

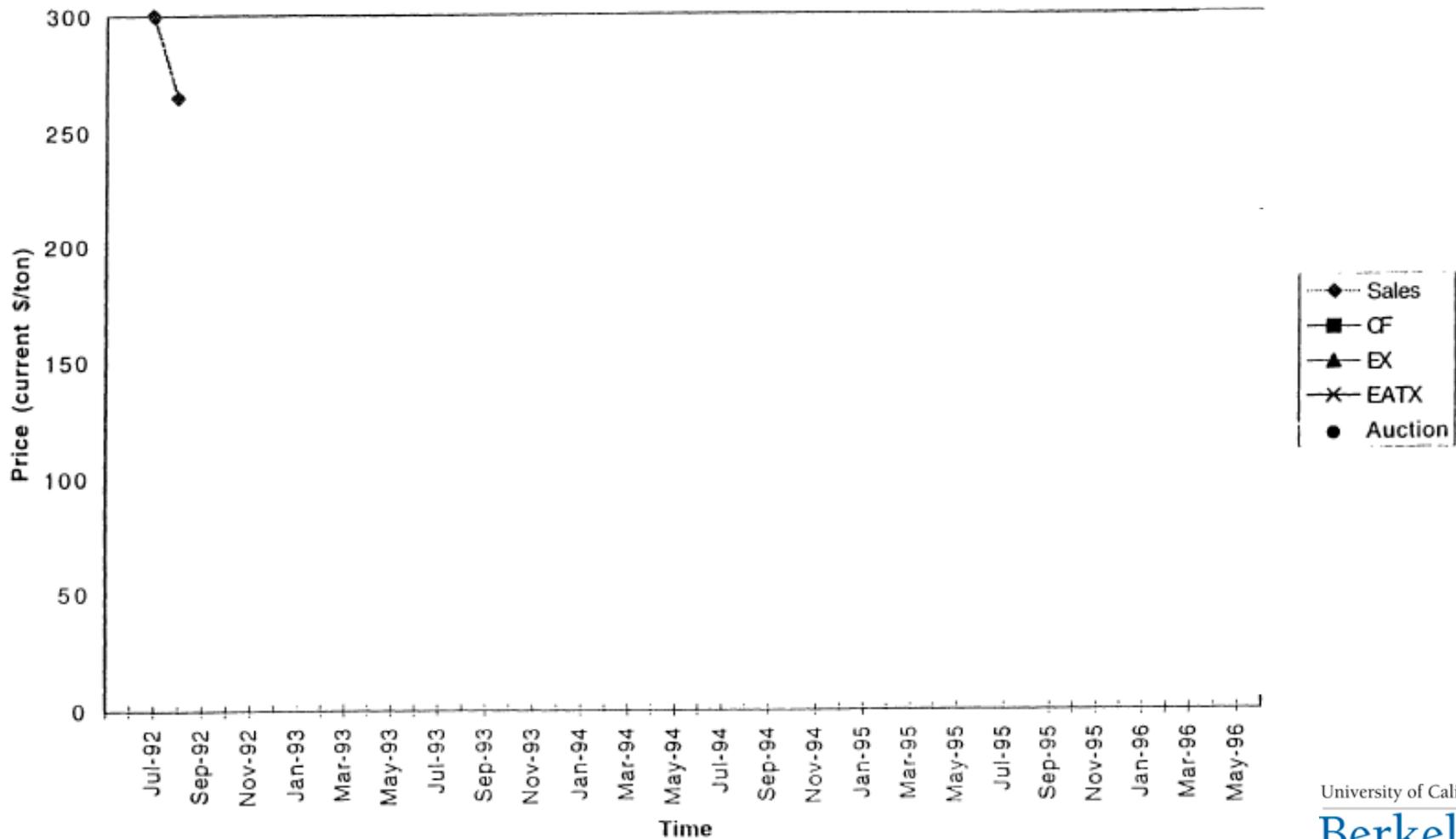
California GHG Cap and Trade Market The First Six Months

Power Association of Northern California
May 21, 2013

Elizabeth M. Bailey
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A Little Perspective: It Can Take a While For New Markets to Mature

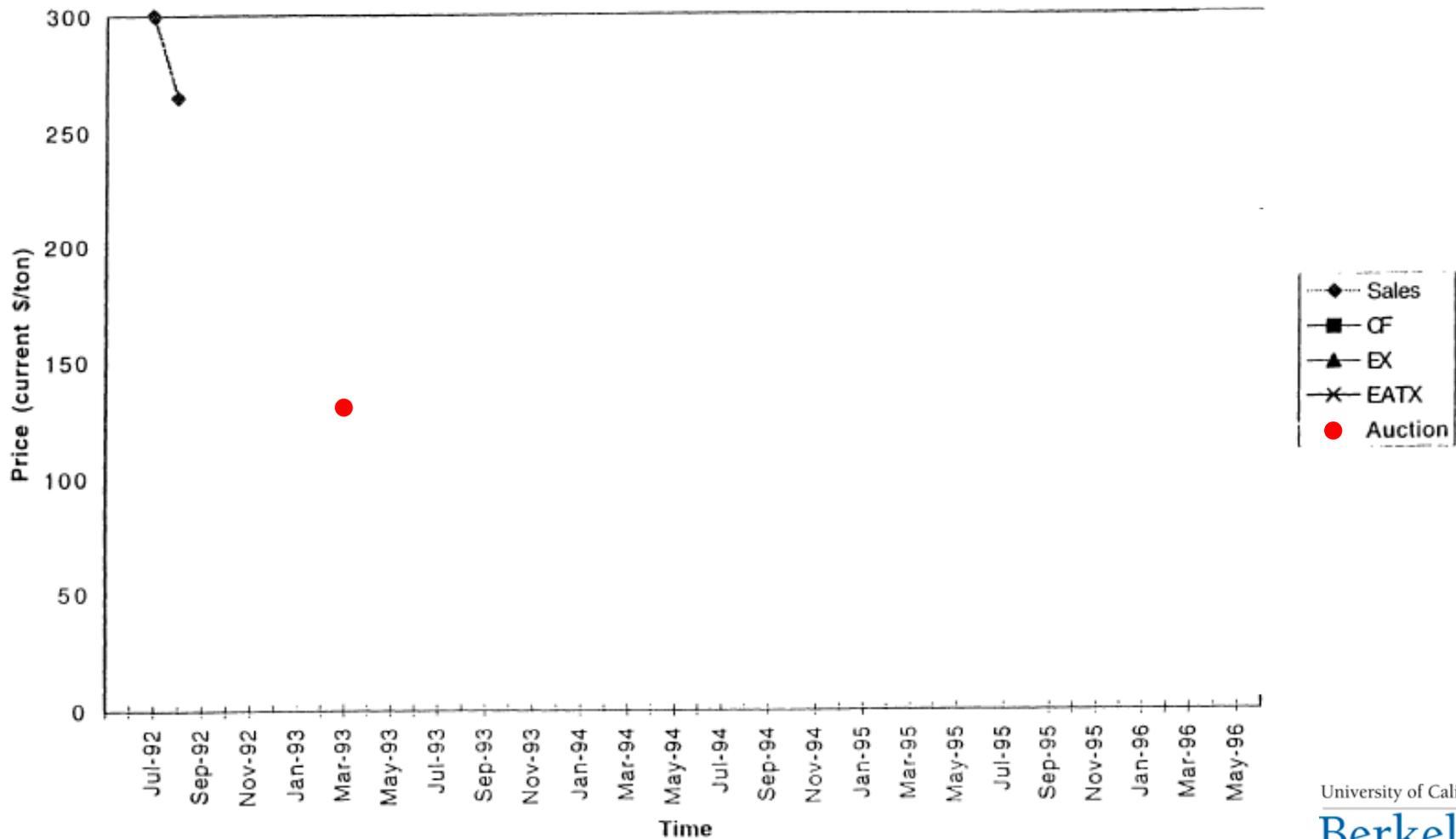
US Acid Rain Program
Current Vintage SO₂ Allowances Prices, 1992 - 1996



Joskow, Schmalensee, Bailey (1998)

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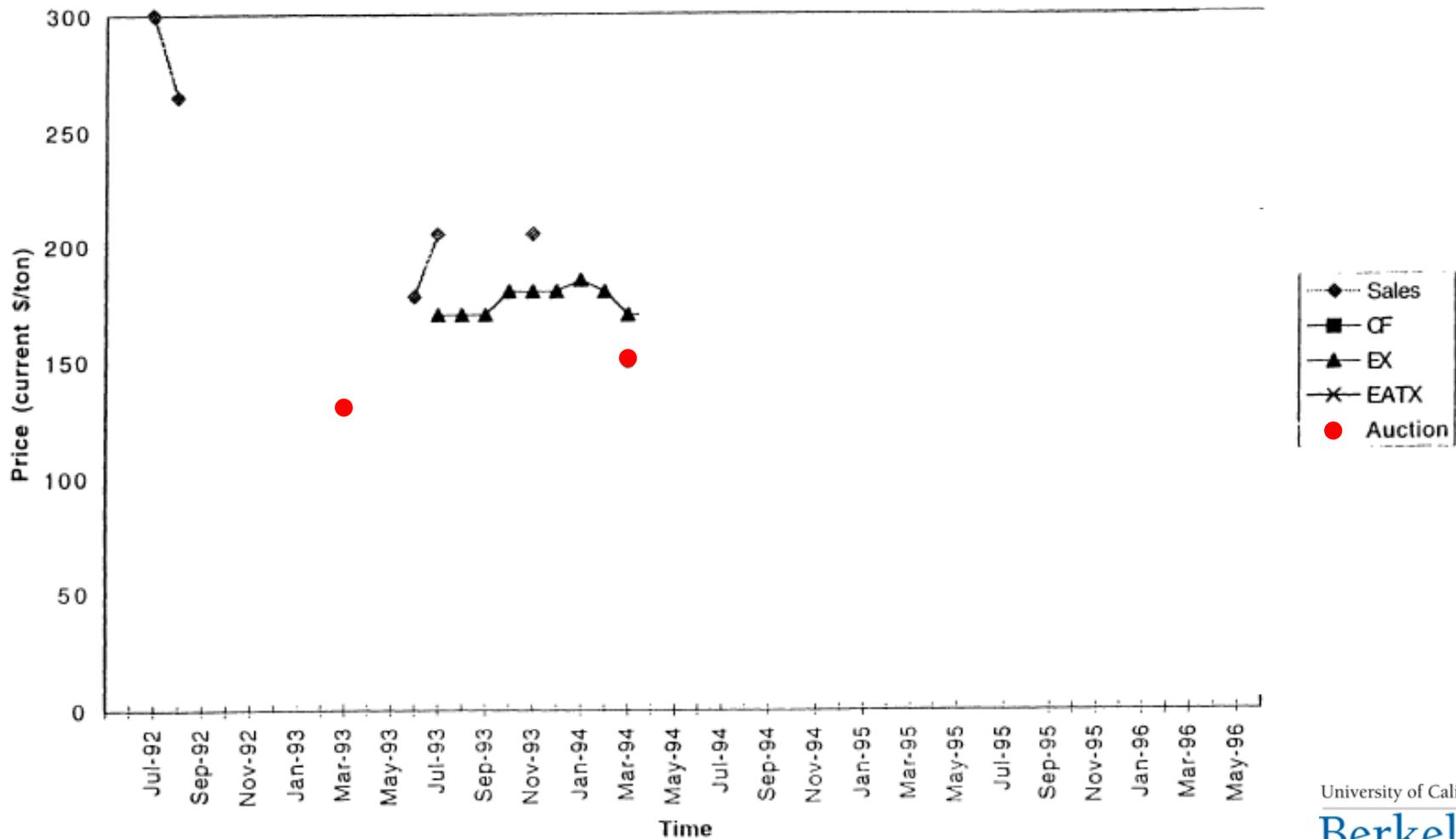
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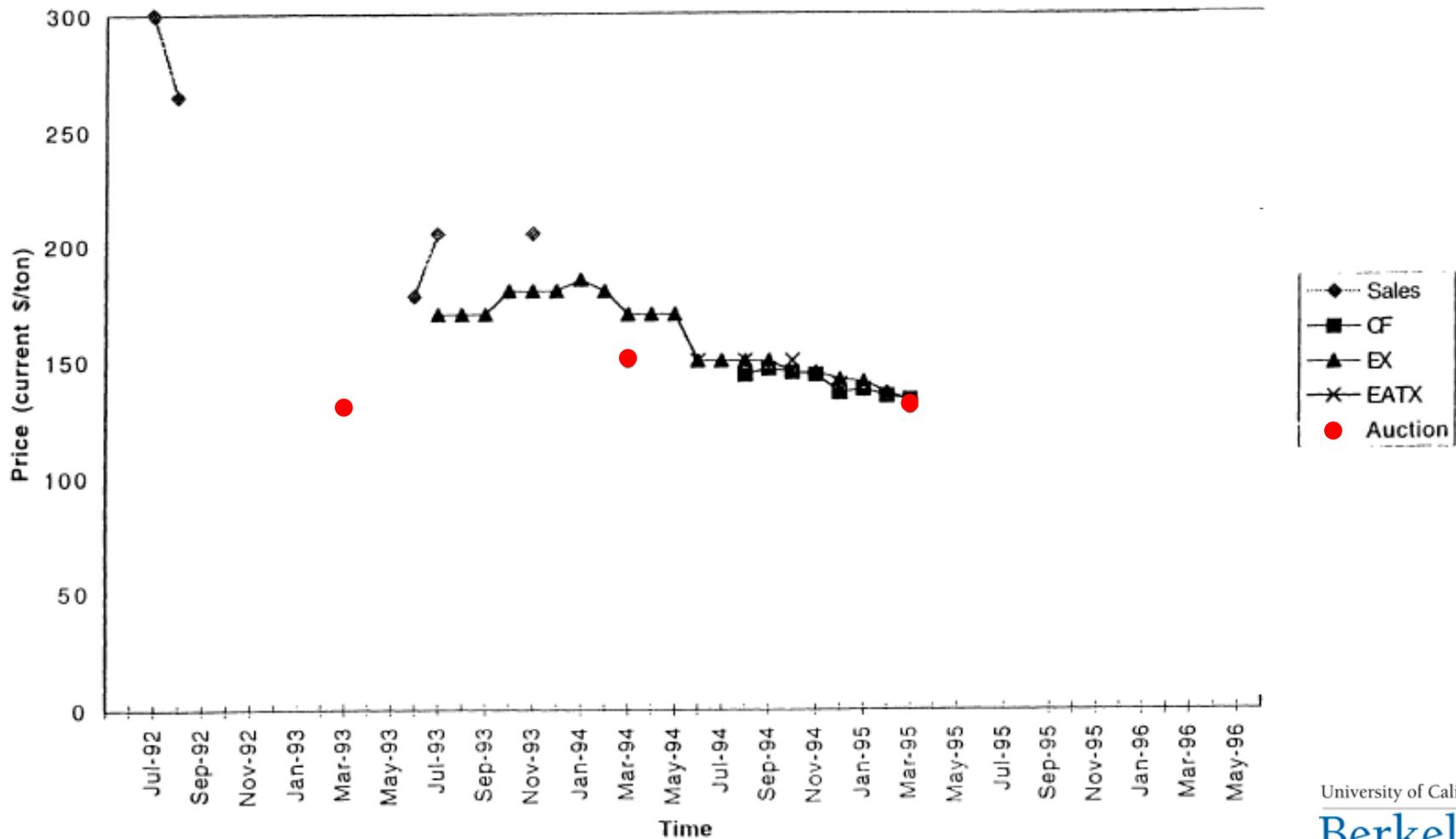
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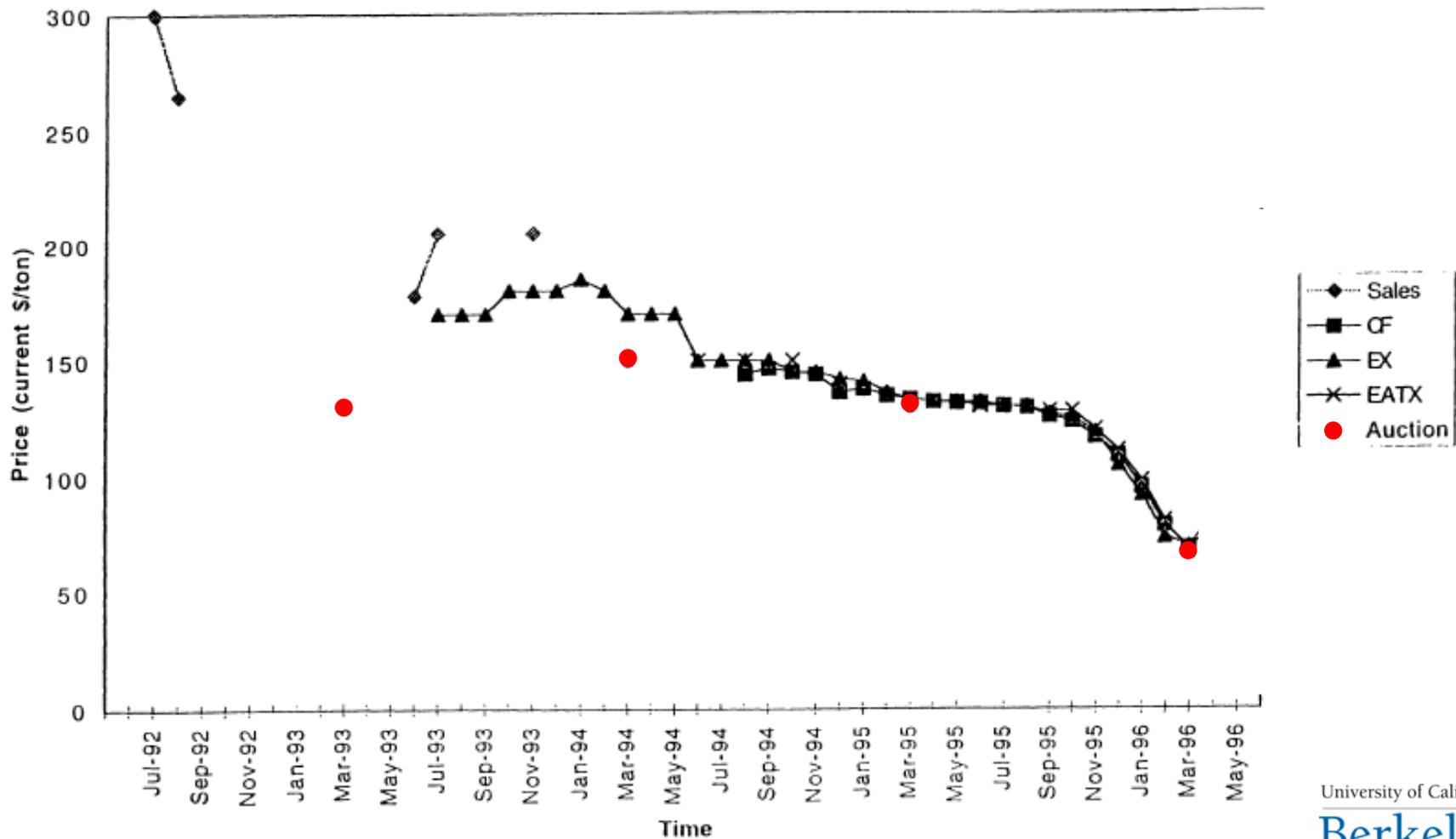
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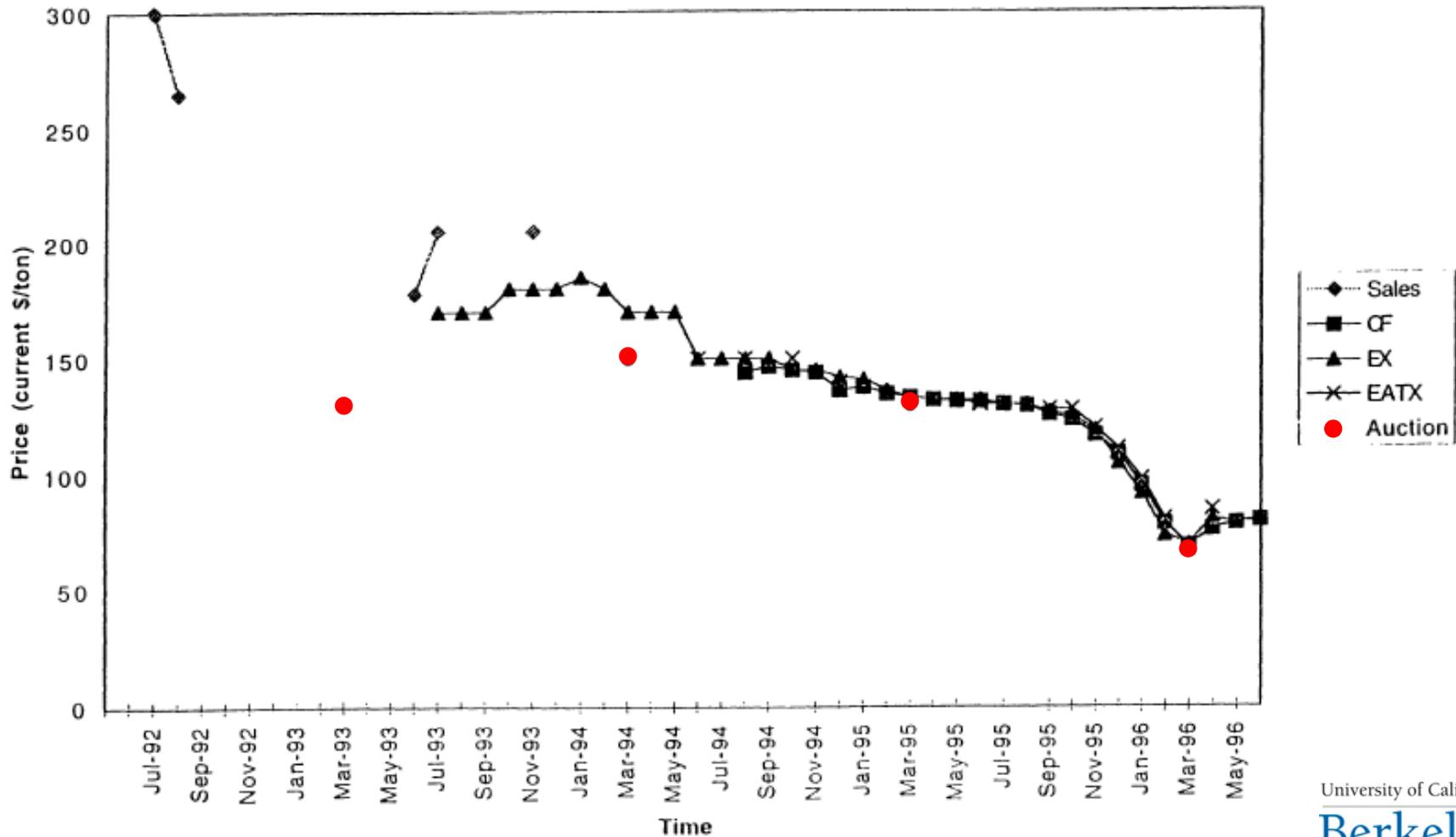
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Taking the Temperature of the California GHG Market

- False Readings
 - Price levels (high or low)
 - Volume sold (sold out or under-subscribed)
- Reasonable Readings
 - Evidence of the resolution of uncertainty
 - Relationship between current and future prices
 - Measures of price dispersion
 - Relationship between prices and marginal abatement costs
 - Evidence of investments in GHG reducing technology based on market prices

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To Date, Available Evidence Indicates the Market Is Maturing

- Evidence of the resolution of uncertainty
 - Offset litigation resolved in CARB's favor
 - Wack-a-mole: new litigation crops up...
- Sizable reduction in participants' uncertainty about whether the program will persist
 - Implied by the relationship between current auction prices and future ICE prices
 - Methodology: 2 equations/2 unknowns

More Evidence Will Develop Over Time

- Measures of price dispersion
- Relationship between prices and marginal abatement costs
- Evidence of investments in GHG reducing technology based on market prices

Important Work Remains to Be Done

Improve Transparency
(and let the sun shine in)

THANK YOU

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