Data visualisations to illustrate the business cycle:
Past, present, future?

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Outline

- Introduction
- Statistics Netherlands’ Business Cycle Tracer (BCT) and its revision
- Other examples
- Future?
Regular publications:
- Monthly: 12
  e.g.:
  - Confidence indicators
  - Expenditures, production
  - CPI / PPI/ HPI
- Quarterly: 2
  e.g.:
  - GDP / jobs / vacancies / temp hours
Business Cycle Tracer (BCT)

What is it?
- A tool to support the analysis of the Dutch business cycle
  • In clearly visible and easy interpretable way

By means of
- A selection of leading, coincident and lagging indicators

To give an real-time reflection of the state of the economy
Indicator selection

Individual indicator:
– Theoretical ground
– Empirical relationship (correlation)
– Availability

Set as a whole:
– All major aspects of the economy should be represented (i.e. production, consumption, trade, labour markets, confidence indicators)
– The set should be balanced, no one aspect of the economy or type of indicator should dominate the Business Cycle Tracer
For each indicator the long-term trend and the cycle are calculated.

The distance and the growth rate determine the position in the Tracer.
Result: the 1st BCT
Does it work? An example

– **Looking at the economic downturn**
Soon others followed ...
After 10 years, the moment had come to revise the Tracer.

Is the method up to date?

Are the indicators still able to provide a real-time impression of the state of the Dutch economy?
Results

– No method change

– New production system (R-Shiny)

**Indicators:**
– 3 changed indicators: e.g. quarterly indicator for investments replaced by monthly indicator
– 3 indicators removed (capital market rate, orders received, large purchases), 1 (house price index) added
– 13 indicators remain
Result, the new Business Cycle Tracer

Business cycle tracer indicator (unweighted average of the indicators in the Business Cycle Tracer)

distance to the long-term trend (=0)
Condition monitors for exports, consumption and investments

**Exports radar:**

6 indicators: a.o. opinion indicators in Eurozone and Germany

Inside the line: less favourable
Outside line: more favourable
Condition monitors for exports, consumption and investments

**Household consumption radar:**

6 indicators: a.o. confidence indicators and house prices

Inside the line: less favourable
Outside line: more favourable

Source: Statistics Netherlands
Condition monitors for exports, consumption and investments

**Investment radar:**

6 indicators: a.o. interest rates and exports

- Inside the line: less favourable
- Outside line: more favourable

*Source: Statistics Netherlands*
Future?

Some ideas:

– Brexit monitor: for example with sentiment indicators manufacturing industry and exchange rate.

– CO₂ flow-visualisation
– Regional BCT’s
Questions?

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