

Don't Settle for Less

Understanding Resale Values generated from retired IT assets

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October 24, 2007



When it hit me . . .

October 30, 2006

How can our refurbished laptops compete with this price for a new laptop?

CNNMoney.com

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Wal-Mart jumps the gun on Black Friday?

Hoping to fire up weak sales, No. 1 retailer is reportedly trotting out some holiday deals, such as a \$398 laptop, several weeks early.

By [Parija B. Kavilanz](#), CNNMoney.com staff writer

October 30 2006: 1:48 PM EST

It looks like Wal-Mart - after some spooky October sales figures - isn't waiting until Black Friday to unveil its holiday bargains and get people buying again at its discount stores.

According to [Gottadeal.com](#), a Web site that markets itself as the "official Black Friday deals site," [Wal-Mart \(Charts\)](#) will begin offering hot pre-holiday deals as early as next Sunday, including the Compaq Presario V5305WM laptop for \$398.

Understanding Resale Price Trends

- What the experts have told us
- What our experience tells us
- Can we predict resale values?
- What should we tell companies who retire IT assets?
- Other Issues & Resources



They're worth practically nothing

“Robert Dangelmeyer, a service manager for the Digital Equipment Corp., said that according to four computer-price databases he had examined, computers tended to lose **80 percent** of their market value in the first year after purchase. Then their worth levels out for a year or so, he said, before plunging practically to zero.”

New York Times, March 1998



Conventional Wisdom

“If stored IT equipment has any resale or recycling value, it depreciates between 6% and 10% per month.” *(November, 2003)*

AberdeenGroup

AberdeenGroup is the leading provider of fact-based research focused on the global technology-driven value chain.

Academic Research

Federal Reserve Board

How Fast Do Personal Computers Depreciate?
Concepts and New Estimates

May 12, 2004



“Our results show that PCs lose roughly half their remaining value, on average, with each additional year of use.”

What does 6% Depreciation Mean?

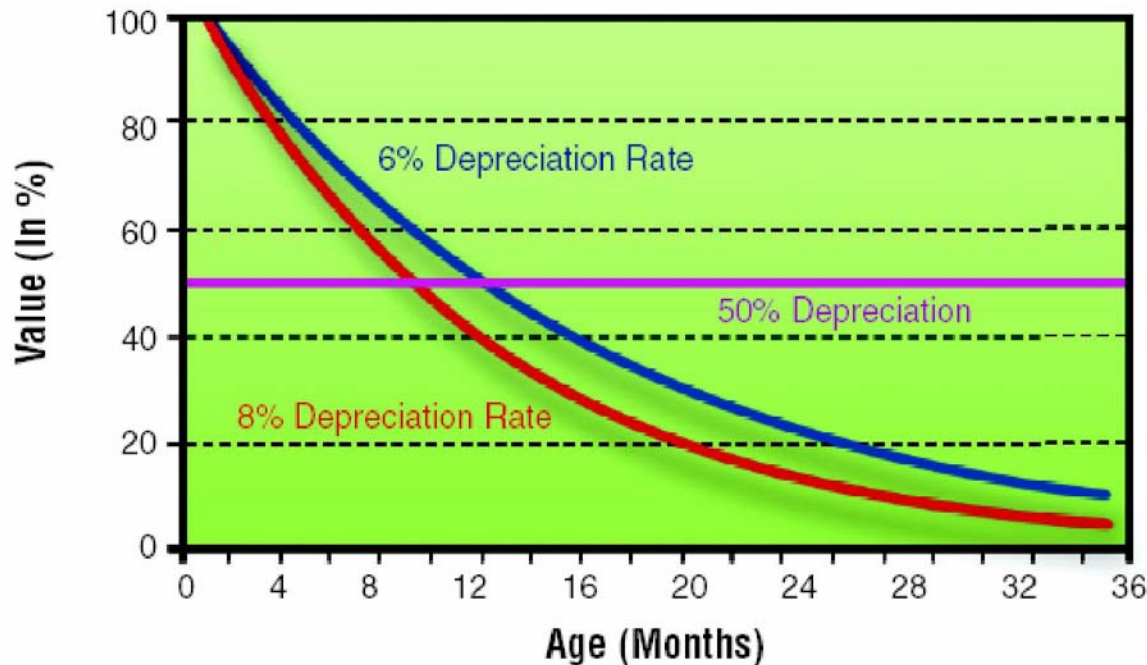
At 6% per month, an item will be worth 50% of its current value in one year.



At 10% per month, an item will be worth about 28% of its present value one year from now.

In 3 years – there's nothing left

Value Of Computer Equipment Over Time



PROCESSOR

July, 2006

Example current retail prices (taken from eBay and UsedComputer.com):
Desktop 2GHz P4: \$250; Laptop 1.6GHz PM: \$500

Expect today's \$500 PC to be worth between \$11 - \$54 in 3 years

Is this true for our company?

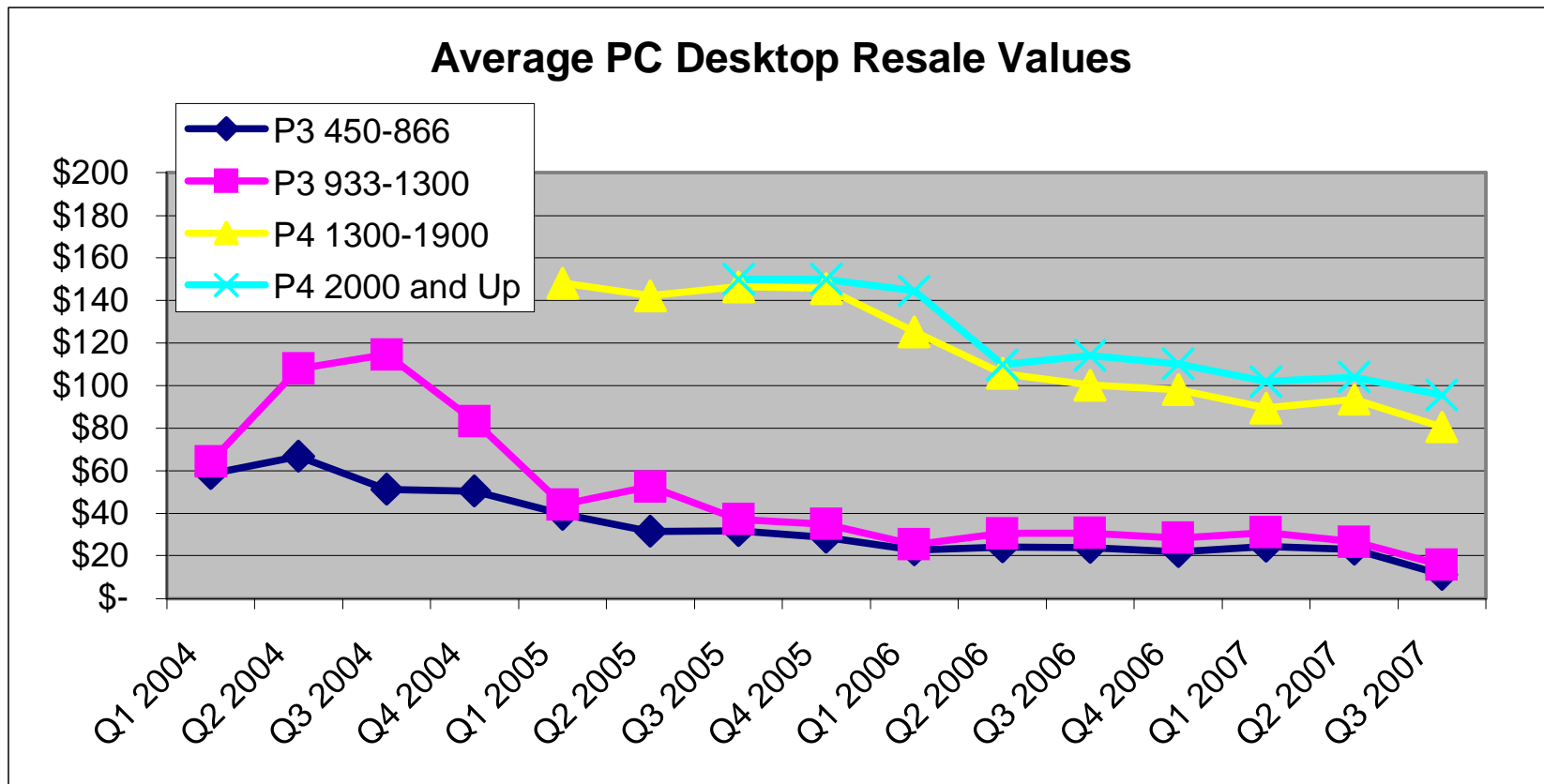
- Cascade – established in 1999
- Customer base
 - North American Enterprises
 - Small and Medium Sized Businesses
 - Municipal Collections
- Reuse about one-third of collected equipment
- Resale Channels: Direct global and national sales, brokers, eBay, Cascade Marketplace
- Rebate Program – we share a percentage of the actual resale price with our customers



Desktops and Laptops to Evaluate

- Four Years: Q4, 2003 – Q3, 2007
- Good, Working Desktops and Laptops
 - Tested to perform to manufacturer specs
 - Some cosmetic cleaning and repair
 - No Operation Systems
 - Predominant Brands, with ~15% White Box desktops
- >53,000 desktops and >8,000 laptops
 - P3, 450 – 866 MHz
 - P3, 933 MHz – 1.3 GHz
 - P4, 1.3 GHz – 2 GHz
 - P4, 2 GHz and faster

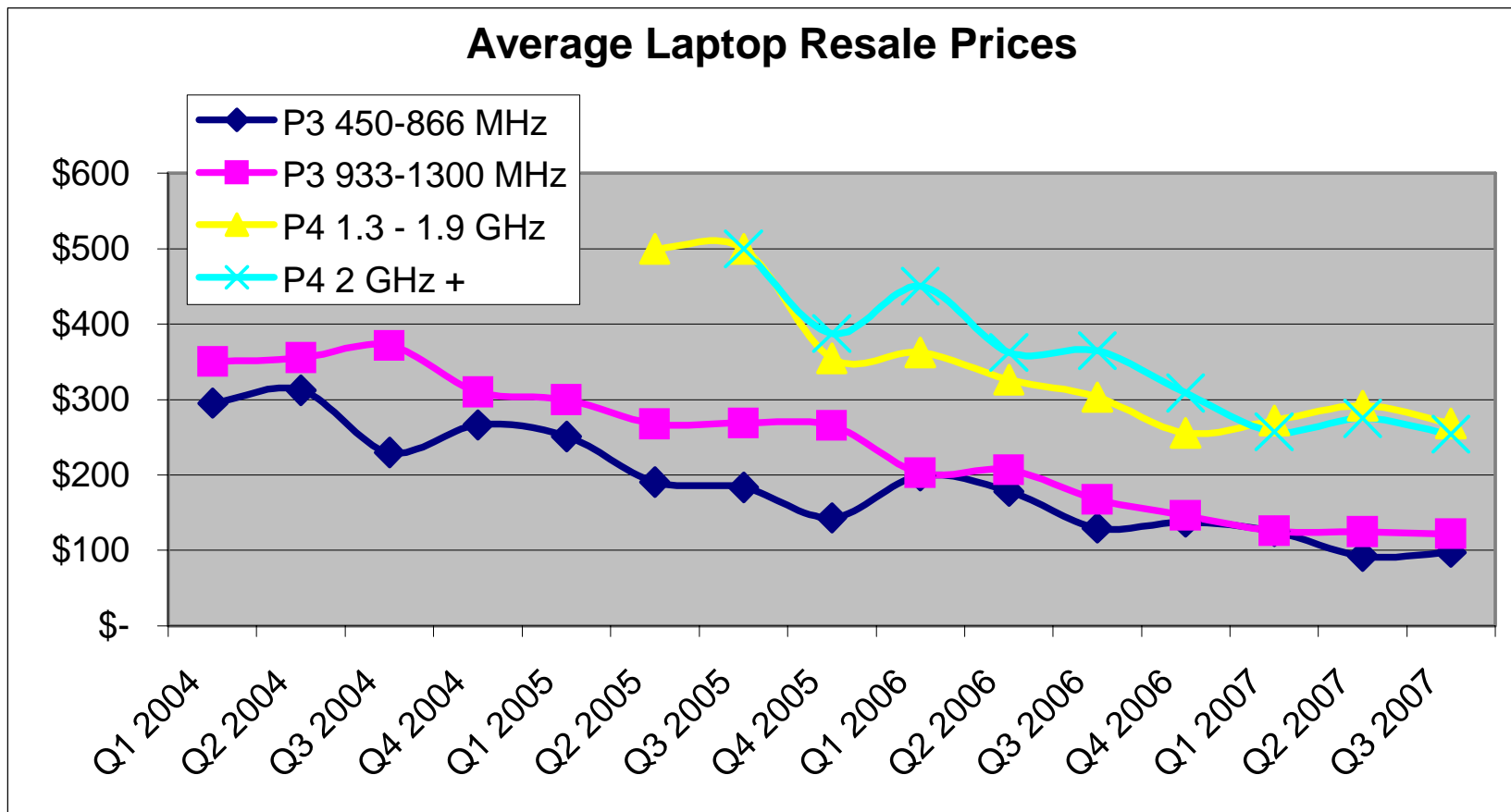
Resale Value from Desktops



§Desktop resale prices plateau 12 – 18 months (after retirement)

§Average monthly depreciation – 2.0%

Resale Values from Laptops



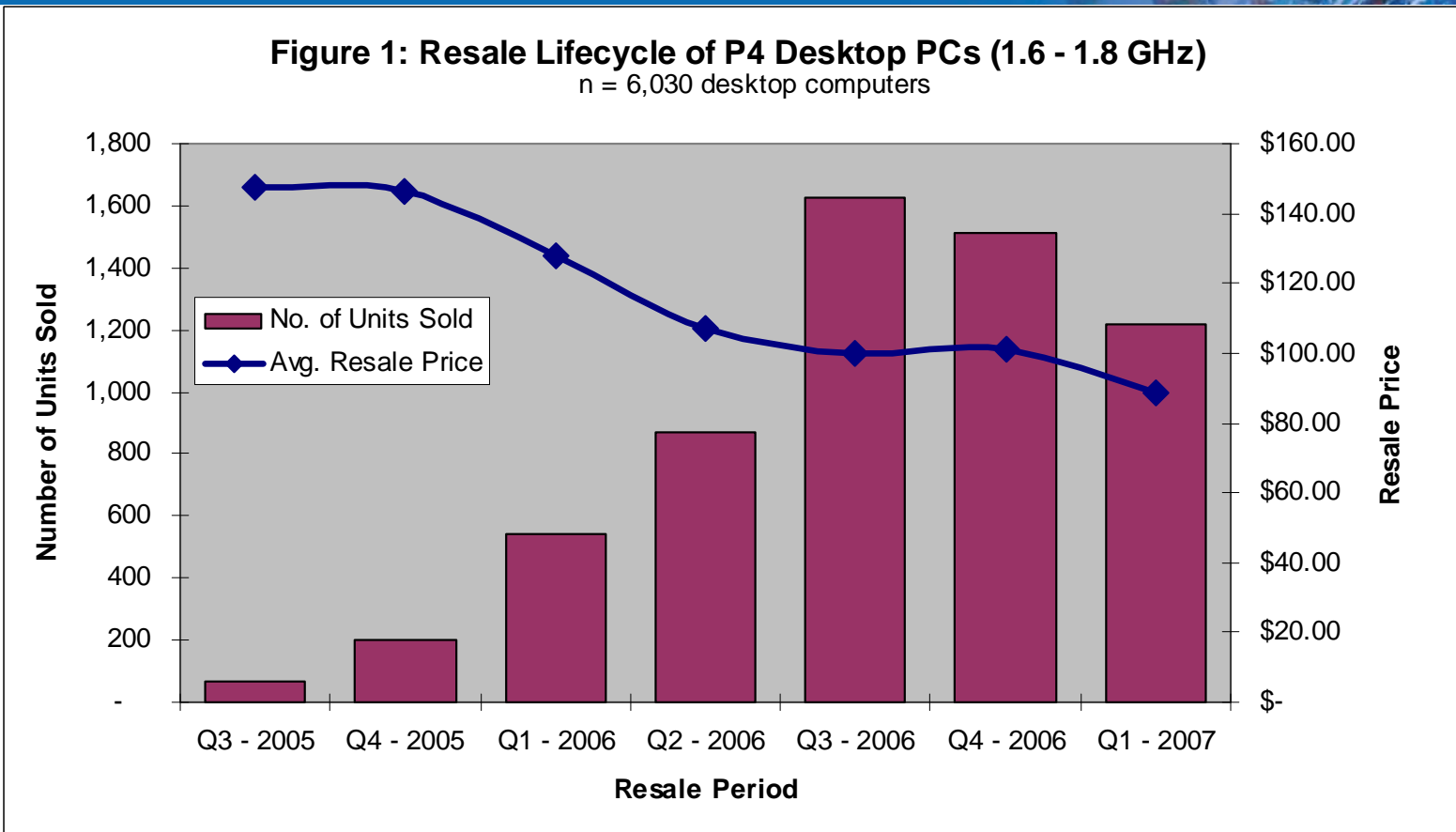
§Desktop resale prices plateau 18 - 24 months (after retirement)

§Average monthly depreciation – 2.5%

Annual Resale Price Drops

Item	Price Drop During Resale Life Cycle		
	1st Year	2nd Year	3rd Year
Laptops			
P3 450-866 MHz	15%	21%	37%
P3 933-1300 MHz	14%	33%	38%
P4 1.3 - 1.9 GHz	35%	11%	*
P4 2 GHz +	27%	30%	*
Desktops			
P3 450-866	33%	42%	-7%
P3 933-1300	31%	42%	-22%
P4 1300-1900	23%	31%	*
P4 2000 and Up	24%	16%	*

Price and Quantity Trends



§Unit price declines over time

§Number of units of a particular item follows bell curve

Making Resale Data Useful in Forecasting

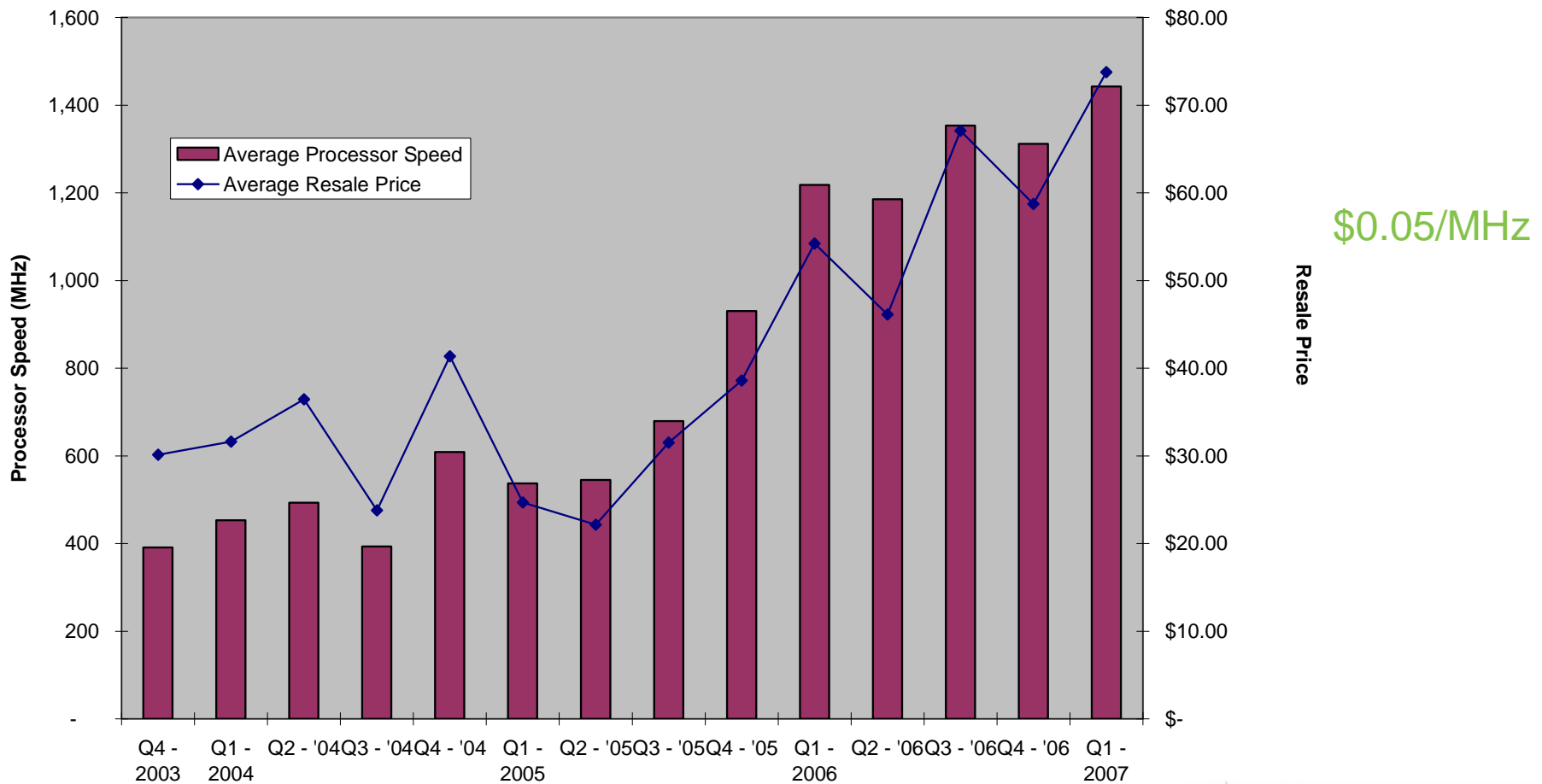
How can we predict what future values will be for equipment we try to resell?



Predict Resale Values using Processor Speed

Figure 6: Desktop Processor Speed Effect on Resale Prices

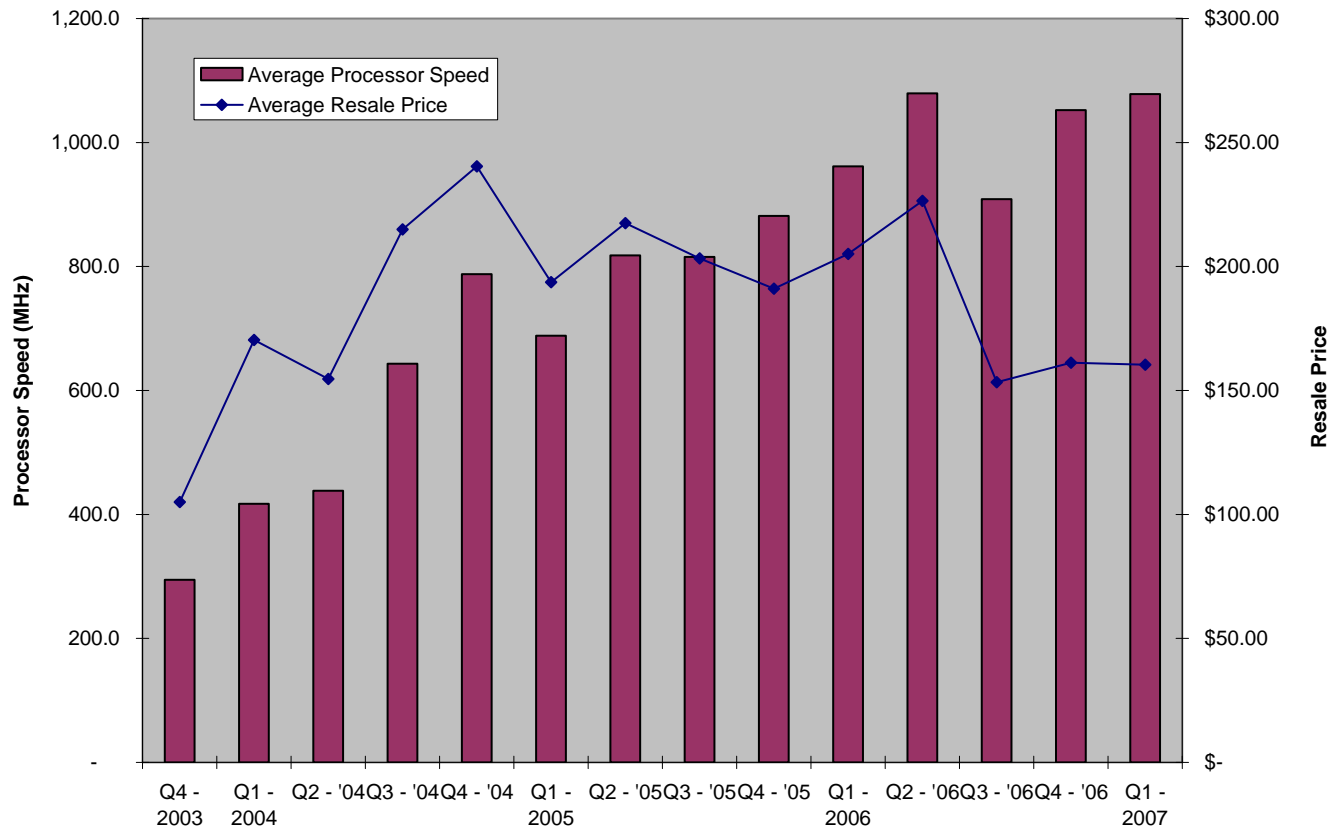
n = 53,382 desktop computers



Predict Resale Values using Processor Speed – *not quite for laptops*

Figure 7: Laptop Processor Speed Effect on Resale Prices

n = 9,938 laptop computers



\$0.14/MHz
to
\$0.33/MHz

§Laptop processor speeds up by 266%

§Resale values up 53% over 4 years (but down from peak)

What's the line we tell customers?

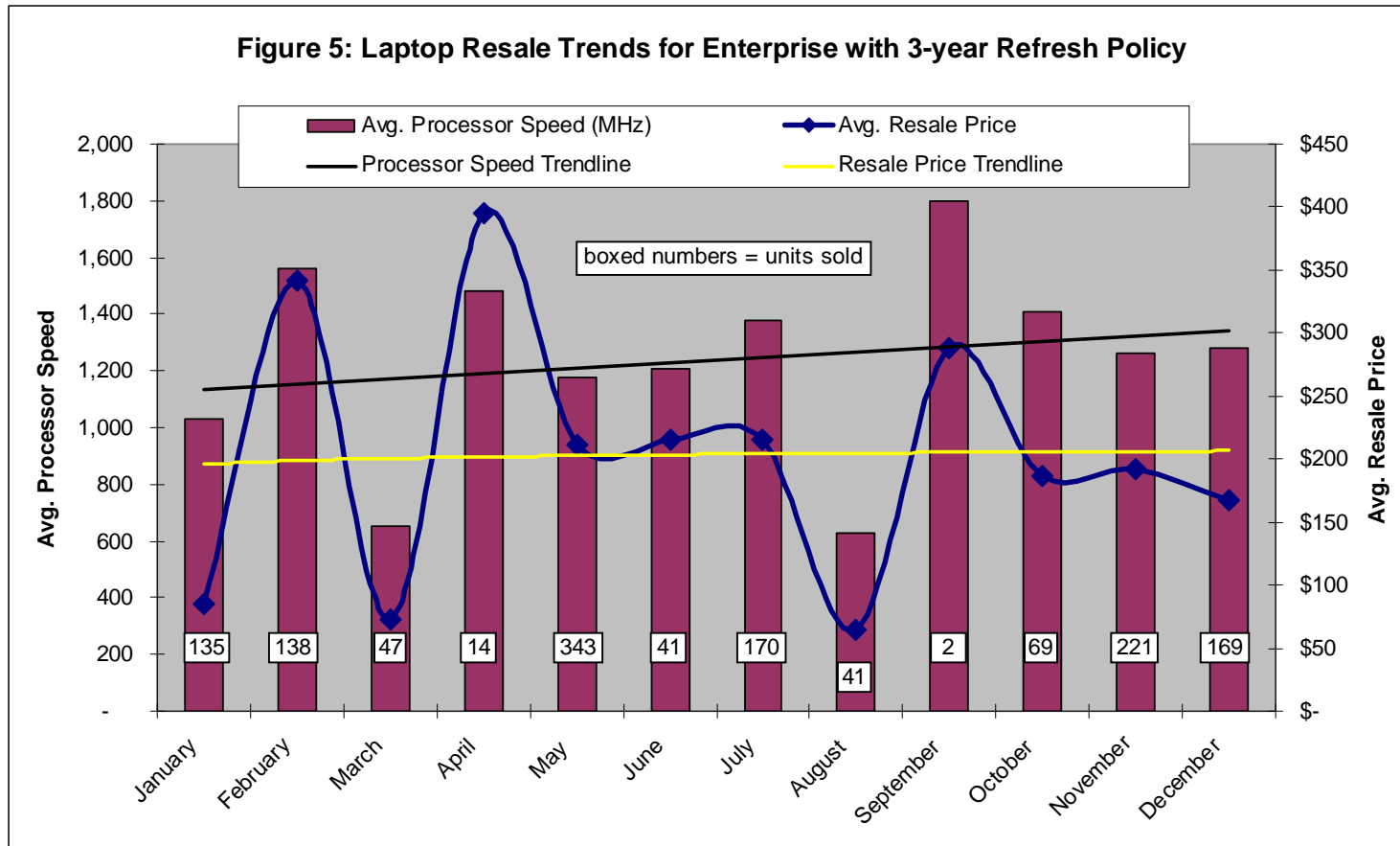
Knowing what we know

- Prices drop over time
- The hype about price drops may be exaggerated



Still want surplus IT assets now –
Companies shouldn't store them or
drag out refresh cycle.

Consistent Refresh = Predictable Values



§The average processor speed resold at Cascade increases

§The average resale price for resold assets is flat

Consistent refresh = lower ITAM costs

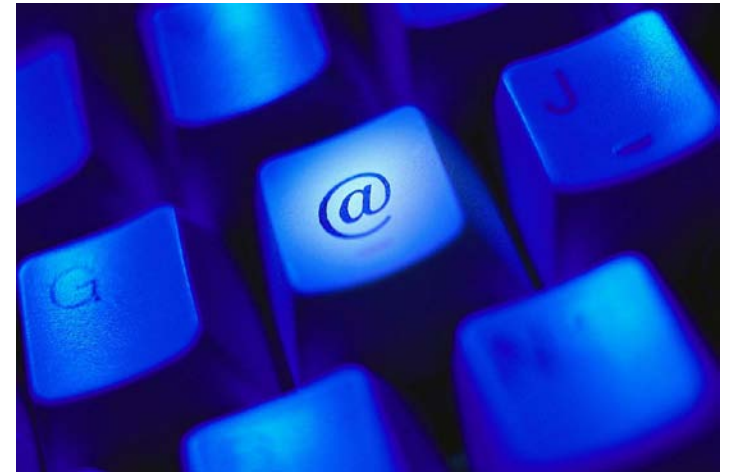
- By retiring equipment on a consistent basis
 - Reduce storage costs
 - Reduce maintenance costs from supporting old and broken technology
 - Reduce compliance costs
 - Reduce personal property taxes
- Reduce your costs and keep resale values consistent

Further Resources & Issues

- Economic Outlook
 - Global economy's impact on industry
 - Decreasing cost of new IT on demand for used IT
 - Competition and increased supply of used IT
- Fair Market Valuation Tools
 - Orion Blue Book
 - Reseller Price Calculators
 - eBay
- Best Practices to be better than benchmark

Research and Collaboration Resources

- Original White Paper
- Excel data sheets and analysis
- Links to research papers
 - Resale prices and depreciation
 - Economic outlook
- Blogs and discussion groups
- Links to evaluation tools



www.cascade-assets.com/escrap2007