

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?



Introduction: Business cycle publications

Regular publications:

– Monthly: 12

e.g.:

- Confidence indicators
- Expenditures, production
- CPI / PPI/ HPI

– Quarterly: 2


e.g.:


- GDP / jobs / vacancies / temp hours


Labour and income Economy Society Regional Figures


Dossier Business cycle


News


- 

Economic growth 0.6 percent in Q2
23/09/2016 14:00
- 

Economic situation is improving
23/09/2016 14:00
- 

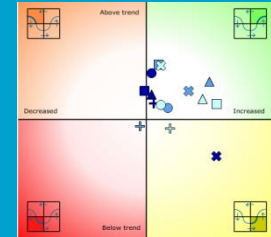
Largest house price increase in 14 years
21/09/2016 15:00
- 

Dutch consumer spending up again
20/09/2016 15:00
- 

Dutch consumer confidence considerably higher
20/09/2016 15:00
- 

Steady growth investments
19/09/2016 15:00

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:

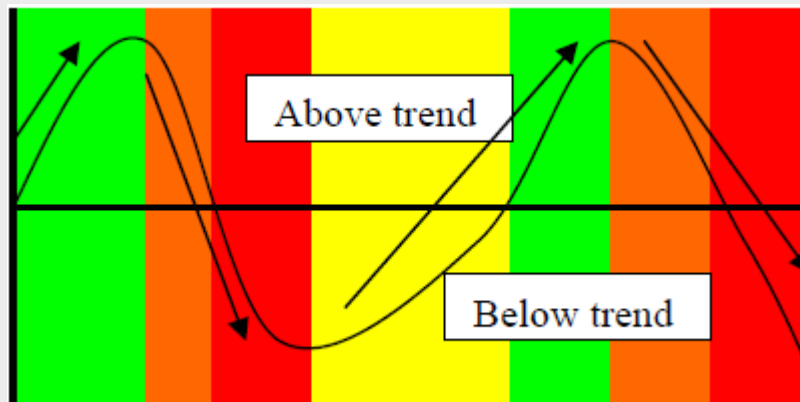
- Theoretical ground
- Empirical relationship (correlation)
- Availability

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

Method

- For each indicator the long-term trend and the cycle are calculated.
- The distance and the growth rate determine the position in the Tracer.



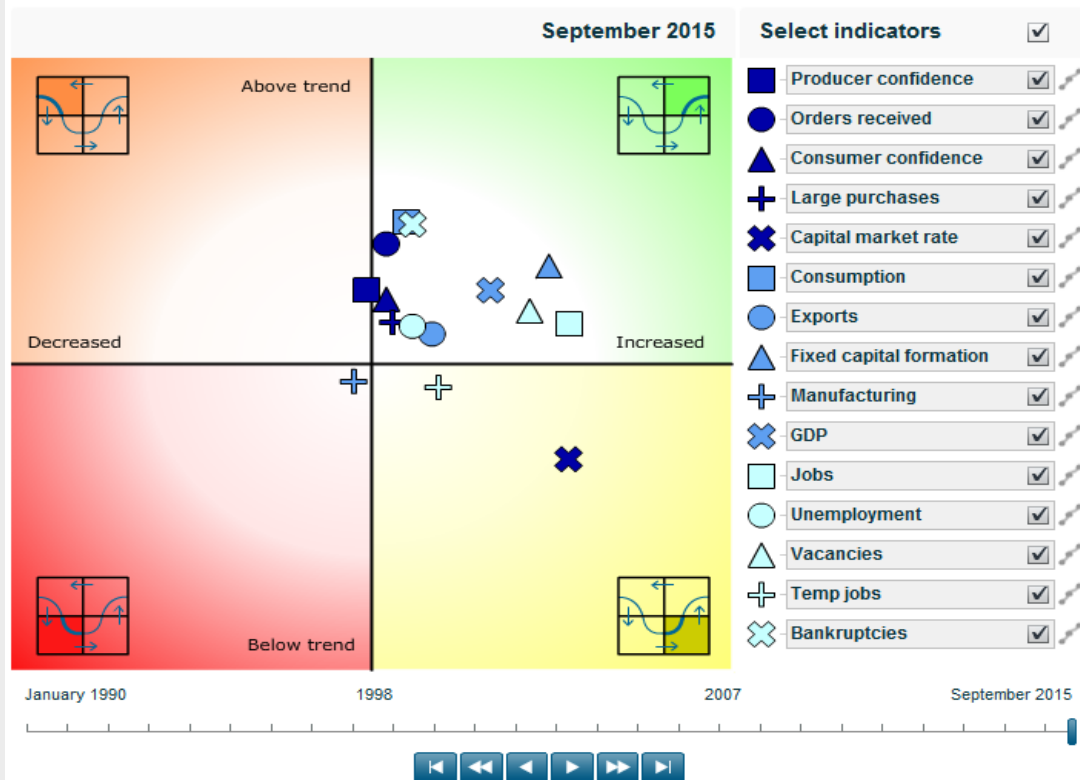
Result: the 1st BCT

Business Cycle Tracer, 30 September 2015 08:00

Economic situation improves slightly further

Business Cycle Tracer

</> PDF ⚙️



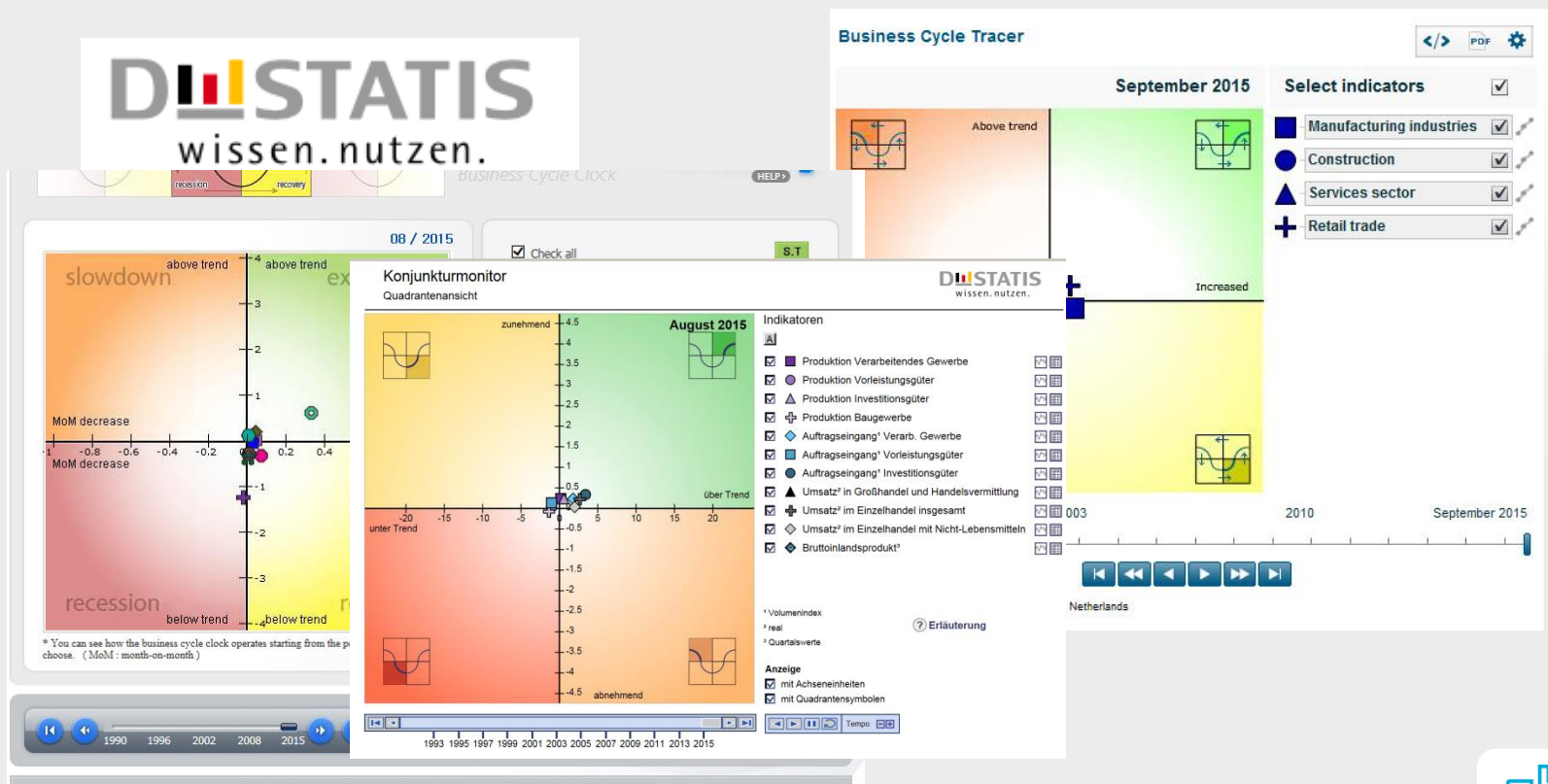
Source: CBS

Does it work? An example

- Looking at the economic downturn



Soon others followed ...



Revision

- 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

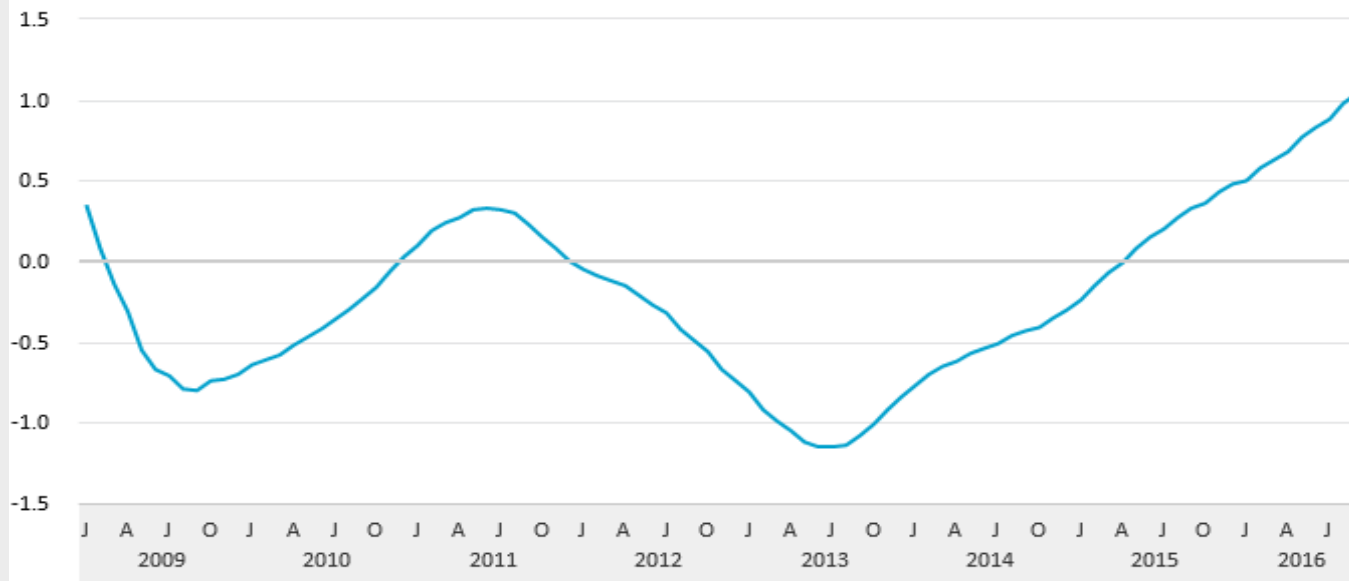
Result, the new Business Cycle Tracer

- <https://www.cbs.nl/en-gb/visualisaties/business-cycle-tracer>

Business cycle tracer indicator

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:

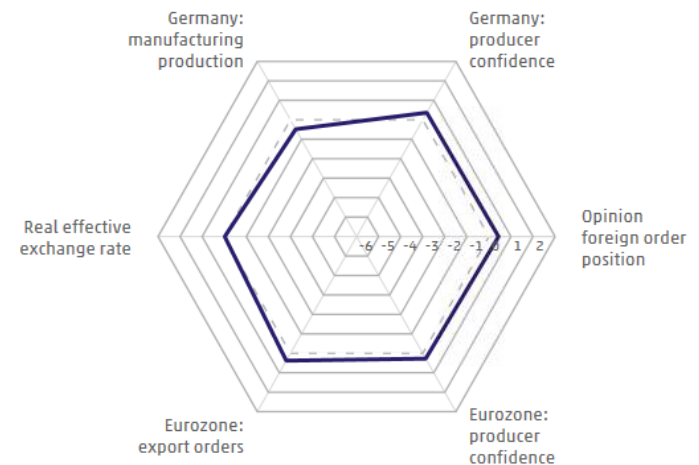
less favourable

Outside line:

more favourable

September 2016

? Source: Statistics Netherlands



September 2016

Condition monitors for exports, consumption and investments

Household consumption radar:

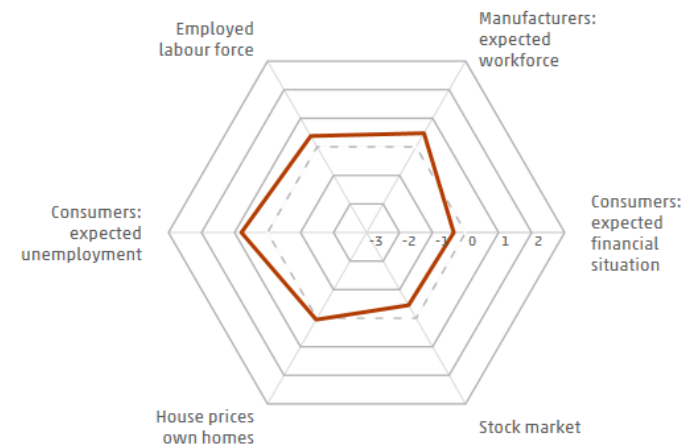
6 indicators: a.o. confidence indicators and house prices

Inside the line:
less favourable

Outside line:
more favourable

September 2016

? Source: Statistics Netherlands



Condition monitors for exports, consumption and investments

Investment radar:

6 indicators: a.o. interest rates and exports

Inside the line:

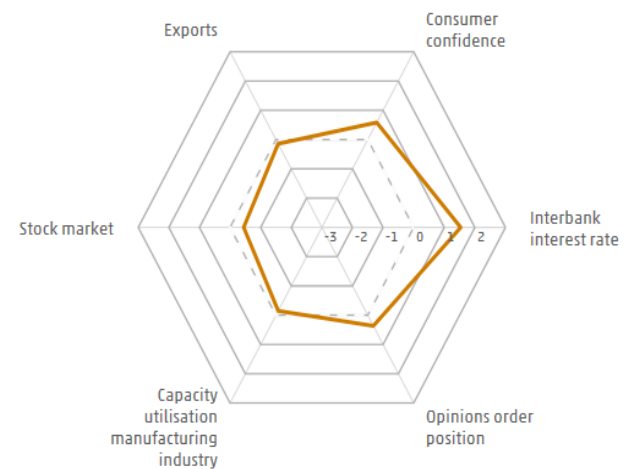
less favourable

Outside line:

more favourable

September 2016

? 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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