Global Seasonal Analysis
Seasonal Trends In Global Financial Markets
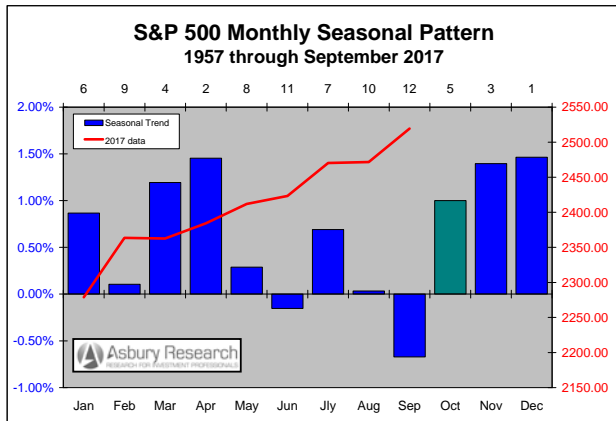## October 2017

John J. Kosar. CMT
October 5th, 2017
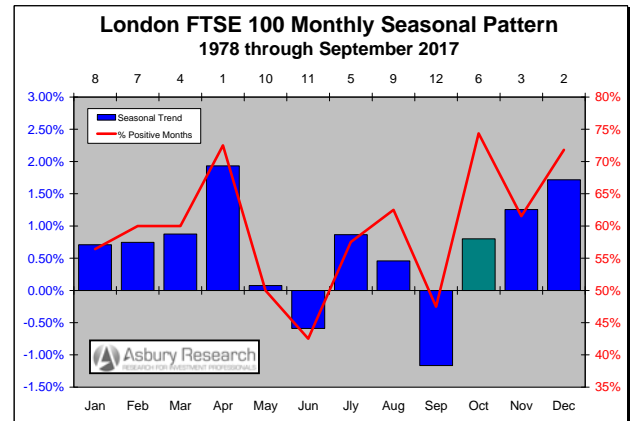
Executive Summary

- **Global Equity Prices: NEAR TO INTERMEDIATE TERM POSITIVE.** October marks the beginning of a multi-month seasonal recovery from September, the weakest month of the year in the US, European, and Japanese stock markets, one which extends through year end in the US and European and through January in Japan.

- **US Interest Rates: NEAR TO INTERMEDIATE TERM NEGATIVE.** US government yields are in various stages of a sustained seasonal period of weak/declining yields that begins between June and August and ends between October and January, depending on the maturity.

- **UK Interest Rates**: **NEAR TO INTERMEDIATE TERM NEGATIVE.** October, the seasonally weakest month of the year for the yield of the 10-Year Euro (formerly German) Bund based on data since 1967, represents a sharp one-month seasonal decline from September, the 2nd strongest month, and leads into more modest overall weakness through February.

- **Japanese Interest Rates**: **NEAR TO INTERMEDIATE TERM NEGATIVE.** October, the 4th weakest month of the year for the yield of the 10-Year Japanese Government Bond (JGB), represents first of a two-month period of modest seasonal weakness that is sandwiched between the 1st and 2nd strongest months of the year, September and December.

- **The US Dollar: NEAR TERM NEGATIVE, INTERMEDIATE TERM POSITIVE.** Of all the markets we cover, the asset class that probably shows the least seasonality is foreign exchange. That said, however, the US currency does show a clear three-month pattern of December weakness, acute January strength, then February weakness versus both Europe and Japan.

- **Commodities: NEAR TERM NEGATIVE.** Common to the CRB Index plus crude oil, gold and copper prices is a one-month seasonal decline from September that began from acute seasonal strength during July-August.
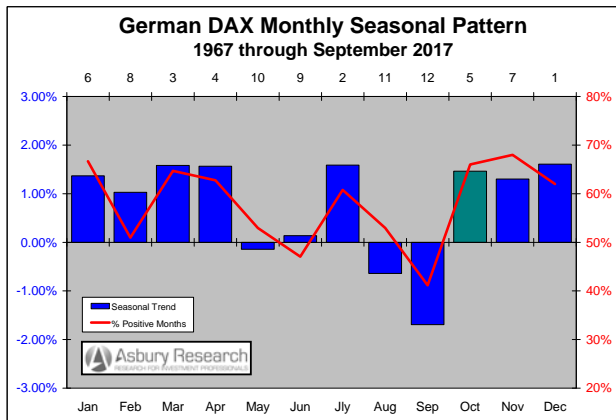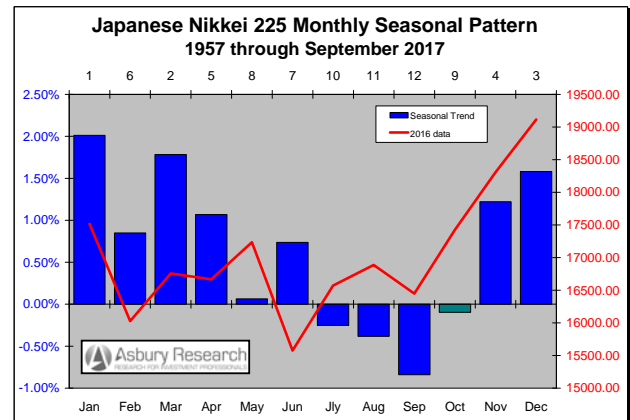
Global Equity Prices

S&P 500 Monthly Seasonal Pattern
1957 through September 2017

United States: S&P 500 Index

London FTSE 100 Monthly Seasonal Pattern
1978 through September 2017

England: FTSE 100 Index

German DAX Monthly Seasonal Pattern
1967 through September 2017

Germany: DAX Index

Japanese Nikkei 225 Monthly Seasonal Pattern
1957 through September 2017

Japan: Nikkei 225 Index

Analysis & Commentary

The four charts above highlight the seasonal tendencies for the month of October in four major world stock indexes, plus their larger seasonal patterns into early next year. The red lines on the charts plot either 1) the percentage of positive monthly closes during the period displayed or 2) the actual monthly closing levels during 2016 or thus far in 2017.

October represents the beginning of a multi-month seasonal recover from September, the weakest month of the year in all four indexes,

which extends through year end in the US and European indexes and through January in Japan.

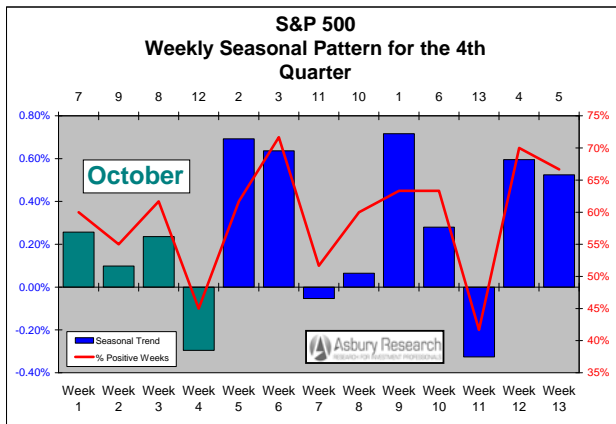## S&P 500 Yearly Seasonal Pattern Since 1957

In the S&P 500 Index (SPX, chart at upper left), the green bar highlights October as being the 5th seasonally strongest month of the year based on data since 1957. It represents a strong one-month seasonal recovery from the weakest month of the year, September, and leads into the 3rd and 1st strongest months in November and December.

The height of the green bar on the chart indicates that, on average since 1957, the **S&P 500 has closed 1.00% higher in October**. The red line plots SPX's monthly closing levels thus far in 2017.

S&P 500 Quarterly Seasonal Pattern For Q4 Since 1957

The next chart breaks the seasonal pattern in the S&P 500 down further, into a quarterly time frame via 13 weekly increments, and highlights the month of October in green. The chart shows that **the last three weeks of October include 3 of the 6 seasonally weakest of the entire 4th Quarter**.

S&P 500 Monthly Seasonal Pattern For October Since 1957

The next chart breaks the seasonal pattern down even further, into a monthly time frame via 22 daily increments that plot *the average daily percent change* in the S&P 500 during October since 1957. The red line plots the daily closing levels in SPX during October 2016.
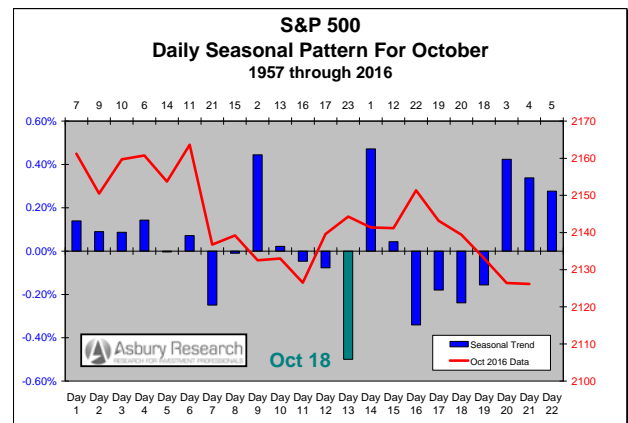
The green bar shows that Day 13 or October 18th is the seasonally weakest day of the month.

Investment Implications & Strategy

These yearly, quarterly, and monthly charts collectively suggest a potential intermediate term buying opportunity in the S&P 500 on weakness during the last three weeks of October, with a strategy of closing out the position amid December strength.

London FTSE 100 Yearly Seasonal Pattern Since 1978

In the London FTSE 100 Index (chart at upper right on Page 2), the green bar highlights October as the 6th seasonally strongest month of the year based on data since 1978. Like the US market, it represents a strong one-month seasonal rebound from the September yearly low which in this case leads into the 3rd and 2nd strongest months of the year, November and December.

The height of the green bar on the chart indicates that, on average since 1978, **the FTSE has risen by 0.80% in October**. The red line shows that, also **on average since 1978, the FTSE has posted a positive October close 74% of the time**, its highest incidence of a positive close for any month during this period.

German DAX Yearly Seasonal Pattern Since 1967

The green bar in the chart at lower left on Page 2 shows that October is the 5th seasonally strongest month of the year in the DAX based on data since 1967. Like the FTSE, it represents a strong one-month seasonal rebound from September, the weakest month of the year, but in this case is followed by a slightly weaker November, the 7th strongest month, before the strongest month of the year emerges in December.

The height of the green bar indicates that, on average since 1967, the **DAX has closed 1.46% higher in October**. The red line shows that, also on average since 1967, **the DAX has posted a positive October close 66% of the time**, the 2nd highest incidence of a positive close for any month during this period.

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Japanese Nikkei 225 Yearly Seasonal Pattern Since 1957

The green bar on the chart at lower right on Page 2 highlights October as the 9th strongest or 4th weakest month of the year in the Japanese Nikkei 225 Index, based on data since 1957. It represents the end of a four-month period of sustained seasonal weakness that begins in July and includes the four weakest months of the year, after which November kicks off a strong three-month seasonal rebound that runs through January and includes three of the four strongest months of the year.
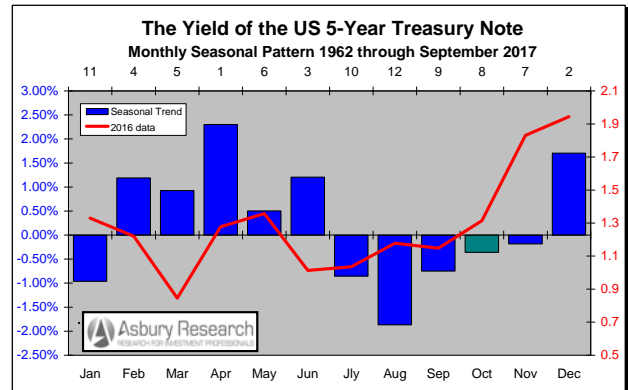
The depth of the green bar indicates that, on average since 1957, the **Nikkei 225 has declined by 0.10% in October**. The red line plots the Nikkei's monthly closing levels during 2016.
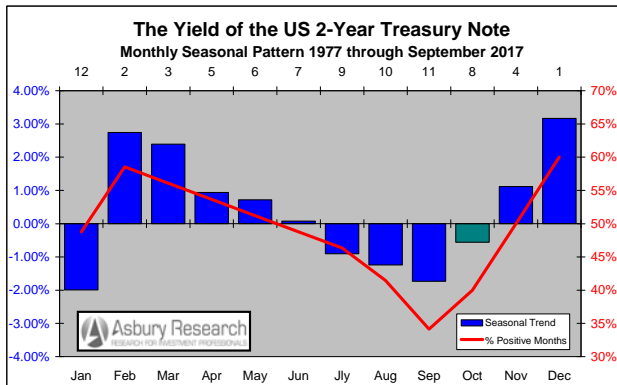
Global Interest Rates (United States)
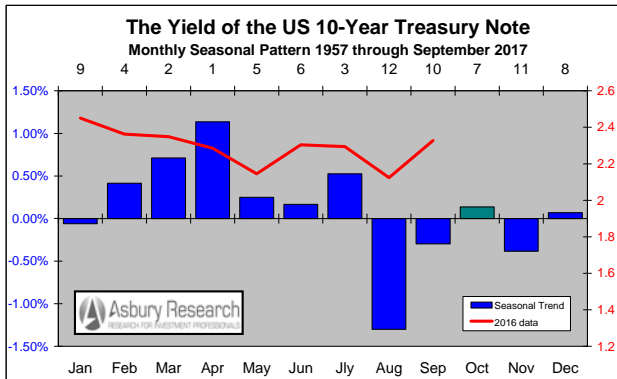
United States: 10-Year Treasury Yield

United States: 5-Year Treasury Yield

United States: 2-Year Treasury Yield

Analysis & Commentary

The blue bars and colored highlights on the charts above display the seasonal tendencies for the month of October in **the yield** of the **US 10-, 5-, and 2-Year Treasury Note**, as well as their broader seasonal trends through early next year. The red lines plot either 1) the percentage of positive monthly closing yields during the period displayed or 2) the actual monthly closing yields during 2016 or thus far in 2017.

US government yields are in various stages of a sustained period of weak/declining yields that begins between June and August and ends between October and January, depending on the maturity.

### US 10-Year Yield Yearly Seasonal Pattern Since 1957

The green bar in the chart at upper left highlights October as the 7th seasonally strongest month of the year in the yield of the US 10-Year Treasury Note, based on data since 1957. It represents the third of a six-month period of sustained seasonal weakness in these yields that runs through January and includes the six weakest months of the year.

The height of the green bar indicates that, on average since 1957, **the yield of the 10-Year has risen by 0.14% in October.** The red line plots these yields' monthly closing levels since January.

US 10-Year Yield Monthly Seasonal Pattern For October Since 1962

The 22 columns in the chart above display the daily seasonal pattern, based on *the average daily percent change,* in the yield of the 10-Year Treasury Note during the month of October since 1962. The red line plots these yields' daily closing levels during October 2016.

**US 10-Year Yields
Daily Seasonal Pattern For October
1962 through 2016**
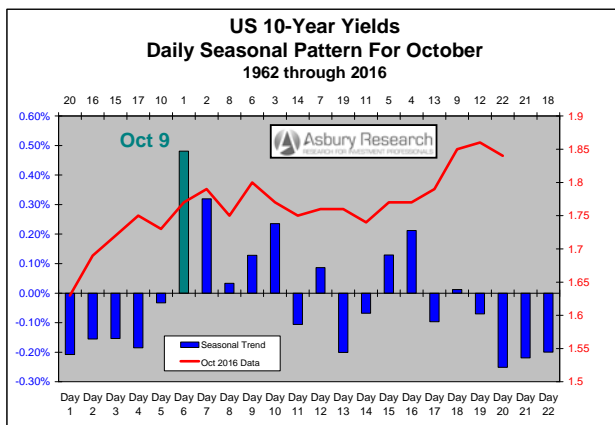
The green column shows that **these yields seasonally peak for the month on Day 6 or October 9th.**

Investment Implications & Strategy

These yearly and monthly charts collectively suggest a potential near to intermediate term buying opportunity in long dated Treasury *prices,* on weakness on or around October 9th as yields peak for the month, with a strategy of closing out the position amid yield weakness during November and/or January.

US 5-Year Yield Yearly Seasonal Pattern Since 1962

The green bar on the chart at upper right on the previous page shows that October is the 8th seasonally strongest or 5th weakest month of the year in the yield of the 5-Year Treasury Note, based on data since 1962. It represents the fourth of a five month period of sustained seasonal weakness that runs through November and includes 5 of the 6 weakest months of the year.

The depth of the green bar indicates that, on average since 1962, **5-Year Treasury yields have declined by 0.36% in October**. The red line plots these yields' monthly closing levels during 2016.

US 2-Year Yield Yearly Seasonal Pattern Since 1977

The green bar on the chart at lower left on the previous page shows that October is also the 8th seasonally strongest or 5th weakest month of the year in the yield of the 2-Year Note, based on data since 1977. It represents the last of a five-month period of sustained seasonal weakness that begins in June, and leads into four of the five strongest months of the year between November and March.

The depth of the green bar indicates that, on average since 1977, **the yield of the 2-Year has declined by 0.56% in October.** The red line shows that, also on average since 1977, **these yields have posted a negative October close 60% of the time**.

Global Interest Rates, cont. (Europe & Japan)

Europe: 10-Year Euro Bund Yield

Japan: 10-Year Japanese Govt. Bond Yield

Euro Bund 10-Year Yield Yearly Seasonal Pattern Since 1967

The green bar on the chart above highlights October as seasonally weakest month of the year for the yield of the 10-Year Euro (formerly German) Bund based on data since 1967. It represents a sharp one-month seasonal decline from September, the 2nd strongest month, and leads into more modest overall weakness through February.

The depth of the green bar indicates that, on average since 1967, **Bund yields have declined by 5.06% in October**. The red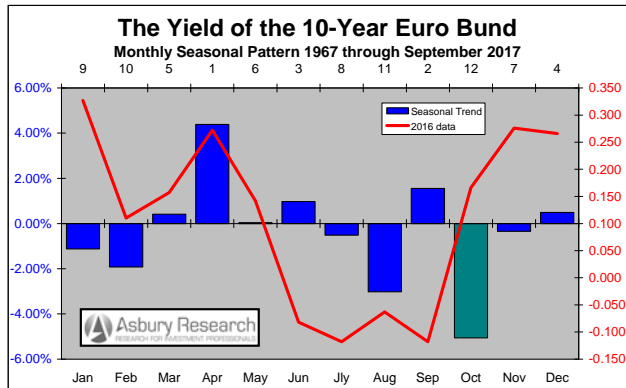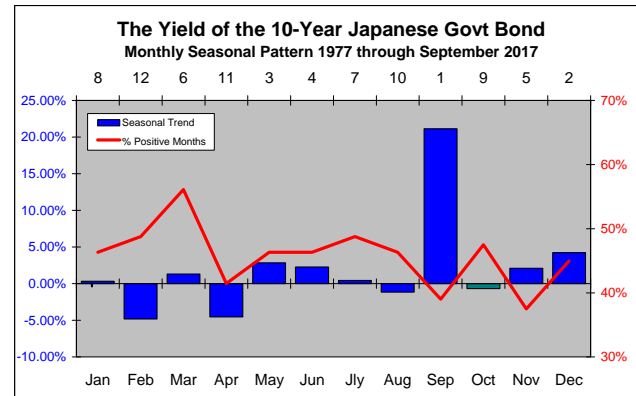 line plots these yields' monthly closing levels during 2016, showing that they closely tracked their long term seasonal pattern last year.

Japanese Government Bond 10-Year Yield Yearly Seasonal Pattern Since 1977

The green bar in the chart above highlights October as the 9th seasonally strongest or 4th weakest month of the year for the yield of the 10-Year Japanese Government Bond (JGB) based on data since 1977. It represents first of a two-month period of modest seasonal weakness that is sandwiched between the 1st and 2nd strongest months of the year, September and December.

The depth of the green bar indicates that, on average since 1977, **10-year JGB yields have declined by 0.67% in October**. The red line shows that, also on averages since 1977, these yields have posted a negative October close 52% of the time.

Global Foreign Exchange Rates
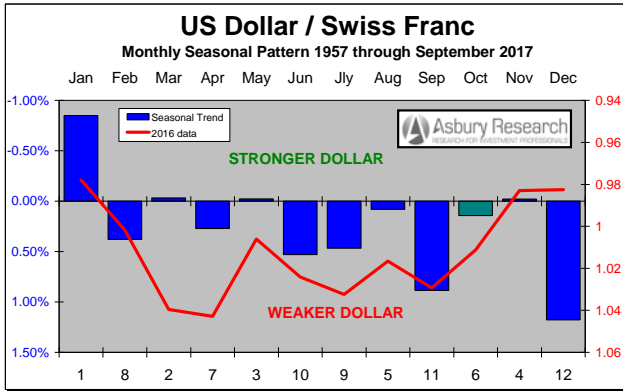
US Dollar / Swiss franc
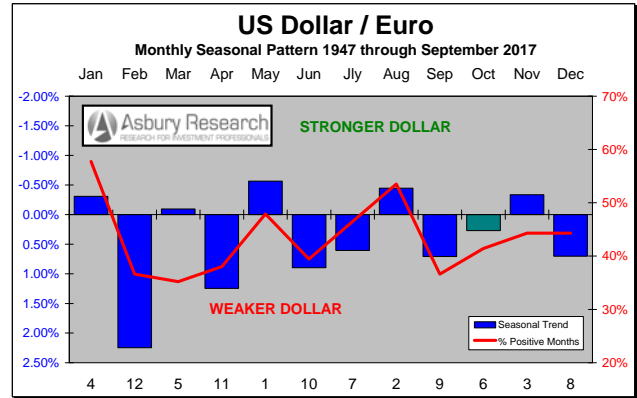
US Dollar / Euro
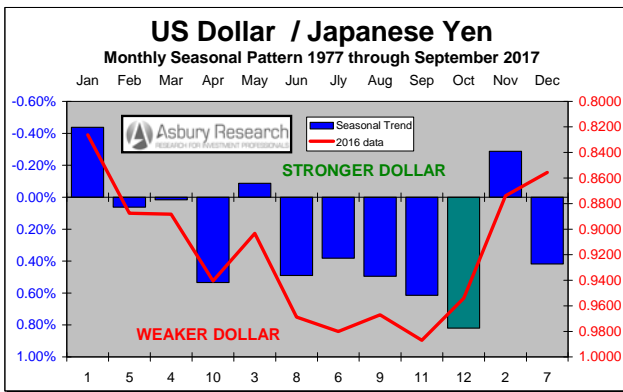
US Dollar / Japanese yen

Analysis & Commentary

The charts above highlight the seasonal tendencies for the month of October in the US Dollar versus Europe and Japan, as well as the greenback's overall seasonal trend into year end. The red lines plot either 1) the percentage of positive monthly closes by the US currency during the period displayed or 2) its actual monthly closing levels during 2016.

Of all the markets we cover, the asset class that probably shows the least seasonality is foreign exchange. That said, however, the US currency does show a clear three-month pattern of December weakness, acute January strength,

then February weakness versus both Europe and Japan.

USDCHF Yearly Seasonal Pattern Since 1957

The green bar in the chart at upper left highlights October as the 6th seasonally strongest month of the year for the US Dollar versus the Swiss franc based on data since 1957. It represents the beginning of a modest two-month recovery in the greenback that is sandwiched between its two weakest month of the year, September and December.

The depth of the green bar shows that, on average since 1957, the **US Dollar has**

underperformed the franc by 0.14% in October. The red line plots the monthly closing levels in USDCHF during 2016.

USDCHF Monthly Seasonal Pattern For October Since 1972

The 22 columns in the next chart display the daily seasonal pattern in Dollar/Swiss, based on its average daily percent change during the month of October, since 1972. The red line plots the daily closing levels in USDCHF during October 2016.

US Dollar / Swiss Franc
Daily Seasonal Pattern For October
1972 through 2016

The green bar shows that **the Dollar seasonally peaks for the month versus the franc on Day 15 or October 20th.**

Investment Implications & Strategy

These yearly and monthly data collectively suggest a potential near to intermediate term selling opportunity in USDCHF, on strength, on or around October 20th, with a strategy of covering the position during acute December seasonal weakness.

USDEUR Yearly Seasonal Pattern Since 1947

The green bar on the chart at upper right on the previous page highlights October as also being the 6th seasonally strongest month of the year for the US Dollar versus the euro (formerly German Mark), based on data since 1947. Also like USDCHF, it represents the beginning of a modest two-month seasonal rebound sandwiched between September and December weakness.

The depth of the green bar shows that, on average since 1947, the **US Dollar has underperformed the euro by 0.27% in October.** The red line shows that, also on average since 1947, EURUSD has posted a negative October close 59% of the time.
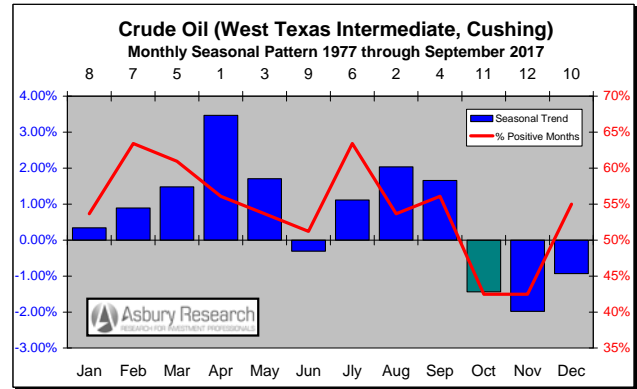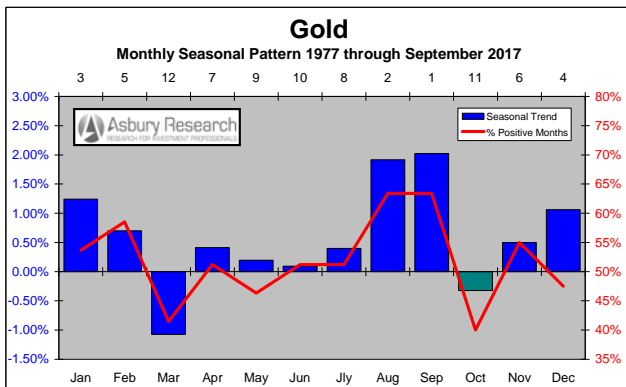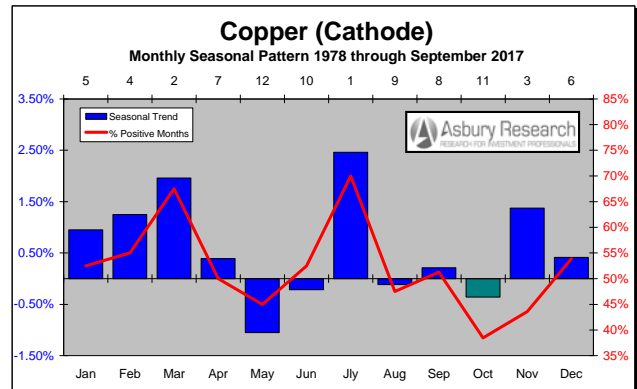
USDJPY Yearly Seasonal Pattern Since 1977

The green bar in the chart at lower left on the previous page identifies October as the seasonally weakest month of the year for the US Dollar versus the Japanese yen, based on data since 1977. It represents the end of a five-month period of seasonal weakness that begins in June, and leads into a three-month period of seasonal strength that ends in January which includes the two strongest months of the year.

The depth of the green bar shows that, **on average since 1977, the US Dollar has underperformed the yen by 0.82 in October.** The red line, which plots the daily closing levels in USDJPY during 2016, shows that last year the US currency closely tracked its long term seasonal trend versus the yen.

Commodity Prices

CRB Index
Monthly Seasonal Pattern 1967 through September 2017

CRB Index

Crude Oil (West Texas Intermediate, Cushing)
Monthly Seasonal Pattern 1977 through September 2017

Crude Oil (West Texas Intermediate)

Gold
Monthly Seasonal Pattern 1977 through September 2017

Gold

Copper (Cathode)
Monthly Seasonal Pattern 1978 through September 2017

Copper

Analysis & Commentary

The charts above highlight the seasonal tendencies for the month of October in three key commodity prices and one broad commodity index, plus their larger seasonal patterns into early next year. The red lines plot either 1) the percentage of positive monthly closes during the period displayed, or 2) the actual monthly closing prices during 2016.

Common to all is a one-month seasonal decline from September that began from acute seasonal strength during July-August.

CRB Index Yearly Seasonal Pattern Since 1967

The Thomson Reuters/Jefferies CRB Commodity Index is a weighted average of 19 commodities including aluminum, cocoa, coffee, copper, corn, cotton, crude oil, gold, heating oil, lean hogs, live cattle, natural gas, nickel, orange juice, silver, soybeans, sugar, unleaded gas, and wheat. The CRB has historically been seen by investors as a bellwether of market-based inflation.

The green bar in the chart at upper left on the previous page shows that October is the

seasonally weakest month of the year in the CRB Index based on data since 1967. However, it leads into a four month period of overall strength that runs through February which includes three of the four strongest months of the year.

The depth of the green bar indicates that, on average since 1967, the **CRB has declined by 0.13 in October**. The red line plots the CRB's monthly closing levels during 2016.
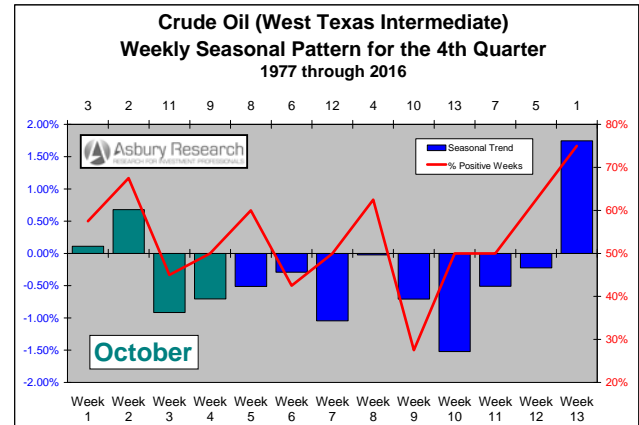
Crude Oil Yearly Seasonal Pattern Since 1977

The green bar on the chart at upper right on the previous page highlights October as the 11th seasonally strongest or 2nd weakest month of the year for West Texas Intermediate crude oil prices, based on data since 1977. It represents the beginning of a three-month period of acute seasonal weakness that runs through December which includes the three weakest months of the year.

The depth of the green bar indicates that, on average since 1977, **crude oil prices have declined by 1.44% in October**. The red line shows that, **also on average since 1977, crude oil prices have posted a negative October close 57%** of the time, their second highest incidence of a negative close (after November) for any month during this period.

Crude Oil Quarterly Seasonal Pattern For Q3 Since 1977

The next chart (next column) breaks the seasonal pattern in crude oil prices down further, into a quarterly time frame via 13 weekly increments with October highlighted in green. The chart shows that the first two weeks of October are the 3rd and 2nd strongest of the entire 4th Quarter, and that the final two weeks of October are the 3rd and 5th weakest of the quarter.

Crude Oil (West Texas Intermediate) Weekly Seasonal Pattern for the 4th Quarter 1977 through 2016

Investment Implications & Strategy

Combined, these yearly and quarterly data suggest a potential near to intermediate term selling opportunity on strength during the first two weeks of October, with a strategy of covering the position during acute November weakness.

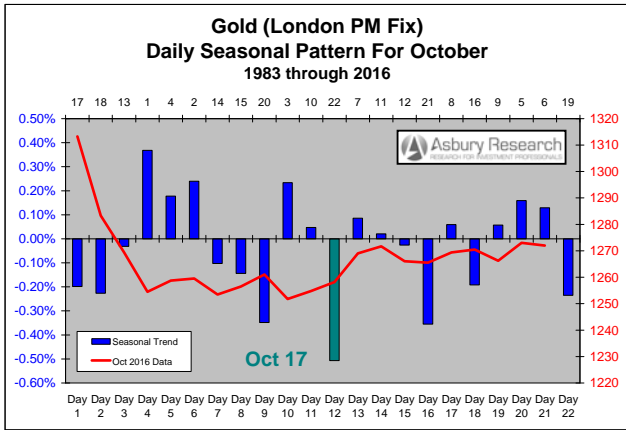### Gold Yearly Seasonal Pattern Since 1977

The green bar on the chart at lower left on the previous page shows that October is the 11th seasonally strongest or 2nd weakest month of the year for gold prices, based on data since 1977. It represents a one-month island of acute seasonal weakness that is sandwiched in the middle of a sustained period of overall seasonal strength between August and February.

The depth of the green bar indicates that, on average since 1977, **gold prices have declined by 0.32% in October**. The red line shows that, **also on average since 1977, gold prices have posted a negative October close 60%** of the time, their highest incidence of a negative close for any month during this period.

Gold Monthly Seasonal Pattern For October Since 1982

The 22 columns on the chart above display the daily seasonal pattern in gold prices, based on the *average daily percent change* during the month of October, since 1983. The red line plots the daily closing prices during October 2016.

Gold (London PM Fix) Daily Seasonal Pattern For October 1983 through 2016

The green column shows that **gold prices historically bottom for the month on Day 12, which is October 17th this year.**

Investment Implications & Strategy

Combined, these yearly and monthly data suggest a potential intermediate term buying opportunity, on weakness, on or around October 17th, with a strategy of closing out the position during December-January strength.

Copper Yearly Seasonal Pattern Since 1978

The green bar on the chart at lower right on Page 10 highlights October as the 11th seasonally strongest or 2nd weakest month of the year for copper cathode (mined copper ore) prices based on data since 1978. However, it leads into a sustained period of seasonal strength that runs through March and includes four of the five strongest months of the year.

The depth of the green bar indicates that, on average since 1977, **copper prices have declined by 0.36% in October**. The red line shows that, **also on average since 1978, copper prices have posted a negative October close 62%** of the time, their highest incidence of a negative close for any month during this period.

Copper Quarterly Seasonal Pattern For Q4 Since 1978

The next chart breaks the seasonal pattern in copper prices down further, into a quarterly time frame via 13 weekly increments with the month of October highlighted in green. The chart shows that **the first and second weeks of October are the 1st and 4th weakest of the entire 4th Quarter**.
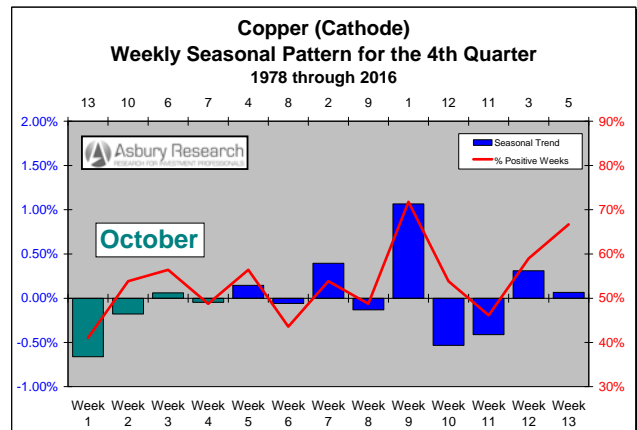
Copper (Cathode) Weekly Seasonal Pattern for the 4th Quarter 1978 through 2016

Investment Implications & Strategy

Combined, these yearly and quarterly data suggest a potential near to intermediate term buying opportunity, on weakness, during the first two weeks of October, with a strategy of closing out the position amid seasonal strength during November and/or March.