Quarterly Hawai‘i Forecast Update

No Quick Recovery from Hawai‘i Recession

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EXECUTIVE SUMMARY

Key Changes in This Forecast:

Our 2008 visitor arrivals forecast has been cut from –9% to –10.8%. In 2009, we expect an additional 6% decline, down from the 1.2% contraction we forecast in September.

Larger job losses are now expected, with the number of payroll jobs expected to decline by 1.4% next year, compared with our previous estimate of 0.8% decline.

Real income growth will also be weaker, declining by 0.2% in 2008 followed by a more significant drop of 0.7% next year. In September, we had forecast essentially zero real income growth this year and next.

The global financial crisis and widening global downturn have materially worsened prospects for the Hawai'i economy. Economic conditions are now poor in virtually every visitor market, and as a result we expect the current sharp tourism downturn to continue well into next year, with no significant recovery until 2010. Moderate contraction of the construction industry and the developing state fiscal crunch will also weigh on the local economy. The Hawai'i economy is now in recession, and as the downturn continues into 2009 we will see larger job and income losses than we have experienced to date.

- Measured by real gross domestic product (GDP), the U.S. economy contracted at a 0.3% annual rate in the third quarter. We expect sharply negative GDP growth for the current quarter and the first quarter of next year, with a very attenuated recovery beginning in the year's second half. For 2008 as a whole, GDP is expected to grow by 1.4%, and to fall by 0.8% in 2009. A return to quarterly growth in the 3% range (annualized) is likely by the beginning of 2010.

- After expanding at a 3.2% rate in the first quarter, Japan's real GDP dropped at a nearly 3% annual rate in the second quarter of this year, and an additional 0.3% in the third quarter. On an annual basis, 2008 GDP growth will come in at just 0.3%, and 2009 will see a 0.5% contraction.

- The summer's poor visitor industry performance has continued in recent months. As a result, we have reduced our 2008 forecast for visitor arrivals growth from –9% to –10.8%. Based on our forecast of a relatively deep and lengthy global recession, we now expect an additional 6% decline in visitor arrivals in 2009. We have lowered our 2009 visitor forecasts for most markets. On top of this year's estimated 14% arrivals decline, 2009 will see a 7.6% decline in U.S. arrivals. Japanese arrivals will drop nearly 9% in 2009.

- Nominal visitor spending will drop nearly 8% in 2008, nearly double the 4.6% rate of decline forecast in our September report. Because of the growing visitor industry weakness, hotel room rates will decline 4.4% next year.

- An analysis of changing labor market conditions suggests that Hawai'i likely entered recession during the third quarter of this year. Jobs will decline by 1.4% next year, compared with our previous forecast of a 0.8% decline. The severity and expected duration of U.S. and global recessions will also mean a slower pace of local job recovery.

- We have revised downward our 2009 job forecasts for most industries. Notably, transportation & utilities and the accommodations & food services sectors will contract by about an additional 1.5 percentage points next year, compared with our September forecast. While construction sector jobs are now declining,

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strength in the first part of the year means that jobs in the sector will expand by nearly 1% for 2008 as a whole, before annual job declines begin in 2009.

- Labor market deterioration has driven the unemployment rate higher in recent months. The state unemployment rate will peak at about 6.2% in the second half of 2009.
- Real income growth will also be weaker than previously anticipated. We now expect real income to decline by 0.2% in 2008 followed by a more significant drop of 0.7% next year. Significant recovery will not begin until 2010. Total labor and proprietor income will decline by 0.5% this year and a similar 0.4% in 2009.
- The 2008 Honolulu consumer price index will average 4.5% inflation this year, down from 4.9% in our previous forecast because of recent dramatic energy price declines. Inflation is expected to average 2.4% in 2009.
- As for the U.S. as a whole, Hawai'i's current recession will be a rather lengthy one (we see five consecutive quarters of net job losses), and the structural changes now underway make our eventual recovery likely to be a rather anemic one by historical standards.

Hawai'i Economic Indicators, Year-Over-Year %Change

	2006	**2007**	**2008**	**2009**	**2010**
Visitor Arrivals by Air	1.5	-0.4	-10.8	-5.7	6.6
U.S. Visitor Arrivals	4.3	-0.5	-14.2	-7.6	8.4
Japan Visitor Arrivals	-10.2	-4.9	-9.8	-8.7	-2.2
Other Visitor Arrivals	5.8	6.3	4.9	4.7	8.4
Payroll Jobs	2.6	1.1	0.0	-1.4	0.4
Employment	2.2	0.0	0.4	-2.2	0.0
Unemployment Rate	2.5	2.7	3.9	5.8	5.9
Inflation Rate, Honolulu MSA (%)	5.8	4.9	4.5	2.5	1.9
Real Personal Income	1.4	1.0	-0.2	-0.7	1.8

Notes: Source is UHERO. Figures for 2008 – 2010 are forecasts.

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Hawai'i Recession Likely Began Last Quarter

In our Annual Hawaii Forecast: Economy Grinds to a Halt released in March 2008, we argued that the U.S. economy was in recession and discussed the possibility of a recession for Hawai'i. Since that report was released, the Federal stimulus package helped to postpone the inevitable U.S. recession but today the U.S. economy is clearly in recession and that downturn is expected to be both deep and prolonged. (See Global Economic Forecast: Crisis Contagion Spreads Global Recession.)

Dating recessions for states and regional economies is much more difficult than for the U.S. as a whole. The "text book" definition of a recession—two consecutive quarters of declining real gross domestic product—is not useful for states for which no quarterly GDP data exists. Furthermore, the official arbiter of U.S. business cycle dating, the National Bureau of Economic Research (NBER), uses a broader definition, that a recession is *"a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales."* The NBER definition considers the depth, breadth, and duration of a decline in economic activity, and looks at a wide range of indicators.

Because the NBER generally does not decide on the recession start date (the peak of the previous expansion) until well after the recession has begun, researchers have developed statistical methods using available high frequency data to determine when the U.S. economy has entered a recession. Recent work by UCLA economist Edward Leamer on national recessions may help shed some light on whether (or when) Hawai'i entered a recession.[1] Leamer finds that large declines in non-farm payroll employment and large increases in the unemployment rate have accurately predicted the start and end points of post WWII U.S. recessions.

Leamer uses a two-step procedure to identify when the data imply a recession occurred. First, he conducts a series of "threshold tests" which compare the six-month change in a series such as the unemployment rate to a threshold which is typically supassed only during recessions. Specifically, he argues that a drop in non-farm employment of 1% or more over the previous six months, an increase in the unemployment rate of at least 0.8% over a six month period, or a drop in industrial production of 6.0% or more over the previous six-months signal a recession in the U.S. economy. Second, having identified candidate recession periods, more detailed analysis around those periods is used to pin down specific start and end dates for each recession. Leamer's two step procedure has proven to be highly accurate.[2] The non-farm employment and unemployment tests are particularly effective, perfectly identifying all ten official NBER recessions and providing no false positives (indication of a recession where one did not occur).

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[1] Leamer, E. (August 2008). *What is a Recession, Anyway?* (NBER Working Paper 14221). Retrieved November 3, 2008 from http://www.nber.org/papers/w14221

[2] For the months surrounding the candidate recession periods, Leamer looks at the six-month trailing growth rate as well as the six-month change going forward to determine both the peak and trough of the business cycle. Leamer's method comes within one month of identifying 19 of the last 20 NBER recession peaks and troughs.

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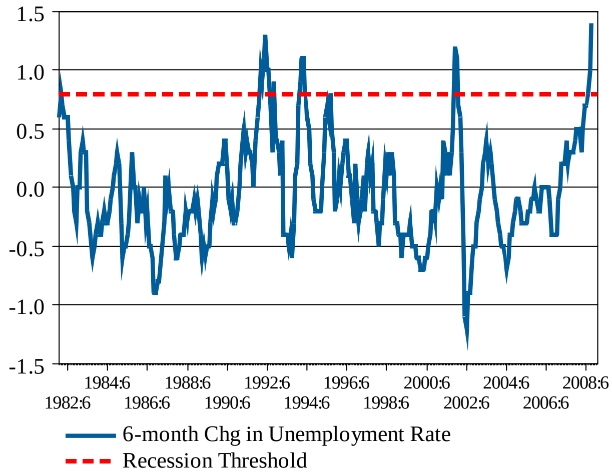

Figure 1: Change in Unemployment Rate vs Threshold

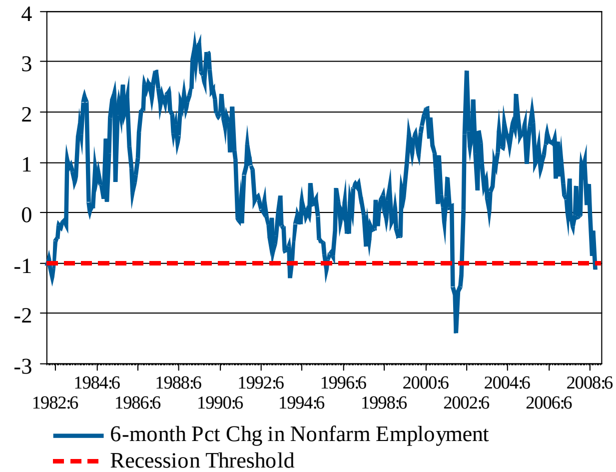

Figure 2: % Change in Non-farm Jobs vs Threshold

Adopting Leamer's methods for Hawai'i is straightforward using Hawai'i monthly data on non-farm jobs and the unemployment rate. We would prefer to use thresholds statistically identified specifically for Hawai'i, but that would require a set of official dates for past Hawai'i recessions.[3] Fortunately, results obtained using Leamer's threshold tests identify a very reasonable set of candidate recession periods for Hawai'i. The second step of the analysis then assigns the start of these recssions as: September/October 1981, October 1991, July/August 1993, February 1995, and June 2001.

What do the threshold tests say about Hawai'i's current economic slowdown? Figure 1 displays the change in the seasonally adjusted unemployment rate over the trailing six months. Leamer's threshold is plotted as a horizontal line at +0.8%. Figure 2 shows the percentage change in seasonally adjusted non-farm employment over the previous six months with the -1% threshold plotted as a horizontal line. In both figures, the threshold was breached during the third quarter of 2008 for the first time since the 2001 recession.

The recession signal using threshold tests on labor market data are consistent with other obvious signals. If we were to use visitor arrivals or expenditures in place of Leamer's index of industrial production, clearly his six-month 6% decline threshold has been exceeded. Another indicator that might be used in a NBER-style dating procedure, real income less transfer payments (available only quarterly), has seen quarter-to-quarter declines ranging from 0.04% to 1.5% since the third quarter of 2007.

This analysis confirms what many have suspected—that the Hawai'i economy entered recession in recent months. Now, the question is how long it will last. Our forecast suggests that significant recovery from the current downturn will not begin until 2010.

[3] In ongoing research, UHERO is working to date recessions for Hawai'i by mimicking the NBER dating procedures. By doing this, we will be able to apply methods such as Leamer's to identify Hawai'i-specific thresholds rather than using the U.S. thresholds from Leamer's work.

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