ECONOMIC OUTLOOK

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2ND QTR 2016

AUSTIN

"The Austin economy grew at a healthy pace in May. The Austin Business-Cycle Index further decelerated but expanded at a rate above its long-term trend. Job growth picked up compared with April and was well above that of the state, while the unemployment rate held steady at a 15-year low." – Dallas Fed

TEXAS

"The Texas economy grew tepidly in May. The number of jobs in the state increased only slightly for the month. Annual employment grew primarily due to the services sector, trade, and leisure and hospitality. Manufacturing and mining and logging employment in Texas declined while services continued a positive trend. Texas housing demand improved moderately with Houston appearing to have leveled. Dallas-Fort Worth housing sales have started to show some signs of weakening. State building permits improved year-over-year but slowed month-to-month." – Real Estate Center

UNITED STATES

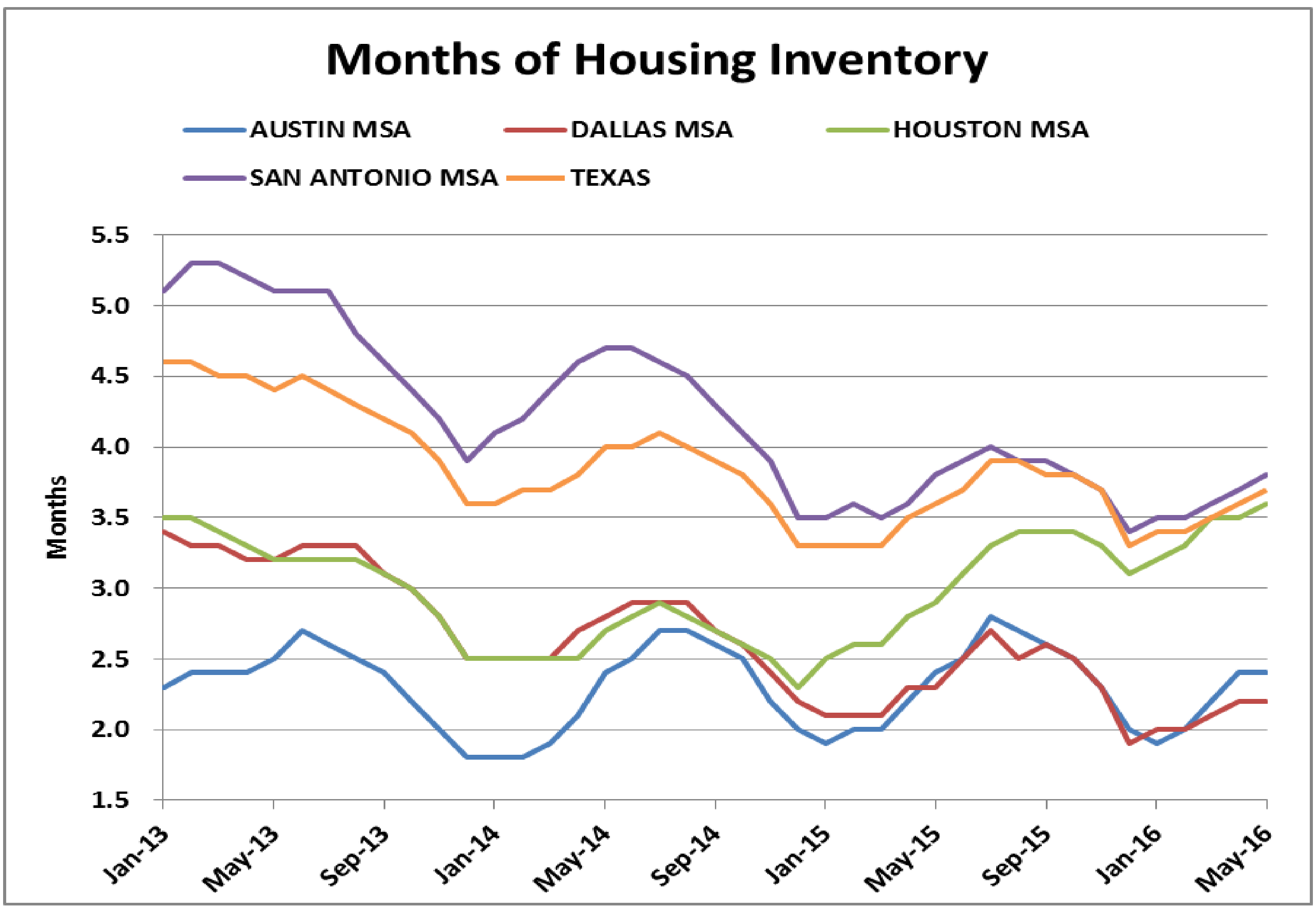
Daniel Lin, a research analyst at the Federal Reserve Bank of Dallas reported in late June that "Recent economic data send mixed signals on U.S. economic activity in the second quarter. The May employment report shows some deceleration in labor market momentum. Even so, the outlook for U.S. output growth remains good. The economy is close to full employment, and private consumption is supported by high levels of household confidence, low gasoline prices, low debt burdens, higher net worth ratios and low interest rates. However, downside risks remain. Though global financial conditions have eased since mid-February, a strong dollar, weak global growth and the U.K. "Brexit" decision present headwinds in the near term."

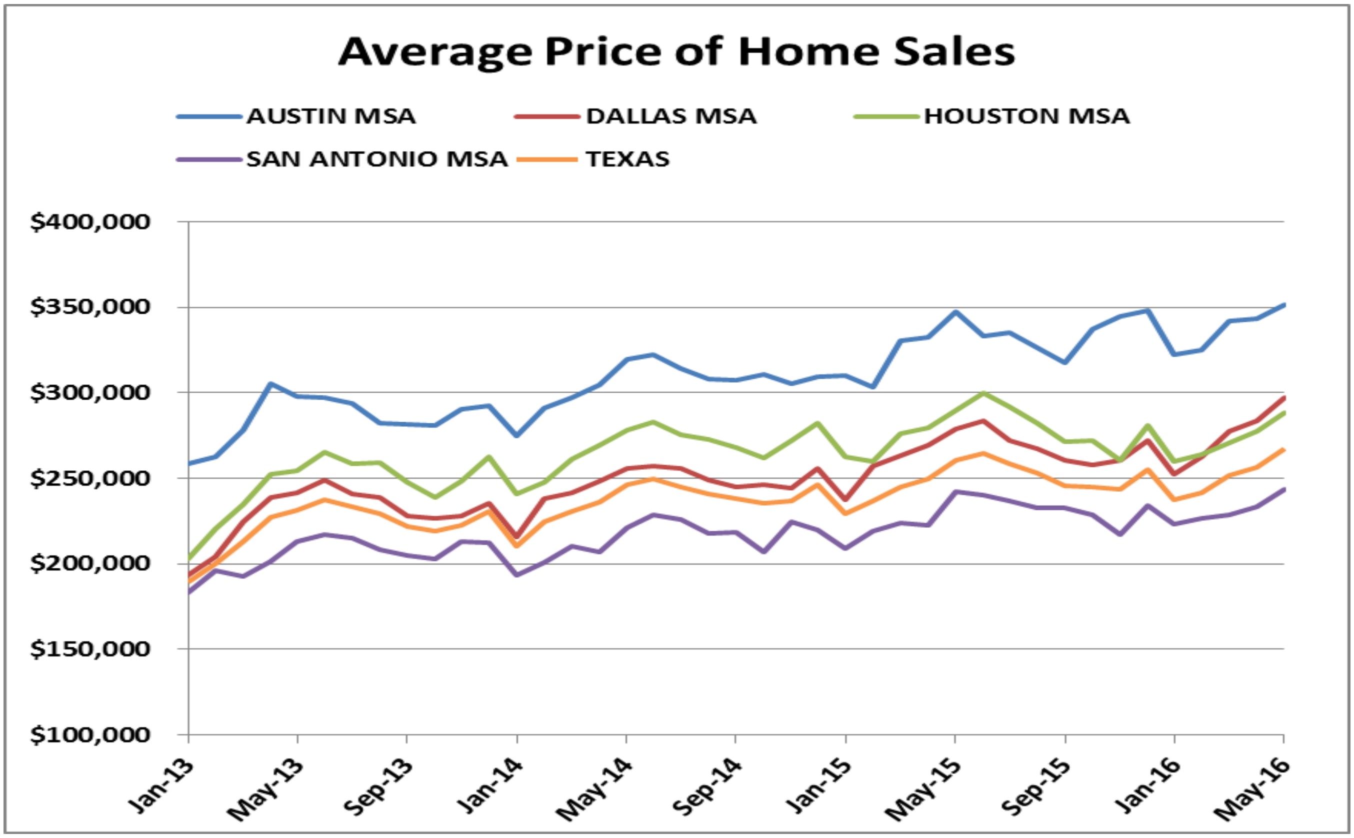
HOUSING

"Texas housing demand continued its long-term positive trend. In May, statewide housing sales increased 5.3 percent year-over-year on a seasonally adjusted basis. Austin, Dallas-Fort Worth, and San Antonio continued to register year-over year increases in sales. Houston posted a 1.1 percent year-over-year seasonally adjusted rate after a long period of weakening due to the impact of the energy sector decline. Overall, Texas housing sales continued to increase year-over-year but slowed on a month-to-month basis." - Real Estate Center (REC)

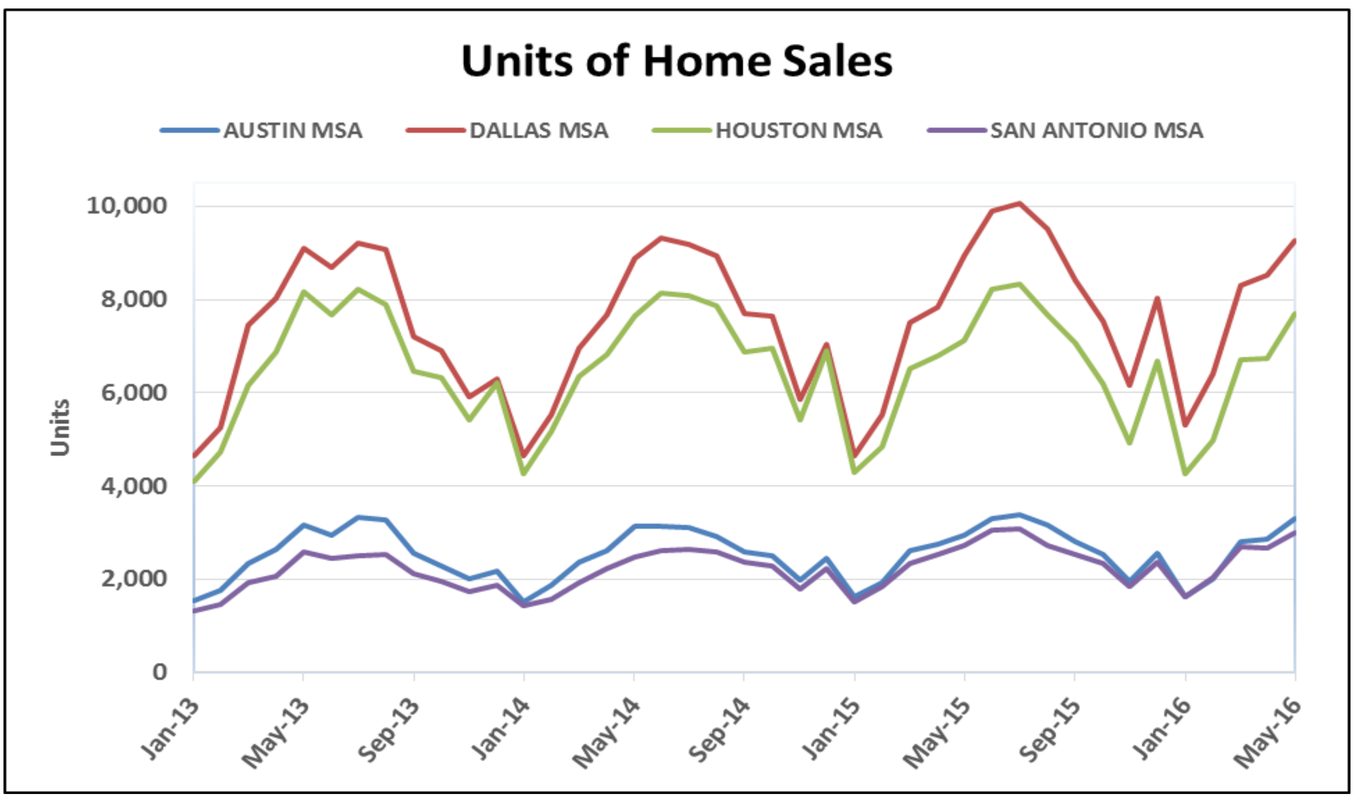
REC has estimated that **"seasonally adjusted; around 6.5 months of inventory is considered a balanced housing market in which neither sellers nor buyers dictate prices**."

The Austin MSA had a lean 2.4 months of housing inventory in May. This suggests continued strong demand.





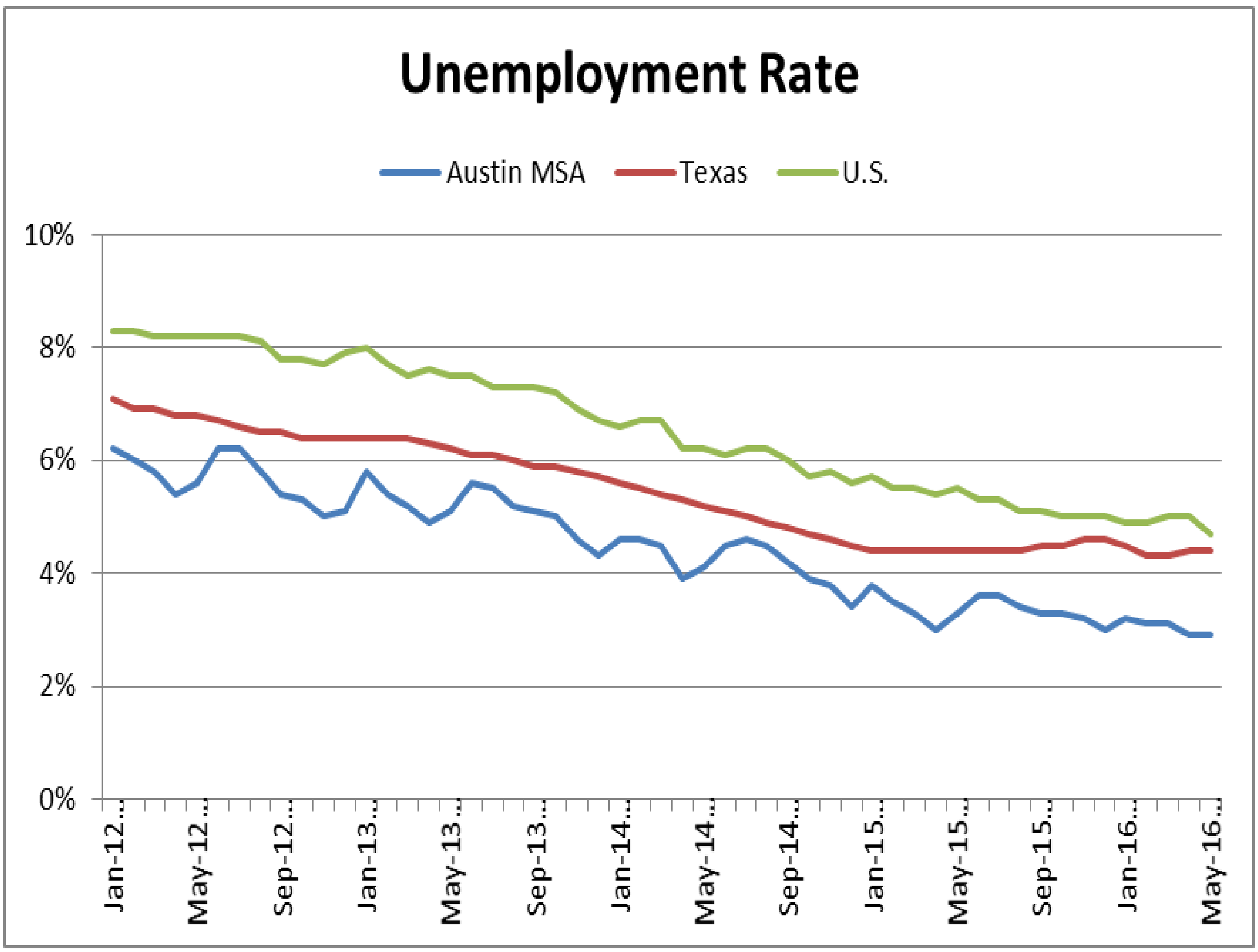
Source: Real Estate Center at Texas A&M University



Source: Real Estate Center at Texas A&M University

JOBS

The May 2016 Austin MSA unemployment rate is 2.9%. This number is flat to the April rate. The Austin MSA unemployment rate compares favorably to both the preliminary Texas unemployment rate of 4.4% and the U.S. rate of 4.7%. The Texas unemployment rate has been at or below the national rate for over nine years.



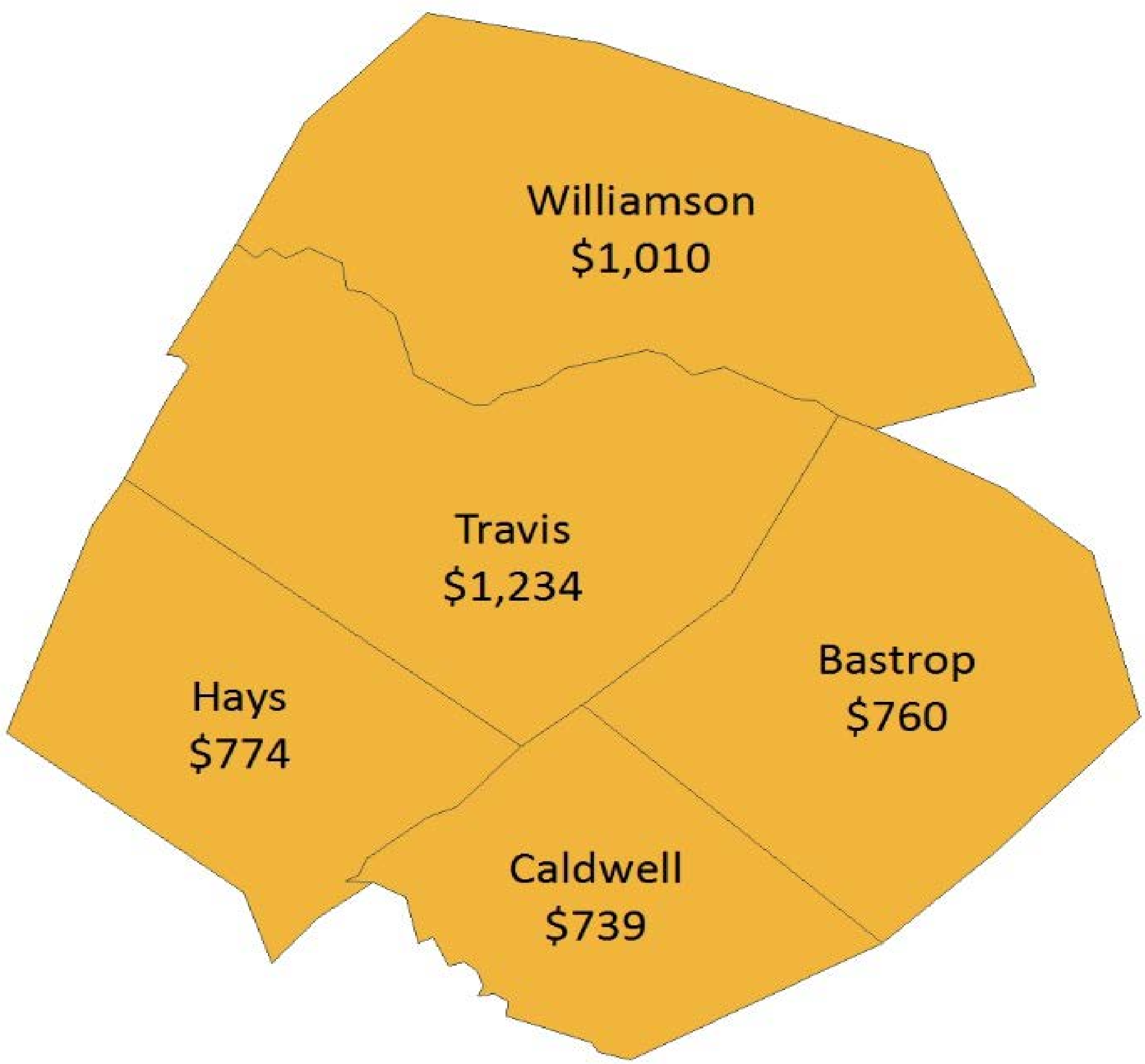
Note: U.S. and Texas seasonally adjusted, Austin MSA not seasonally adjusted.
Source: Bureau of Labor Statistics

JOBS

Below is a chart comparing the average weekly wages for all industries by county. The data for the Austin area is from the 4th Quarter 2015. (U.S. = $1,082)

What is included in total wages? "Under most State laws or regulations, wages include bonuses, stock options, severance pay, profit distributions, cash value of meals and lodging, tips and other gratuities, and, in some States, employer contributions to certain deferred compensation plans such as 401(k) plans." - BLS

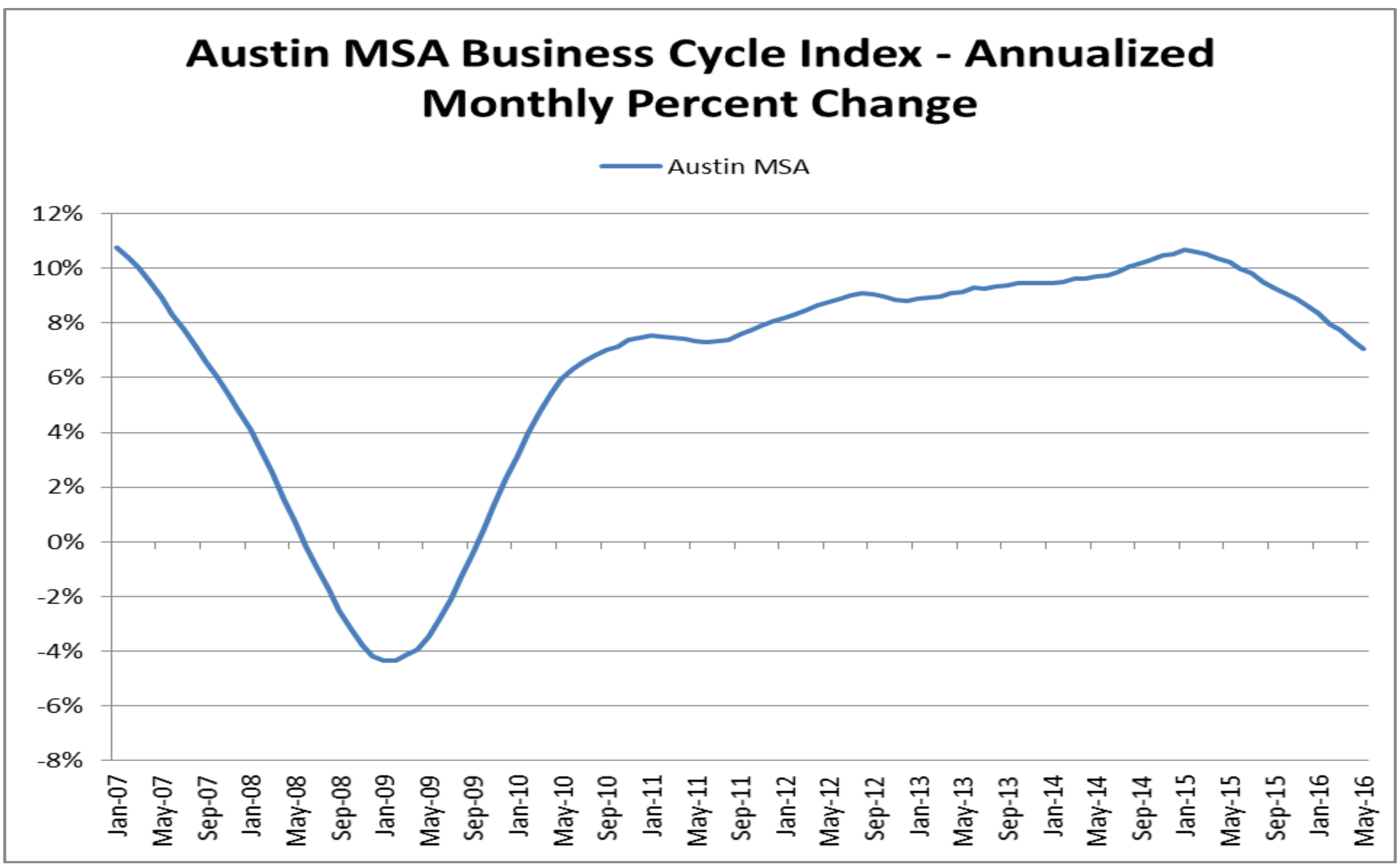
Austin Area



BUSINESS CYCLE INDEX – AUSTIN MSA

Business Cycle Indexes are meant to reflect broad movements in local economic conditions. The Dallas Fed states that "the [local area] indexes are constructed based on the aggregated movements in the local area unemployment rate, nonagricultural employment, inflation-adjusted wages, and inflation-adjusted retail sales. The weights of the components are statistically optimized for each metropolitan area in order to best capture the underlying cyclical movements in the local area economy."

"The Austin Business-Cycle Index expanded at a 7.1 percent annualized rate in May. While this remains above the long-term rate of 6 percent, it is well below the recent peak of 10.7 percent in January 2015. So far this year, jobs have grown at an annualized rate of 2.1 percent, and the unemployment rate has declined 0.2 percentage points, both contributing to continued growth in the index. While still at a healthy pace, this contrasts with 2015 when job expansion averaged 4.7 percent and the unemployment rate declined by 0.5 percentage points."

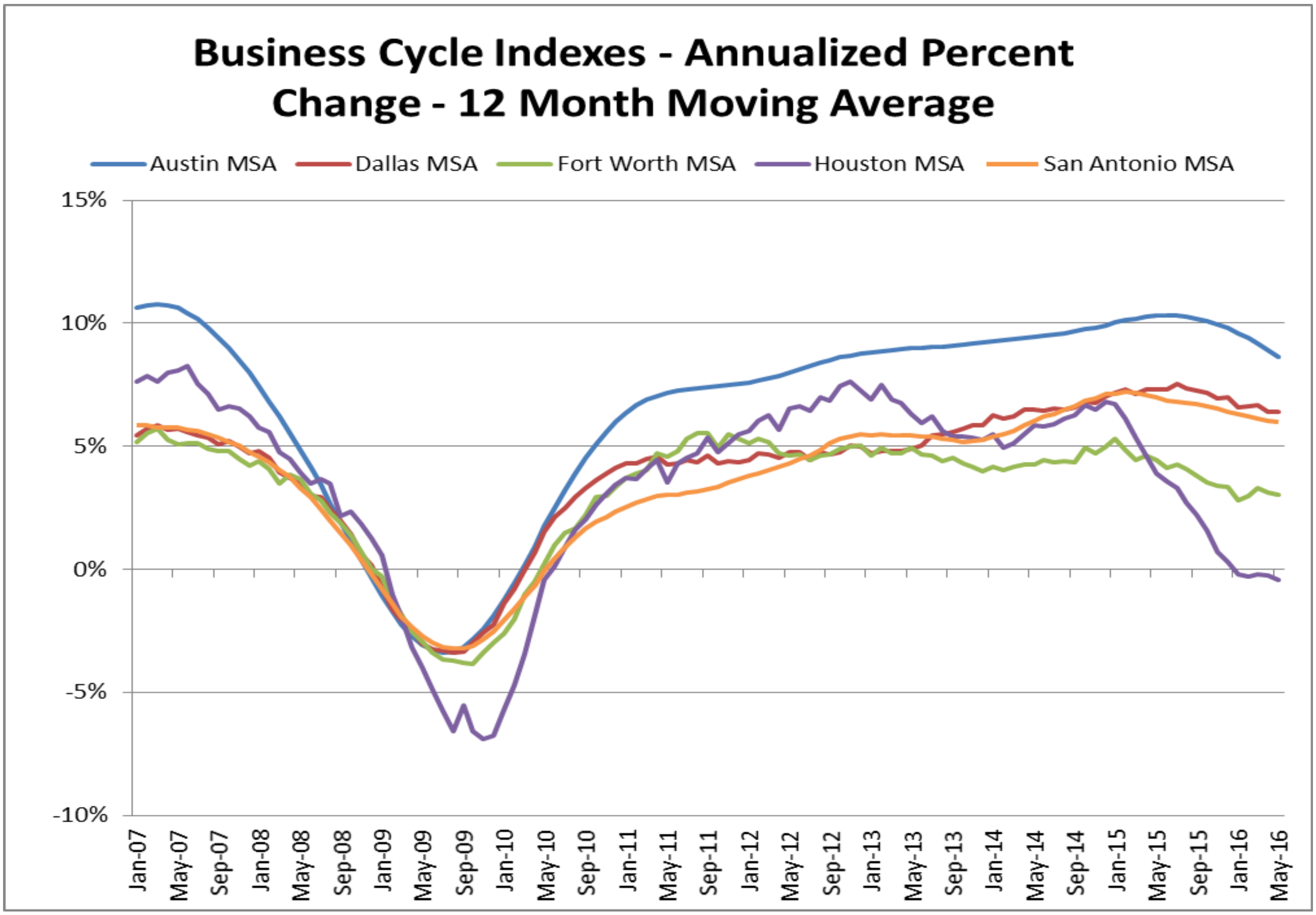


Month-over-month annualized rate, seasonally adjusted

Source: Federal Reserve of Dallas – Index,1980 = 100

BUSINESS CYCLE INDEX – MAJOR METROS

In the chart below, a twelve month moving average was incorporated to smooth out short-term fluctuations and highlight longer-term cycles. Houston's business cycle index has experienced four consecutive months of decline because of low oil prices. The energy bust is starting to "affect other sectors of the metro's economy, particularly its residential and office markets." – DallasFed

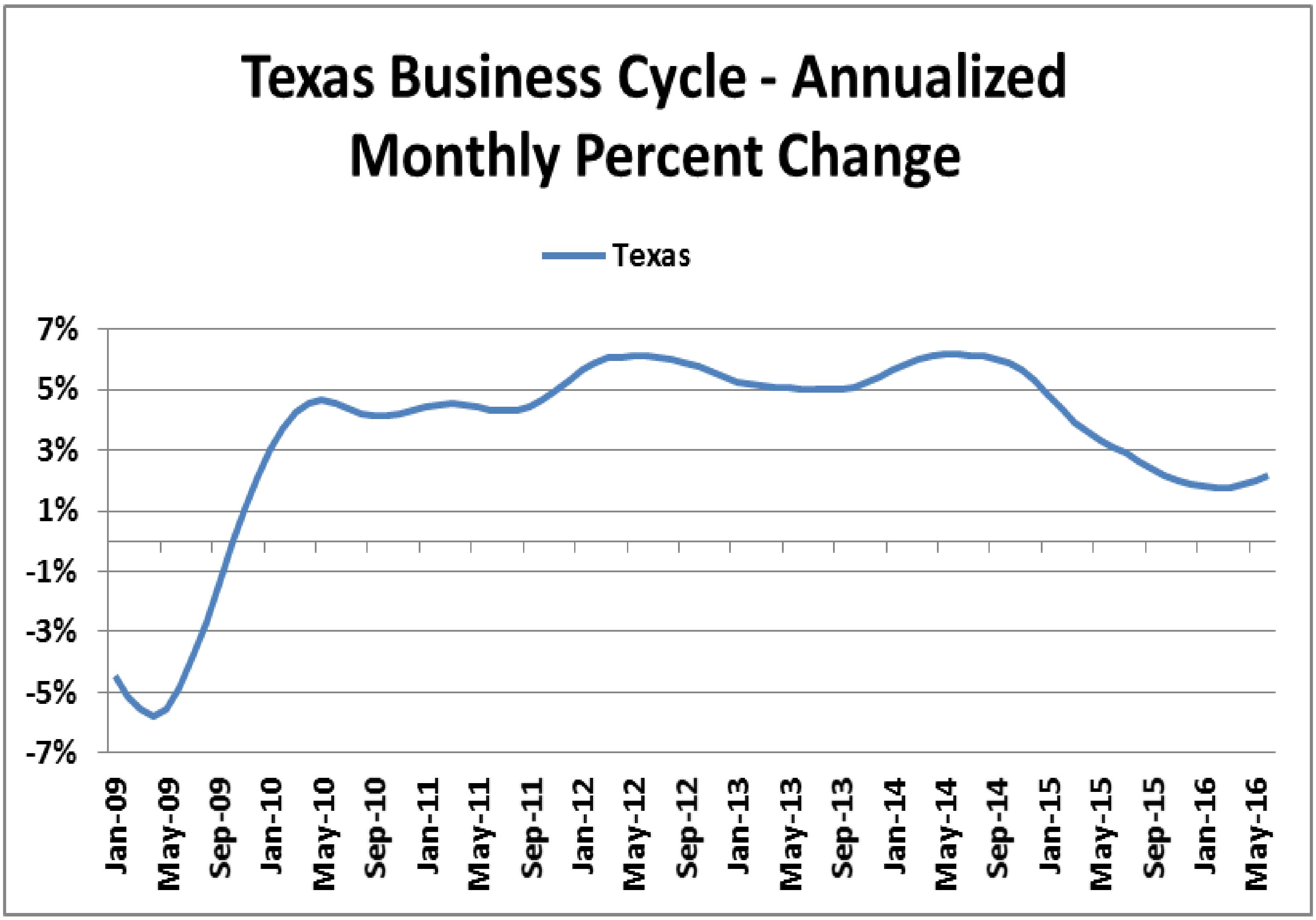


Source: Federal Reserve of Dallas

Source: Federal Reserve of Dallas – Index,1980 = 100

BUSINESS CYCLE INDEX - TEXAS

The **Texas Business Cycle Index** measures the current state of the Texas economy. The Dallas Fed constructed the index using payroll employment, gross state product, and the unemployment rate. The Texas Business Cycle continues its positive trend.

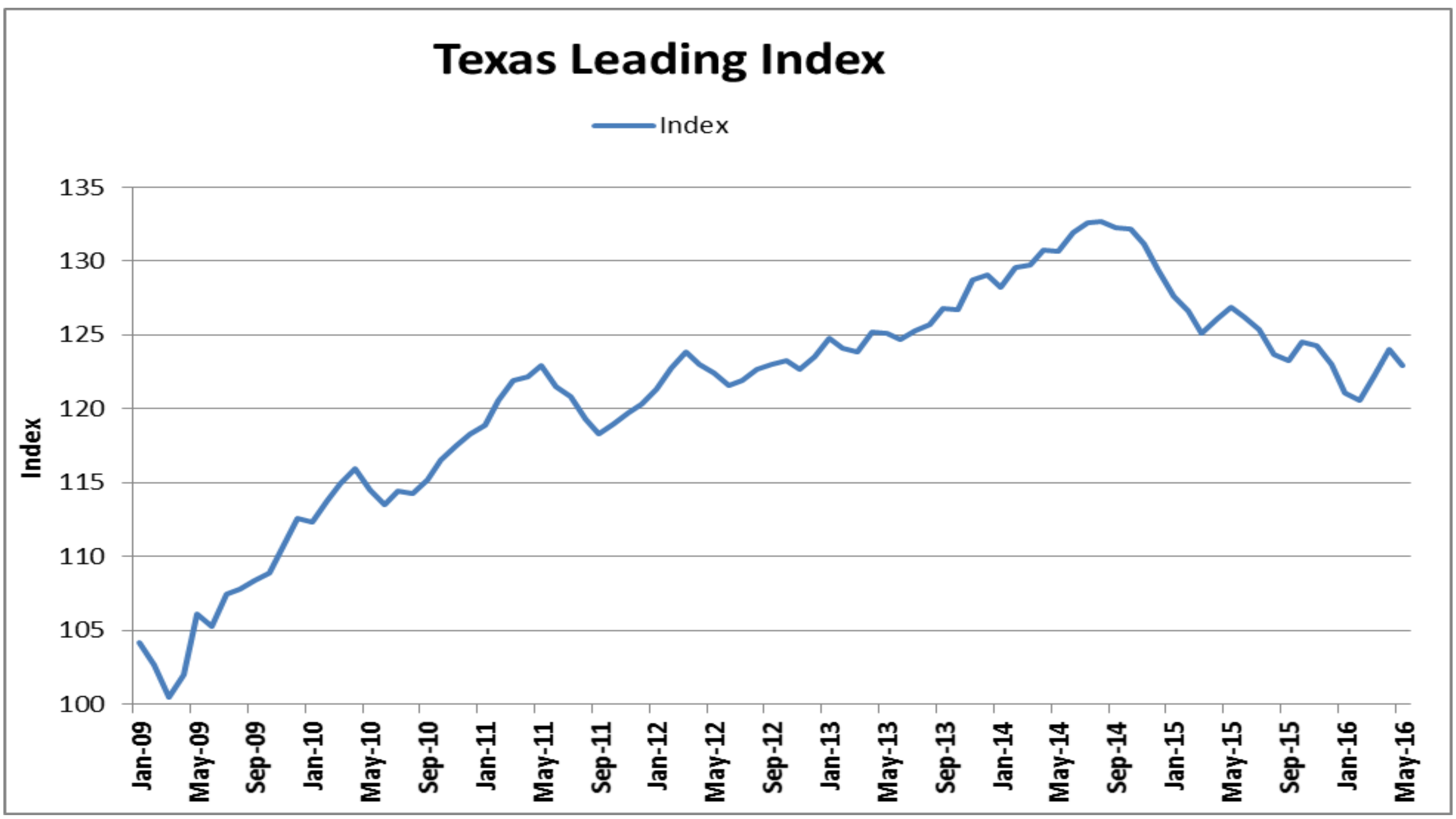


Source: Federal Reserve of Dallas – Index,1987 = 100

LEADING INDEX - TEXAS

Dallas Fed has defined the **Texas Leading Index** as the "single summary statistic that sheds light on the future of the state's economy." The Texas Leading Index is made up of eight leading indicators that have been shown to change direction – up or down – before the overall economy. The eight indicators used by the Dallas Fed are the Texas value of the dollar, U.S. leading index, real oil price, well permits, initial claims for unemployment insurance, Texas stock index, help-wanted index and average weekly hours worked in manufacturing.

The Texas Leading Index declined in May. The Real Estate Center said the slight decrease "was negatively affected by declines in the help-wanted index and stock prices of Texas-based companies. The index was positively affected by increases in the Texas value of the dollar, U.S. leading index, oil prices, average weekly hours worked, and a dip in new unemployment claims." The Index has dropped in 16 of the past 21 months.



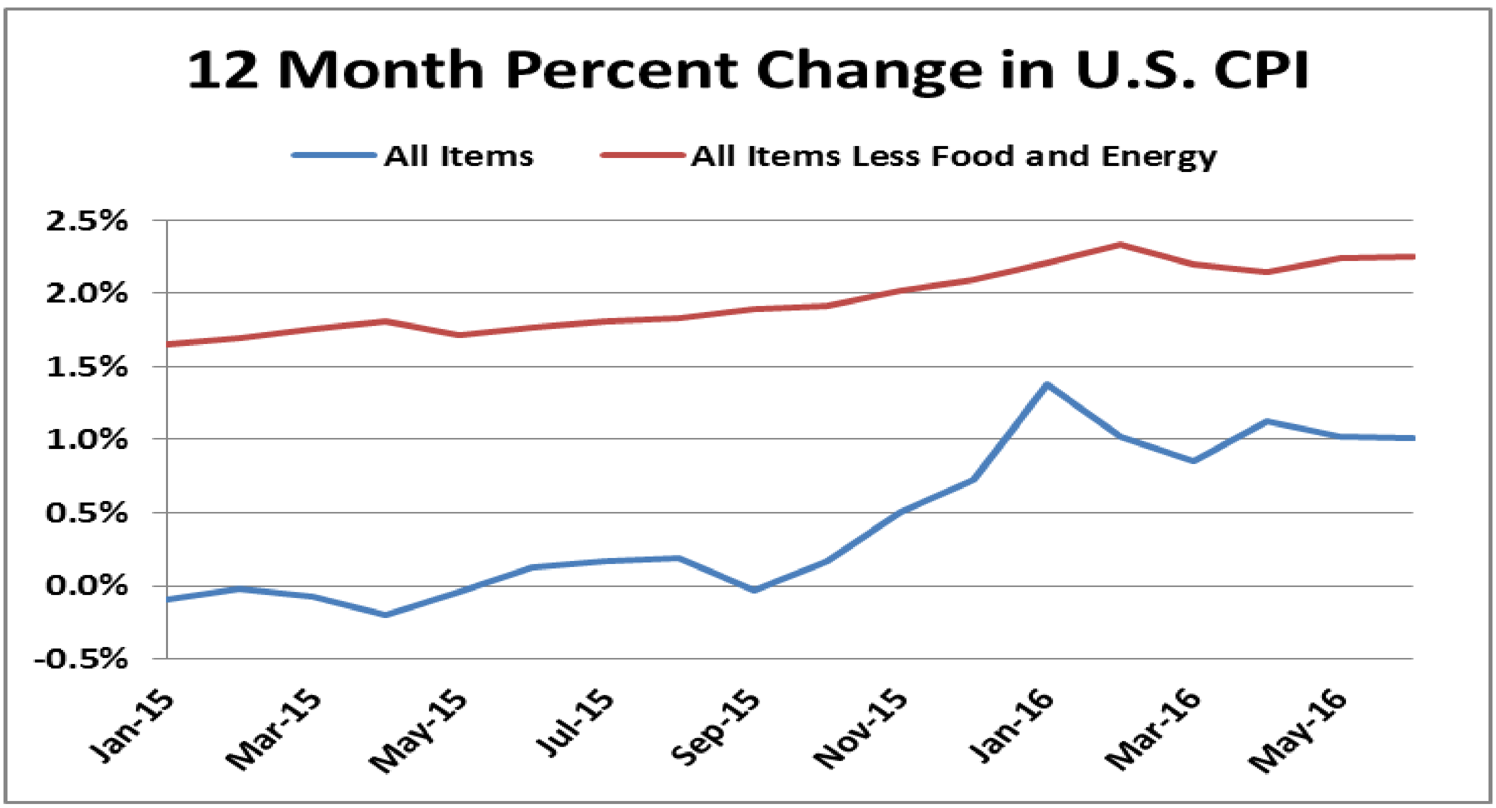
Source: Federal Reserve of Dallas – Index,1987 = 100

CONSUMER PRICE INDEX

According to the Bureau of Labor Statistics (BLS), “The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.” Basically, the CPI measures inflation as experienced by 87% of the total U.S. population in their day-to-day living expenses.

There are a variety of CPI numbers generated each month. In the graph below two numbers are compared. The first is the ‘Official CPI Number” that is reported to the media. It is the broadest and most comprehensive CPI and is called the All Items CPI for All Urban Consumers. The second one is called the "All items less food and energy". The BLS mentions that “Some users of CPI data use this index because food and energy prices are relatively volatile, and these users want to focus on what they perceive to be the "core" or "underlying" rate of inflation.”

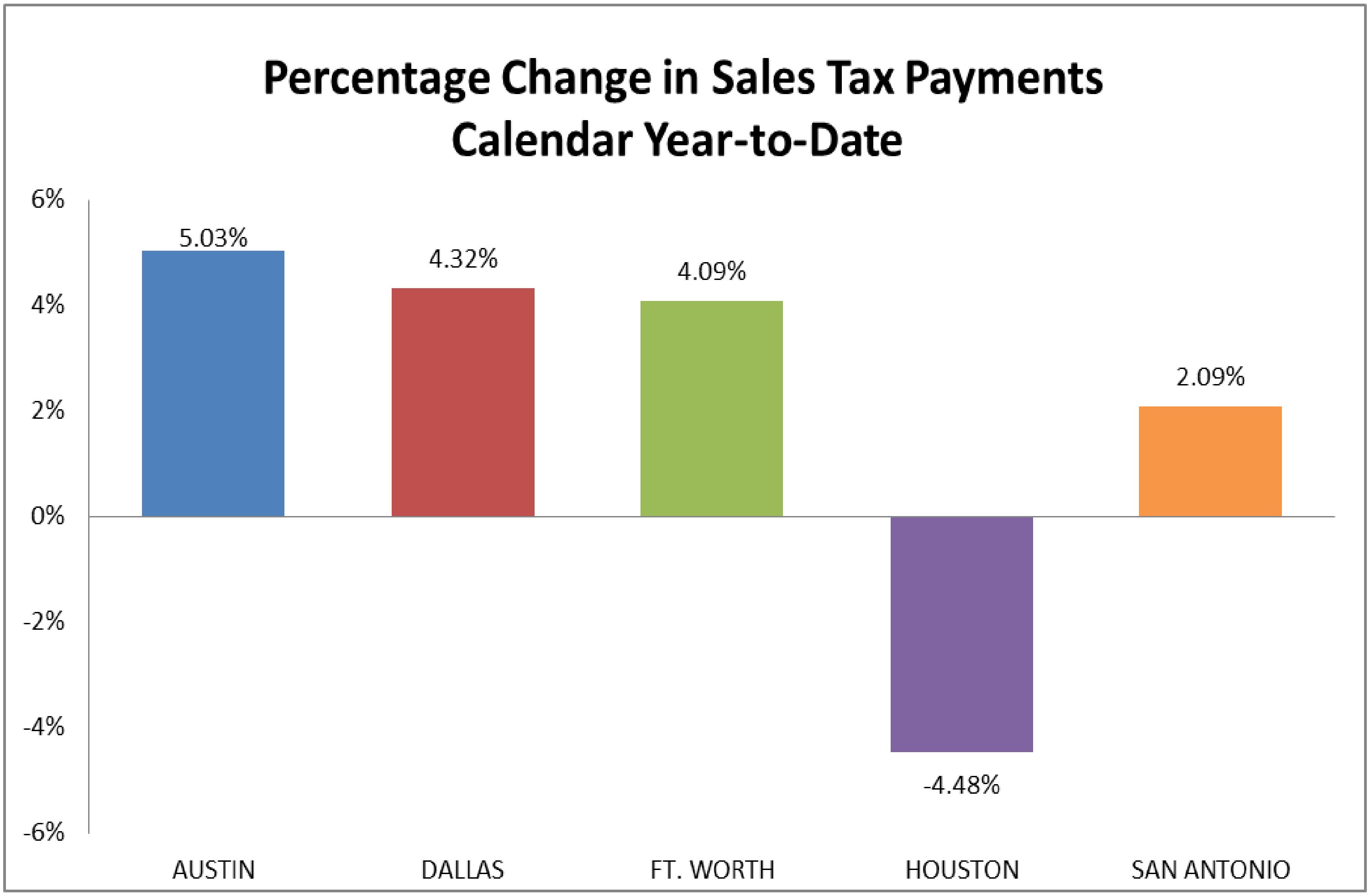
“The **all items index rose 1.0 percent** for the 12 months ending June. This is the same increase as for the 12 months ending May, but smaller than the 1.7 percent average annual increase over the past 10 years. The index for **all items less food and energy rose 2.3 percent** for the 12 months ending June, a larger increase than the 2.2 percent rise for the 12 months ending May, and above the average annual rate of 1.9 percent over the past 10 years.”



Source: Bureau of Labor Statistics, not seasonally adjusted, 1982-84=100

SALES TAX - METRO

Below is a graph of the 2015 vs. 2016 year-to-date percentage change in Sales Tax Payments made by the State to the five major cities in Texas. As expected, Houston is the only top five city that has experienced a decline in revenue.



Source: Texas Comptroller of Public Accounts

TAXES - TEXAS

Below are the Total Tax Collections for the **General revenue-related funds** through the first six months of the State's fiscal year. In FY 2015, Total Tax Collections represented close to 88% of the Total Net Revenue for the General revenue-related funds.

Texas Comptroller Glenn Hegar blamed the year over year drop in sales tax on declining purchases by oil and gas drilling companies. The falling oil and gas severance taxes are a major concern. In preparing the biennial revenue estimate, Hegar predicted that oil would average $64.52 a barrel in fiscal year 2016 and $69.27 a barrel in fiscal year 2017.

Insurance Taxes, Motor Vehicle Sales Taxes and Alcoholic Beverages Taxes are bright spots among an overall dismal picture. The June YTD percentage variance of (5.70%) remains fairly consistent with the March YTD number of (5.82%).

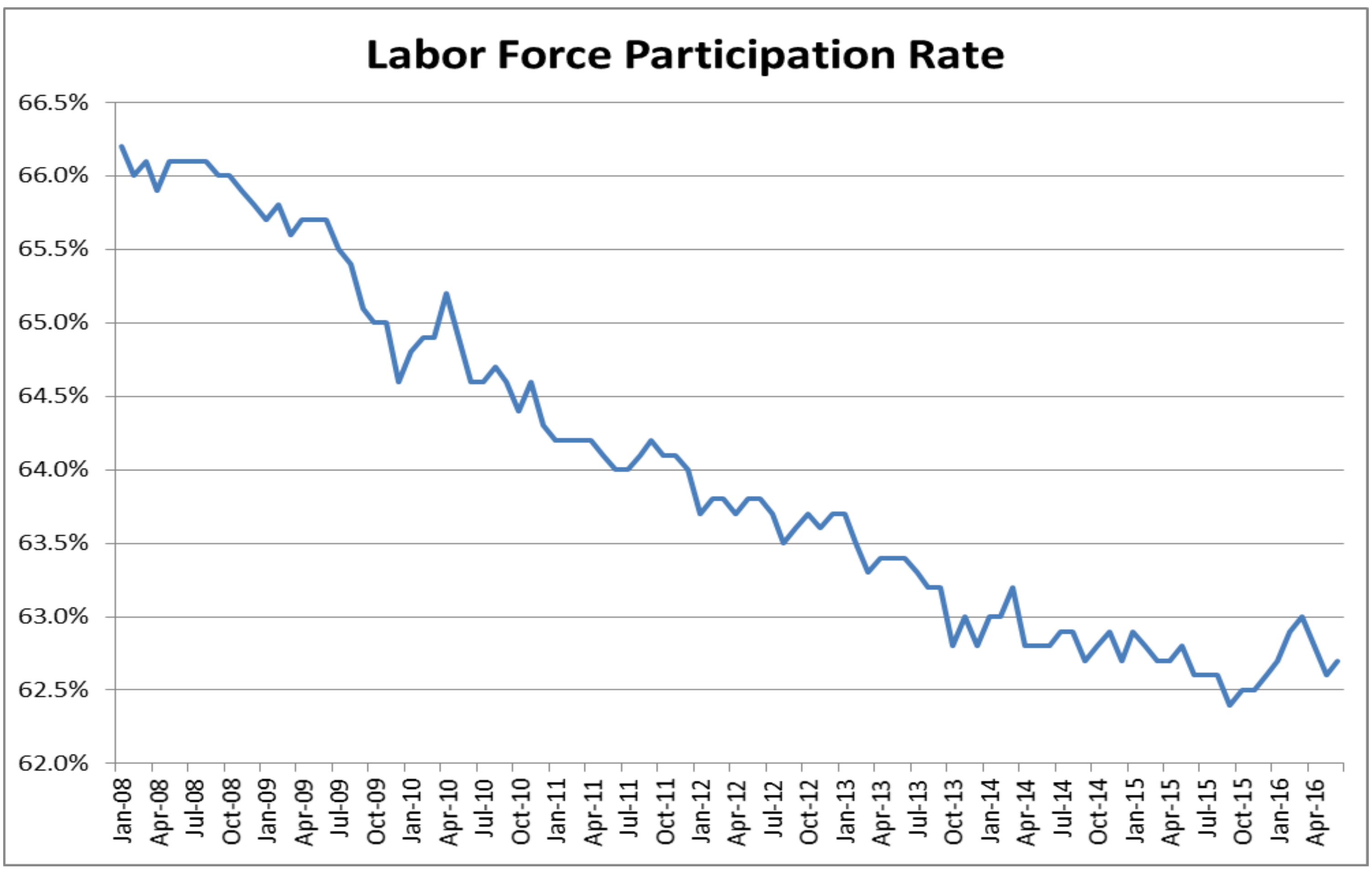
Tax Collections by Major Tax (amounts in millions)	**Jun YTD FY 2016**	**Jun YTD FY 2015**	**Variance**	**Percentage Variance**
Sales Tax	$ 23,276	$ 23,827	$ (552)	-2.3%
Motor Vehicle Sales and Rental Taxes	3,720	3,647	74	2.0%
Motor Fuel Taxes	764	740	24	3.2%
Franchise Tax	2,904	2,985	(81)	-2.7%
Insurance Taxes	1,366	1,265	101	8.0%
Natural Gas Production Tax	467	1,105	(637)	-57.7%
Cigarette and Tobacco Taxes	545	559	(15)	-2.6%
Alcoholic Beverages Taxes	983	928	55	5.9%
Oil Production and Regulation Taxes	1,403	2,448	(1,046)	-42.7%
Utility Taxes1	300	336	(36)	-10.6%
Hotel Occupancy Tax	425	427	(2)	-0.4%
Other Taxes2	70	146	(76)	-51.8%
Total Tax Collections	$ 36,223	$ 38,412	$ (2,189)	-5.70%
Totals may not add due to rounding.				

Source: Texas Comptroller of Public Accounts

LABOR PARTICIPATION RATE

The **labor force participation rate**, as defined by the Bureau of Labor Statistics (BLS), is "the percentage of the population [16 years and older] that is either employed or unemployed [that is, either working or actively seeking work]." As seen in the chart below, the rate has dropped significantly over the years, but experienced a slight increase since reaching a low of 62.4% last September.

The Dallas Fed suggests "that those who left the labor force [since the March high of 63%] did not leave due to poor labor market conditions. Additionally, job vacancies are high by historic standards, and initial claims for unemployment insurance are historically low, suggesting labor market strength."



Source of Data: Bureau of Labor Statistics

PENSION FUNDS PILE ON RISK TO GET REASONABLE RETURN

Below are excerpts from a May 2016 Wall Street Journal (WSJ) article written by Timothy Martin. They describe the current environment pension funds are encountering as they attempt to maintain reasonable rates of return.

"Thanks to rock-bottom interest rates in the U.S., negative rates in other parts of the world, and lackluster growth, investors are becoming increasingly creative—and embracing increasing risk—to bolster their performances.

To even come close these days to what is considered a reasonably strong return of 7.5%, pension funds and other large endowments are reaching ever further into riskier investments: adding big dollops of global stocks, real estate and private-equity investments to the once-standard investment of high-grade bonds. Two decades ago, it was possible to make that kind of return just by buying and holding investment-grade bonds, according to new research."

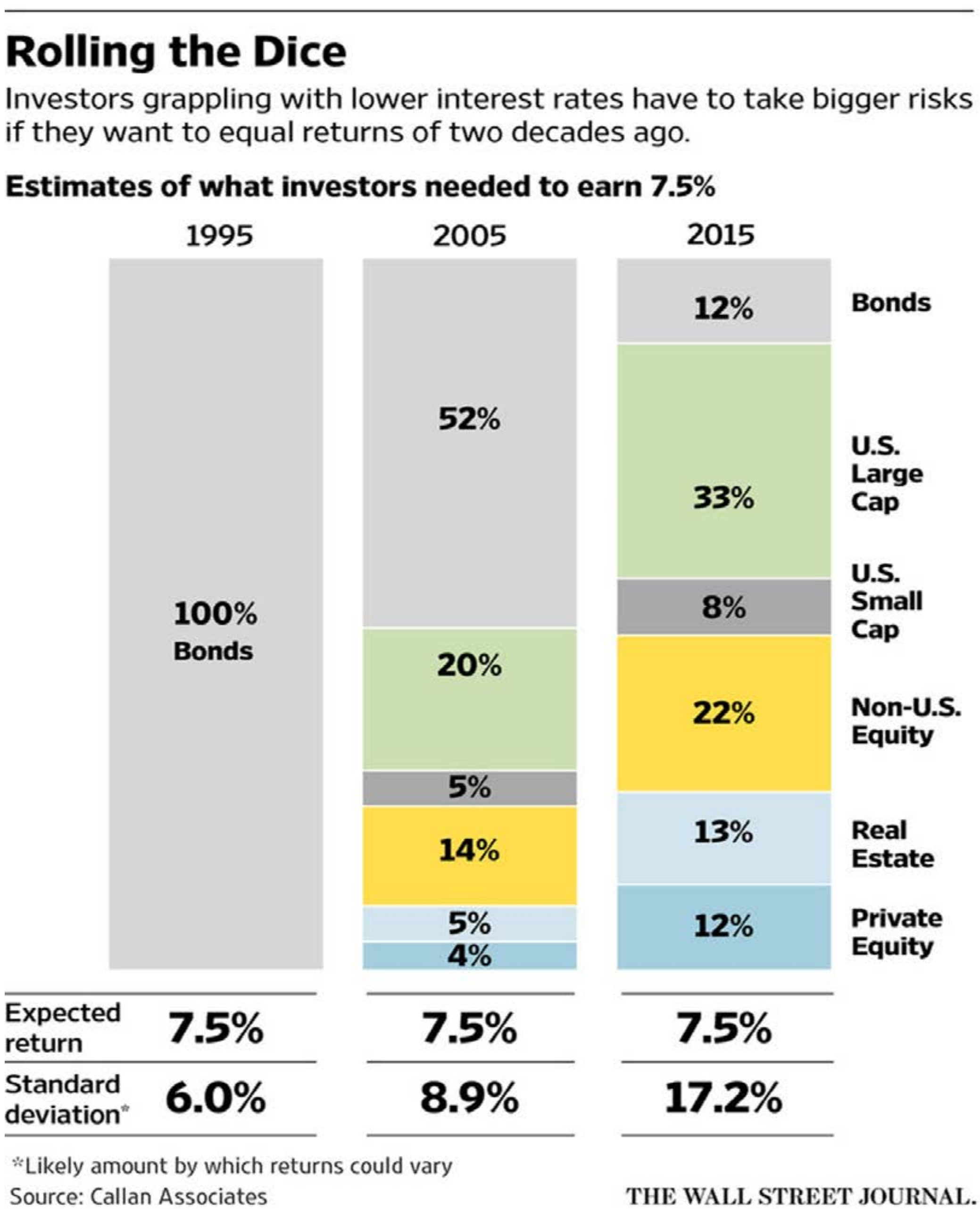
"Bonds historically produced a source of safe, good-enough streams of profit that allowed long-term, risk-averse investors to hit annual targets. The era of low rates has all but erased that buffer. The absence of a few extra percentage points of yield means investors must now compensate by embracing unsafe bets that could strike big—or flop. The Callan report highlights how risky an endeavor that is.

'Not nearly enough attention has been paid to the toll these low rates—and now negative rates—are taking on the ability of investors to save and plan for the future,' BlackRock Inc. Chief Executive Officer Laurence Fink said in a recent letter to shareholders."

"Many large investors aren't gambling that big—and their returns are lagging well behind internal targets. The nation's largest public pension fund, the California Public Employees' Retirement System, has one-fifth of its assets in bonds and is down 1.3% since July 1, according to public documents." "The risk dilemma for investors has real-life consequences. Retirement plans, including Calpers and the New York State Common Retirement Fund, are lowering what they predict they can earn on their investments, a move that means **workers and cities likely face higher contributions and taxes**."

PENSION FUNDS PILE ON RISK TO GET REASONABLE RETURN

"In 1995, a portfolio made up wholly of bonds would return 7.5% a year with a likelihood that returns could vary by about 6%, according to research by Callan Associates Inc., which advises large investors. To make a 7.5% return in 2015, Callan found, investors needed to spread money across risky assets, shrinking bonds to just 12% of the portfolio. Private equity and stocks needed to take up some three-quarters of the entire investment pool. But with the added risk, returns could vary by more than 17%." – The Wall Street Journal May 2016



IN-DEPTH – NEGATIVE INTEREST RATE POLICY (NIRP)

WHAT IS A NEGATIVE INTEREST RATE POLICY (NIRP)?

In simple terms, a negative interest rate policy means "the central bank and perhaps private banks will charge negative interest: instead of receiving money on deposits, depositors must pay regularly to keep their money with the bank." – Investopedia

WHY IS THIS A TOPIC OF INTEREST TODAY?

Many central banks have initiated a NIRP.

- The **European Union** central bank, the Bank of **Japan**, **Denmark's** central bank, the **Swiss** National Bank, and **Sweden's** Riksbank have implemented Negative Interest Rate Policies.
- "Almost **500 million people in a quarter of the global economy** now live in countries where interest rates measure less than zero." – Bloomberg April 2016
- "UK's EU referendum on June 23 pushed the global total of sovereign debt with negative yields to **$11.7 trillion** as of June 27, [2016]" – Fitch Ratings June 2016

HOW DOES A CENTRAL BANK IMPOSE A NEGATIVE RATE ON DEPOSIT ACCOUNTS?

Today only commercial accounts deposited at central banks are charged negative interest. So it is relatively easy to impose negative interest rates. According to WSJ, the central bank simply "makes the electronic balances in those accounts shrink. A deposit of €10,000 at the ECB today is €9,999.92 tomorrow."

IN-DEPTH – NEGATIVE INTEREST RATE POLICY (NIRP)

WHY WOULD CENTRAL BANKS REDUCE RATES BELOW ZERO?

"Negative interest rates have generally been employed after a central bank has already lowered their deposit rate to zero and they either desire to: (1) **reinvigorate an economy** when **other options have been exhausted**, or (2) push foreigners to move their money elsewhere in order to reduce capital inflows that were resulting in **undesired currency strength** (currency weakness helps exports and GDP)." – Kirtland Financial Management

IF A BANK IS CHARGED FOR HAVING A DEPOSIT ACCOUNT WHY NOT JUST USE CASH?

It would be costly. "To settle payments, banks must move vast sums between themselves each day. The costs of counting, storing, moving and insuring lorry-loads of banknotes apparently trumps the smallish charge Europe's central banks are levying to hold electronic deposits. The other possible use for banks' reserves is to lend them to other banks, but they are already awash with the excess liquidity created by QE." – The Economist

According to the New York Times "**the convenience of keeping money in a bank account is worth a small negative interest rate** or fees for most consumers and businesses, at least at the only slightly negative rates currently in place. Storing and providing security for cash may be more expensive than a small bank charge."

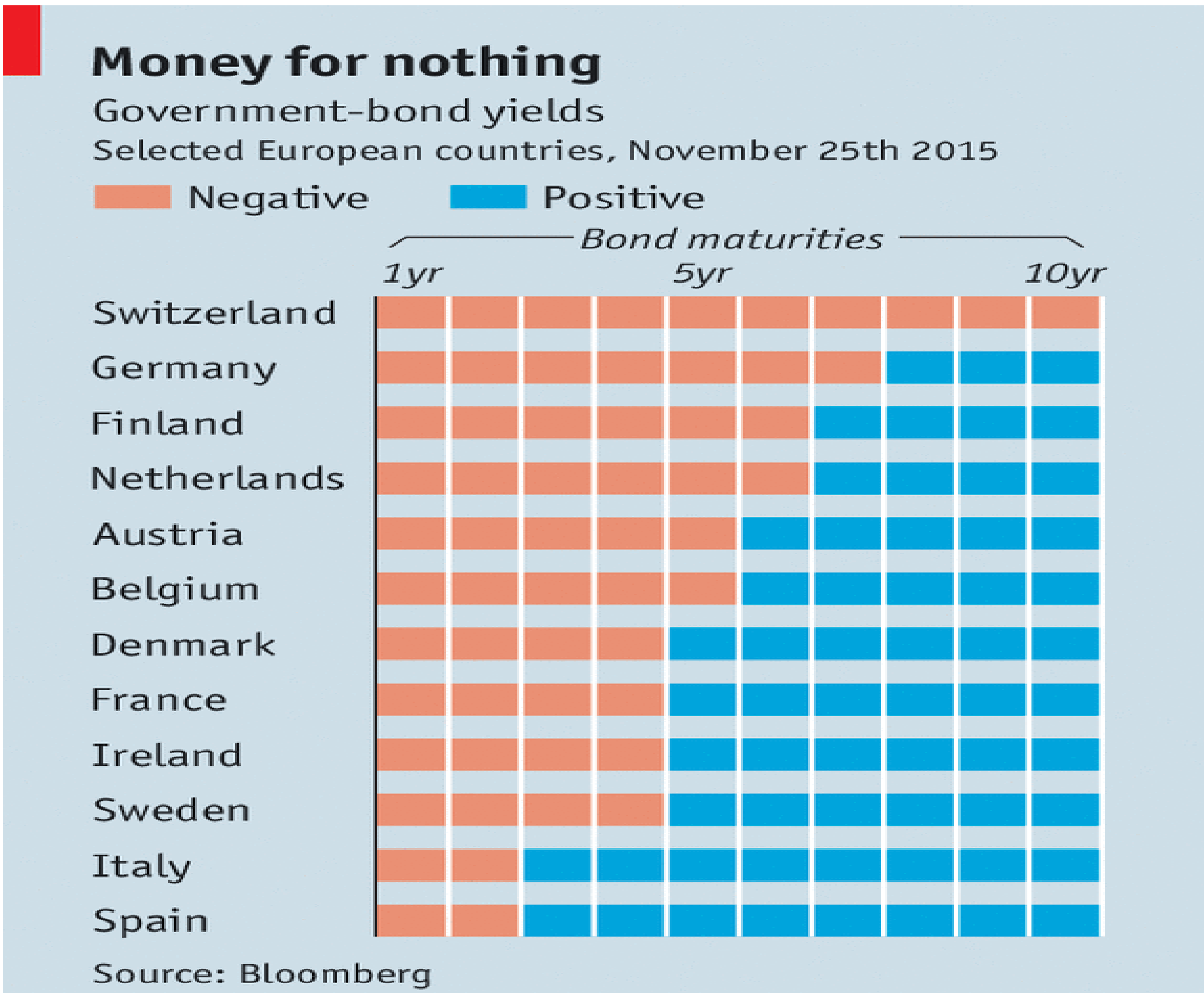
DOES THE FEDERAL RESERVE HAVE PLANS TO ENACT NEGATIVE INTEREST RATES?

Not today. As reported by the New York Times "Federal Reserve chairwoman, Janet Yellen, acknowledged in congressional testimony [earlier this year] that the American central bank was **taking a look at the strategy,** though she emphasized **no such move was envisioned**." She commented "that **the legality of negative rates 'remains a question** that we still would need to investigate more thoroughly.' She also said that '"it isn't just a question of legal authority." "It's also a question of could the plumbing of the payment system in the United States handle it?" she said. "Is our institutional structure of our money markets compatible with it? We've not determined that."

IN-DEPTH – NEGATIVE INTEREST RATE POLICY (NIRP)

WHAT HAPPENED TO GOVERNMENT BONDS WHEN BANK DEPOSITS BECAME NEGATIVE?

As deposit rates have gone negative government bonds have followed suite. The Economist used the chart below to illustrate that "negative policy rates and money creation through central-bank purchases of bonds or foreign currencies have dragged the yields on sovereign bonds into the red all over Europe." **Those holding to maturity will not get all their investment back. Basically, paying to save. Or, as many see it a tax on savers.**



Economist.com

IN-DEPTH – NEGATIVE INTEREST RATE POLICY (NIRP)

WHAT HAPPENS TO SAVERS?

Essentially, negative interest rates act as a tax. The Central Banks goal is to make it so painful to hold cash for retirement or future investment that corporations, pension funds and individuals are basically forced to either spend/invest their savings today in stocks and real estate or be charged a savers tax. Similarly, banks are pushed to lend their reserves or pay what is essentially a tax on reserves.

HOW CAN INDIVIDUAL SAVERS SAFEGUARD THEIR SAVINGS?

There are alternatives to spending savings today. The Economist believes depositors might still find ways to safeguard their savings. “Switching to foreign currency or precious metals would be an obvious option. As Kenneth Garbade and Jamie McAndrews of the Federal Reserve Bank of New York point out, taxpayers could make advance payments to the taxman and subsequently claim them back. Depositors could withdraw funds in the form of bankers’ drafts (certified cheques) to use as a store of value. Such drafts might even become a form of parallel currency, since they are transferable. Any form of pre-paid card, such as urban-transport passes, gift vouchers or mobile-phone SIMs could double up as zero-yielding assets. If interest rates became deeply negative, it would turn business conventions upside down. Companies would seek to make payments quickly and receive them slowly. Their inventories would grow fatter.”

WHAT ABOUT HOARDING CASH AND JUST BUYING A SAFE?

It is happening both on an individual basis and a corporate basis. The Wall Street Journal noted the “Demand for safes has jumped in Japan as people look for options to stash their cash following the Bank of Japan's introduction of negative interest rates.”

Forbes carried a commentary by John Mauldin where he mentioned that “One of Germany’s largest banks is seriously considering stockpiling cash. Sources within Commerzbank have told Reuters they are ‘examining the possibility’ of hoarding billions of physical euros in secure vaults.” “Hoarding cash allows banks to avoid the -0.4% NIRP penalty for parking cash with the ECB. Nonbank financial institutions are also storing cash. Munich Re, one of the world’s leading reinsurers, said back in March it would store both physical cash and gold to avoid paying negative interest rates.”

IN-DEPTH – NEGATIVE INTEREST RATE POLICY (NIRP)

WHAT COULD BE THE DOWNSIDES TO IMPLEMENTING NIRPs?

No one knows the full ramification of this experiment with negative interest rates. The Guardian suggests negative interest rates can "**encourage banks to take excessive risks, leading to asset bubbles"** and that **"pension and insurance companies may struggle to meet long-term liabilities** at a fixed nominal rate."

Fortune wrote that "If the commercial banks decide to charge customers for keeping their savings in the bank in the same way central banks are now charging the commercial banks for keeping their money – the customers might simply withdraw their savings. In a worst-case scenario, this **could create a run on the banks in Europe** with customers hoarding their money rather than paying interest on deposits. This would inhibit the free flow of funds through the financial system — ironically, the very reason that negative interest rates were implemented in the first place."

Bloomberg reported that "More than three quarters of depositors would remove their funds if negative rates were imposed on savings accounts, according to a global survey of 13,000 consumers by ING."

"The global financial system is built on an assumption of above-zero interest rates. Going below zero could cause damage to the very architecture by which money and credit zoom through the economy, and in turn **inhibit growth**.

Banks could cease to be viable businesses, eliminating a key way that money is channeled from savers to productive investments. **Money market mutual funds**, widely used in the United States, **could well cease to exist**. Insurance companies and pension funds could face their own major strains.

In a speech last year, Hervé Hannoun, then the deputy general manager of the Bank for International Settlements, even argued that this could "over time **encourage the use of alternative virtual currencies**, undermining the foundations of the financial system as we know it today." – The New York Times

IN-DEPTH – NEGATIVE INTEREST RATE POLICY (NIRP)

DOES NIRP HELP THE ECONOMY?

"It's hard to say. There haven't been sharp turnarounds in the countries that have tried negative rates." "It remains to be seen whether stronger benefits come at more-negative rates. And it's impossible to know whether things might have been much worse had the countries not tried negative rates." – Wall Street Journal – Feb 2016

"It's hard to say with any certainty yet. At a minimum, it seems to have an effect of lowering the value of a currency, which makes export industries very happy. It's less clear whether it can help create sustained economic growth, particularly when the hard-to-calculate downsides are factored in." - New York Times Feb 2016

"Global yields lowest in 500 years of recorded history," [Bill] Gross, [the manager of the $1.4 billion Janus Global Unconstrained Bond Fund], wrote Thursday on the Janus Capital Group Inc. Twitter site. "$10 trillion of neg. rate bonds. **This is a supernova that will explode one day."** "**Rather than spurring economic growth, low rates are promoting asset bubbles** as investors reach for higher yields while punishing individual savers and industries that rely on interest rates, such as bank and insurance companies, according to Gross." – John Gittelsohn 2016-06-09 - Bloomberg

In April 2016 Reuters reported that Jeffrey Gundlach, a widely followed investor, said in an interview with a Swiss newspaper "negative rates would not help fight deflation but withdraw liquidity from the market because people would rather hoard cash than invest or deposit it in a bank account. **Negative interest rates "are the stupidest idea I have ever experienced,"** the newspaper Finanz und Wirtschaft quoted Gundlach as saying".

WILL NIRP EVER END?

"They'll stop when either their economies start to grow or they see more concrete evidence that negative rates are doing more harm than good." – New York Times

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