

**California Rice Economic Future(s)**  
**Where are we heading and why?**

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# Outline and Overview

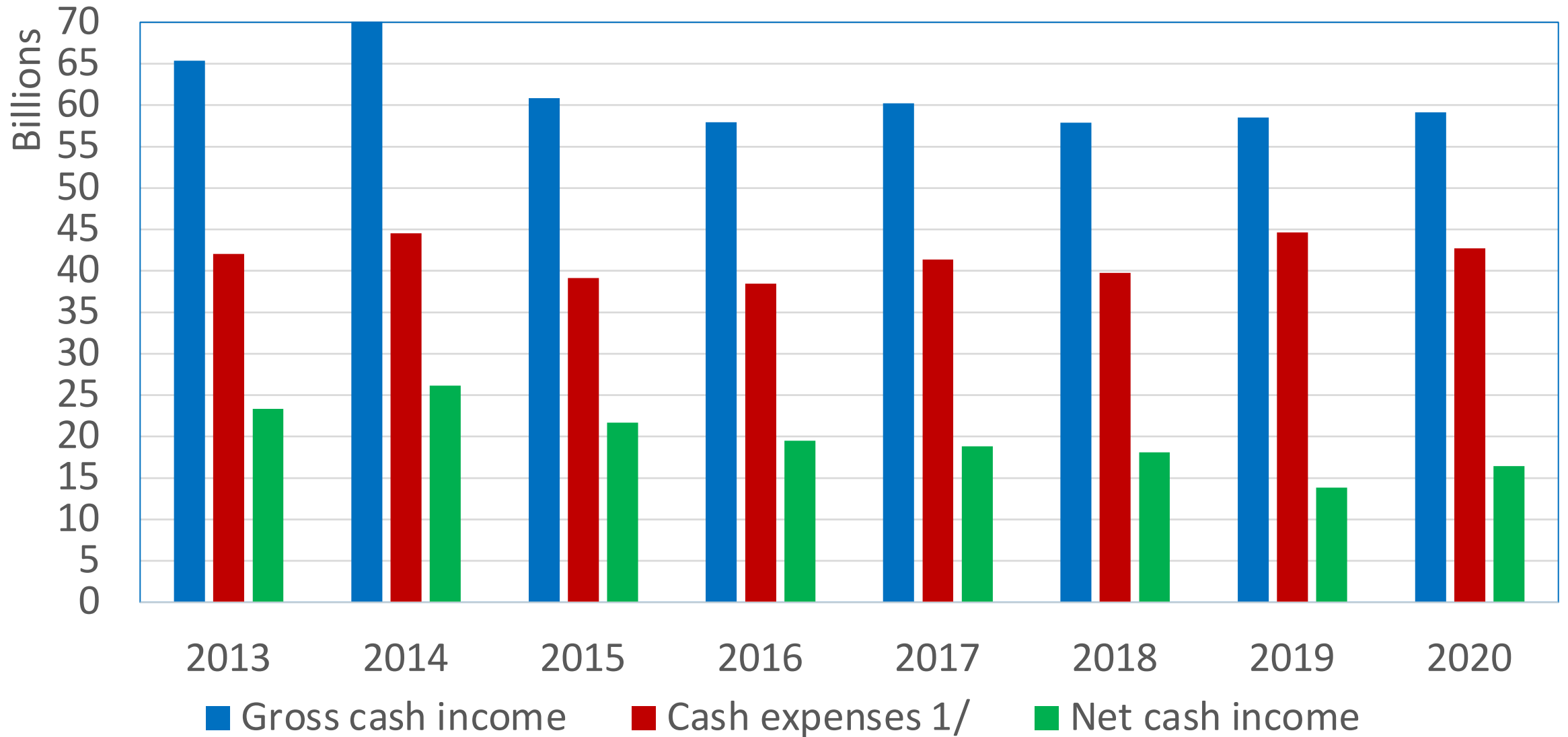
- **Misinformation pervades pessimistic perceptions about California agriculture and California rice**
- **California agricultural diversity and dynamism will continue, including for California rice**
- **War, pandemics, drought and floods, recession, inflation, interest rate jumps exchange rate flux and trade conflicts these are NOT new and do not change the long-term outlook**
- **Isn't this enough to deal with!**

# Outline and Overview (Longer term)

**A deeper set of concerns:**

- **Long term social and policy concerns:**
  - **increasing anti-science, anti-trade and anti-economy policy sentiment**
  - **including California policy response to climate change.**
- **Resilience depends on innovation**
  - **innovations rely on policy allowing adaptations based on science, expanding open markets and open investment.**
- **Social and policy pressures threaten innovation and openness to markets, both locally and globally.**

# California Farm Income (in real 2022\$)



# California Farm Income

*California farm income has been flat for a decade in real terms.*

- 1. The 2014 was driven by prices at record high**
- 2. Recent drought did not dampen farm income much.**
- 3. For California, 2022 was a high price year for milk, rice and many other crops but low for nuts**
- 4. High costs for everyone.**

# **Drivers on the cost side**

## **1. Water scarcity, regulations, high prices**

**(Secure ownership of groundwater could unleash flexibility and markets for recharge, but collective ownership of ground water will stifle incentives )**

**2. Warmer winters mean less snow, but climate change affects competitors too and prices will rise globally.**

**3. Regulations for climate and other environment concerns raise California costs compared to competitors.**

**4. Resilience requires innovation.**

- Firms and farms are responding but need public R&D as a base...**
- Productivity enhancing R&D is no long a government priority**

# **Inflation and interest rates**

**Neutral and anticipated inflation raises output prices along with input prices. But it is NEVER that easy**

- Prices rise in bunches and some by more and others by less.**
- The most important price (interest rates) cannot be interpreted without knowing future inflation which we cannot know!**
- We need to adjust every price for recent and expected inflation and that just makes every decision that much more complex, uncertain and likely wrong.**
- Higher interest rates raise cost of any long-term investment, especially tree and other capital intensive crops. Rice is less affected than some.**

# Water costs and availability

- **Drought and floods combine to make water a mess**
- **Even with climate complication water depends on public policy innovations that allow markets**
- **The most important innovation is inter-temporal and regional water markets in groundwater resources. This requires property rights.**
- **It may take a decade or a new generation of leaders.**
- **Maybe too optimistic?**



**Table 1. Field Crop Acres Prevented from Planting  
(Rice close to 50% in 2022)**

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
	<b>(Percentages of crop acres prevented from planting)</b>					
<b>Corn</b>	<b>0.5</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.9</b>	
<b>Cotton</b>	<b>3.6</b>	<b>10.6</b>	<b>3.6</b>	<b>26.2</b>	<b>37.4</b>	
<b>Rice</b>	<b>19.9</b>	<b>1.4</b>	<b>9.1</b>	<b>6.4</b>	<b>21.0</b>	<b>55%</b>
<b>Wheat</b>	<b>1.1</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>1.4</b>	
<b>All other field crops</b>	<b>0.6</b>	<b>0.4</b>	<b>0.5</b>	<b>0.9</b>	<b>2.1</b>	

# Recent California Rice Basics

	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Acreage (thousands)</b>	<b>504</b>	<b>501</b>	<b>514</b>	<b>405</b>	<b>254</b>
<b>Yield (Cwt/acre)</b>	<b>86.2</b>	<b>84.6</b>	<b>87.2</b>	<b>90.5</b>	<b>87.6</b>
<b>Production (Million cwt)</b>	<b>43.425</b>	<b>42.362</b>	<b>44.810</b>	<b>36.653</b>	<b>22.251</b>
<b>Price/cwt</b>	<b>\$21.10</b>	<b>\$21.60</b>	<b>\$22.60</b>	<b>\$28.50</b>	<b>\$36.00*</b>

## **Drivers on the demand side**

**Local, national and global markets are all important**

- 1. Global population growing slowly and aging rapidly but ...**
- 2. Population numbers are not key for California rice.**
- 3. Income growth is much more important**
- 4. Middle income consumers demand more California rice**
- 5. Buyers continue to pay for product attributes based on farm practices. California is well suited to that demand.**

**Overall demand growth prospects are strong so long as income growth continues, and buyers continue to seek diet quality and responsive farm practices.**

# **Income growth will continue for most of the world's people unless destroyed by failure to invest, caused by bad government**

- **Convergence is the story for most of the world, including in Asia and that is great news for people and for markets for California agriculture.**
- **Rich South Korea was very poor. Poor North Korea is still poor.**
- **Indonesia, China and India: ... growing after a long delay.**
- **China has entered middle income and will find growth harder.**
- **Huge diversity within countries and across countries, so potential markets are almost everywhere**
- **The shift from Asia to Africa will become crucial.**

# Exchange Rates

- **Exchange rate movement drive exports in the intermediate term**
- **The same price in US \$ terms looks expensive to export customers and even more expensive compared to competitor products.**
- **No one can reliably project exchange rate movements.**

# Korean Won per US Dollar in 2022



Source: Wall Street Journal

# Rice Land Prices

(California Farm Managers and Rural Appraisers data trends)

	North/West		Yuba/Sutter		South	
	Low	High	Low	High	Low	High
2017	\$10,000	\$13,000	\$9,500	\$12,500	\$9,000	\$13,000
2018	\$10,000	\$12,000	\$9,500	\$12,500	\$9,000	\$13,000
2019	\$10,000	\$14,000	\$9,500	\$14,000	\$9,000	\$16,000
2020	\$10,000	\$14,500	\$9,500	\$14,000	\$9,000	\$16,000
2021	\$11,000	\$16,500	\$9,500	\$14,000	\$11,000	\$16,500

## **Why are cropland prices increasing?**

- **Land prices indicate reasonable optimism**
- **Land prices are not driven by urban pressure**
- **Of course, land without “reasonable” water prospects cannot support “irrigated” farmland prices**



# **Fundamentals suggest optimism about ability to overcome obstacles and generate growth for California agriculture**

- 1. Rapid change will continue!**
- 2. Labor pains and water pressure will increase, but unleashing incentives will allow innovation**
- 3. California rice is suited to food trends, where the key is anticipating complex customer demands**
- 4. Gains will be derived from adapting to California's unique resources and advantages, including openness to change**
- 5. State and local government can kill the opportunity by rejecting innovation and raising costs for farms and agribusiness compared with competitors.**



**Thank you, [dasumner@ucdavis.edu](mailto:dasumner@ucdavis.edu)**

