ENERGY RELATED EMISSIONS REDUCTION THROUGH LIFESTYLE CHANGE

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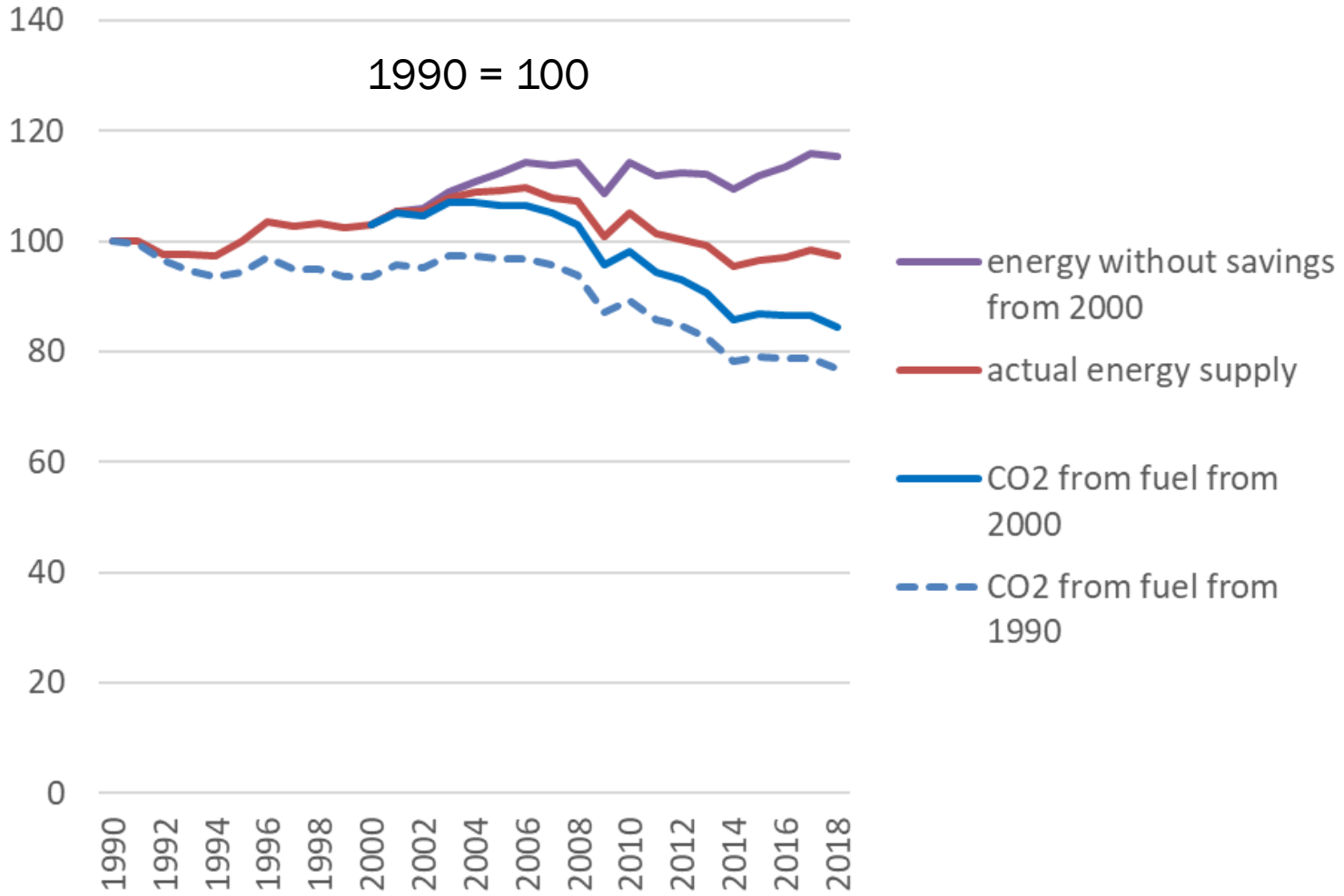
ENERGY RELATED EMISSIONS

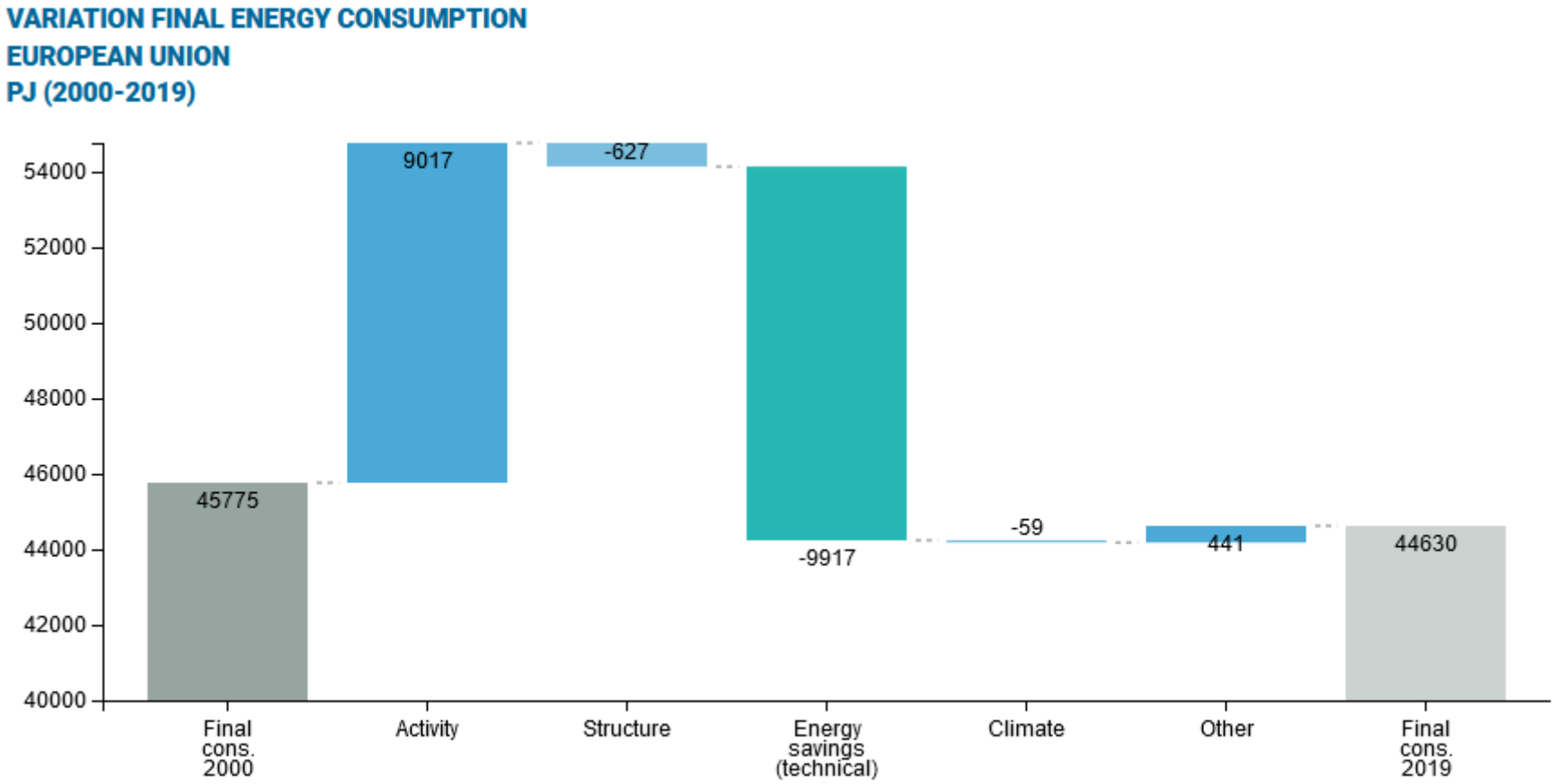
REDUCING CO_2 EMISSIONS IS HARD

Energy savings, fuel shift, renewables, nuclear energy and CCS have had a limited effect on CO_2 emissions



source: Odyssee-Mure

FINAL ENERGY CONSUMPTION DECREASING SLOWLY
DESPITE CONSIDERABLE ENERGY SAVINGS



source: Odyssee-Mure

TARGETING VOLUME AND STRUCTURE
AS ADDITIONAL ENERGY USE REDUCTIONS OPTIONS

In addition to energy savings, energy consumption can be reduced by volumetric (amount of energy consuming activities) and structural (the kind of activities) changes.

- Existing energy policies with some effect on volume and structure:
  - fiscal (energy taxes)
  - financial (subsidies)
  - legislative (product norms)
  - informative (energy labels)

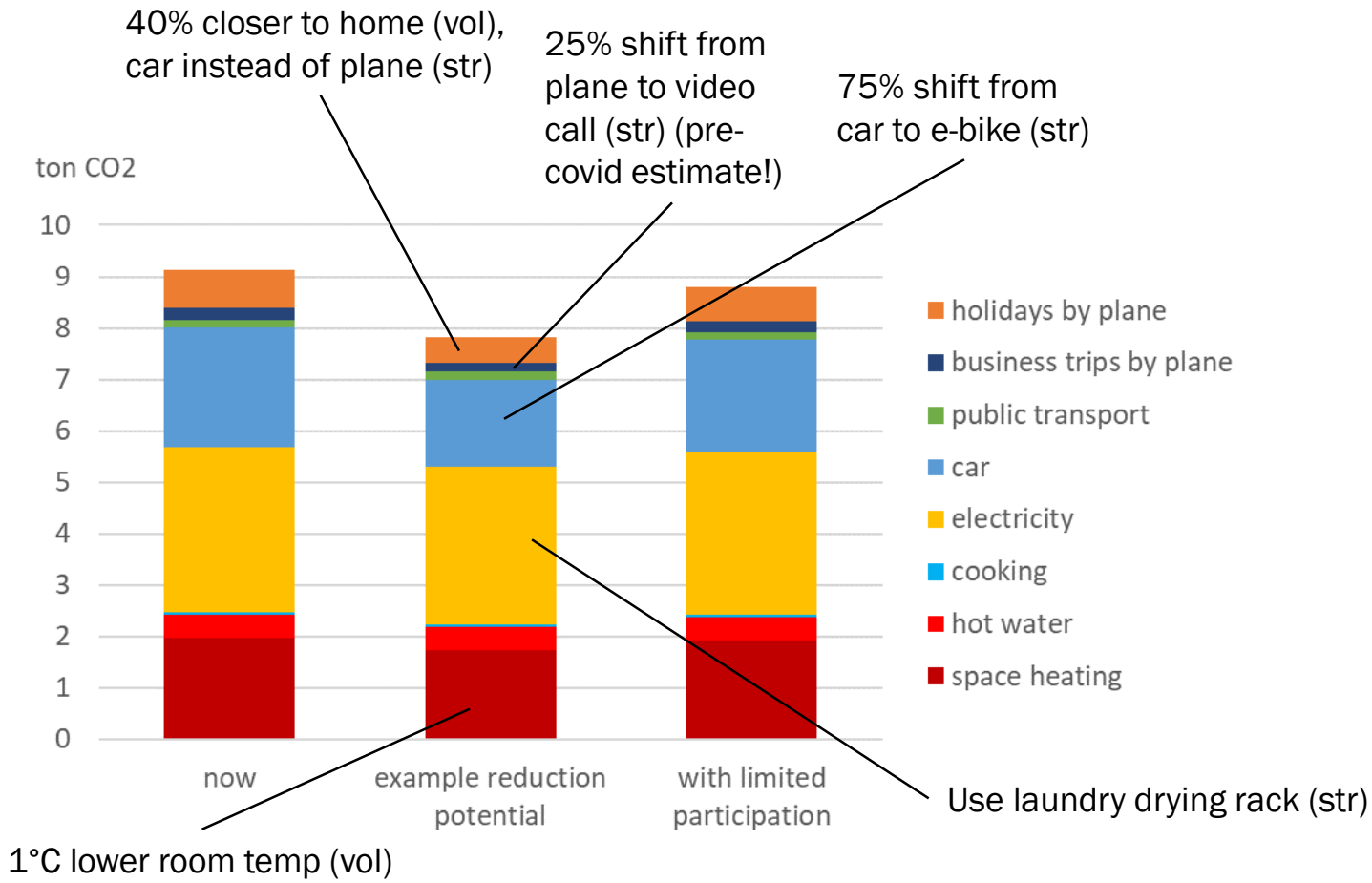
  But effect on reducing energy consumption level has been limited

- Voluntary action is not enough for a sizable effect
- More substantial volumetric and structural effects need stricter and/or additional policies
- All emissions can be attributed to consumers (industrial and energy production will be affected indirectly)
- Changing volume and structure of consumer activities comes down to lifestyle change
- It limits freedom of choice, but needs not affect wellbeing much
- Sufficiency: is there a level of energy consumption at which wellbeing is ‘achieved’ or guaranteed?

THE POTENTIAL OF VOLUME AND STRUCTURE
A FIRST LOOK AT ENERGY IN HOUSEHOLDS AND MOBILITY

A first look at the potential of volumetric and structural policies

- Energy at home (emissions of electricity generation included)
- Mobility
- Reduction potential in this example: 15%; effect with limited participation 4%



Average Dutch household (2.2 p)

LIMITATIONS OF THE FIRST LOOK
NOT ALL ASPECTS HAVE BEEN STUDIED

ASPECTS LEFT OUT

- Which type of policy to apply: bans, obligations, carbon pricing, personal carbon trading
- How to take care of lower income households
- How to get public support

Prior research shows the importance of fairness and effectiveness to get public support

MONITORING RECOMMENDATIONS
FOR LIFESTYLE CHANGE POLICY EVALUATION

USEFUL ADDITIONAL DATA FOR MONITORING ENERGY RELATED LIFESTYLE CHANGE POLICIES

Monitoring data on volumetric and structural effects are available on for example dwelling sizes, car types, car kms, public transport kms. Data on spatial planning and facilitating measures are missing from energy policy monitoring.

Additional monitoring data would be useful for spatial planning policies and facilitating measures

- Public transport infrastructure
- Bicycle infrastructure
- The number and location of compact urban dwellings

- Consider linking to governmental geographical information systems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