What do we know about the Alaska economy and where is it heading?

Mouhcine Guettabi, PhD

Institute of Social and Economic Research
University of Alaska Anchorage

1/18/2017
General Overview

Alaska’s Economy: An overview of the last two years

Decomposition of the effects

Private channel
Government channel

Sectoral breakdown

What happens next?

Old forecast
Updated forecast

How do we reconcile the health of the economy with the need to close the budget gap?
Outline

1. General Overview
   - Alaska’s Economy: An overview of the last two years

2. Decomposition of the effects
   - Private channel
   - Government channel

3. Sectoral breakdown

4. What happens next?
   - Old forecast
   - Updated forecast

5. How do we reconcile the health of the economy with the need to close the budget gap?
Summary

A rapid decline

In August 2014, ANS oil prices stood at 101.78 dollars and the number of employees in the state was at 355,638. A year later, oil prices were down 52.5 percent at just over 48 dollars but employment was only down 100 jobs in that same time span.
General Overview
Decomposition of the effects
Sectoral breakdown
What happens next?

How do we reconcile the health of the economy with the need to close the budget gap?

Alaska’s Economy: An overview of the last two years

Oil Prices

Oil Prices by Year and Month (2014-2016)

Mouhcine Guettabi
Why the discrepancy?

The lack of job response in that first year of decline is not very surprising. That is because many projects that were already under way before the price decline had to be completed and much of the state government generous capital budget allocations in 2012, 2013, and 2014 were still making their way into the economy. The economy’s health has weakened considerably since then.

Oil and Gas, Construction, and State Government have been the most affected sectors
How do we reconcile the health of the economy with the need to close the budget gap?

Alaska’s Economy: An overview of the last two years

The state lost 2,261 jobs between March 2014 and March 2016.
Outline

1. General Overview
   - Alaska’s Economy: An overview of the last two years

2. Decomposition of the effects
   - Private channel
   - Government channel

3. Sectoral breakdown

4. What happens next?
   - Old forecast
   - Updated forecast

5. How do we reconcile the health of the economy with the need to close the budget gap?
Obvious Private Employment Channel: three subcomponents

- The first and most obvious is through direct employment in Oil & Gas
- The second is through purchases made by Oil & Gas firms from other Alaska companies in multiple sectors
- The third is through the local spending by Oil & Gas workers
Obvious Private Employment Channel: three subcomponents

- The first and most obvious is through direct employment in Oil & Gas
- The second is through purchases made by Oil & Gas firms from other Alaska companies in multiple sectors
- The third is through the local spending by Oil & Gas workers
Obvious Private Employment Channel: three subcomponents

- The first and most obvious is through direct employment in Oil & Gas
- The second is through purchases made by Oil & Gas firms from other Alaska companies in multiple sectors
- The third is through the local spending by Oil & Gas workers
Outline

1. General Overview
   - Alaska’s Economy: An overview of the last two years

2. Decomposition of the effects
   - Private channel
   - Government channel

3. Sectoral breakdown

4. What happens next?
   - Old forecast
   - Updated forecast

5. How do we reconcile the health of the economy with the need to close the budget gap?
This channel reflects the dependence of the state’s finances on oil revenues. From 2005 to 2014, oil revenues averaged 90 percent of Alaska’s "unrestricted general fund revenues".

The government activities financed by these revenues support jobs in the state government, local government, and the private sector.

While it is easy to understand how state government jobs depend on the budget, it may be less clear when it comes to local government and private jobs.
Obvious Government channel

- This channel reflects the dependence of the state’s finances on oil revenues. From 2005 to 2014, oil revenues averaged 90 percent of Alaska’s "unrestricted general fund revenues"

- The government activities financed by these revenues support jobs in the state government, local government, and the private sector

- While it is easy to understand how state government jobs depend on the budget, it may be less clear when it comes to local government and private jobs
This channel reflects the dependence of the state’s finances on oil revenues. From 2005 to 2014, oil revenues averaged 90 percent of Alaska’s "unrestricted general fund revenues".

The government activities financed by these revenues support jobs in the state government, local government, and the private sector.

While it is easy to understand how state government jobs depend on the budget, it may be less clear when it comes to local government and private jobs.
Obvious Government channel

- This channel reflects the dependence of the state’s finances on oil revenues. From 2005 to 2014, oil revenues averaged 90 percent of Alaska’s "unrestricted general fund revenues"

- The government activities financed by these revenues support jobs in the state government, local government, and the private sector

- While it is easy to understand how state government jobs depend on the budget, it may be less clear when it comes to local government and private jobs
Less Obvious Government channel

- The local government dependence stems from the fact that around 1 in 3 dollars of local government revenues come from the state government.

- For the private sector, the dependence on state government stems from government contracting and purchases made from private Alaska companies, and spending by state government employees on goods and services provided by the private economy.
Less Obvious Government channel

- The local government dependence stems from the fact that around 1 in 3 dollars of local government revenues come from the state government.

- For the private sector, the dependence on state government stems from government contracting and purchases made from private Alaska companies, and spending by state government employees on goods and services provided by the private economy.
State government and private industry were hardest hit through March 2016, with the state government losing nearly 1,700 jobs.

Private industry lost a total of 1,518 jobs. By contrast, local governments (which include school districts) added nearly 800 jobs, and the number of federal civilian jobs was up 165 positions.

<table>
<thead>
<tr>
<th>March 2014 to March 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Sector</td>
</tr>
<tr>
<td>-1,518</td>
</tr>
</tbody>
</table>
State government and private industry were hardest hit through March 2016, with the state government losing nearly 1,700 jobs.

Private industry lost a total of 1,518 jobs. By contrast, local governments (which include school districts) added nearly 800 jobs, and the number of federal civilian jobs was up 165 positions.

<table>
<thead>
<tr>
<th>March 2014 to March 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Sector</td>
</tr>
<tr>
<td>-1,518</td>
</tr>
</tbody>
</table>
More refined sectoral breakdown

- Construction: -660
- Education Services: -1367
- Financial Activities: -679
- Health care and social assistance: -1744
- Information: 222
- Leisure and Hospitality: 270
- Manufacturing: 222
- Natural resource and Mining: 1425
- Other Services: 87
- Professional and Business Services: -135
- Trade, Transportation and utilities: 1425
- Employment change between March 2014 and March 2016

Mouhcine Guettabi
Geographical breakdown

Figure 7. Job Gains or Losses, By Borough or Census Area, March 2014 to March 2016

Number of Jobs Gained or Lost

<table>
<thead>
<tr>
<th>Borough or Census Area</th>
<th>Jobs Gained</th>
<th>Jobs Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage</td>
<td>1,456</td>
<td></td>
</tr>
<tr>
<td>Aleutians West CA</td>
<td>886</td>
<td>847</td>
</tr>
<tr>
<td>Fairbanks NS Borough</td>
<td>662</td>
<td></td>
</tr>
<tr>
<td>Kenai Pen. Borough</td>
<td>496</td>
<td></td>
</tr>
<tr>
<td>North Slope Borough</td>
<td>236</td>
<td></td>
</tr>
<tr>
<td>Sitka Borough</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>Dillingham CA</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>Kodiak Island Borough</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Juneau</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Yukon-Koyukuk CA</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Valdez-Cordova CA</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>Petersburg Borough</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Haines Borough</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Denali Borough</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Ketchikan Borough</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Skagway Borough</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Yukonat Borough</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Percentage of Jobs Gained or Lost

<table>
<thead>
<tr>
<th>Borough or Census Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage</td>
<td>-1%</td>
</tr>
<tr>
<td>Aleutians West CA</td>
<td>+36%</td>
</tr>
<tr>
<td>Fairbanks NS Borough</td>
<td>-16%</td>
</tr>
<tr>
<td>Kenai Pen. Borough</td>
<td>+35%</td>
</tr>
<tr>
<td>North Slope Borough</td>
<td>-2%</td>
</tr>
<tr>
<td>Sitka Borough</td>
<td>+36%</td>
</tr>
<tr>
<td>Dillingham CA</td>
<td>-6.5%</td>
</tr>
<tr>
<td>Kodiak Island Borough</td>
<td>+5%</td>
</tr>
<tr>
<td>Prince of Wales-Hyder CA</td>
<td>+8%</td>
</tr>
<tr>
<td>Nome CA</td>
<td>+14%</td>
</tr>
<tr>
<td>Wrangell Borough</td>
<td>+7%</td>
</tr>
</tbody>
</table>

Source: Alaska Department of Labor, Research and Analysis Section
### Geographical breakdown

<table>
<thead>
<tr>
<th>Boroughs &amp; Census Areas</th>
<th>Average Share of Employment in 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NatRes &amp; Mining</td>
</tr>
<tr>
<td>Aleutians East</td>
<td>NA</td>
</tr>
<tr>
<td>Aleutians West</td>
<td>1%</td>
</tr>
<tr>
<td>Anchorage</td>
<td>2%</td>
</tr>
<tr>
<td>Bethel</td>
<td>NA</td>
</tr>
<tr>
<td>Bristol Bay</td>
<td>NA</td>
</tr>
<tr>
<td>Denali Borough</td>
<td>NA</td>
</tr>
<tr>
<td>Dillingham Borough</td>
<td>NA</td>
</tr>
<tr>
<td>Fairbanks</td>
<td>4%</td>
</tr>
<tr>
<td>Haines</td>
<td>NA</td>
</tr>
<tr>
<td>Hoonah-Anagoon Census Area</td>
<td>NA</td>
</tr>
<tr>
<td>Juneau</td>
<td>5%</td>
</tr>
<tr>
<td>Kenai</td>
<td>7%</td>
</tr>
<tr>
<td>Ketchikan Gateway Borough</td>
<td>2%</td>
</tr>
<tr>
<td>Kodiak</td>
<td>3%</td>
</tr>
<tr>
<td>Kusilvak Census Area (formerly Wade Hampton CA)</td>
<td>NA</td>
</tr>
<tr>
<td>Lake and Penn</td>
<td>NA</td>
</tr>
<tr>
<td>Matanuska-Susitna Borough</td>
<td>1%</td>
</tr>
<tr>
<td>Nome</td>
<td>NA</td>
</tr>
<tr>
<td>North Slope</td>
<td>57%</td>
</tr>
<tr>
<td>NWA</td>
<td>57%</td>
</tr>
<tr>
<td>Petersburg</td>
<td>3%</td>
</tr>
<tr>
<td>POW</td>
<td>6%</td>
</tr>
<tr>
<td>Sitka</td>
<td>NA</td>
</tr>
<tr>
<td>Skagway</td>
<td>NA</td>
</tr>
<tr>
<td>SE Fairbanks</td>
<td>19%</td>
</tr>
<tr>
<td>Valdez</td>
<td>3%</td>
</tr>
<tr>
<td>Wrangell</td>
<td>NA</td>
</tr>
<tr>
<td>Yakutat</td>
<td>NA</td>
</tr>
</tbody>
</table>
General Overview
Alaska’s Economy: An overview of the last two years

Decomposition of the effects
- Private channel
- Government channel

Sectoral breakdown

What happens next?
- Old forecast
- Updated forecast

How do we reconcile the health of the economy with the need to close the budget gap?
What did we expect at the beginning of last year?

- We projected a decline in total employment of about 2 percent during 2016 and 2017 as a result of the lower oil prices, and cuts to the state capital budget which had already occurred but had not yet been reflected in actual capital spending.

- At the time, we said that any adjustments will make future employment declines either deeper or longer-lasting.
What did we expect at the beginning of last year?

- We projected a decline in total employment of about 2 percent during 2016 and 2017 as a result of the lower oil prices, and cuts to the state capital budget which had already occurred but had not yet been reflected in actual capital spending.

- At the time, we said that any adjustments will make future employment declines either deeper or longer-lasting.
Old Forecast

Employment growth projections under two scenarios

- Actual Growth Rate
- Forecast w/pipeline
- Forecast without pipeline

We have experienced slower year over year growth since 2011
Outline

1. General Overview
   - Alaska’s Economy: An overview of the last two years

2. Decomposition of the effects
   - Private channel
   - Government channel

3. Sectoral breakdown

4. What happens next?
   - Old forecast
   - Updated forecast

5. How do we reconcile the health of the economy with the need to close the budget gap?
Summary of the Forecast

Annual Percentage Change in Total Alaska Employment: Historical and Projected

- Projections do not include future reductions in the state deficit due to spending cuts or new revenues

- Actual Growth Rate
- Forecast


-2.3% -2.2%

-0.6%

-2.2%

-2% -1% 0% 1% 2%

Growth rate
One of the reasons for the prolonged decline of activity is the high multipliers of the most affected sectors.

<table>
<thead>
<tr>
<th></th>
<th>Multipliers of the most affected sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td>Construction</td>
<td>1.85</td>
</tr>
<tr>
<td>Oil &amp; Gas Extraction</td>
<td>2.71</td>
</tr>
<tr>
<td>Professional, Scientific and Technical services</td>
<td>1.73</td>
</tr>
<tr>
<td>Management companies and enterprises</td>
<td>1.92</td>
</tr>
</tbody>
</table>
A bit more explanation

In 2016, the losses were more concentrated than they will be in 2017

In 2017, we expect the supporting industries along with household spending dependent industries to suffer

By the end of 2017, employment will be back to 2010 levels which means the economy would have lost 15,000 jobs by then
A bit more explanation

In 2016, the losses were more concentrated than they will be in 2017.

In 2017, we expect the supporting industries along with household spending dependent industries to suffer.

By the end of 2017, employment will be back to 2010 levels which means the economy would have lost 15,000 jobs by then.
A bit more explanation

In 2016, the losses were more concentrated than they will be in 2017.

In 2017, we expect the supporting industries along with household spending dependent industries to suffer.

By the end of 2017, employment will be back to 2010 levels which means the economy would have lost 15,000 jobs by then.
A few thoughts on the future state of the economy

- We anticipate the next year to endure a similar decline of activity to the one we have just experienced.
- The losses will be distributed across sectors as the multiplier makes its way through the economy.
- While downside risk remains, we anticipate 2018 to be less weak and therefore potentially better able to absorb a shock stemming from the imposition of taxes or further cuts.
- The long term health of the economy requires fiscal stability. Most of the available measure will potentially mean exacerbating and extending the current slowdown.
A few thoughts on the future state of the economy

- We anticipate the next year to endure a similar decline of activity to the one we have just experienced.
- The losses will be distributed across sectors as the multiplier makes its way through the economy.
- While downside risk remains, we anticipate 2018 to be less weak and therefore potentially better able to absorb a shock stemming from the imposition of taxes or further cuts.
- The long-term health of the economy requires fiscal stability. Most of the available measure will potentially mean exacerbating and extending the current slowdown.
A few thoughts on the future state of the economy

- We anticipate the next year to endure a similar decline of activity to the one we have just experienced.
- The losses will be distributed across sectors as the multiplier makes its way through the economy.
- While downside risk remains, we anticipate 2018 to be less weak and therefore potentially better able to absorb a shock stemming from the imposition of taxes or further cuts.
- The long term health of the economy requires fiscal stability. Most of the available measure will potentially mean exacerbating and extending the current slowdown.
A few thoughts on the future state of the economy

- We anticipate the next year to endure a similar decline of activity to the one we have just experienced.
- The losses will be distributed across sectors as the multiplier makes its way through the economy.
- While downside risk remains, we anticipate 2018 to be less weak and therefore potentially better able to absorb a shock stemming from the imposition of taxes or further cuts.
- The long term health of the economy requires fiscal stability. Most of the available measure will potentially mean exacerbating and extending the current slowdown.
Employment impacts

Estimated Job Impacts per $100 Million of Deficit Reduction (FTE jobs)

- Spending cut: workers: 1414 (Low) to 1677 (High)
- Spending cut: broad-based: 980 (Low) to 1260 (High)
- Spending cut: capital: 775 (Low) to 931 (High)
- Spending cut: pay: 459 (Low) to 727 (High)
- Income tax: progressive: 544 (Low) to 786 (High)
- Income tax: flat rate: 517 (Low) to 798 (High)
- Sales tax: more exclusions: 477 (Low) to 775 (High)
- Sales tax: fewer exclusions: 482 (Low) to 786 (High)
- Property tax: 463 (Low) to 773 (High)
- Dividend cut: 558 (Low) to 892 (High)

Actual impacts of broad-based and capital spending cuts could be significantly higher or lower depending on how cuts are made.

Low and high estimates are based on different assumptions about how households and markets would react to cuts.
Differences between 1985 and 2015

How does the economy compare to that of 1985?

- The economy, measured by jobs, is about 50 percent larger than it was in 1985.
- Several industries (mining, tourism, air cargo) are considerably larger.
- PF is three times the size it was then.
- Assets have increased in value.
- Federal payments to individuals have also risen.
- Share of people over 65 has increased (Payments related to retirement and other transfers have increased seven fold).
Differences between 1985 and 2015

How does the economy compare to that of 1985?

- The economy, measured by jobs, is about 50 percent larger than it was in 1985
- Several industries (mining, tourism, air cargo) are considerably larger
- PF is three times the size it was then
- Assets have increased in value
- Federal payments to individuals have also risen
- Share of people over 65 has increased (Payments related to retirement and other transfers have increased seven fold)
How does the economy compare to that of 1985?

- The economy, measured by jobs, is about 50 percent larger than it was in 1985
- Several industries (mining, tourism, air cargo) are considerably larger
- PF is three times the size it was then
- Assets have increased in value
- Federal payments to individuals have also risen
- Share of people over 65 has increased (Payments related to retirement and other transfers have increased seven fold)
Differences between 1985 and 2015

How does the economy compare to that of 1985?

- The economy, measured by jobs, is about 50 percent larger than it was in 1985
- Several industries (mining, tourism, air cargo) are considerably larger
- PF is three times the size it was then
- Assets have increased in value
- Federal payments to individuals have also risen
- Share of people over 65 has increased (Payments related to retirement and other transfers have increased seven fold)
Differences between 1985 and 2015

- How does the economy compare to that of 1985?
  - The economy, measured by jobs, is about 50 percent larger than it was in 1985
  - Several industries (mining, tourism, air cargo) are considerably larger
  - PF is three times the size it was then
  - Assets have increased in value
  - Federal payments to individuals have also risen
  - Share of people over 65 has increased (Payments related to retirement and other transfers have increased seven fold)
Differences between 1985 and 2015

How does the economy compare to that of 1985?

- The economy, measured by jobs, is about 50 percent larger than it was in 1985
- Several industries (mining, tourism, air cargo) are considerably larger
- PF is three times the size it was then
- Assets have increased in value
- Federal payments to individuals have also risen
- Share of people over 65 has increased (Payments related to retirement and other transfers have increased seven fold)
Differences between 1985 and 2015

How does the economy compare to that of 1985?

- The economy, measured by jobs, is about 50 percent larger than it was in 1985.
- Several industries (mining, tourism, air cargo) are considerably larger.
- PF is three times the size it was then.
- Assets have increased in value.
- Federal payments to individuals have also risen.
- Share of people over 65 has increased (Payments related to retirement and other transfers have increased seven fold).
Very few easy decisions but it is clear that all the available options with the exception of using savings take money out of the economy and therefore potentially exacerbate the slowdown.
Summary

- Very few easy decisions but it is clear that all the available options with the exception of using savings take money out of the economy and therefore potentially exacerbate the slowdown.
Thank you

Thank You

Mouhcine Guettabi

Phone Number : 907-786-5496
e-mail : mguettabi@alaska.edu