

## WHAT IS PIMPLE?

The Performance Indicators and Management Procedures Explorer (PIMPLE) is a tool for comparing the relative performance of alternative candidate management procedures (MPs) and harvest control rules (HCRs).<sup>[1]</sup> The relative performance of the MPs and HCRs can be explored by analysing performance indicators (PIs), using a range of plots and tables. Different PIs can be prioritised and the trade-offs between them identified. PIMPLE can be accessed online at: <https://ofp-sam.shinyapps.io/pimple/>.

## USING PIMPLE

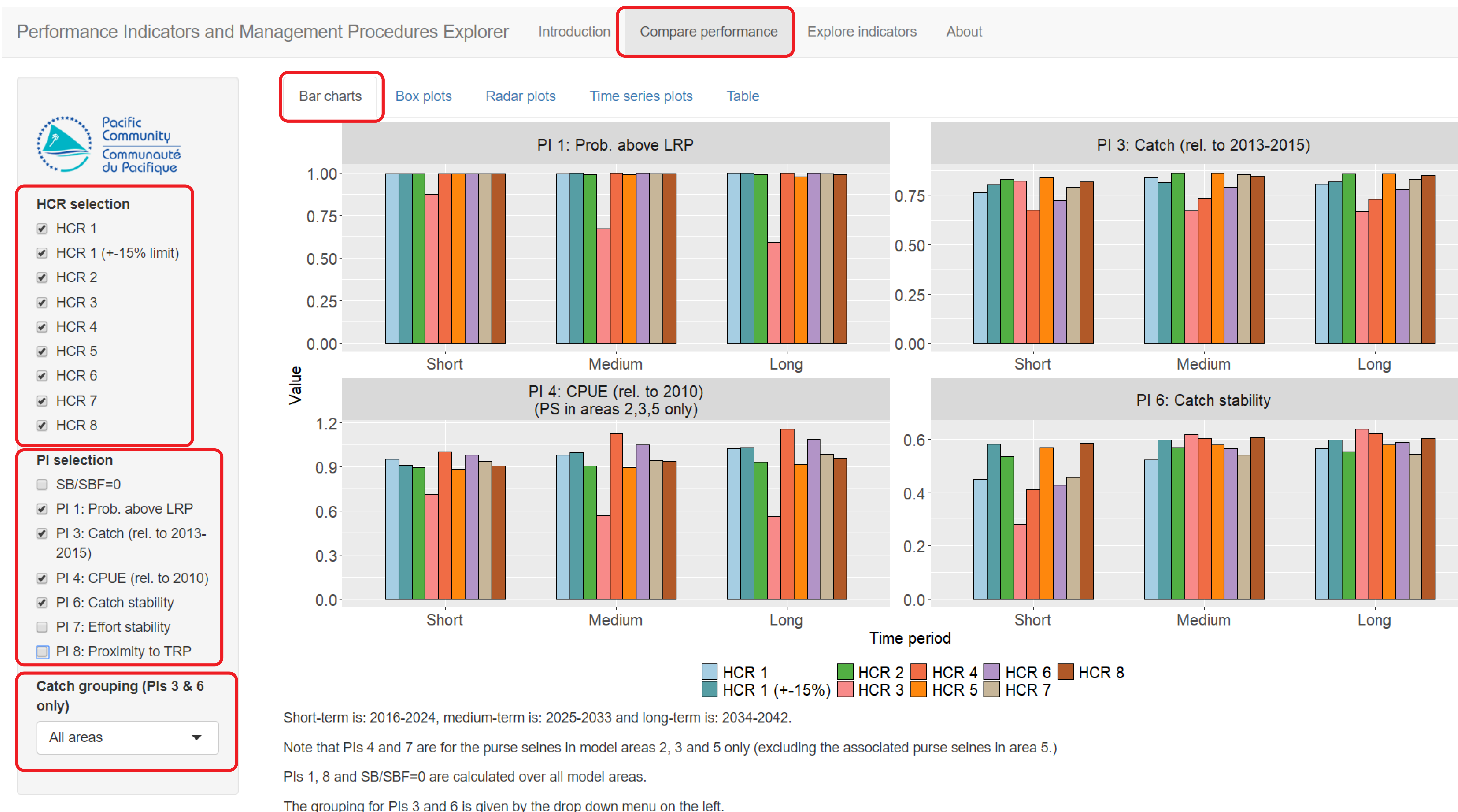
Use the **Compare performance** tab to compare MPs and HCRs across all PIs. For a more detailed look at individual indicators use the **Explore indicators** tab.

Subtabs of the **Compare performance** tab have different plot types, e.g. **Bar charts**.

Select MPs and HCRs to help identify those most likely to achieve your objectives.

Select PIs to focus on those with the highest priority.

Some PIs have grouping options. For example, it is possible to group catch based indicators by model area and fishery.

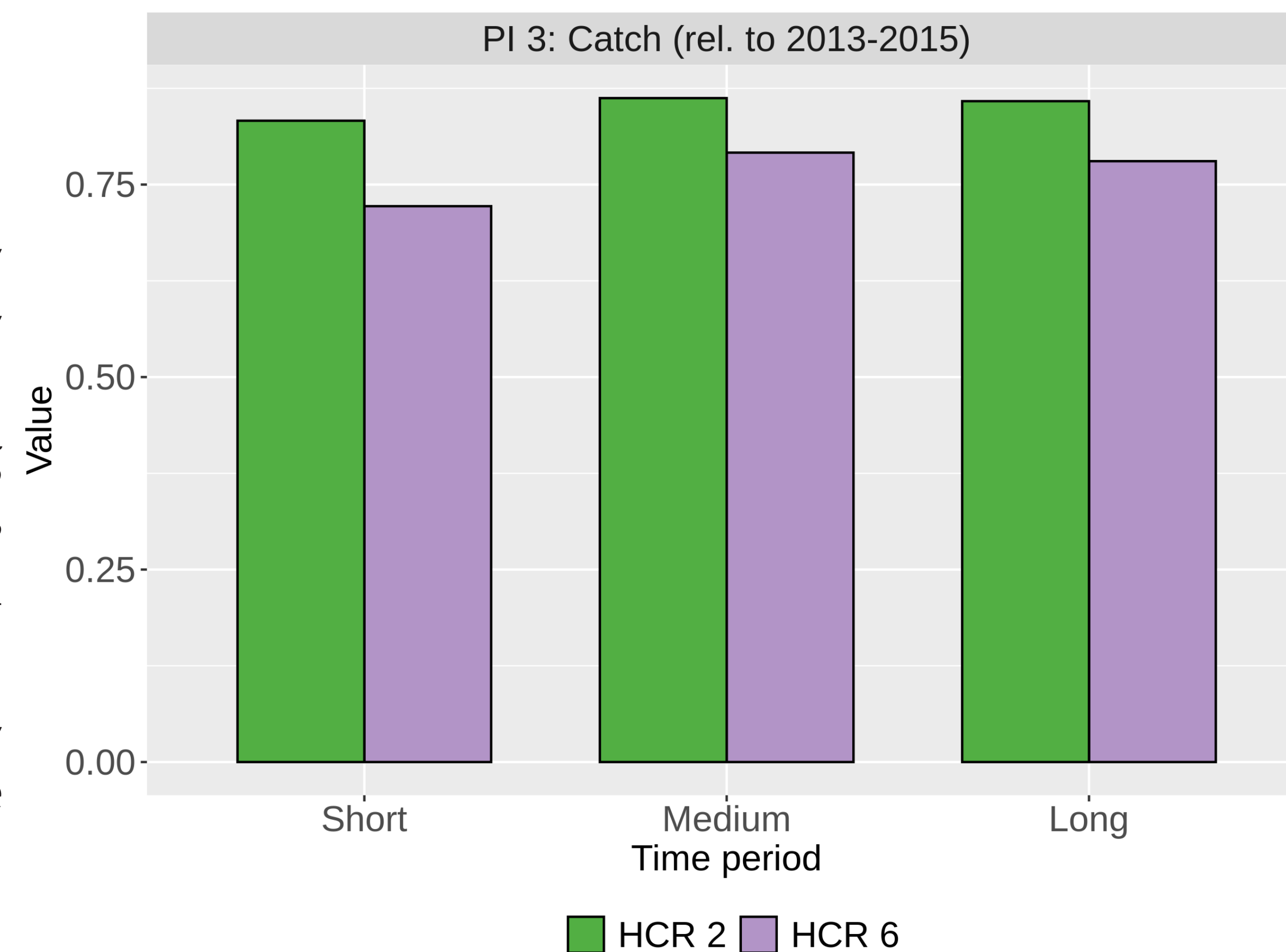


<sup>[1]</sup> A management procedure (MP) comprises the data collection process, the estimation model and the harvest control rule (HCR). When testing candidate HCRs the MP is considered as a whole.



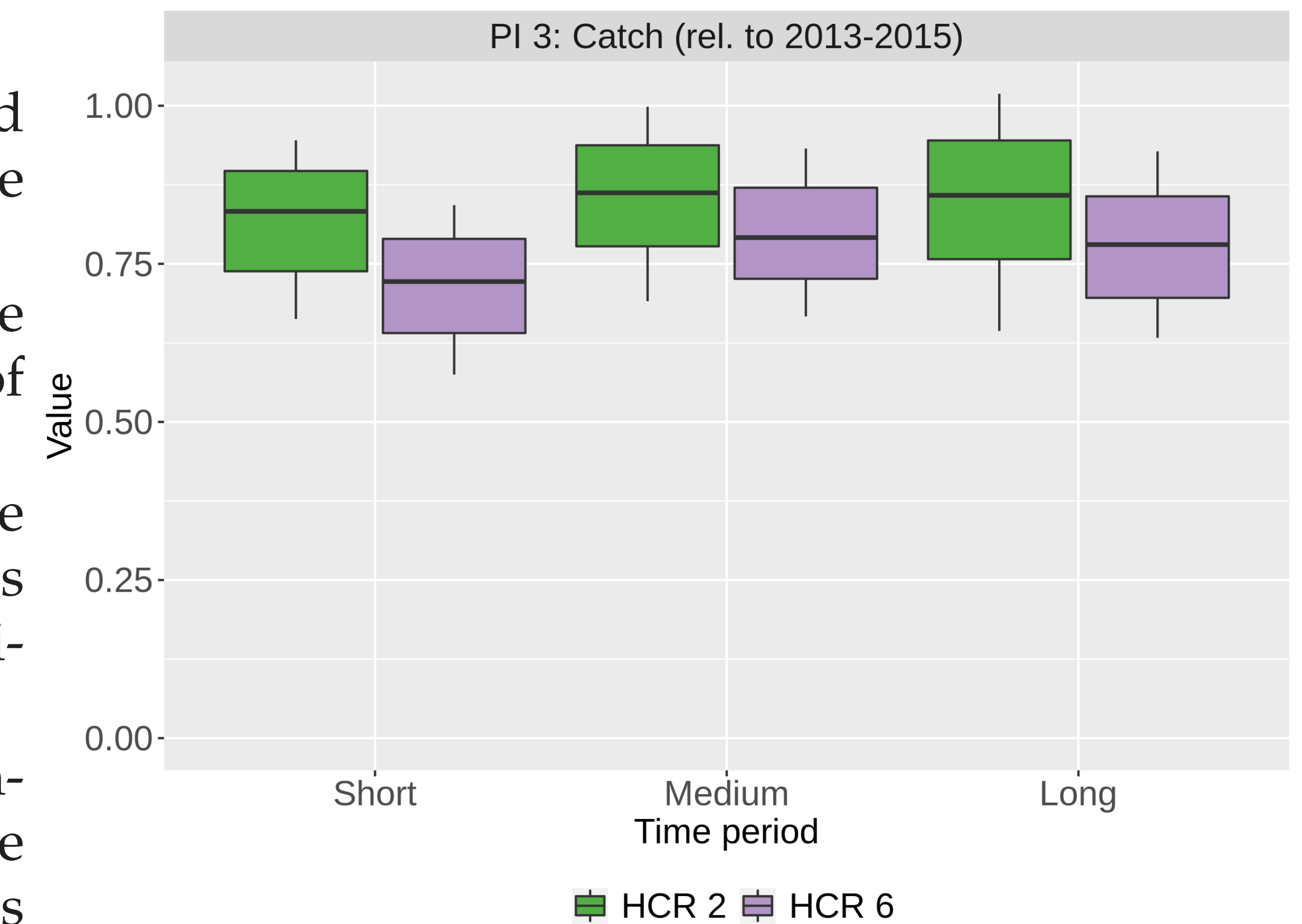
## BAR CHARTS

- Shows the average (median) value of each indicator.
- The higher the bar, the better the average relative performance for that indicator.
- Useful for quickly comparing the average indicator values between different MPs and HCRs.
- Does not give any information about uncertainty (the range of indicator values).

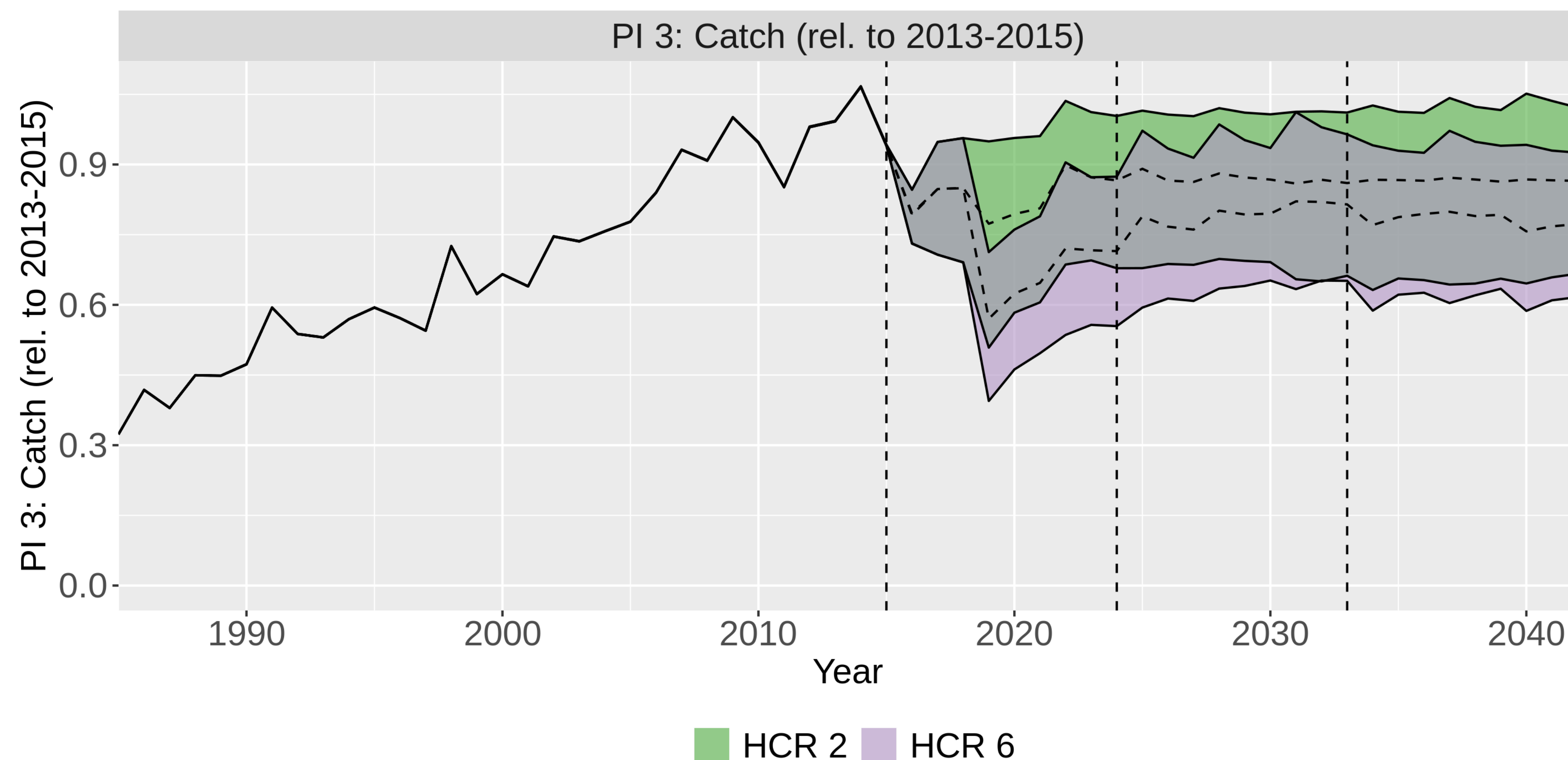


## BOX PLOTS

- Shows the range of indicator values in each time period.
- Box contains 60% and whiskers show 90% of the range of values.
- Horizontal line is the average value (same as the height of the bar charts).
- The bigger the box, and the longer the whiskers, the less certain we are about the indicator value.
- It is preferred to have low uncertainty, so the smaller the box and shorter the whiskers the better.



## TIME SERIES PLOTS



- Shows the range of indicator values over time.
- Envelope contains 80% of the range of values.
- The wider the envelope, the less certain we are about the indicator value.
- Dashed line shows the average (median) value.

## RADAR PLOTS

- Compares the performance of MPs and HCRs across a selection of indicators.
- The relative average values of each indicator is shown.
- Can be useful for providing a quick overview of the relative performance.
- Does not give any information about uncertainty (the range of indicator values).
- Become difficult to interpret when more than two MPs or HCRs are compared.
- For more detailed inspection other plot types may be better.

