Economic Pressure Points – What Matters for Growth?
Outline

The Background
Influential Factors
   a. Current measures
   b. Potential measures/Partial influence
   c. External forces
Growth Measures
Relationships
Regression Results
Conclusions
Net Worth per Household

State

Alaska
Delaware
Wyoming
Connecticut
New York
North Dakota
Massachusetts
California
Hawaii
New Jersey
Texas
Utah
Maryland
Virginia
Illinois
Washington
Minnesota
Louisiana
Nebraska
Colorado
South Dakota
Nevada
Oregon
Iowa
Kansas
New Hampshire
Rhode Island
North Carolina
Pennsylvania
Georgia
Indiana
Wisconsin
Tennessee
Arizona
Ohio
Oklahoma
Missouri
Vermont
Florida
Michigan
Idaho
New Mexico
Kentucky
Montana
South Carolina
Alabama
Maine
Arkansas
West Virginia
Mississippi

0K 50K 100K 150K 200K 250K 300K 350K 400K

Average
Background: International Wealth
ECONOMIC GROWTH FACTORS
INFLUENTIAL FACTORS
CURRENT MEASURES
Income Tax Burden

[Bar graph showing income tax burden by state, with New York having the highest burden and Utah having the lowest.]

TAX POLICY: INCOME TAX
(2012)
TAX POLICY: SEVERANCE TAX

(2012)
Regulations and Licensing

Government Employment

[Bar chart showing the percentage of government employees per household across different states.]
Business Incentives per Household

- Alaska: 2,601
- Texas: 1,885
- West Virginia: 2,020
- Nebraska: 1,661
- Michigan: 1,459
- Vermont: 1,530
- Oklahoma: 1,499
- Louisiana: 1,300
- Pennsylvania: 1,001
- Kansas: 849
- Maine: 876
- Washington: 866
- Massachusetts: 866
- Rhode Island: 831
- Kentucky: 800
- New Hampshire: 719
- Ohio: 687
- Wisconsin: 656
- Tennessee: 646
- Connecticut: 611
- Arizona: 596
- Idaho: 564
- Hawaii: 563
- Oregon: 546
- New York: 546
- Florida: 513
- Colorado: 508
- South Carolina: 488
- Virginia: 488
- Wyoming: 488
- Georgia: 486
- Arkansas: 486
- Mississippi: 486
- District of Columbia: 486
- Indiana: 486
- California: 486
- New Mexico: 486
- Illinois: 486
- Maryland: 486
- Montana: 486
- Utah: 486
- New Jersey: 486
- Iowa: 486
- North Carolina: 486
- Alabama: 486
- Delaware: 486
- North Dakota: 486
- Minnesota: 486
- South Dakota: 486
- Missouri: 486
- Nevada: 486

Business Incentives per Household
ECONOMIC GROWTH FACTORS
INFLUENTIAL FACTORS
POTENTIAL MEASURES
PARTIAL INFLUENCE
WAGE LEVELS (2012)
WAGE INFLATION
Business Births - Deaths

About Tableau maps: www.tableausoftware.com/mapdata
INDUSTRY EFFECTS/CLUSTERING

UTAH CLUSTER: AEROSPACE AND AVIATION

About Tableau maps: www.tableausoftware.com/mapdata
UTAH CLUSTER: AEROSPACE AND DEFENSE
PUBLIC SCORECARD

INDUSTRY EFFECTS/CLUSTERING

UTAH CLUSTER: FINANCIAL SERVICES

About Tableau maps: www.tableausoftware.com/mapdata
INDUSTRY
EFFECTS/CLUSTERING

UTAH CLUSTER: LIFE SCIENCES

Biopharmaceutical

About Tableau maps: www.tableausoftware.com/mapdata
INDUSTRY EFFECTS/CLUSTERING

UTAH CLUSTER: LIFE SCIENCES
UTAH CLUSTER: INFORMATION TECHNOLOGY

About Tableau maps: www.tableausoftware.com/mapdata
INDUSTRY

EFFECTS/CLUSTERING

UTAH CLUSTER: OUTDOOR PRODUCTS & RECREATION
INDUSTRY EFFECTS/CLUSTERING

UTAH CLUSTER: ENERGY AND NATURAL RESOURCES
INDUSTRY EFFECTS/CLUSTERING

UTAH CLUSTER: ENERGY AND NATURAL RESOURCES
ECONOMIC GROWTH FACTORS
INFLUENTIAL FACTORS
EXTERNAL INFLUENCE
Productivity (2012)

Source: The Conference Board
• More than 50% of the world now lives in an urban location and may grow to 70% by 2050
• More than 50% of the world’s population lives within 200km of a coastline
• About half of all nations have birth rates below replacement levels
• Of all kids born today, around 50% will celebrate their 100th birthday
• Baby boomers are retiring and their parents are still alive. First time ever to have multiple generations of retired households

Source: ISI; Census; various international agencies
US: Number of Live Births in Millions

**Sources:** NCHS; ISI Group.
U.S. Households with more **MONEY** than **TIME**
(Number of U.S. Families with Two or More Earners)

Sources: U.S. Census Bureau; ISI Group.
Percentage of the Population 0 to 4 Years Old

State
Utah
Alaska
Texas
Idaho
Nebraska
South Dakota
Kansas
New Mexico
Oklahoma
Louisiana
Mississippi
Georgia
Arizona
Wyoming
California
Nevada
North Dakota
Arkansas
Colorado
Indiana
Minnesota
Washington
Hawaii
Iowa
Kentucky
United States
North Carolina
Illinois
Alabama
Missouri
South Carolina
Tennessee
Virginia
Maryland
District Of Columbia
Delaware
Wisconsin
Montana
Ohio
New York
Oregon
New Jersey
Michigan
Pennsylvania
West Virginia
Florida
Massachusetts
Connecticut
Rhode Island
Maine
New Hampshire
Vermont

Pop0to4
<table>
<thead>
<tr>
<th>State</th>
<th>Percentage of the Population 20 to 64</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Of Columbia</td>
<td></td>
</tr>
<tr>
<td>Alaska</td>
<td></td>
</tr>
<tr>
<td>Colorado</td>
<td></td>
</tr>
<tr>
<td>Virginia</td>
<td></td>
</tr>
<tr>
<td>New Hampshire</td>
<td></td>
</tr>
<tr>
<td>Maryland</td>
<td></td>
</tr>
<tr>
<td>Massachusetts</td>
<td></td>
</tr>
<tr>
<td>New York</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td></td>
</tr>
<tr>
<td>Vermont</td>
<td></td>
</tr>
<tr>
<td>Rhode Island</td>
<td></td>
</tr>
<tr>
<td>California</td>
<td></td>
</tr>
<tr>
<td>Hawaii</td>
<td></td>
</tr>
<tr>
<td>Wyoming</td>
<td></td>
</tr>
<tr>
<td>Nevada</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td></td>
</tr>
<tr>
<td>Oregon</td>
<td></td>
</tr>
<tr>
<td>New Jersey</td>
<td></td>
</tr>
<tr>
<td>Maine</td>
<td></td>
</tr>
<tr>
<td>North Dakota</td>
<td></td>
</tr>
<tr>
<td>Illinois</td>
<td></td>
</tr>
<tr>
<td>Kentucky</td>
<td></td>
</tr>
<tr>
<td>Louisiana</td>
<td></td>
</tr>
<tr>
<td>Connecticut</td>
<td></td>
</tr>
<tr>
<td>Tennessee</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td></td>
</tr>
<tr>
<td>West Virginia</td>
<td></td>
</tr>
<tr>
<td>Minnesota</td>
<td></td>
</tr>
<tr>
<td>North Carolina</td>
<td></td>
</tr>
<tr>
<td>Wisconsin</td>
<td></td>
</tr>
<tr>
<td>Pennsylvania</td>
<td></td>
</tr>
<tr>
<td>Michigan</td>
<td></td>
</tr>
<tr>
<td>South Carolina</td>
<td></td>
</tr>
<tr>
<td>Montana</td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td></td>
</tr>
<tr>
<td>Texas</td>
<td></td>
</tr>
<tr>
<td>Ohio</td>
<td></td>
</tr>
<tr>
<td>Delaware</td>
<td></td>
</tr>
<tr>
<td>Missouri</td>
<td></td>
</tr>
<tr>
<td>Indiana</td>
<td></td>
</tr>
<tr>
<td>Oklahoma</td>
<td></td>
</tr>
<tr>
<td>Florida</td>
<td></td>
</tr>
<tr>
<td>Mississippi</td>
<td></td>
</tr>
<tr>
<td>New Mexico</td>
<td></td>
</tr>
<tr>
<td>Kansas</td>
<td></td>
</tr>
<tr>
<td>Nebraska</td>
<td></td>
</tr>
<tr>
<td>Arkansas</td>
<td></td>
</tr>
<tr>
<td>Iowa</td>
<td></td>
</tr>
<tr>
<td>South Dakota</td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td></td>
</tr>
<tr>
<td>Idaho</td>
<td></td>
</tr>
<tr>
<td>Utah</td>
<td></td>
</tr>
</tbody>
</table>
Percentage of the Population 65+

State
Florida
Maine
West Virginia
Pennsylvania
Vermont
Montana
Iowa
Rhode Island
Hawaii
Connecticut
Delaware
South Dakota
Oregon
North Dakota
Ohio
Arkansas
Massachusetts
New Hampshire
Michigan
Missouri
Arizona
Wisconsin
South Carolina
New Jersey
New York
Alabama
Nebraska
Tennessee
Kansas
New Mexico
Oklahoma
Kentucky
Minnesota
Indiana
North Carolina
Mississippi
Illinois
Idaho
Washington
Maryland
Wyoming
Virginia
Louisiana
Nevada
California
District Of Columbia
Georgia
Texas
United States
Utah
Alaska

Pop65plus
WEATHER: AVG. TEMPERATURE
Coal Mining

About Tableau maps: www.tableausoftware.com/mapdata
OTHER AREAS THAT MATTER

• Property rights (divorce law; bankruptcy law; corporation law)
• Licensing regulations;
• Work ethic/religion/culture;
• Geographic location;
• Currency strength;
• Inflation;
• Interest rates;
• Technology
• Infrastructure
ECONOMIC GROWTH MEASURES
Personal Income per Household

- Connecticut
- New Jersey
- Massachusetts
- New York
- Maryland
- California
- Hawaii
- Alaska
- North Dakota
- Virginia
- Wyoming
- Texas
- Illinois
- Washington
- Minnesota
- Colorado
- New Hampshire
- United States
- South Dakota
- Utah
- Rhode Island
- Delaware
- Pennsylvania
- Nebraska
- Kansas
- Iowa
- Louisiana
- Vermont
- Florida
- Wisconsin
- Oklahoma
- Georgia
- Nevada
- Missouri
- Oregon
- Ohio
- Arizona
- Tennessee
- Indiana
- North Carolina
- Michigan
- Idaho
- Maine
- Montana
- New Mexico
- Alabama
- South Carolina
- Arkansas
- Kentucky
- Mississippi
- West Virginia

Personal Income per Household
EMPLOYMENT GROWTH SINCE 1939
RELATIONSHIP BETWEEN FACTORS AND ECONOMIC GROWTH
TAX POLICY: INCOME TAX
TAX POLICY: SEVERANCE TAX
WEATHER: AVG. TEMPERATURE

[Graph showing the relationship between employment growth and temperature across different states, with a trend line indicating a positive correlation.]
DYNAMIC PANEL, PROBIT REGRESSION RESULTS
PANEL REGRESSION RESULTS

• Income tax per household: 0.0001316 (every dollar increase in income tax per household is correlated with a 0.0001316 increase in the unemployment rate) (70% confidence) (a $200 million income tax increase equates to a change in unemployment from 5.0 to 5.03);
• Sales tax per household: 0.0005725 (every dollar increase in sales tax per household is correlated with a 0.0005725 increase in the unemployment rate) (80% confidence) (comparative figure XXXXX);
• Corporate tax per household results are inconsistent
PANEL/LOGIT REGRESSION RESULTS

• Regulatory rank: 0.0466484 (every rank increase in regulatory burden equates to a 0.047 increase in the unemployment rate) (99% confidence) (if Utah dropped from 7th or 8th best to 10th, then the unemployment rate correlated with that change would be from 5.0 to 5.08);

• Government employment per household: 4.65824 (every percent increase in government employment per household would equate to a 4.66 increase in the unemployment rate (80% confidence) (please note coefficient is too high);

• Depending on the regression format, educational attainment may or may not be associated with the an increased or decreased unemployment rate
Economic Pressure Points – What Matters for Growth?

Pressure Points for Economic Development

- Tax Burden
- Work Ethic/Religion/Culture/Reputation
- Natural Resources/Land/Geology
- Property rights/Gov’t stability
- Business Incentives
- Weather
- Regulations/Licensing
- Energy Costs/Commodity Prices
- Human Capital/Entrepreneurship/Productivity
- Geographic Location
- Industry Effects/Clustering/Critical Mass/Technology
- Wage Inflation/Relative Wage Levels
- Infrastructure
- Interest rates/currency strength/Inflation
- Demographics

Thomas Young, Ph.D.
Steven Allred
Andrea Wilko, Ph.D.