

SCAF 2014 Cost Estimating Challenge

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Andreas Barstad, Kjetil Hove, Tobias Lillekvelland,
Anita Røtvold & Elisabeth Åmot

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Our team

Andreas



Master in
Business and
Economics

Kjetil



Master in
Business and
Economics

Tobias



Master in
Economics

Anita



Master in
Business and
Economics

Elisabeth



Master in
Economics

The Challenge: «Moving overseas»



Meet the family



- Shipping
- Storage
- Insurance
- Electrical supplies

Moving

- Sales costs
- Temporary house
- Closing cost when buying house
- Land transfer costs
- Other sales fees

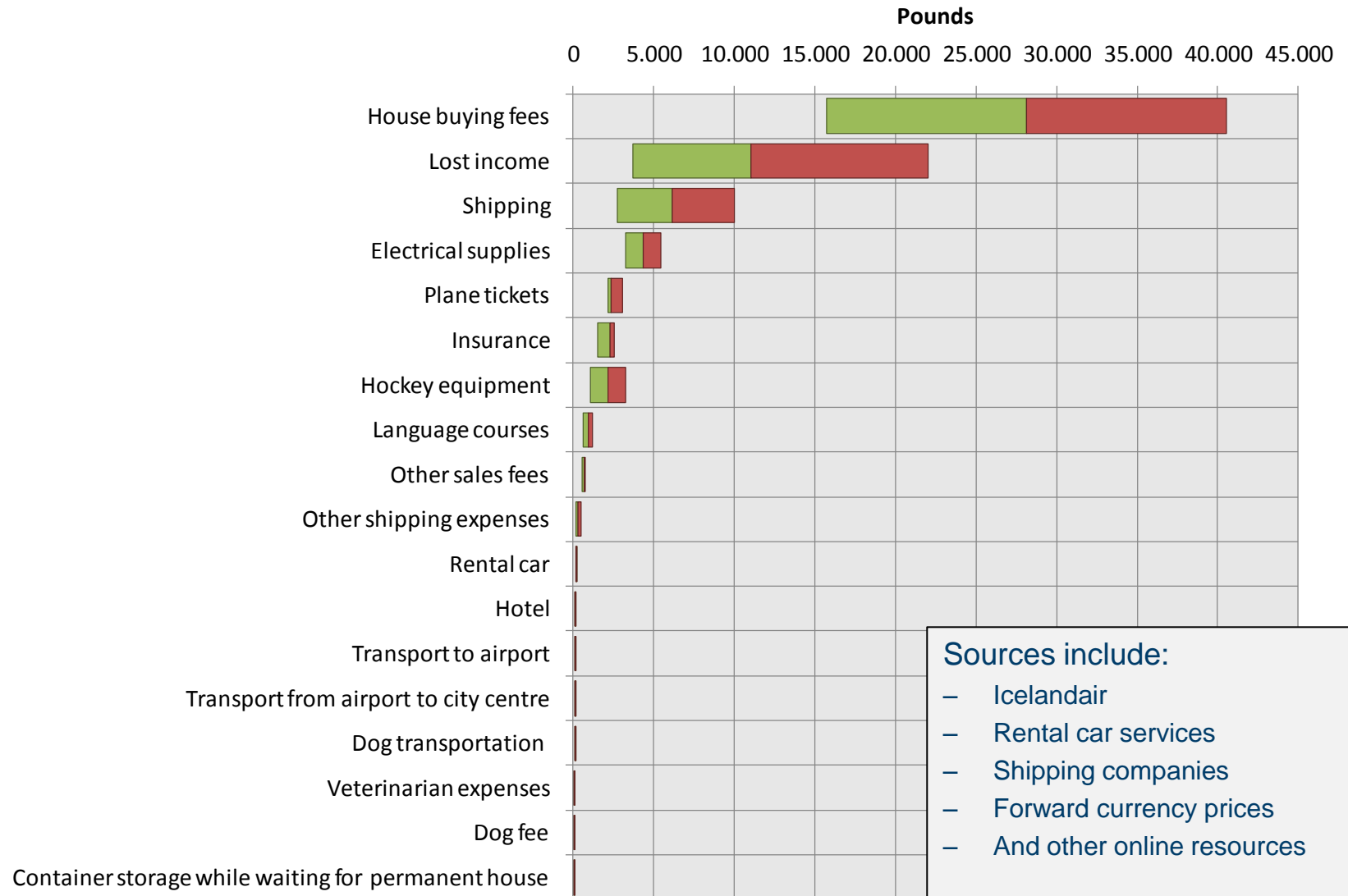
Housing

Other costs

Travelling

- Husband's lost income
- Language courses
- Hockey equipment
- Immigration fees

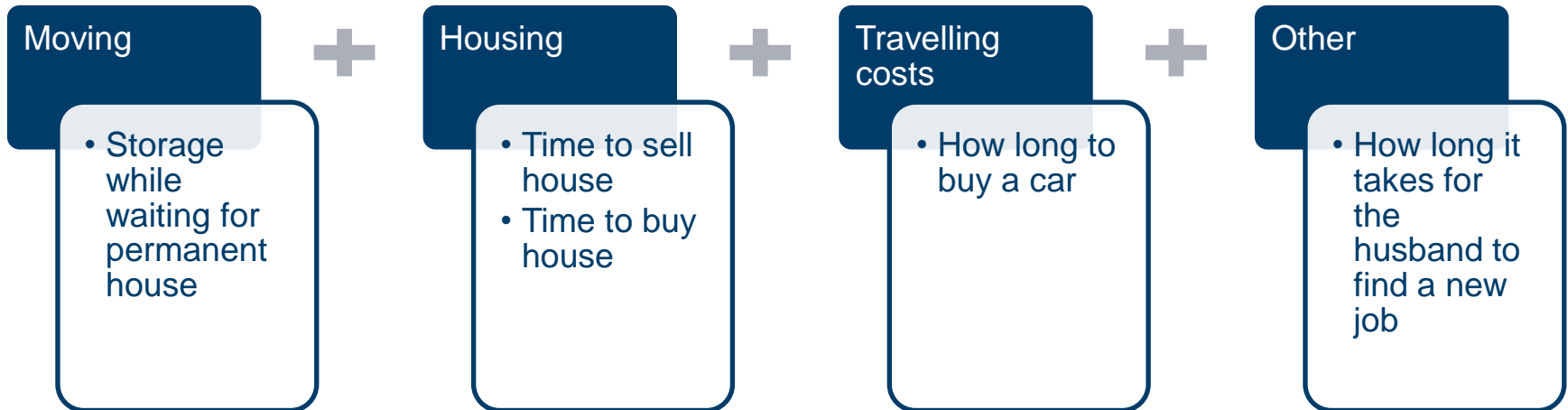
- Transport to airport
- Plane tickets
- Dog transportation
- Transport from airport to city centre
- Rental car



Sources include:

- Icelandair
- Rental car services
- Shipping companies
- Forward currency prices
- And other online resources

Time uncertainties



Primary estimation approach



- Guesstimate *best, most likely* and *worst* values
 - Fit normal distribution on basis of these
- Four levels of uncertainties:
 - Price
 - Currency
 - Time
 - Special housing uncertainties (percentage)
- Assume normally distributed and independent costs
 - Easy to do calculations with
 - No better available information regarding cost distribution
 - "Good enough"
- Simplification: assume the product of two normally distributed variables is also normally distributed

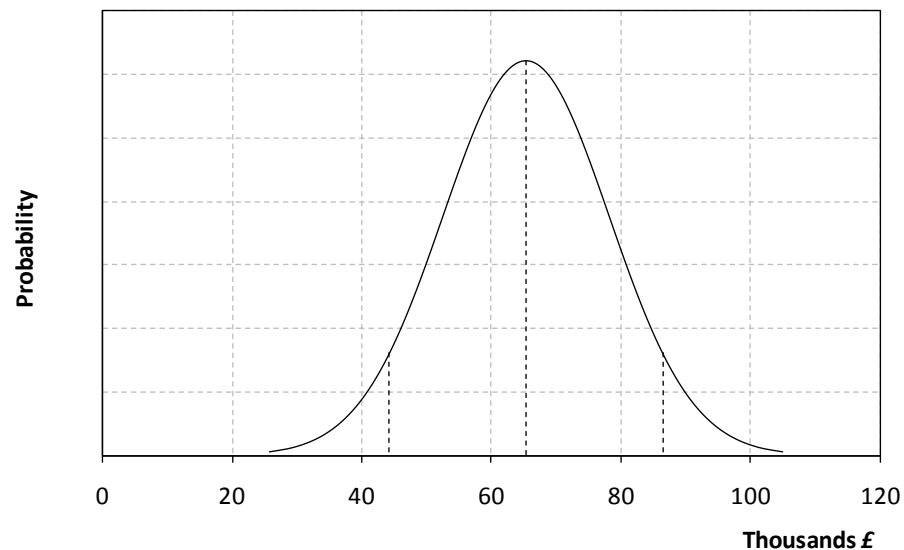
Results

90 % confidence interval:

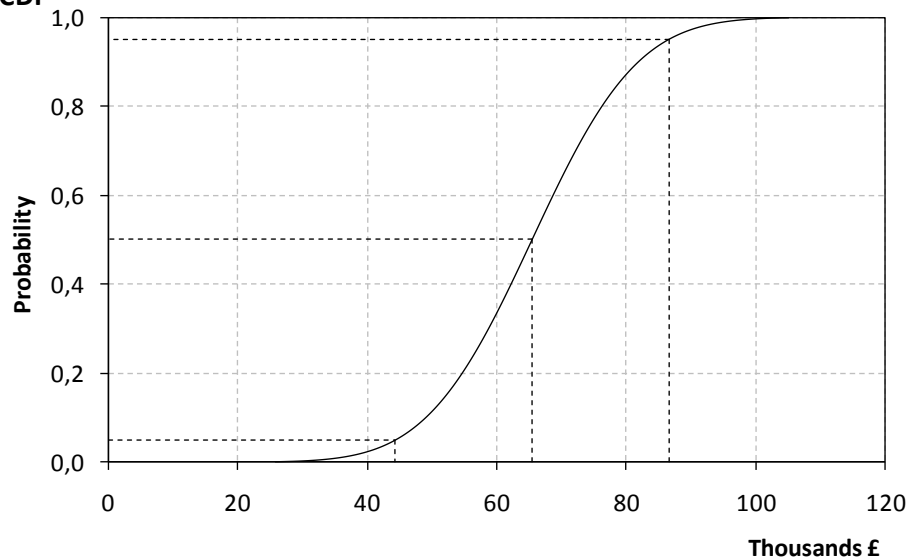
Low	Most likely	High
44.000	65.000	87.000

- What should we require to cover uncertainties?
 - Depends on the agreement
 - If we are to cover the uncertainty P85 (£ 79.000)

PDF



CDF

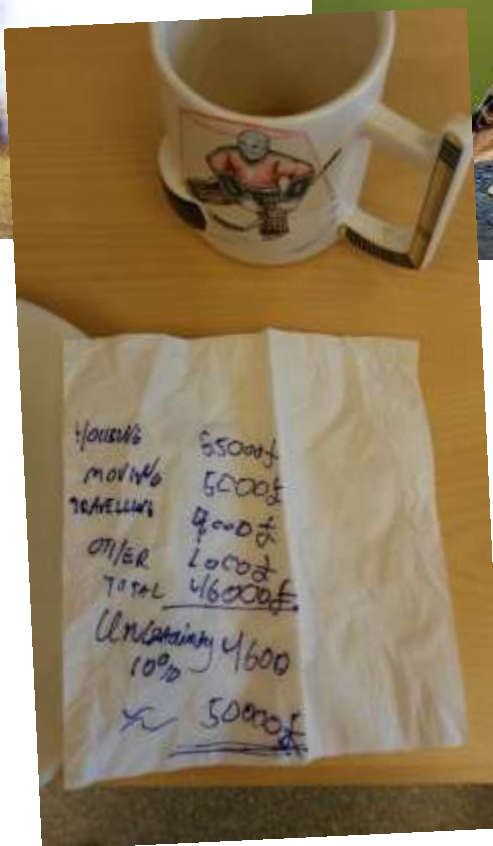
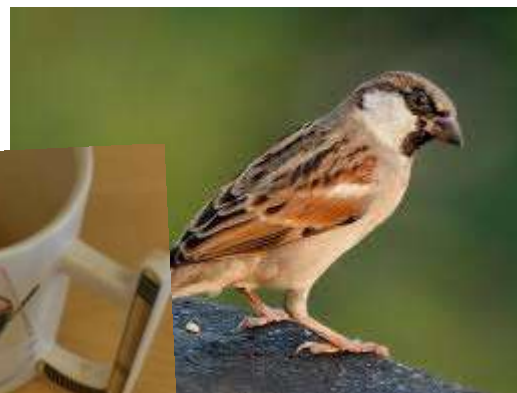


Secondary approach: simulation

- We considered using simulation to calculate the uncertainties.
- This method was abandoned because it was quite time consuming, and the extra value was considered to be quite small.



Alternative approach



Conclusion and lessons learnt

- Our estimates predicts a cost interval of £ 45 to £ 85 thousand.
- Using a simpler approach gives an estimate of £ 50 thousand
- The process gives valuable discussions and insights
 - Input
 - Method
 - Results
 - Teamwork

