



HAWAII ECONOMIC TRENDS

October 15, 2009

prepared by

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https://www.boh.com/econ/512_539.asp

Economic Summary
October 15, 2009

- Macroeconomic conditions stabilized over the summer, and recovery in the national economy seems to be emerging. Hawaii may be slower to recover, with construction still falling into a 2011 trough, and with tourism receipts still falling despite steady visitor arrivals. Economic policies may also exert drag: after nearly two years of recession, governments in Hawaii are only just now adjusting public payrolls downward to reflect fiscal constraints. Legislators are still talking about “exacting” affordable housing and other developer concessions from a construction industry in freefall. Tax increases in Hawaii cannot be ruled out. Recovery, if any, in Hawaii will seem elusive to many whose anecdotal experience doesn’t jive with the data.
- Hawaii’s unemployment rates remained unchanged on a seasonally-adjusted basis through late summer, after settling a peak in the spring. Oahu’s 5.5 percent unemployment rate blends with 9.5 percent Neighbor Island rates—in round numbers after unofficial seasonal adjustment—producing a 7.5 percent statewide rate. Both Hawaii and national unemployment rates have risen five percentage points, to just under 10 percent nationwide since 2007, and will be sticky well into 2011. Part-time employment trends do not provide information on the *cyclical* component of unemployment (levels do not vary much over the cycle), but all measures of unemployment, including those tracking those working part-time for *economic* reasons, have risen by the same increment. Still, Hawaii unemployment rates compare well to lows in the Dakotas (4.5 percent) and the high end of the range in Michigan (15 percent), Nevada (13 percent) and California (12 percent).
- Hawaii housing market statistics showed a mix of positive trends and possibly unsustainable trends through third quarter 2009. Sales have risen. Inventory has shrunk. Price declines are moderating. Seasonally-adjusted Oahu existing home sales rose during the first nine months of 2009. Sales trends are more ambiguous for the Neighbor Islands for two reasons. First, foreclosures comprise a larger share of Neighbor Islands’ total than Oahu’s (statewide foreclosures are lower than nationwide). Second, Neighbor Island volumes are more volatile and less amenable to seasonal adjustment; their improvement remains murky.
- Existing home sales prices began to stabilize in the single-family segment on Oahu, continued drifting lower in the condominium segment, and remained pressured on the Neighbor Islands where trends are less clear. It remains to be seen how much of the real estate recovery is a bounce-back from a post-Lehman “overshoot.” New home sales incentives, low interest rates, and rebounding stock prices all have provided positive influence. Existing home inventories have fallen from more than 12 months remaining to less than 6 months, at current sales rates. (During the peak of the 1990s cycle, nearly 24 months of inventory remained.)
- Domestic tourism volumes have recovered over the last 5 quarters at rates consistent with the gradual increase in scheduled seats but, adjusted for transitory H1N1 virus effects last spring, international visitor counts have continued declining along the long-established trend back to the mid-1990s. While total visitor counts have been largely *unchanged* on a seasonally-adjusted basis for more than a year, constant-dollar real visitor expenditure has fallen all through the year. The drop in real visitor outlays contrasts with a stabilization in nationwide retail sales that began in the spring, with a recent uptick attributable to the Cash-for-Clunkers program of tax credits for older vehicle trade-ins. Evidence now suggests that the program produced a net increase in vehicular production—as opposed to time-shifting. Encouraging signs of a recovery also are emerging in *non-motor* vehicular consumer spending categories. Still, as a long-haul leisure destination it seems likely that Hawaii will be one of the followers rather than leaders in that chain of improvements.
- Federal Reserve policymakers have been increasingly open about the sequence and pace of their exit strategy from credit easing, while encouraging market participants not to get too hung up on timetables. Bond markets seem comfortable with interest rates rising slowly to levels consistent with steady-state economic growth. Gradualism seems to be the dominant economic policy theme.

Comparative Hawaii economy 2009-2010 forecasts

October 15, 2009¹

Annual percent changes	Jobs					Personal Income (real)					CPI Honolulu				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Brewbaker ²	2.5	1.9	-0.4	-2.9	-1.3	0.9	1.8	-0.3	-2.5	-1.1	4.6	4.6	4.6	-0.2	1.2
UHERO ³	2.6	2.1	0.0	-3.0	-0.8	1.1	1.6	-0.2	-1.1	-0.2	5.1	5.0	4.5	-0.4	0.8
DBEDT ⁴		1.9	0.0	-3.0	-0.4		1.8	-0.2	0.4	0.0		4.5	4.2	0.6	1.5
Laney ⁶	2.5	2.0	-0.3	-1.2		2.0	1.0	-1.0	-1.5		5.0	5.0	5.0	3.5	
Actual(p)	2.6	1.3	-0.9			1.4	1.0	0.2			5.9	4.8	4.3		

Annual percent changes	Total Visitor Arrivals by air					Domestic (UHERO: US) Arrivals by air					International (UHERO: Japan) Arrivals by air				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Brewbaker ²	-0.5	-1.6	-10.6	-3.1	3.7	1.7	-0.1	-12.6	-2.7	5.7	-5.9	-5.3	-4.7	-4.4	-1.8
UHERO ³	0.4	-1.1	-10.8			2.4	-0.8	-14.2	-3.3	2.7	-8.6	-3.4	-9.8	-4.1	3.3
DBEDT ⁴		-0.8	-10.1	-5.9	1.2										
Laney ⁶	0.5	-0.5	-9.0	-5.0											
Actual(p)	0.6	-1.2	-10.6			3.3	0.0	-12.2			-4.8	-4.7	-6.1		

Annual percent changes	Total Visitor Expenditures					Unemployment rate (UHERO ; see footnote)					Construction ⁵ (UHERO ; see footnote)				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Brewbaker ²								4.0	7.9	8.4	8.9	-1.2	0.2	-11.2	-15.5
UHERO ³						2.7	2.5	3.9	7.4	8.1			-3.7	-20.5	-16.4
DBEDT ⁴		2.0	-6.4	-11.5	2.9										
Laney ⁶						2.8	2.5	4.2	5.5						
Actual(p)	4.0	2.6	-11.4			2.5	2.7				12.6	11.7	5.8		

Notes:

¹ 2006-2008 "forecasts" are taken from last published forecasts prior to end of each year

² Paul Brewbaker (TZ Economics), Senior Economic Advisor, Bank of Hawaii (https://www.boh.com/econ/512_803.asp); construction forecasts are unpublished, as prepared for Hawaii Council on Revenues in January 2009

³ Professors Carl Bonham and Byron Gangnes (University of Hawaii Economic Research Organization), "UHERO Hawai'i Quarterly Forecast Update: Recovery Still Around the Corner," (September 25, 2009) (http://www.uhero.hawaii.edu/forecasts/09Q3_hioutlook.html)

⁴ Hawaii DBEDT, "Outlook for the Economy: 3rd Quarter 2009," (August 19, 2009) (DBEDT visitor estimates include cruise ship arrivals) http://hawaii.gov/dbedt/info/economic/data_reports/qser/outlook-economy

⁵ Carl Bonham, Byron Gangnes, Kim Burnett, Paul Brewbaker, and Andrew Kato, "UHERO Hawai'i Construction Forecast: No Bottom Yet to Construction Downturn" (September 11, 2009) (http://www.uhero.hawaii.edu/forecasts/09Q3_conoutlook.html)

⁶ Professor Leroy Laney, Hawaii Pacific University (https://www.fhb.com/hm_econ.htm)

Data were compiled by TZ Economics but users are encouraged to refer to original sources for updated information.

Hawaii Economic Indicators

Seasonally-adjusted, real data
(home prices nominal)

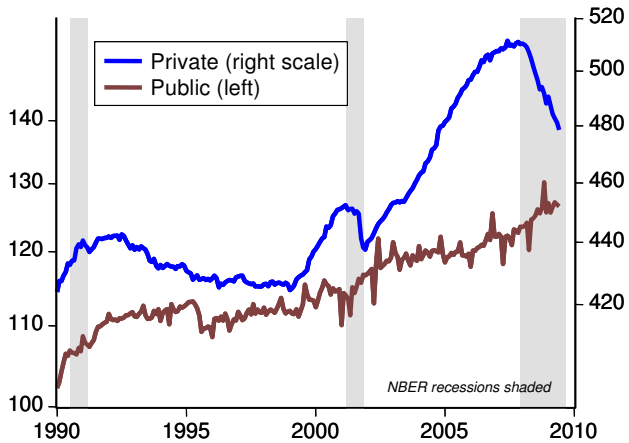
	2006:4	2007:1	2007:2	2007:3	2007:4	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3
Real personal income	54,249	54,414	54,736	54,734	54,860	54,512	54,774	54,187	53,862	53,908	54,367	
Growth rate	2.4	2.0	1.2	1.2	1.1	0.2	0.1	-1.0	-1.8	-1.1	-0.7	
Honolulu CPI inflation*	5.8	5.2	5.0	4.8	4.8	4.9	4.9	4.0	3.6	1.4	0.3	
Civilian labor force	647.39	648.04	645.27	644.13	646.33	651.28	655.15	655.66	654.91	647.16	647.40	646.91
Civilians employed	632.89	632.17	629.54	626.58	627.27	631.57	632.25	627.89	622.01	604.10	600.73	601.60
Civilian unemployment rate	2.2	2.4	2.5	2.7	3.0	3.0	3.4	4.1	5.2	6.8	7.1	6.8
Total wage and salary jobs	628.40	630.13	630.76	631.84	632.84	633.55	628.10	621.94	617.95	613.83	608.59	603.59
pre-benchmarked jobs	629.34	632.18	634.31	636.15	638.11							
Nonagricultural jobs	621.49	623.36	624.18	625.45	626.47	627.17	621.82	615.82	612.13	608.06	602.90	597.86
Private building permits	1151.9	791.5	955.4	854.2	958.3	834.2	982.0	690.2	488.4	644.4	456.0	
Residential	422.3	475.2	566.6	397.8	391.0	427.9	454.5	348.6	193.6	351.6	148.2	
Commercial and industrial	414.9	77.4	135.9	139.2	345.1	134.8	103.8	142.4	61.9	63.3	68.7	
Additions and alterations	326.2	255.0	206.6	324.5	231.2	283.0	415.4	207.3	224.0	233.6	250.9	
Government contracts	225.0	170.2	332.7	182.3	166.2	189.9	139.7	263.5	399.4	168.9	218.0	
Oahu home sales	2,367	2,543	2,452	2,136	2,028	1,940	1,683	1,589	1,454	1,135	1,358	1,634
Single family: Honolulu	964	1,028	969	876	781	782	704	650	634	513	616	684
Condominium: Honolulu	1,403	1,515	1,483	1,259	1,247	1,157	979	939	821	621	743	950
SF median price: Honolulu	630.2	632.8	655.7	636.8	631.8	623.2	626.4	605.8	622.0	578.4	557.2	578.4
Condo median price: HNL	314.4	322.3	327.3	327.6	322.3	331.3	329.3	314.6	318.7	303.9	306.8	299.0
Visitor arrivals	1,904	1,841	1,870	1,902	1,879	1,844	1,689	1,586	1,585	1,576	1,600	
Domestic arrivals	1,422	1,358	1,402	1,412	1,408	1,379	1,226	1,137	1,165	1,136	1,195	
International arrivals	482	483	469	490	471	465	464	448	421	440	404	
Hotel occupancy	77.94	74.67	74.49	75.13	75.88	76.00	71.29	67.06	67.54	66.37	65.49	
Average daily room rate	204.99	207.53	209.27	209.08	209.78	210.92	201.48	198.49	194.28	182.33	174.73	

Employment trends hinting at stabilization

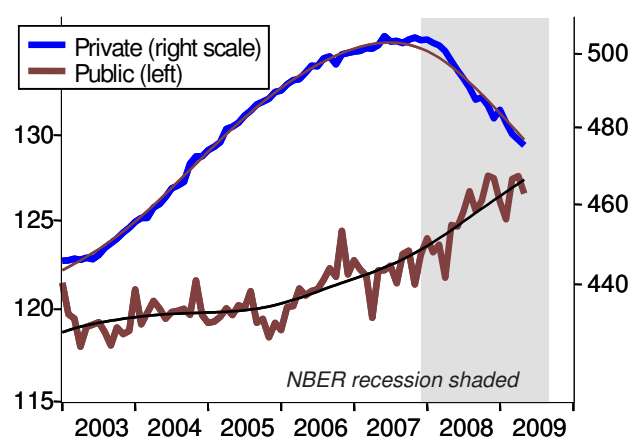
Private payroll employment reductions, during the national recession that began after December 2007, in Hawaii have proven much sharper, larger, and quicker to unfold than in recent recession experience. Job loss during the dot.com recession of 2001 was punctuated after 9/11 with what ultimately proved to be a temporary decrease (even fortuitous, for firms needing a thinning). Job loss during Hawaii "lost decade," the 1990s, pales by comparison to 2008-09 and took many more years to unfold. This time, 30,000 private jobs in Hawaii have been eliminated in eighteen months--a speed and size record. Could it be overdone? As a proportion of the total workforce, unemployment on Oahu at 5.5 percent now is at a rate considered near "full employment" (!) for the U.S. economy. Where things are worse on the Neighbor Islands, the unemployment is no worse than the current national average. Unemployment rates in Hawaii have even fallen

slightly since the spring(!). Public sector pay and job cuts are pending (including vacant positions). Unlike private workers whose pay may have fallen without work reduction, or whose pay hasn't risen but are working harder, and unlike business which remain open despite lower revenues, government worker furloughs will reduce work days in the same proportion as pay, leaving compensation per workday unchanged and the public service calendar punctuated by three-day weekends. It remains to be seen if private employers went too far, or whether public employers haven't gone far enough. Government budget pressures look persistent, and private sector economic activity is expected to lag on the road to recovery, even if Hawaii lined up to recede on the national timetable. Slow recovery seems likely to leave unemployment rates unchanged until 2011. A jobless recovery like the one in 2002-03 is a likely scenario at least in 2010.

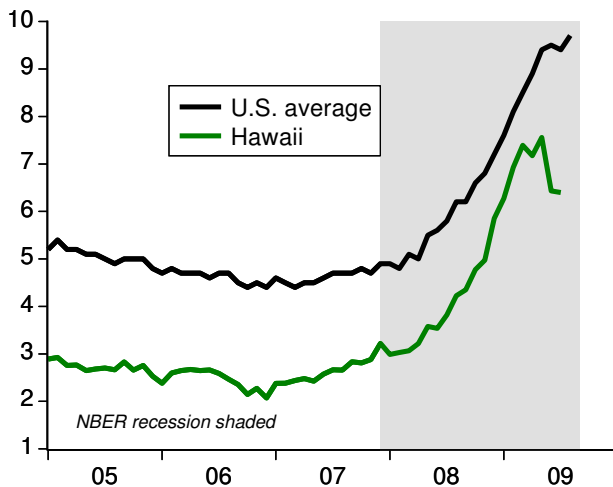
Hawaii monthly payroll employment back to 1990
(thousand jobs, seasonally-adjusted, log scales)



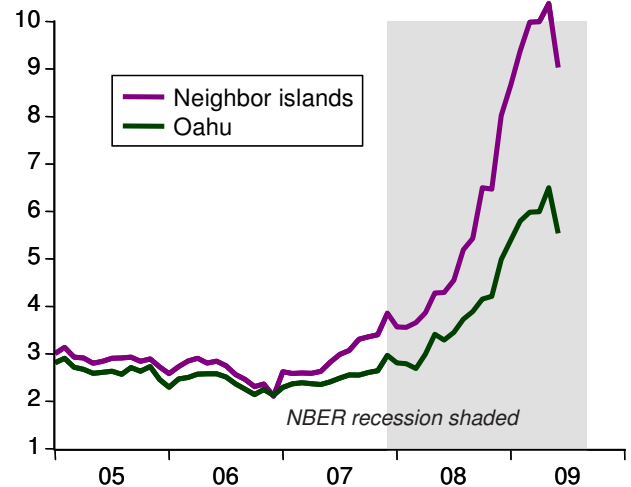
Hawaii monthly payroll employment since 2002
(thousand jobs, seasonally-adjusted, log scales)



Hawaii and U.S. unemployment rates
(percent of labor force, seasonally-adjusted)



Oahu and Neighbor Island unemployment rates
(percent of labor force, seasonally-adjusted)



Source: BLS, U.S. Department of Labor, Hawaii DBEDT, TZE

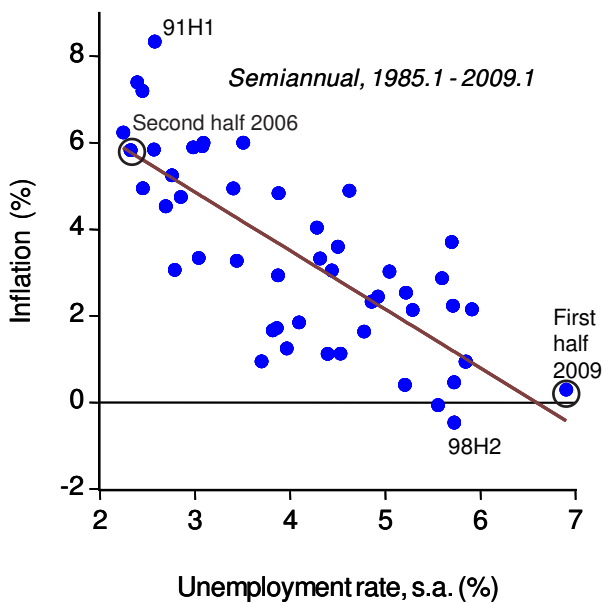
Waiting for signs of a bottoming-out

The economic freefall of second half 2008 and winter 2009 began abating in the spring, with a broadening pattern of stabilization unfolding through the summer. In Hawaii the evidence of emerging recovery remains muted. Macroeconomic indicators like inflation and unemployment have moved through their recession configuration to another turning point. From a pairing of high inflation and low unemployment as recently as second half 2006, the economy moved to the opposite configuration of high unemployment and low inflation in first half 2009. That rapid transition provides evidence of the intensity and severity of the recession, and an examination of inflation rates suggests the speed with which recession unfolded in

the last year was notable. During the 1990s the transition from peak to trough by these measures took more than seven years. This time, virtually the entire recent disinflation occurred in the last 15 months, and most of the unemployment rate increase was compressed into about 15 months starting in January 2008. Of course, the Hawaii economy could linger in this configuration for some time even if national recovery begins to unfold. Unlike U.S. manufacturing, which is now responding to a massive inventory drawdown earlier this year by ramping up production, Hawaii manufacturing is dominated by building materials fabrication rather than consumer products or other capital goods output, and is *not* experiencing a renewed demand for its output. Oil prices remain an inflation wild card, but if Hawaii's economic recovery lags still could be consistent with the historical relationship between the Honolulu and U.S. CPI inflation rates (bottom, right).

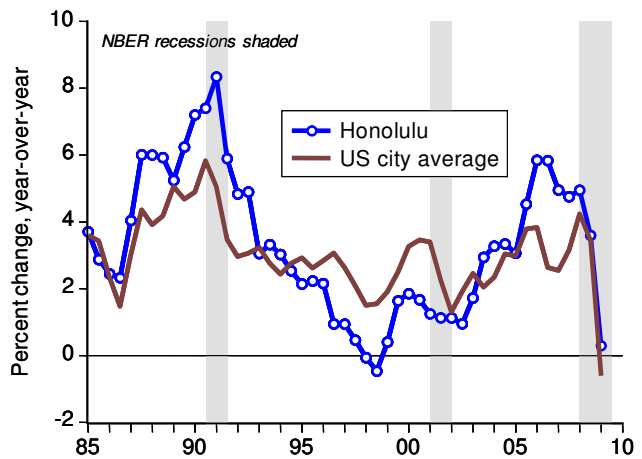
Honolulu CPI inflation and Hawaii statewide unemployment rate, historical trade-offs

(inflation in percent, year-over-year, and unemployment as percent of labor force, seasonally-adjusted)



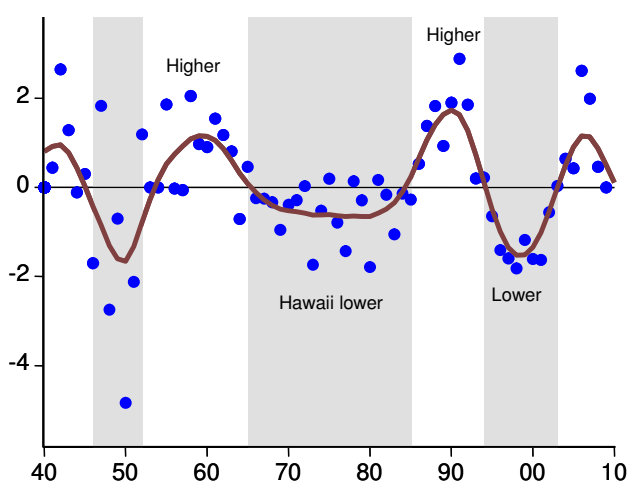
Honolulu and U.S. CPI inflation rates

(percent as noted)



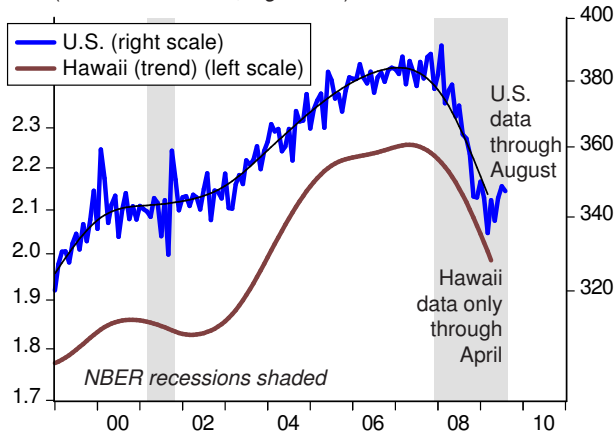
Annual difference between Honolulu CPI inflation rates and U.S. all-city average inflation rates

(percentage points, with HP filter trend)



U.S. monthly real retail sales and trend component of Hawaii real retail sales (both deflated with U.S. consumer price index)

(billion 2008 dollars, log scales)



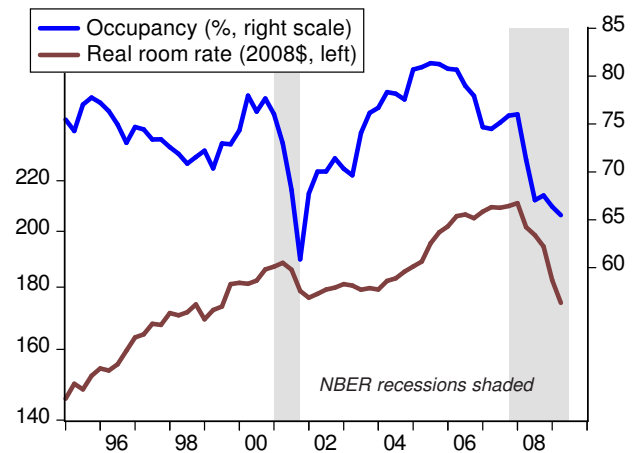
Sources: BLS, U.S. Department of Labor, Hawaii DBEDT, TZE

Tourism struggles against recession currents

Visitor counts already began to stabilize one year ago at the time of the collapse of Lehman Brothers, following capacity reductions from airline closures earlier in 2008. The reversal of last year's commodity price spike and subsequent partial rebound in oil prices leave air fares relatively competitive. A reduction in real room rates, reversing the increase since the 1990s, leaves Hawaii reasonably priced but struggling against the tide of consumer retrenchment. Falling visitor spending and discounting continues to depress total tourism receipts, even with the stabilization in travel volumes. A discretionary consumable, Hawaii's long-haul destination experience is a significant spending commitment for travelers still faced with employment uncertainty and the wealth reduction of recent housing and stock market performances, only partly recouped in 2009 thus far. Luckily the H1N1 virus has proven less problematic than feared, although it persists as a risk factor. Encouraging signs of retail recovery point to a slow revival of travel and tourism demand.

Hawaii hotel performance indicators

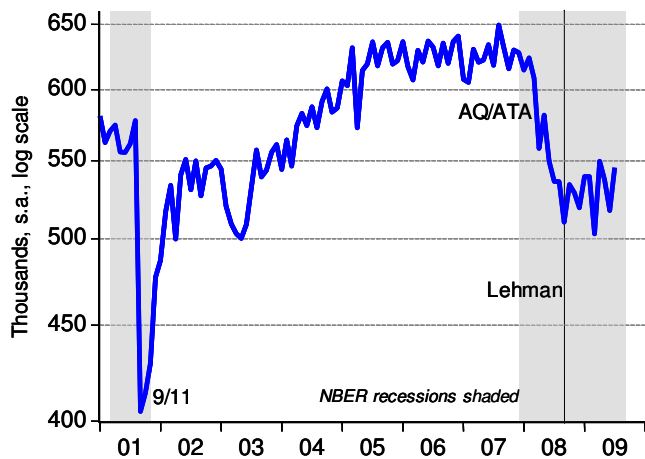
(quarterly as noted, seasonally-adjusted)



Source: Hospitality Advisors LLC, UHERO, TZE

Hawaii total visitor arrivals

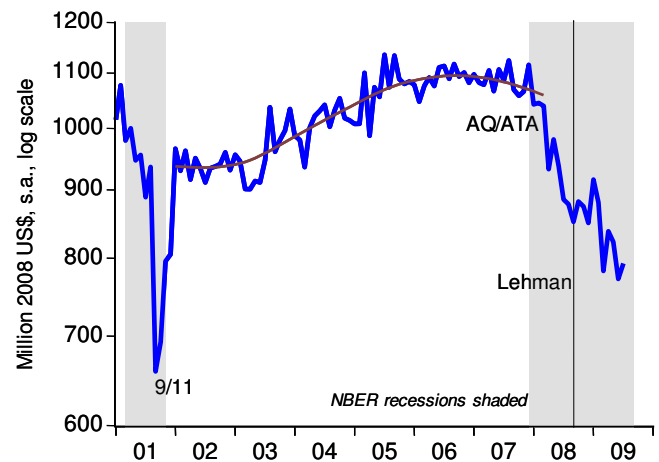
(monthly in thousands, seasonally-adjusted, log scale)



Source: Hawaii DBEDT, TZE

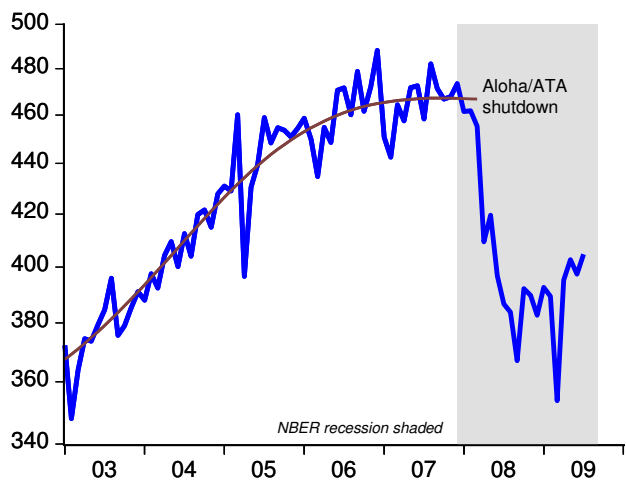
Hawaii monthly total visitor expenditure

(million 2008 \$, seasonally-adjusted, log scale)



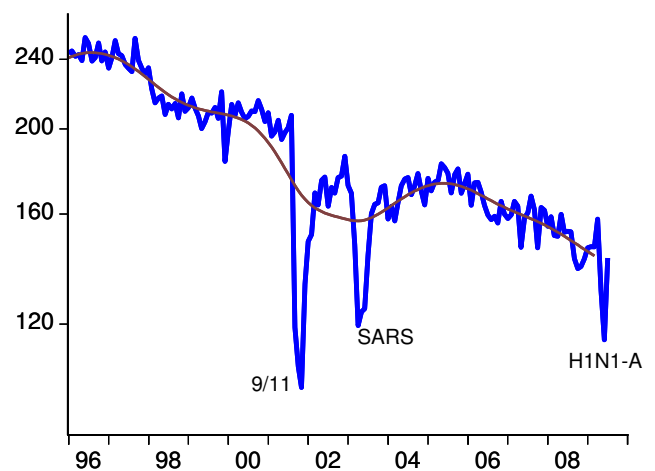
Hawaii domestic visitor arrivals

(monthly in thousands, seasonally-adjusted, log scale)



Hawaii international visitor arrivals

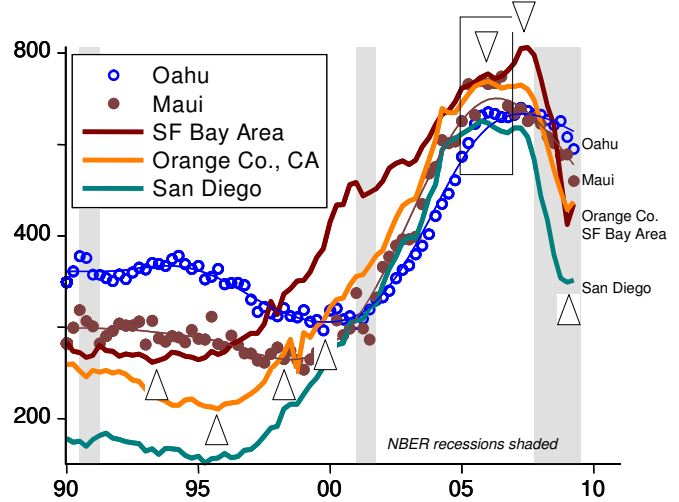
(monthly in thousands, seasonally-adjusted, log scale)



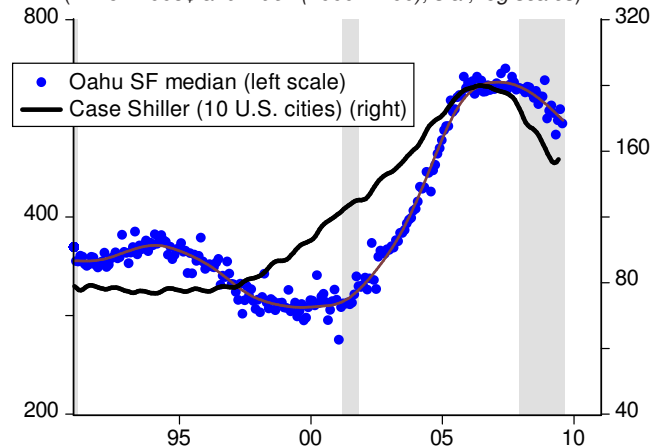
Peaks aligned, how about troughs?

The troughs of the real estate valuation cycles in Hawaii and California as well as other mainland markets were separated by *years* during the 1990s, but around 2005-06 home prices seemed all to peak in a synchronized fashion within a very tight time frame. Now that California home prices appear possibly to have “overshot” to the low side, the bounce upward in three markets depicted to the right raises some interesting questions. Single-family median existing home prices may have hit bottem in first quarter 2009, as depicted graphically for San Francisco, Oakland, and Fremont, for Anaheim and Santa Ana and for San Deigo, Carlsbad, and San Carlos. In recent experience, California price movements have mattered more for Maui and Kauai than for Oahu. A similar pattern of coincidence at the peak of the home price cycle is evident comparing Oahu single-family median home sales prices to the index of same-home prices for the country published by S&P Case Shiller, which also highlights a peak at the end of 2005 or in early 2006. The Case-Shiller index also rebounded slightly from first to second quarter 2009. Oahu price movements, in contrast, still seem stuck in a downward track (below) but with a more pronounced cycle historically (compare to Iowa in lower corner) Hawaii’s home prices must just be winding out the cycle for the moment. Several years of stable home prices in Hawaii are forecast until the 20-teens. At least Hawaii’s experience has benefited from lower mortgage delinquency rates and the fact that lenders have recourse to home mortgage borrowers’ other assets in cases of foreclosure. In other states like California, lack of such recourse has created a fire-sales externality where borrower abandonment leads to higher home sales and lower prices than would otherwise have occurred, driving downward perceived home valuations across the board.

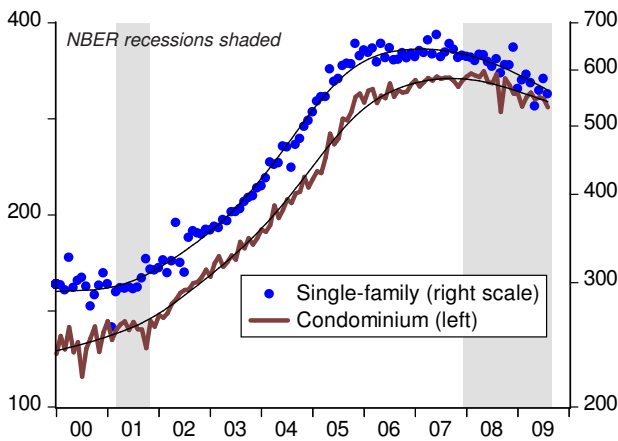
Single-family median home price movements in selected Hawaii and Southern California markets
(quarterly, thousand \$, seasonally-adjusted, log scale)



Comparing Oahu and mainland price movements: Oahu single-family median home prices and S&P Case Shiller mainland same-home price index
(million 2008\$ and index (2000 = 100), s.a., log scales)

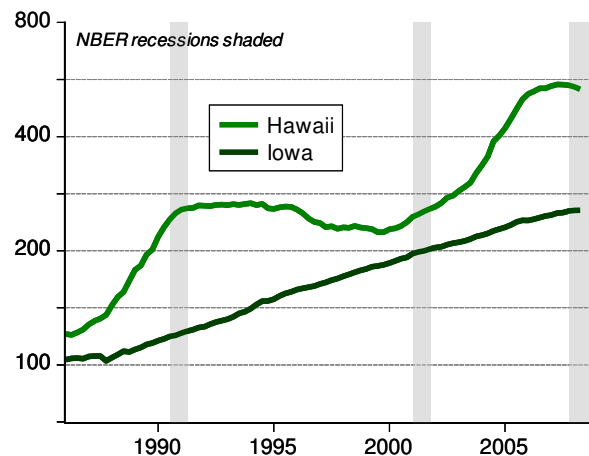


Oahu median existing home sales prices
(thousand dollars, seasonally-adjusted, log scales)



Sources: Honolulu Board of Realtors, National Association of Realtors, Standard & Poors, Federal Housing Finance Agency, TZE

Office of Federal Housing Enterprise Oversight (OFHEO) same-home price indexes
(1980 = 100, seasonally-adjusted, log scale)

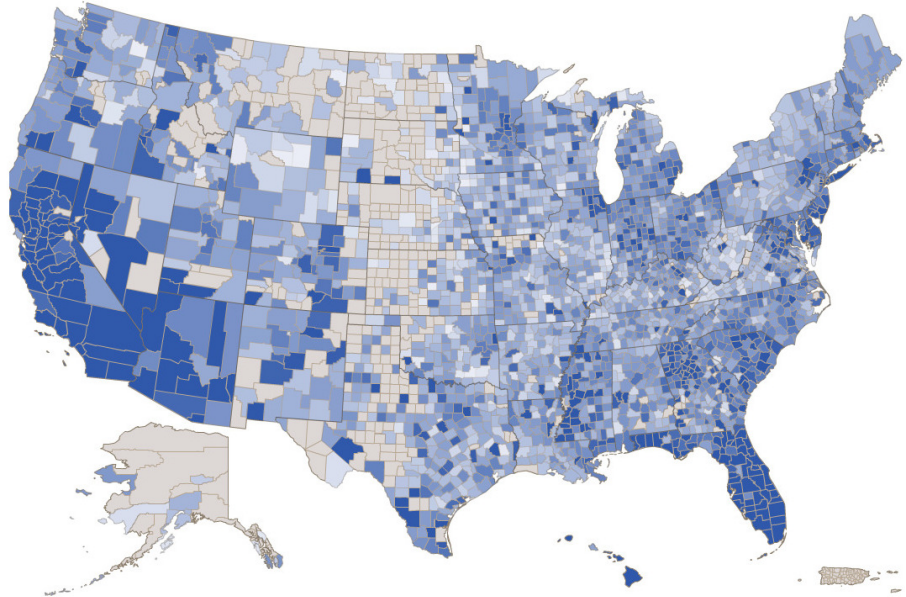


**Mortgage delinquencies by county (90 days or more past-due):
darker-shading = higher delinquency**

(Source: Federal Reserve Bank of New York)

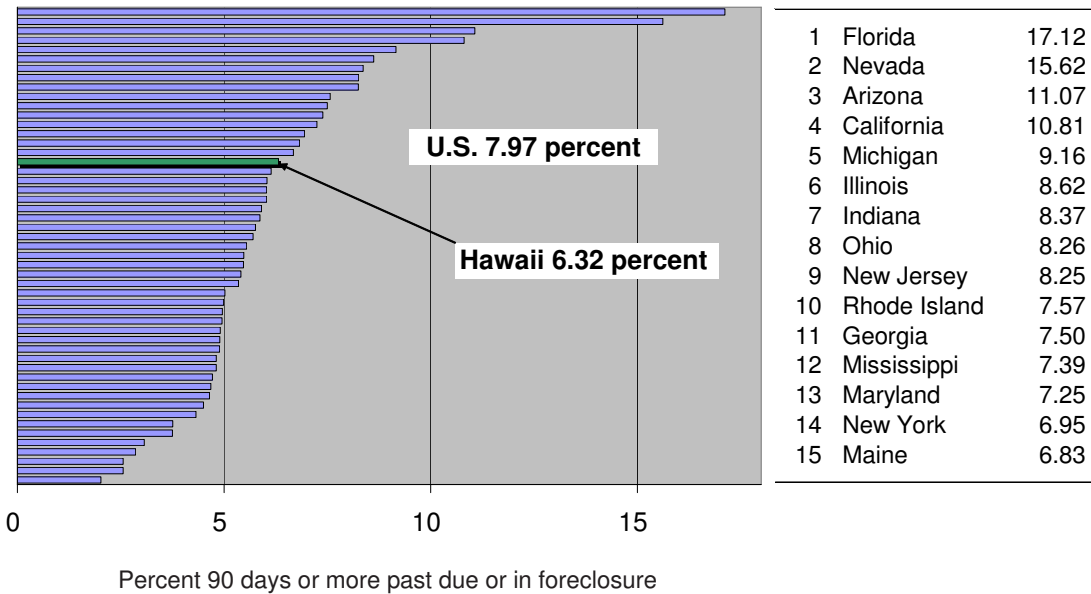
Selected Counties:
(percent of loans)

Dade, FL	18.41
Riverside, CA	14.44
Clark, NV	13.82
Hawaii, HI	5.92
Maui, HI	5.87
Kauai, HI	5.32
Honolulu, HI	2.65



Serious mortgage delinquencies: proportions of outstanding mortgages either 90 days or more past due or in foreclosure (combined)

(percent, ranked from highest to lowest states)



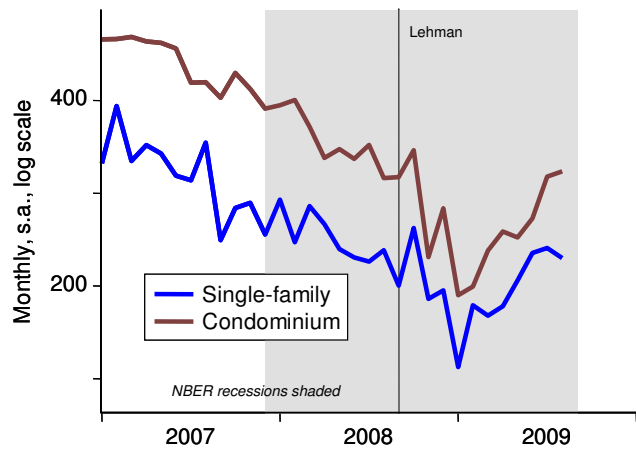
Source: Mortgage Bankers Association

Housing provides early signs of recovery

Since January 2009, existing home sales have been rising on Oahu, and have found their footing on the neighbor islands, where the data are not signaling as clear a change. The long decline from 2005-2008 is at an end, but the question remains open whether the change will be an enduring one. For one thing, monetary policy has created an accommodative borrowing environment for home buyers through low short-term interest rates, while investors' flight to quality reduced long-term interest rates, although an acute tightening of credit conditions has undermined some of the benefit. Fiscal policy has also contributed to improved housing market conditions: a tax credit for first-time home buyers expires at the end of November but may be extended. In addition to these factors, home prices have receded from their 2006 peak and have helped improve the affordability math as well. The risk is that the rebound in home sales, notwithstanding a contemporaneous rebound in mainland housing markets, may not generate enough momentum to contribute to a full-blown investment recovery. Unlike mainland markets, where inventory reductions have stimulated a recovery in manufacturing sectors ranging from automobiles to information technology equipment, Hawaii's investment recovery is more heavily dependent on residential and nonresidential investment transactions and construction. Currently the transaction space is dominated by distressed properties, and a construction recovery is not forecast for at least another year. Among the first signs to be looking for is a rebound in homebuilding, but even with the extremely low historic levels to which production has fallen nationwide only the most tentative stabilization in housing starts has started to take hold. Time will tell but the extreme depression in housing means it may be a slow climb out of the trough.

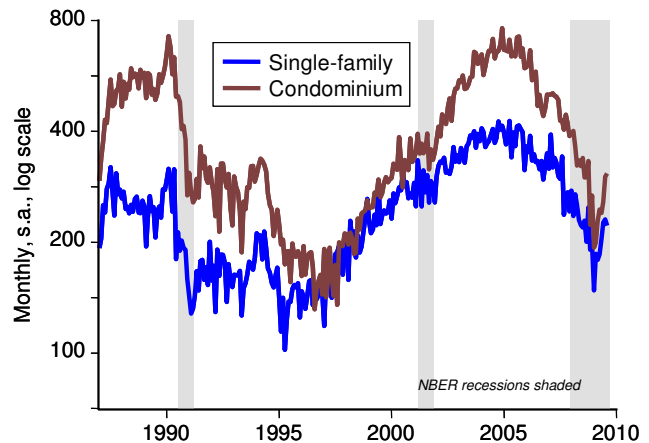
Oahu existing home sales

(units, seasonally-adjusted)



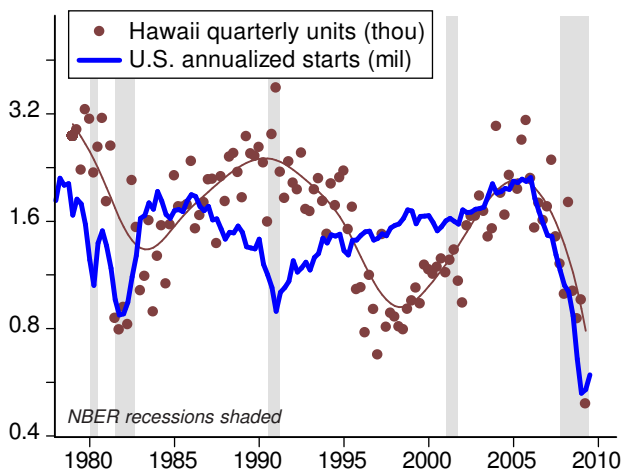
Oahu existing home sales

(units, seasonally-adjusted)



Hawaii new housing units authorizations and U.S. housing starts

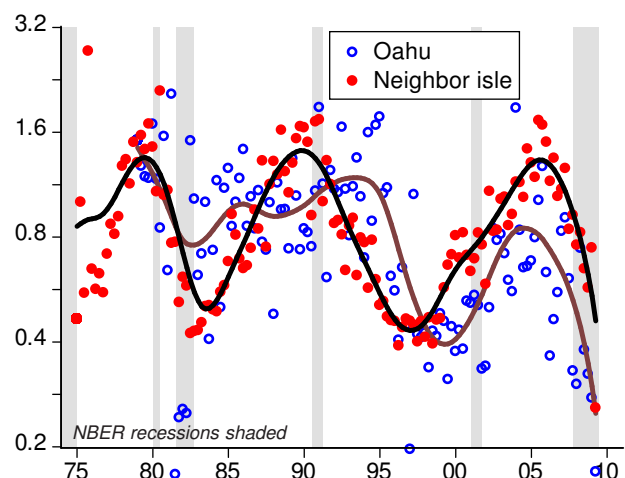
(quarterly, thousand units, seasonally-adjusted, log scale)



Sources: Hawaii DBEDT, U.S. Department of the Census, Honolulu Board of Realtors

New housing units authorized for construction by county building permit

(quarterly, thousand units, seasonally-adjusted, log scale)

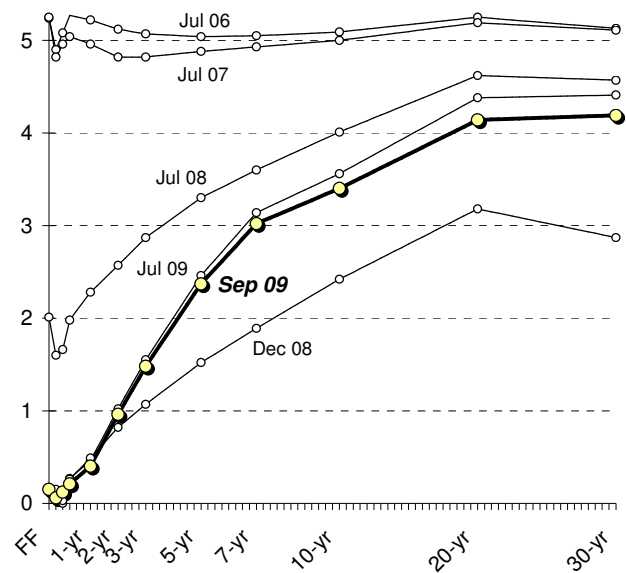


Interest rates occupy a middling position

Bond markets have remained comfortable with a middle ground between the extreme precautionary posture taken by investors last winter at the depths of the financial panic, and decisive movement back to a flat yield curve. Partly this reflects the expectation of slow economic recovery and persistent macroeconomic risks that have portfolios retaining some defensive characteristics, including strong cash positions. Partly the steep yield curve awaits follow-through on the Fed's exit strategy, which does not appear likely to occur with any haste. Even the prospect of persistent large federal budget deficits, which would otherwise imply higher long-term real interest rates, haven't overcome the save-haven shelter that U.S. Treasury securities provide investors while the recovery in stock valuations and in economic activity gradually takes hold. Inflation expectations remain as well anchored now as was true before the recession, indeed, the difference between nominal and real Treasury yields points to a slight gain in the form of lower long-term inflation as one outcome of the Great Recession. For now, only a gradual yield curve flattening is expected, and then only once the Fed has unwound securities purchases that have kept open some securitization channels. Sometime around mid-2010, the Fed will then begin to raise the fed funds target, sooner than later depending on how muted remain inflation expectations.

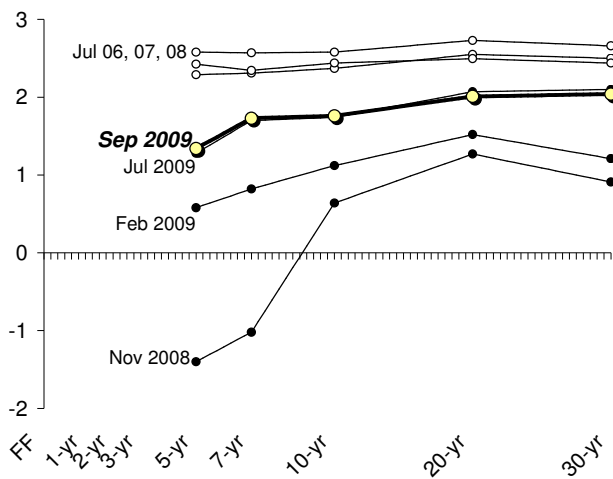
Nominal U.S. Treasury yields

(percent, adjusted to constant maturities)



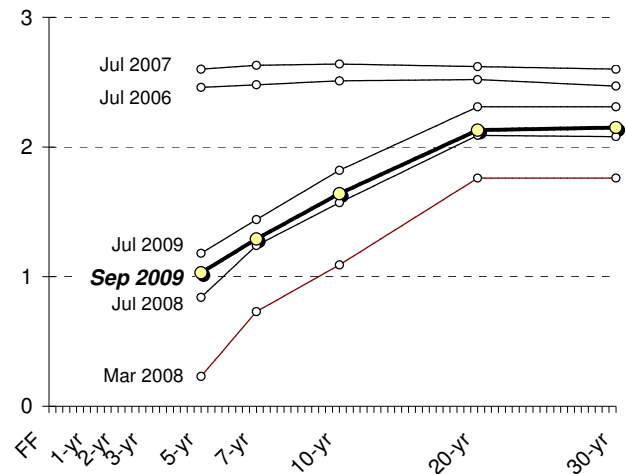
Long-term inflation expectation implied by the difference between nominal and real yields

(percent, includes a latent (unobservable) inflation risk premium and liquidity risk premium)



Real U.S. Treasury (TIPS) yields

(percent, adjusted to constant maturities)



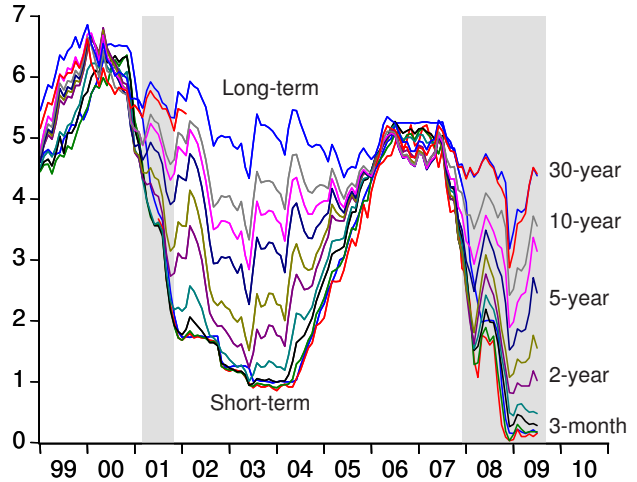
Source: Federal Reserve Board

Stabilization sets stage for policy transition

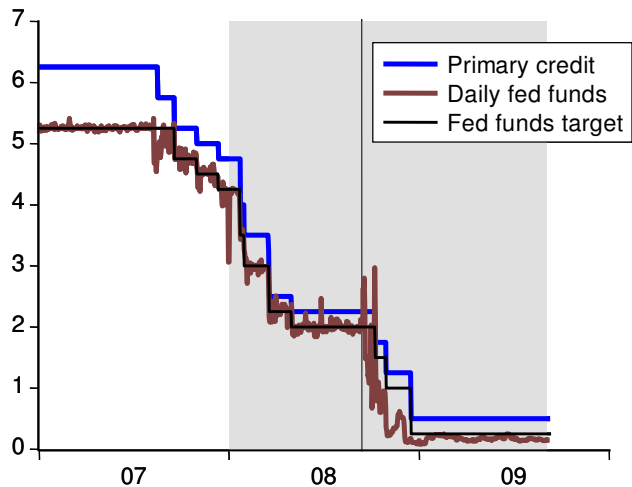
After the economic freefall at the time of Lehman Brothers' failure in September 2008, extraordinary monetary and fiscal policy interventions were mobilized. Now, despite retrospective debate over the merits of details of these policy interventions, improved prospects for economic stabilization and recovery shift the focus to how the interventions will be wound down. Fiscal stimulus under the American Recovery and Reinvestment Act (ARRA) in February provided a spending impulse peaking this winter, in planned amounts per federal fiscal year from \$250 billion (2009), to \$400 billion (2010), \$150 billion (2011). Financial markets will look for the Administration to articulate its exit strategy and lay groundwork for future federal deficit reduction, to keep inflation expectations checked and prevent a rise in real interest rates. Monetary policy intervention comprised: (1) low (zero) interest rates; and (2) restoration of securitization (TALF). Most credit creation no longer occurs through banking alone. Securitization augments and enhances bank lending by reducing cost and providing broader risk-spreading. Vulnerabilities revealed by the financial crisis will be addressed through new capital requirements, improved instrument design, and financial regulatory reform. The Federal Reserve is supporting securitization through asset purchases until private credit formation revives. At its September 23 Federal Open Market Committee (FOMC) meeting the policy-making group began laying out its exit approach and timetable. Among key points:

- "Economic activity has picked up following its severe downturn."
- "... policy actions to stabilize financial markets and institutions, fiscal and monetary stimulus, and market forces will support a strengthening of economic growth and a gradual return to higher levels of resource utilization in a context of price stability."
- "With substantial resource slack likely to continue to dampen cost pressures and with longer-term inflation expectations stable, the Committee expects that inflation will remain subdued for some time."
- The Fed will "gradually slow the pace of purchases [of agency mortgage-backed securities and agency debt] to promote a smooth transition in markets...by the end of the first quarter of 2010. As previously announced...purchases of Treasury securities will be completed by the end of October 2009."

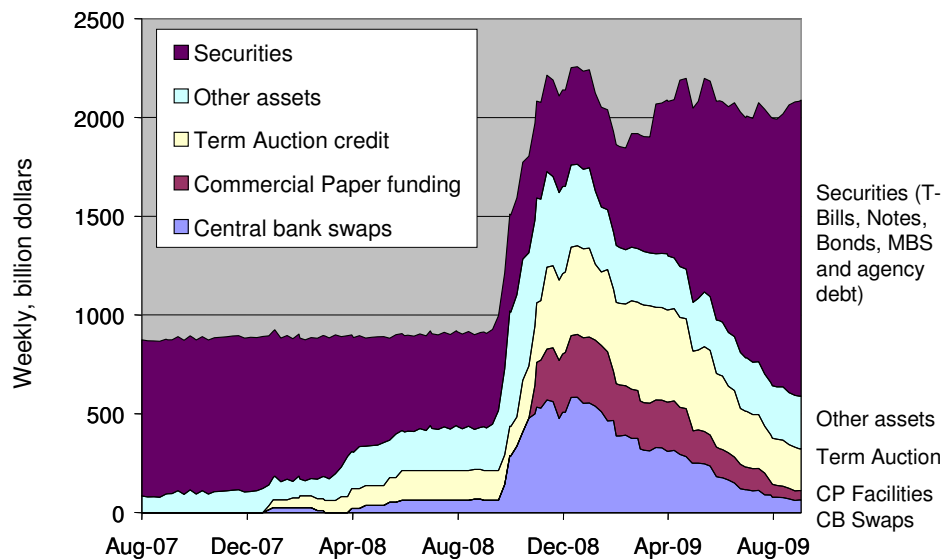
Monthly average yields on U.S. Treasury securities
(percent, adjusted to constant maturities)



Interest rates administered by the Federal Reserve
(daily, in percent, including effective fed funds daily close)



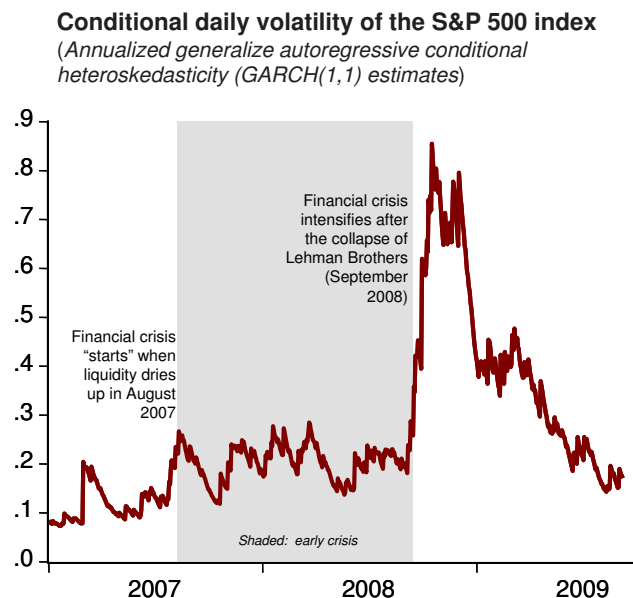
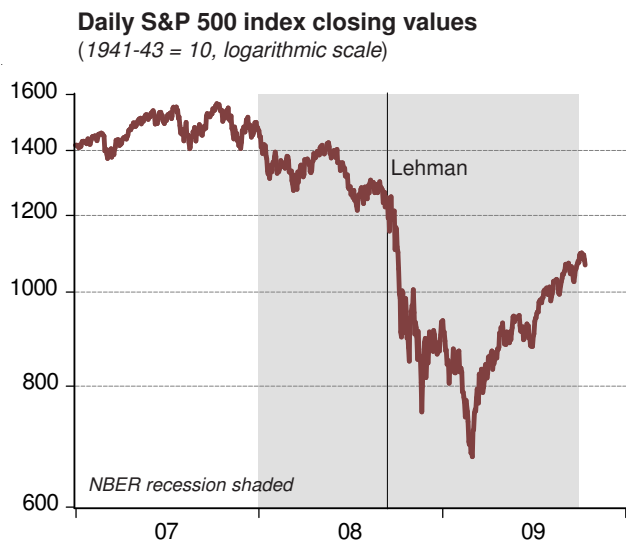
Composition of Federal Reserve assets on a weekly basis through September 2009



Risk premia subside as asset prices recover

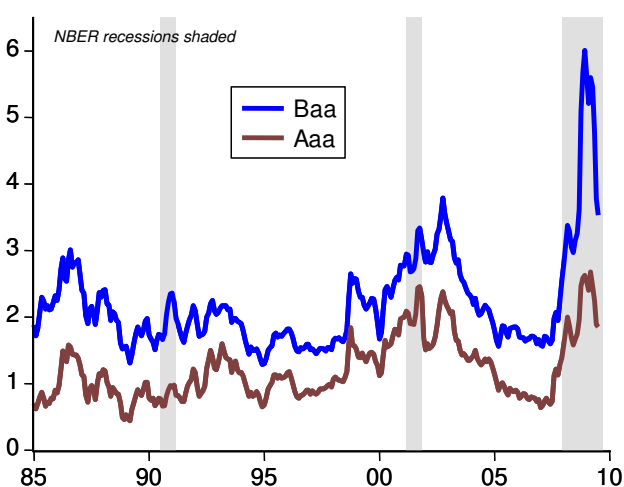
One of the more surprising aspects of the stabilization of U.S. economic activity during 2009, and the return to growth in emerging markets economies overseas, is the unpredicted strength of stock markets as a precursor to that recovery. With the Standard & Poor's Index of 500 U.S. stocks up 60 percent from its low point in early-March, much of the loss of investor confidence last winter has been overcome. Still, the freefall during the financial panic that followed the collapse of Lehman Brothers in September 2008 is a reminder that investor perceptions are both volatile and vulnerable to adverse shocks. Direct mea-

asures of stock price volatility have subsided dramatically since the Lehman event, and in recent weeks have settled to daily annualized values in a range of 15-20 percent customary for more stable economic times. The decrease in credit risk premia and liquidity risk premia (illustrated at bottom of page) provide further corroboration of unfolding financial stabilization. Much work remains in financial regulatory form and in reviving credit creation, but the financial foundation for economic recovery looks more certain after six months of valuation recovery than seemed possible back in the winter of 2009.



Moody's-rated corporate bond spreads to 10-year U.S. Treasury Note yields

(daily, in percentage points)



LIBOR/swap interest rate spreads to comparable U.S. Treasury yields

(daily, in percentage points)

