Levin–Lin–Chu unit-root test for Stock Return

-----------------------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Not included

ADF regressions: 1 lag

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.9e+02

Adjusted t\* -1.9e+02 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for Stock Return

-----------------------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Not included

ADF regressions: 4 lags

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.0e+02

Adjusted t\* -34.0669 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for Stock Return

-----------------------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Included

ADF regressions: 1 lag

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -2.0e+02

Adjusted t\* -2.8e+02 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for Stock Return

-----------------------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Included

ADF regressions: 4 lags

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.1e+02

Adjusted t\* -51.5576 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for WTI

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H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Not included

ADF regressions: 1 lag

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.8e+02

Adjusted t\* -1.8e+02 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for WTI

--------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Not included

ADF regressions: 4 lags

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

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Statistic p-value

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Unadjusted t -97.8907

Adjusted t\* -40.0298 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for WTI

--------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Included

ADF regressions: 1 lag

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.8e+02

Adjusted t\* -2.5e+02 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for WTI

--------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Included

ADF regressions: 4 lags

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

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Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -99.9013

Adjusted t\* -58.5920 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for WHI

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H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Not included

ADF regressions: 1 lag

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.8e+02

Adjusted t\* -1.8e+02 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for WHI

--------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Not included

ADF regressions: 4 lags

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.1e+02

Adjusted t\* -53.2352 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for WHI

--------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Included

ADF regressions: 1 lag

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.8e+02

Adjusted t\* -2.6e+02 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for WHI

--------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Included

ADF regressions: 4 lags

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

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Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.2e+02

Adjusted t\* -78.0258 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for VIX

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H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Not included

ADF regressions: 1 lag

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -2.6e+02

Adjusted t\* -2.8e+02 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for VIX

--------------------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Not included

ADF regressions: 4 lags

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.8e+02

Adjusted t\* -86.2398 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for VIX

--------------------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Included

ADF regressions: 1 lag

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -2.6e+02

Adjusted t\* -3.9e+02 0.0000

------------------------------------------------------------------------------

Levin–Lin–Chu unit-root test for VIX

--------------------------------------------------

H0: Panels contain unit roots Number of panels = 143

Ha: Panels are stationary Number of periods = 654

AR parameter: Common Asymptotics: N/T -> 0

Panel means: Included

Time trend: Included

ADF regressions: 4 lags

LR variance: Bartlett kernel, 27.00 lags average (chosen by LLC)

------------------------------------------------------------------------------

Statistic p-value

------------------------------------------------------------------------------

Unadjusted t -1.8e+02

Adjusted t\* -1.2e+02 0.0000

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