

US/CA Resource Shares Overview

New England Fishery Management
Council

September , 2012

Initial Negotiating Positions

- Canada:
 - Common exploitation rate
 - Don't consider resource use until after 1985
 - Weight resource use at 5%
- U.S.:
 - Base time period on rebuilt stock range
 - All of bank as single management unit
 - Landings and surveys equally important
 - Consider research investments (surveys as a proxy)

How are resource shares determined?

- Two weighted factors:
 - Resource utilization: catch history for the period 1967-1994
 - Resource distribution: as determined by surveys
- Factors not weighted equally
 - Resource use weighting declined over time; currently at 10%
 - Resource distribution at 90%

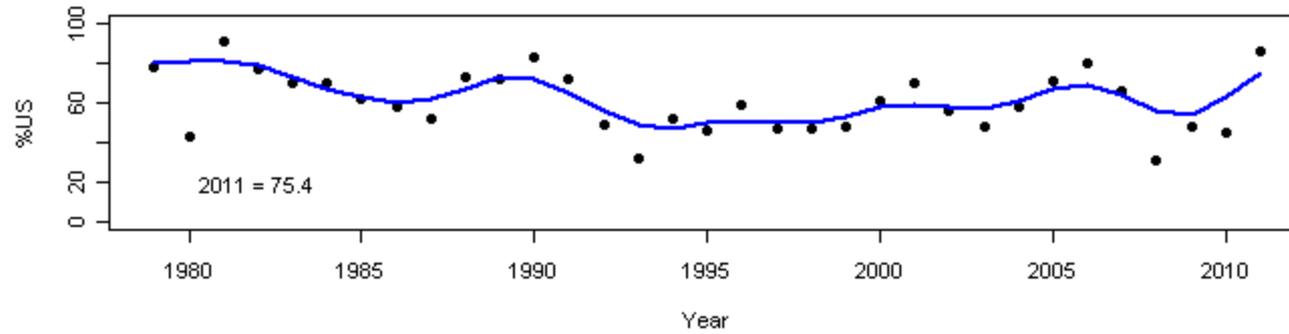
How are surveys used?

- EGB Cod
 - Average US and CA spring survey, then average with US fall survey
- GB YTF and EGB haddock
 - Average all three surveys
- Smooth average with a LOESS smoother
- Survey in Year 1 determines share in Year 3

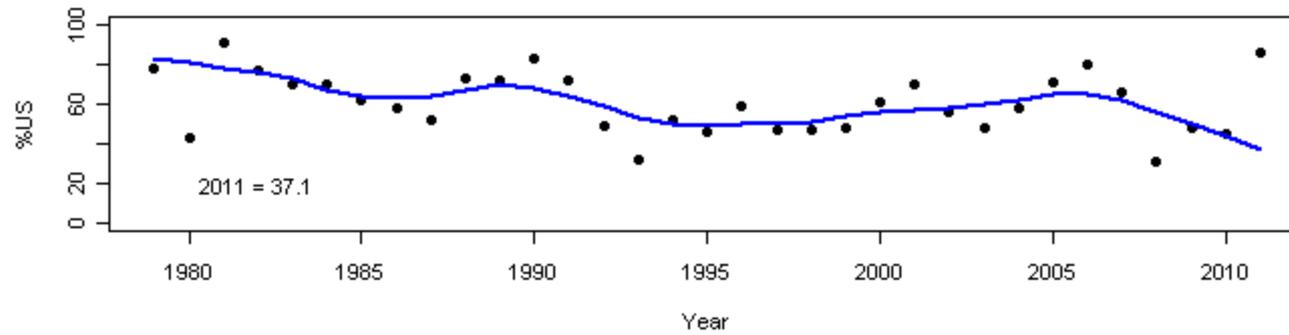
Lo-Who? Say What?

- LOESS
 - Locally weighted polynomial regression
 - At each data point, a polynomial is fit to the point and its neighbors (similar to a moving window)
 - Number of neighbors/width of window is defined
 - Nearby outliers are downweighted

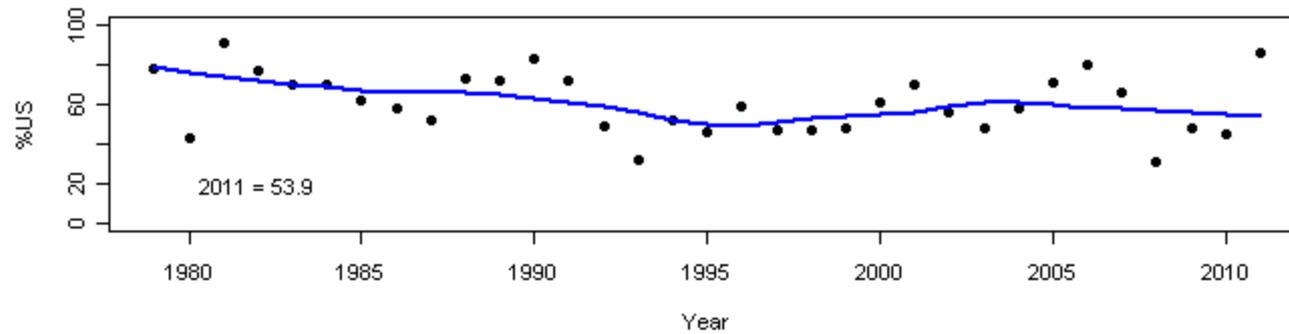
Smoother span = 0.2



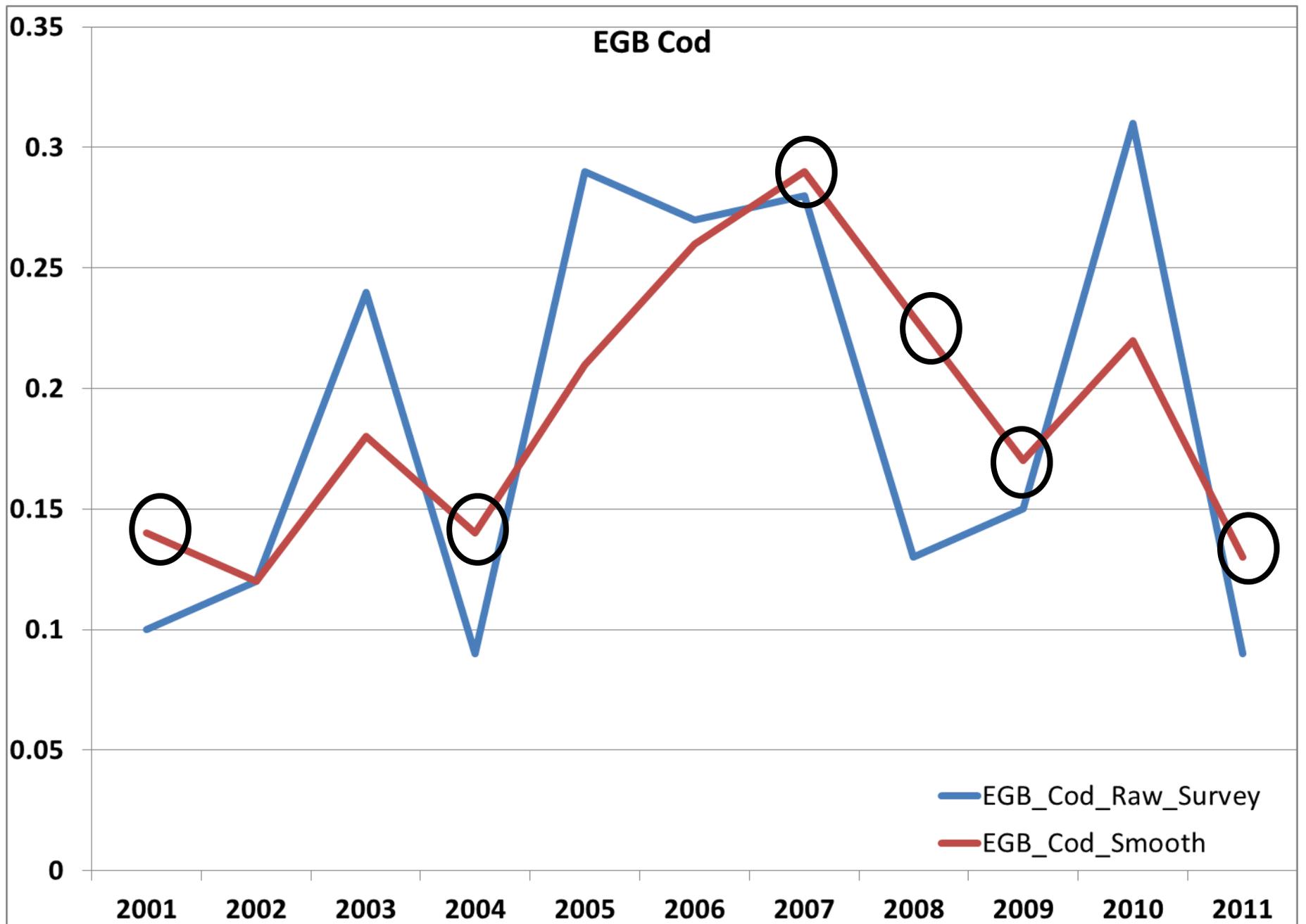
Smoother span = 0.3



Smoother span = 0.4

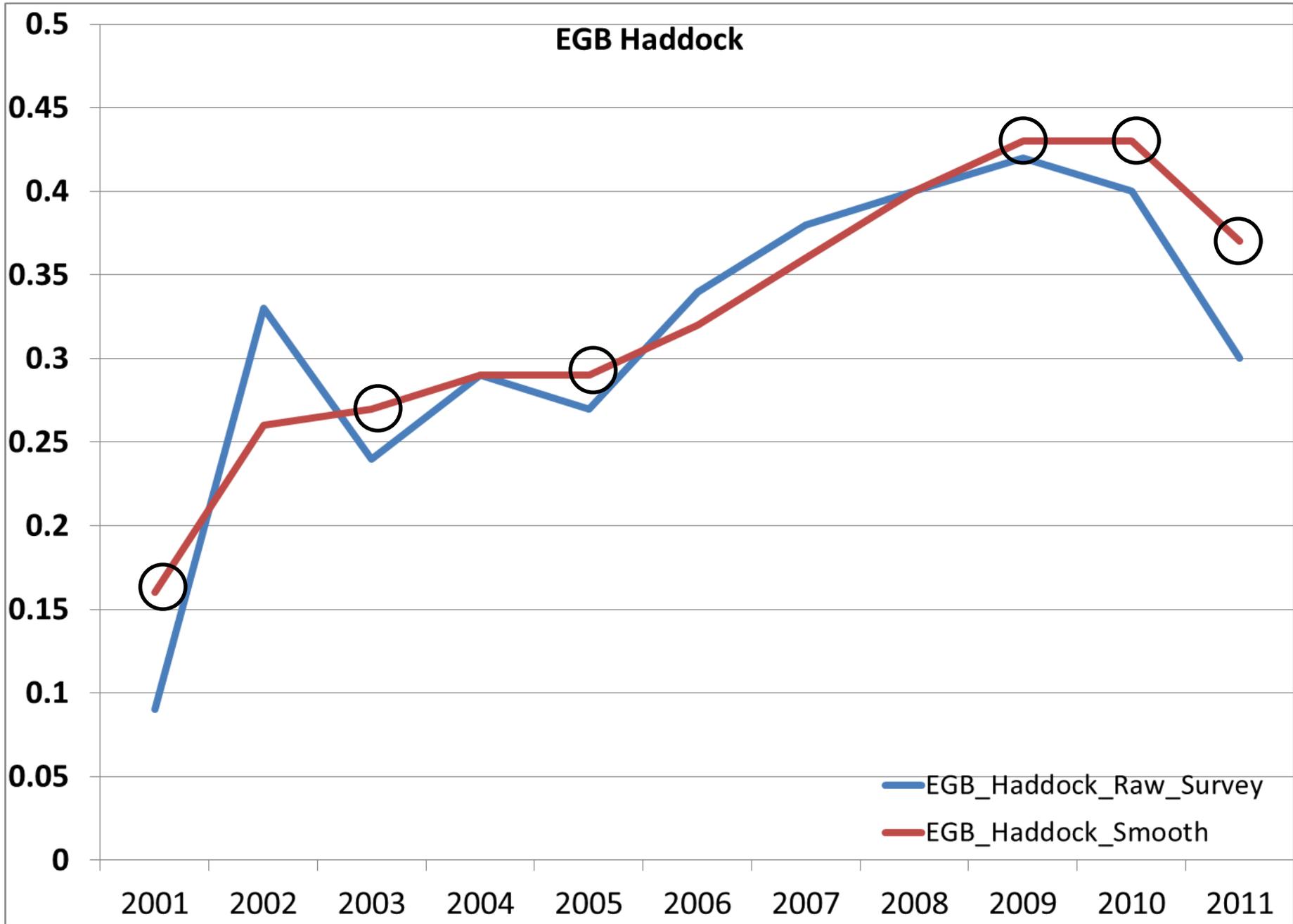


EGB Cod

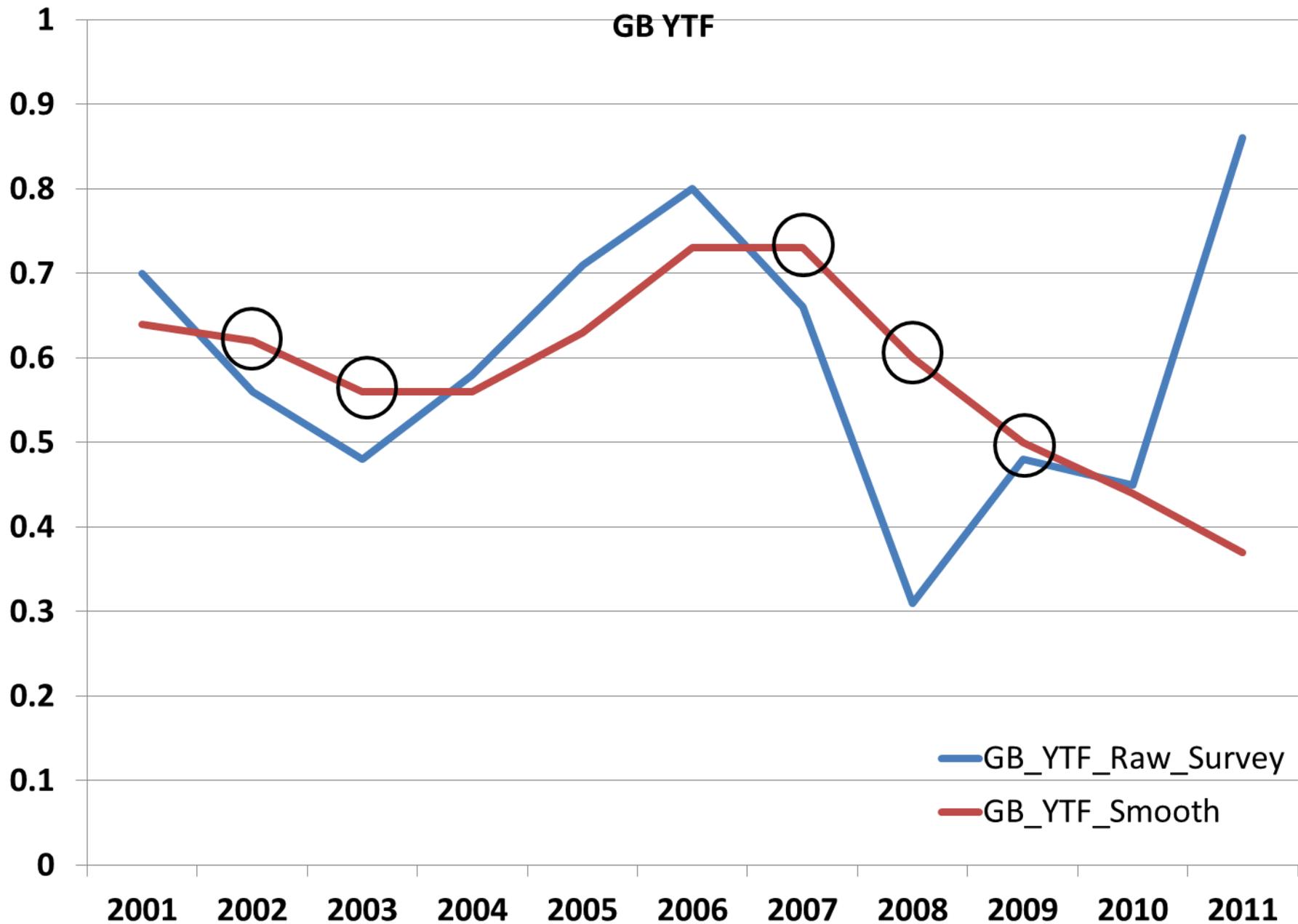


— EGB_Cod_Raw_Survey
— EGB_Cod_Smooth

EGB Haddock

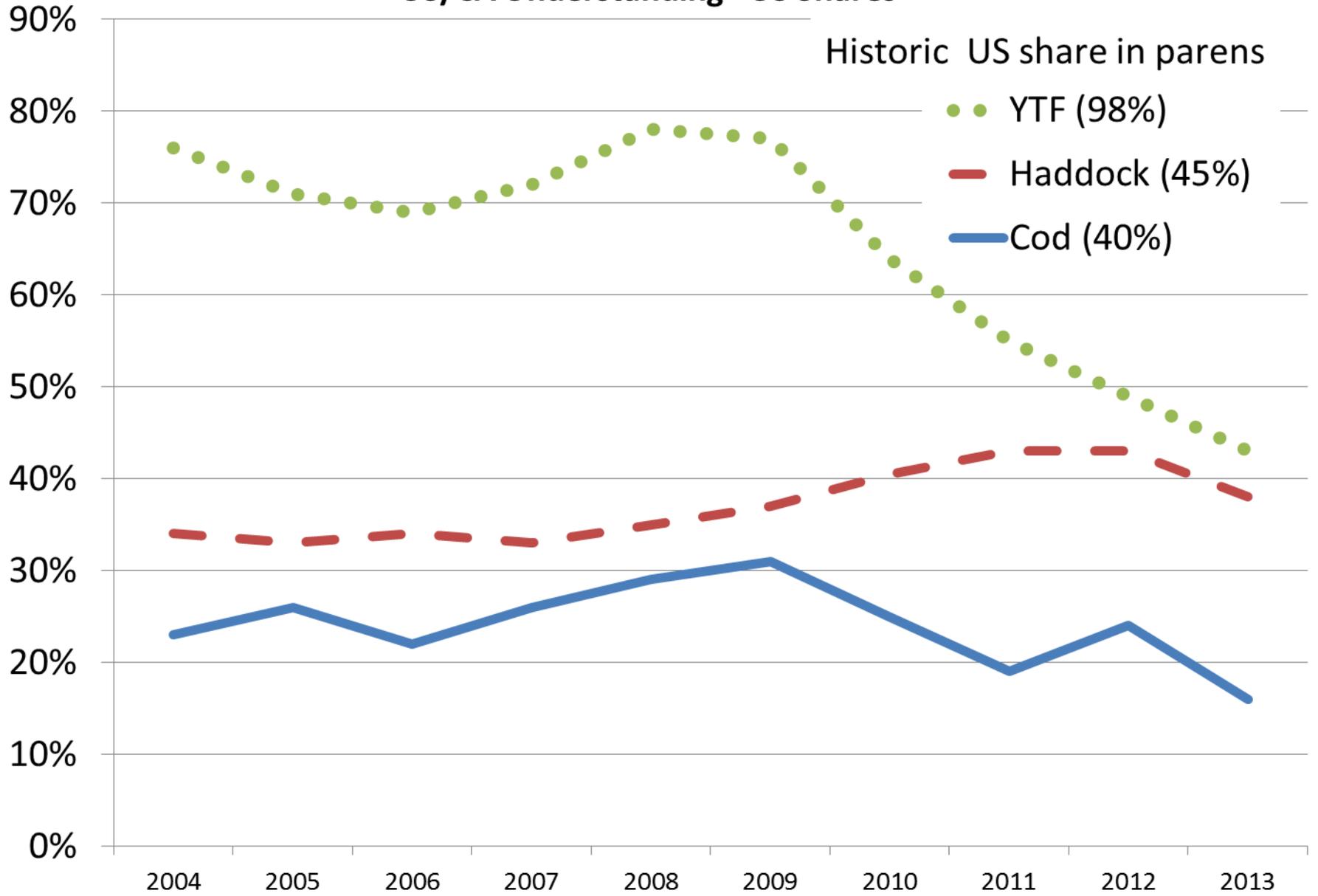


GB YTF



US/CA Understanding - US Shares

Historic US share in parens



Questions?