

Dutch Household Consumption Radar: explanatory notes

What is the Household Consumption Radar?

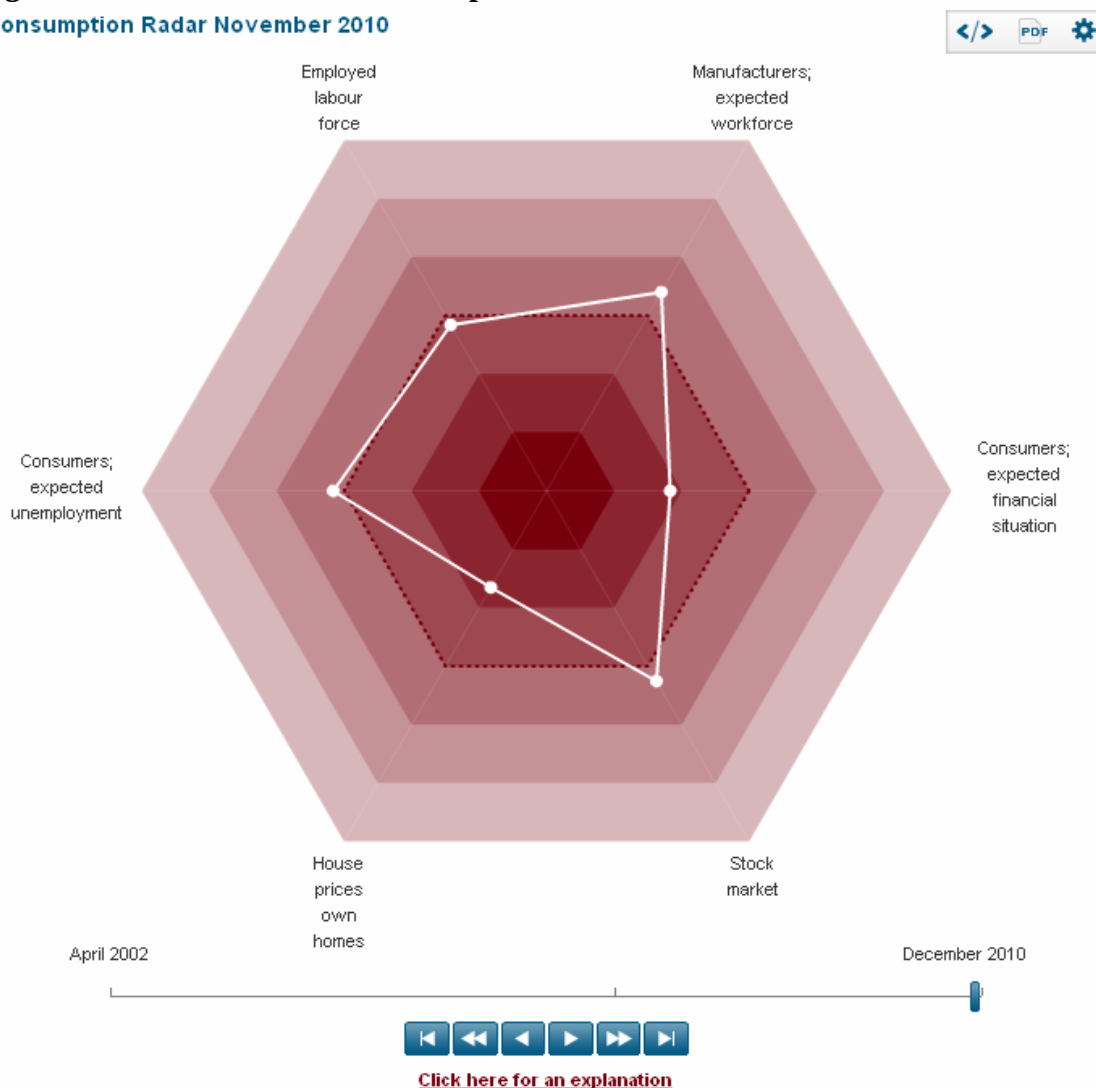
The Household Consumption Radar is an instrument developed by Statistics Netherlands to analyse developments in consumption by Dutch households and place them in some sort of context. Using six indicators – selected on the basis of an econometric study - the radar monitors whether circumstances have developed favourably or unfavourably for Dutch consumption.

Circumstances relevant for consumption are largely determined by consumers' expectations, developments on the labour market and developments in capital. The six indicators were chosen because they show a strong correlation with Dutch consumption and with the three areas mentioned above.

Combined in the radar diagram the indicators give an easy-to-interpret overall picture of Dutch household consumption, see figure 1.

Figure 1: Dutch Household Consumption Radar for November 2010

Consumption Radar November 2010



Relation between indicators and household consumption

The six selected indicators:

- Consumers' expectations for the development of unemployment;
- Consumers' expectations for their financial situation in the coming year;
- Producers' expectations for their future number of employees
- Year-on-year change in employed working labour force;
- Year-on-year change in prices of existing own homes;
- Year-on-year change in Dutch share prices

Household consumption is influenced by consumers' expectations, developments on the labour market and developments in capital.

How willing households are to spend their money depends on their expectations for the future. If they are positive about their future financial situation and the labour market, they will be more willing to consume.

Developments on the labour market give an indication of how the purchasing power of households is developing and its effect on consumption. The change in the employed labour force shows how the labour market has developed. Producers' expectations gives an indication of how employment may develop in coming months.

The development of households' consumers capital position is reflected by developments in house prices and share prices. If these show positive changes, consumption will rise.

How it works and what it shows

The Household Consumption Radar presents the above-mentioned six indicators in a hexagonal diagram, with each indicator in a corner (figure 1). For each indicator a normalised value is calculated which determines how far from the zero line the indicator is located. The zero line represents the **average** value for each indicator, for the entire period it has been available. A normalised value above zero means that this indicator has a **more favourable value than average**. If the value is below zero, the indicator has a **less favourable value than average**.

In the radar, the zero line is marked as a dark dotted line. The figure is divided into bands coloured from dark to light. The darker the band in which the indicator is located, the less favourable circumstances are for household consumption. Users can thus see at a glance which indicators show a positive picture, and which a more unfavourable picture. By moving the slide on the time bar, which runs from 2002 to today, users can select previous months. This makes it possible to see whether circumstances for Dutch household consumption have become more or less favourable, and which factors were significant in these developments.

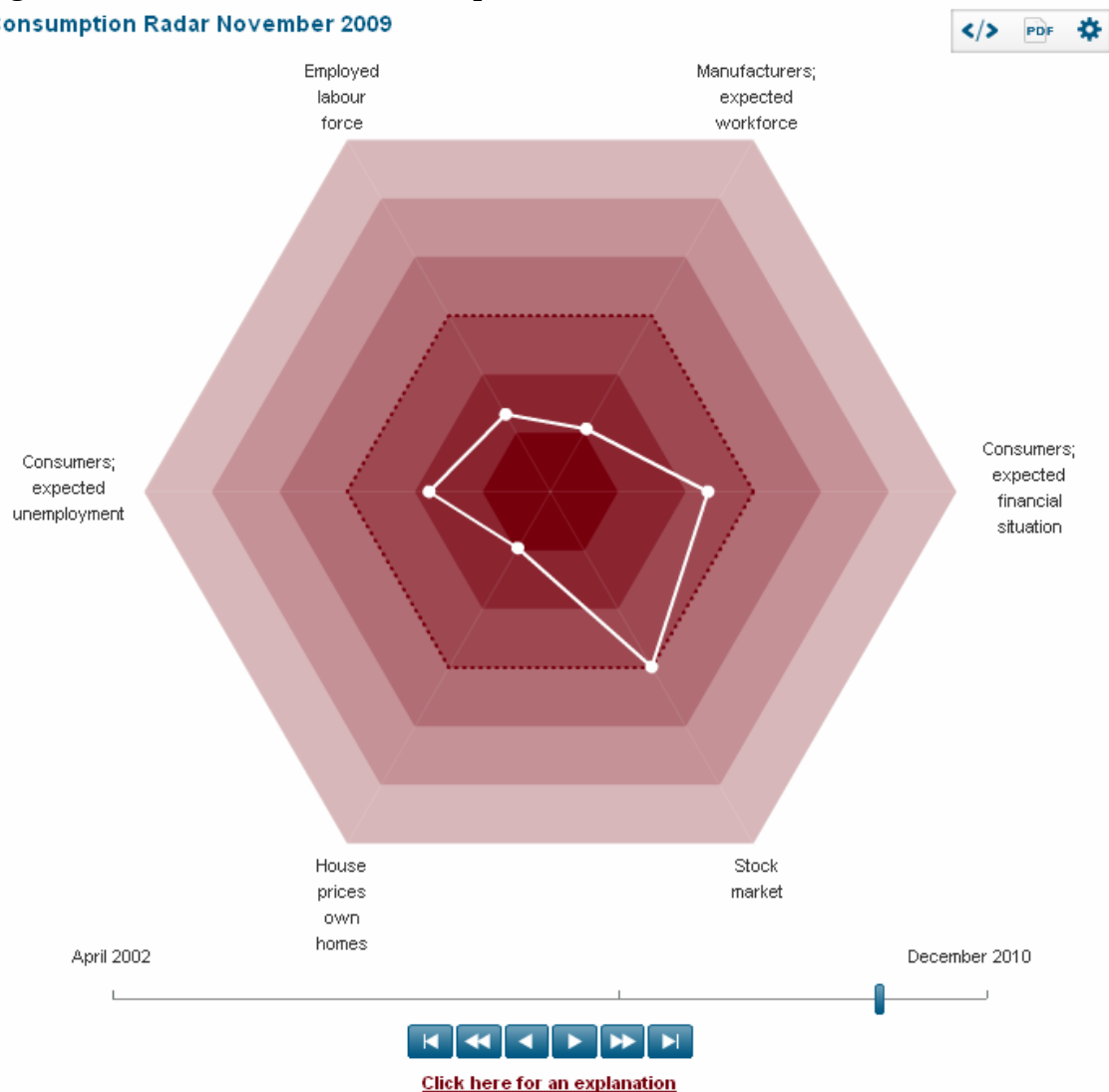
Figure 1 shows the Consumption Radar for November 2010. The various indicators show a mixed picture. The normalised values of two indicators were below zero. This means that these consumption factors were less favourable in November 2010 than average. Two other indicators, on the other hand, were above zero, indicating a more favourable condition than average. And lastly, two indicators were on or close to the zero line, meaning that these factors were roughly at their average level

With the aid of the time bar we can see whether the circumstances are more or less favourable than in the previous month. It turns out that they were slightly less unfavourable than in the preceding month.

Figure 2 shows the Consumption Radar for November 2009. The circumstances were clearly less favourable than in November 2010. Almost all normalised values for the indicators were below zero and were thus less favourable than average. Only the development of share prices was around the zero line and thus at an average level.

Figure 2: Dutch Household Consumption Radar for November 2009

Consumption Radar November 2009



It should be mentioned that the values of the indicators in the radar do not necessarily refer to the same month. The Consumption Radar is published once a month. It is consistently updated with the most recent figures.

In figure 1, for example, the figure for consumers' expectations are for November 2010, but the figure for house prices refers to October. The period under review is indicated in a tool tip, which also shows whether the indicator concerned has improved or deteriorated compared with the previous month.

Another tool tip shows the source of the figure. In the Consumption Radar, all indicators are calculated by Statistics Netherlands. In the Export Radar, however, some indicators are from an external source.

Calculating the normalised values

To calculate the normalised values in the Consumption Radar, first the long-term average is subtracted from the original value. Subsequently the difference is divided by the standard deviation. As a formula this reads:

Normalised value = (original value – long-term average) / (standard deviation).

The long-term average is the average value since 1991 (unless the available time series are shorter), as is the standard deviation. Former normalised values are retained. In the Consumption Radar for November 2010, the original values are thus compared with the average in the period January 1991–November 2010, and in the Radar for November 2009 with the average in the period January 1991–November 2009.

Methodology

The Consumption Radar is one of the Economic Radars published by Statistics Netherlands. The Exports Radar and Investment Radar (from January 2011 onwards) are other versions. These Radars are based on methodological research on Economic Radars described in a paper by Van Ruth (2010) (<http://www.cbs.nl/nl-NL/menu/methoden/onderzoek-methoden/discussionpapers/archief/2010/2010-19-x10-pub.htm>).