2018 Imperial Valley General Assembly and Economic Summit

Presented by:
Michael Bracken
Managing Partner & Chief Economist
Acknowledgments

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

IMPERIAL VALLEY ECONOMIC DEVELOPMENT CORPORATION

ICIC
Disclosures

1. Registered as Decline to State
2. Advise Both Sides of the Aisle
3. Co-Founder and Member of Board of Directors of Publicly Traded Community Bank
4. Serve as Economic Development Advisor to SCAG, Lake Elsinore, Colton, Imperial and Needles
International Economic Picture
GDP Growth (China)

CHINA GDP GROWTH RATE

<table>
<thead>
<tr>
<th>Month</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 2015</td>
<td>1.7</td>
</tr>
<tr>
<td>Jan 2016</td>
<td>1.6</td>
</tr>
<tr>
<td>Jul 2016</td>
<td>1.9</td>
</tr>
<tr>
<td>Jan 2017</td>
<td>1.7</td>
</tr>
<tr>
<td>Jul 2017</td>
<td>1.8</td>
</tr>
<tr>
<td>Jul 2017</td>
<td>1.8</td>
</tr>
<tr>
<td>Jan 2018</td>
<td>1.6</td>
</tr>
</tbody>
</table>

SOURCE: TRADINGECONOMICS.COM | NATIONAL BUREAU OF STATISTICS OF CHINA
GDP Growth (Japan)

JAPAN GDP GROWTH ANNUALIZED

Jul 2015: -0.1
Jan 2016: 0.3
Jul 2016: 1.1
Jan 2017: 0.7
Jul 2017: 2.6
Jan 2018: 2

SOURCE: TRADINGECONOMICS.COM | CABINET OFFICE, JAPAN
GDP Growth (EU)

European Union GDP Annual Growth Rate

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Jul 2015</td>
<td>2.3</td>
<td>Jan 2016</td>
<td>2.2</td>
<td>Jul 2016</td>
<td>1.9</td>
<td>Jan 2017</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

SOURCE: TRADINGECONOMICS.COM | EUROSTAT
GDP Growth (India)

INDIA GDP ANNUAL GROWTH RATE

Jan 2015: 6.8
Jul 2015: 7.6
Jan 2016: 8.4
Jul 2016: 9.2
Jan 2017: 7.4
Jul 2017: 5.7
Jan 2018: 7.2

SOURCE: TRADINGECONOMICS.COM | MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION (MOSPI)
US Dollar Value vs. Euro ($1 = .86 EU as of 5/27/18)
U.S. Oil Inventory
(Current = $68 / One Year Ago = $48)
US Trade Deficit Stable (About 2.4% of GDP)

US CURRENT ACCOUNT TO GDP

2008 -4.7
2010 -3.2
2012 -3.1
2014 -2.4
2016 -2.4
2018 -2.4

SOURCE: TRADINGECONOMICS.COM | U.S. BUREAU OF ECONOMIC ANALYSIS
Trade Uncertainty

CALL ME WHEN YOU'RE TIRED OF WINNING

STEEL-DEPENDENT INDUSTRIES

TRADE WAR
Smoot Hawley Tariff Act of 1930
Summary of Global

- **Good**
  - World Economic Growth is Positive
  - Oil inventory Steadily Rising ($70 ok, $90 bad)
  - International Financial System is solid

- **Bad**
  - Geopolitical Issues (North Korea)
  - Will Brexit Happen? Any Real Impacts?
  - President Trump’s Bark vs. Bite on Trade
United States Economic Picture
Unemployment Rates

US UNEMPLOYMENT RATE

<table>
<thead>
<tr>
<th></th>
<th>Jul 2017</th>
<th>Oct 2017</th>
<th>Jan 2018</th>
<th>Apr 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment Rate</td>
<td>4.3</td>
<td>4.2</td>
<td>4.1</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Wealthiest 1% of Americans Own 40% of Overall Wealth
Labor Force Participation Participation STILL in Decline

Figure 1: Labor Force Participation Rate

Percent (Seasonally Adjusted)

Note: Data for January 1990 to December 2016 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. Shading denotes recession. Source: Bureau of Labor Statistics; National Bureau of Economic Research; author’s calculations.
National Housing Starts

US HOUSING STARTS

Thousand

<table>
<thead>
<tr>
<th>Month</th>
<th>Start</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 2017</td>
<td>1122</td>
</tr>
<tr>
<td>Oct 2017</td>
<td>1172</td>
</tr>
<tr>
<td>Jan 2018</td>
<td>1210</td>
</tr>
<tr>
<td>Apr 2018</td>
<td>1287</td>
</tr>
</tbody>
</table>

SOURCE: TRADINGECONOMICS.COM | U.S. CENSUS BUREAU
Consumer Debt

Non-Housing Debt Balance

- Student Loan: $1.38 trillion
- Other: $0.39 trillion
- Credit Card: $0.83 trillion
- Auto Loan: $1.22 trillion

Source: FRBNY Consumer Credit Panel/Equifax
U.S. Federal Reserve Rate
Rising Cost of Higher Education

Average Cost of Tuition and Fees

This graph shows the average cost of tuition and fees at private universities from 1971 to 2017. Numbers have been adjusted for inflation.

Figures sourced from Collegeboard.org.
Summary of United States

Good
• GDP Continues Growth
• Potential Impact from Tax Cuts (Remains to be Seen)
• Job Growth Stable (and Solid)
• Housing Starts Climbing and Strong

Bad
• Policy Uncertainty (Trade)
• Labor Shortage (Many Industries)
• Debt ($21.1 Trillion) ($2 Trillion in Last Two (2) Years!)
• Costs of Higher Education and Student Debt
• Income Disparity (“Bernie” May Win???
• Consumer Inflation & Rising Interest Rates
State of California Economic Picture
The Great Nation of... California?
GDP of California ($2.3T)
GDP of California vs World

Gross Domestic Product (GDP) by Nation (in billions of dollars)

- United States: $19.36
- China: $11.94
- Japan: $4.88
- Germany: $3.65
- CALIFORNIA: $2.75
- France: $2.57
- United Kingdom: $2.56
- India: $2.44
- Brazil: $2.08
- Italy: $1.92
- Canada: $1.64
Unemployment Rate-CA (April, 2018: 4.2%)
Ave Hourly Earnings-CA
$30.60 – April 2018

[Graph showing the trend of average hourly earnings from July 2011 to January 2018]
Housing Affordability Index

Housing Affordability Index (Median Home Price / Median Household Income)

<table>
<thead>
<tr>
<th></th>
<th>Imperial County</th>
<th>United States</th>
<th>San Bernardino</th>
<th>Riverside</th>
<th>Ventura</th>
<th>San Diego</th>
<th>California</th>
<th>Orange</th>
<th>Los Angeles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplier</td>
<td>5.01</td>
<td>5.57</td>
<td>5.66</td>
<td>6.25</td>
<td>7.11</td>
<td>8.16</td>
<td>8.21</td>
<td>8.82</td>
<td>9.79</td>
</tr>
</tbody>
</table>
Home Price Index
(1980 = 100)
State Business Tax Rates

2018 State Business Tax Climate Index

Note: A rank of 1 is best, 50 is worst. Rankings do not average to the total. States without a tax rank equally as 1. DC’s score and rank do not affect other states. The report shows tax systems as of July 1, 2017 (the beginning of Fiscal Year 2018).
Source: Tax Foundation.
Non-Performing Commercial Loans
State of Water

U.S. Drought Monitor
California

May-16
May-17
May 18
Summary of State

- Full Employment (Automation on Rise)
- Minimum Wages Increasing (Automation on Rise)
- Housing Shortage Across Most of State (Record Prices)
- Wall?
- Unsustainable Costs from Public Safety and Prisons
- Drought (Quickly) Returning (Do We Ever Learn?)
Imperial County

“Spillover Effect”
Imperial County
Livestock & Crop Production

Includes both Livestock & Crops
Regional Renewable Projects

- Total Production: 2,154 MW
- State Ranking: 2nd (By County)
- County is \( \frac{1}{2} \) of 1% of State Population, 8% of Renewable Production
- 44 Total Projects
  - Geothermal: 20 / 718 mw
  - Small Hydro: 8 / 93 mw
  - Solar (PV): 15 / 1078 mw
  - Wind: 1 / 265 mw
Median Household Income

Annual Dollars

$30,000 $32,000 $34,000 $36,000 $38,000 $40,000 $42,000 $44,000

Imperial County Unemployment Rate

(4/18)
Imperial County Employment

Total Persons Employed
Occupations by Median Pay
(Number of workers in 1000’s)

<table>
<thead>
<tr>
<th>Annual Pay</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$120,000</td>
<td>Management</td>
</tr>
<tr>
<td>$100,000</td>
<td>Legal Occupations</td>
</tr>
<tr>
<td>$90,000</td>
<td>Architecture/Engineering</td>
</tr>
<tr>
<td>$80,000</td>
<td>Healthcare/Physical Sciences</td>
</tr>
<tr>
<td>$70,000</td>
<td>Computer &amp; Mathematics</td>
</tr>
<tr>
<td>$60,000</td>
<td>Protective Service</td>
</tr>
<tr>
<td>$50,000</td>
<td>Educational Service</td>
</tr>
<tr>
<td>$40,000</td>
<td>Community/repair</td>
</tr>
<tr>
<td>$30,000</td>
<td>Install/Construction</td>
</tr>
<tr>
<td>$20,000</td>
<td>All occupations</td>
</tr>
<tr>
<td>$10,000</td>
<td>Arts/Design</td>
</tr>
<tr>
<td>$0</td>
<td>Office/Transportation/Logistics</td>
</tr>
<tr>
<td>$0</td>
<td>Building/Grounds/Maintenance</td>
</tr>
<tr>
<td>$0</td>
<td>Personal Care/Service</td>
</tr>
<tr>
<td>$0</td>
<td>Farming</td>
</tr>
</tbody>
</table>

$44,819
Imperial County Occupations

Job Count

2015 | 2016 | 2017

Sales
Office/Admin Support
Transportation/Moving
Farming
Management
Protective Services
Education/Training
Personal Care
Production
Building Grounds...
Food Prep/Service
Maintenance/Repair
Construction/Extraction
Community/Social Services
Business/Financial...
Healthcare/Practitioner/Tech
Computer/Technical
Architect/Engineer
Life/Physical/Social...
Arts/Entertainment/Sports
Legal
Growth Occupations

Projected High Growth Occupations 2014-2024
(100+ Jobs, Wages $40,000/yr+)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Annual Pay in $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor: Correctional Officers (150)</td>
<td>$90,848</td>
</tr>
<tr>
<td>General and Operations Managers (180)</td>
<td>$81,326</td>
</tr>
<tr>
<td>Registered Nurses (220)</td>
<td>$79,759</td>
</tr>
<tr>
<td>Correctional Officers (300)</td>
<td>$73,378</td>
</tr>
<tr>
<td>Elementary School Teachers (220)</td>
<td>$73,196</td>
</tr>
<tr>
<td>Sales Representatives (Non Technical) (180)</td>
<td>$49,977</td>
</tr>
<tr>
<td>Supervisors: Office/Admin (130)</td>
<td>$44,915</td>
</tr>
</tbody>
</table>

Series 1
Home Prices Rising

Imperial County, CA Median Home Price

Price in $
Housing Affordability Scale

Housing Affordability Index
(Median Home Price / Median Income)
Housing Affordability Index
(Median Home Price / Median Household Income)

Multiplier of HH Income / Median Home Price

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<thead>
<tr>
<th>Location</th>
<th>Multiplier</th>
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<td>Los Angeles</td>
<td>9.79</td>
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</table>
### Educational Attainment (Adults 25+)

#### % of Adults Attaining Educational Attainment (Adults 25+)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9th Grade</td>
<td>19.94%</td>
<td>19.88%</td>
</tr>
<tr>
<td>Some High School, No Diploma</td>
<td>13.12%</td>
<td>13.51%</td>
</tr>
<tr>
<td>High School Grad (or GED)</td>
<td>22.24%</td>
<td>22.11%</td>
</tr>
<tr>
<td>Some College, No Degree</td>
<td>25.02%</td>
<td>24.54%</td>
</tr>
<tr>
<td>Associate's Degree</td>
<td>6.80%</td>
<td>6.02%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>9.18%</td>
<td>9.81%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>2.99%</td>
<td>3.23%</td>
</tr>
<tr>
<td>Professional School Degree</td>
<td>0.54%</td>
<td>0.75%</td>
</tr>
<tr>
<td>Doctorage Degree</td>
<td>0.17%</td>
<td>0.16%</td>
</tr>
</tbody>
</table>
Imperial County: Poverty

Percentage of Residents Below Poverty Line

<table>
<thead>
<tr>
<th>Year</th>
<th>All Persons</th>
<th>Under 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>YR 1990 Census</td>
<td>23.8</td>
<td>31.1</td>
</tr>
<tr>
<td>YR 2000 Census</td>
<td>22.6</td>
<td>28.9</td>
</tr>
<tr>
<td>YR 2005-09 ACS</td>
<td>21.2</td>
<td>27.2</td>
</tr>
<tr>
<td>YR 2006-10 ACS</td>
<td>19.6</td>
<td>28.3</td>
</tr>
<tr>
<td>YR 2008-10 ACS</td>
<td>22.6</td>
<td>29.9</td>
</tr>
<tr>
<td>YR 2011 ACS</td>
<td>22.7</td>
<td>32.8</td>
</tr>
<tr>
<td>YR 2012 ACS</td>
<td>23.2</td>
<td>32.8</td>
</tr>
<tr>
<td>YR 2013 ACS</td>
<td>23.3</td>
<td>31.3</td>
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<tr>
<td>YR 2014 ACS</td>
<td>23.7</td>
<td>30.1</td>
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<tr>
<td>YR 2015 ACS</td>
<td>23.4</td>
<td>31.2</td>
</tr>
<tr>
<td>YR 2016 CR</td>
<td>24.6</td>
<td>34</td>
</tr>
</tbody>
</table>
Concerns for 2018...

- Poverty Rates Slowly Rising
- Water Wars (Continuing)
- Regulation DRIVING Ag Elsewhere
- Need for Stability of Regional Leadership
- Rising Interest Rates (Many Barely Making It)
- Job Quality / Opportunity to Advance in Fast Paced Economy
Regional Growth Attributes

- Affordable Land / Buildings / Housing
- Water & Energy (Local Control)
- Housing Affordability
- Land & Labor Availability
Spillover Effect

- Economy Booming in Coastal Communities
- Boom = Push East
- Inland Empire NOW Expensive (Yes Really!)
- Small Businesses / New Businesses NEED Affordable location & Market Opportunity
- Growth will Come FROM West and Northwest (Leapfrogging I.E. in Some Cases)
2018 = 250 New Homes Built (maybe 350)

Unemployment Stable (Historic Lowes of 15%)

Agriculture Continues March of Automation

Trade War = Uncertainty

More Solar/Geothermal Coming (Look for Ramp-up 2019-20 with Generation Goal of 2022-2025