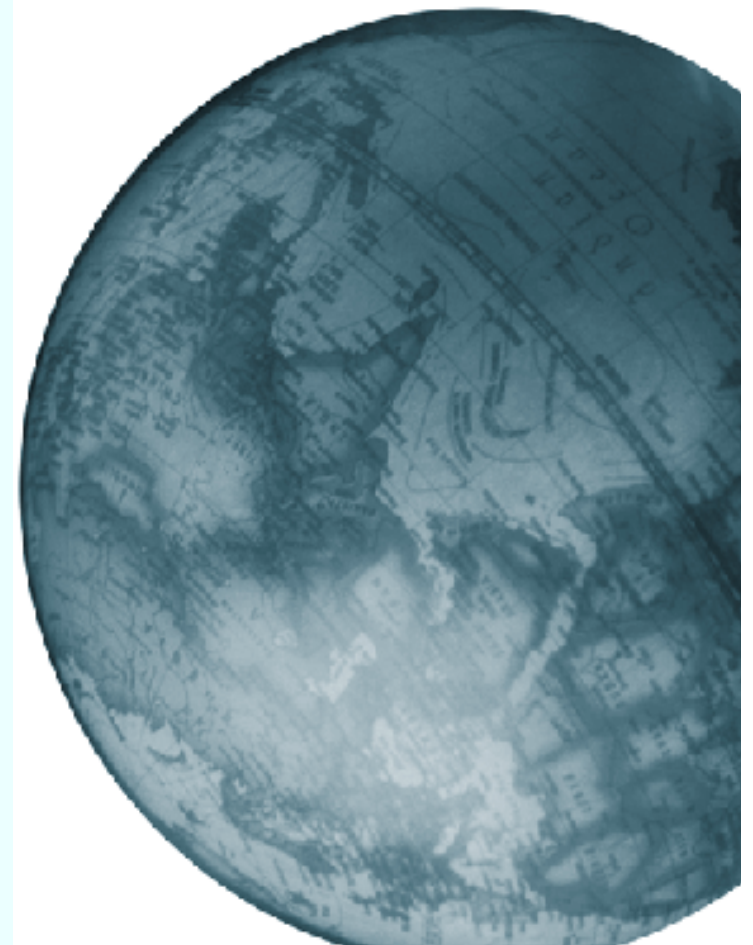


Forecast 2003

Federal Reserve Outlook Symposium

Outlook For The Agricultural & Construction Equipment Industry

Frank Manfredi
President
Manfredi & Assoc. Inc.
847 949-9080



Presentation Outline

- Agricultural Equipment Market
- Construction Equipment Markets
- Questions

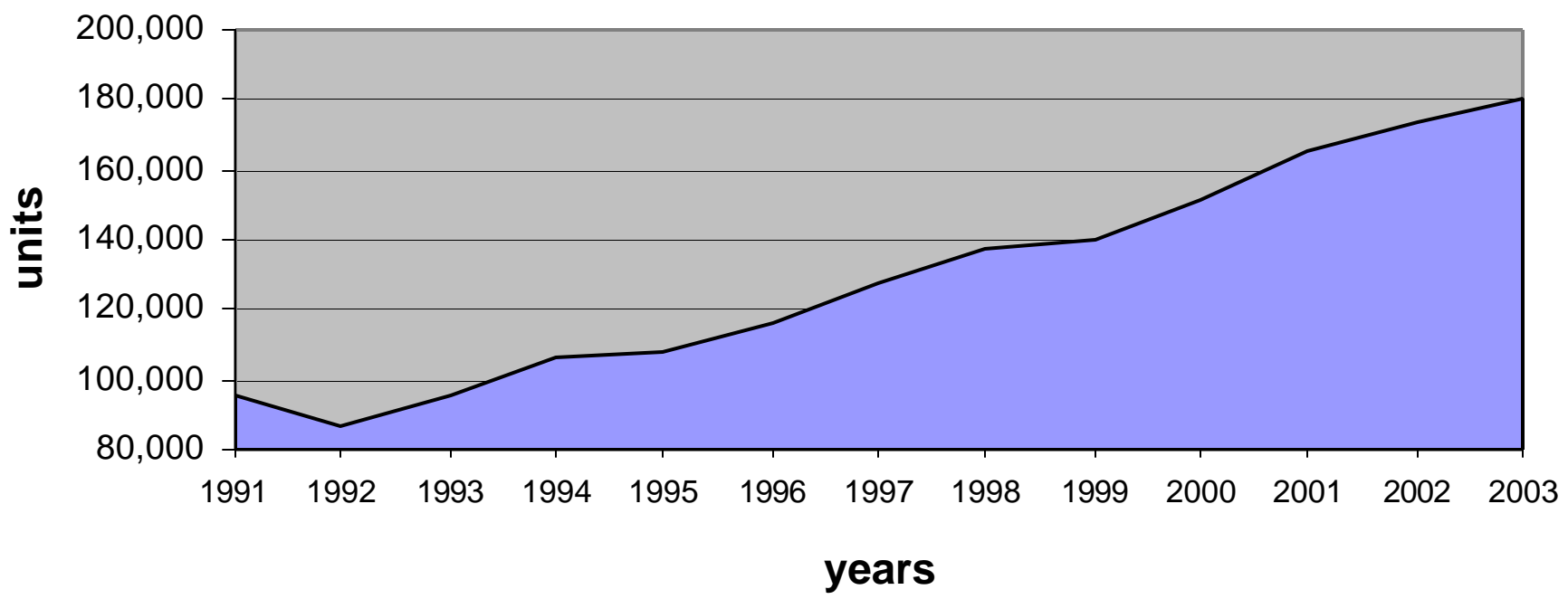
Agricultural Equipment

Forecast

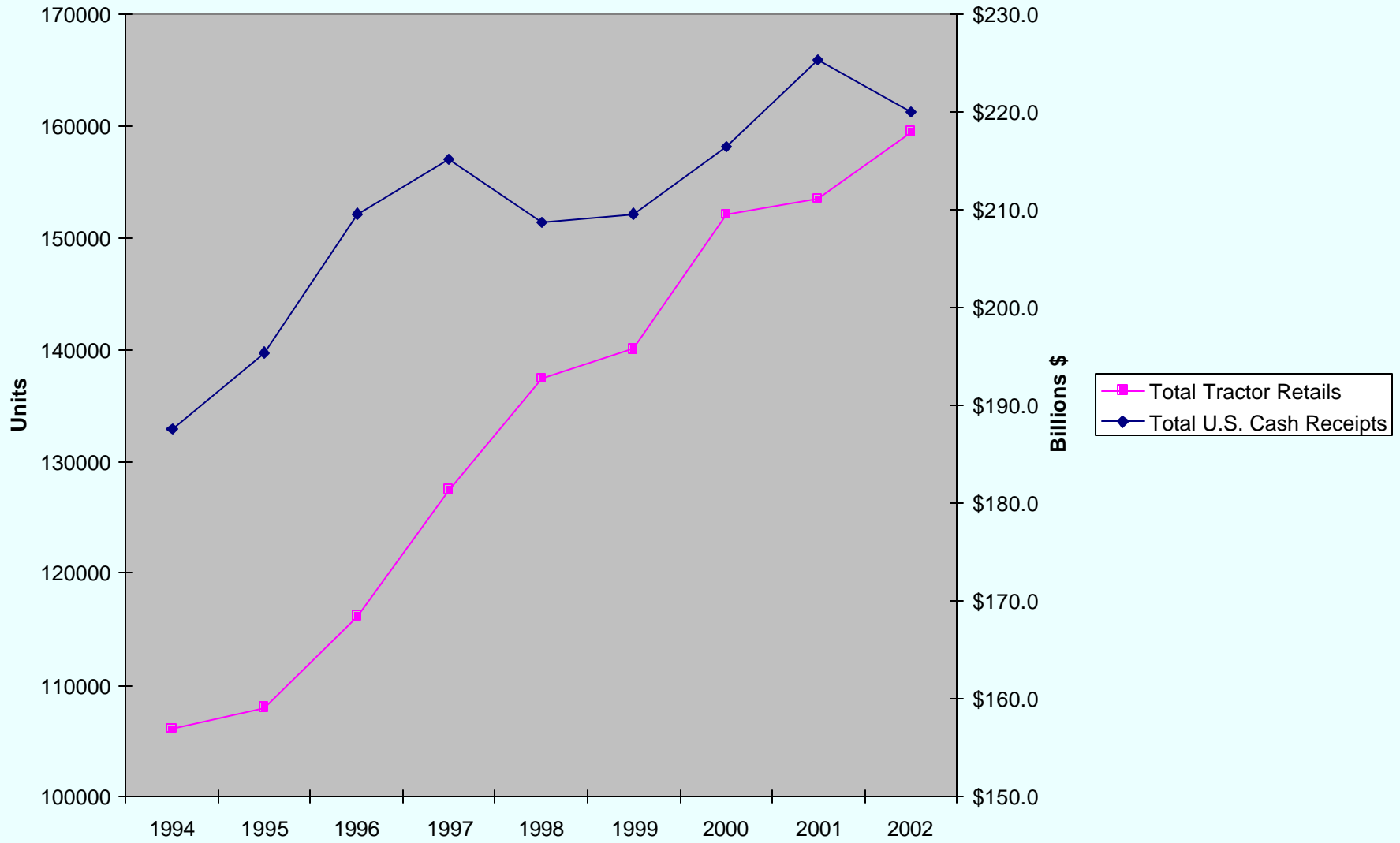
U.S. Farm Equipment Markets

	<u>2001</u>	<u>2002</u>	<u>% Change</u>
2-Wheel-Drive Tractors			
Under 100 hp	144,932	156,671	8.1%
Over 100 hp	<u>17,016</u>	<u>13,987</u>	-17.8%
Total 2-Wheel-Drive	161,948	170,658	5.4%
 4-Wheel-Drive Tractors	 3,421	 2,761	 -19.3%
 Total Farm Tractors	 165,369	 173,419	 4.9%
 Combines	 6,383	 4,915	 -23.0%

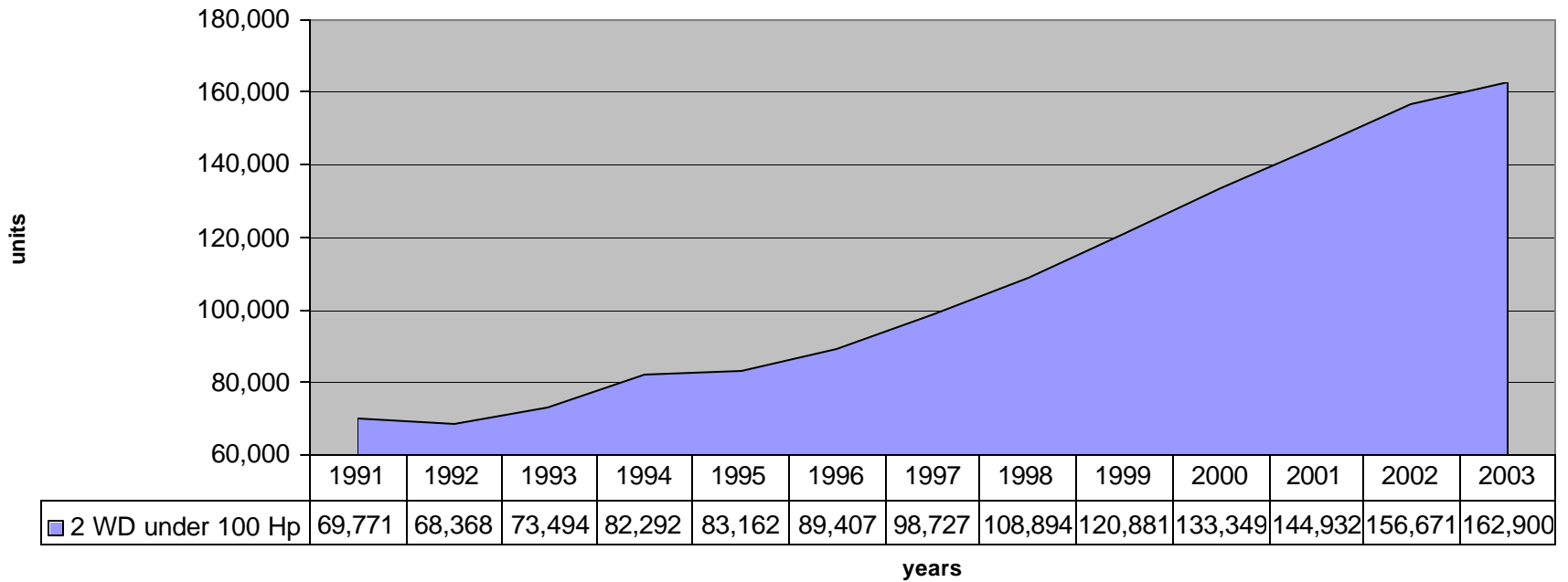
Total Farm Tractor Sales



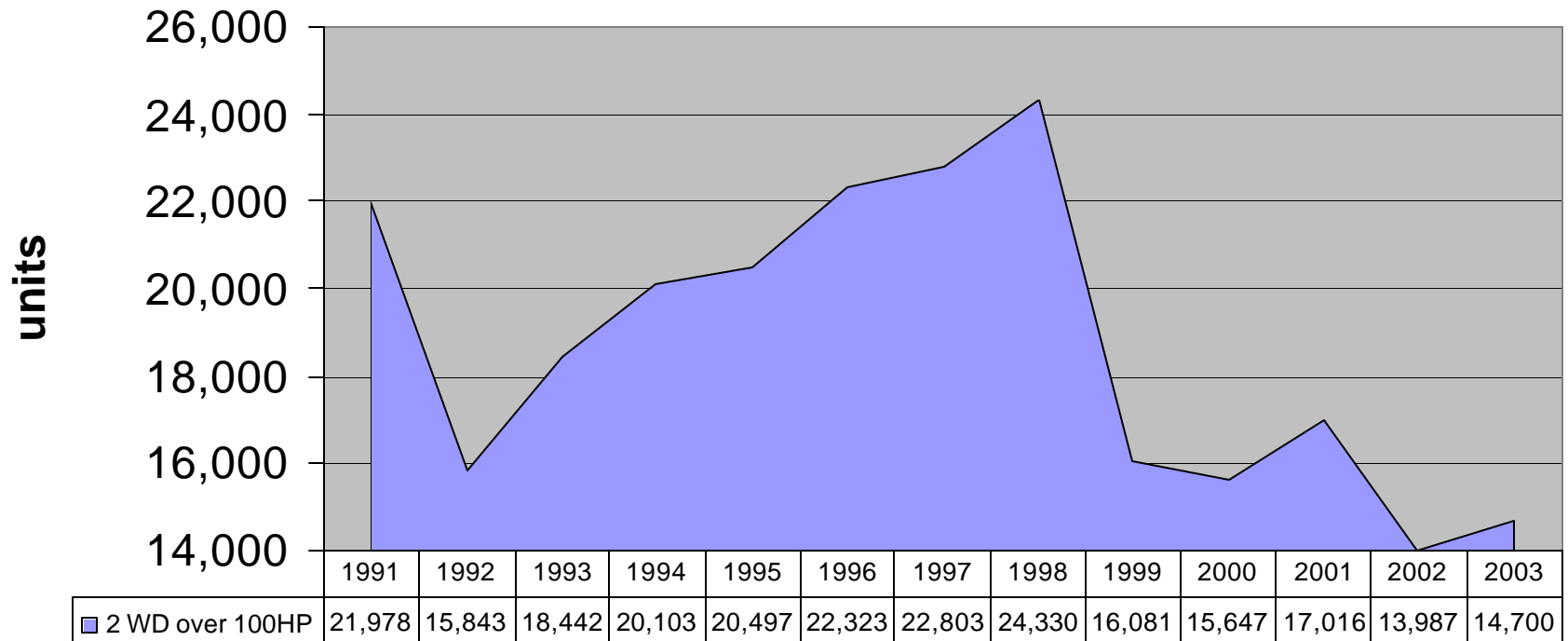
Tractor Retails vs. Cash Receipts



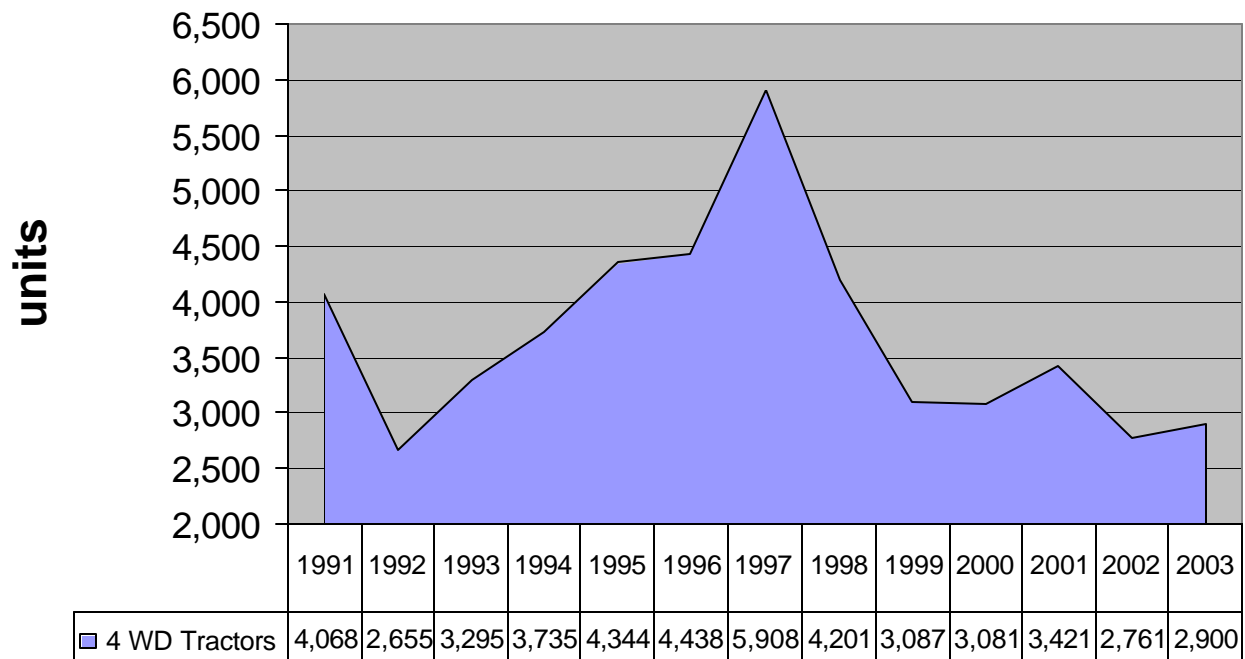
US Farm Equipment Market 2 Wheel-Drive Tractors under 100 hp



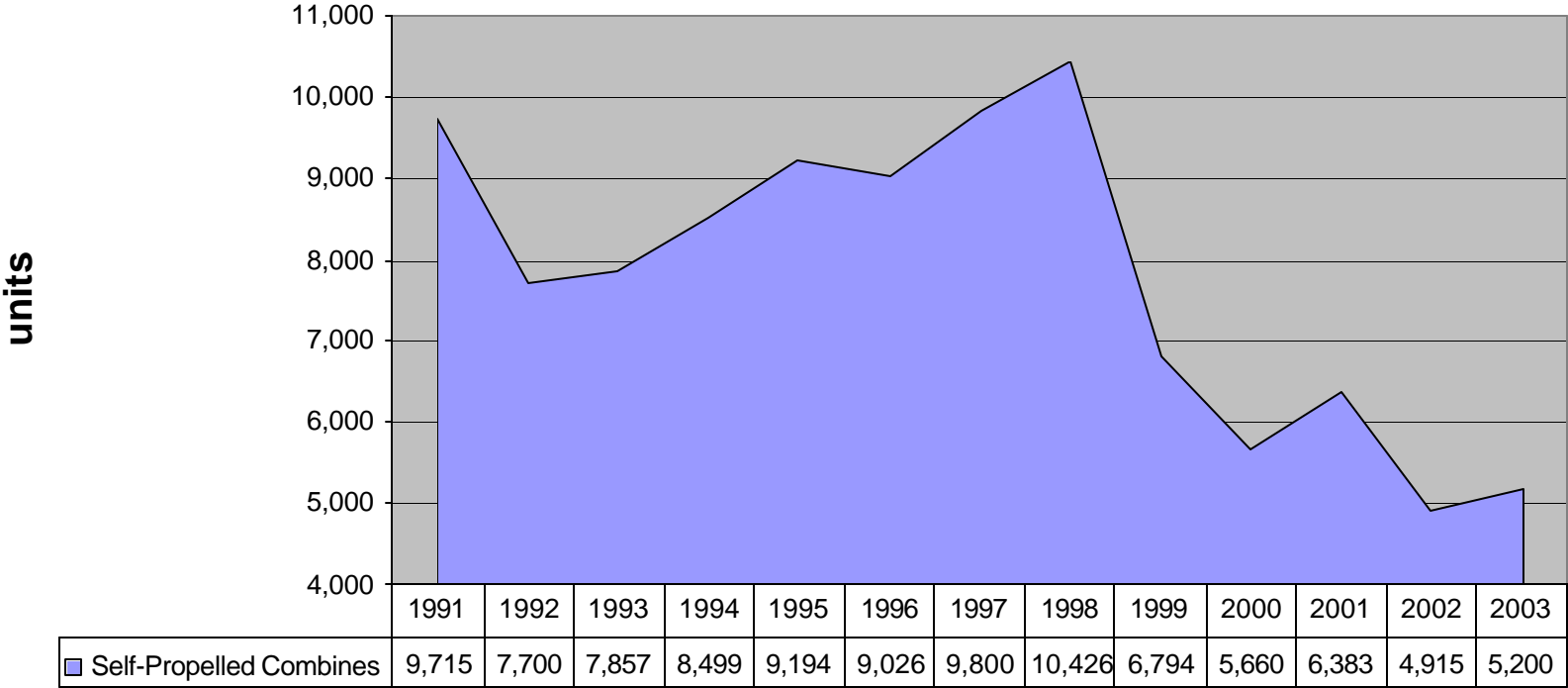
US Farm Equipment Market 2 Wheel-Drive Tractors over 100 HP



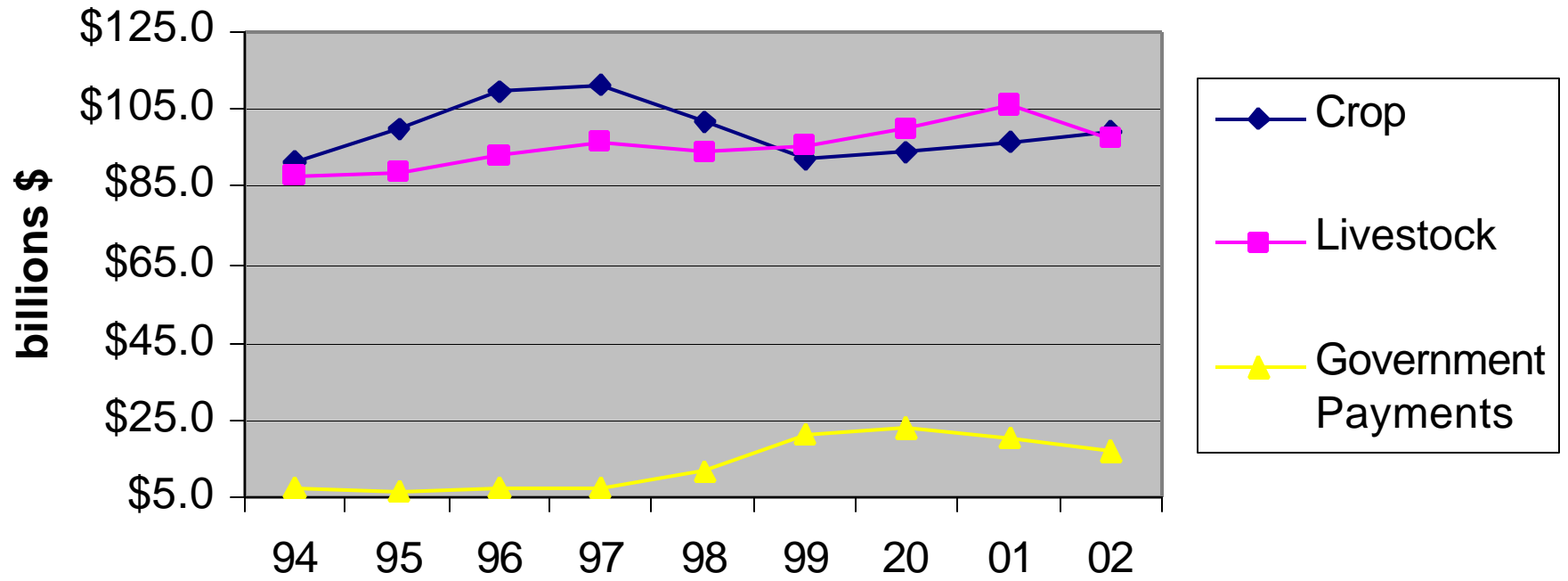
US Farm Equipment Market 4 Wheel Drive Tractors



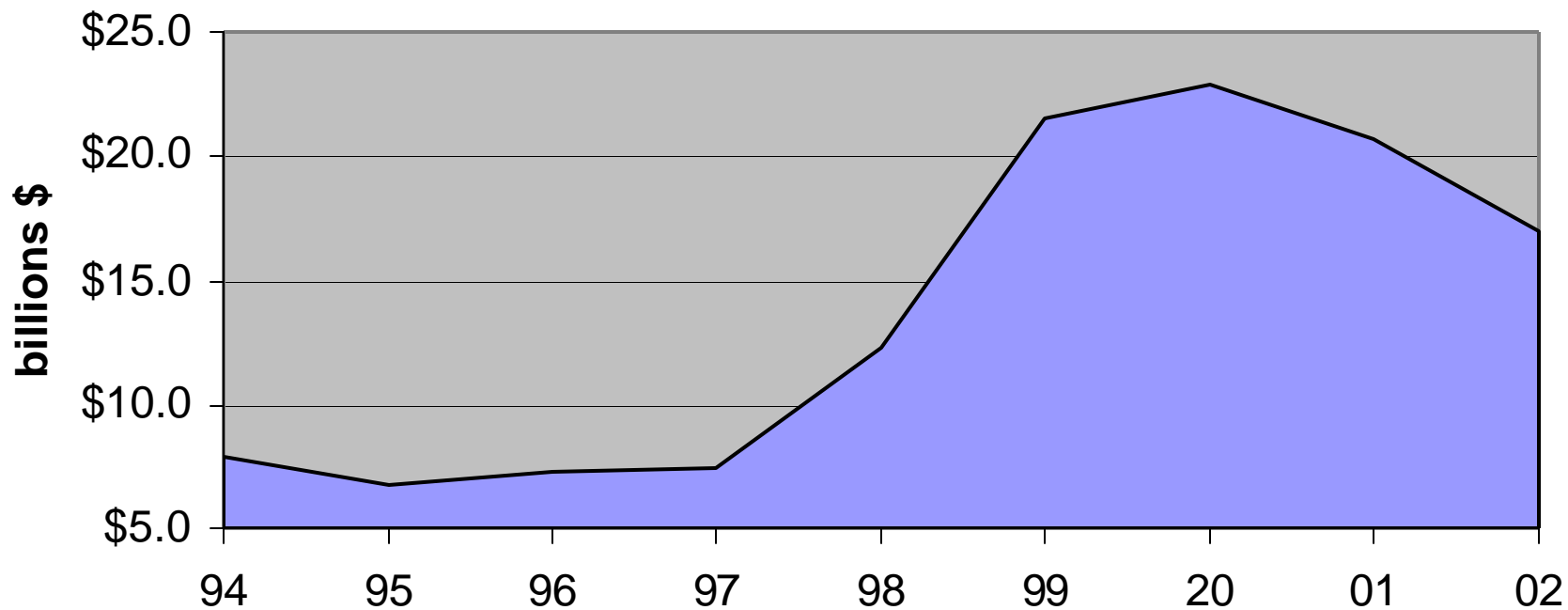
US Farm Equipment Market Self-Propelled Combines



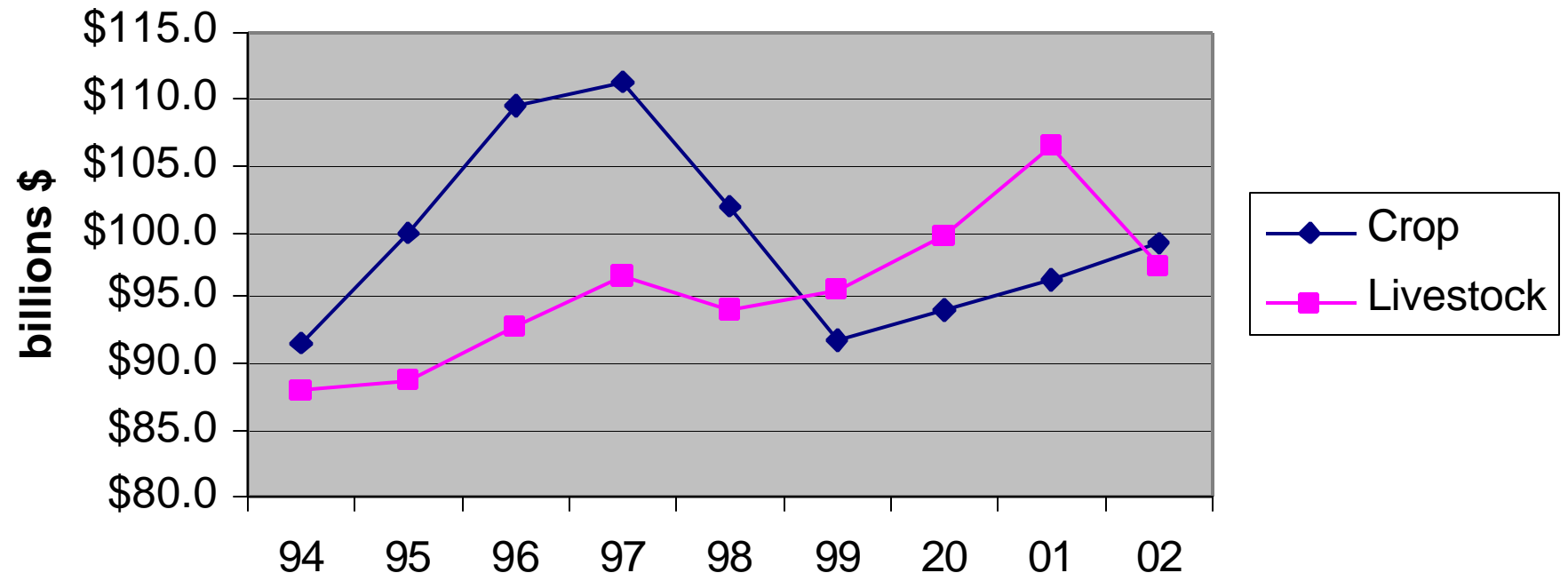
US Farm Cash Receipts



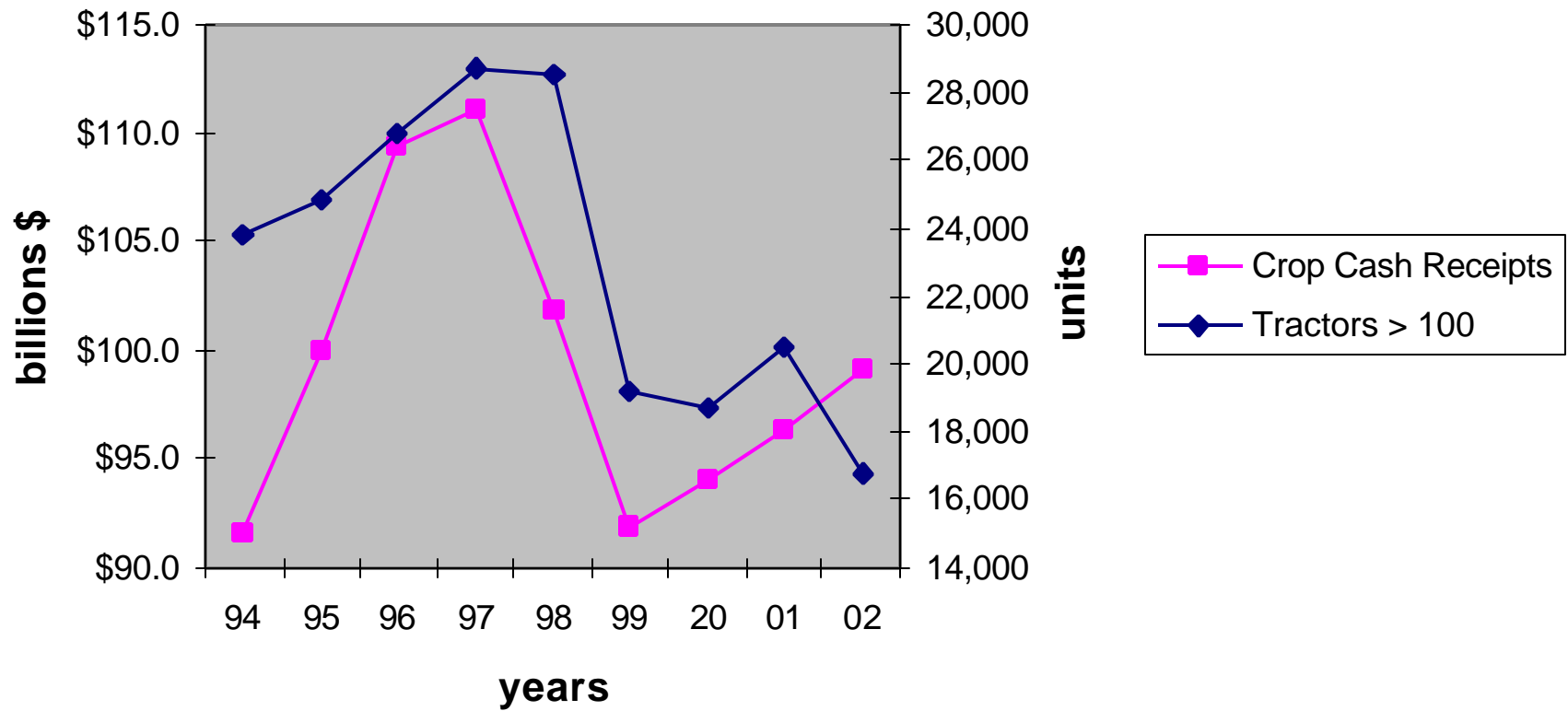
U.S. Payments to Farmers



US Farm Crop and Livestock Cash Receipts



Crop Cash Receipts and Tractor >100 hp



Market Influences for 2003 Agricultural Equipment Markets

- Interest Rates
- Commodity Prices
- Farmers Attitudes Toward Buying
- Replacement Demand

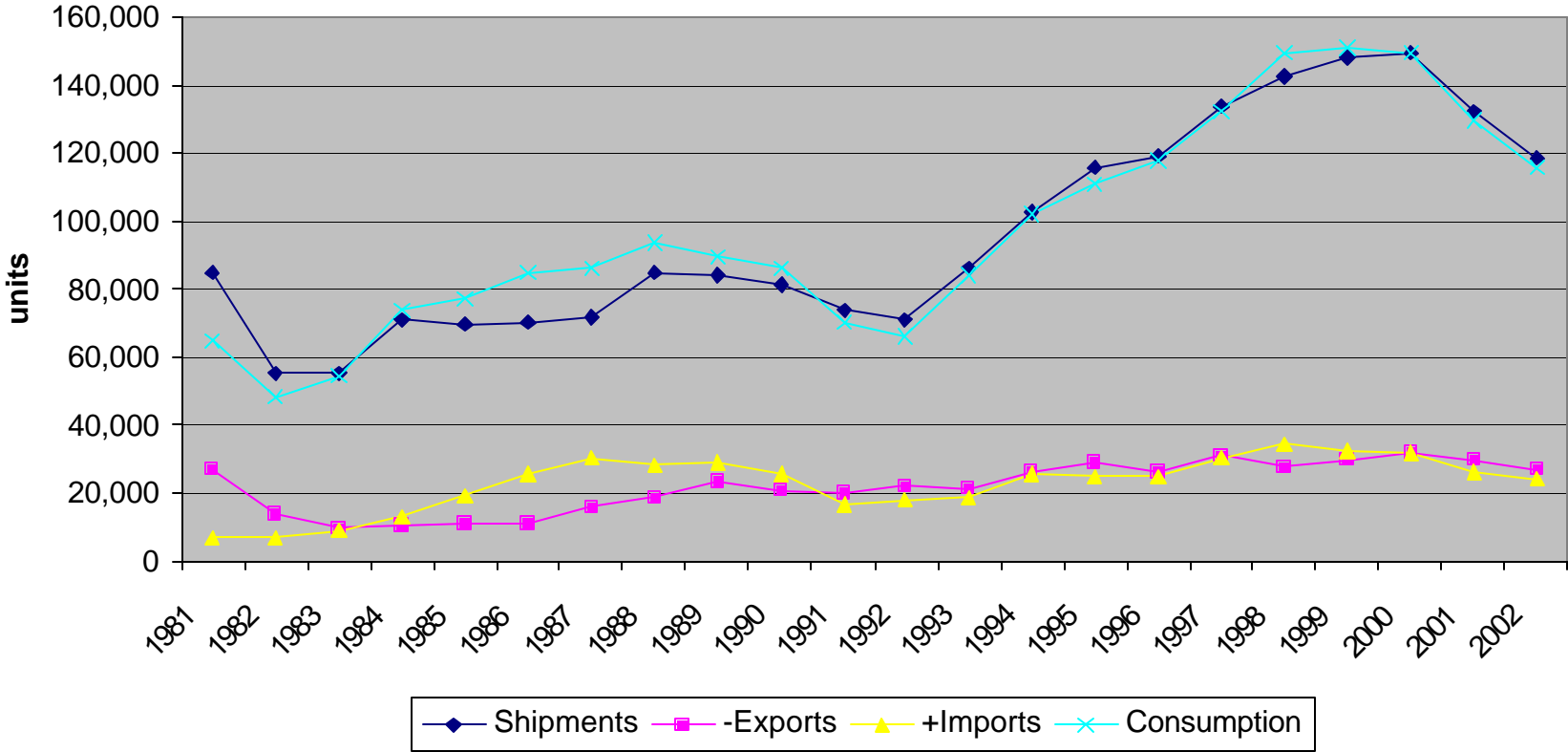
Forecast of U.S. Farm Equipment Markets

	<u>2001</u>	<u>2002</u>	<u>Forecast</u> <u>2003</u>	<u>%</u> <u>Change</u>
2-Wheel-Drive Tractors				
Under 100 hp	144,932	156,671	162,900	4.0%
Over 100 hp	<u>17,016</u>	<u>13,987</u>	<u>14,700</u>	5.1%
Total 2-Wheel-Drive	161,948	170,658	177,600	4.1%
4-Wheel-Drive Tractors	3,421	2,761	2,900	5.0%
Total Farm Tractors	165,369	173,419	180,500	4.1%
Combines	6,383	4,915	5,200	5.8%

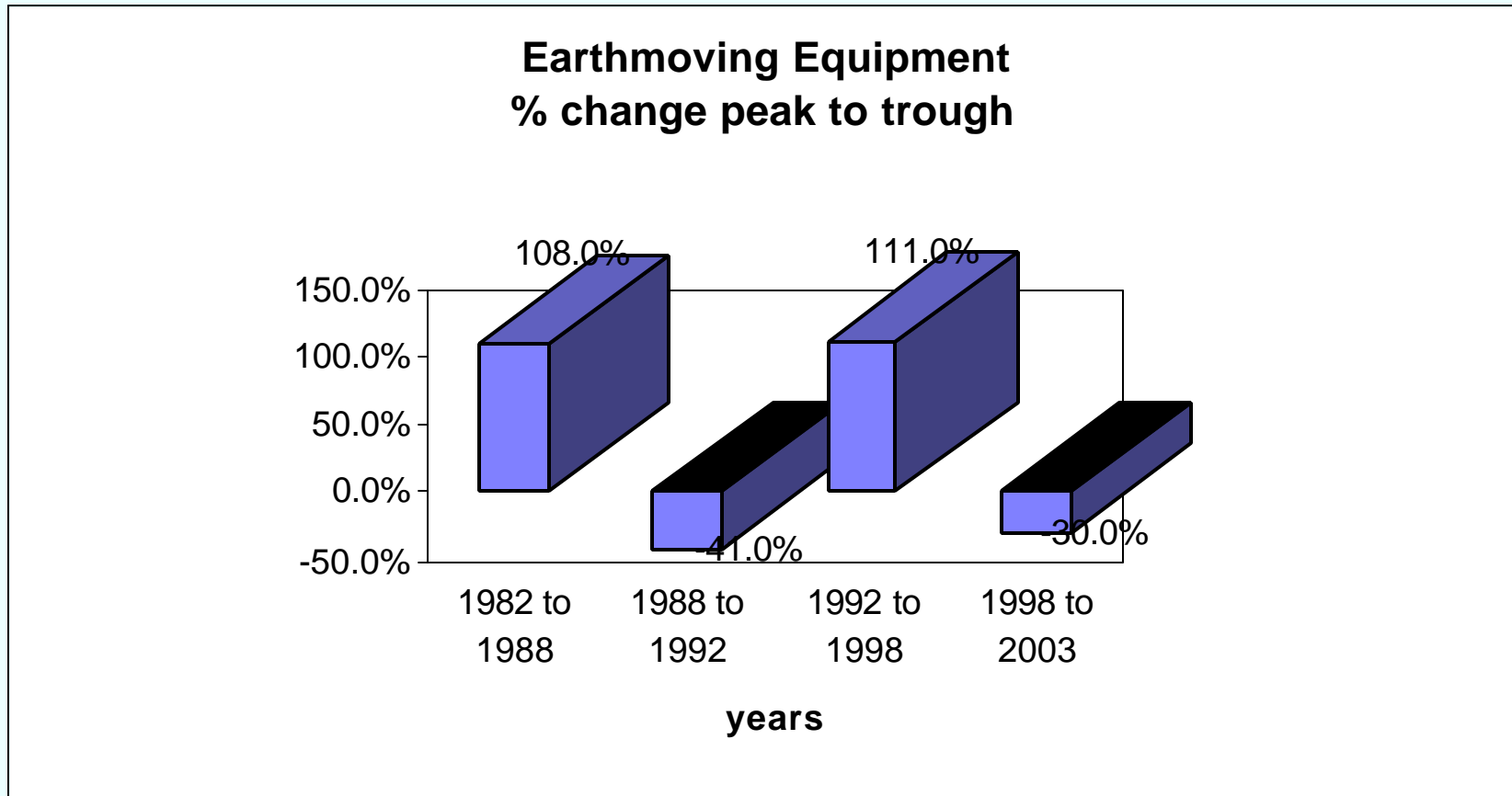
U.S. Construction Machinery

Forecast

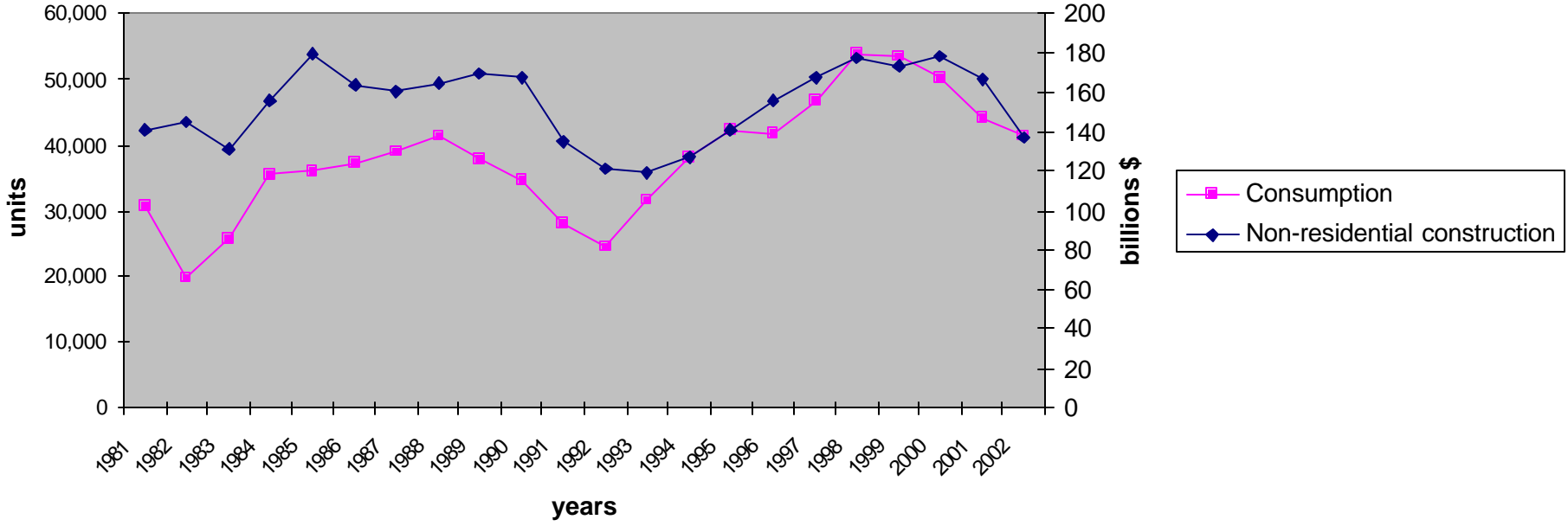
U.S. Consumption of Construction Machinery



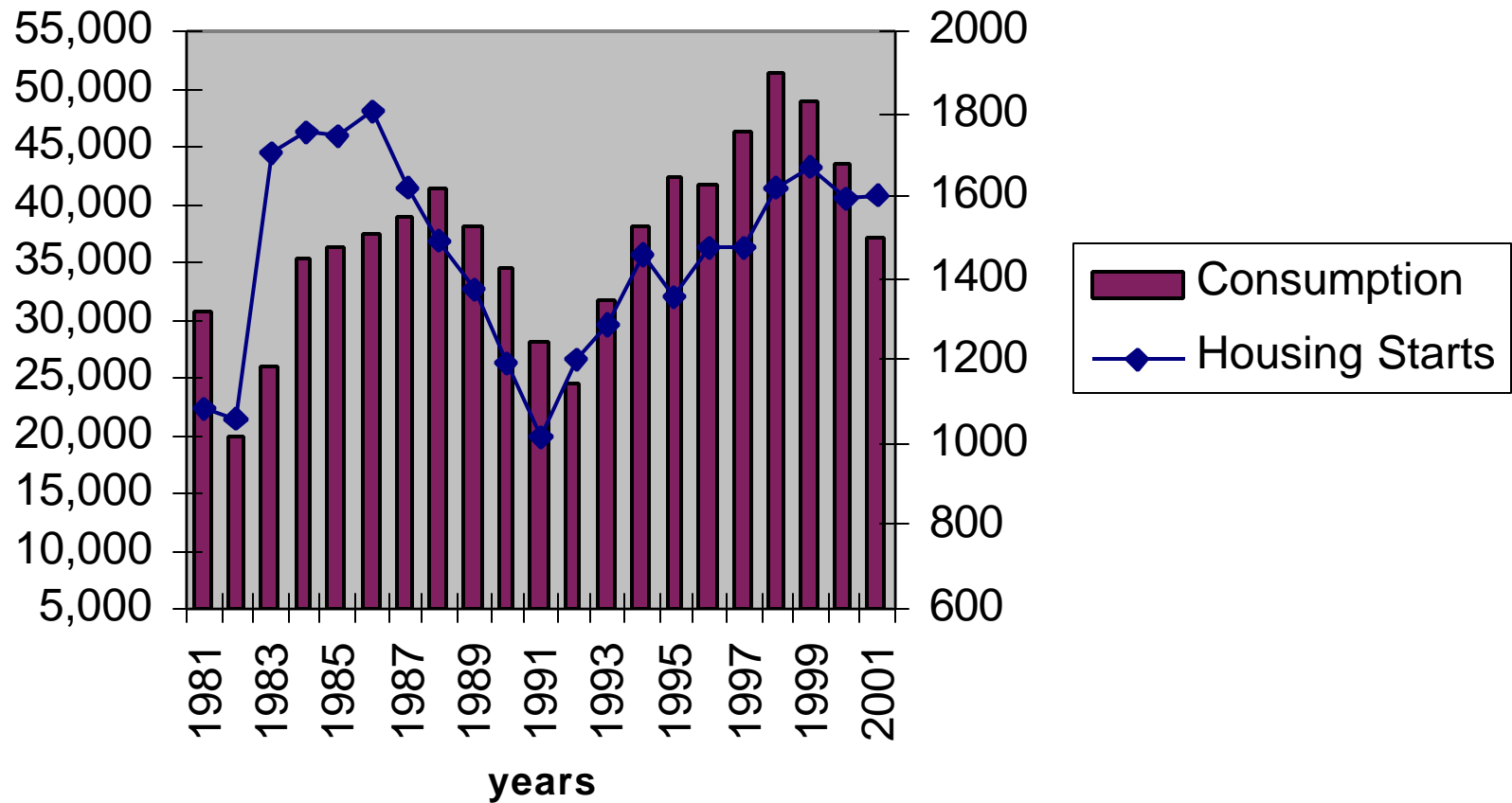
Earthmoving Equipment Consumption Percent Change Peak to Trough



Earthmoving Equipment Sales vs Non-Residential Construction (Non-residential construction put-in-place - 1996 constant dollars)



US Consumption of Earthmoving Equipment and Housing Starts



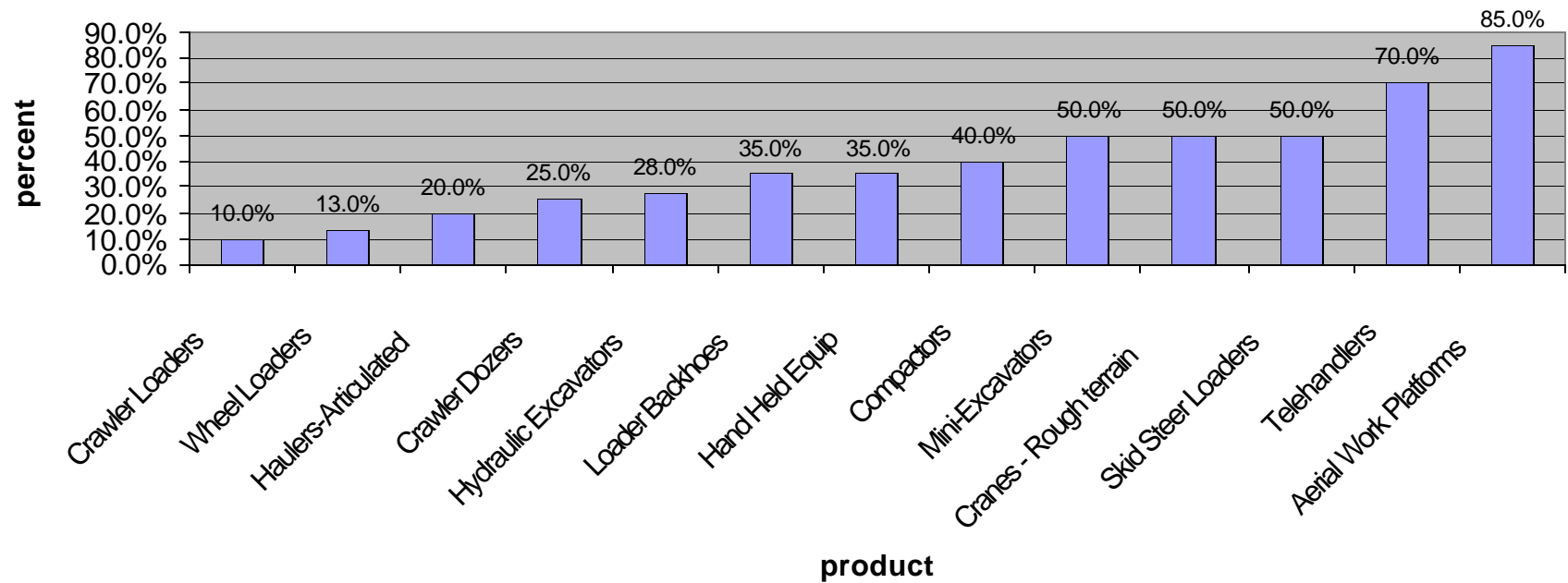
Rentals

Completely Changed the Machinery
Market Paradigm

Rentals Are Here To Stay

- Renting Had No Formal Beginning
- Formalized An Earlier Practice
- Today 81% of Manufacturers Sell Direct to Rental Companies

Percent of Equipment that is Rented vs Sold



Manufacturer

Traditional
Distributor

Rental
Company

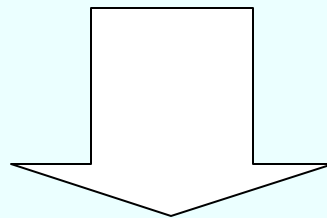
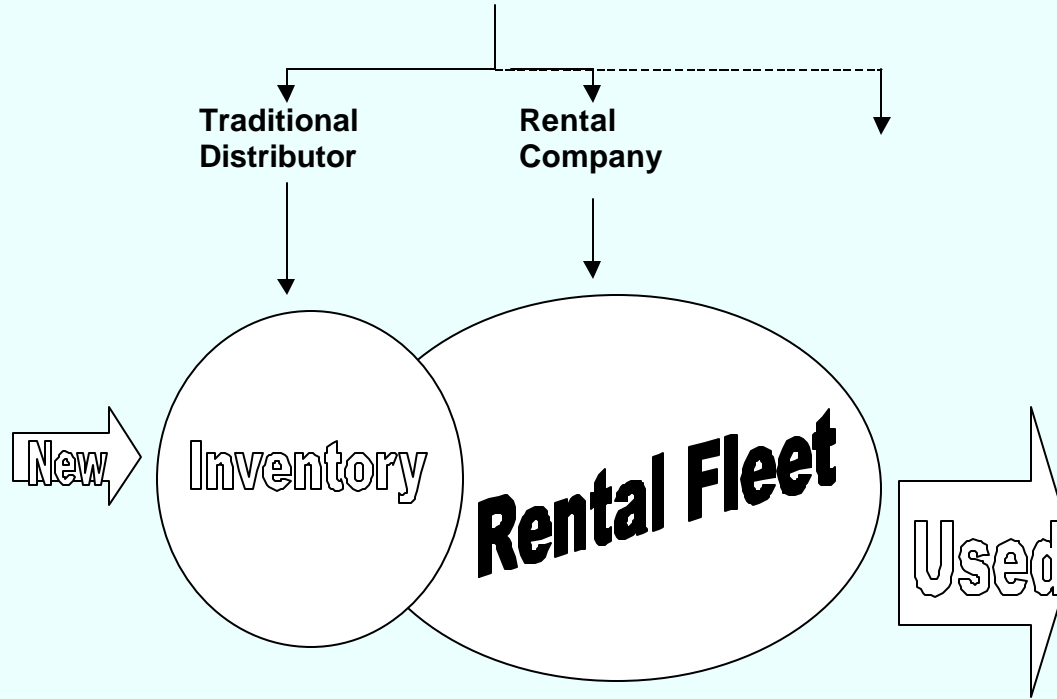
New

Inventory

Rental Fleet

Used

Customer



Forecast 2003 Assumptions

- Housing starts – Flat to Soft
- Non-residential down 4%
- Highways—TEA-21 mystery, matching funds a big problem
- Surface mining—down, unless oil prices jump and stay up
- Interest rates stable

U.S. Construction Machinery Forecast

<u>Product</u>	<u>2000</u>	<u>2001</u>	<u>% Change 01 vs 00</u>	<u>Forecast 2002</u>	<u>% Change 02 vs 01</u>	<u>Forecast 2003</u>	<u>% Change 03 vs 02</u>
Asphalt pavers	2,040	1,750	-14.2%	1,650	-5.7%	1,650	0.0%
Aerial work platforms	60,800	48,700	-19.9%	40,000	-17.9%	36,000	-10.0%
Compactors	7,650	5,200	-32.0%	4,650	-10.6%	4,650	0.0%
Cranes	1,985	1,500	-24.4%	1,400	-6.7%	1,300	-7.1%
Crawler loaders	1,700	1,400	-17.6%	1,150	-17.9%	1,100	-4.3%
Crawler tractors	11,050	9,000	-18.6%	8,400	-6.7%	8,000	-4.8%
Hydraulic excavators	21,000	19,500	-7.1%	20,500	5.1%	21,000	2.4%
Loader/backhoes	25,330	22,000	-13.1%	18,000	-18.2%	17,500	-2.8%
Motor graders	3,200	3,100	-3.1%	2,800	-9.7%	2,600	-7.1%
Haulers	400	350	-12.5%	320	-8.6%	320	0.0%
RT Forklifts	13,100	10,000	-23.7%	8,200	-18.0%	8,000	-2.4%
Scrapers	700	420	-40.0%	350	-16.7%	330	-5.7%
Skid steer loaders	66,200	58,000	-12.4%	50,000	-13.8%	48,000	-4.0%
Wheel loaders	12,600	11,000	-12.7%	10,000	-9.1%	9,600	-4.0%
Grand Total	227,755	191,920	-15.7%	167,420	-12.8%	160,050	-4.4%

Conclusions for 2003

- **Sense that we've reached the bottom**
- **Farm Equipment + 3% to +4%**
- **Construction Equipment -3% to -4%**
- **General improvement 2nd half 2003**

Questions