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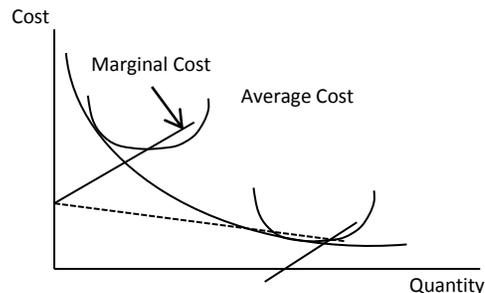
# Market Power and/or Cost-efficiencies in ITQ Fisheries

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## ITQ Fisheries and Share Consolidation

The introduction of Individual Transferable Quotas (ITQs) has been associated with consolidation of shares among producers, especially in the fisheries industry. Countries have introduced different legislative measures in response to actual or expected consolidation in fisheries. For example, while the US limits the quota shares fisherman can hold, New Zealand allows the price of the quota to reflect its relative scarcity.

## ITQ Fisheries and Share Consolidation

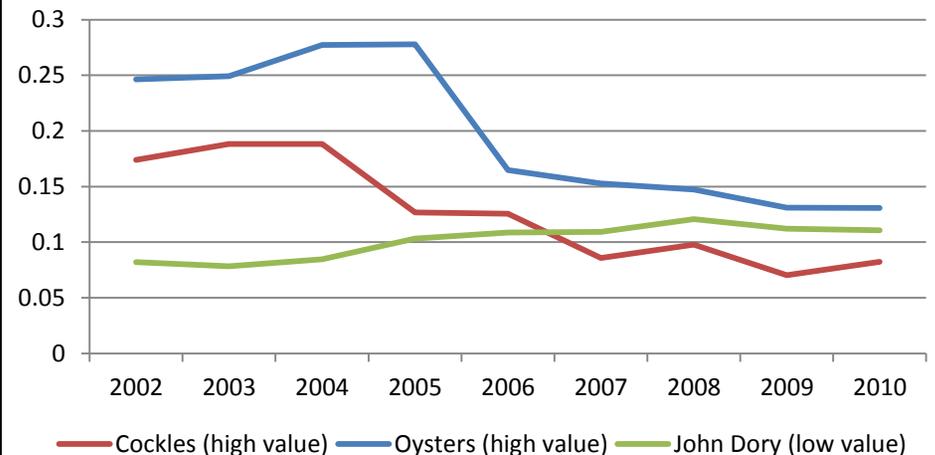


In order to determine if increased (decreased) concentration leads to increased (decreased) cost efficiencies, we estimate the change in the position of the marginal cost curve via its slope. With this type of structural model we are able to conduct counter-factual analysis and determine if share consolidation in these fisheries would lead to market power or cost efficiency, even if the data reveal decreasing measures of concentration.

## High-Value, Unprocessed Fish

In order to determine if ITQs lead to market power or cost efficiencies at the fisherman-level, we examine the market for “unprocessed” fish; that is, fish that is sold whole fresh, chilled, or frozen, but remains largely intact. The species in our sample that meet this criterion are, for the most part, mollusks and crustaceans, and include high-, medium-, and low-value species, as determined by the New Zealand Ministry of Fisheries. Since our objective is to examine the effect of share consolidation on fish price, this limits the importance of the vertical channel and is part of our identification strategy.

## Herfindahl Index of Concentration in New Zealand Fisheries



**“the market power created by the consolidation of ITQ shares in a smaller number of owners could lead to price-fixing, and consumers would pay more than in an open-access fishery”**

-- excerpt from a U.S. CRS Report to Congress

## Is Share Consolidation Prevalent in Unrestricted Fisheries?

With such a rich sample, we are able to investigate the effects of consolidation on market power in a variety of species. If market power exists in such an industry, we expect to find it among the high-value, unprocessed species. We include the low-value species as a falsification exercise to validate the use of our “international” demand specification. Interestingly, it is the low-value species that are characterized by share consolidation. Preliminary investigations find little to no market power in the species considered, bringing into question the U.S. policy of limiting the number of quota shares fisherman can hold.