

# volue

**income risks using 30 weather scenarios data in Central West Europe**

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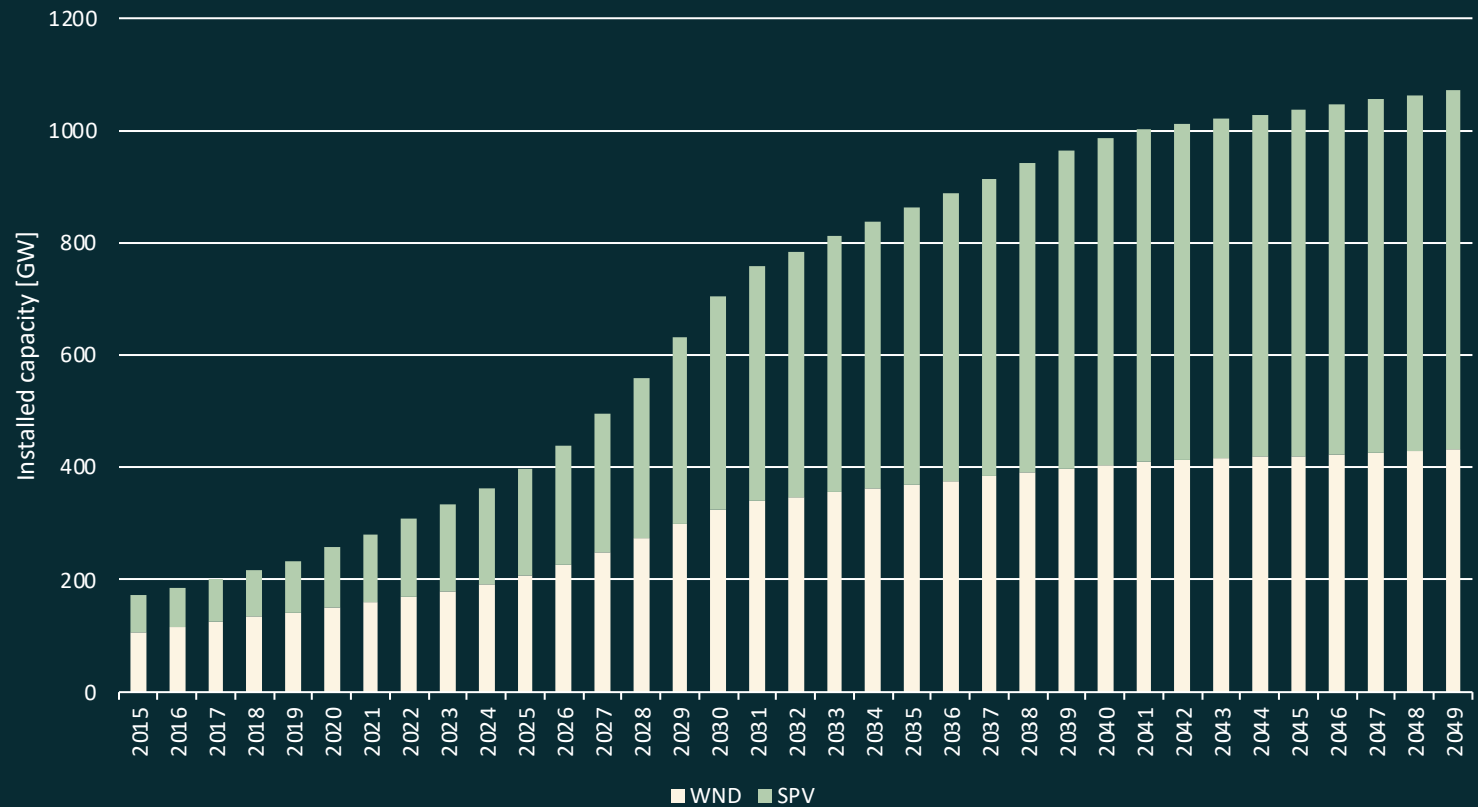
11.11.2022 Berlin

# Agenda

- Growing dependency on weather-driven generation
- Creation of weather scenarios
- Monthly weather dependent variety 1985 to 2015
  - Germany
  - France
- Financial risks
- Conclusion

# Growing dependency on flexible generation

Increase of fluctuating generation till 2050 in CWE



With the increasing fluctuating renewable generation capacity, forecasting just one pathway of the generation becomes not sufficient anymore

Source: Value Insight long-term reports

# Weather scenarios

## Idea

Using past years as example for repeating weather behaviour by normalizing the past and apply it in the future with adjusted capacities.

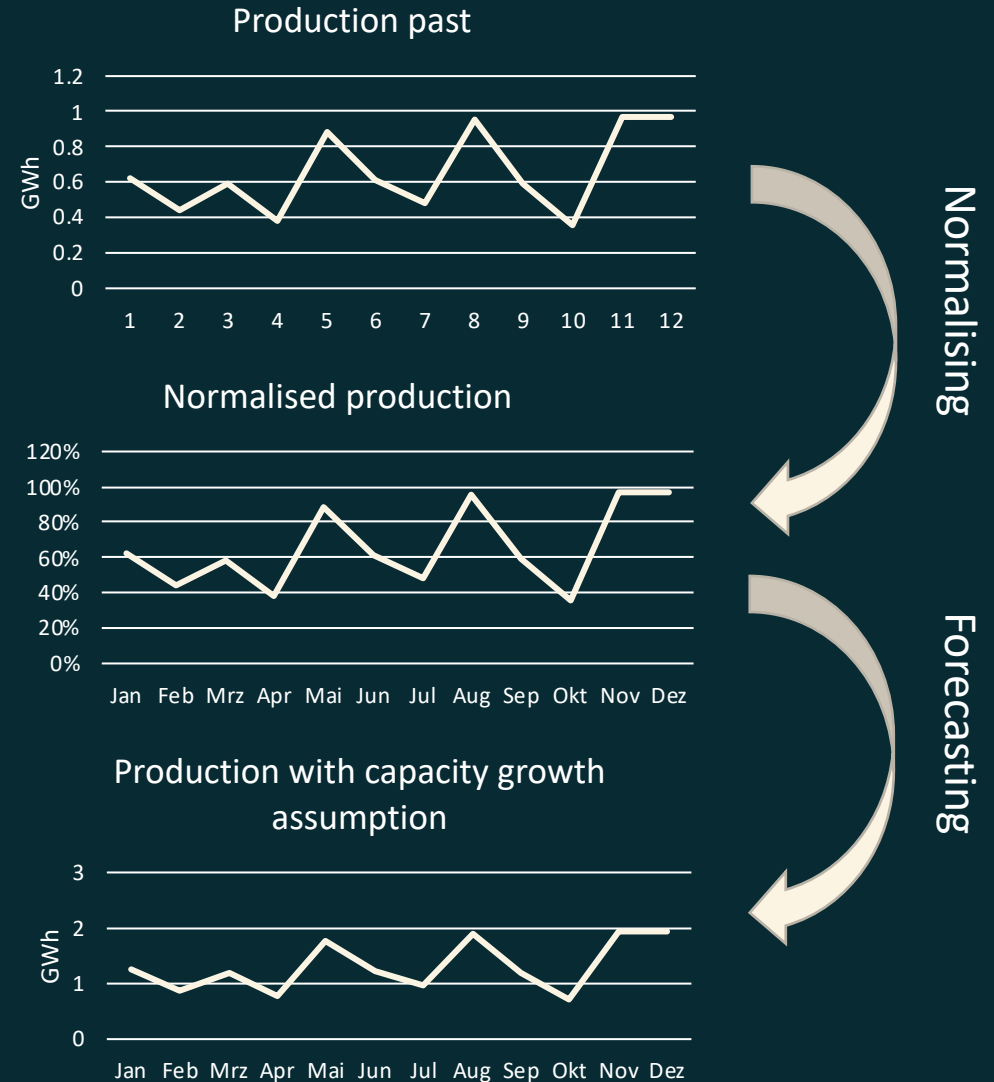
## Advantage

Variety of forecasts include past extremes and allow for better risk management.

## Usability

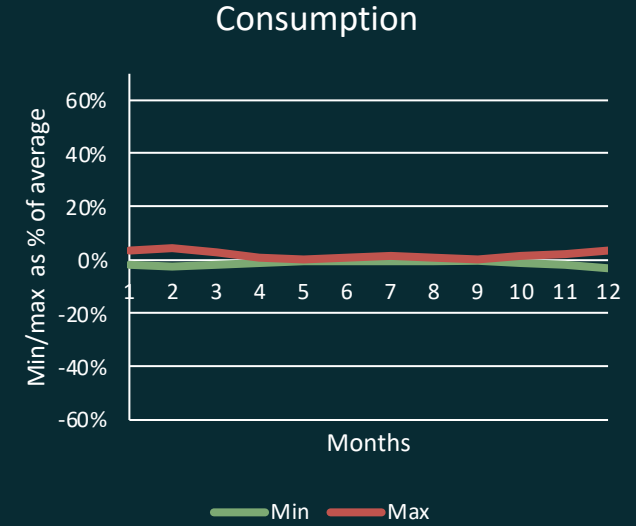
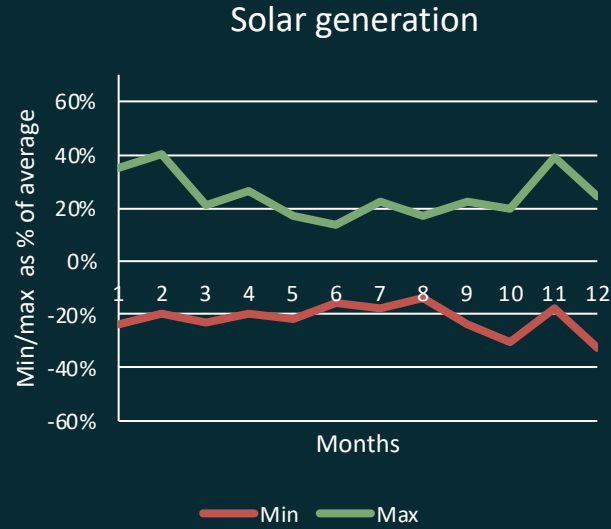
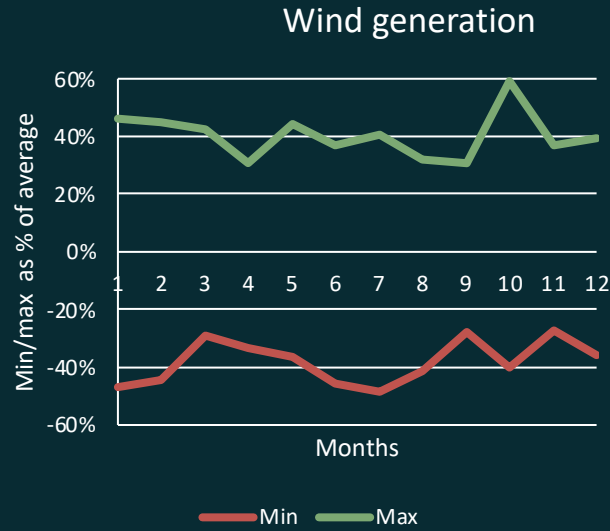
Solar, Wind and Consumption behaviour, potentially Hydro

1986-2015 database

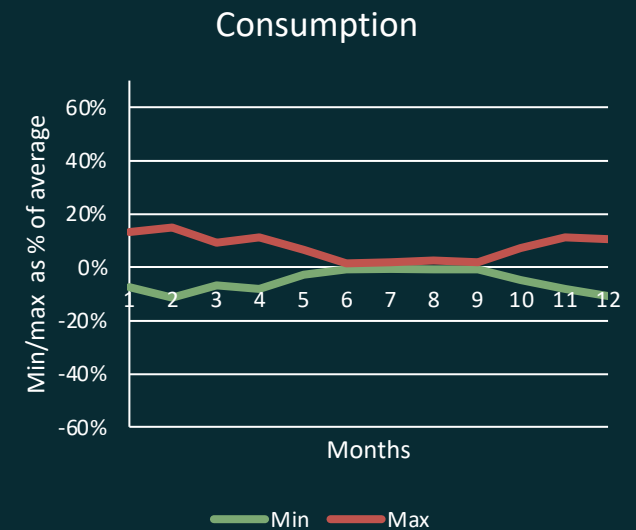
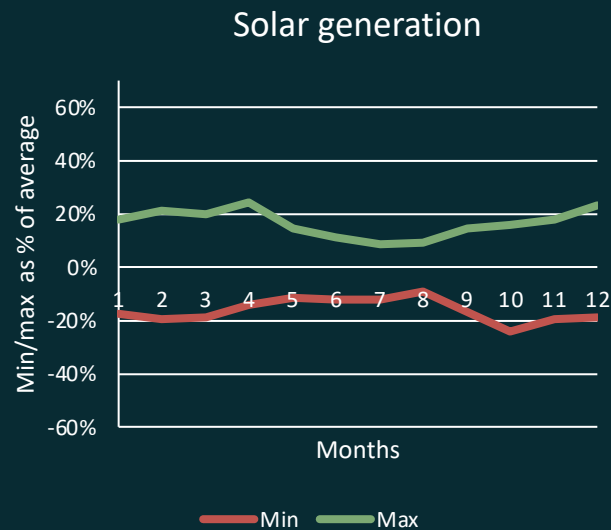
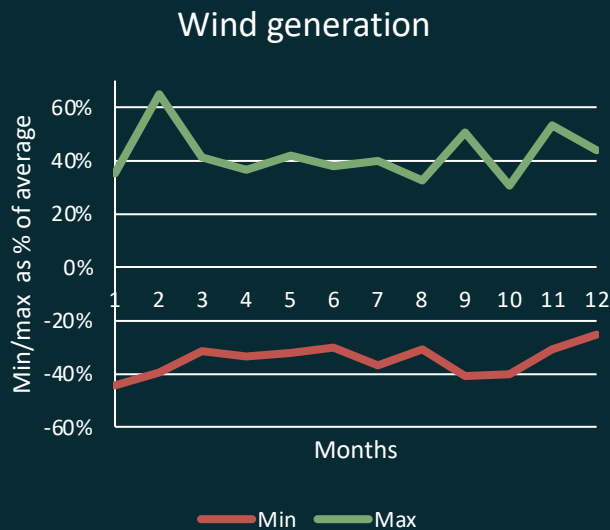


# Monthly weather dependent variety 1985 to 2015: Inputs

Germany

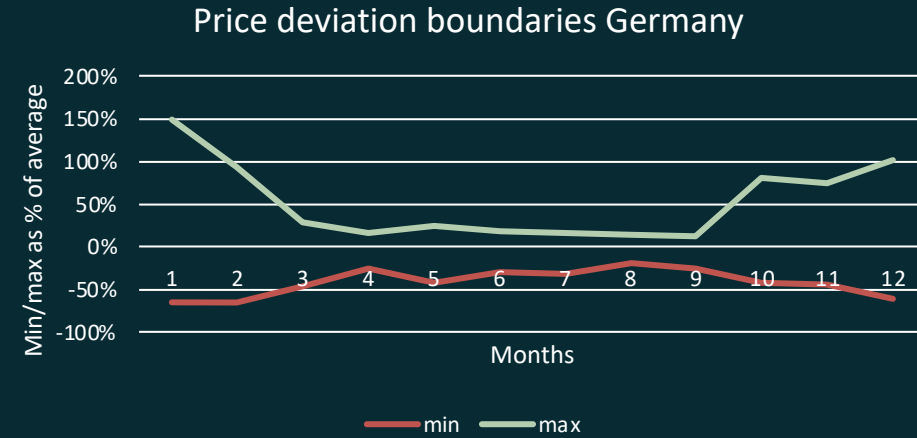
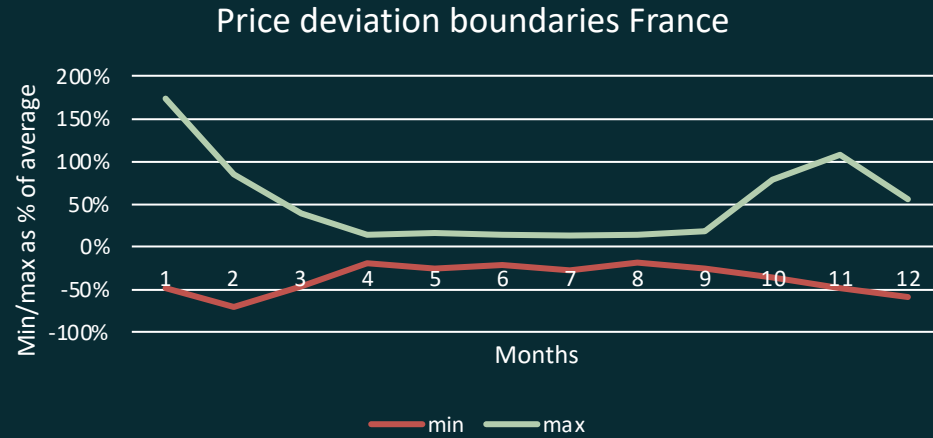


France

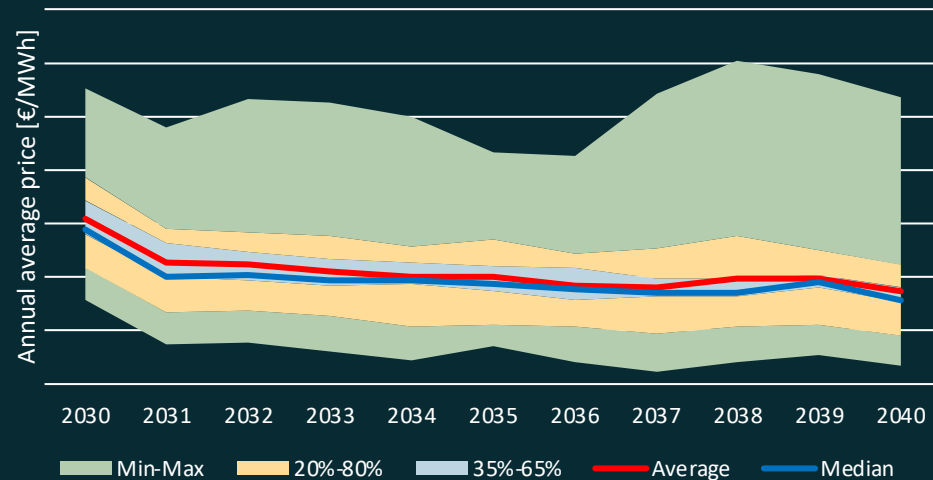


# Different capacity fleet – similar weather risks

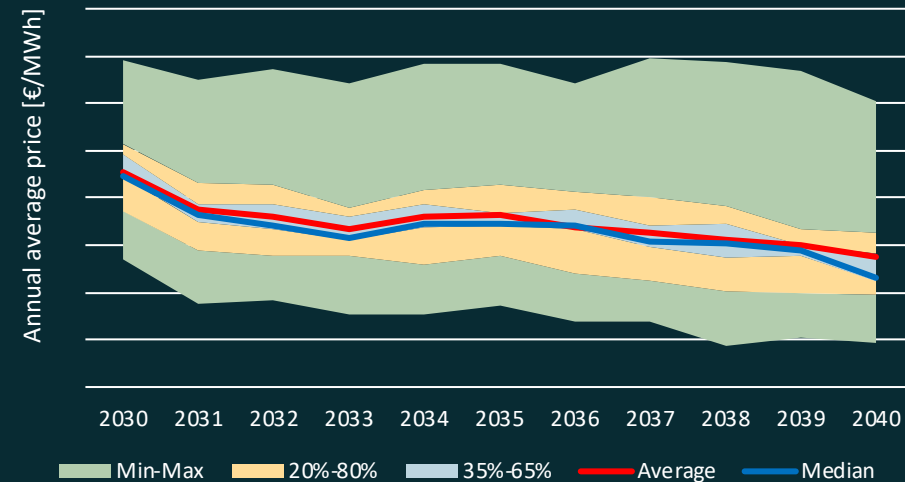
value



### France Price Forecast with weather-driven price probability distribution



### German Price Forecast with weather-driven price probability distribution



# Conclusion



No single forecast pathway



Different capacity fleets –  
similar weather risks



Upside and downside risks