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Economics

NEWS, ANALYSIS AND COMMENTARY

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Yellen Takes Stage With Former Fed Chiefs

BEN BARIS AND JAMES BATTY, BLOOMBERG BRIEF EDITORS

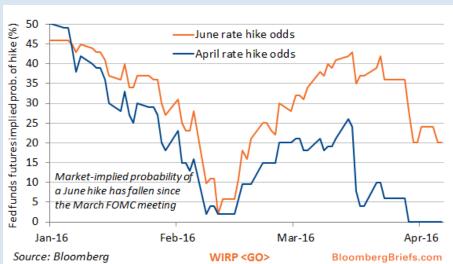
• WHAT TO WATCH: Federal Reserve Chair Janet Yellen joins a discussion with Ben Bernanke, Alan Greenspan and Paul Volcker in New York, the first time the four living Fed chairs have appeared together onstage in conversation. Kansas City Fed President Esther George speaks about the U.S. economy in York, Nebraska, at 9:15 p.m.

ECONOMICS: Initial jobless claims are *forecast* to fall by 6,000 to 270,000 in the week ended April 2, 8:30 a.m. **Consumer borrowing** is expected to rise to \$14.9 billion in February after dropping to \$10.53 billion the month before, 3 p.m. The IMF releases the analytical chapters of its **World Economic Outlook** at 9:30 a.m. The full report will be released before the IMF and World Bank spring meetings, which start April 15.

GOVERNMENT: Zhou Xiaochuan, governor of the People's Bank of China, is among attendees at the annual meeting of the Inter-American Development Bank, which runs through April 10 in Nassau, Bahamas. Others include Rodrigo Vergara, governor of the Central Bank of Chile, Colombian Finance Minister Mauricio Cardenas and Argentine Finance Minister Alfonso Pray-Gay.

■ MARKETS: The dollar slipped for a second day, reaching a 17-month low against the yen, and emerging-market shares rallied after Federal Reserve meeting minutes reaffirmed U.S. policy makers aren't rushing to raise interest rates.

(All times local for New York.)



Federal Reserve officials last month held a vibrant debate that pitted the steady U.S. expansion against heightened global risks and reached a broad agreement on a go-slow strategy that reduced the odds of a rate increase in the first half of the year. "Several expressed the view that a cautious approach to raising rates would be prudent or noted their concern that raising the target range as soon as April would signal a sense of urgency they did not think appropriate," according to minutes of the FOMC's March 15-16 meeting. Investors marked down the probability of a rate increase by the FOMC's June meeting following the release of the minutes. The chances are seen now as about 20 percent, according to trading in futures linked to the federal funds rate.

- Craig Torres and Matthew Boesler, Bloomberg News

COMMENTARY IN THIS ISSUE

The *minutes* of the March FOMC meeting show that policy makers were generally satisfied with domestic economic conditions but wary of international risks to both growth and inflation: **Carl Riccadonna** and **Yelena Shulyatyeva**.

A new Labor Department rule announced Wednesday will require brokers to put clients' interests ahead of their own when it comes to *retirement* investments: Jordan Yadoo.

McVean Investments' Michael Drury discusses inflation, the outlook for *oil* prices and supply and fiscal policy needs with **Tom Keene** and **Michael McKee**.

QUOTE OF THE DAY

"We know free trade is good for the economy overall, but how you get there and the distributional effects matter. I do think it behooves us to think hard about what are the programs that help. I don't think we can ignore the transition."

— Cleveland Fed President Loretta Mester, speaking to reporters after a speech in Cleveland

CENTRAL BANKER WATCH

St. Louis Fed President **James Bullard** said a growth slowdown in the first quarter could weigh on the central bank's plan to raise interest rates gradually, even as he noted inflation has picked up. Read more on the Bloomberg *terminal*.

NUMBER OF THE DAY

2.7 — The percentage by which mortgage applications rose in the week ended April 1, according to Mortgage Bankers Association data. It is the first increase since March 4. The average 30year fixed rate was 3.86 percent, down from 3.94 percent the week before.

Fed's Global Concern Signals Barriers to Next Rate Hike

FOMC CARL RICCADONNA AND YELENA SHULYATYEVA, BLOOMBERG INTELLIGENCE ECONOMISTS

Fed Minutes Show Appetite for Hikes, But Little Urgency

The minutes of the March FOMC meeting show that policy makers were generally satisfied with domestic economic conditions but wary of international risks to both growth and inflation. Given the asymmetry of conventional policy options, Fed members maintain a strong preference to move slowly and with a heightened sense of caution. While a few members were leaning toward raising rates sooner, Fed Chair Janet Yellen's dovish contingent, which comprises the majority of voting members, appears to remain largely unified.

The Fed does not appear inclined to raise rates until members have greater clarity that the economy has shrugged off both the financial constriction prevalent at the start of the year and international headwinds such as slower global growth or financial market contagion.

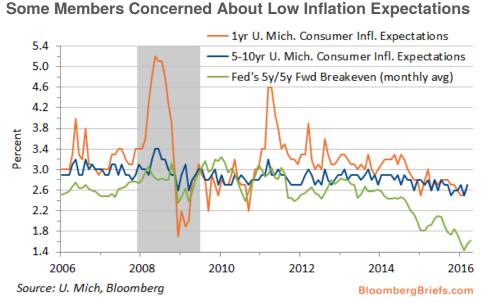
Much will depend on sustained robust labor-market gains and firmer consumer spending. The tone of the minutes does not change BI Economics' projection of two rate hikes in 2016.

In terms of the economic assessment, the prevailing view among meeting participants was that growth would be moderate over the medium term and largely contingent upon household demand. Net exports are likely to remain weak and business investment was expected to continue to be sluggish.

The assessment emphasizes that consumer activity and labor developments are the keystone of the Fed's outlook: "Notwithstanding [...] recent retail sales [weakness], participants were encouraged by [moderate growth of] consumer spending over recent quarters."

The labor market has held up nicely since the meeting but consumer spending has stumbled, rising just 0.1 percent in each of the last three months. The threemonth annualized change for consumer spending (1.3 percent) is the lowest since March 2015. The latest consumer data further corroborates the sense of caution among the majority of the Committee, which did not appear to be ready for another interest-rate increase in April.

There appears to be a near-even split among meeting participants as to whether the labor market is at or near full employment. The doubters pointed to



Read this analysis with a live version of this chart on the Bloomberg terminal here.

elevated levels of involuntary part-time employment and limited wage pressures.

The inflation outlook continued to be soft in the near term, but the FOMC members seemed to agree that the trend will revert toward their target over the medium term. While they noted a recent firming in inflation measures, the FOMC members "expressed a range of views about the extent to which the increase would prove persistent."

Participants seemed to have split on the cause of the recent pickup: "Some participants saw the increase as consistent with a firming trend in inflation." "Some others" thought it partially reflected "increases in prices that had been relatively volatile in the past" and unlikely to be sustained. The views were also divided on inflation expectations: "Some participants concluded that longer-run inflation expectations remained reasonably stable, but some others expressed concern that longer-run inflation expectations may have already moved lower."

In addition to the downside risks posed by low inflation expectations, "several participants indicated that the persistence of global disinflationary pressures" continued to be a reason for concern. They are worried that the rest of the world is exporting disinflation to the U.S. via the strong dollar and low commodity and energy prices. The recent lull in dollar strength is likely to prove temporary if the Fed continues to move on a tightening path.

Policy makers remain wary of fallout from the tightening of financial conditions in the first two months of the year, which was specifically due to widening credit spreads and equity-market declines. They were encouraged by the improvement late in the quarter, but nonetheless feared some lingering impact. "Many participants" saw "appreciable downside risks" due to the "global economic and financial situation."

It is the global outlook, not the domestic outlook, that is giving policy makers pause, particularly with limited conventional policy options to provide offsetting stimulus. In light of the tone of the minutes and recent international developments, it does not appear that policy makers are prepared to return the conspicuously suspended "risk assessment" to the April meeting statement.

Policy makers are optimistic that consumer demand will propel the economy at a moderate pace over the medium term, assuming that foreign headwinds fade, but there is clear concern over the lack of conventional policy options. They are clearly willing to allow the economy to "run hot" in the near term, and then apply a harsher brake later on if this proves necessary.

New U.S. Rule Prioritizes Retirement Savers' Interests Over Fees

When it comes to retirement planning. it's not just about how much you save, but with whom.

A new Labor Department rule announced Wednesday will require brokers to put clients' interests ahead of their own when it comes to retirement investments, tightening current industry standards that can incentivize brokers to push high-fee products that prioritize their own profits.

The shift could save billions of dollars annually for investors, who increasingly hold their money in self-directed individual retirement accounts as opposed to defined benefit plans or 401 (k)s, according to a separate White House Council of Economic Advisers analysis issued last year.

Six years in the making, the regulation imposes a fiduciary standard on any individual receiving compensation for retirement investment advice, including brokers and insurance agents who are currently held to a lesser standard. The rule, which takes effect in April 2017 and is fully implemented by January 2018, will also require brokers to clearly and prominently disclose any conflicts of interest, like hidden fees or backdoor payments often buried in the fine print.

The rule could save investors \$17 billion each year, according to the White House report that said savers lose about 1 percentage point of annual returns from conflicted advice. Currently, brokers are allowed to steer investors toward highcost mutual funds that maximize their personal gain.

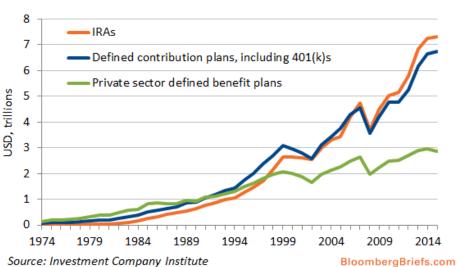
The rule follows a major shift since the mid-1970s in America's private retirement system away from defined benefit plans and into self-directed IRAs and 401(k)s.

Forty years ago, defined benefit plans based on factors such as an employee's earnings history and duration of



Majority of Retirement Assets Are in IRAs, Not DB or 401(k)s

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employment accounted for the lion's share of all retirement assets, according to the White House report and data from the Investment Company Institute. Workers with such plans didn't have to worry about managing or directing their retirement savings themselves. Today, the bulk of U.S. retirement assets - over \$7 trillion — are held in IRAs, compared with \$2.9 trillion in traditional pensions. In 1974, \$1 billion was held in IRAs and \$130 billion in pensions.

That makes good investment advice especially critical today, according to Alicia Munnell, director of the Center for Retirement Research at Boston College, who co-authored a paper that was presented to the Labor Department in August. The paper described how conflicted advice significantly reduces returns on self-directed retirement accounts.

She expressed particular concern about the hundreds of billions of dollars that are

rolled over from 401(k) plans to IRAs every year.

"People are being cajoled into moving their money out of a relatively low-cost, well-regulated part of the retirement system and into a relatively unregulated, high-cost part," she said in a telephone interview.

Rollovers account for the overwhelming majority of money flowing into IRAs. With tens of millions of baby boomers nearing retirement, account rollovers are poised to accelerate in the coming years, according to the White House report.

The Labor Department rule could very well slow down such transfers by requiring advisers to spell out precisely how they're in a client's best interest.

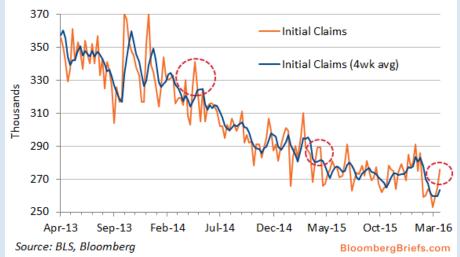
"It would be very hard for somebody who is really acting in the customer's interest to tell them to roll their money out of a 401(k)," she said. "You're not serving as a fiduciary if you're taking someone from a low-fee world and putting them in high-fee investments."

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DATA & EVENTS

Technical Distortions Cloud Near-Term Claims Data



Initial jobless claims rose leading up to Easter after hitting post-recession lows just a couple of weeks prior. A sizable increase is common around this period, as businesses and schools pause for a spring break. Based on the historical pattern around this holiday, claims are likely to fall back toward their four-week moving average over the next few weeks, although elevated readings occasionally persist into the week immediately after Easter as well. Analysts should refrain from reading too much into the claims data in the near term due to these technical distortions. Over the longer term, jobless claims likely cannot fall much further below recent levels, so analysts will instead merely watch them for early warning signs of economic weakness in the event of a large and sustained increase.

- Carl Riccadonna, Yelena Shulyatyeva and Richard Yamarone, Bloomberg Economists

Click *here* to view a live version of this chart on the Bloomberg terminal.

CALENDAR

TIME	COUNTRY	EVENT	SURVEY	PRIOR
7:00	Brazil	FGV Inflation IGP-DI MoM	0.48%	0.79%
7:00	Brazil	FGV Inflation IGP-DI YoY	11.09%	11.93%
7:30	Euro Area	ECB Publishes Account of March Monetary Policy Meeting	—	-
8:30	Canada	Building Permits MoM	4.00%	-9.80%
8:30	U.S.	Initial Jobless Claims	270k	276k
8:30	U.S.	Continuing Claims	2170k	2173k
8:45	U.S.	Bloomberg April United States Economic Survey	_	_
9:00	Mexico	CPI MoM	0.17%	0.44%
9:00	Mexico	CPI Core MoM	0.40%	0.36%
9:00	Mexico	CPI YoY	2.62%	2.87%
9:45	U.S.	Bloomberg Consumer Comfort	_	42.8
15:00	U.S.	Consumer Credit	\$14.900b	\$10.538b

Source: Bloomberg. Surveys updated at 5:30 am. New York.

Click on the highlighted releases to see the full range of economists' forecasts on the terminal.

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OVERNIGHT

Europe

 European Central Bank officials underlined their readiness to ease monetary policy even further should fresh risks to the economic outlook arise.
 Echoing ECB Chief Economist Peter
 Praet, who spoke at a conference in Frankfurt today, Vice President Vitor
 Constancio told a parliamentary hearing in Brussels that the central bank is willing to do "whatever is needed" to return inflation to target. President Mario Draghi wrote in the foreword to the annual report that policy makers won't "surrender" to excessively low price growth.

 U.K. house prices jumped 2.6 percent in March, according to Halifax, which said that pace may not be sustained as weaker economic confidence and uncertainty surrounding Britain's
 European Union referendum weigh on the market in the coming months. The average value of a home surged to 214,811 pounds (\$302,200), the mortgage lender said in a statement today. From a year earlier, prices rose 11 percent. In the first quarter, values increased 2.9 percent from the previous three months.

Asia

China's foreign-exchange reserves unexpectedly increased in March after capital outflow pressure eased as the nation's currency steadied. The world's largest currency hoard rose by \$10.3 billion to \$3.21 trillion last month, the People's Bank of China said in a statement today. That compared with the \$6.3 billion decrease expected by economists surveyed by Bloomberg, who had a median projection reserves would fall to \$3.196 trillion.

The Philippines, heading into an election next month, plans to boost state spending by more than 30 percent to help shield the economy from a global slowdown. The record proposed expenditure this year will support economic growth of as much as 7.8 percent, Economic Planning Secretary Emmanuel Esguerra, who took office in February, said in an interview in Manila.

COMMENTARY NARAYANA KOCHERLAKOTA, BLOOMBERG VIEW COLUMNIST

Policy Makers and Statistical Significance

The Oxford English Dictionary defines "significant" as "sufficiently great or important to be worthy of attention." It's a meaning that policy makers should keep in mind when weighing the statistical evidence for or against a course of action.

The word "significant" has a special place in the world of statistics, thanks to a test that researchers use to avoid jumping to conclusions from too little data. Suppose a researcher has what looks like an exciting result: She gave 30 kids a new kind of lunch, and they all got better grades than a control group that didn't get the lunch. Before concluding that the lunch helped, she must ask the question: If it actually had no effect, how likely would I be to get this result? If that probability, or p-value, is below a certain threshold — typically set at 5 percent the result is deemed "statistically significant."

Clearly, this statistical significance is *not* the same as real-world significance — all it offers is an indication of whether you're seeing an effect where there is none. Even this narrow technical meaning, though, depends on where you set the threshold at which you are willing to discard the "null hypothesis" — that is, in the above case, the possibility that there is no effect. I would argue that there's no good reason to always set it at 5 percent. Rather, it should depend on what is being studied, and on the risks involved in acting — or failing to act — on the conclusions.

Setting the threshold entails a trade-off. A lower threshold means a researcher can be comfortable that she hasn't made what statisticians call a "Type I error" meaning that she hasn't incorrectly rejected the null hypothesis. But setting it higher can help avoid a "Type II error" in which the researcher concludes that

Policy makers should keep in mind [the meaning of "significant"] when weighing the statistical evidence for or against a course of action

the null hypothesis is true, when in fact those lunches could really have helped kids get better grades.

Suppose a policy maker is deciding whether to undertake fiscal stimulus. The policy maker's null hypothesis is that the stimulus will be slightly costly for the economy. However, there is some evidence and theory that suggests that the stimulus will be hugely beneficial. As a result, the policy maker believes that the cost of failing to do the stimulus when it actually would help (Type II error) is 10 times greater than the cost of doing it if it actually didn't help (Type I error).

Should the policy maker use the conventional p-value threshold of 5 percent when testing the null hypothesis? In this case, setting a higher threshold might make a lot of sense, because a Type II error is ten times as costly as a Type I error. As long as the increase in the threshold above 5 percent decreases the chance of a Type II error by at least a tenth as much as it increases the chance of a Type I error, it's worth doing.

This example illustrates three lessons. First, researchers shouldn't blindly follow convention in picking an appropriate pvalue cutoff. Second, in order to choose the right p-value threshold, they need to know how the threshold affects the probability of a Type II error. Finally, they should consider, as best they can, the costs associated with the two kinds of errors.

Statistics is a powerful tool. But, like any powerful tool, it can't be used the same way in all situations.

Narayana Kocherlakota is the Lionel W. McKenzie professor of economics at the University of Rochester. He served as president of the Federal Reserve Bank of Minneapolis from 2009 through 2015. This column does not necessarily reflect the opinion of the editorial board or Bloomberg LP and its owners.

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MXR2 Index N. Zealand 124.3 0.7% 8.6% 105 → 125 2 MXPK Index Philippines 1239.8 0.7% 1.06% 1.049 1389 1 MXRV Index Pakisan 449.6 0.0% -8.5% 1.326 -1.82 1 1862 MXR Index Thailand 457.4 -1.3% -1.4% 399 -552 1 MXR Index Turkey 1147609 0.5% -1.1% 970K -1248K 5 MXR Index Turkey 1147609 -0.5% -1.1% 970K -1248K 5 SSSWAP10 Curncy 10Y US Swap Spread 11.9 -0.3 -1.3.5 4 -0.7 -2.1 1 USCS2D1 Index SBI ZP Buy 10Y Spread 100.0 -0.8 -3.5.5 96 -0.77 -									10.7	
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MXSG Index Singapore 1480 / 6 0.0% 18.5% 1.326 1962 MXTH Index Thailand 457.4 1.3% 14.4% 399 552 1 MXTR Index Turkey 114769 0.5% 1.1% 970K 52W 1248K 52 TICKER SPREAD/RATE/INDEX PAST 1D Chg bps// M Last Marco 52W 12 - SSSWAP10 Curncy 107 US Swap Spread -13.8 -1.0 -24.0 117 - 12 - SSSWAP2 Curncy 2Y US Swap Spread 11.9 -0.3 -13.5 4							-		8.0	
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PRICE DB37/8 DB37/8 <th colspan<="" td=""><td>TICKER</td><td></td><td>LAST</td><td>1D Chg</td><td>YoY</td><td></td><td></td><td></td><td>1Y Z-</td></th>	<td>TICKER</td> <td></td> <td>LAST</td> <td>1D Chg</td> <td>YoY</td> <td></td> <td></td> <td></td> <td>1Y Z-</td>	TICKER		LAST	1D Chg	YoY				1Y Z-
\$\$\$WAP 2 curvey 2Y US Swap Spread 11.9 -0.3 -13.5 4					bps/%	Min	Last	Max	SCORE	
USGGBE01 Index 1Y Breakeven Rate 2.0 0.0 0.4 (2.1) → 2.1 1 USYC2Y10 Index Sell 2Y Buy 10Y Spread 101.0 -0.8 -35.5 96 → 177 2.1 1 USYC2Y10 Index 3M IdY 150.4 -1.6 -36.1 13.3 21 → 47 -4 BASPTDSP Index 3M Libor/OIS 25.1 0.0 10.5 10 → 26 5 BASPCAAA Index IG Corp Spread 191.0 -3.8 31.9 156 → 227 1 AAABAA Index IG HY Corp Spread 118.0 0.0 20.0 88 → 110 - VIX Index CBOE VIX Index 14.1 -1.3 -0.7 11.9 → 40.7 - SKEW Index CBOE Skew Index 125.1 4.8 5.0 113.9 → 41.7 - KC1 Comdty Corn 359.3 0.3% -6.2% 350 → 452 4 K1 Comdty Coffee 121.7 0.2% -14.	\$\$SWAP10 Curncy	10Y US Swap Spread	-13.8	-1.0	-24.0	(17)		- 12	-4.3	
Sold Diddex Sell DY Buy 10Y Spread 101.0 -0.8 -3.5.5 96 177 USYC2Y10 Index 3M10Y 150.4 -1.6 -36.1 136 177 USYC3M10 Index 3M10Y 150.4 -1.6 -36.1 136 177 USYC3M10 Index 3M Libor/OIS 25.1 0.0 10.5 10 266 5 MUNSMT10 Index IM Corp Spread 191.0 -3.8 31.9 156 27 7 AAAAAA Index IG HY Corp Spread 118.0 0.0 20.0 88 110 SKEW Index CBOE VIX Index 14.1 -1.3 -0.7 11.9 40.7 VIX Index CBOE VIX Index 14.1 -1.3 -0.7 11.9 40.7 VIX Index CBOE Skew Index 125.1 4.8 5.0 113.9 40.7 YIX Index CBOE Skew Index 125.1 4.8	\$\$SWAP2 Curncy	2Y US Swap Spread	11.9	-0.3	-13.5	4		- 27	-2.0	
USYC3MD0 Index 3M10Y 150.4 -1.6 -36.1 13.6	USGGBE01 Index	1Y Breakeven Rate	2.0	0.0	0.4	(2.1)		2.1	1.7	
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AAAAAA Index IG HY Corp Spread 118.0 0.0 20.0 88 →→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→							_			
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SKEW Index CBOE Skew Index 125.1 4.8 5.0 113.9 147 COMMODITY TICKER COMMODITY Last Max 3 Agricultural CommoDity Corn S52W Average 52W Average 52W Max 3 Colspan="4">Colspan="4">Agricultural C 11 condty Corn 359.3 0.3% -6.2% 350	VIX Index	CBOE VIX Index	14.1	-1.3	-0.7	11.9		40.7	-0.5	
COMMODITUES TICKER COMMODITY LAST PRICE 1D %Chg %Chg %Chg Min Last May 33 Agricultural C 1 Comdty Corffee 121.7 0.2% -14.3% 112										
TICKER COMMODITY PRICE %Chg %Chg Min Last Max 3 Agricultural C 1 Condty Corn 359.3 0.3% -6.2% 350			COMMOD	ITIES						
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SB1 Comdy Sugar 14.6 -0.1% 14.4% 10 -17 4 W 1 Comdy Wheat 463.8 0.2% -11.8% 446 -616 4 KAI Comdy Aluminum 1499.3 -0.3% -16.0% 1,436 -1959 4 GG1 Condty Gold 1240.3 1.3% -2.34% 194 -293 4 GG1 Comdty Gold 1240.3 1.3% -9.4% 14 -18 5 SG1 Comdty Silver 15.3 1.3% -9.4% 14 -18 5 C01 Comdty Crude (Brent) 40.0 0.3% -32.4% 2.8 -68 5 K01 Comdty Grude (WTI) 37.8 0.2% -30.0% 2.6 -61 5 NG1 comdty Natural Gas 1.9 -0.4% -29.0% 1.6 -3.0 4 CRY Index CRB index 167.5 1.4% -24.5% 155 -232 4 BDV Index Baltic Dry Index 500.0 2.7% -14% 290 -1222									46.4	
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HG1 Comdty Copper 211.6 -1.3% -23.4% 194 →→→ 293 4 GC1 Comdty Gold 1240.3 1.3% 2.5% 1,050 →→→ 1273 5 SIL Comdty Silver 15.3 1.3% 9.4% 14 →→ 18 5 CO1 Comdty Crude (Brent) 40.0 0.3% -32.4% 28 →→ 68 5 C01 Comdty Crude (WTI) 37.8 0.2% -30.0% 26 → 61 5 XB1 Comdty Gasoline 140.2 0.5% -24.7% 90 → 215 5 NG1 Comdty Natural Gas 1.9 -0.4% -29.0% 1.6 →→ 3.0 4 CRY Index CRB index 167.5 1.4% -24.5% 155 →→→ 232 4 B0Y Index Baltic Dry Index 500.0 2.7% -14% 290 →→→→ 1222 7 Gil COMB Index GS Comdty Index 317.6 2.2% 23.0% 23 → 451	LA1 Comdty	Aluminum	1499.2	-0 3%	-16.0%	1 436		1959	47.6	
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Club Comdy Crude (WTI) 37.8 0.2% -30.0% 26 -61 5 XB1 Comdty Gasoline 140.2 0.5% -24.7% 90 -215 5 NG1 Comdty Natural Gas 1.9 -0.4% -29.0% 1.6										
CL1 Comdty Crude (WTI) 37.8 0.2% -30.0% 26 -61 5 XB1 Comdty Gasoline 140.2 0.5% -24.7% 90 -21.5 5 NG1 Comdty Natural Gas 1.9 -0.4% -29.0% 1.6 3.0 4 CRY Index Baltic Dry Index 167.5 1.4% -24.5% 155 23.2 4 BDIY Index Baltic Dry Index 500.0 2.7% -14% 29.0 122.2 7 BIC DMB Index GS Cmdty Index 317.6 2.2% -33.0% 241 5 BCOM Index Bloomberg Commodity 77.7 0.1% -23.4% 73	CO1 Comdty	Crude (Brent)	40.0	0.3%	-32.4%	28		68	53.8	
KB1 Comdty Gasoline 140.2 0.5% -24.7% 90									52.9	
CRY Index CRB index 167.5 1.4% -24.5% 155 -232 4 BDIY Index Baltic Dry Index 500.0 2.7% -14% 290 -1222 7 GIL COMB Index GS Cmdty Index 317.6 2.2% -23.0% 273	XB1 Comdty	Gasoline	140.2	0.5%	-24.7%	90		215	56.6	
Baltic Dry Index Baltic Dry Index 500.0 2.7% -14% 290 →++ 1222 7 GI1 COMB Index GS Cmdty Index 317.6 2.2% -23.0% 273 →++ 451 5 BCOM Index Bloomberg Commodity 77.7 0.1% -23.4% 73 →++ 105 4	NG1 Comdty	Natural Gas	1.9	-0.4%	-29.0%	1.6		3.0	48.6	
BDIY Index Baltic Dry Index 500.0 2.7% -14% 290 →→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→										
GI1 COMB Index GS Cmdty Index 317.6 2.2% -23.0% 273 ●●●● 451 5 BCOM Index Bloomberg Commodity 77.7 0.1% -23.4% 73 ●●●● 105 4									47.9	
BCOM Index Bloomberg Commodity 77.7 0.1% -23.4% 73 - 105 4									72.0	
									51.3	
									48.5	
									45.9 48.3	

TICKER	COUNTRY	GOVERNMENT LAST	1D CHG	YoY	52W	Average 52	
		YIELD North Ame	BPS rica	BPS	Min	Last Ma	ax CDS
GCAN10YR Index	Canada	1.21%	4.6	-13.4	1.0)
USGG10YR Index	U.S.	1.74%	-1.7	-14.7	1.7	• 2.5	20.4
	A	Latin Ame	rica				
GEBR10Y Index	Argentina Brazil	14.21%	8.5	141.5	12.2		.8 385.7
	Chile		0.0				101.1
COGR10Y Index	Colombia	8.14%	1.8	129.3	6.7		
GMXN10YR Index	Mexico	5.93%	3.3	16.8	5.7		
GRPE10Y Index	Peru	6.97% Europe	5.0	143.0	5.4		180.3
GAGB10YR Index	Austria	0.32%	-1.0	0.1	0.2	•••• 1.3	28.
GBGB10YR Index	Belgium	0.49%	-0.8	3.9	0.3		
CZGB10YR Index	Czech Rep.	0.41%	-3.0	-3.4	0.3	••• 1.3	5
GDGB10YR Index	Denmark	0.37%	-1.7	7.4	0.2		
GFIN10YR Index	Finland	0.38%	-1.0	13.1	0.1		
GFRN10 Index GDBR10 Index	France Germany	0.45% 0.11%	-1.0 -1.0	-2.1	0.4	• • • 1.0	
GGGB10YR Index	Greece	9.09%	1.2	-241.4	6.9		
GHGB10YR Index	Hungary	3.03%	1.0	-25.0	2.9	• 4.2	
GIGB10YR Index	Ireland	0.77%	-0.1	3.4	0.7		
GBTPGR10 Index	Italy	1.30%	1.3	5.7	1.2	2.4	
GNTH10YR Index GNOR10YR Index	Netherlands	0.32%	-0.9 0.2	-3.2 -23.3	0.2	• 1.2 • 1.9	
POGB10YR Index	Norway Poland	1.22% 2.90%	0.2	60.5	2.3		
GSPT10YR Index	Portugal	3.22%	3.4	158.7	1.6		
RUGE9Y Index	Russia	4.35%	2.6		4.3	● ─ ●── 6.2	
GSPG10YR Index	Spain	1.53%	1.5	35.0	1.2	2.4	
GSGB10YR Index	Sweden	0.44%	1.1	2.9	0.2		
GSWISS10 Index GUKG10 Index	Switzerland U.K.	-0.35% 1.39%	0.3 0.4	-29.4 -19.8	-0.4	• 0.2 • 2.2	
Gondio Index	0.10.	Middle East &		-15.0	1.5	2.2	. 50.
GISR10YR Index	Israel	1.75%	0.0	24.0	1.4	2.4	79.0
GSAB10YR Index	South Africa	9.26%	-1.6	156.6	77		.4 316.3
CSADIO IN INC.	Joan Anta	Asia/Paci		150.0	7.7	10	510
GACGB10 Index	Australia	2.45%	1.7	10.2	2.3		. 35.
GCNY10YR Index	China	2.91%	2.0	-70.0	2.8	3.7	
HKGG10Y Index	Hong Kong	1.27%	4.3	-14.5		• 2.0	
GIDN10YR Index	Indonesia	7.59%	-2.9	26.3	7.2	9.8	
GIND10YR Index GJGB10 Index	India Japan	7.45% -0.05%	-0.9 0.6	-33.8 -41.2	-0.1	• 0.5	
GVSK10YR Index	Korea	1.79%	0.1	-27.8	1.8		
MGIY10Y Index	Malaysia	3.81%	1.1	-4.3	3.8		
GNZGB10 Index	N. Zealand	2.86%	0.9	-30.4	2.8	•—•— 3.9	
PDSF10YR Index	Philippines	4.06%	0.0	-39.5			104.2
PKRF/10Y Index	Pakistan	8.21%	-26.0	-128.0	8.2	• 10 • 10	.1 66.2
PKRF/10Y Index MASB10Y Index	Pakistan Singapore	8.21% 1.88%	-26.0 2.3	-128.0 -23.5	1.8	• 2.9)
PKRF/10Y Index	Pakistan	8.21%	-26.0	-128.0	8.2 1.8 1.5 8.2	• 2.9	. 127.4
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index	Pakistan Singapore Thailand	8.21% 1.88% 1.52% 9.70% CURRENC	-26.0 2.3 0.4 2.0	-128.0 -23.5 -112.1 162.0	1.8 1.5 8.2	• 2.9 • 3.1 • 11	. 127.4 .0 264.4
PKRF/10Y Index MASB10Y Index GVTL10YR Index	Pakistan Singapore Thailand	8.21% 1.88% 1.52% 9.70% CURRENC LAST	-26.0 2.3 0.4 2.0 CIES 1D	-128.0 -23.5 -112.1 162.0 YoY	1.8 1.5 8.2 52W	2.9 3.1 3.1 4 4verage 52	. 127.4 .0 264.4 W 1Y Z-
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index	Pakistan Singapore Thailand Turkey	8.21% 1.88% 1.52% 9.70% CURRENC	-26.0 2.3 0.4 2.0 CIES 1D %CHG	-128.0 -23.5 -112.1 162.0	1.8 1.5 8.2	• 2.9 • 3.1 • 11	. 127.4 .0 264.4 W 1Y Z-
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso	8.21% 1.88% 1.52% 9.70% CURRENC LAST PRICE	-26.0 2.3 0.4 2.0 CIES 1D %CHG s -0.4%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6%	1.8 1.5 8.2 52W	 2.9 3.1 11 Average 52 Last Ma 15 	. 127.4 .0 264.4 W 1Y Z- ax SCORE .8 18.2
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER ARS Curncy BRL Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real	8.21% 1.88% 1.52% 9.70% CURRENC LAST PRICE America 14.62 3.64	-26.0 2.3 0.4 2.0 CIES 1D %CHG s -0.4% -1.0%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2%	1.8 1.5 8.2 52W Min 8.8 2.9	 2.9 3.1 11 Average 52 Last Ma 15 4.2 	. 127.4 .0 264.4 W 1Y Z- ax SCORE .8 18.2 . 1.2
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar	8.21% 1.88% 9.70% CURRENC LAST PRICE America 14.62 3.64 1.31	-26.0 2.3 0.4 2.0 CIES \$ *CHG \$ -0.4% -1.0% 0.1%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2% -4.5%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2	 2.9 3.1 11 Average 52 Last Ma 4.2 1.5 	. 127 0. 264 W 1Y Z- ax SCORE .8 18.2 2. 1.2 5 1.1
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy CLP Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso	8.21% 1.88% 9.70% CURRENC LAST PRICE America 14.62 3.64 1.31 674.50	-26.0 2.3 0.4 2.0 CIES 1D %CHG s -0.4% -1.0% 0.1% -0.1%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2% -4.5% -9.3%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6	 2.9 3.1 11 Average 52 Last Ma 4.2 1.5 73 	. 127.4 .0 264.4 W 1Y Z- .ax SCORE .8 18.2 .1.2 1.1 1.5 1.1
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy CLP Curncy CLP Curncy CCD Curncy COP Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar	8.21% 1.88% 9.70% CURRENC LAST PRICE America 14.62 3.64 1.31	-26.0 2.3 0.4 2.0 CIES \$ *CHG \$ -0.4% -1.0% 0.1%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2% -4.5%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2	 2.9 3.1 11 Average 52 Last Ma 4.2 1.5 4.2 1.5 34 	W 1Y Z- 0 264. W 1Y Z- SCORI 8 18.2 1.2 1.1 1.5 1.1 40.0 1.7
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy CLP Curncy CLP Curncy COP Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso	8.21% 1.88% 1.52% 9.70% CURRENC PRICE America 14.62 3.64 1.31 674.50 3081.13	-26.0 2.3 0.4 2.0 CIES * * -0.4% -0.1% 0.1% -0.1% 0.3%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2% -4.5% -9.3% -17.7% -15.7%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0	2.9 3.1 3.1 11 Average 52 Last M4 15	. 127.4 .0 264.4 W 1Y Z- SCORE SCORE .8 18.2 .1.2 1.1 1.5 1.1 1.5 1.1 1.5 1.1 1.5 1.1 2.5 1.7
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy CAD Curncy CAP Curncy COP Curncy GBP Curncy GBP Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound	8.21% 1.88% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 1.770 Europe 1.41	-26.0 2.3 0.4 2.0 CIES * -0.4% -1.0% 0.1% -0.1% 0.3% -0.4%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2% -4.5% -9.3% -17.7% -15.7%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 15.0	2.9 3.1 3.1 Average 52 Last Ma 4.2 5.1 5.2 7.3 3.4 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	. 127 .0 264 W 1Y Z- .0 SCORI .8 18.2 .1.1 1.2 .5 1.1 1.5 1.1 2.5 5.5 .1 2.5
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy CAD Curncy CLP Curncy MXN Curncy GBP Curncy CZK Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna	8.21% 1.88% 9.70% CURRENC LAST PRICE America 14.62 3.64 1.31 674.50 3.081.13 17.70 Europe 1.41 2.3.72	-26.0 2.3 0.4 2.0 CIES * -0.4% -1.0% 0.1% -0.1% 0.3% -0.4% 0.1%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2% -4.5% -9.3% -17.7% -15.7% -5.0% 6.8%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 15.0 1.4 23.3	2.9 3.1 Average 52 Last Ma 4.2 52 52 52 52 52 52 52 52 52 5	
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy CAD Curncy COP Curncy COP Curncy COP Curncy GBP Curncy CZK Curncy DKK Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna Danish Krone	8.21% 1.88% 9.70% CURRENC 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53	-26.0 2.3 0.4 2.0 CIES 10 %CHG 5 -0.4% -0.1% -0.1% 0.3% -0.4% 0.1% 0.1% 0.1%	-128.0 -23.5 -112.1 162.0 * * * -39.6% -14.2% -4.5% -9.3% -17.7% -15.7% -5.0% 6.8% 5.7%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 1.4 23.3 6.4	2.9 3.1 Average 52 Last Ma 15 4.2 15 15 15 15 15 15 15 15 15 15	
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy CLP Curncy CLP Curncy CCP Curncy MXN Curncy GBP Curncy CZK Curncy DKK Curncy EUR Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna Danish Krone Euro	8.21% 1.88% 9.70% CURRENC LAST PRICE America 14.62 3.64 1.31 674.50 3.081.13 17.70 Europe 1.41 2.3.72	-26.0 2.3 0.4 2.0 CIES * -0.4% -1.0% 0.1% -0.1% 0.3% -0.4% 0.1%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2% -4.5% -9.3% -17.7% -15.7% -5.0% 6.8%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 1.4 23.3 6.4 1.1	2.9 3.1 4.2 11 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 12 15 12 15 12 15 12 12 15 12 15 12 15 12 15 12 15 12 15 15 15 15 15 15 15 15 15 15	127.4 0 264.4 W 1Y Z-3 SCORE 3 8 18.2 1.3 1.1 1.5 1.1 40.0 1.7 3.1 2.5 3.1 -0.5 3.1 -0.2 2.0.1 2.01
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index IESM10Y Index TICKER ARS Curncy CAD Curncy CLP Curncy CCP Curncy CCP Curncy CCP Curncy GBP Curncy CBP Curncy CKK Curncy EUR Curncy EUR Curncy HUF Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna Danish Krone	8.21% 1.88% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 1.7.70 Europe 1.41 2.3.72 6.53 1.14	-26.0 2.3 0.4 2.0 CIES * -0.4% 0.1% 0.1% 0.1% 0.3% * -0.4% 0.1% 0.1%	-128.0 -23.5 -112.1 162.0 YOY %CHG -39.6% -14.2% -4.5% -9.3% -17.7% -5.0% 6.8% 5.7% 5.3%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 1.4 23.3 6.4 1.1	2.9 3.3 3.1 3.1 4.2 4.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5	Image: 127. Image: 127. <thimage: 127.<="" th=""> <thimage: 127.<="" th=""></thimage:></thimage:>
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso Mexican Peso British Pound Czech Koruna Danish Krone Euro Hungarian Forint	8.21% 1.88% 9.70% CURRENC 14.62 3.64 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 273.62	-26.0 2.3 0.4 2.0 CIES * -0.4% -0.1% -0.1% 0.3% -0.4% 0.1% 0.1% -0.1% -0.1%	-128.0 -23.5 -112.1 162.0 -39.6% -14.2% -4.5% -9.3% -17.7% -15.7% 6.8% 5.3% 0.8%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 1.4 2353 6.4 1.1 267.5 7.3 3.5	2.9 3.1 4.2 11 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 12 12 12 12 12 12 12 12 12 12	Image: height of the second
PKRF/10Y Index MASB10Y Index GVTL10YR Index IESM10Y Index IESM10Y Index TICKER ARS Curncy CAD Curncy CLP Curncy CCP Curncy CCP Curncy CCP Curncy GBP Curncy CCR Curncy EUR Curncy EUR Curncy HUF Curncy NOK Curncy PLN Curncy RON Curncy RON Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna Danish Krone Euro Hungarian Forint Norwegian Krone Polish Zloty Romanian Leu	8.21% 1.88% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 273.62 8.31 3.75 3.92	-26.0 2.3 0.4 2.0 CIES 10 %CHG 5 -0.4% -1.0% 0.1% -0.1% 0.3% -0.4% 0.1% 0.1% -0.1% 0.	-128.0 -23.5 -112.1 162.0 -39.6% -14.2% -4.5% -9.3% -17.7% -15.7% -5.0% 6.8% 5.7% 0.8% -2.7% 0.8% -2.2% 4.1%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 1.4 2.355.0 1.4 2.355.0 1.5.0 1.4 2.355.0 1.5.0 1.4 2.355.0 1.5.0 1.4 2.355.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	2.9 3.3 3.1 3.1 3.1 3.1 3.1 3.1 3.1	Image: 127. Image: 127. .0 264. .0 264. .0 264. .0 264. .8 18.2 .1 1.2 .1 1.5 .1 1.7 .1 2.5 .1 1.7 .1 2.5 .1 3.0 .1 2
PKRF/10Y Index MASB10Y Index (GVTL10YR Index IESM10Y Index IESM10Y Index RS Curncy CAD Curncy CAD Curncy COP Curncy COP Curncy COP Curncy COP Curncy COP Curncy DKK Curncy DKK Curncy EUR Curncy EUR Curncy NOK Curncy PLIN Curncy RON Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso Mexican Peso British Pound Czech Koruna Danish Krone Euro Hungarian Forint Norwegian Krone Polish Zloty Romanian Leu Russian Ruble	8.21% 1.88% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 273.62 8.31 3.75 3.92 6.7.81	-26.0 2.3 0.4 2.0 CIES 1D %CHG 5 -0.4% -1.0% 0.1% -0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1%	-128.0 -23.5 -112.1 162.0 YoY -39.6% -14.2% -4.5% -4.5% -5.3% -5.0% 6.8% 5.3% 0.8% -2.7% 0.8% -2.7% -0.2% -1.2% -1.2% -1.2% -2.5% -2	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 1.4 23.3 6.4 1.1 267.5 7.3 3.5 3.8 49.1	2.9 2.9 3.3 3.3 3.4 1 11 Average S2 Last Mr 15 4.2 1.5 73 73 34 19 1.6 25 7.3 73 4.2 1.2 9.0 4.3 9.0 4.3 4.2 82	. 127. .0 264. W 1YZ-SCORI .8 18.2 .1.1 1.5 .1.5 1.1 .25 .6 -4.7 .9 -0.5 0.1 1.2 0.4.3 0.4.4 0.4
PKRF/10Y Index MASB10Y Index MASB10Y Index IESM10Y Index IESM10Y Index TICKER ARS Curncy BRL Curncy CAD Curncy CAD Curncy COP Curncy COP Curncy COP Curncy CCX Curncy EUR Curncy EUR Curncy HUF Curncy PLN Curncy PLN Curncy RON Curncy RUB Curncy RUB Curncy SEK Curncy	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna Danish Krone Euro Hungarian Forint Norwegian Krone Polish Zloty Romanian Leu Russian Ruble Swedish Krona	8.21% 1.82% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 1.7.70 Europe 1.41 23.72 6.53 1.14 273.62 8.31 3.75 3.92 67.81 8.16	-26.0 2.3 0.4 2.0 CIES 10 5 -0.4% -0.4% -0.1% -0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1%	-128.0 -23.5 -112.1 162.0 YoY %CHG -39.6% -14.2% -9.3% -9.3% -15.7% -5.0% 6.8% 5.7% 5.3% 0.8% 0.2% 4.1% -1.8% 6.3%	1.8 1.5 8.2 52W Min 8.8 2.9 1.2 595.6 2355.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	2.9 3.1 4.2 11 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 12 15 12 15 12 12 12 12 12 12 12 12 12 12	Image: 127.0 Image: 127.0 0 264.1 W IY Z-3 SCORE 1.1 1.5 1.1 1.5 1.1 1.5 1.1 2.5 .0.1 5.6 -4.7 9.9 -0.5 2.0.1 1.2 0.1 1.2 0.4.3 0.1 0.2 0.04 2.0.44 1.4 8. -0.2
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PKRF/10Y Index MASB10Y Index MASB10Y Index IESM10Y Index IESM10Y Index IESM10Y Index ARS Curncy CLP Curncy CLP Curncy CCP CURCY CURC	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna Danish Krone Euro Hungarian Forint Norwegian Krone Polish Zloty Romanian Leu Russian Ruble Swedish Krona Swiss Franc Turkish Lira Ukranian Hryvnia Israeli Shekel S. African Rand Australian Dollar Chinese Renminbi HK Dollar Indian Rupee Indonesian Rupiah	8.21% 1.88% 9.70% CURRENC America America 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.14 23.72 6.53 1.15 1.53 1.54 1.51 1	-26.0 2.3 0.4 2.0 CIES 10 %CHG	-128.0 -23.5 -112.1 162.0 YoY *CHG -3.9.6% -4.5% -4.5% -4.5% -9.3% -14.2% -9.3% -14.2% -9.3% -14.7% -5.0% -5.0% -5.3% -5.3% -5.3% -2.7% -0.2% -2.7% -0.2% -2.7% -2.	1.8 % % % % % % % % % % % % % % % % % % %	2.9 2.9 3.1 11 Average 12 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 4.2 15 4.2 16 2.9 9.0 9.0 4.1 9.2 9.0 4.1 9.2 9.0 9.0 9.0 9.0 9.0 9.1 4.2 8.2 8.2 8.2 9.2 9.2 9.2 9.2 9.2 9.3 1.1 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 <td>127. 127. .0 264. W 1Y 2-3X SCORD SCORD .8 18.2 .1 1.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.2 .1.1 .1.2 .1.2 .1.2 .1.2 .1.2 .1.2 .1.3 .1.4 .1.4 1.5 .1.2 .1.5 .1.3 .1.5 .1.4 1.5 .1.5 .1.5 .1.5 .1.5 .1.6 .3.0 .1.5 .3.8 .1.6 .3.8 .1.2 .1.2 .1.2 .1.2 .1.2 .1.2 .1.2 .</td>	127. 127. .0 264. W 1Y 2-3X SCORD SCORD .8 18.2 .1 1.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.2 .1.1 .1.2 .1.2 .1.2 .1.2 .1.2 .1.2 .1.3 .1.4 .1.4 1.5 .1.2 .1.5 .1.3 .1.5 .1.4 1.5 .1.5 .1.5 .1.5 .1.5 .1.6 .3.0 .1.5 .3.8 .1.6 .3.8 .1.2 .1.2 .1.2 .1.2 .1.2 .1.2 .1.2 .
PKRF/10Y Index MASB10Y Index MASB10Y Index IESM10Y Index IESM10Y Index ARS Curncy CAD Curncy CAD Curncy CAD Curncy COP Curncy CURCURCY CURCY	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso Mexi	8.21% 1.82% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 273.62 8.31 3.75 3.92 67.81 8.16 0.96 2.85 2.80 Middle East & 3.78 15.19 Asia/Paci 0.76 6.47 7.76 6.6.51 13162.0 108.32	-26.0 2.3 0.4 2.0 20 20 20 20 20 20 20 20 20 20 20 20 20	-128.0 -23.5 -112.1 162.0 -39.6% -4.4.2% -4.5% -9.3% -9.3% -9.3% -9.3% -17.7% -5.0% 5.3% 5.7% 5.3% -2.7% -0.2% -0.2% -2.17% -2.17% -2.17% -2.17% -2.17% -2.2	1.8 8.8 8.8 8.8 8.8 8.8 9.9 9.1 2.2 55.6 0.2 355.0 15.0 14.4 23.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 3.5 7.3 7.1 1.8 7.7 7.6 2.2 12.8 5.5 7.7 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 7.5 12.8 5.5 7.7 12.8 5.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	2.9 2.9 3.1 3.1 11 11 Average 52 1.5 4.2 1.5 4.2 1.7 73 3.4 19 1.6 25 2.5 7.1 1.2 29 9.0 4.1 2.5 8.8 3.0 3.0 2.6 8.2 8.2 8.2 3.1 27 4.2 27 4.0 16 0.8 6.6 7.8 6.8 4.1 14	127. .0 264. W 1Y 2-3 SCOR SCOR .8 18.2 .1.1 1.5 .1.1 2.5
PKRF/10Y Index MASB10Y Index MASB10Y Index IESM10Y Index IESM10Y Index RESUM10Y Index TICKER ARS Curncy CLP Curncy CLP Curncy CLP Curncy CCP CURCY CCP	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna Danish Krone Euro Hungarian Forint Norwegian Krone Polish Zloty Romanian Leu Russian Ruble Swedish Krona Swiss Franc Turkish Lira Ukranian Hryvnia Israeli Shekel S. African Rand Australian Dollar Chinese Renminbi HK Dollar Indian Rupee Indonesian Rupiah Japanese Yen	8.21% 1.88% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 273.62 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 6.781 8.31 8.37 8.35	-26.0 2.3 0.4 2.0 CIES -0.4% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.2% -0.4% -0.2% -0.4% -0.2% -0.4% -0.2% -0.4% -0.2% -0.4% -0.2% -0.4% -0.2% -0.4% -0.2% -0.4% -0.1% -0.2% -	-128.00 -23.5 -112.1 162.00 VoY *CHG -3.9.6% -4.5% -9.3% -9.3% -9.3% -9.3% -9.3% -9.3% -117.7% -5.0% -0.2% -2.7% -0.2%	1.8 1.5 8.2 52W Min 8.8 2.9 55.6 2355.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	2.9 2.3 3.1 3.1 11 Average 52 Last Ma 4.2 5.2 7.3 3.4 19 5.2 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3	127. .0 264. W 1Y 2-264. SCOR SCOR .8 18.2 .1 1.2 .5 1.1 1.5 1.1 1.5 1.1 1.5 1.1 2.5 -0.2 .6 -0.2 .4.3 0.1 .2 -0.2 .4.3 0.1 .2 0.0.4 .4 1.4 .4 0.0 .9 -3.8 .0.3 -0.3 .3 1.2 .4 1.5 .5 -0.3 .6 -0.3 .5 3.0 .5 -0.3 .5 3.0 .6 3.0 .7 .2 .4 1.5 .6 3.0 .7 .2 .6 -0.2 .02 .2
PKRF/10Y Index MASB10Y Index MASB10Y Index IESM10Y Index IESM10Y Index RECUMP CAD Curncy CAD Curncy CAD Curncy COP Curncy RUB Curncy RUB Curncy COP Curncy RUB Curncy COP CURCY CURNCY	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso Mexi	8.21% 1.82% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 273.62 8.31 3.75 3.92 67.81 8.16 0.96 2.85 2.80 Middle East & 3.78 15.19 Asia/Paci 0.76 6.47 7.76 6.6.51 13162.0 108.32	-26.0 2.3 0.4 2.0 20 20 20 20 20 20 20 20 20 20 20 20 20	-128.0 -23.5 -112.1 162.0 -39.6% -4.4.2% -4.5% -9.3% -9.3% -9.3% -9.3% -17.7% -5.0% 5.3% 5.7% 5.3% -2.7% -0.2% -0.2% -2.17% -2.17% -2.17% -2.17% -2.17% -2.2	1.8 1.5 8.2 52W Min 8.8 2.9 55.6 2355.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	2.9 2.9 3.1 3.1 11 11 Average 52 1.5 4.2 1.5 4.2 1.7 73 3.4 19 1.6 25 2.5 7.1 1.2 29 9.0 4.1 2.5 8.8 3.0 3.0 2.6 8.2 8.2 8.2 3.1 27 4.2 27 4.0 16 0.8 6.6 7.8 6.8 4.1 14	127. 127. .0 264. W 1Y 2-3X SCORI 35000 .8 18.2 .1.1 1.5 1.1 1.5 1.1 2.5 .6 -4.7 .9 -0.5 .1.7 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.2 .1.7 .1.3 .1.7 .1.4 .1.7 .1.2 .1.1 .1.2 .1.2 .1.3 .1.2 .1.4 .1.4 .1.5 .1.1 .1.5 .1.1 .1.5 .1.1 .1.5 .1.1 .1.5 .1.1 .1.5 .1.1 .1.5 .1.5 .1.5 .1.5 .1.5 .1.6 .1.5 .1.6 .1.6 .
PKRF/10Y Index MASB10Y Index MASB10Y Index IESM10Y Index IESM10Y Index RESCURNCY ARS CURNCY CLP CURNCY RON CURNCY RON CURNCY RON CURNCY RON CURNCY CHF CUR	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso British Pound Czech Koruna Danish Krone Euro Hungarian Forint Norwegian Krone Polish Zloty Romanian Leu Russian Ruble Swedish Krona Swiss Franc Turkish Lira Ukranian Hryvnia Israeli Shekel S. African Rand Australian Dollar Chinese Renminbi HK Dollar Indian Rupee Indonesian Rupiah Japanese Yen Singapore Dollar N. Zealand Dollar S. Korean Won Thai Baht	8.21% 1.88% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 273.62 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 8.31 3.75 3.92 6.781 1.519 Middle Eat & 3.78 6.51 13162.0 1.519 6.51 13162.0 1.35 0.76 6.51 13162.0 1.35 0.68 1.519 1.528 0.76 1.519 1.518 1.519 1.518 1.518 1.519 1.518 1.519 1.518 1.5	-26.0 2.3 0.4 2.0 2 2 5 -0.4% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.1% -0.2% 0.0% -0.4% -0.4% -0.4% -0.4% -0.4% -0.5% -0.4% -0.4% -0.5% -0.4% -0.4% -0.5% -0.4% -0.4% -0.4% -0.5% -0.4% -0.4% -0.5% -0.4% -0.4% -0.1% -0.1% -0.1% -0.1% -0.4% -0.1% -0.2% -	-128.0 -23.5 -112.1 162.0 YoY *CHG -3.9.6% -4.5% -9.3% -14.2% -5.5% 6.8% 5.7% 0.8% -2.7% 4.1% 1.0% -8.6% 4.3% -2.1% -8.8% 4.3% -2.1% -8.8% -8.8% -2.1% -3.9.6% -3.9.6% -3.9.6% -4.2% -0.1% -0.9% -5.5% -5.4% -5.5% -6.4% -3.3% -2.7% -5.4% -7.4% -5.5% -5.4% -7.4% -5.5% -7.4% -5.5% -7.4% -5.5% -7.4%	1.8 % % % % % % % % % % % % % % % % % % %	2.9 3.3 3.1 3.1 11 Average 52 Last Ma 4.2 5.1 5.5 7.3 3.4 19 5.1 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3	127.0 127.0 .0 264.0 .0 264.1 .0 264.2 .0 264.3 .0 264.4 .0 264.3 .12 .12 .12 .12 .11 1.5 1.1 1.5 .1.1 .1.7 .1.2 .1.7 .1.1 .2.5 .1.1 .2.5 .1.1 .1.7 .1.2 .1.7 .1.1 .1.7 .1.1 .1.7 .1.1 .1.7 .1.1 .1.7 .1.1 .1.7 .1.1 .1.7 .1.1 .1.7 .1.1 .1.2 .1.2 .0.4 .1.4 .0.0 .1.4 .0.0 .1.5 .1.1 .1.6 .0.3 .1.6 .0.3 .1.6 .0.3.0 .1.6
PKRF/10Y Index MASB10Y Index MASB10Y Index IESM10Y Index IESM10Y Index RESCURNCY ARS CURNCY CLP CURNCY RON CURNCY RON CURNCY RON CURNCY RON CURNCY CHF CUR	Pakistan Singapore Thailand Turkey CURRENCY Argentine Peso Brazilian Real Canadian Dollar Chilean Peso Colombian Peso Mexican Peso Mexi	8.21% 1.82% 9.70% CURRENC America 14.62 3.64 1.31 674.50 3081.13 17.70 Europe 1.41 23.72 6.53 1.14 273.62 8.31 3.75 3.92 67.81 8.16 0.96 2.85 25.80 Middle East & 3.78 15.18 1.51 3.76 6.47 7.76 6.65.31 1.3162.0 1.3162.0 1.3162.0 1.3162.0 1.3162.0 1.3162.0 1.3162.0 1.3162.0 1.3162.0 1.3162.0 1.335.18 3.518 3	-26.0 2.3 0.4 2.0 CIES 1D %CHG 1D %CHG 10 %CHG 0.1% 0.0% 0.1% 0.1% 0.0% 0.	-128.0 -23.5 -112.1 162.0 -39.6% -14.2% -4.5% -14.2% -14.2% -14.2% -14.2% -17.7% -15.7% -5.0% 5.3% -2.7% -2.7% -3.0% -2.7% -3.0% -2.1% -4.1% -4.1% -4.1% -4.1% -4.1% -4.2% -0.1% -4.2% -0.1% -0.1% -0.1% -0.1% -0.5.5%	1.8 8.8 1.5 8.2 9 9 9 9 9 6 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	2.9 2.9 3.3 3.3 3.1 11 Average 52 15 4.2 15 4.2 73 34 90 1.6 255 7.3 24 25 25 7.1 26 9.0 9.0 4.1 20 8.2 8.2 8.2 3.3 3.1 27 4.0 4.2 7.2 4.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.3 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	127. 127. .0 264. W 1Y 2-3X SCORI 36. .8 18.2 .12 .5 .11 1.5 .1.1 1.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.1 2.5 .1.2 .1.2 .1.3 .1.2 .1.4 .0.0 .1.5 .1.4 .1.5 .1.5 .1.5 .1.6 .1.5 .1.6 .1.5 .1.6 .1.5 .1.6 .1.5 .1.6
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SURVEILLANCE WITH KEENE & MCKEE

McVean Investments Chief Economist **Michael Drury** speaks with Bloomberg's Tom Keene and Michael McKee about inflation, the outlook for oil prices and supply and fiscal policy needs.

Q: Much of what has happened in terms of disinflation in the U.S. is related to commodities. Are we going to see inflation now?

A: I think this is very bimodal. We don't see any inflation on the forefront in the commodities area. In fact, the new technology was called out by the record-high prices going into 2011. That technology is still working its way through industries and we think that you continue to see lower commodities prices for a very long time. The inflation is on the services side. You're seeing it in rents, and you're seeing it in service costs.

Q: One reason oil prices are so low is American frackers have found a way to keep improving their output at lower costs. Does that suggest that we see low oil prices forever, relatively?

A: So the really interesting thing there is until recently you basically only fracked in the Bakken and it was so profitable that it didn't really spread beyond that, because you just went further and further away from the center in the Bakken. And it was only in the last year and a half or so that you moved to the Permian and the Eagle Ford. So we don't frack in Argentina. We don't frack in China. We don't frack in Russia or anywhere in the Middle East. We're going to. So you're going to have a very difficult time coming above a ceiling that currently is \$45 and will continue to decline as the technology spreads.

Q: When the price is that low, can anybody make money doing it? What is the clearing price going to be?

A: We used to say it was \$72 and then we said it was \$56, and now people are saying it's in the \$30s, and they're saying the lifting costs even for fracking might only be in the high teens. So it keeps working its way down.

Q: Is that because of the technological progress? We've visited \$29 a barrel. Are we going to go lower?

A: Yes, I think we keep working our way down because the cost of the oilfield workers has gone down. The cost of the trucking is going down. The ability to produce more from a single pad is increasing.

Q: What does it mean for what now is our dominant position in setting prices if the Chinese started fracking?

A: Early on the argument was that the seismology was different and it would be hard to frack in other places. But we've just seen from the productivity boom in the U.S that you just learn as you go. And so I think it will spread. Argentina is one of the more interesting markets for fracking, and they need the money. And it's kind of a fresh start down there.

Q: What does this additional supply and low prices mean for the U.S. and for the global economy?

A: If you're in the world that I'm looking at where it's two percent U.S., one percent Europe, then you don't need a whole lot more oil every year. China is growing, but it's not growing like it did in the past. And so any incremental increases in output are going to keep a lot of pressure on prices. Part of the only reason prices aren't a lot lower now is because the expected increase from Iran really hasn't come online nearly as quickly as the initial anticipation was.

Q: Should we be scared that central bankers don't really have a clue at this point?

A: I think they should be scared because they're central bankers. But I think it's just more and more people realizing that we need fiscal policy, we need regulatory policy, we need structural change rather than just another round of debt creation.

Q: If we don't get it, what happens?

A: So we may not get it in the U.S. But the main place that we're getting fiscal policy right now is China where they're on another round of infrastructure building, another round of directed investment. That may not be the long-run solution, but it probably buys you at least another 24 months of growth.

This interview has been edited and condensed.

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