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Two Immensely Successful Ag Economists: Divergent Approaches to Major Contributions

Ted Schroeder
Kansas State University

Organized Symposium
***Market Structure, Organization, and Performance of the Food System:
Greatest Contributions by Agricultural and Applied Economists
AAEA Annual Meetings, Milwaukee, July 27, 2009***

1. William G. Tomek (AAEA Fellow - 1989)

**& Gray “Temporal Relationships Among Prices on
Commodity Futures Markets: Their Allocative and
Stabilizing Roles.” *AJAE*, August 1970**

**& Robinson
Agricultural Product Prices
4 editions**

and many related works.....

**Temporal Relationships Among Prices on Commodity
Futures Markets: Their Allocative and
Stabilizing Roles***

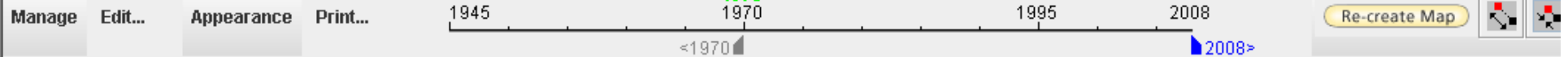
WILLIAM G. TOMEK AND ROGER W. GRAY

The role that futures markets play in guiding inventories, through hedging, has been emphasized in economic literature. Historically, futures markets first emerged for the annual crops that could be continuously stored (grain and cotton); hence inventory hedging has been important from the outset. But forward pricing which was not attendant upon inventories has long been practiced, and the more recent emergence of futures markets for non-inventory commodities dramatizes this fact. We show here that the model of intertemporal price relationships differs for the two cases and provide evidence for selected commodities. The contrasting implications for allocation and stabilization are also drawn.

TWO IMPORTANT functions performed by futures markets—guidance of inventory levels and establishment of forward prices—are typically so closely intertwined that evidence of their separate performance has not been stressed. Futures markets have historically been thought of as facilitating the carrying of inventories, but current developments in futures

storage supply curve. A major role of futures markets has been this temporal allocation of inventories, and analyses of market performance have stressed this function.

Recent developments, however, have shifted attention to other allocative and stabilizing functions. On the one hand, new futures markets have been successfully established for seasonally pro-



Tomek & Gray

Source: ISI Web of Knowledge™, www.thomsonscientific.com

**Who has
cited this work?**

**Web of Science
77 citations
Google Scholar
120 citations**

**Ag Product Prices
416 citations - Google**

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ARZAC
BENNINGA
BOHI
BRANDT
BROWN
BUONGIORNO
CANARELLA
CARTER
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WILSON
ZACHARIAS
ZULAUF

Corn Futures (ZC)

⌚ Delayed 10 minute data as of July 27, 2009 11:52 CDT

[Click to see Corn Product Calendar Dates](#) 📅

<div> <div>Quotes</div> <div>Settlement</div> <div>Daily Vol</div> <div>Time & Sales</div> <div>Volatility</div> <div>Historical Data</div> <div>Spreads</div> </div>										
Open Auction		Electronic	Combinations		Real-Time Quotes					
Exp	Last 1 Last 2	Net Chg	Open	High	Low	Close	Settle	Prev Settle	Hi/Lo Limit	ETS Vol
09Sep 📈	320'2 11:39	+4'0	317'0	320'6	312'4			316'2		12181
09Dec 📈 ⚡	331'4 11:39	+4'2	329'0	332'0	323'2			327'2		44887
10Mar 📈 ⚡	345'0 11:38	+4'4	340'6	345'0	337'0			340'4		1194
10May 📈	354'2 11:38	+4'2	347'4	354'4	347'2			350'0		122
10Jul	362'4	+4'0	359'0	362'6	355'0			358'4		269
11Dec 📈	393'2 11:32	+3'2	387'6	393'2	387'6			390'0		3
<div>Table generated July 27, 2009 11:52 CDT</div> <div>📈 = Chart ⚡ = Option</div>										

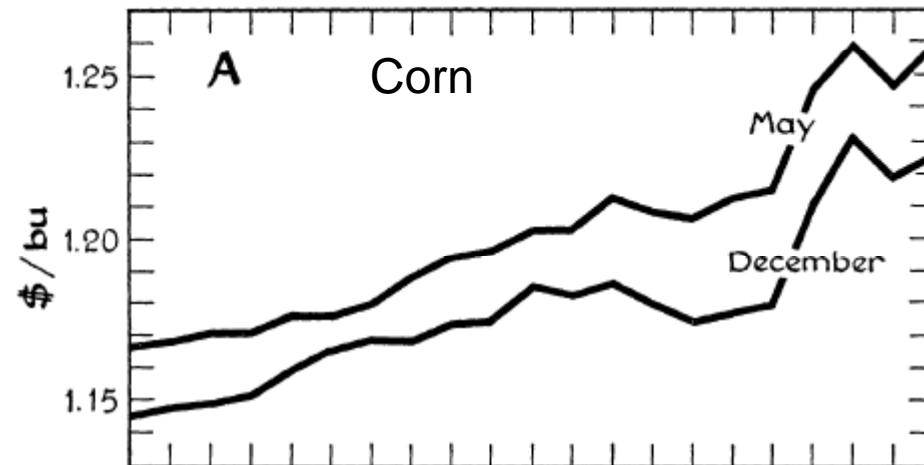
Futures prices are simply a reflection of one fundamental S&D

Working would have called these spreads simply carrying charges

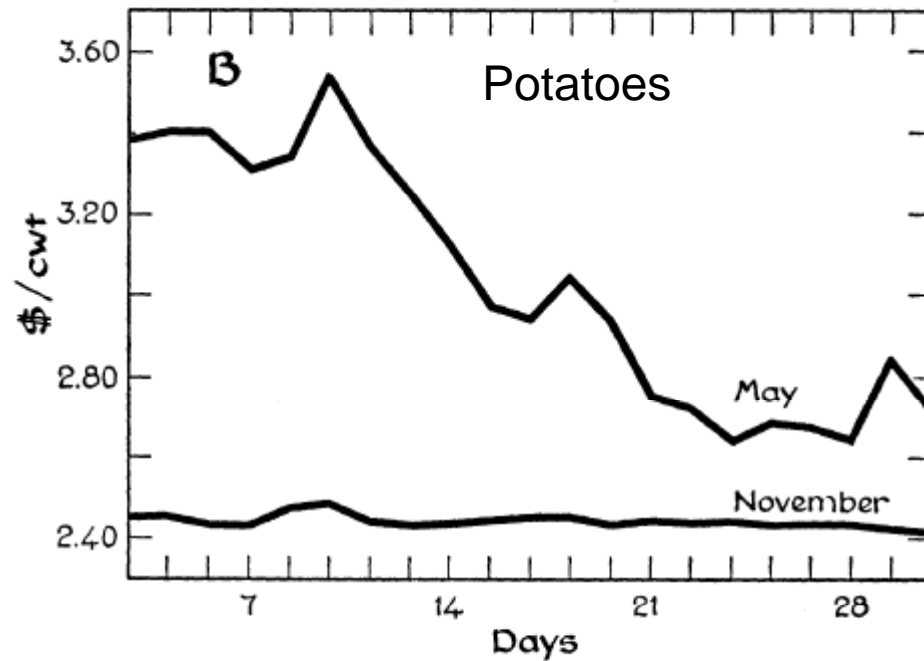
- the cash market already contains all of this information

CBOT Daily Closing
Futures Prices During
April 1969 for:

MAY and DEC Corn



MAY and NOV Potatoes



Source: Tomek and Gray

Some Key Contributions

- 1. Storable commodity futures can be viewed as forecasts**
- 2. Harvest contract in springtime varies as much as harvest price
– no stabilization from routine hedging**
- 3. Introduction of a viable futures, increases price stability**
- 4. Non-storable deferred futures do not follow cash prices**
- 5. Non-storable deferred contracts are forecasts of future S&D**
- 6. Non-storable deferred has less variation than cash**

Tomek's work spawned research on:

- **Futures marketing hedging strategies**
- **Optimal hedge ratios and production risk**
- **Futures market efficiency**
- **Futures forecasting accuracy and competing forecasts**
- **Temporal futures market price relationships**
- **Supply responses to futures market signals**
- **Stabilizing role of futures markets**
- **Price discovery role of futures**
- **Basis studies**

2. Wayne D. Purcell

**Founder and Director of
Research Institute on Livestock Pricing
(available at: <http://naiber.org/publications.htm>)**



Purcell's Great Contribution

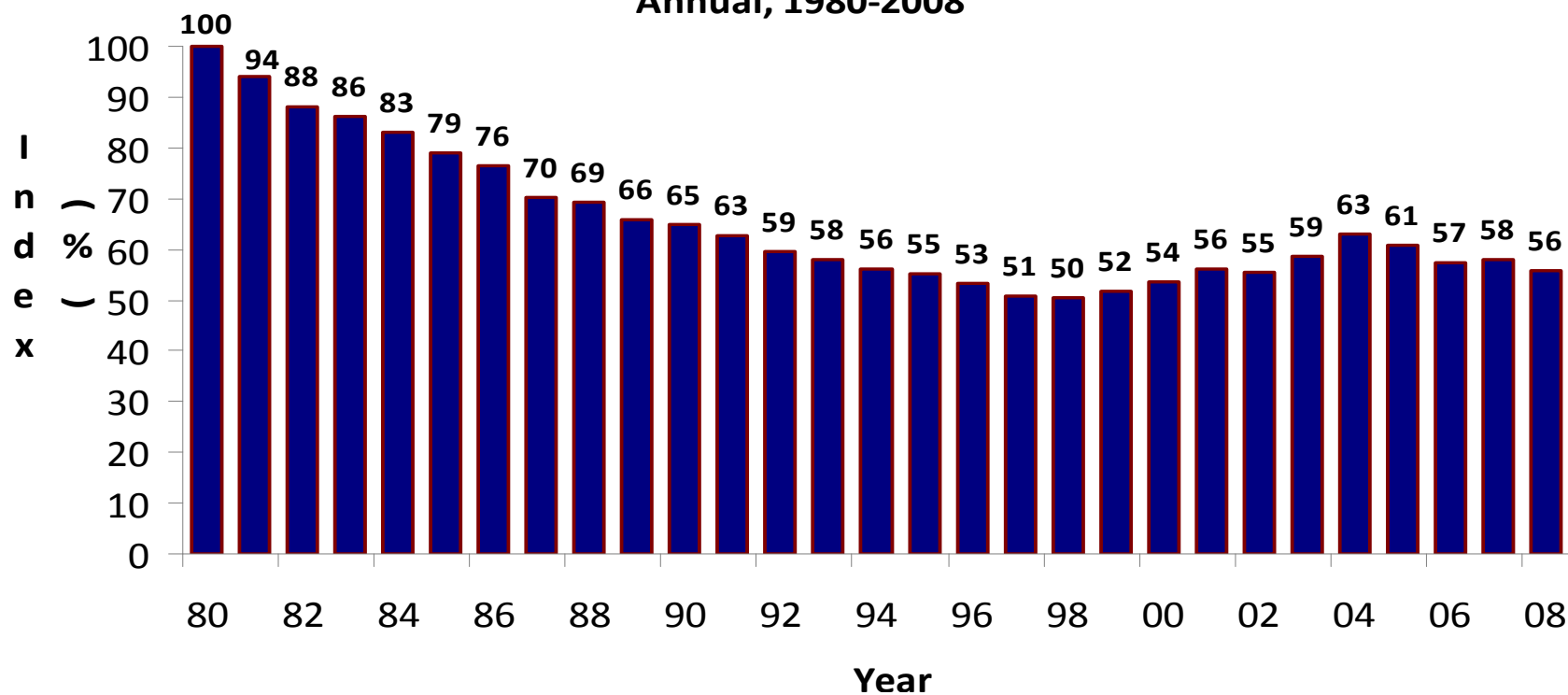
Changed deeply held industry paradigms:

- 1. Beef demand**
- 2. Value of futures markets**
- 3. Vertical market coordination and alliances**
- 4. Packing industry concentration**

Dr. Purcell was more successful at educating industry stakeholders on economic principles of markets than any ag economist I know

Beef Demand

Retail Choice Domestic Beef Demand Index
Annual, 1980-2008



Purcell, January 1999 (RILP Newsletter)

“The blunt truth is that consumers are not willing to pay prices for fresh beef sufficient to keep the beef industry in business at anything other than lower levels and smaller market shares.

This has to get fixed, and it is hard for me to see how we will speed that “fixing” unless checkoff dollars are spent on revitalizing the product offering and pushing into new uses and new markets. ...

Let’s fix it now; let’s get time, energy, and resources focused on the important and quit wasting time on issues that only appear to be urgent!”

How did Dr. Purcell impact change?

- 1. Addressed complex issue of immense industry interest**
- 2. Was outspoken and spoke a lot – he didn't hide in his office**
- 3. Wrote a lot and put writings in stakeholder format**
- 4. Took substantial leadership – e.g., RILP**
- 5. Organized research teams – funded projects**
- 6. Organized and held national industry conferences**
- 7. Delivered**
- 8. ...was seemingly tireless**

