



# Shifting Seafood Markets

## When will China become a net importer?

Ragnar Tveteras

University of Stavanger



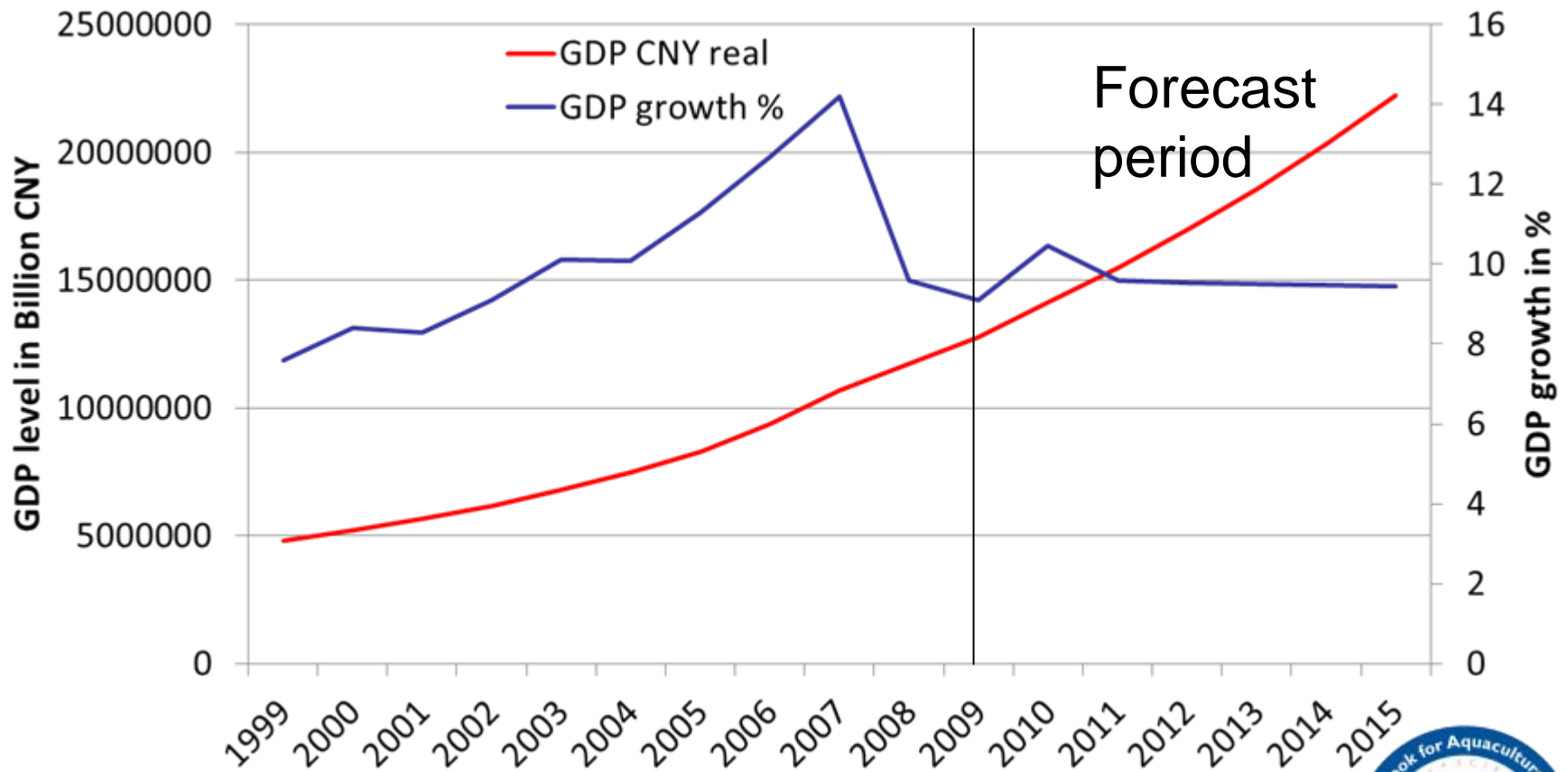
## Ragnar Tveteras

**Professor of Industrial Economics  
University of Stavanger, Norway**

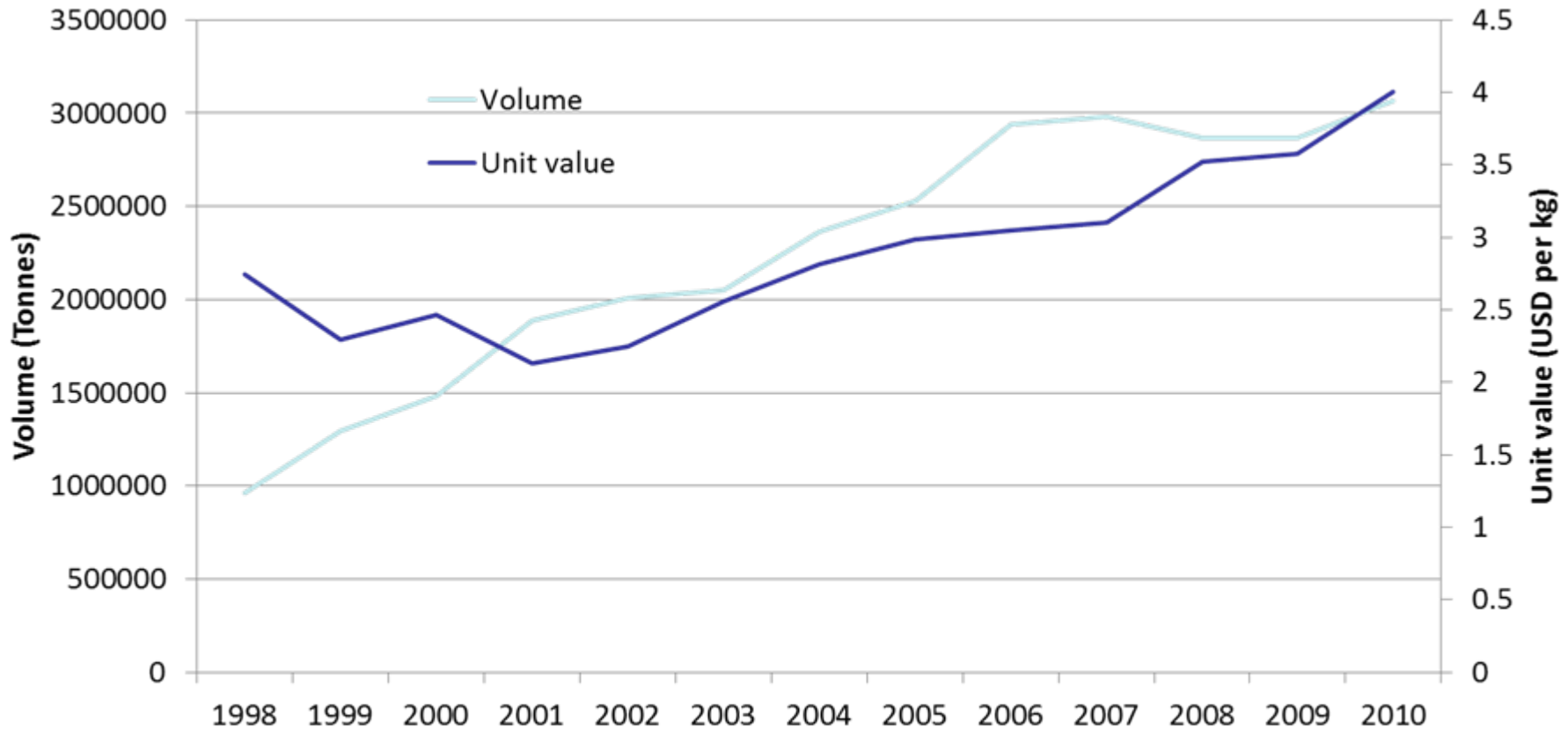
Prof. Ragnar Tveteras is a business economist in the Department for Industrial Economics, Risk Management and Planning at the University of Stavanger. His research focuses primarily on aquaculture and seafood markets.

Tveteras' works include some 30 science articles, and he is a popular lecturer. He also maintains relationships with authorities and private decision makers in the regional, national and international seafood industries. Tveteras received the 2006 Scana research prize for his many publications and ability to communicate research findings beyond a narrow academic circle.

# Chinese real GDP and GDP growth

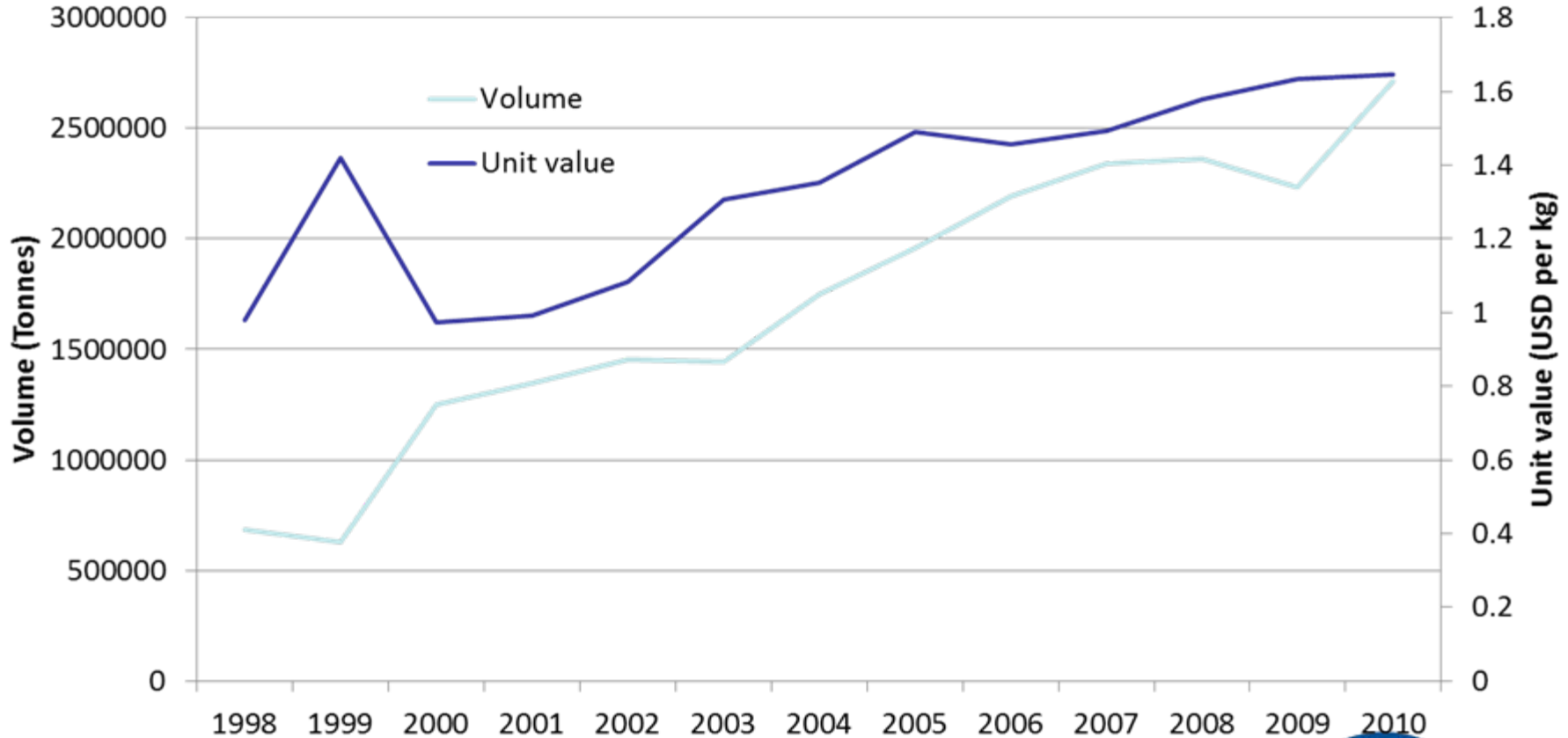


# Chinese Annual Seafood Export Volume and Unit Value



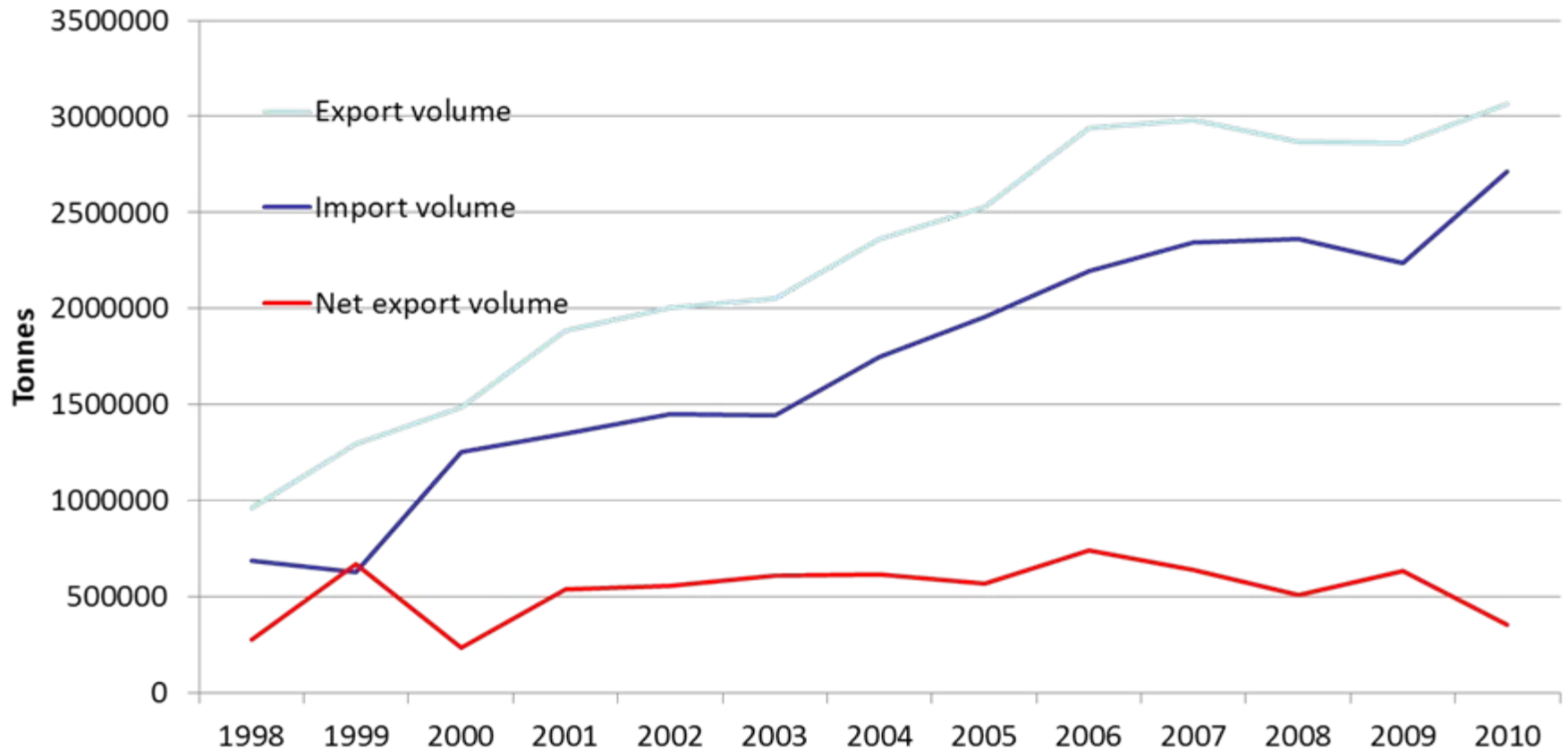
Note: The ratio of first six months to last six months is used to construct the 2010 figures

# Chinese Annual Seafood Import Volume and Unit Value



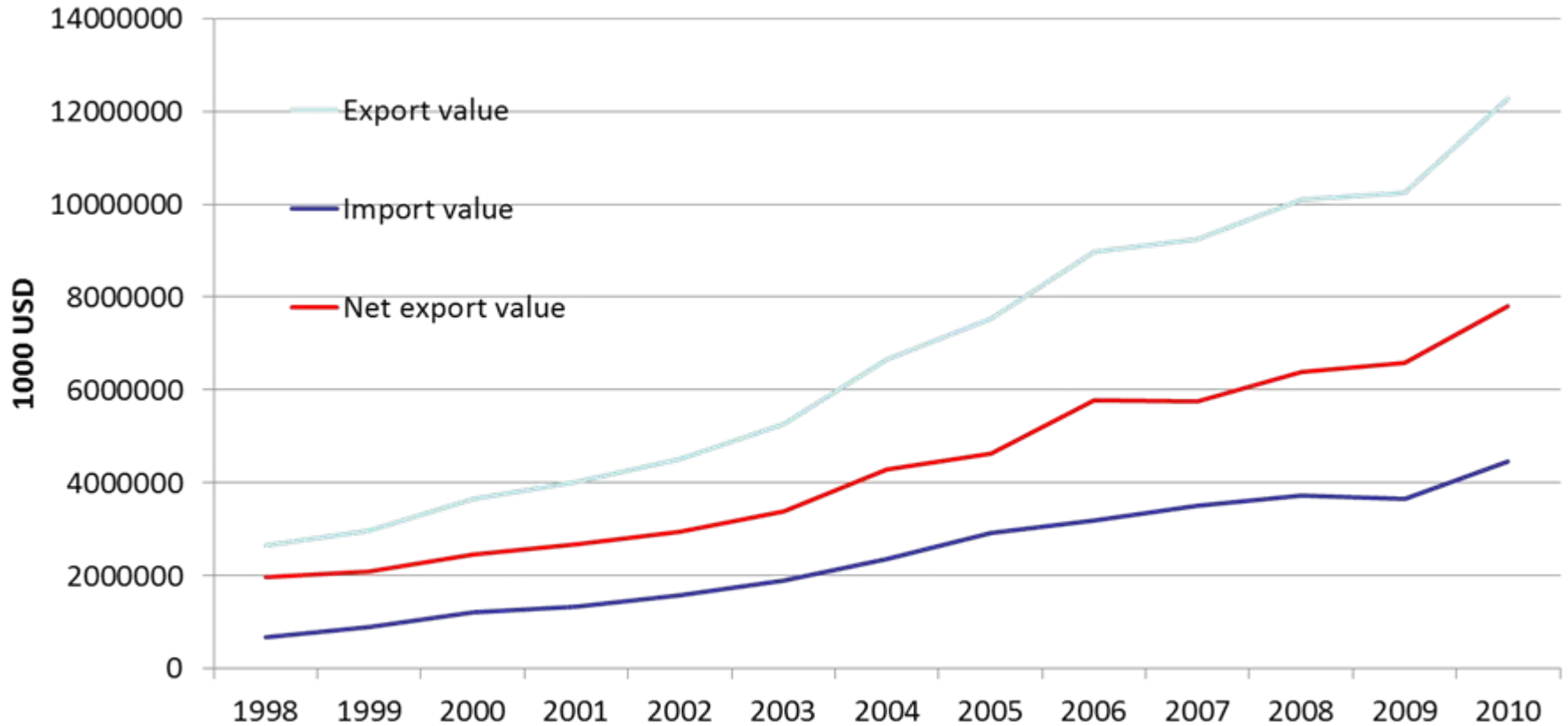
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# Chinese Seafood Annual Trade Balance in Volume



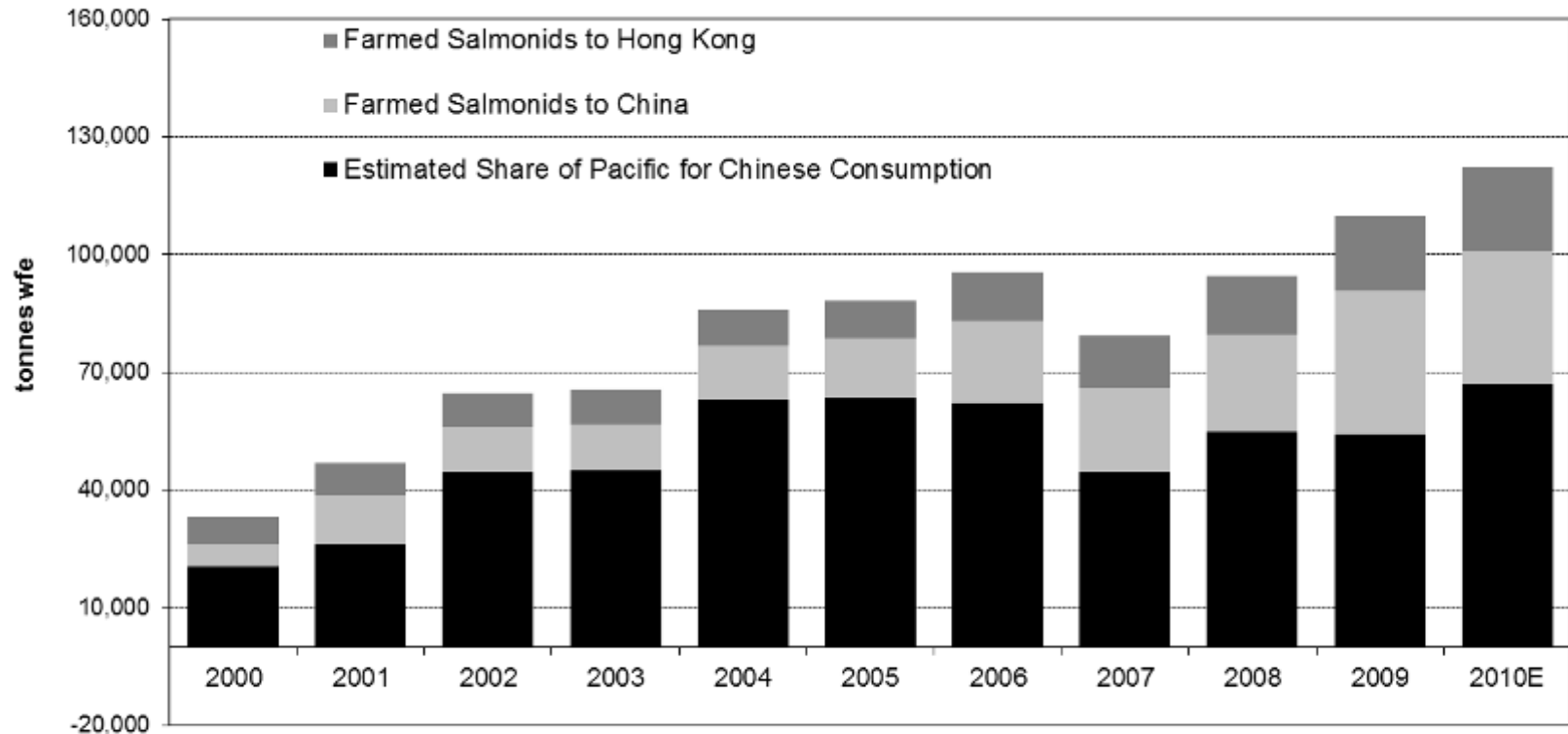
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# Chinese Seafood Annual Trade Balance in Value



Note: The ratio of first six months to last six months is used to construct the 2010 figures

# Estimated Chinese Domestic Consumption of Salmonids



Source: Kontali





# Econometric forecasting model of Chinese import demand

- The following variables were tested in the import model:
  - Chinese real GDP
  - Exchange rate CNY/USD
  - Real unit import price seafood
  - Time trend variable
  - Quarterly dummy variables to account for seasonal shifts



# Econometric forecasting model of Chinese export demand

- The following variables were tested in the export model:
  - Chinese real GDP
  - US real GDP
  - World real GDP
  - Exchange rate CNY/USD
  - Real unit export price seafood
  - Time trend variable
  - Quarterly dummy variables

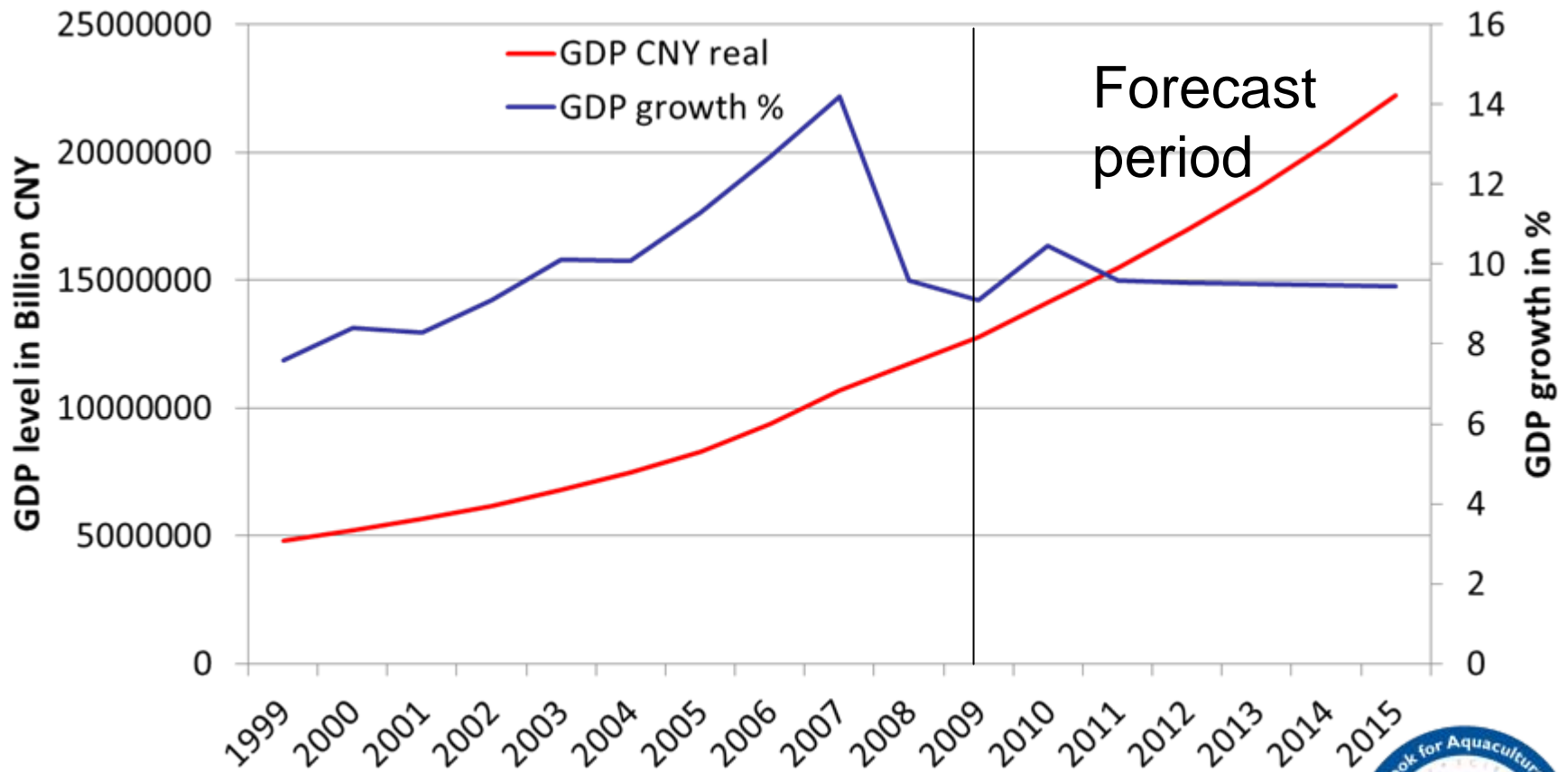


# Values used in forecast

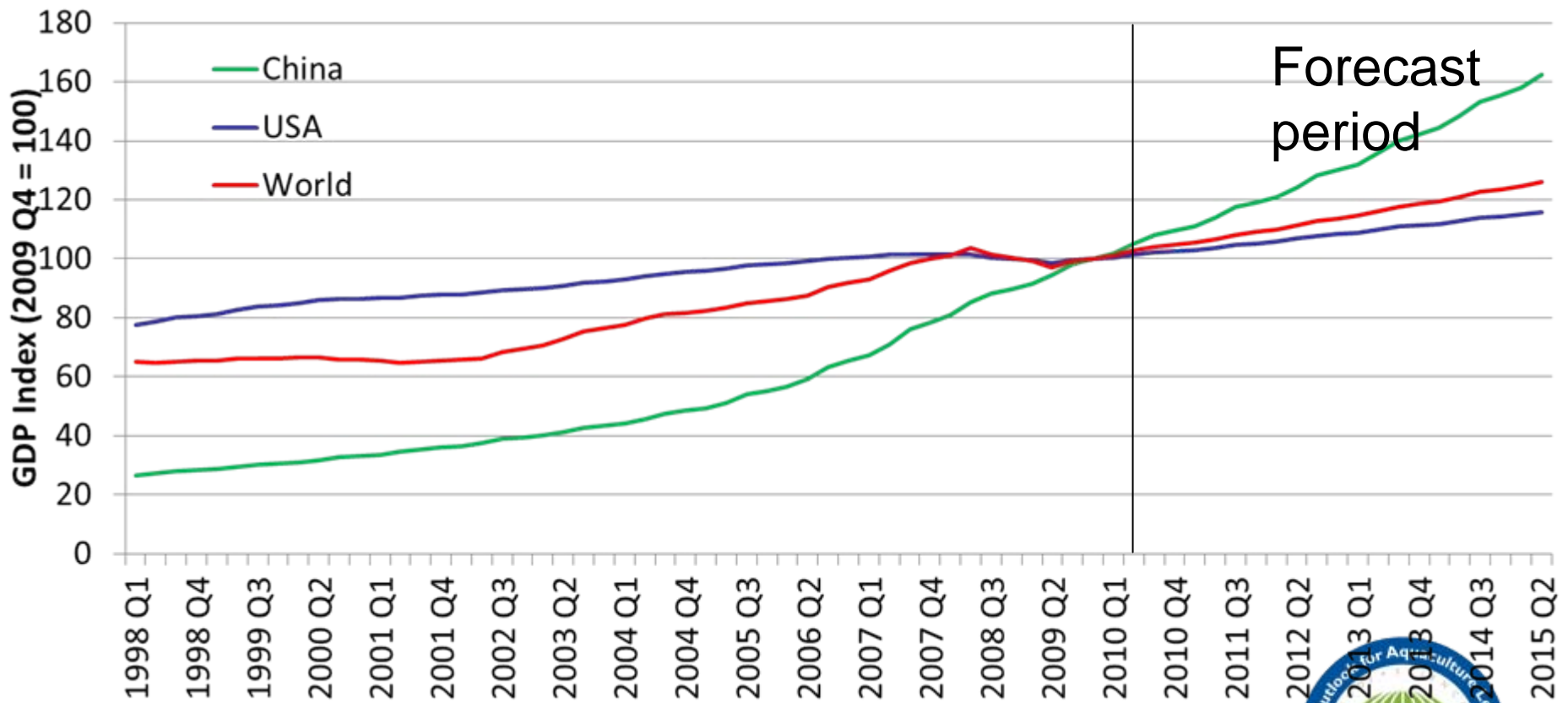
- GDPs: IMF's forecast for China, USA and the World
- Exchange rate CNY/USD: IMF's forecast
- Unit seafood import and export prices: Value in second quarter of 2010



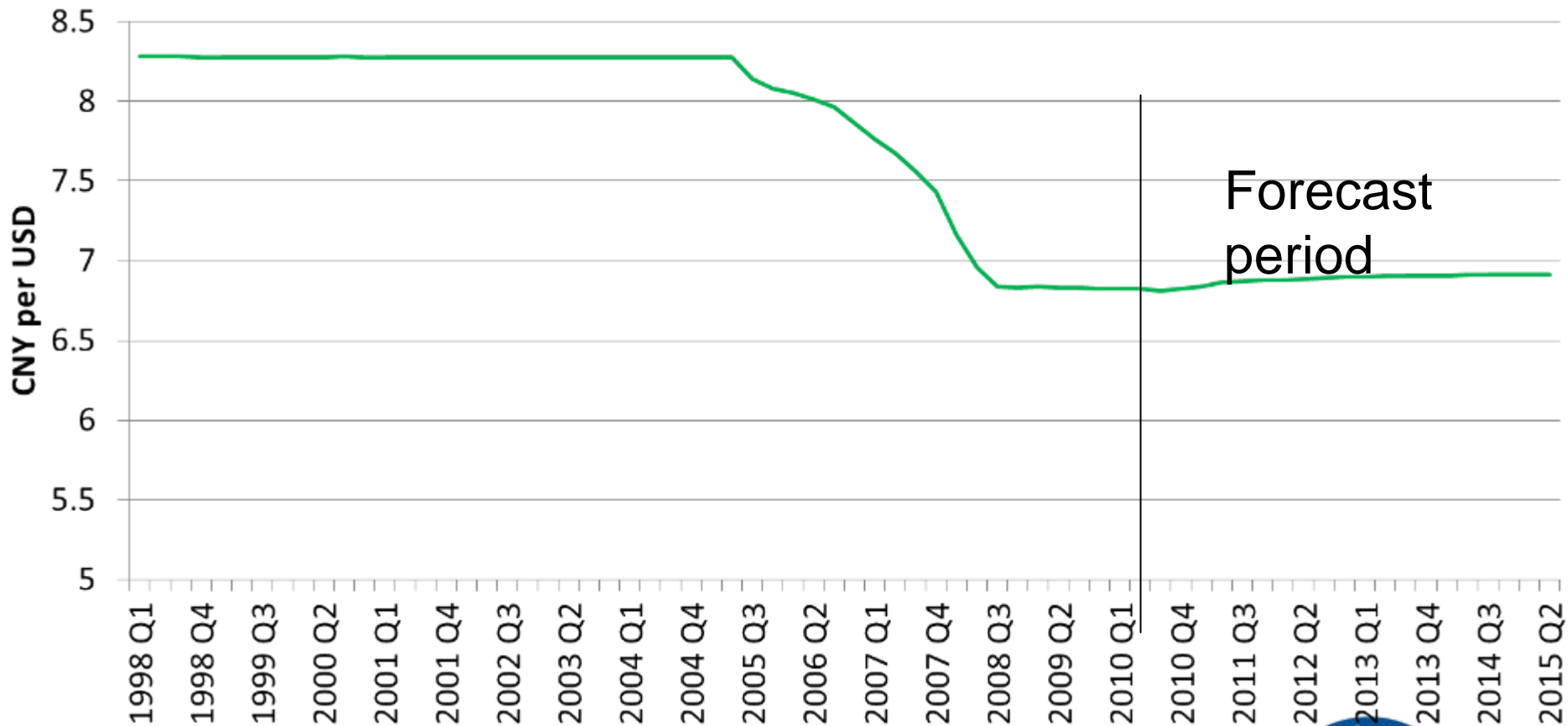
# Chinese real GDP and GDP growth



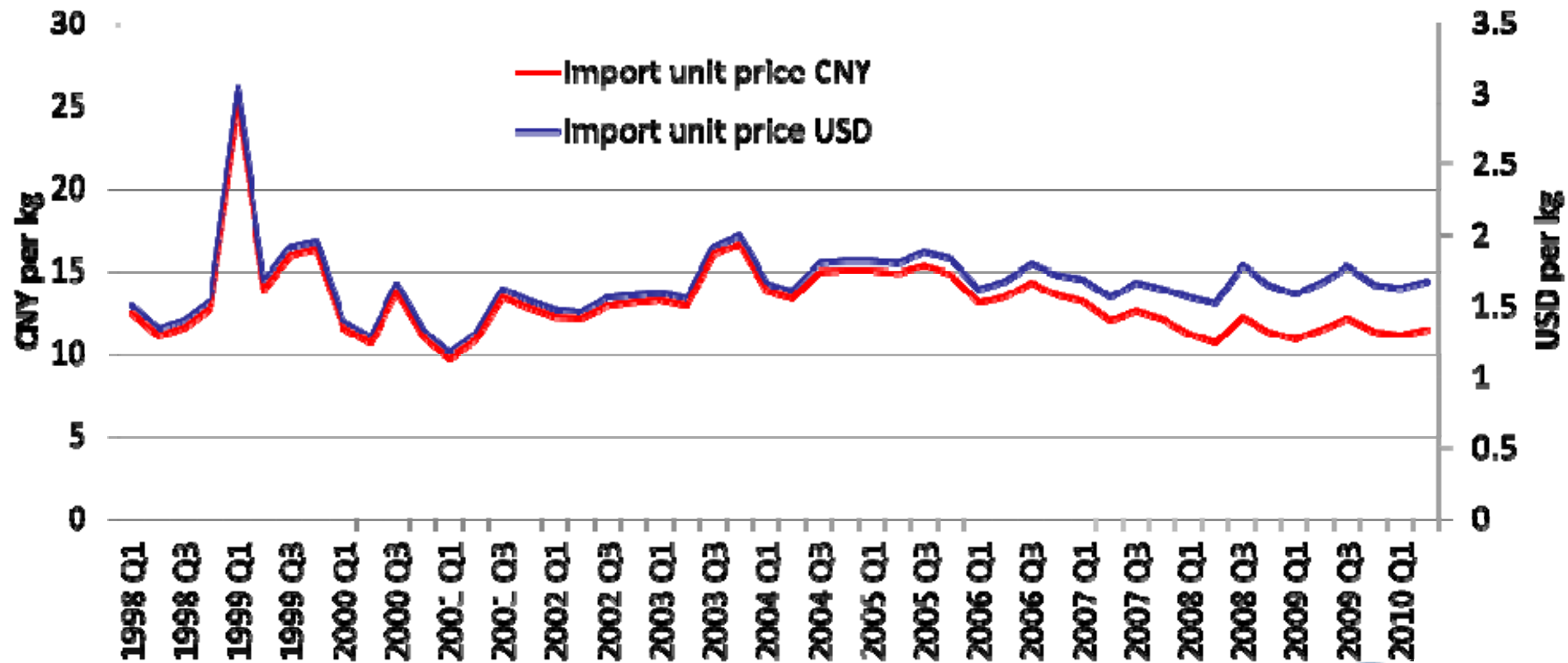
# Real GDP China, USA and the World



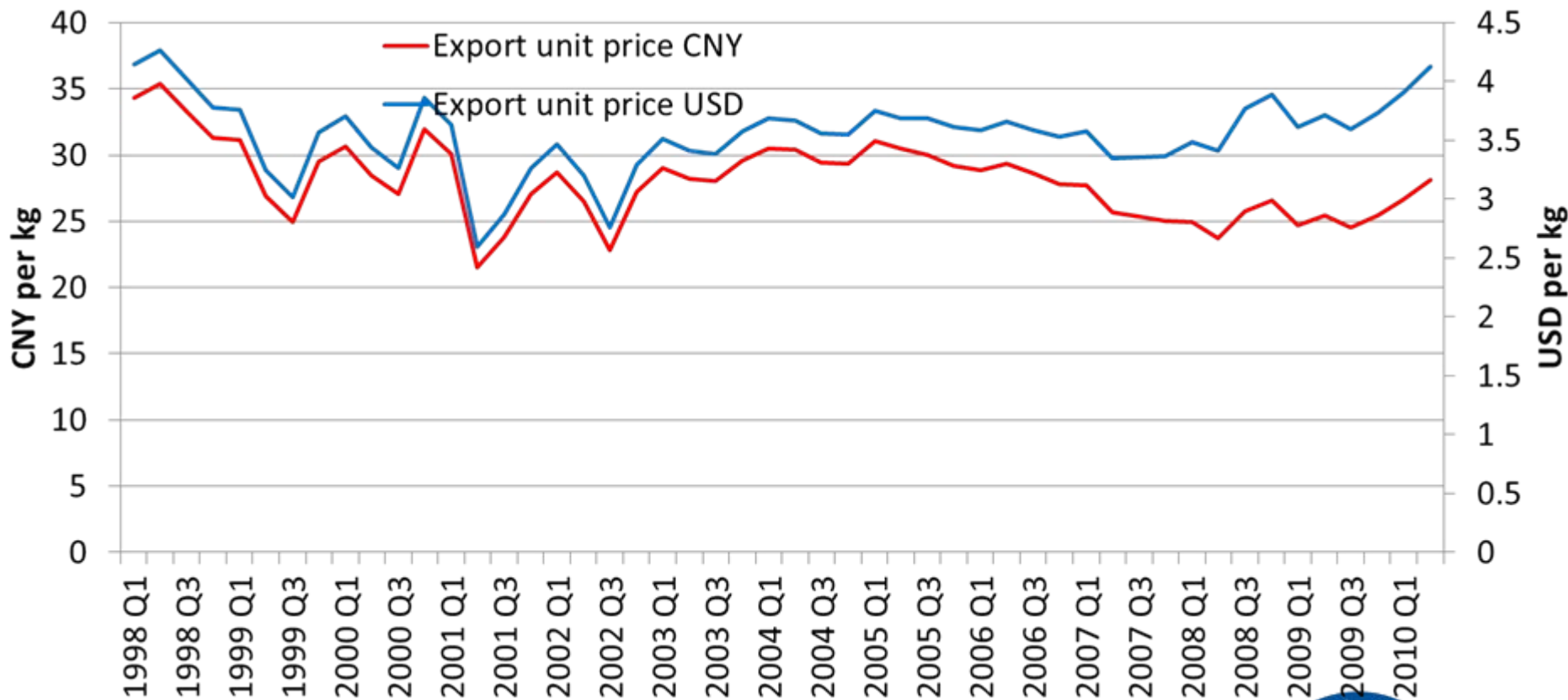
# Exchange rate CNY/USD



# Chinese seafood import unit price in CNY and USD



# Chinese seafood export unit price in CNY and USD





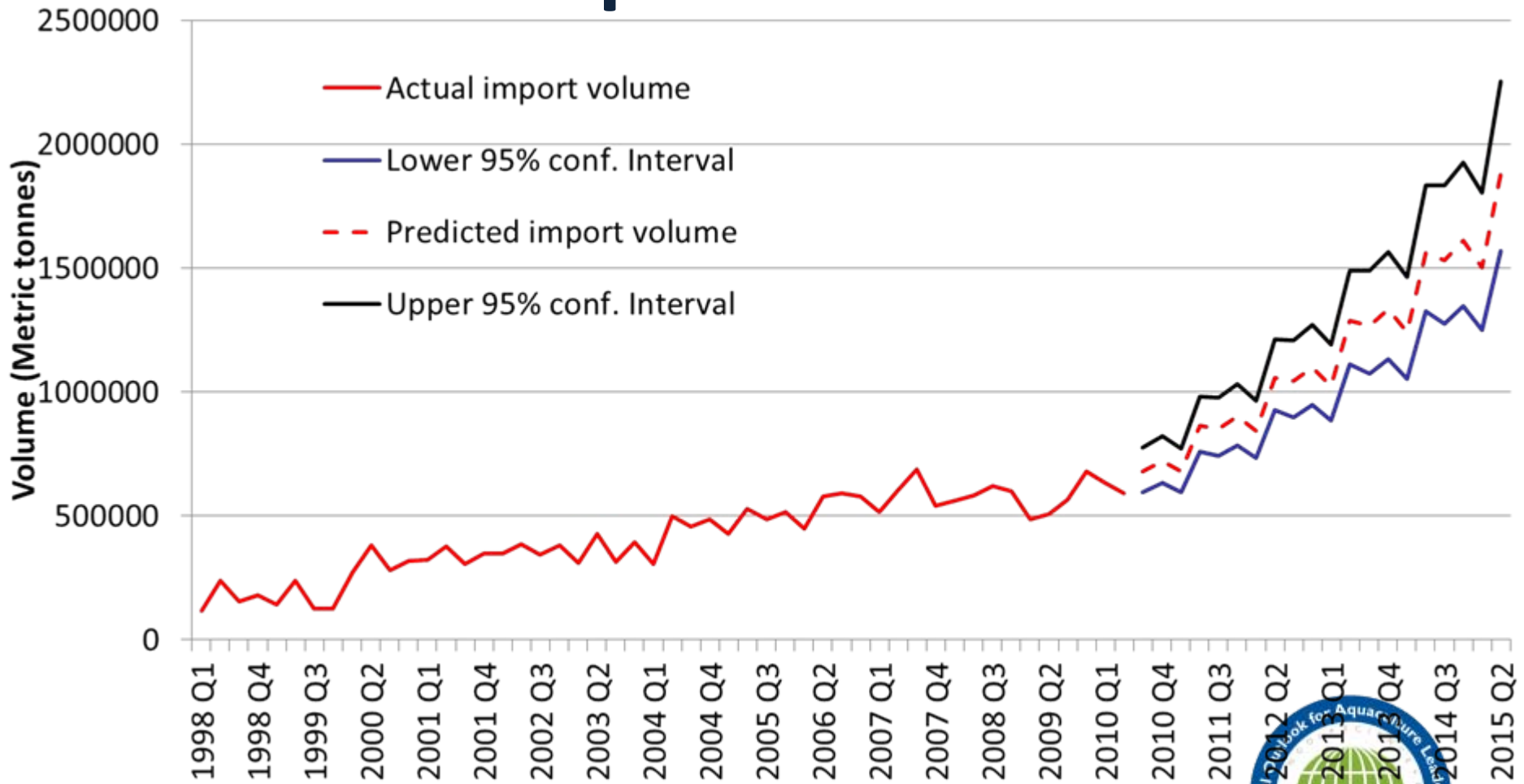
# Estimated elasticities: Percentage change in demand when variable change 1%

Variable	Import demand	Export demand
China real GDP	2% *	0%
US real GDP	-	2-3% *
World real GDP	-	0%
Real unit price	-0.8% *	-0.7% *
Exchange rate CNY/USD	3% *	1.5% *

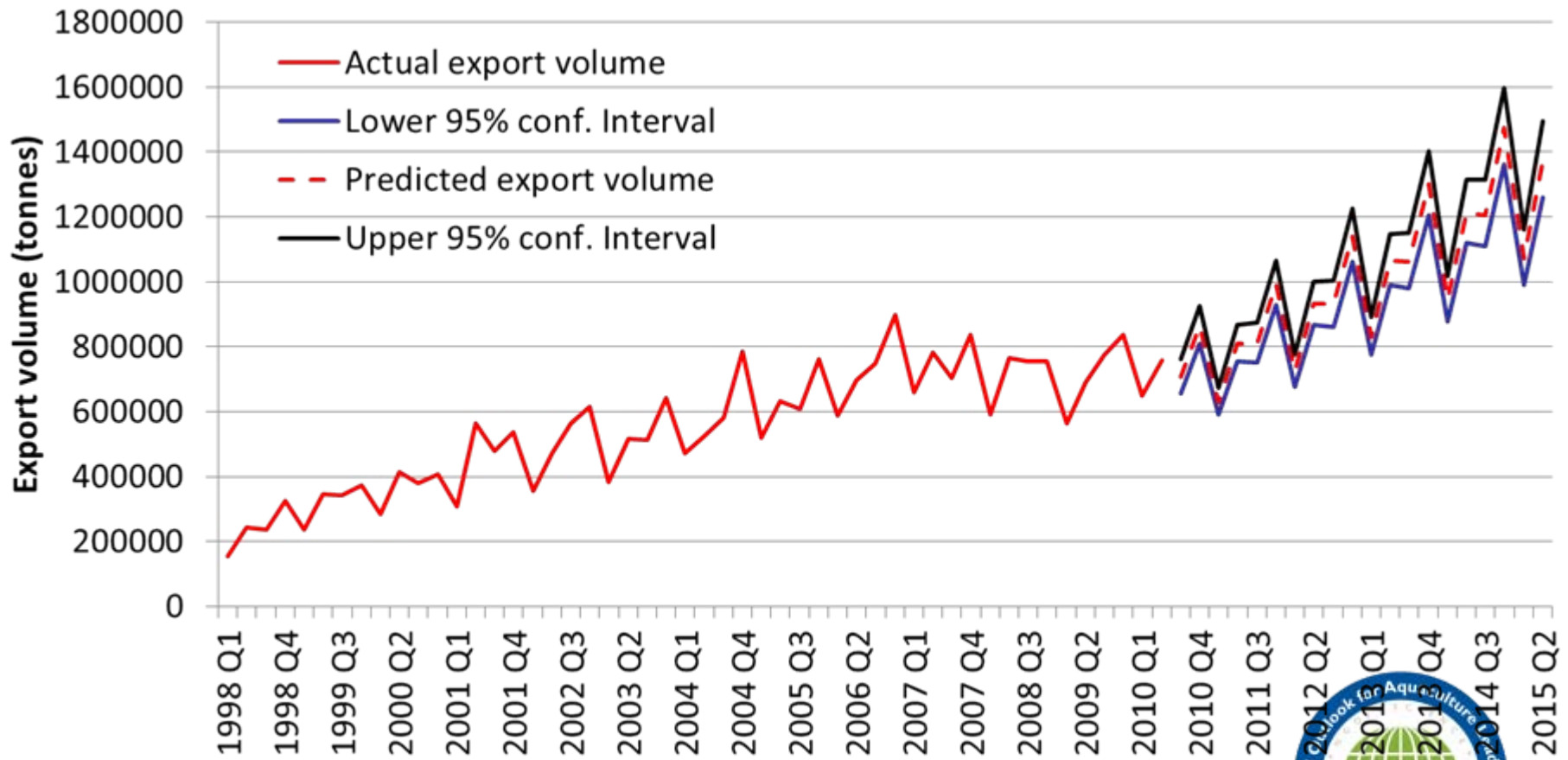
Significantly different from zero at conventional confidence levels.



# Actual and forecasted Chinese import volume



# Actual and forecasted Chinese export volume



# Model forecast: China should become net seafood importer from 2011

