# Agricultural and Construction Equipment 2010 Outlook

Federal Reserve Bank of Chicago

2009 Outlook Symposium

December 4, 2009

**Manfredi & Associates, Inc.**
**www.manfredi.com**

# Agenda

- Agricultural Machinery
  - Current Situation
  - Demand Factors
  - 2010 Outlook
- Construction and Mining Machinery
  - Current Situation
  - Demand Factors
  - 2010 Outlook
- Overseas Markets
- Questions and Comments

# In Their Own Words

In the 3rd quarter…

- …our primary focus continued to be on trough management and operational execution.  We lowered production as dealers continued to cut inventories, we reduced costs, maintained positive price realization, lowered inventory, delivered positive operating cash flow and improved our financial position…*Caterpillar*

- We are continuing to aggressively reduce costs as our business [2009] will be roughly half the size in terms of net sales than it was in 2008…*Terex*

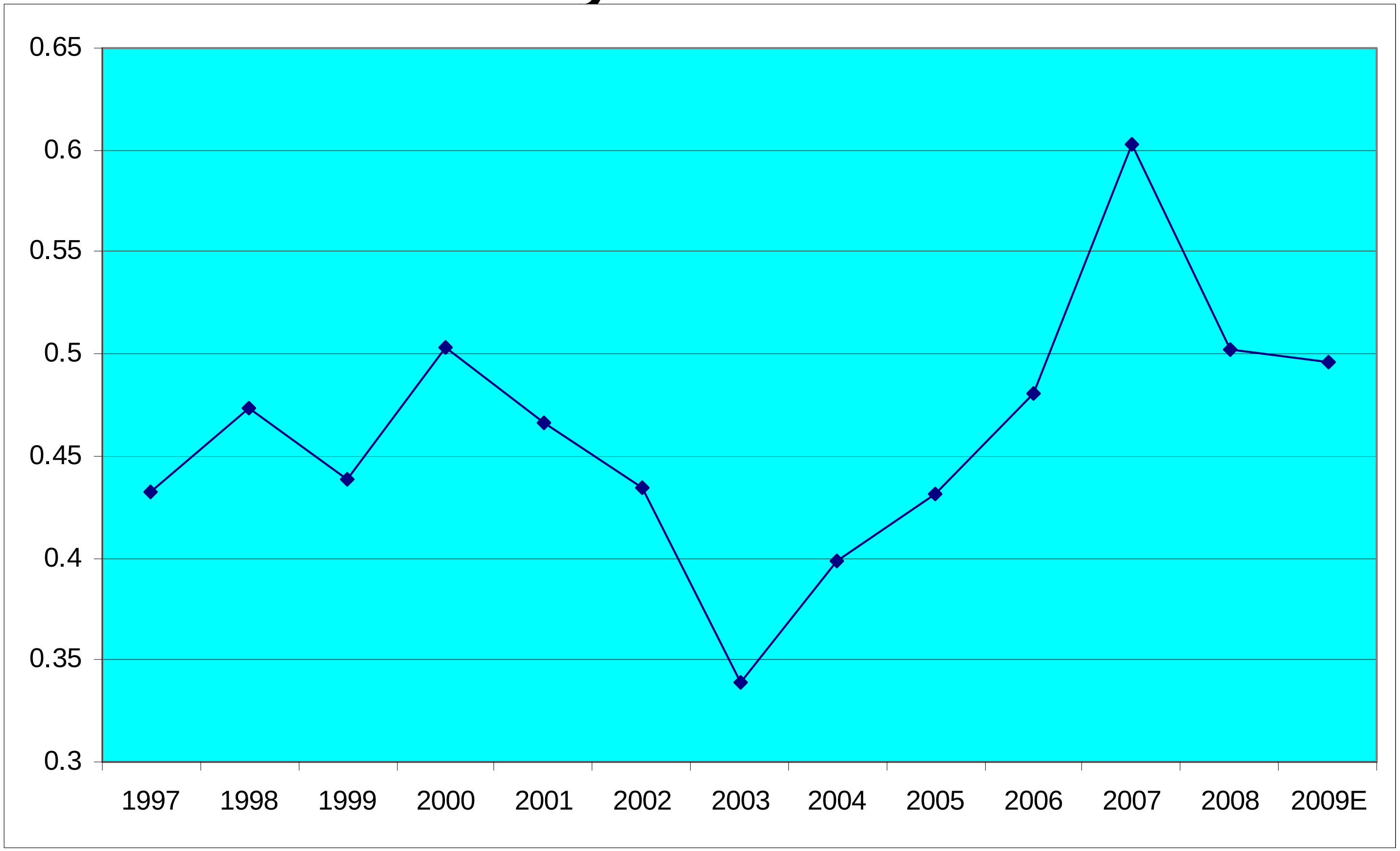
- … results were impacted by weak markets and significant production cuts aimed at reducing our company and dealer inventories…*AGCO*

- …we saw the benefits of keeping a tight grip on production and costs. Equipment operations' inventories and receivables were significantly reduced, generating positive cash flow from operating activities…*CNH*

# Agricultural Equipment Markets

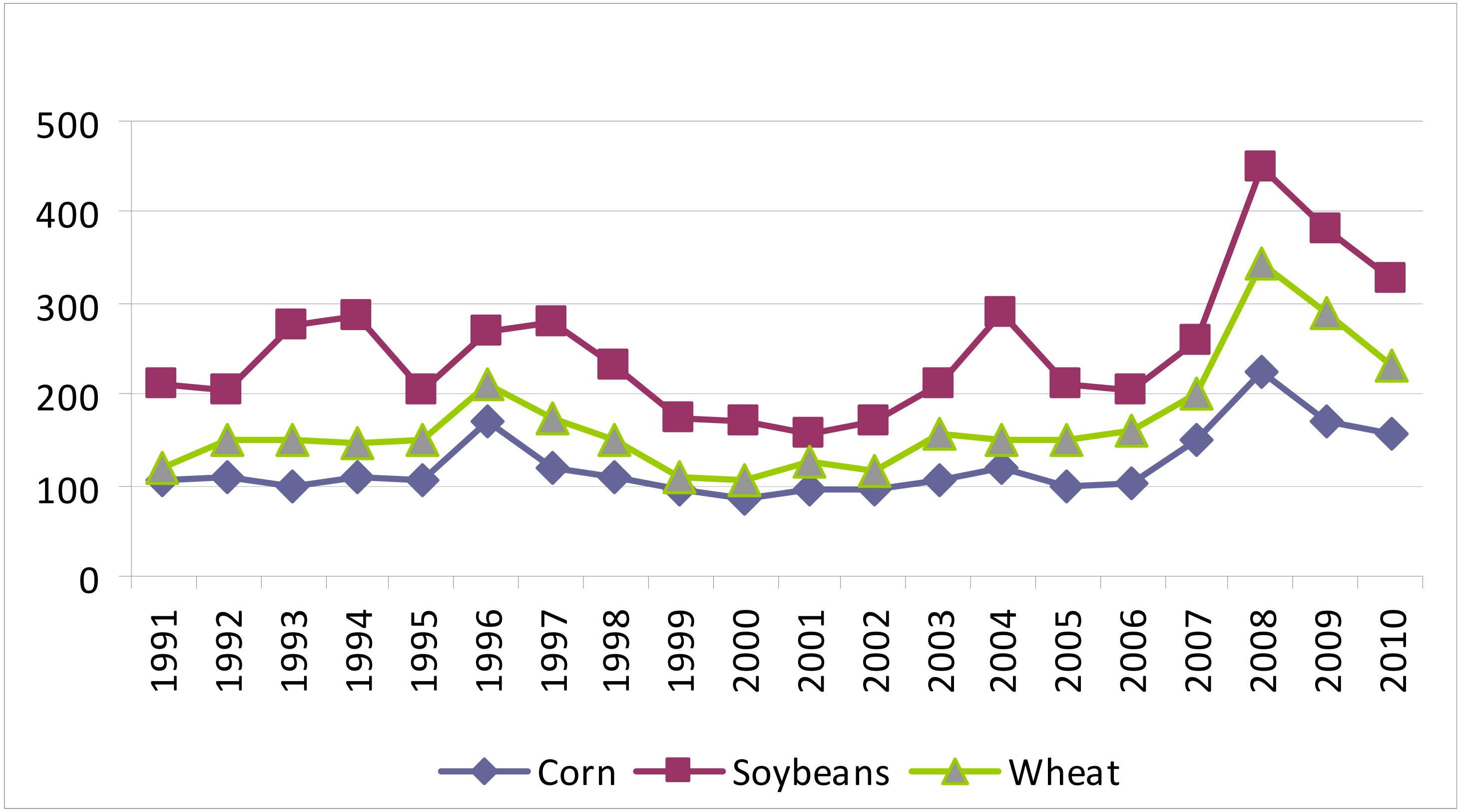
- Slowdown
- Commodity Prices Have Weakened
- Net Cash Receipts Down
- Government Direct Payments To Continue
- Ethanol Props Up Corn Prices

# Farm Equipment Inventory-to-Sales Ratio



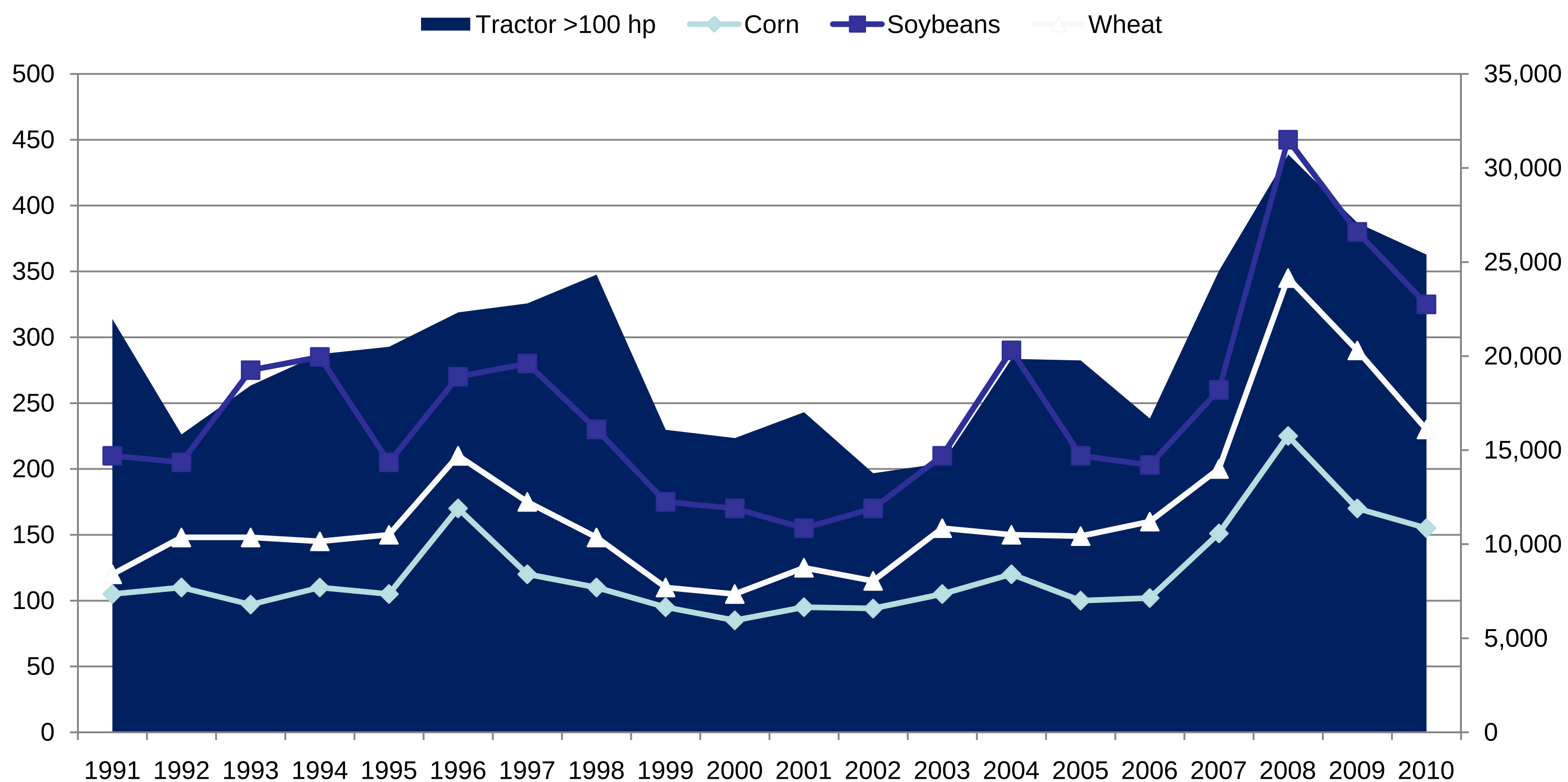
# Commodity Prices

($ per metric ton)



# Tractors > 100 hp vs. Commodity Prices

(Dollars/Metric Ton and Units)

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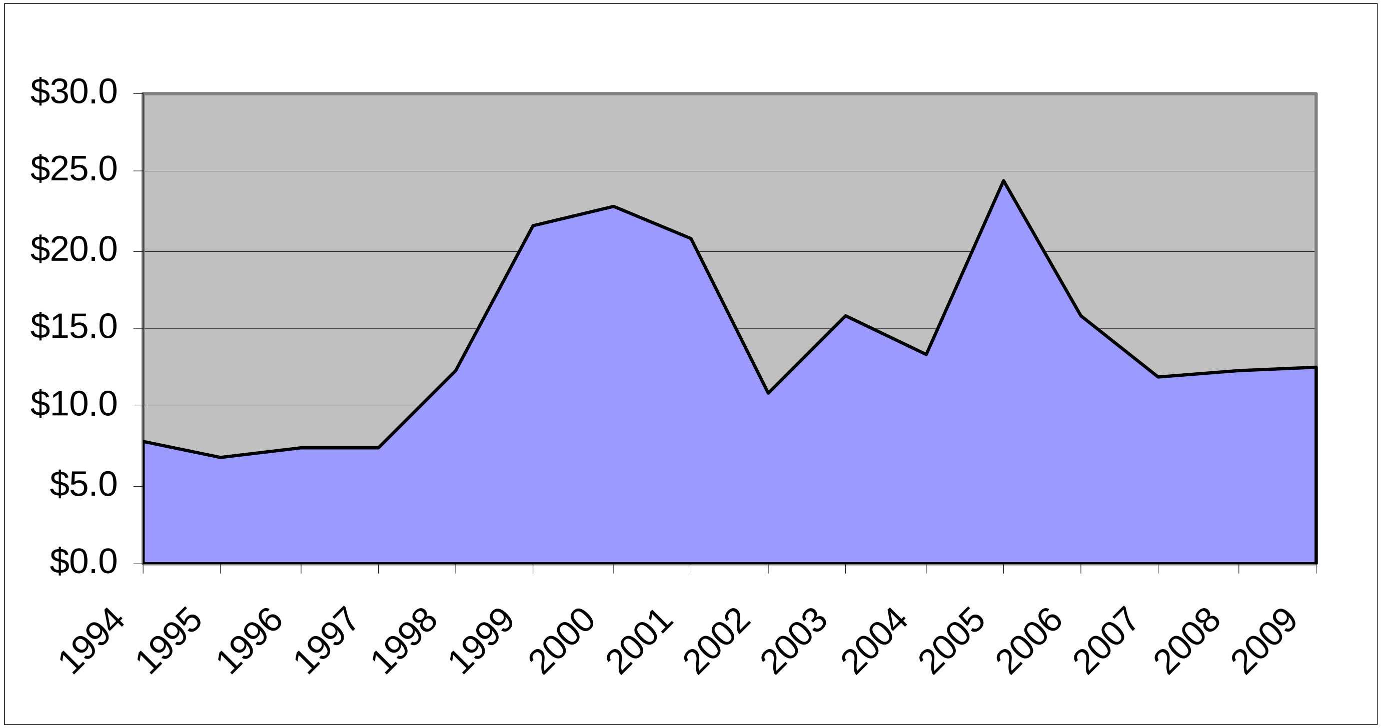
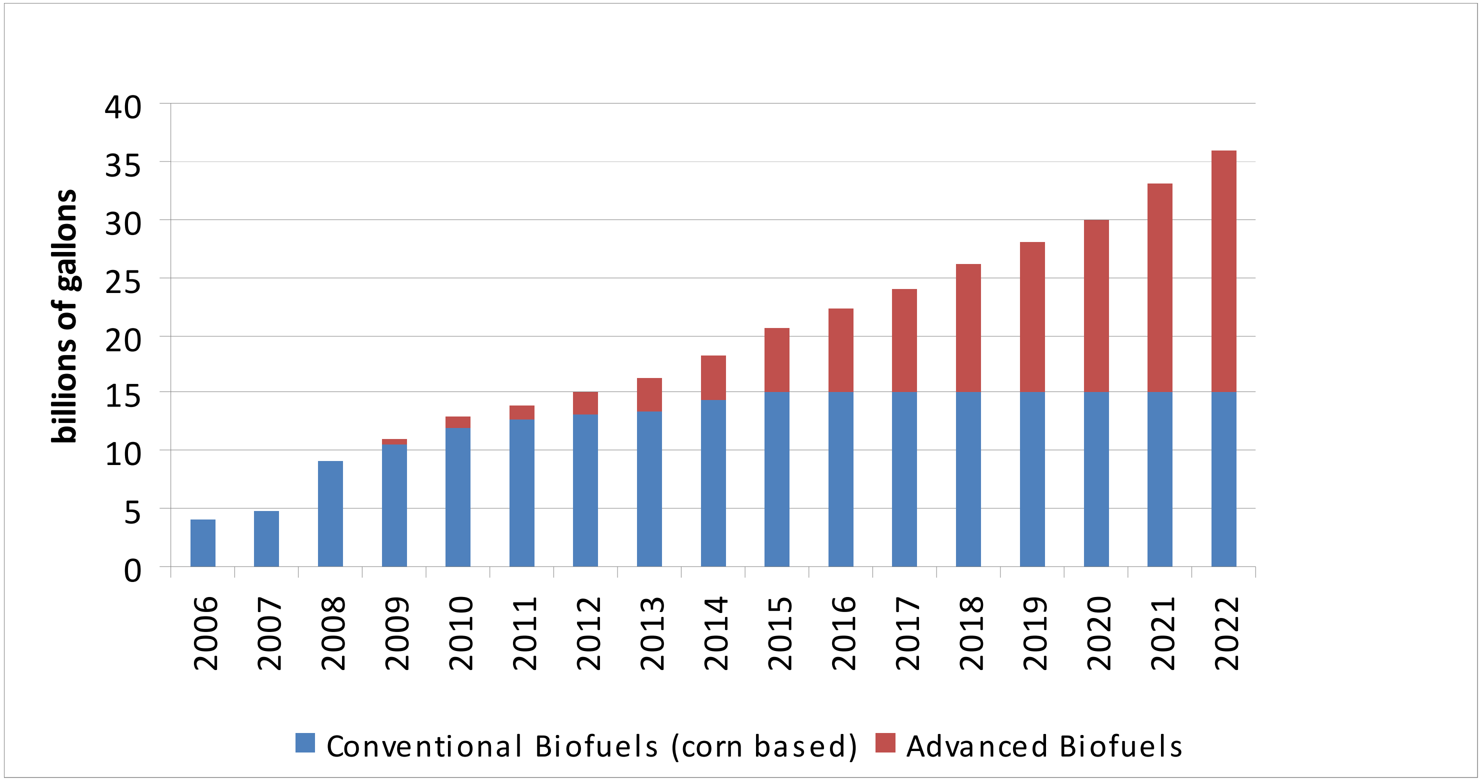
# U.S. Government Payments To Farmers

(Billions of Dollars)

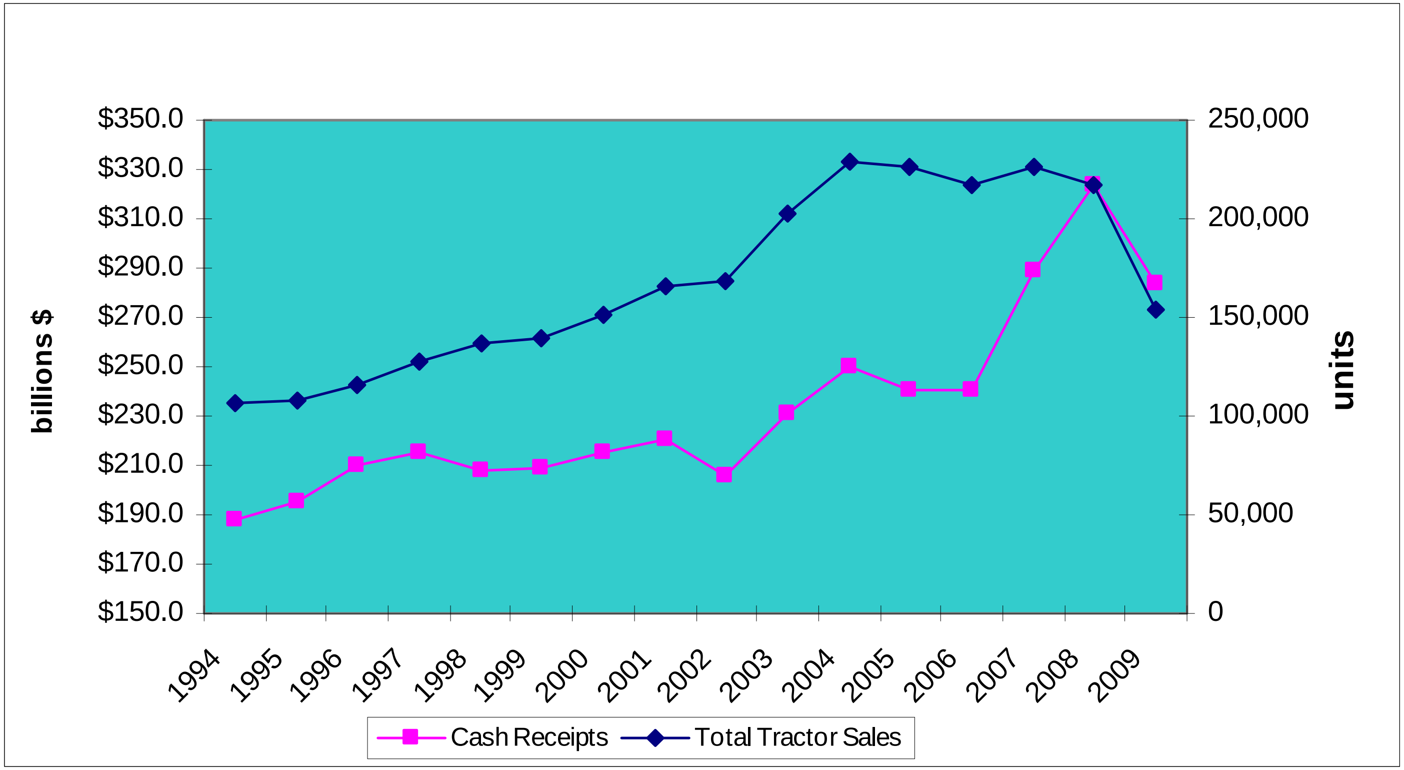


# Bio Fuels

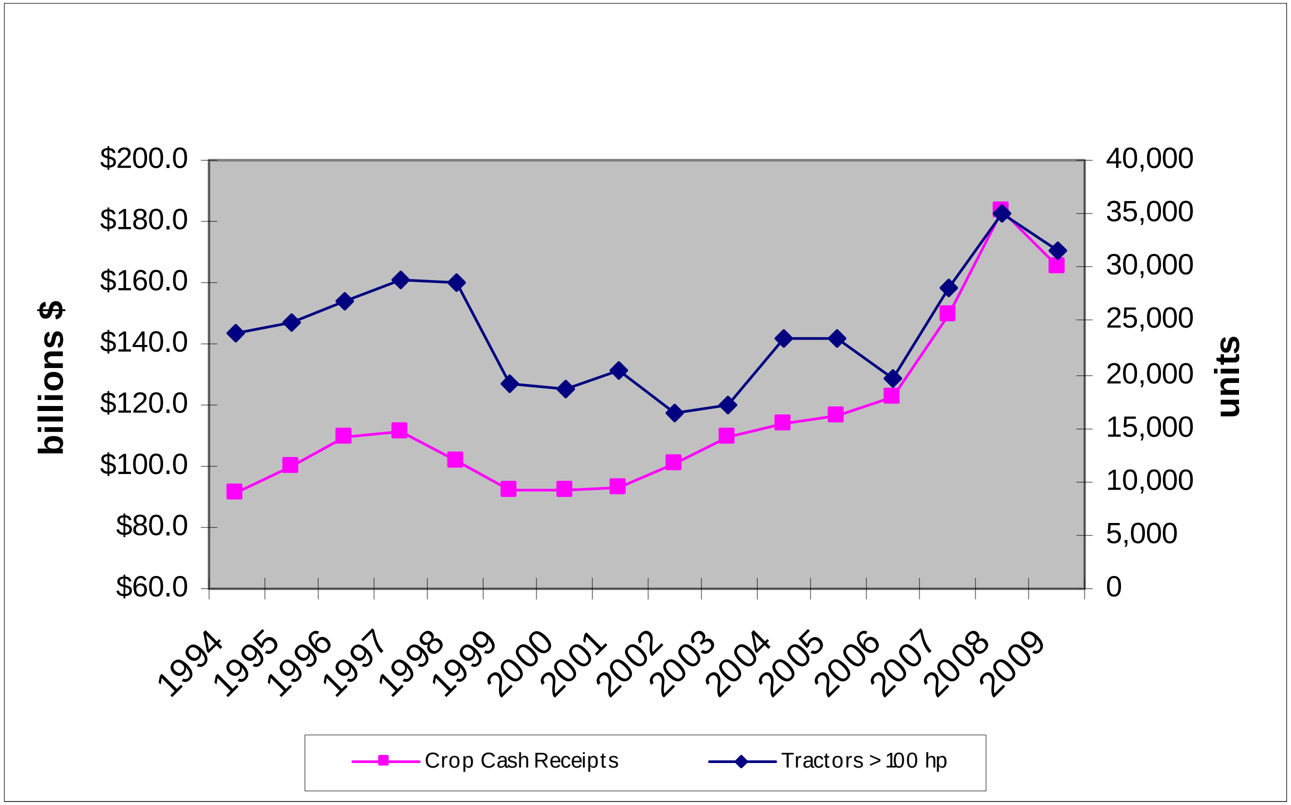


billions of gallons
0
5
10
15
20
25
30
35
40
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Conventional Biofuels (corn based)
Advanced Biofuels

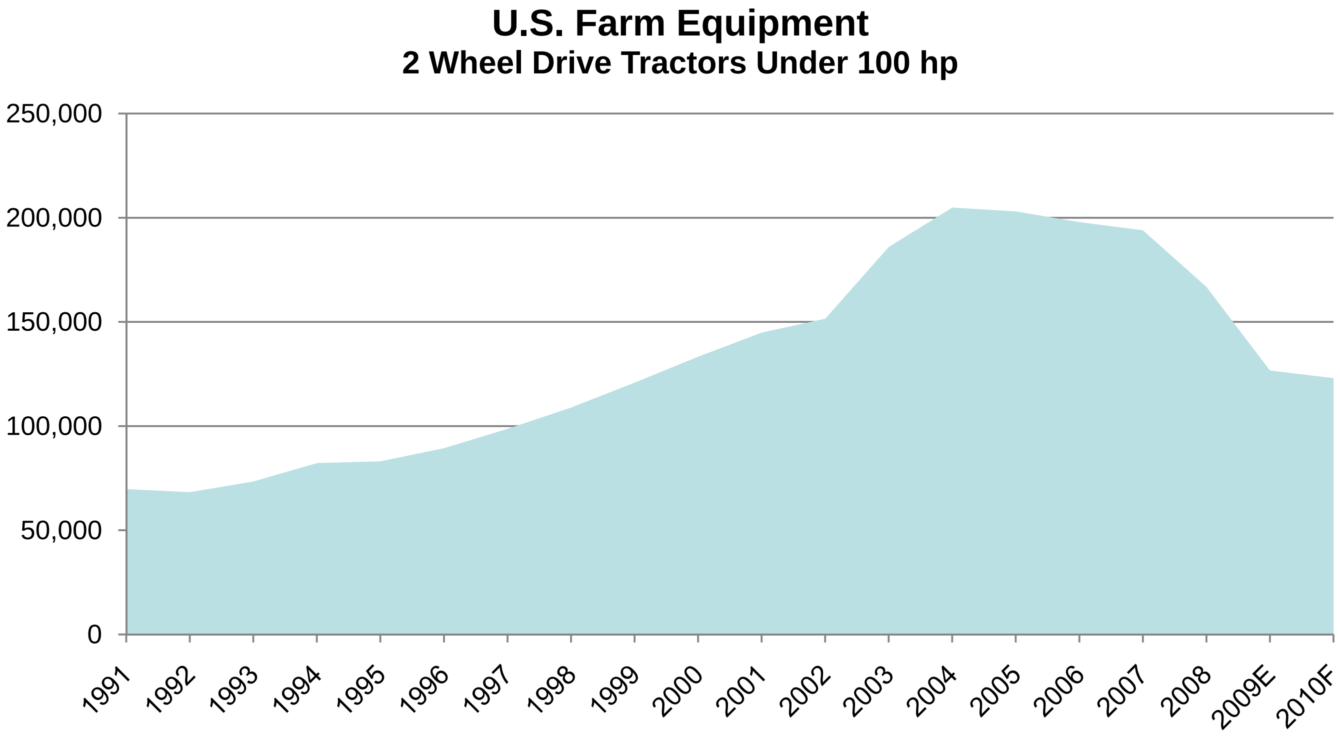
# Net Farm Income vs. Total Farm Tractor Sales



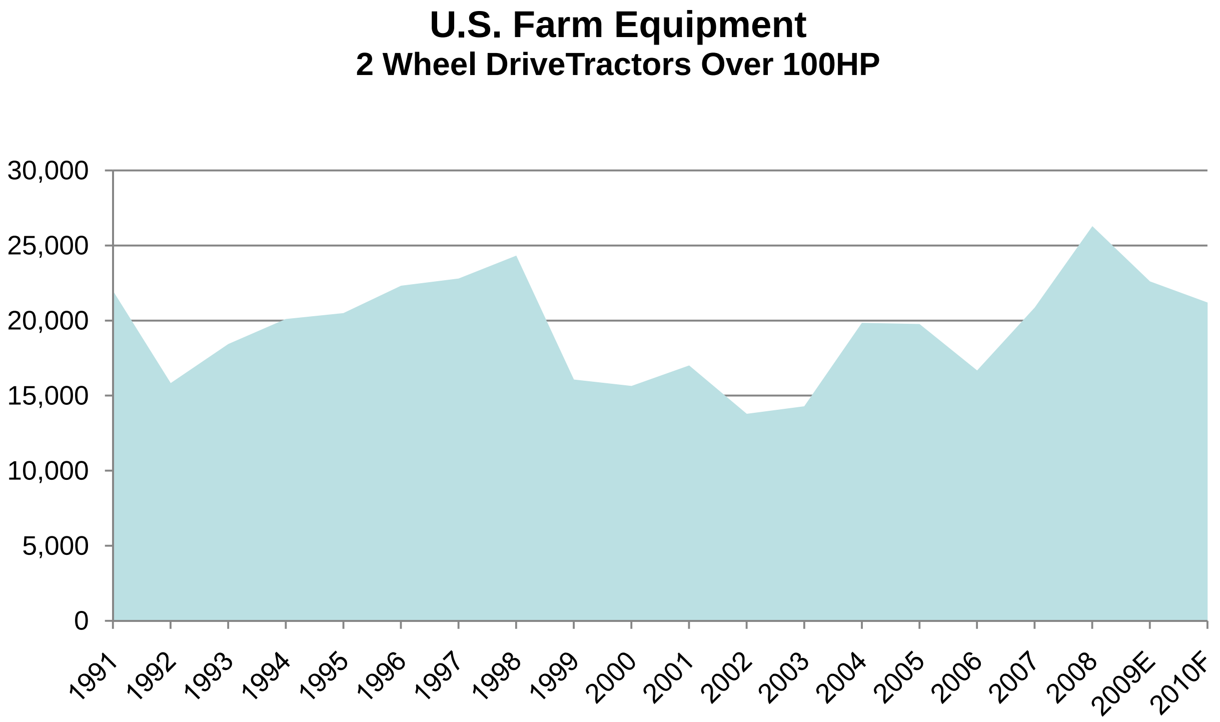
# Net Farm Income
## and
# Tractor Sales >100 hp



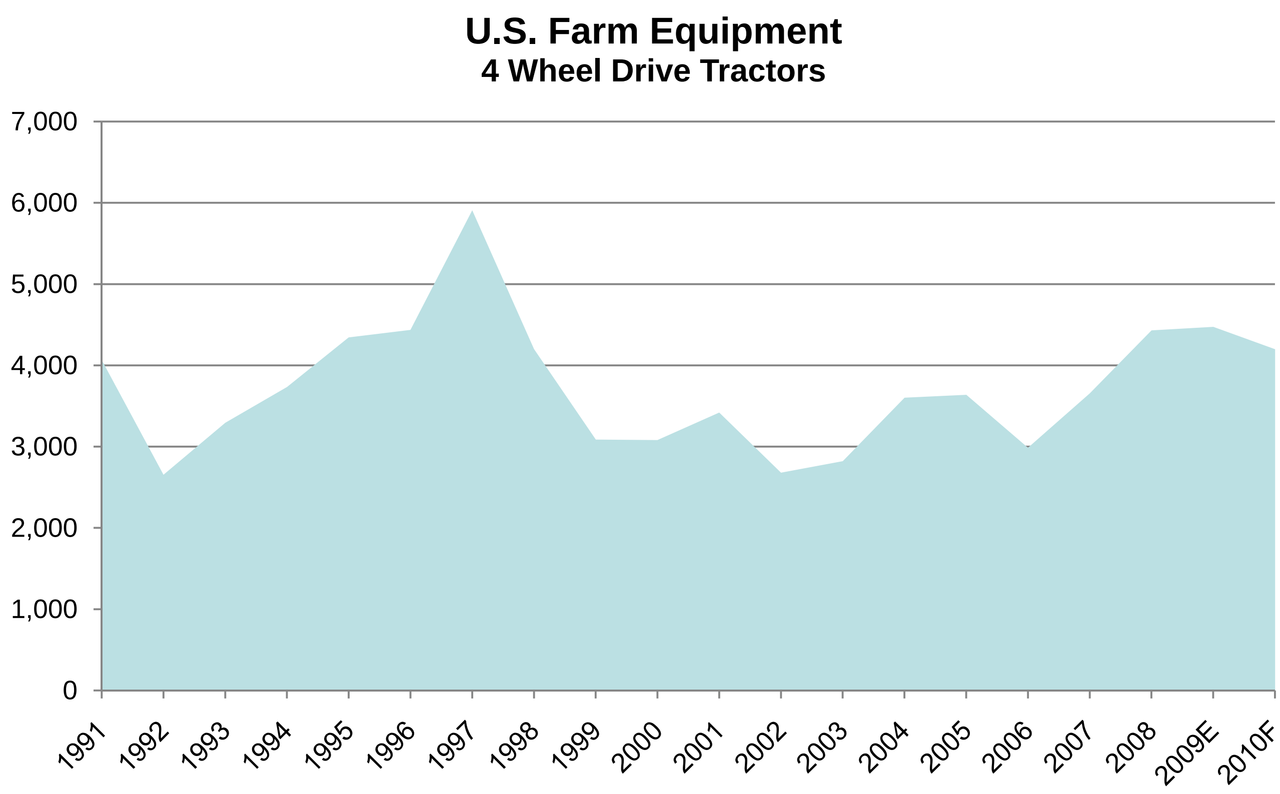
# U.S. Farm Equipment Market
# 2 Wheel Drive Tractors Under 100 hp



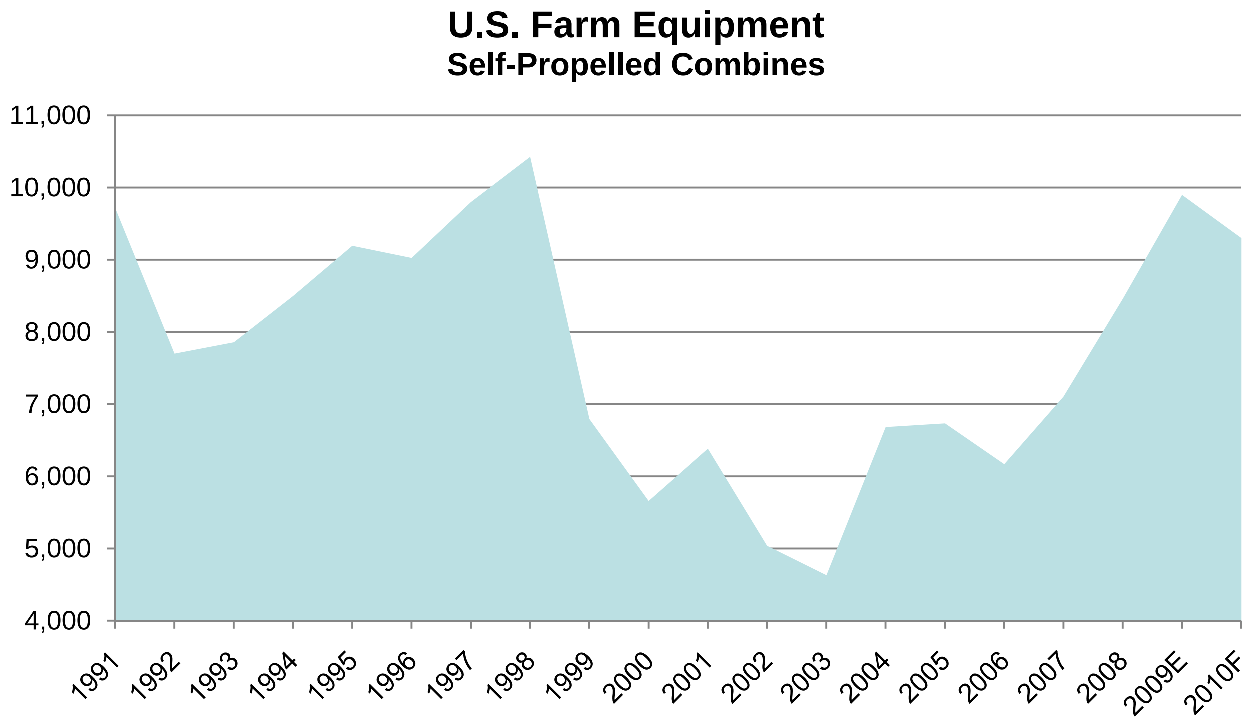
# U.S. Farm Equipment Market
# 2 Wheel Drive Tractors over 100 HP



# U.S. Farm Equipment Market
# 4-Wheel Drive Tractors



# U.S. Farm Equipment Market
# Self-Propelled Combines



# U.S. Agricultural Equipment Markets

| | 2008 | 2009E | 2010F | % change |
|---|---|---|---|---|
| **2 Wheel Drive Tractors** | | | | |
| **Under 40 hp** | 98,976 | 79,181 | 77,000 | -2.8% |
| **40 to 100 hp** | 67,885 | 47,520 | 46,000 | -3.2% |
| **100 hp and over** | 26,291 | 22,610 | 21,200 | -6.2% |
| **Total 2 Wheel Drive** | 193,152 | 149,311 | 144,200 | -3.4% |
| **4 Wheel Drive Tractors** | 4,431 | 4,475 | 4,200 | -6.2% |
| **Total Farm Wheel Tractors** | 197,583 | 153,786 | 148,400 | -3.5% |
| **Combines** | 8,460 | 9,898 | 9,300 | -6.0% |

# Construction And Mining Machinery Markets

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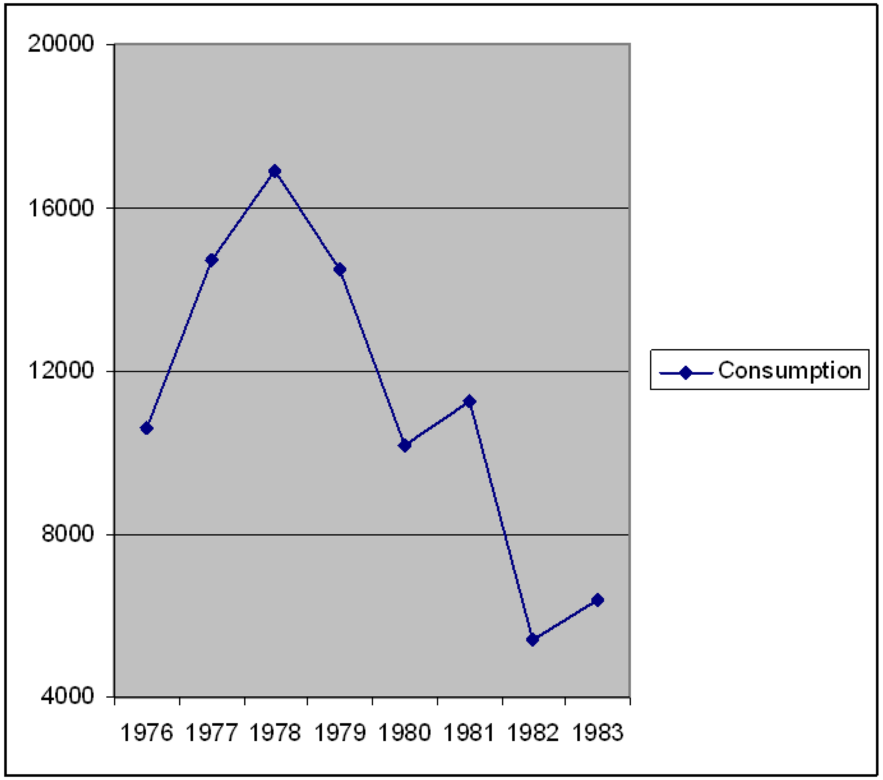
# Construction and Mining Machinery
# Current Situation

- Housing starts at historic lows will improve
- Non-residential markets falling
- Heavy – publicly funded projects up 5% to 10%
- Mining orders evaporated in 4Q08 – are recovering slowly
- Commodity prices down then up, help/hinder
- Rental companies stopped buying
- Highway legislation becoming political football

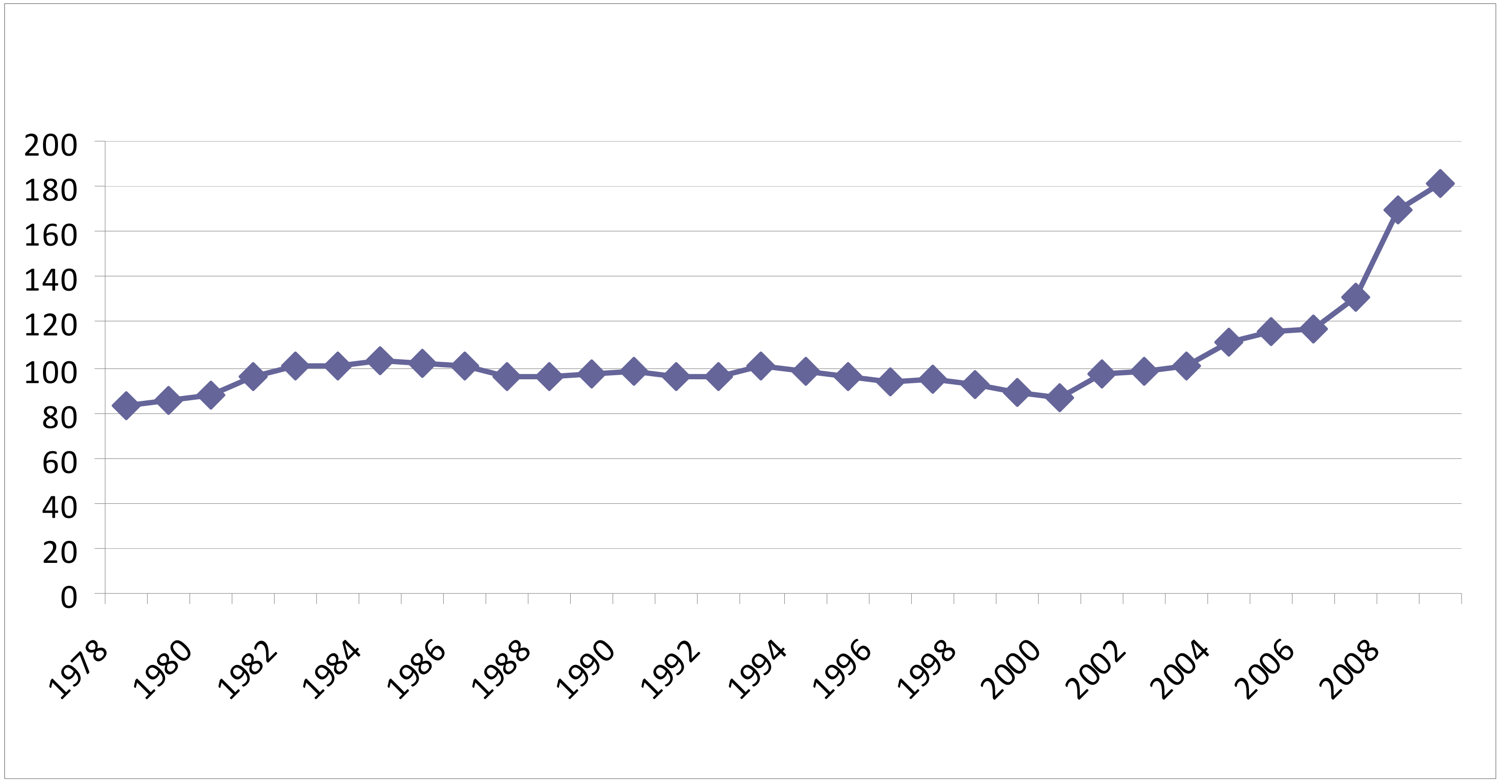
# It's 1981 All Over Again!!

U.S. Bulldozer Consumption (units)



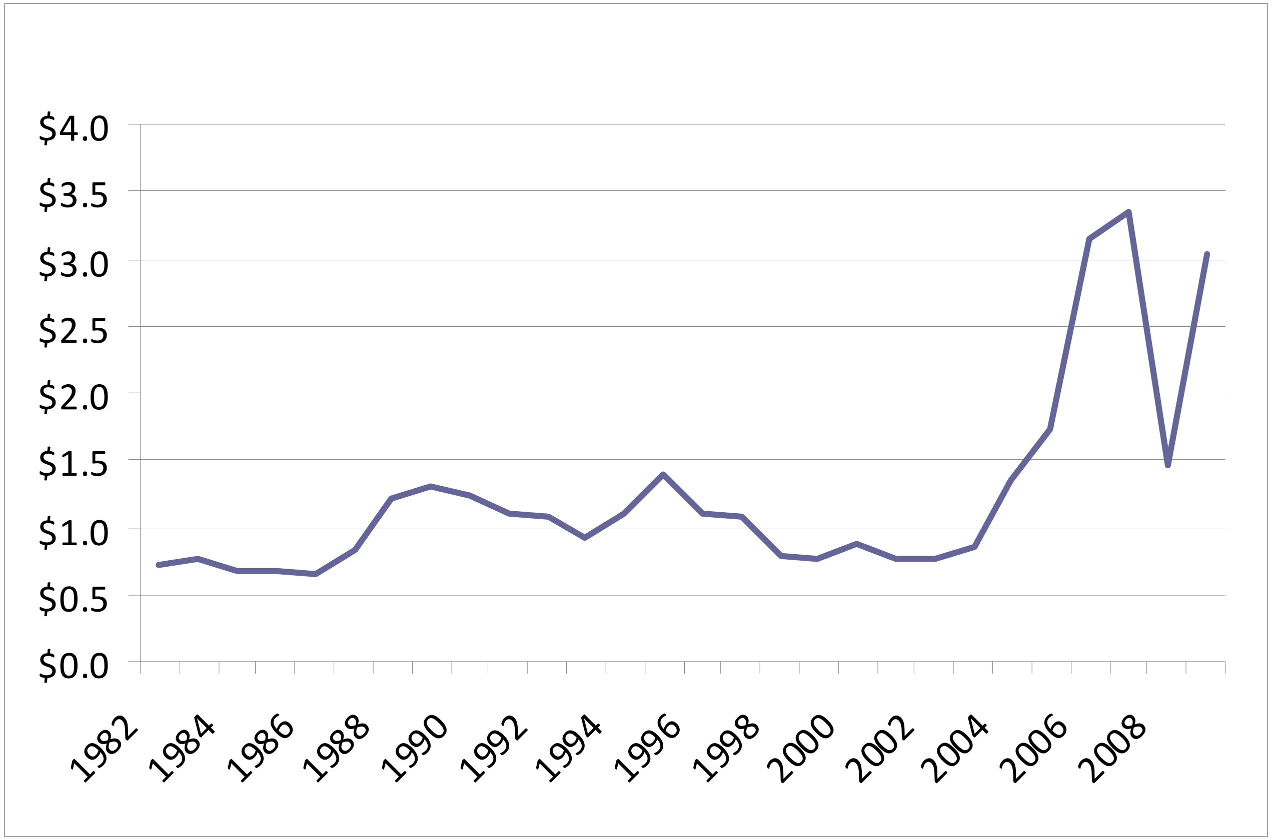

# Coal Price Index

PPI 1982 = 100

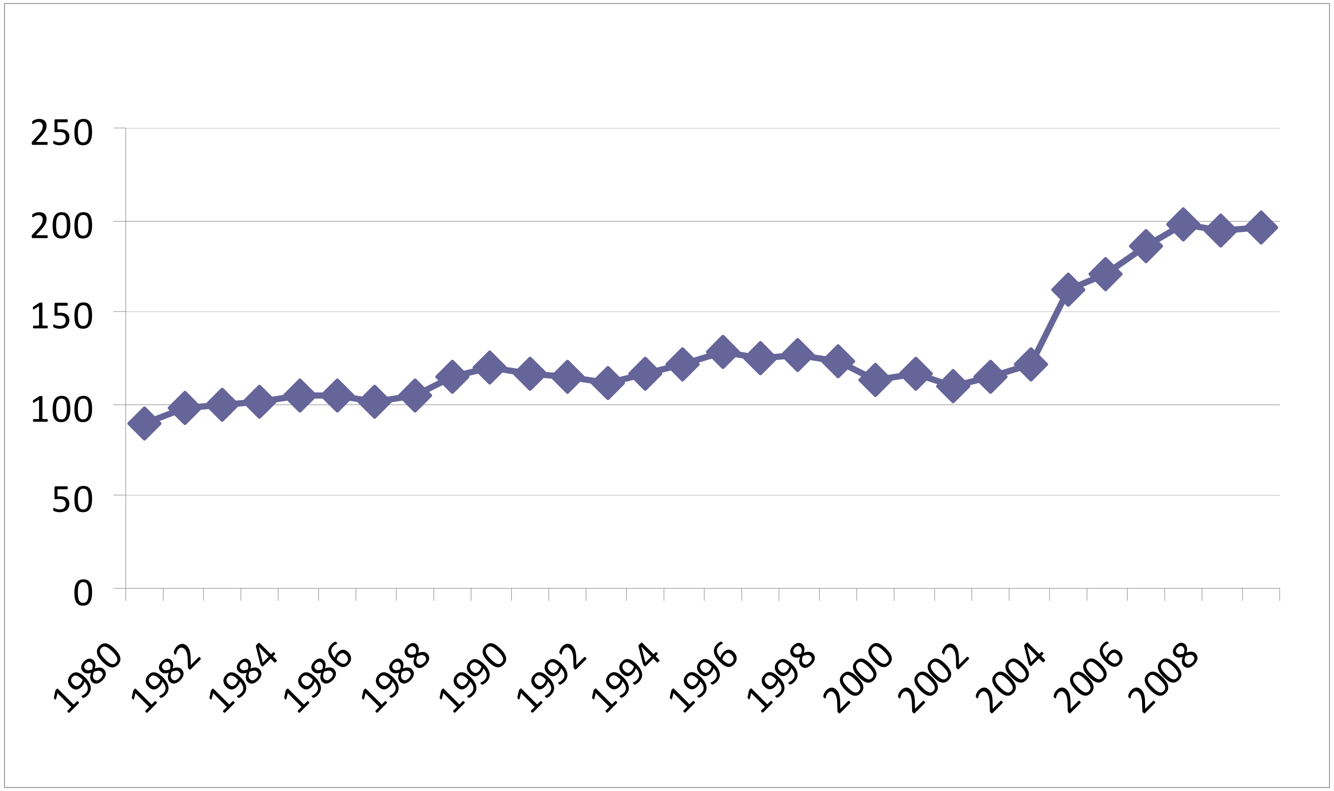


# Copper Producer Price

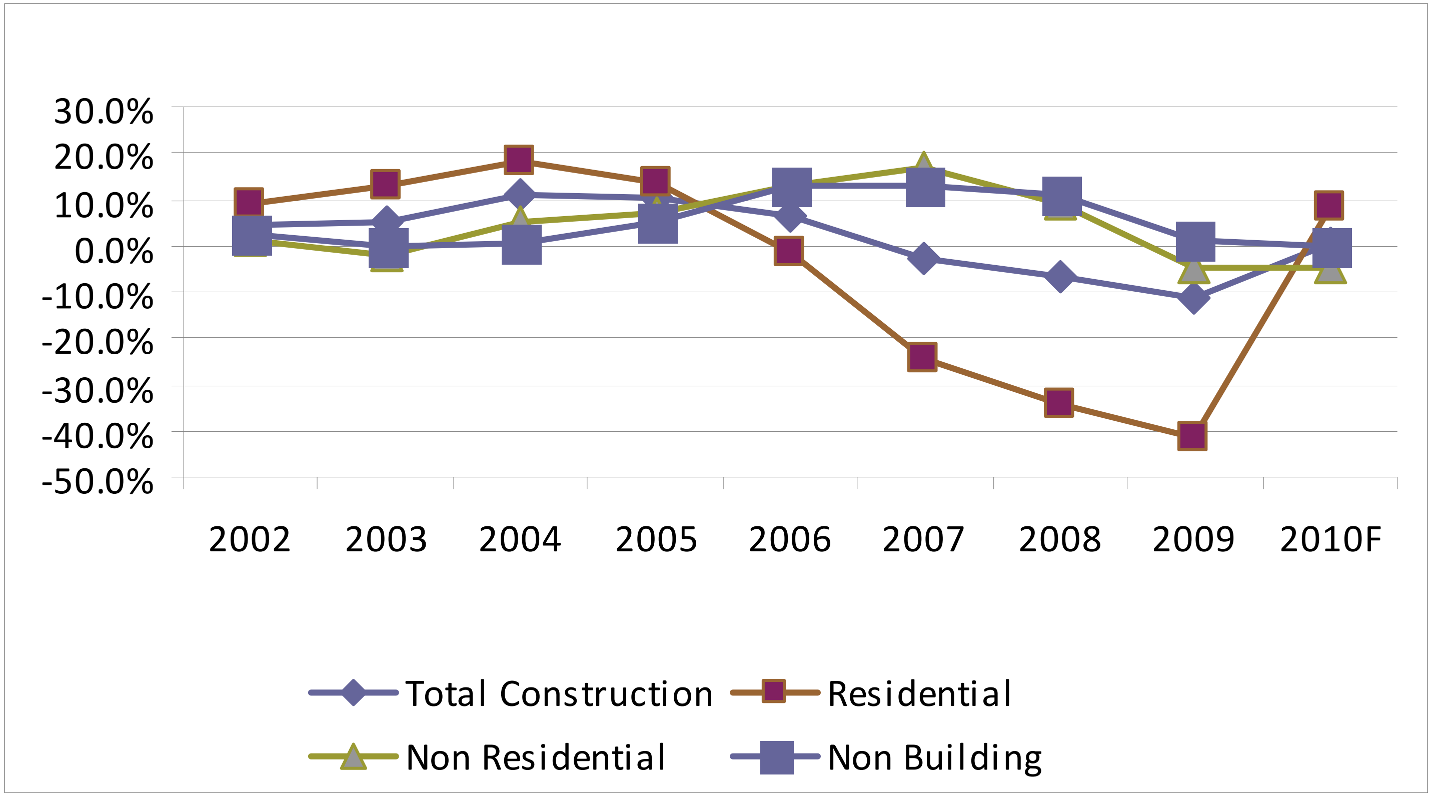
# (dollars/lbs.)



# Iron & Steel Price Index



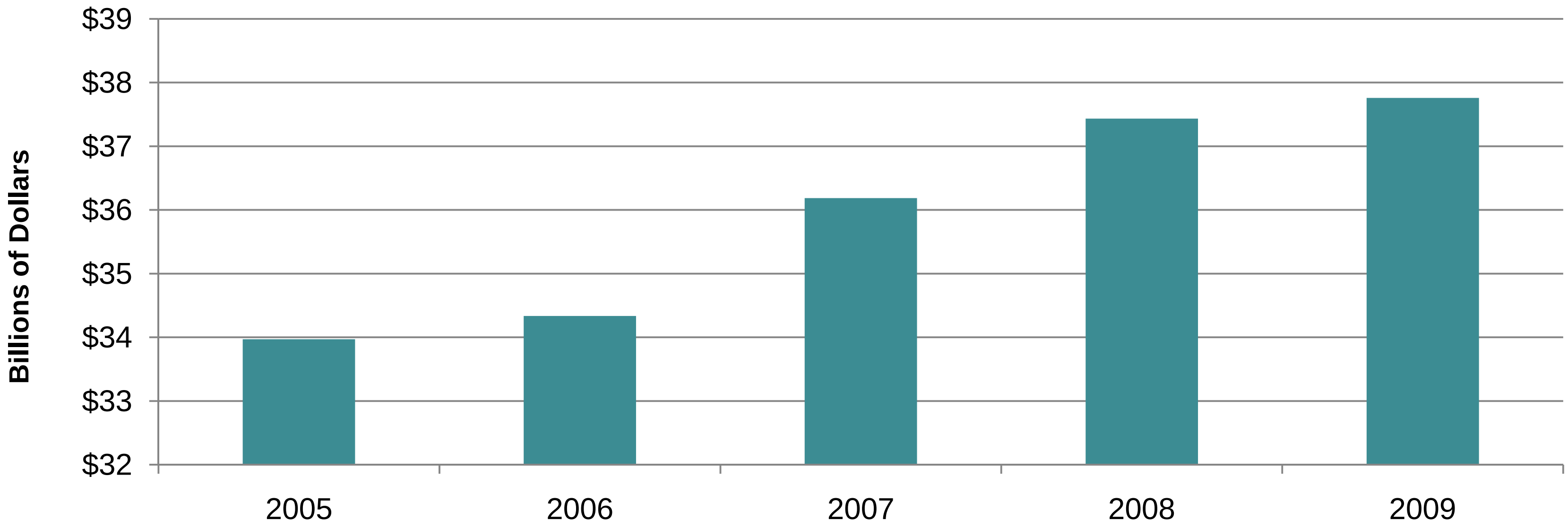
# Construction Spending Rate of Change



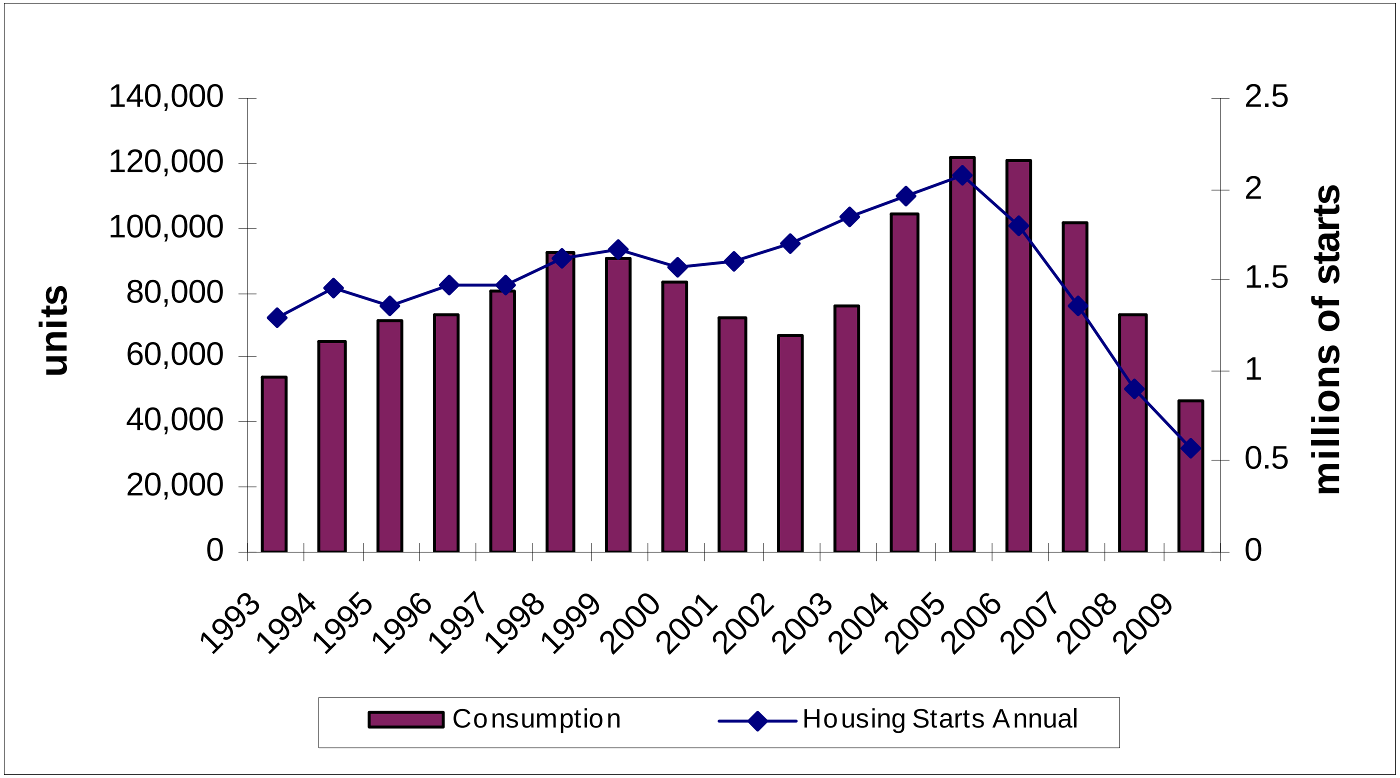

Source: Reed Construction Data

# SAFETEA-LU Funding by Year

(Billions of Dollars)



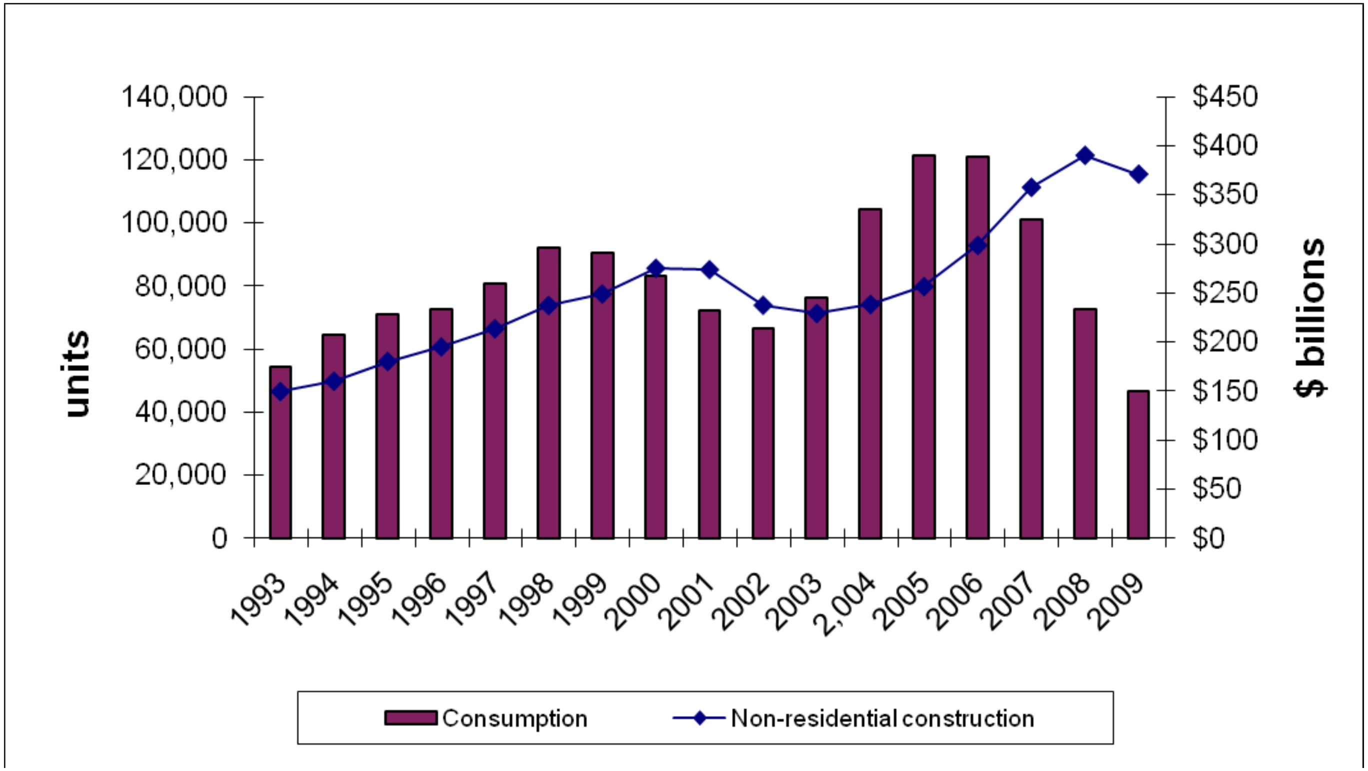
# Equipment Retails vs. Housing Starts



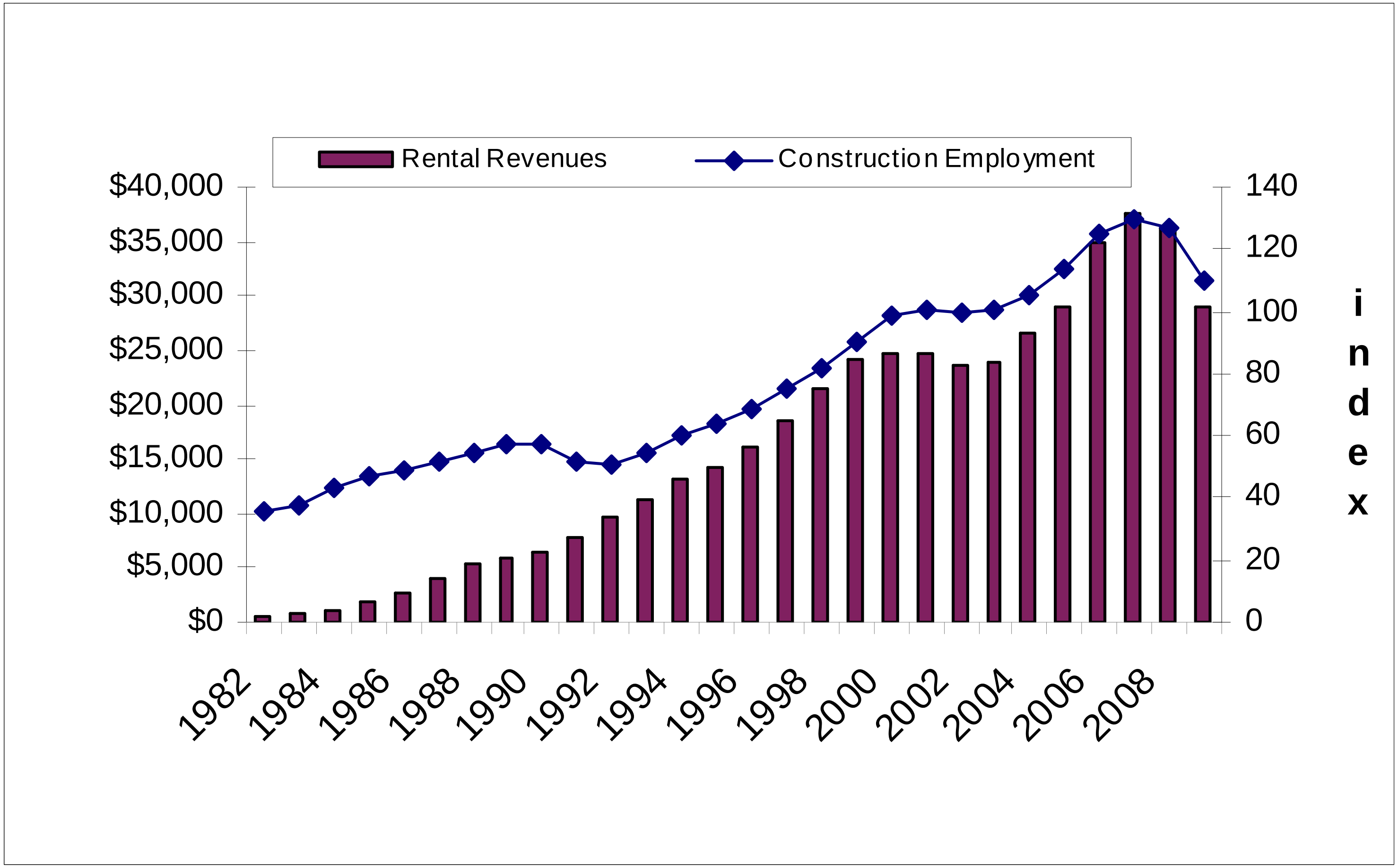
# Non-Residential Construction

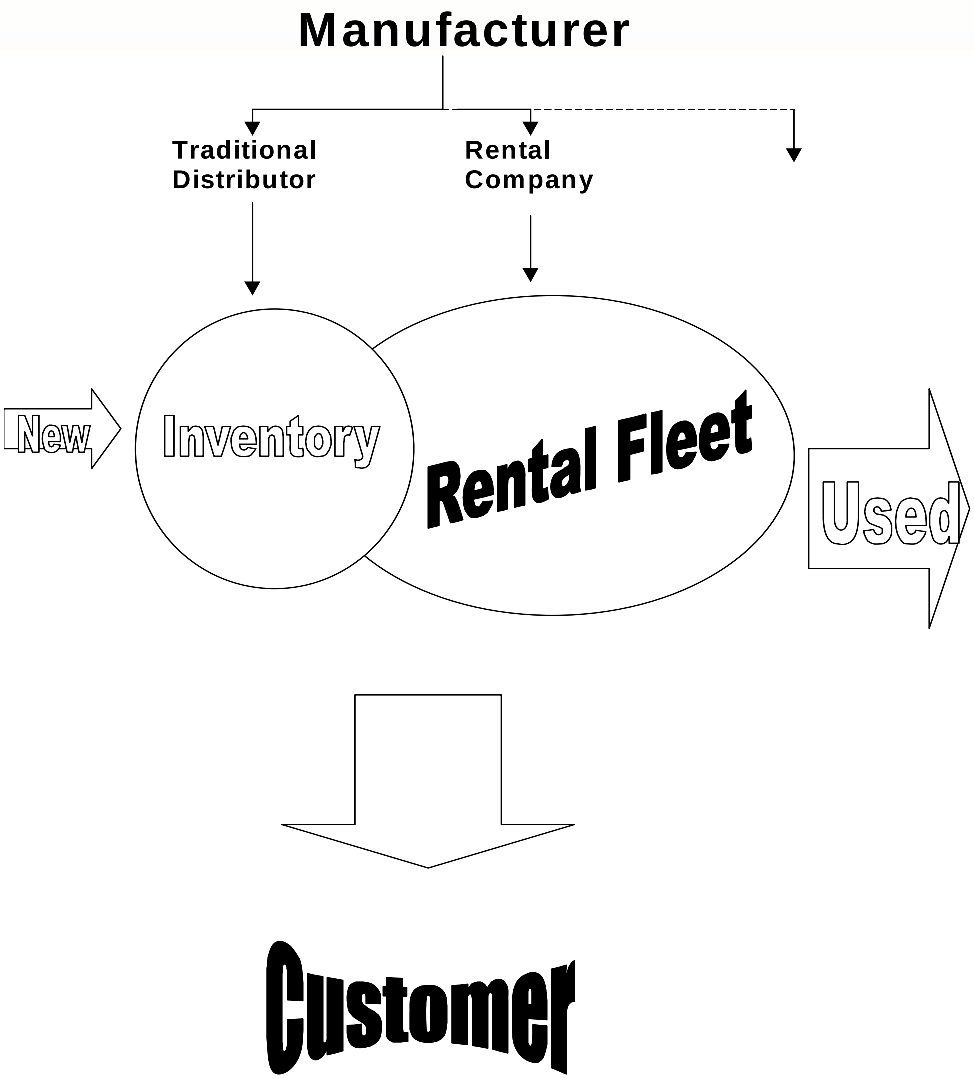
# vs.

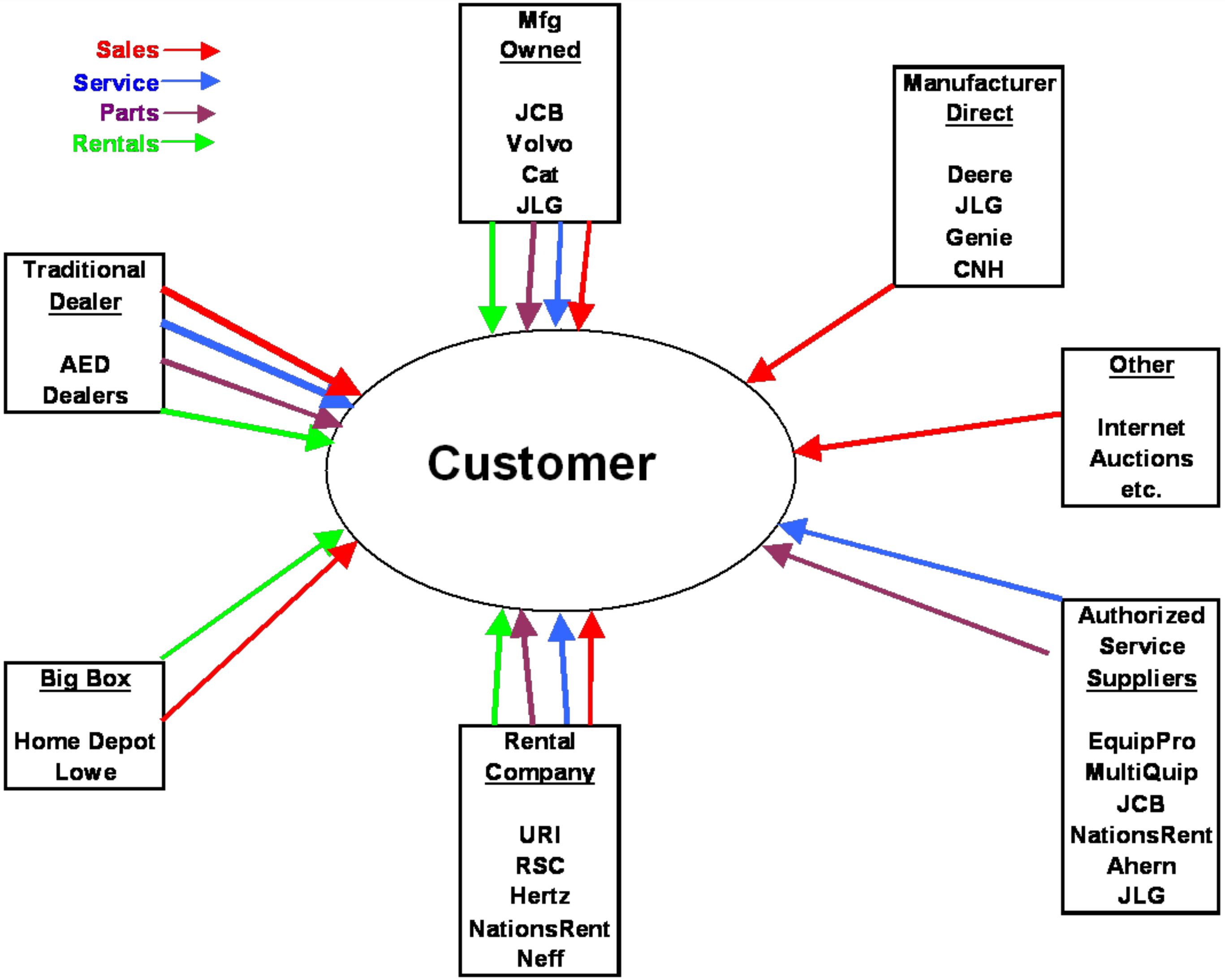
# Earthmoving Equipment Consumption

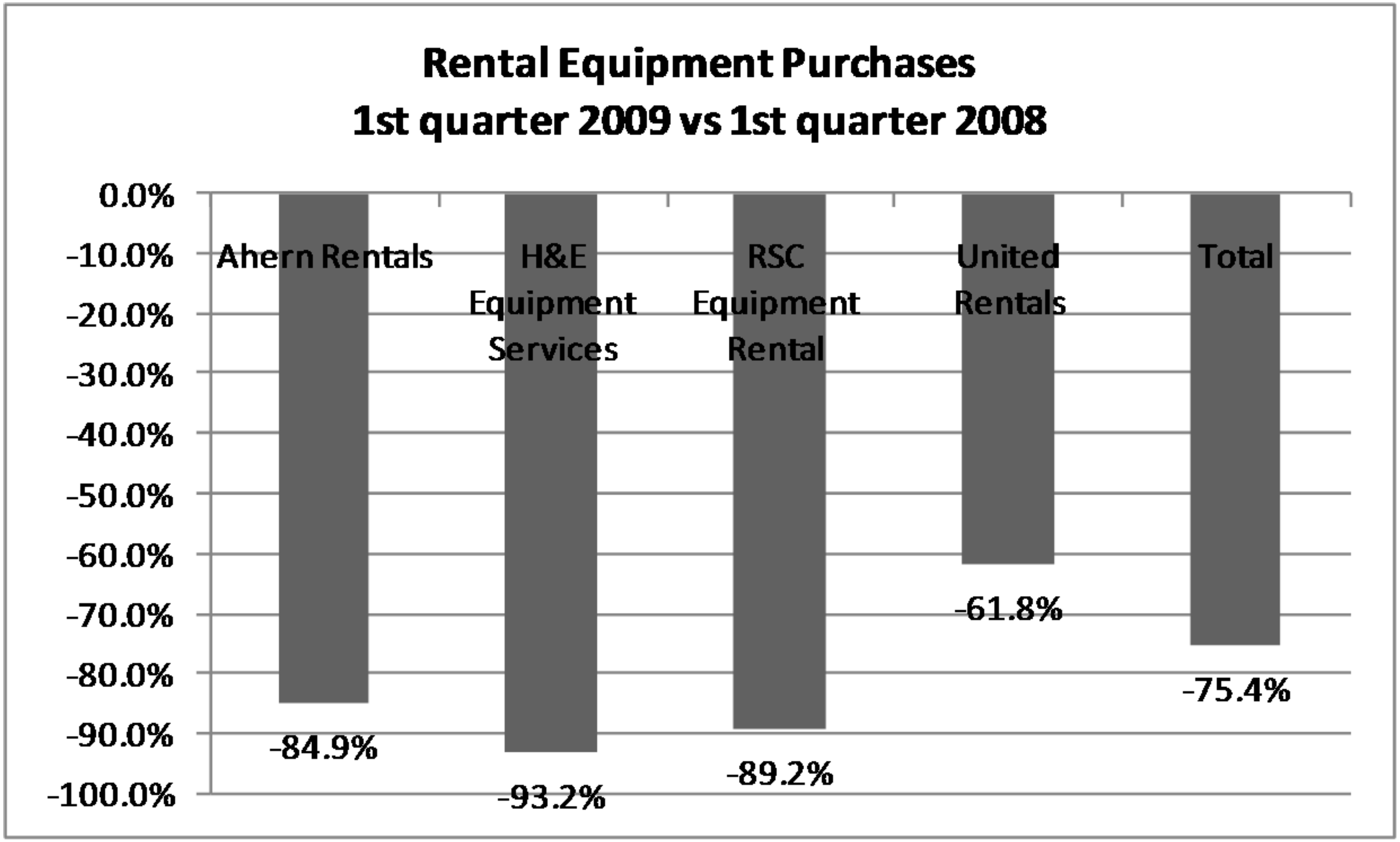


# Rental Revenue vs. Construction Employment

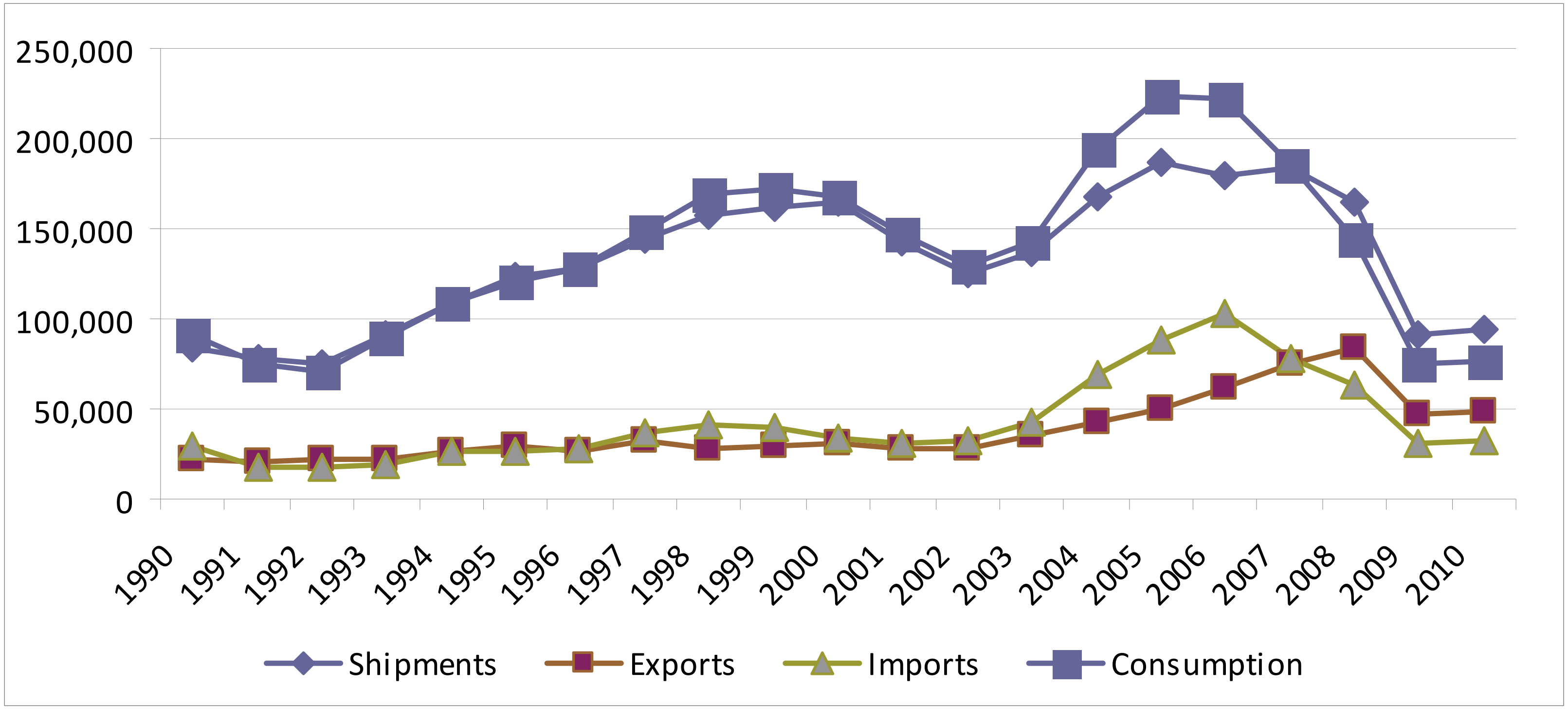



Manufacturer
Traditional Distributor
Rental Company
New
Inventory
Rental Fleet
Used
Customer


Sales
Service
Parts
Rentals
Mfg Owned
JCB
Volvo
Cat
JLG
Manufacturer Direct
Deere
JLG
Genie
CNH
Traditional Dealer
AED Dealers
Customer
Other
Internet
Auctions
etc.
Big Box
Home Depot
Lowe
Rental Company
URI
RSC
Hertz
NationsRent
Neff
Authorized Service Suppliers
EquipPro
MultiQuip
JCB
NationsRent
Ahern
JLG


Rental Equipment Purchases
1st quarter 2009 vs 1st quarter 2008
0.0%
-10.0%
-20.0%
-30.0%
-40.0%
-50.0%
-60.0%
-70.0%
-80.0%
-90.0%
-100.0%
Ahern Rentals
H&E Equipment Services
RSC Equipment Rental
United Rentals
Total
-84.9%
-93.2%
-89.2%
-61.8%
-75.4%

# U.S. Construction Machinery Market



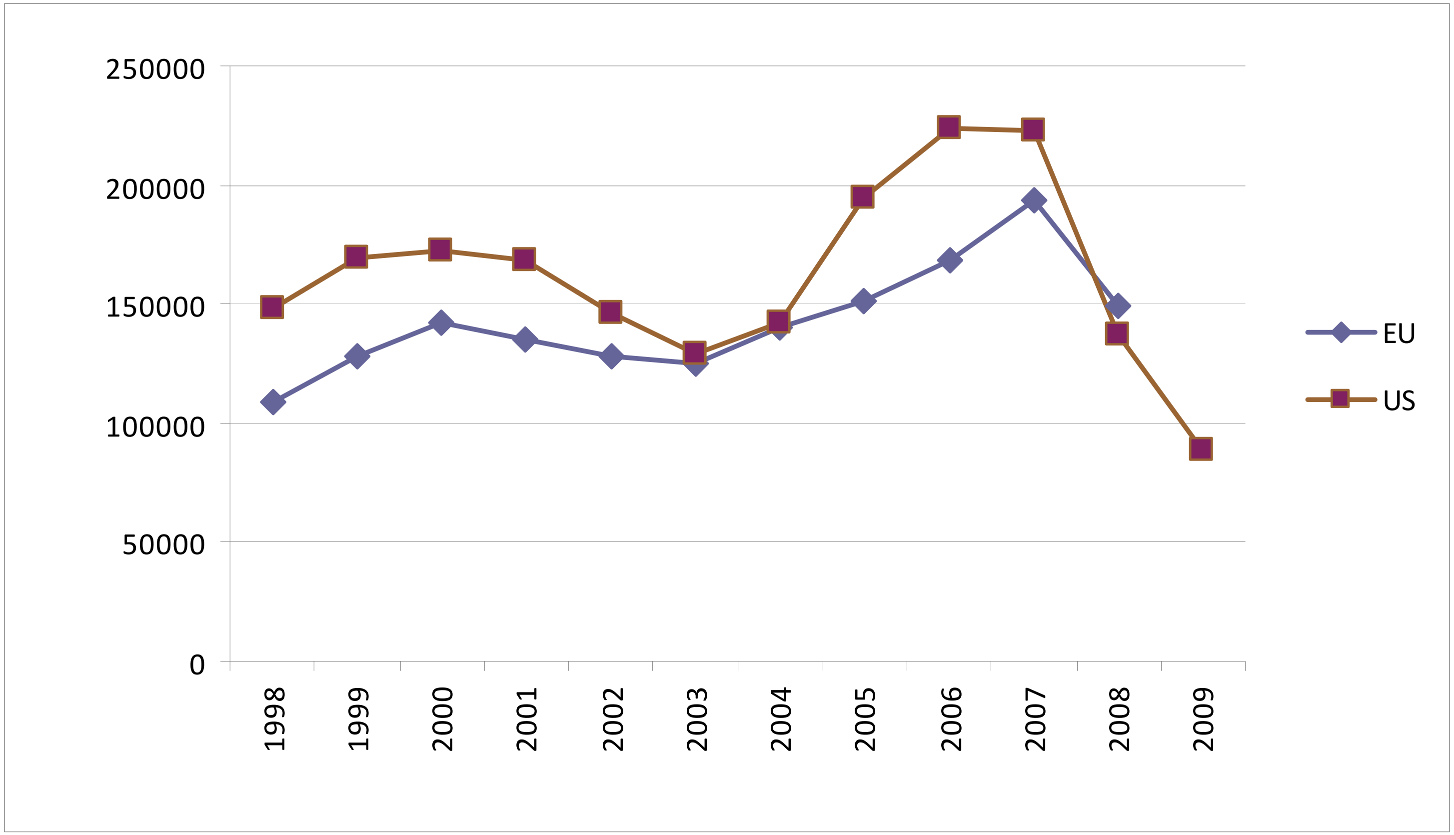
# Construction Machinery Estimated U.S. Market
(Units)

| Product | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 E | % Change 09 vs 08 | 2010 F | % Change 10 vs 09 |
|---|---|---|---|---|---|---|---|---|---|
| Asphalt Pavers | 1,986 | 2,185 | 2,092 | 1,636 | 1,409 | 1,100 | -21.9% | 1,150 | 4.5% |
| Compactors | 8,600 | 10,700 | 10,297 | 9,600 | 6,550 | 2,800 | -57.3% | 2,920 | 4.3% |
| Cranes | 900 | 1,039 | 1,392 | 1,750 | 2,100 | 1,500 | -28.6% | 1,300 | -13.3% |
| Crawler Tractors | 13,700 | 16,100 | 16,200 | 12,800 | 9,750 | 5,000 | -48.7% | 5,100 | 2.0% |
| Hydraulic Excavators | 36,000 | 46,000 | 47,500 | 39,000 | 25,750 | 11,000 | -57.3% | 11,350 | 3.2% |
| Loader Backhoes | 22,000 | 23,500 | 21,000 | 18,000 | 15,500 | 6,600 | -57.4% | 6,800 | 3.0% |
| Motor Graders | 3,207 | 3,400 | 3,600 | 3,500 | 2,700 | 1,700 | -37.0% | 1,800 | 5.9% |
| Haulers - Rigid | 400 | 550 | 650 | 800 | 900 | 550 | -38.9% | 580 | 5.5% |
| Haulers - Articulated | 2,400 | 3,300 | 3,400 | 3,000 | 1,900 | 800 | -57.9% | 800 | 0.0% |
| RT Forklifts | 13,100 | 18,445 | 22,559 | 16,250 | 11,050 | 5,000 | -54.8% | 4,500 | -10.0% |
| Rubber Tracked Loaders | 14,000 | 18,000 | 21,000 | 19,000 | 15,500 | 9,000 | -41.9% | 9,300 | 3.3% |
| Skid Steer Loaders | 61,000 | 61,200 | 52,500 | 44,500 | 38,000 | 23,000 | -39.5% | 23,700 | 3.0% |
| Wheel Loaders | 16,700 | 19,100 | 19,400 | 16,000 | 13,430 | 6,900 | -48.6% | 7,100 | 2.9% |
| Total | 193,993 | 223,519 | 221,590 | 185,836 | 144,539 | 74,950 | -48.2% | 76,400 | 1.9% |

# Chinese Construction Machinery Market
## Retail Sales For Seven Months Of 2009
(units)

| Product | Number of Manufacturers | January thru July 2009 | % chg vs. 2008 |
|---|---|---|---|
| Hydraulic Excavators | 23 | 54,593 | -2.7% |
| Wheel Loaders | 30 | 80,137 | -33.5% |
| Crawler Tractors | 11 | 4,836 | -16.1% |
| Road Planers | 11 | 1,783 | -31.4% |
| Tire-Mounted Cranes | 10 | 15,648 | 7.5% |
| Industrial Lift Trucks | - | 70,883 | -34.0% |
| Rollers | 18 | 8,429 | 22.0% |
| Asphalt Pavers | 14 | 928 | 10.6% |

# U.S.– Leading Indicator vs. Europe



# Lessons Learned From The 1980s

1. This will happen again. Plan for it. It's worth the exercise.
2. Lean wins. Companies that kept investments to a minimum have done better. Outsourcing is not a bad word if you can control the quality.
3. Cash is king.
4. Channels-to-market must be protected at all costs. Many companies lost their entire distribution network in the 80s. Rental companies emerged to fill the gap. They control large swaths of the market.
5. Rentals will become the main channel-to-market for many types of equipment.
6. Have faith in the resilience of our country.

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