas représentées sur cette figure, elles représentent environ 4 % de la population avant redistribution et 2 % après.

Sources : Insee ; DGFIP ; Cnaf ; Cnav ; CCMSA, enquête Revenus fiscaux et sociaux 2010 (actualisée 2012), modèle Ines, calculs Drees et Insee.

Average living standards per consumption unit in 2012,	D1 (before redist.)	D9 (before redist.)	D9/D1
<b>Primary income</b>	4128	72195	<b>17.5</b>
Tax and social contributions	-165	-15886	
Social benefits	5985	345	
<b>Disposable income</b>	9948	56654	<b>5.7</b>

N.B.: Pensions are included in the income before redistribution

# Descriptive studies: Demographic statistics

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- ❑ Informing the man in the street on some questions phrased in a confusing way in the public debate: **about the immigrants in France**
  - Between 2004 and 2012, an average of 200,000 immigrants arrived on French territory each year. When deaths and departures are subtracted, the immigrant population grew by an average of 90,000 a year.
  - At the start of 2013 it stood at 8.8% of the French population.
  - The profile of immigrants entering France each year has changed over the last decade.
    - The share of women has been rising.
    - Almost half of all immigrants entering France in 2012 were born in Europe, (they are mainly Portuguese, British, Spanish, Italian and German).
    - Since 2008, the share of immigrants who state that they have a job in the year of their arrival in France has been stable despite the rise in qualification levels.

# International comparisons : enhancing the content of the public debate

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- ❑ Explain to well-educated people (economists and politicians) how to read international data (with caution)
- ❑ **Example:** an international comparison of labour costs
  - **Economic issue:** a high level of labour cost can induce a substitution of capital to labour and a degradation of cost competitiveness leading to a degradation of price competitiveness or lower margin
  - **Debate:** French labour costs are too high in comparison with some European partners
  - **Data :** ECMO survey data at a disaggregated level (size, activity, region) from surveys in 1996, 2000, 2004, 2008 and 2012
  - **Variable:** hourly labour cost
- (i) Impact of the firm size (size mix effect), (ii) long-term impact of the social contribution rate limited, (iii) exceptional wage moderation episode in Germany



# Increasing media coverage

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- ❑ Introducing additional information conducive to media coverage
  - ❑ The release of regular demographic statistics can be enhanced by commenting on a related topic that may have some sociological contents:
  - ❑ Changes in the proportion of newborns who bear their father's name, their mother's name or both depending on the marital status of the parents or the location (the closer to the Spanish border is the place of birth, the higher the probability to bear both names)

# Conclusion

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- ❑ Commenting on the released statistics, from a descriptive point of view is part of the **validation process** and a key **input of the French quality assurance framework**
- ❑ **Clear separation** between official statistical release with descriptive comments and studies with structural assumptions
- ❑ Constructing **focal points in short-term and structural studies** allow us to draw on them when commenting on a statistic
- ❑ Including story telling elements in most publications **increases the media coverage**
- ❑ **Different levels of language:** but we may have difficulties to provide the man of the street with relevant commentaries

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Thank you for your attention